IEDISON
INVENTION, PATENT AND UTILIZATION (IPU)

REST API Specifications and Examples

Version 2.4

June 4, 2024

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Invention, Patent and Utilization (IPU)
REST API Technical Specification

Contents

Document Change Log:

Date	Author	Description of Change	Reason for Change	Impacted Users
09/25/2023	OISM	Modified tables, content, and reviewed for formatting and ease of use.	Updates before release	N/A
06/04/2023	OISM	Updated Section 11.9 Country List	New Countries	N/A

1 Scope

This document depicts the prerequisites, request, and response schemas for the Invention, Patent, and Utilization (IPU) REST API implementation.

2 Prerequisites

A system account and a valid PKI certificate issued by an authorized certificate issuer are required to consume the REST API services. Please contact your agency or organization administrator for a system account setup and a PKI certificate.

New System Account Requirements for Agency or Organization:

1. **ISA Document**: Download a template from iEdison, sign and upload during the system account request process.
2. **PKI Certificate**: Acquire a cert before requesting a system account and upload during the system account request process.
   Note: iEdison will only accept certificate validity no longer than two years.

The following are authorized certificate issuers.

Certificate Issuer	Expire Date
DigiCert EV RSA CA G2	Jul 2, 2030
DIGICERT SHA2 ASSURED ID CA	Nov 08, 2028
DIGICERT SHA2 HIGH ASSURANCE SERVER CA	Oct 22, 2028
DIGICERT SHA2 ASSURED ID CA	Nov 05, 2028
DIGICERT SHA2 HIGH ASSURANCE SERVER CA	Oct 22, 2028
DIGICERT TLS RSA SHA256 2020 CA1	April 13, 2031
ENTRUST CERTIFICATION AUTHORITY – L1K	Dec 05, 2030
GO DADDY SECURE CERTIFICATION AUTHORITY	Nov 15, 2026
GO DADDY SECURE CERTIFICATE AUTHORITY – G2	May 03, 2031
HydrantID Server CA O1	Dec 12, 2029
INCOMMON RSA SERVER CA	Sep 09, 2024
SECTIGO RSA ORGANIZATION VALIDATION SECURE SERVER CA	Dec 31, 2030

Table 2-1: Certificate Issuers list

3 PKI Authentication

REST API endpoint requests initiated by API consumers are authenticated by Mutual TLS authentication. An iEdison API consumer's client system must present a client PKI certificate issued by a trusted issuer (See section 2.0).

iEdison will retrieve and verify the serial number, issuer, and validity of the client certificate in the context of the request against the system user records in the database. The serial number and issuer's Common Name (CN) combination is used to uniquely identify a system user.

- The PKI client certificate and the TLS 1.2 protocol are used together for authentication to consume iEdison REST API services.
- To authenticate REST API services, digitally signs Invention, Patent, and Utilization data and sends both the certificate and the signed data across the network.
- The digital signature in PKI certificate associated with API consumer data provides evidence to the REST API Services for authentication.
- The server authenticates the client user's identity based on the PKI certificate provided by the API consumer.

4 Authorization

Each system account is identified by the combination of the Serial Number and Issuer's Common Name (CN) from the PKI certificate. The system account is associated with an organization/institution record which is used to control what data can be accessed and modified. The iEdison REST API provides endpoints for retrieving information about Invention, Patent, and Utilization records of an organization or agency. Documentation about the REST API services can be found in this document.

5 Environment and URI

- **User Acceptance Testing (UAT)**
  URI: https://**api-iedisonuat.nist.gov**/iedison/api/{version}/{resourcetype}/{action}
  version   :   [v1]
  resourcetype   :   [inventions, patents, utilizations]
  action   :   [create, update, search]
- **Production**
  URI: https://**api-iedison.nist.gov**/iedison/api/{version}/{resourcetype}/{action}
  version   :   [v1]
  resourcetype   :   [inventions, patents, utilizations]
  action   :   [create, update, search]

5.1 Specification File

You can view the full details of this API in the specification file. (The file generated by Swagger.)

6 Invention API Reference

6.1 Create Invention v1

Organization users can create an Invention owned by a user's affiliated organization and with any agency as the Primary Agency. Agency users can create an Invention owned by any institution and with a user's affiliated agency as Primary Agency.

6.1.1 Endpoint URI

Here's an example of the v1 endpoint for the Create Invention resource.

POST	/iedison/api/v1/inventions/create

6.1.2 Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the create Invention POST request Header and Body parameters which are expected by iEdison API.

Invention Create API Request Parameter					
Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json	Yes	String	v1	header
inventionRequest	The Invention Request JSON content. See table Table 6-1: inventionRequest JSON Attribute List for JSON attributes.	Yes	String	v1	form-data
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	Yes	File Binary	v1	form-data

Table 6-2: Invention Create API Request Parameter

The table below shows the parameters that will be included in the JSON body during the processing of create invention request. The below parameters are included as JSON object in

JSON body as part of the inventionRequest form-data Text element. The JSON object represents the metadata for the Invention that needs to be created.

inventionRequest v1 JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
1	granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1	body
2	institutionCode	The unique code assigned to the reporting organizations.	Yes	String	10	v1	body
3	dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v1	body
4	inventionTitle	The title of the Invention as it appears in the grantee/contractor's employee's Invention Report.	Yes	String	255	v1	body
5	inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	No	String	30	v1	body
6	doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v1	body
7	parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	No	String	25	v1	body
8	inventionReportDate	The date the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	Yes	String	10	v1	body
9	firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. MM/DD/YYYY format.	No	String	10	v1	body

inventionRequest v1 JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
10	keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	[String]	80	v1	body
11	doeWaiver	DOE Waiver	No	String		v1	body
12	institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	[String]		v1	body
13	isInventionUnderFundingAgreement	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	Boolean		v1	body
14	**Inventors**	**List of Inventors**		**Array**			
	firstName	First name of an inventor.	Yes	String	80		
	lastName	Last name of an inventor.	Yes	String	80		
	middleInitial	Middle initial of an inventor.	No	String	30		
	fedEmployee	Is the inventor a federal employee?	No	boolean			
	fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to pg. 159, 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80		
15	primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	50	v1	body
16	bayhDoleActVersion	The Bayh Dole Act Version for the Invention. This allows 1980 or 2018. Default: 2018	No	Integer		V1	body

No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		inventionRequest v1 JSON Attribute List					
17	**fundingAgreements**	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.		**Array**		**v1**	**body**
	agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	80		
	grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40		
	awardType	Identifies if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.		String	5		
	agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.		String	80		
18	**subContractInfos**	**Subcontractor Information**		**Array**		**v1**	**body**
	subContractNumber	An additional grant or contract number for an Invention or Patent.	Yes	String	150		
	contractorName	The name of the subcontractor that provided the grant or contract.		String	120		
	contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.		String	9		

No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		inventionRequest v1 JSON Attribute List					
	contractorCity	The city of the subcontractor that provided the grant or contract.		String	35		
	contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.		String	2		
	contractorCountry	The country name of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.		String	15		
19	**inventionStatus**	**The Title Election Status**	**No**	**JSON Object**		**v1**	
	titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.		String	80		
	titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. MM/DD/YYYY format.		String	10		
	notElectTitleReason	This field is for the grantee/contractor to select the reason for titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.		String	255		
	notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.		String	255		

	inventionRequest v1 JSON Attribute List						
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
	doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. MM/DD/YYYY format.		String	10		
	dispositionRightsDate	The date the government decided on the disposition of rights. MM/DD/YYYY.		String	10		
20	**explanatoryNotes**	**Explanatory notes may be used to note information about an Invention Report or Patent Report.**	**No**	**JSON Object**		**v1**	
	note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1	
21	**governmentNotes**	**Government Notes.**	**No**	**JSON Object**		**v1**	
	note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1	
22	budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	No	Array [String]		v1	
23	agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v1	
24	agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v1	
25	agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v1	
26	governmentStaff	Used to identify government staff.	No	String	200	v1	

No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
**inventionRequest v1 JSON Attribute List**							
27	governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	No	String	200	v1	

Table 6-3: inventionRequest JSON Attribute List

Please send the following parameters for Binary Attachments as a form-data File element along with the above Invention JSON Object Text element.

Request Parameter	Description	Required	Data Type	Length	Version	In
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	Yes	File		v1	body

Note: The allowed file types for Invention disclosure document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size: 25MB

6.1.3   Response Parameters

This section documents the different responses based on the HTTP Status Code

HTTP Status 200 (OK)

When the request parameters process and create an Invention successfully, the Create Invention API endpoint returns the below response parameters.

Response JSON Attribute Name	Description	Data Type	Ver.
**Invention Create v1 API Success Response JSON Attribute List**			
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
institutionCode	The unique code assigned to the reporting organizations.	String	v1
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v1

Invention Create v1 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
inventionTitle	The title of the Invention as it appears in the grantee/contractor employee's Invention Report.	String	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v1
doesNumber	The DOE S-number assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v1
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v1
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution.	String	v1
inventionSubmitDate	The date when the Invention is submitted to the agency.	String	v1
reportingOverdue	Invention Reporting Overdue field to indicate if the Invention is submitted outside the limit of 60 days or 6 months.	boolean	v1
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v1
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v1
doeWaiver	DOE Waiver.	String	v1
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v1
keywords	This contains a list of keywords for the Invention report.	Array [String]	v1
isInventionUnderFundingAgreement	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	Boolean	v1

Invention Create v1 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
inventors	List of Inventors	Array	v1
firstName	First name of an inventor.	String	v1
lastName	Last name of an inventor.	String	v1
middleInitial	Middle initial of an inventor.	String	v1
fedEmployee	Is the inventor a federal employee?	Boolean	v1
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Array	v1
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v1
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v1
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v1
subContractInfos	Subcontractor Information	**Array**	v1

Invention Create v1 API Success Response JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Ver.**
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v1
contractorName	The name of the subcontractor that provided the grant or contract.	String	v1
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v1
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v1
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v1
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v1
inventionStatus	The Title Election Status	**JSON Object**	v1
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v1
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v1
notElectTitleReason	This field is for the grantee/contractor to select the reason for Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	String	v1
notElectTitleOtherReason	If the Invention Report status or Patent Status selected is Not Elect Title and the Not Elect Title Reason selected is Other, this field is for a clear description of the other reason for not electing title.	String	v1
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section 11.1.12 Invention Disposition for a list of valid values.	String	v1

Invention Create v1 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v1
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or Retain Title in an Invention Report.	String	v1
explanatoryNotes	Explanatory Notes	**JSON Object**	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
governmentNotes	Government Notes	**JSON Object**	v1
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v1
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v1
agencyCustom1	Agency custom note field only available for agency users.	String	v1
agencyCustom2	Agency custom note field only available for agency users.	String	v1
agencyCustom3	Agency custom note field only available for agency users.	String	v1
governmentStaff	Used to identify government staff.	String	v1
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v1
disclosureDocumentAcceptDate	Disclosure document accept date.	Date	v1

Invention Create v1 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
disclosureDocumentRejectDate	Disclosure document reject date.	Date	v1
disclosureDocumentRejectReasons	Disclosure document reject reasons.	Array [String]	v1
createdDate	The date created in the iEdison system for the Invention Record.	String	v1
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v1

Table 6-4: Invention Create API Success JSON Attribute List

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system found know errors related to validation or JSON formatting, the system will return the following response in JSON format.

Invention Create API Error 400 and 500 JSON Attribute List			
Error Response JSON Attribute Name	Description	Data Type	Ver.
responseCode	Response Code.	String	v1
message	Response Message.	String	v1
errors	**Errors**	**JSON Object**	**v1**
code	Error Code.	String	v1
field	Error Field of the parameter that fails validation or cause the error.	String	v1
message	Error Message.	String	v1

Table 6-5: Invention Create API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Invention Create API Unauthorized JSON			
Unauthorized JSON Attribute Name	Description	Data Type	Ver.
message	The message to indicate Access Denied.	String	v1
timestamp	The time and date string when the access was denied.	String	v1

Table 6-6: Invention Create API Unauthorized JSON

6.1.4 Request and Response Examples

This section documents the request and response examples for the create Invention API.

Example for inventionRequest JSON

A sample request for the Invention Create REST API is shown below:

```
{
  "institutionCode": "7654321",
  "dunsNumber": "790934285",
  "inventionTitle": "REST – Create Invention108",
  "inventionDocketNumber": "REST-DOCK-0108",
  "doesNumber": "",
  "parentInventionNumber": "",
  "inventionReportDate": "01/31/2022",
  "firstPublicationDate": "01/31/2022",
  "isInventionUnderFundingAgreement": false,
  "keywords": ["Test Key 1", "Test Key 2"],
  "inventionStatus": {
    "titleElectionStatus": "Elect to Retain Title"
  },
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",
      "fedAgency": "NIST"
    }
  ],
  "primaryAgency": "ARMY/ARO",
  "fundingAgreements": [
    {
      "agreementType": "Grant",
      "agency": "ARMY/ARO",
      "grantNumber": "DAAH04-12-1-1234",
      "awardType": "Prime Award"
    }
  ],
  "subContractInfos": [
    {
      "contractorState": "CO",
      "contractorCity": "Denver",
      "contractorName": "James",
      "subContractNumber": "AS-787342",
      "contractorCountry": "United States",
      "contractorDUNS": "738739399"
    }
  ],
```

```
    "explanatoryNotes": [{
        "note": "This is a testing note"
    }]
}
```

HTTP Status 200 (OK)

A sample response for the Invention Create v1 REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "granteeOrganizationName": "DAN'S INSTITUTION",
    "institutionCode": "7654321",
    "dunsNumber": "123456789",
    "inventionTitle": "REST – Create Invention108",
    "inventionDocketNumber": "REST-DOCK-0108",
    "doesNumber": "",
    "parentInventionNumber": "",
    "inventionReportDate": "01/31/2022",
    "inventionSubmitDate": "06/10/2022",
    "reportingOverdue": false,
    "firstPublicationDate": "01/31/2022",
    "domesticManufactureWaiver": false,
    "doeWaiver": "",
    "isInventionUnderFundingAgreement": false,
    "keywords": [
        "Test Key 1",
        "Test Key 2"
    ],
    "inventors": [
        {        "firstName": "John",
            "lastName": "Stewart",
            "fedEmployee": true,
            "middleInitial": "Q",
            "fedAgency": "1149"
        }
    ],
    "primaryAgency": "ARMY/ARO",
    "fundingAgreements": [
        {        "agreementType": "Grant",
            "agency": "ARMY/ARO",
            "grantNumber": "DAAH04-12-1-1234",
            "awardType": "Prime Award"
        }
    ],
```

```
    "subContractInfos": [
        {        "contractorState": "CO",
            "contractorCity": "Denver",
            "contractorName": "James",
            "subContractNumber": "AS-787342",
            "contractorCountry": "United States",
            "contractorDUNS": "738739399"
        }
    ],
    "inventionStatus": {
        "titleElectionStatus": "Elect to Retain Title",
        "titleElectionDate": "06/10/2022"
    },
    "explanatoryNotes": [
        {        "note": "This is a testing note",
            "creatorName": "",
            "createdDate": "06/10/2022"
        }
    ],
    "governmentNotes": []
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "JSON Validation Failed",
    "errors": [
        {
            "code": "400",
            "field": "inventionTitle",
            "message": "Invention Title value is required."
        }
    ]
}
```

HTTP Status 401 (Unauthorized)

```
{
    "message": "Access Denied",
    "timestamp": "2022-06-10T09:58:10.534055700"
}
```

6.2 Create Invention v2

Organization users can create an Invention owned by a user's affiliated organization and with any agency as the Primary Agency. Agency users can create an Invention owned by any institution and with a user's affiliated agency as Primary Agency.

6.2.1 Endpoint URI

Here's an example of the v2 endpoint for the Create Invention resource.

POST	/iedison/api/v2/inventions/create

6.2.2 Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the create Invention POST request Header and Body parameters which are expected by iEdison API.

Invention Create API Request Parameter					
Request Parameters	**Description**	**Required**	**Data Type**	**Version**	**In**
accept	Setting to application/json	Yes	String	v2	header
inventionRequest	The Invention Request JSON content. See table Table 66-7: inventionRequest JSON Attribute List for JSON attributes.	Yes	String	v2	form-data
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	Yes	File Binary	v2	form-data

Table 6-8: Invention Create API Request Parameter

The table below shows the parameters that will be included in the JSON body during the processing of create invention request. The below parameters are included as JSON object in JSON body as part of the inventionRequest form-data Text element. The JSON object represents the metadata for the Invention that needs to be created.

No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		inventionRequest JSON Attribute List					
1	granteeOrganizationName	The name of the organization established at registration.	No	String	100	v2	body
2	institutionCode	The unique code assigned to the reporting organizations.	Yes	String	10	v2	body
3	dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v2	body
4	inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	Yes	String	255	v2	body
5	inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	No	String	30	v2	body
6	doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v2	body
7	parentInventionNumber	Invention Report number used when an Invention is combined	No	String	25	v2	body

inventionRequest JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		into another Invention as a parent Invention.					
8	inventionReportDate	The date the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	Yes	String	10	v2	body
9	firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. MM/DD/YYYY format.	No	String	10	v2	body
10	keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	[String]	80	v2	body
11	doeWaiver	DOE Waiver	No	String		v2	body
12	institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	[String]		v2	body
13	isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	Boolean		v2	body
14	**Inventors**	**List of Inventors**		**Array**			

inventionRequest JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
	firstName	First name of an inventor.	Yes	String	80		
	lastName	Last name of an inventor.	Yes	String	80		
	middleInitial	Middle initial of an inventor.	No	String	30		
	fedEmployee	Is the inventor a federal employee?	No	boolean			
	fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to pg. 159, 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80		
15	primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	50	v2	body
16	bayhDoleActVersion	The Bayh Dole Act Version for the Invention. This allows 1980 or 2018. Default: 2018	No	Integer		V2	body
17	**fundingAgreements**	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.		**Array**		**v2**	**body**

No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		inventionRequest JSON Attribute List					
	agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	80		
	grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40		
	awardType	Identifies if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.		String	5		
	agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.		String	80		
18	**subContractInfos**	**Subcontractor Information**		**Array**		**v2**	**body**
	subContractNumber	An additional grant or contract number for an Invention or Patent.	Yes	String	150		
	contractorName	The name of the subcontractor that provided the grant or contract.		String	120		
	contractorDUNS	The DUNS number of the subcontractor that		String	9		

inventionRequest JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		provided the grant or contract.					
	contractorCity	The city of the subcontractor that provided the grant or contract.		String	35		
	contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.		String	2		
	contractorCountry	The country name of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.		String	15		
19	**inventionStatus**	**The Title Election Status**	**No**	**JSON Object**		**v2**	
	titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.		String	80		
	titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. MM/DD/YYYY format.		String	10		
	notElectTitleReason	This field is for the grantee/contractor to select the reason for titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19		String	255		

inventionRequest JSON Attribute List							
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
		Invention Does Not Retain Title Reason for a list of valid values.					
	notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.		String	255		
	doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. MM/DD/YYYY format.		String	10		
	dispositionRightsDate	The date the government decided on the disposition of rights. MM/DD/YYYY.		String	10		
20	**explanatoryNotes**	**Explanatory notes may be used to note information about an Invention Report or Patent Report.**	**No**	**JSON Object**		**v2**	
	note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v2	
21	**governmentNotes**	**Government Notes.**	**No**	**JSON Object**		**v2**	

	inventionRequest JSON Attribute List						
No.	JSON Attribute Name	Description	Required	Data Type	Length	Version	In
	note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v2	
22	budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	No	Array [String]		v2	
23	agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v2	
24	agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v2	
25	agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v2	
26	governmentStaff	Used to identify government staff.	No	String	200	v2	
27	governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	No	String	200	v2	

Table 6-9: inventionRequest JSON Attribute List

Please send the following parameters for Binary Attachments as a form-data File element along with the above Invention JSON Object Text element.

Request Parameter	Description	Required	Data Type	Length	Version	In
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	Yes	File		v2	body

Note: The allowed file types for Invention disclosure document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size: 25MB

6.2.3   Response Parameters

This section documents the different responses based on the HTTP Status Code

HTTP Status 200 (OK)

When the request parameters process and create an Invention successfully, the Create Invention API endpoint returns the below response parameters.

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2
institutionCode	The unique code assigned to the reporting organizations.	String	v2
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractor employee's Invention Report.	String	v2
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v2
doesNumber	The DOE S-number assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v2
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v2
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution.	String	v2
inventionSubmitDate	The date when the Invention is submitted to the agency.	String	v2

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Ver.**
reportingOverdue	Invention Reporting Overdue field to indicate if the Invention is submitted outside the limit of 60 days or 6 months.	boolean	v2
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v2
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v2
doeWaiver	DOE Waiver.	String	v2
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v2
keywords	This contains a list of keywords for the Invention report.	Array [String]	v2
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	Boolean	v2
inventors	List of Inventors	Array	v2
firstName	First name of an inventor.	String	v2
lastName	Last name of an inventor.	String	v2
middleInitial	Middle initial of an inventor.	String	v2
fedEmployee	Is the inventor a federal employee?	Boolean	v2
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
id	The inventor primary identifier in the iEdison system.	Integer	v2
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Array	v2
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v2
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v2
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v2
id	The funding agreement primary unique identifier in the iEdison system.	Integer	v2
subContractInfos	Subcontractor Information	**Array**	v2
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v2
contractorName	The name of the subcontractor that provided the grant or contract.	String	v2
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v2

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Ver.
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v2
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v2
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v2
id	The subcontractor primary unique identifier in the iEdison system.	Integer	v2
inventionStatus	The Title Election Status	JSON Object	v2
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v2
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v2
notElectTitleReason	This field is for the grantee/contractor to select the reason for Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	String	v2
notElectTitleOtherReason	If the Invention Report status or Patent Status selected is Not Elect Title and the Not Elect Title Reason selected is Other, this field is for a clear description of the other reason for not electing title.	String	v2
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section 11.1.12 Invention Disposition for a list of valid values.	String	v2
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v2

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Ver.**
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or Retain Title in an Invention Report.	String	v2
explanatoryNotes	Explanatory Notes	**JSON Object**	v2
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v2
creatorName	The full name of the user who entered the Explanatory Note.	String	v2
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v2
id	The Explantory Note primary unique identifier in the iEdison system.	Integer	v2
governmentNotes	Government Notes	**JSON Object**	v2
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v2
creatorName	The full name of the user who entered the Explanatory Note.	String	v2
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v2
id	The Government Note primary unique identifier in the iEdison system.	Integer	v2
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v2
agencyCustom1	Agency custom note field only available for agency users.	String	v2
agencyCustom2	Agency custom note field only available for agency users.	String	v2
agencyCustom3	Agency custom note field only available for agency users.	String	v2
governmentStaff	Used to identify government staff.	String	v2

Invention Create API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Ver.**
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v2
disclosureDocumentAcceptDate	Disclosure document accept date.	Date	v2
disclosureDocumentRejectDate	Disclosure document reject date.	Date	v2
disclosureDocumentRejectReasons	Disclosure document reject reasons.	Array [String]	v2
createdDate	The date created in the iEdison system for the Invention Record.	String	v2
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v2
id	The Invention primary unique identifier in the iEdison system.	Integer	v2

Table 6-10: Invention Create API Success JSON Attribute List

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system found know errors related to validation or JSON formatting, the system will return the following response in JSON format.

Invention Create API Error 400 and 500 JSON Attribute List			
Error Response JSON Attribute Name	**Description**	**Data Type**	**Ver.**
responseCode	Response Code.	String	v2
message	Response Message.	String	v2
errors	**Errors**	**JSON Object**	**v2**
code	Error Code.	String	v2
field	Error Field of the parameter that fails validation or cause the error.	String	v2
message	Error Message.	String	v2

Table 6-11: Invention Create API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Invention Create API Unauthorized JSON			
Unauthorized JSON Attribute Name	**Description**	**Data Type**	**Ver.**
message	The message to indicate Access Denied.	String	v2

Invention Create API Unauthorized JSON			
Unauthorized JSON Attribute Name	Description	Data Type	Ver.
timestamp	The time and date string when the access was denied.	String	v2

Table 6-12: Invention Create API Unauthorized JSON

6.2.4   Request and Response Examples

This section documents the request and response examples for the create Invention API.

Example for inventionRequest JSON

A sample request for the Invention Create v2 REST API is shown below:

```
{

  "institutionCode": "7654321",

  "dunsNumber": "790934285",

  "inventionTitle": "REST – Create Invention108",

  "inventionDocketNumber": "REST-DOCK-0108",

  "doesNumber": "",

  "parentInventionNumber": "",

  "inventionReportDate": "01/31/2022",

  "firstPublicationDate": "01/31/2022",

  "isExceptionCircumstanceDetermination": false,

  "keywords": ["Test Key 1", "Test Key 2"],

  "inventionStatus": {

    "titleElectionStatus": "Elect to Retain Title"

  },

  "inventors": [

    {

      "firstName": "John",

      "lastName": "Stewart",

      "fedEmployee": true,
```

```
            "middleInitial": "Q",

            "fedAgency": "NIST"

        }

    ],

    "primaryAgency": "ARMY/ARO",

    "fundingAgreements": [

        {

            "agreementType": "Grant",

            "agency": "ARMY/ARO",

            "grantNumber": "DAAH04-12-1-1234",

            "awardType": "Prime Award"

        }

    ],

    "subContractInfos": [

        {

            "contractorState": "CO",

            "contractorCity": "Denver",

            "contractorName": "James",

            "subContractNumber": "AS-787342",

            "contractorCountry": "United States",

            "contractorDUNS": "738739399"

        }

    ],

    "explanatoryNotes": [{

            "note": "This is a testing note"

    }]

}
```

HTTP Status 200 (OK)

A sample response for the Invention version 2 Create REST API is shown below:

```
{
  "id": 400047,
  "inventionReportNumber": "07654321-22-0103",
  "granteeOrganizationName": "DAN'S INSTITUTION",
  "institutionCode": "7654321",
  "dunsNumber": "123456789",
  "inventionTitle": "REST – Create Invention108",
  "inventionDocketNumber": "REST-DOCK-0108",
  "doesNumber": "",
  "parentInventionNumber": "",
  "inventionReportDate": "01/31/2022",
  "inventionSubmitDate": "06/10/2022",
  "reportingOverdue": false,
  "firstPublicationDate": "01/31/2022",
  "domesticManufactureWaiver": false,
  "doeWaiver": "",
  "isExceptionCircumstanceDetermination": false,
  "keywords": [
    "Test Key 1",
    "Test Key 2"
  ],
  "inventors": [
    {
      "id": 490047,
      "firstName": "John",
```

```
        "lastName": "Stewart",

        "fedEmployee": true,

        "middleInitial": "Q",

        "fedAgency": "1149"

    }

],

"primaryAgency": "ARMY/ARO",

"fundingAgreements": [

    {

        "id": 490047,

        "agreementType": "Grant",

        "agency": "ARMY/ARO",

        "grantNumber": "DAAH04-12-1-1234",

        "awardType": "Prime Award"

    }

],

"subContractInfos": [

    {

        "id": 490047,

        "contractorState": "CO",

        "contractorCity": "Denver",

        "contractorName": "James",

        "subContractNumber": "AS-787342",

        "contractorCountry": "United States",

        "contractorDUNS": "738739399"

    }

],
```

```
  "inventionStatus": {

    "titleElectionStatus": "Elect to Retain Title",

    "titleElectionDate": "06/10/2022"

  },

  "explanatoryNotes": [

    {

      "id": 490047,

      "note": "This is a testing note",

      "creatorName": "",

      "createdDate": "06/10/2022"

    }

  ],

  "governmentNotes": []

}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{

  "responseCode": 400,

  "message": "JSON Validation Failed",

  "errors": [

    {

      "code": "400",

      "field": "inventionTitle",

      "message": "Invention Title value is required."

    }

  ]

}
```

Invention, Patent and Utilization (IPU)
REST API Technical Specification

HTTP Status 401 (Unauthorized)

```
{

   "message": "Access Denied",

   "timestamp": "2022-06-10T09:58:10.534055700"

}
```

6.3   Update Invention

Organization users can access Invention records owned by the user's affiliated organization. Agency users can access Invention records with one or more funding agreements provided by the user's affiliated agency.

6.3.1   Endpoint URI

Here's an example of the v1 endpoint for the Update Invention resource.

POST	/iedison/api/v1/inventions/update

6.3.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the update Invention POST request Header and Body parameters which are expected by iEdison API.

Invention Update API Request Parameter					
Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json	Yes	String	v1	header
inventionRequest	The Invention Request JSON content. See Table 6-8 for JSON attribute list.	Yes	String	v1	form-data

37

Invention Update API Request Parameter					
Request Parameters	Description	Required	Data Type	Version	In
inventionDisclosure	The Invention disclosure document for updating the document in iEdison.	No	Binary	v1	form-data

Table 6-13: Invention Update API Request Parameter

The table below shows the parameters that will be included in the JSON body during the processing of **Update Inventions Request**. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Invention that needs to be updated:

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1	body
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1	body
institutionCode	The unique code is assigned to the reporting organizations.	Yes	String	10	v1	body
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v1	body
inventionTitle	The title of the Invention as it appears in the grantee/contractor's employee's Invention Report.	Yes	String	255	v1	body
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1	body
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v1	body
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	No	String	25	v1	body
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	Yes	String	10	v1	body
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. MM/DD/YYYY format.	No	String	10	v1	body

inventionRequest for Invention Update API						
JSON Attribute Name	**Description**	**Required**	**Data Type**	**LGT.**	**Ver.**	**In**
inventionSubmitDate	The date when Invention is submitted to agency. MM/DD/YYYY format.	No	String	10	v1	body
keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	Array [String]	80	v1	body
doeWaiver	DOE Waiver.	No	String		v1	body
institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	Array [String]		v1	body
isInventionUnderFundingAgreement	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	boolean		v1	body
inventors	List of Inventors	Yes	**Array**		v1	body
firstName	First name of an inventor.	Yes	String	80	v1	
lastName	Last name of an inventor.	Yes	String	80	v1	
middleInitial	Middle initial of an inventor.	No	String	30	v1	
fedEmployee	Is the inventor a federal employee?	No	boolean	1	v1	
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80	v1	
primaryAgency	A Primary Agency must be designated for each Invention Report in the iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	50	v1	body

inventionRequest for Invention Update API						
JSON Attribute Name	**Description**	**Required**	**Data Type**	**LGT.**	**Ver.**	**In**
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Yes	**Array**		v1	body
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	80	v1	
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40	v1	
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	No	String	5	v1	
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	No	String	80	v1	
subContractInfos	Subcontractor Information		**Array**		v1	body
subContractNumber	An additional grant or contract number for an Invention or Patent	Yes	String	150	v1	
contractorName	The name of the subcontractor that provided the grant or contract.	No	String	120	v1	
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	No	String	9	v1	
contractorCity	The city of the subcontractor that provided the grant or contract.	No	String	35	v1	
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	No	String	2	v1	
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	No	String	15	v1	

inventionRequest for Invention Update API						
JSON Attribute Name	**Description**	**Required**	**Data Type**	**LGT.**	**Ver.**	**In**
inventionStatus	The Title Election Status	No	**JSON Object**		v1	
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	Yes	String	80	v1	
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. MM/DD/YYYY format.	No	String	10	v1	
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	No	String	255	v1	
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Elect Title' and the notElectTitleReason is 'Other', this field is used to provide description of the custom reason for not electing title.	No	String	255	v1	
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. MM/DD/YYYY format.	No	String	10	v1	
dispositionRightsDate	The date the government decided on the disposition of rights. MM/DD/YYYY format. This is a Read Only field.	No	String	10	v1	
explanatoryNotes	Explanatory notes may be used to note information about the report.	No	**JSON Object**		v1	
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1	
governmentNotes	Notes written by the agency regarding the report.	No	**JSON Object**		v1	

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1	
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	No	Array [String]		v1	body
agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v1	body
agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v1	body
agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v1	body
governmentStaff	Used to identify government staff.	No	String	200	v1	body
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	No	String	200	v1	body

Table 6-14: inventionRequest for Invention Update API

Please send the following parameters for Binary Attachments along with the above Invention JSON Object.

Request Parameter	Description	Required	Data Type	Length	Version	In
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	No	File		v1	form-data

Note: The allowed file types for Invention disclosure document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size:25MB

6.3.3 Response Parameters

Based on the request parameters, API provides the below response parameters.

HTTP Status 200 (OK)

When the request parameters are process and created an Invention successfully, the Create Invention API endpoint provides below response parameters.

Invention Update API Success JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
institutionCode	The unique code is assigned to the reporting organizations.	String	v1
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v1
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v1
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v1
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution.	String	v1
inventionSubmitDate	The date when the Invention is submitted to the agency.	String	v1
reportingOverdue	Invention Reporting Overdue field to indicate if Invention is submitted outside the 60 days or 6 months limit.	boolean	v1
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v1

43

Invention Update API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v1
doeWaiver	DOE Waiver.	String	v1
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v1
keywords	This contains a list of keywords for the Invention report.	Array [String]	v1
inventors	**List of Inventors**	**Array**	**v1**
firstName	First name of an inventor.	String	v1
lastName	Last name of an inventor.	String	v1
middleInitial	Middle initial of an inventor.	String	v1
fedEmployee	Is the inventor a federal employee?	Boolean	v1
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in the iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	**Array**	**v1**

Invention Update API Success JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v1
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v1
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v1
subContractInfos	**Subcontractor Information**	**Array**	**v1**
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v1
contractorName	The name of the subcontractor that provided the grant or contract.	String	v1
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v1
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v1
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v1
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v1
inventionStatus	The Title Election Status	**JSON Object**	**v1**

Invention Update API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v1
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v1
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	String	v1
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Elect Title' and the notElectTitleReason is 'Other', this field is used to provide a description of the custom reason for not electing title.	String	v1
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section Invention Disposition for a list of valid values.	String	v1
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v1
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report.	String	v1
explanatoryNotes	Explanatory Notes	**JSON Object**	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1

Invention Update API Success JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
governmentNotes	Government Notes	**JSON Object**	v1
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v1
agencyCustom1	Agency custom note field only available for agency users.	String	v1
agencyCustom2	Agency custom note field only available for agency users.	String	v1
agencyCustom3	Agency custom note field only available for agency users.	String	v1
governmentStaff	Used to identify government staff.	String	v1
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v1
disclosureDocumentAcceptDate	Disclosure document accept date.	Date	v1
disclosureDocumentRejectDate	Disclosure document reject date.	Date	v1
disclosureDocumentRejectReasons	Disclosure document reject reasons.	Array [String]	v1
createdDate	The date created in the iEdison system for the Invention Record.	String	v1
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v1

Table 6-15: Invention Update API Success JSON Attribute List

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system found know errors related to validation or JSON formatting, the system will return the following response in JSON format.

Invention Update API Error 400 and 500 JSON Attribute List			
Error Response JSON Attribute Name	**Description**	**Data Type**	**Version**
responseCode	Response Code	String	v1
message	Response Message	String	v1
errors	**Errors**	**JSON Object**	**v1**
code	Error Code	String	v1
field	Error Field of the parameter that fails validation or cause the error.	String	v1
message	Error Message	String	v1

Table 6-16: Invention Update API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Invention Update API Unauthorized JSON			
Unauthorized JSON Attribute Name	**Description**	**Data Type**	**Version**
message	The message to indicate Access Denied.	String	v1
timestamp	The time and date string when the access was denied.	String	v1

Table 6-17: Invention Update API Unauthorized JSON

6.3.4   Request and Response Examples

This section documents the request and response examples for the create Invention API.

Example for inventionRequest JSON

A sample request for the Invention Create REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "institutionCode": "7654321",
    "dunsNumber": "790934285",
    "inventionTitle": "REST – Create Invention108",
    "inventionDocketNumber": "REST-DOCK-0108",
    "doesNumber": "",
    "parentInventionNumber": "",
```

```
   "inventionReportDate": "01/31/2022",
   "firstPublicationDate": "01/31/2022",
   "isInventionUnderFundingAgreement": false,
   "keywords": ["Test Key 1", "Test Key 2", "Test Update Key3"],
   "inventionStatus": {
      "titleElectionStatus": "Elect to Retain Title"
   },
   "inventors": [
      {
         "firstName": "John",
         "lastName": "Stewart",
         "fedEmployee": true,
         "middleInitial": "Q",
         "fedAgency": "NIST"
      }
   ],
   "primaryAgency": "ARMY/ARO",
   "fundingAgreements": [
      {
         "agreementType": "Grant",
         "agency": "ARMY/ARO",
         "grantNumber": "DAAH04-12-1-1234",
         "awardType": "Prime Award"
      }
   ],
   "subContractInfos": [
      {
         "contractorState": "CO",
         "contractorCity": "Denver",
         "contractorName": "James",
         "subContractNumber": "AS-787342",
         "contractorCountry": "United States",
         "contractorDUNS": "738739399"
      }
   ],
   "explanatoryNotes": [{
      "note": "This is a testing note"
   },
   {
      "note": "This is an update note to update keyword"
   }
   ]
}
```

A sample response for the Invention Updated REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "granteeOrganizationName": "DAN'S INSTITUTION",
    "institutionCode": "7654321",
    "dunsNumber": "123456789",
    "inventionTitle": "REST – Create Invention108",
    "inventionDocketNumber": "REST-DOCK-0108",
    "doesNumber": "",
    "parentInventionNumber": "",
    "inventionReportDate": "01/31/2022",
    "inventionSubmitDate": "06/10/2022",
    "reportingOverdue": false,
    "firstPublicationDate": "01/31/2022",
    "domesticManufactureWaiver": false,
    "doeWaiver": "",
    "institutionCodeForOtherInstitutions": [],
    "isInventionUnderFundingAgreement": false,
    "keywords": [
        "Test Key 1",
        "Test Key 2",
        "Test Update Key3"
    ],
    "inventors": [
        {
            "firstName": "John",
            "lastName": "Stewart",
            "fedEmployee": true,
            "middleInitial": "Q",
            "fedAgency": "NIST"
        }
    ],
    "primaryAgency": "ARMY/ARO",
    "fundingAgreements": [
        {
            "agreementType": "Grant",
            "agency": "ARMY/ARO",
            "grantNumber": "DAAH04-12-1-1234",
            "awardType": "Prime Award"
        }
    ],
    "subContractInfos": [
```

```
    {
      "contractorState": "CO",
      "contractorCity": "Denver",
      "contractorName": "James",
      "subContractNumber": "AS-787342",
      "contractorCountry": "United States",
      "contractorDUNS": "738739399"
    }
  ],
  "inventionStatus": {
    "titleElectionStatus": "Elect to Retain Title",
    "titleElectionDate": "06/10/2022"
  },
  "explanatoryNotes": [
    {
      "note": "This is a testing note",
      "creatorName": "",
      "createdDate": "06/10/2022"
    },
    {
      "note": "This is an update note to update keyword",
      "creatorName": "",
      "createdDate": "06/10/2022"
    }
  ],
  "governmentNotes": []
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
  "responseCode": 400,
  "message": "JSON Validation Failed",
  "errors": [
    {
      "code": "400",
      "field": " inventionReportNumber ",
      "message": "Invention Report Number value is required."
    }
  ]
}
```

HTTP Status 401 (Unauthorized)

```
{
   "message": "Access Denied",
   "timestamp": "2022-06-10T09:58:10.534055700"
}
```

6.4   Update Invention v2

Organization users can access Invention records owned by the user's affiliated organization. Agency users can access Invention records with one or more funding agreements provided by the user's affiliated agency.

6.4.1   Endpoint URI

Here's an example of the v1 endpoint for the Update Invention resource.

POST	/iedison/api/v2/inventions/update

6.4.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which `will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the update Invention POST request Header and Body parameters which are expected by iEdison API.

Invention Update API Request Parameter					
Request Parameters	**Description**	**Required**	**Data Type**	**Version**	**In**
accept	Setting to application/json	Yes	String	v2	header
inventionRequest	The Invention Request JSON content. See Table 6-8 for JSON attribute list.	Yes	String	v2	form-data
inventionDisclosure	The Invention disclosure document for updating the document in iEdison.	No	Binary	v2	form-data

Table 6-18: Invention Update API Request Parameter

The table below shows the parameters that will be included in the JSON body during the processing of **Update Inventions Request**. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Invention that needs to be updated:

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v2	body
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v2	body
institutionCode	The unique code is assigned to the reporting organizations.	Yes	String	10	v2	body
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v2	body
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	Yes	String	255	v2	body
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v2	body
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v2	body
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	No	String	25	v2	body
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	Yes	String	10	v2	body
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. MM/DD/YYYY format.	No	String	10	v2	body
inventionSubmitDate	The date when Invention is submitted to agency. MM/DD/YYYY format.	No	String	10	v2	body

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	Array [String]	80	v2	body
doeWaiver	DOE Waiver.	No	String		v2	body
institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	Array [String]		v2	body
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	boolean		v2	body
inventors	List of Inventors	Yes	**Array**		v2	body
firstName	First name of an inventor.	Yes	String	80	v2	
lastName	Last name of an inventor.	Yes	String	80	v2	
middleInitial	Middle initial of an inventor.	No	String	30	v2	
fedEmployee	Is the inventor a federal employee?	No	boolean	1	v2	
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80	v2	
primaryAgency	A Primary Agency must be designated for each Invention Report in the iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	50	v2	body

inventionRequest for Invention Update API						
JSON Attribute Name	**Description**	**Required**	**Data Type**	**LGT.**	**Ver.**	**In**
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Yes	**Array**		v2	body
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	Yes	String	80	v2	
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40	v2	
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	No	String	5	v2	
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	No	String	80	v2	
subContractInfos	Subcontractor Information		**Array**		v2	body
subContractNumber	An additional grant or contract number for an Invention or Patent	Yes	String	150	v2	
contractorName	The name of the subcontractor that provided the grant or contract.	No	String	120	v2	
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	No	String	9	v2	
contractorCity	The city of the subcontractor that provided the grant or contract.	No	String	35	v2	
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	No	String	2	v2	

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	No	String	15	v2	
inventionStatus	The Title Election Status	No	**JSON Object**		v2	
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	Yes	String	80	v2	
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. MM/DD/YYYY format.	No	String	10	v2	
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	No	String	255	v2	
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Elect Title' and the notElectTitleReason is 'Other', this field is used to provide description of the custom reason for not electing title.	No	String	255	v2	
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. MM/DD/YYYY format.	No	String	10	v2	
dispositionRightsDate	The date the government decided on the disposition of rights. MM/DD/YYYY format. This is a Read Only field.	No	String	10	v2	
explanatoryNotes	Explanatory notes may be used to note information about the report.	No	**JSON Object**		v2	

inventionRequest for Invention Update API						
JSON Attribute Name	Description	Required	Data Type	LGT.	Ver.	In
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v2	
governmentNotes	Notes written by the agency regarding the report.	No	**JSON Object**		v2	
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v2	
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	No	Array [String]		v2	body
agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v2	body
agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v2	body
agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v2	body
governmentStaff	Used to identify government staff.	No	String	200	v2	body
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	No	String	200	v2	body

Table 6-19: inventionRequest for Invention Update API

Please send the following parameters for Binary Attachments along with the above Invention JSON Object.

Request Parameter	Description	Required	Data Type	Length	Version	In
inventionDisclosure	Invention Disclosure document containing the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.	No	File		v2	form-data

Note: The allowed file types for Invention disclosure document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size:25MB

6.4.3 Response Parameters

Based on the request parameters, API provides the below response parameters.

HTTP Status 200 (OK)

When the request parameters are process and created an Invention successfully, the Create Invention API endpoint provides below response parameters.

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2
institutionCode	The unique code is assigned to the reporting organizations.	String	v2
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v2
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v2
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v2
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution.	String	v2

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
inventionSubmitDate	The date when the Invention is submitted to the agency.	String	v2
reportingOverdue	Invention Reporting Overdue field to indicate if Invention is submitted outside the 60 days or 6 months limit.	boolean	v2
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v2
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v2
doeWaiver	DOE Waiver.	String	v2
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v2
keywords	This contains a list of keywords for the Invention report.	Array [String]	v2
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	Boolean	v2
inventors	**List of Inventors**	**Array**	**v2**
firstName	First name of an inventor.	String	v2
lastName	Last name of an inventor.	String	v2
middleInitial	Middle initial of an inventor.	String	v2
fedEmployee	Is the inventor a federal employee?	Boolean	v2

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
id	The inventor primary unique identifier in the iEdison system.	Integer	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in the iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	**Array**	**v2**
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v2
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v2

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v2
subContractInfos	**Subcontractor Information**	**Array**	**v2**
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v2
contractorName	The name of the subcontractor that provided the grant or contract.	String	v2
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v2
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v2
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v2
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v2
id	The subcontractor primary unique identifier in the iEdison system.	Integer	v2
inventionStatus	The Title Election Status	**JSON Object**	**v2**
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v2
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v2

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to 11.1.19 Invention Does Not Retain Title Reason for a list of valid values.	String	v2
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Elect Title' and the notElectTitleReason is 'Other', this field is used to provide a description of the custom reason for not electing title.	String	v2
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section Invention Disposition for a list of valid values.	String	v2
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v2
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report.	String	v2
explanatoryNotes	Explanatory Notes	**JSON Object**	v2
Note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v2
creatorName	The full name of the user who entered the Explanatory Note.	String	v2
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v2
Id	The Explanatory Note primary unique identifier in the iEdison system.	Integer	v2

Invention Update v2 API Success Response JSON Attribute List			
Response JSON Attribute Name	Description	Data Type	Version
governmentNotes	Government Notes	**JSON Object**	v2
Note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v2
creatorName	The full name of the user who entered the Explanatory Note.	String	v2
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v2
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v2
agencyCustom1	Agency custom note field only available for agency users.	String	v2
agencyCustom2	Agency custom note field only available for agency users.	String	v2
agencyCustom3	Agency custom note field only available for agency users.	String	v2
governmentStaff	Used to identify government staff.	String	v2
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v2
disclosureDocumentAcceptDate	Disclosure document accept date.	Date	v2
disclosureDocumentRejectDate	Disclosure document reject date.	Date	v2
disclosureDocumentRejectReasons	Disclosure document reject reasons.	Array [String]	v2
createdDate	The date created in the iEdison system for the Invention Record.	String	v2
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v2
Id	The Invention primary unique identifier in the iEdison system.	Integer	v2

Table 6-20: Invention Update API Success JSON Attribute List

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system found know errors related to validation or JSON formatting, the system will return the following response in JSON format.

Error Response JSON Attribute Name	Description	Data Type	Version
responseCode	Response Code	String	v2
Message	Response Message	String	v2
Errors	**Errors**	**JSON Object**	**v2**
Code	Error Code	String	v2
Field	Error Field of the parameter that fails validation or cause the error.	String	v2
Message	Error Message	String	v2

Table 6-21: Invention Update API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Unauthorized JSON Attribute Name	Description	Data Type	Version
Message	The message to indicate Access Denied.	String	v2
Timestamp	The time and date string when the access was denied.	String	v2

Table 6-22: Invention Update API Unauthorized JSON

6.4.4   Request and Response Examples

This section documents the request and response examples for the create Invention API.

Example for inventionRequest JSON

A sample request for the Invention Create REST API is shown below:

```
{

  "inventionReportNumber": "07654321-22-0103",

  "institutionCode": "7654321",

  "dunsNumber": "790934285",

  "inventionTitle": "REST – Create Invention108",

  "inventionDocketNumber": "REST-DOCK-0108",
```

```json
  "doesNumber": "",

  "parentInventionNumber": "",

  "inventionReportDate": "01/31/2022",

  "firstPublicationDate": "01/31/2022",

  "isExceptionCircumstanceDetermination": false,

  "keywords": ["Test Key 1", "Test Key 2", "Test Update Key3"],

  "inventionStatus": {

    "titleElectionStatus": "Elect to Retain Title"

  },

  "inventors": [

    {

      "firstName": "John",

      "lastName": "Stewart",

      "fedEmployee": true,

      "middleInitial": "Q",

      "fedAgency": "NIST"

    }

  ],

  "primaryAgency": "ARMY/ARO",

  "fundingAgreements": [

    {

      "agreementType": "Grant",

      "agency": "ARMY/ARO",

      "grantNumber": "DAAH04-12-1-1234",

      "awardType": "Prime Award"

    }

  ],
```

```
    "subContractInfos": [

      {

          "contractorState": "CO",

          "contractorCity": "Denver",

          "contractorName": "James",

          "subContractNumber": "AS-787342",

          "contractorCountry": "United States",

          "contractorDUNS": "738739399"

      }

    ],

    "explanatoryNotes": [{

        "note": "This is a testing note"

    },

    {

        "note": "This is an update note to update keyword"

    }

    ]

}
```

HTTP Status 200 (OK)

A sample response for the Invention Updated REST API is shown below:

```
{

    "id": 490047,

    "inventionReportNumber": "07654321-22-0103",

    "granteeOrganizationName": "DAN'S INSTITUTION",

    "institutionCode": "7654321",

    "dunsNumber": "123456789",

    "inventionTitle": "REST – Create Invention108",
```

```json
"inventionDocketNumber": "REST-DOCK-0108",

"doesNumber": "",

"parentInventionNumber": "",

"inventionReportDate": "01/31/2022",

"inventionSubmitDate": "06/10/2022",

"reportingOverdue": false,

"firstPublicationDate": "01/31/2022",

"domesticManufactureWaiver": false,

"doeWaiver": "",

"institutionCodeForOtherInstitutions": [],

"isExceptionCircumstanceDetermination": false,

"keywords": [

    "Test Key 1",

    "Test Key 2",

    "Test Update Key3"

],

"inventors": [

    {

        "id": 490047,

        "firstName": "John",

        "lastName": "Stewart",

        "fedEmployee": true,

        "middleInitial": "Q",

        "fedAgency": "NIST"

    }

],

"primaryAgency": "ARMY/ARO",
```

```
"fundingAgreements": [

  {

    "id": 490047,

    "agreementType": "Grant",

    "agency": "ARMY/ARO",

    "grantNumber": "DAAH04-12-1-1234",

    "awardType": "Prime Award"

  }

],

"subContractInfos": [

  {

    "id": 490047,

    "contractorState": "CO",

    "contractorCity": "Denver",

    "contractorName": "James",

    "subContractNumber": "AS-787342",

    "contractorCountry": "United States",

    "contractorDUNS": "738739399"

  }

],

"inventionStatus": {

  "titleElectionStatus": "Elect to Retain Title",

  "titleElectionDate": "06/10/2022"

},

"explanatoryNotes": [

  {

    "id": 490047,
```

```
        "note": "This is a testing note",

        "creatorName": "",

        "createdDate": "06/10/2022"

    },

    {

        "id": 490048,

        "note": "This is an update note to update keyword",

        "creatorName": "",

        "createdDate": "06/10/2022"

    }

  ],

  "governmentNotes": []

}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{

  "responseCode": 400,

  "message": "JSON Validation Failed",

  "errors": [

    {

      "code": "400",

      "field": " inventionReportNumber ",

      "message": "Invention Report Number value is required."

    }

  ]

}
```

HTTP Status 401 (Unauthorized)

```
{

    "message": "Access Denied",

    "timestamp": "2022-06-10T09:58:10.534055700"

}
```

6.5 Search Invention

Any desired combination of the attributes can be used to perform the Invention report search. The search will encompass all the Invention reports from user's organization and from other organizations that have granted the user permission to view their Invention reports. Once the user finds the Invention report, they will be able to modify the Invention, add a Patent report, or add a utilization report.

6.5.1 Endpoint URI

Here's an example of the v1 endpoint for the Search Invention resource.

POST	/iedison/api/v1/inventions/search

6.5.2 Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search Invention POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Data Type	Version	In
accept	Setting to application/json	String	v1	header
inventionSearchCriteria	The Invention search criteria with the filters client selected for the search.	String	v1	form-data

Table 6-23: Invention Search API Request Parameter

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Inventions Request.

Request Parameter	Description	Data Type	Length	Version	In
limit	Total number of records to be retrieved per page. This field must be a number. Max Value = 100. The Default = 20.	Integer		v1	body
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request	Integer		v1	body
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	100	v1	body
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	String	30	v1	body
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	80	v1	body
inventorFirstName	First name of an inventor.	String	50	v1	body
inventorLastName	Last name of an inventor.	String	50	v1	body
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	50	v1	body
granteeOrganizationName	The name of the organization established at registration.	String	100	v1	body
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 1111.11 Title Election Status for a list of valid values.	JSON Object	10	v1	body
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	255	v1	body
inventionReportDateFrom	The From Date that the inventor disclosed in the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v1	body

Request Parameter	Description	Data Type	Length	Version	In
inventionReportDateTo	The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v1	body
inventionKeyword	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	String	80	v1	body
doeWaiver	DOE Waiver.	String		v1	body
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String		v1	body
governmentStaff	Used to identify government staff.	String		v1	body
lastUpdatedFrom	The 'start from' search date against the Patent last updated date. MM/DD/YYYY format.	String		v1	body
lastUpdatedTo	The 'up to' search date against the Patent last updated date. MM/DD/YYYY format.	String		v1	body

Table 6-24: Invention Search API JSON Attributes

6.5.3   Response Parameters

This section documents the response JSON objects, attributes and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Search Invention API provides below response parameters.

Response JSON Attribute Name	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
limit	Limit entered by a user while making the request i.e., total number of records the user wished to retrieve per page.	Number	v1
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request.	Number	v1
inventions	A list of Invention record with Invention Response JSON attributes below.	Array	v1

Table 6-25: Invention Search API JSON Attributes

The following is the Invention Response JSON attributes.

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
institutionCode	The unique code assigned to the reporting organizations.	String	v1
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v1
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v1
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v1
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution.	String	v1
inventionSubmitDate	The date when Invention is submitted to the agency.	String	v1

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
reportingOverdue	Invention Reporting Overdue field to indicate if an Invention is submitted outside limit of 60 days or 6 months .	boolean	v1
firstPublicationDate	The date of first publication, on sale, or public use initiating the on- year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v1
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v1
doeWaiver	DOE Waiver.	String	v1
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v1
keywords	This contains a list of keywords for the Invention report.	Array [String]	v1
inventors	List of Inventors	Array	v1
firstName	First name of an inventor.	String	v1
lastName	Last name of an inventor.	String	v1
middleInitial	Middle initial of an inventor.	String	v1
fedEmployee	Is the inventor a federal employee?	Boolean	v1
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Array	v1
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v1
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v1
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v1
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v1
subContractInfos	Subcontractor Information	Array	v1
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v1

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
contractorName	The name of the subcontractor that provided the grant or contract.	String	v1
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v1
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v1
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section11 States List for a list of valid Code values.	String	v1
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v1
inventionStatus	The Title Election Status and Disposition status JSON object	JSON Object	v1
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v1
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v1
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Does Not Retain Title in an Invention Report. Refer to 11.1.19 Invention Doe s Not Retain Title Reason for a list of valid values.	String	v1

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.	String	v1
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section 11.1.12 Invention Disposition for a list of valid values.	String	v1
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v1
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report.	String	v1
explanatoryNotes	Explanatory Notes	JSON Object	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
governmentNotes	Government Notes which only return for agency system users.	JSON Object	v1
note	Government Notes are used to note information about an Invention Report or Patent Report by federal	String	v1

Invention Search API – InventionResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
	users who have access to view the record.		
creatorName	The full name of the user who entered the Government Note.	String	v1
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v1
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v1
agencyCustom1	Agency custom note field only available for agency users.	String	v1
agencyCustom2	Agency custom note field only available for agency users.	String	v1
agencyCustom3	Agency custom note field only available for agency users.	String	v1
governmentStaff	Used to identify government staff.	String	v1
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v1
disclosureDocumentAcceptDate	Disclosure document accept date	Date	v1
disclosureDocumentRejectDate	Disclosure document reject date	Date	v1
disclosureDocumentRejectReasons	Disclosure document reject reasons	Array [String]	v1
createdDate	The date created in the iEdison system for the Invention Record.	String	v1
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v1

Table 6-26: Invention Search API – InventionResponse JSON Attributes

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system finds known errors related to validation or JSON formatting, it will return the following response in JSON format.

Error Response JSON Attribute Name	Description	Data Type	Version
responseCode	Response Code	String	v1
message	Response Message	String	v1
errors	Errors	JSON Object	v1
code	Error Code	String	v1
field	Error Field of the parameter that fails validation or cause the error.	String	v1
message	Error Message	String	v1

Table 6-27: Invention Search API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Unauthorized JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v1
timestamp	The time and date string when the access was denied.	String	v1

Table 6-28: Invention Search API Unauthorized JSON

Request and Response Example

A sample request for the Search Invention REST API is shown below:

```
{
    "primaryAgency": "NIST",
    "inventionReportDateFrom": "2015-01-01",
    "inventionReportDateTo": "2015-12-31",
    "grantContractNumber": "60NANB14D279"
}
```
A sample response for the Search Invention REST API is shown below:

```
{
    "inventions": [
        {
```

```
"granteeOrganizationName": "UNIV OF MARYLAND, COLLEGE PARK",
"institutionCode": "0820102",
"dunsNumber": "790934285",
"inventionTitle": "The Cyber Supply Chain Risk Management Portal",
"inventionDocketNumber": "IS-2015-016",
"doesNumber": "",
"parentInventionNumber": "",
"inventionReportDate": "01/29/2015",
"inventionSubmitDate": "07/28/2017",
"reportingOverdue": false,
"domesticManufactureWaiver": false,
"doeWaiver": "",
"isInventionUnderFundingAgreement": false,
"keywords": [],
"inventionReportNumber": "0820102-15-0070",
"inventors": [
  {
    "firstName": "Sandor",
    "lastName": "Boyson",
    "fedEmployee": false,
    "middleInitial": "",
    "fedAgency": ""
  },
  {
    "firstName": "Holly",
    "lastName": "Mann",
    "fedEmployee": false,
    "middleInitial": "",
    "fedAgency": ""
  },
  {
    "firstName": "Hart",
    "lastName": "Rossman",
    "fedEmployee": false,
    "middleInitial": "",
    "fedAgency": ""
  },
  {
    "firstName": "Thomas",
    "lastName": "Corsi",
    "fedEmployee": false,
    "middleInitial": "M.",
    "fedAgency": ""
  },
  {
```

```
                    "firstName": "John",
                    "lastName": "Paraskevas",
                    "fedEmployee": false,
                    "middleInitial": "",
                    "fedAgency": ""
                },
                {
                    "firstName": "Chris",
                    "lastName": "Keegan",
                    "fedEmployee": false,
                    "middleInitial": "",
                    "fedAgency": ""
                }
            ],
            "primaryAgency": "National Institute of Standards and Technology",
            "fundingAgreements": [
                {
                    "agreementType": "",
                    "agency": "National Institute of Standards and Technology",
                    "grantNumber": "60NANB14D279",
                    "awardType": ""
                }
            ],
            "subContractInfos": [],
            "inventionStatus": "NOT ELECT TITLE; ASSIGN TO OTHER PARTY",
            "explanatoryNotes": [
                {
                    "note": "By: DAUERBACH_EDI\nOn: 2017-07-28\n\nI attempted to report this Invention to
iEdison in 2015 but was unable to due to a glitch in iEdison so I reported it (as well as the release of
Patent rights) directly to the Grants Officer and Grants Specialist listed on the award document on
11/11/2015. "
                }
            ],
            "governmentNotes": []
        }
    ],
    "totalRecords": 1,
    "limit": 100,
    "offset": 0
}
```

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "Invalid form-data content",
```

```
    "errors": [
      {
        "code": "400",
        "field": "inventionSearchCriteria",
        "message": "One or more parameters in request JSON are Invalid. Please verify and submit
again :  'primaryAgencfday'"
      }
    ]
}
```

HTTP Status 401 (Unauthorized)

```
{
    "message": "Access Denied",
    "timestamp": "2022-06-10T09:58:10.534055700"
}
```

6.6   Search Invention v2

Any desired combination of the attributes can be used to perform the Invention report search. The search will encompass all the Invention reports from user's organization and from other organizations that have granted the user permission to view their Invention reports. Once the user finds the Invention report, they will be able to modify the Invention, add a Patent report, or add a utilization report.

6.6.1   Endpoint URI

Here's an example of the v1 endpoint for the Search Invention resource.

POST	/iedison/api/v2/inventions/search

6.6.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search Invention POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Data Type	Version	In
accept	Setting to application/json	String	v2	header
inventionSearchCriteria	The Invention search criteria with the filters client selected for the search.	String	v2	form-data

Table 6-29: Invention Search API Request Parameter

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Inventions Request.

Request Parameter	Description	Data Type	Length	Version	In
limit	Total number of records to be retrieved per page. This field must be a number. Max Value = 100. The Default = 20.	Integer		v2	body
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request	Integer		v2	body
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	100	v2	body
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	String	30	v2	body
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	80	v2	body
inventorFirstName	First name of an inventor.	String	50	v2	body
inventorLastName	Last name of an inventor.	String	50	v2	body
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section	String	50	v2	body

Request Parameter	Description	Data Type	Length	Version	In
	11.8 Agency Mapping List for a list of valid abbreviations.				
granteeOrganizationName	The name of the organization established at registration.	String	100	v2	body
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 1111.11 Title Election Status for a list of valid values.	JSON Object	10	v2	body
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	255	v2	body
inventionReportDateFrom	The From Date that the inventor disclosed in the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v2	body
inventionReportDateTo	The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v2	body
inventionKeyword	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	String	80	v2	body
doeWaiver	DOE Waiver.	String		v2	body
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String		v2	body
governmentStaff	Used to identify government staff.	String		v2	body
lastUpdatedFrom	The 'start from' search date against the Patent	String		v2	body

Request Parameter	Description	Data Type	Length	Version	In
	last updated date. MM/DD/YYYY format.				
lastUpdatedTo	The 'up to' search date against the Patent last updated date. MM/DD/YYYY format.	String		v2	body

Table 6-13

6.6.3 Response Parameters

This section documents the response JSON objects, attributes and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Search Invention API provides below response parameters.

Response JSON Attribute Name	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v2
limit	Limit entered by a user while making the request i.e., total number of records the user wished to retrieve per page.	Number	v2
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request.	Number	v2
inventions	A list of Invention record with Invention Response JSON attributes below.	Array	v2

Table 6-30: Invention Search API JSON Attributes

The following is the Invention Response JSON attributes.

Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2

Response JSON Attribute Name	Description	Data Type	Version
institutionCode	The unique code assigned to the reporting organizations.	String	v2
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v2
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v2
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v2
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution.	String	v2
inventionSubmitDate	The date when Invention is submitted to the agency.	String	v2
reportingOverdue	Invention Reporting Overdue field to indicate if an Invention is submitted outside limit of 60 days or 6 months .	boolean	v2
firstPublicationDate	The date of first publication, on sale, or public use initiating the on- year statutory period wherein	String	v2

Response JSON Attribute Name	Description	Data Type	Version
	valid Patent protection can still be obtained in the United States.		
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v2
doeWaiver	DOE Waiver.	String	v2
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v2
keywords	This contains a list of keywords for the Invention report.	Array [String]	v2
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	Boolean	v2
inventors	List of Inventors	Array	v2
firstName	First name of an inventor.	String	v2
lastName	Last name of an inventor.	String	v2
middleInitial	Middle initial of an inventor.	String	v2
fedEmployee	Is the inventor a federal employee?	Boolean	v2
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2

Response JSON Attribute Name	Description	Data Type	Version
id	The Inventor primary unique identifier in the iEdison system.	Integer	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Array	v2
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	String	v2
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v2
awardType	Identify if an award is a primary award or sub-award. Refer to Section 11.1.4 Award Type for a list of valid values.	String	v2

Response JSON Attribute Name	Description	Data Type	Version
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 11.1.5 Agreement Types for a list of valid values.	String	v2
id	The funding agreement primary unique identifier in the iEdison system.	Integer	v2
subContractInfos	Subcontractor Information	Array	v2
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v2
contractorName	The name of the subcontractor that provided the grant or contract.	String	v2
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v2
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v2
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section11 States List for a list of valid Code values.	String	v2
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to 11.1.9 Country List for a list of valid country Name values.	String	v2
id	The subcontractor primary unique identifier in the iEdison system.	Integer	v2

Response JSON Attribute Name	Description	Data Type	Version
inventionStatus	The Title Election Status and Disposition status JSON object	JSON Object	v2
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	String	v2
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v2
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Does Not Retain Title in an Invention Report. Refer to 11.1.19 Invention Doe s Not Retain Title Reason for a list of valid values.	String	v2
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.	String	v2
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section 11.1.12 Invention Disposition for a list of valid values.	String	v2
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v2
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report.	String	v2
explanatoryNotes	Explanatory Notes	JSON Object	v2

Response JSON Attribute Name	Description	Data Type	Version
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v2
creatorName	The full name of the user who entered the Explanatory Note.	String	v2
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v2
id	The Explantory Note primary unique identifier in the iEdison system.	Integer	v2
governmentNotes	Government Notes which only return for agency system users.	JSON Object	v2
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v2
creatorName	The full name of the user who entered the Government Note.	String	v2
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v2
id	The Government Note primary unique identifier in the iEdison system.	Integer	v2
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v2

Response JSON Attribute Name	Description	Data Type	Version
agencyCustom1	Agency custom note field only available for agency users.	String	v2
agencyCustom2	Agency custom note field only available for agency users.	String	v2
agencyCustom3	Agency custom note field only available for agency users.	String	v2
governmentStaff	Used to identify government staff.	String	v2
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v2
disclosureDocumentAcceptDate	Disclosure document accept date	Date	v2
disclosureDocumentRejectDate	Disclosure document reject date	Date	v2
disclosureDocumentRejectReasons	Disclosure document reject reasons	Array [String]	v2
createdDate	The date created in the iEdison system for the Invention Record.	String	v2
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v2
id	The Invention Report primary unique identifier in the iEdison system.	Integer	v2

Table 6-31: Invention Search API – InventionResponse JSON Attributes

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system finds known errors related to validation or JSON formatting, it will return the following response in JSON format.

Error Response JSON Attribute Name	Description	Data Type	Version
responseCode	Response Code	String	v2
message	Response Message	String	v2

Error Response JSON Attribute Name	Description	Data Type	Version
errors	Errors	JSON Object	v2
code	Error Code	String	v2
field	Error Field of the parameter that fails validation or cause the error.	String	v2
message	Error Message	String	v2

Table 6-32: Invention Search API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Unauthorized JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v2
timestamp	The time and date string when the access was denied.	String	v2

Table 6-33: Invention Search API Unauthorized JSON

6.6.4 Request and Response Example

A sample request for the Search Invention REST API is shown below:

```
{

    "primaryAgency": "NIST",

    "inventionReportDateFrom": "2015-01-01",

    "inventionReportDateTo": "2015-12-31",

    "grantContractNumber": "60NANB14D279"

}
```

A sample response for the Search Invention REST API is shown below:

```
{

    "inventions": [

        {

            "id": 490047,

            "granteeOrganizationName": "UNIV OF MARYLAND, COLLEGE PARK",

            "institutionCode": "0820102",

            "dunsNumber": "790934285",

            "inventionTitle": "The Cyber Supply Chain Risk Management Portal",

            "inventionDocketNumber": "IS-2015-016",

            "doesNumber": "",
```

```json
"parentInventionNumber": "",

"inventionReportDate": "01/29/2015",

"inventionSubmitDate": "07/28/2017",

"reportingOverdue": false,

"domesticManufactureWaiver": false,

"doeWaiver": "",

"isExceptionCircumstanceDetermination": false,

"keywords": [],

"inventionReportNumber": "0820102-15-0070",

"inventors": [

  {

    "id": 490047,

    "firstName": "Sandor",

    "lastName": "Boyson",

    "fedEmployee": false,

    "middleInitial": "",

    "fedAgency": ""

  },

  {

    "id": 490048,

    "firstName": "Holly",

    "lastName": "Mann",

    "fedEmployee": false,

    "middleInitial": "",

    "fedAgency": ""

  },
```

```
    {

        "id": 490049,

        "firstName": "Hart",

        "lastName": "Rossman",

        "fedEmployee": false,

        "middleInitial": "",

        "fedAgency": ""

    }


],

"primaryAgency": "National Institute of Standards and Technology",

"fundingAgreements": [

    {

        "id": 245047,

        "agreementType": "",

        "agency": "National Institute of Standards and Technology",

        "grantNumber": "60NANB14D279",

        "awardType": ""

    }

],

"subContractInfos": [],

"inventionStatus": "NOT ELECT TITLE; ASSIGN TO OTHER PARTY",

"explanatoryNotes": [

    {

        "id": 490047,
```

```
        "note": "By: DAUERBACH_EDI\nOn: 2017-07-28\n\nI attempted to report this
Invention to iEdison in 2015 but was unable to due to a glitch in iEdison so I reported it (as well
as the release of Patent rights) directly to the Grants Officer and Grants Specialist listed on the
award document on 11/11/2015. "

        }
      ],

      "governmentNotes": []

    }
  ],

  "totalRecords": 1,

  "limit": 100,

  "offset": 0

}
```

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

```
{

  "responseCode": 400,

  "message": "Invalid form-data content",

  "errors": [

    {

      "code": "400",

      "field": "inventionSearchCriteria",

      "message": "One or more parameters in request JSON are Invalid. Please verify and submit again :
'primaryAgencfday'"

    }

  ]

}
```

HTTP Status 401 (Unauthorized)

```
{

    "message": "Access Denied",

    "timestamp": "2022-06-10T09:58:10.534055700"

}
```

7   Patent API Reference

7.1   Create Patent

7.1.1   Endpoint URI

Here's an example of the v1 endpoint for the Create Patent resource.

POST	/iedison/api/v1/patents/create

7.1.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the create Patent POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
patentRequest	The Patent JSON object content use to create the Patent in iEdison. Refer to Table 7-2: Patent Create API – patentRequest JSON Attribute List below for details.	Yes	String	v1	form-data
confirmatoryLicense	The Confirmatory License document file for the Patent record.	No	File Binary	v1	form-data
governmentSupportClause	The Government Support Clause document file for the Patent record.	No	File Binary	v1	form-data

Table 7-1: Patent Create API parameters

The table below shows the parameters that will be included in the JSON body during the processing of Create Patents Request. The below parameters are included as a JSON object in JSON body. The JSON object represents the metadata for the Patent that needs to be created.

Request Parameter	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	Int	30	v1
patentStatus	Used to identify the current status of a Patent. Refer to Section 11.1.7 Patent Status for a list of valid values.	Yes	String	255	v1

Request Parameter	Description	Required	Data Type	Length	Version
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String	255	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	Yes	String	255	v1
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	Int	30	v1
patentStatus	Used to identify the current status of a Patent. Refer to Section 11.1.7 Patent Status for a list of valid values.	Yes	String	255	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String	255	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	Yes	String	255	v1

Request Parameter	Description	Required	Data Type	Length	Version
confirmatoryLicenseExcutionDate	The date when the Confirmatory License was executed for the Patent. This is required when the confirmatoryLicense document is provided in form-data.	Conditional	String	10	V1
nonProvisionalPatentApplication	The Non-provisional Patent Application number and date object. This is required only when ORD, DIV, CON, CIP is used for patentApplicationType.	Conditional	**JSON Object**		v1
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	18	v1
nonProvisionalApplicationDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO). MM/DD/YYYY format.	Yes	String	10	v1
issuedApplicationNumber	The unique identifier of a Patent.	No	String	50	v1
issuedApplicationDate	The date the Patent number was issued. MM/DD/YYYY format.	No	String	10	v1
expirationDate	Estimated date of Patent expiration. MM/DD/YYYY format.	No	String	10	v1
provisionalPatentApplication	The Non-provisional Patent Application number and date object. This is required only when PROV is used for patentApplicationType.	**Conditional**	**JSON Object**		v1

Request Parameter	Description	Required	Data Type	Length	Version
provisionalApplicationNumber	The unique identifier for a provisional Patent application created upon filing at the USPTO.	Yes	String	10	v1
provisionalApplicationDate	Used for the filing date of the U.S. provisional Patent application with the USPTO. MM/DD/YYYY format.	Yes	String	10	v 1
pctPatentApplication	The Non-provisional Patent Application number and date object. This is required only when PCT is used for patentApplicationType.	**Conditional**	**JSON Object**		v1
pctApplicationNumber	(Patent Cooperation Treaty) number is used to uniquely identify a PCT type Patent application.	Yes	String	10	v1
pctApplicationDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application provided by the World Intellectual Property Organization (WIPO). MM/DD/YYYY.	Yes	String	10	v1
parentPatents		No	**JSON Object**		v1
inventionReportNumber	The unique Invention Report Number for the parent Patent.	No	String	25	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
inventors	List of Inventors	Yes	**Array**		v1
firstName	First name of an inventor.	Yes	String	80	v1
lastName	Last name of an inventor.	Yes	String	80	v1

Request Parameter	Description	Required	Data Type	Length	Version
middleInitial	Middle initial of an inventor.	No	String	30	v1
fedEmployee	Is the inventor a federal employee?	No	boolean		v1
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80	v1
foreignFilings	Patent Foreign Filing	No	**JSON Object**		v1
countryName	The country name of the foreign filing. Refer to 11.1.9 Country List for a list of valid country Name values.	Yes	String	15	v1
status	The foreign filing status for the Patent. Refer to Section 11.1.2 Patent Filing Status for a list of valid values.	Yes	JSON Array		v1
filingDate	The date that the foreign Patent was issued. MM/DD/YYYY format.	Yes	String	10	v1
explanatoryNotes	Explanatory notes may be used to note information about the report.	No	JSON Object		v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1
governmentNotes	Notes written by the agency regarding the report.	No	**JSON Object**		V1

Request Parameter	Description	Required	Data Type	Length	Version
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1

Table 7-2: Patent Create API – patentRequest JSON Attribute List

Please send the following parameters for Binary Attachments along with the above Patent JSON Object

Request Parameter	Description	Required	Data Type	Length	Version
confirmatoryLicense	Document that provides the federal government a non-exclusive, non-transferable, irrevocable, paid-up right to practice the Invention or have the Invention practiced on its behalf for federal government purposes.	Yes	Binary Attachment		v1
governmentSupportClause	Document/statement acknowledging federal support of a subject Invention that MUST be included in the specification of a U.S. Patent application or a U.S. issued Patent.	Yes	Binary Attachment		v1

Note: The allowed file types for Confirmatory License Document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size:25MB.

7.1.3   Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Create Patent API provides the below response parameters.

Response Parameter	Description	Data Type	Version
id	System generated sequence number used for ID of the Patent	Int	v1
patentDocketNum	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
inventionReportNumber	The unique Invention Report Number which identifies the Invention record in iEdison that the Patent is associated with.	String	v1
issuedApplicationNumber	The Patent number provided by USPTO when the Patent is issued.	String	v1
issuedApplicationDate	The date the Patent number was issued.	String	v1
pctAppNum	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	String	v1
pctAppDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application.	String	v1
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	String	v1
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO.	String	v1
nonProvisionalAppNum	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	String	v1

Response Parameter	Description	Data Type	Version
nonProvisionalAppDate	This field is used for either the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO)	String	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	String	v1
patentReceiptDate	Date Patent was received by government.	String	v1
expireDate	Estimated date of Patent expiration.	String	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	String	v1
patentStatus	The Patent Status.	String	v1
confLicenseReceiptDate	Confirmatory License Receipt Date.	String	v1
confLicenseRejectDate	Date Confirmatory License is rejected by Government Agency.	String	v1
confLicenseRejectComment	Reason for Confirmatory License rejection shared with the organization.	String	v1
confLicenseOutdated	Used to indicate if the Confirmatory License is outdated.	String	v1
govtSuppClauseReceiptDate	The date the Federal Support Clause was received by the government.	String	v1
govtSuppClauseRejectDate	Date Government Support Clause inclusion is rejected by Government Agency.	String	v1

Response Parameter	Description	Data Type	Version
govtSuppClauseRejectComment	Reason for Government Support Clause rejection displayed to grantee/contractor institution.	String	v1
govtActionDate	Government Action Date	String	v1
domesticWaiverDecisionFlag	Used to indicate Domestic Waiver decision.	boolean	v1
domesticWaiverDecisionDate	Domestic Waiver Decision Date.	String	v1
parentPatents	Parent Patents list.	JSON Object	v1
inventionReportNumber	The unique Invention Report Number for the parent Patent.	String	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
confirmatoryLicenseExcutionDate	Confirmatory license date of execution for EPAS submission.	String	v1
abandonedReason	The reason why a Patent is abandoned.	String	v1
extensionDays	Number of days Patent provisional application date has been extended.	Int	v1
usptoAppStatus	USPTO application status of the Patent.	String	v1
usptoAppStatusDate	Date of USPTO application.	String	v1
usptoLastSyncDate	Date of last sync with USPTO	String	v1
assigned	Used to indicate if the Patent has been assigned to another organization.	boolean	v1

Response Parameter	Description	Data Type	Version
explanatoryNotes	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Array [JSON Object]	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
governmentNotes	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record. This is populated only for agency system accounts.	Array [JSON Object]	v1
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1
creatorName	The full name of the user who entered the Government Note.	String	v1

Response Parameter	Description	Data Type	Version
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v1
govSupClauseActions	Government Support Clause Actions	Array [JSON Object]	v1
id	System generated sequence number used for ID of the Government Support Clause Action	Int	v1
actionType	Type of Action. Refer to Section 11.1.23 Patent Action Type for a list of valid values.	String	v1
documentType	Type of document. Refer to Section 11.1.24 Patent Action Document Type for a list of valid values.	String	v1
actionDate	Date the action was taken. MM/DD/YYYY format.	Date	v1
reasonText	Reason for the action.	String	v1
createdDate	The created Date for the Patent record.	String	v1
lastUpdatedDate	The last updated date for the Patent record.	String	v1

Table 7-3: Patent Create API – PatentResponse JSON Attributes

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system finds known errors related to validation or JSON formatting, it will return the following response in JSON format.

Error Response JSON Attribute Name	Description	Data Type	Version
responseCode	Response Code	String	v1
message	Response Message	String	v1
errors	Errors	JSON Object	v1
code	Error Code	String	v1
field	Error Field of the parameter that fails validation or cause the error.	String	v1
message	Error Message	String	v1

Table 7-4: Patent Create API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Unauthorized JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v1
timestamp	The time and date string when the access was denied.	String	v1

Table 7-5: Patent Create API Unauthorized JSON

7.1.4 Request Example

A sample request for the Patent Create REST API is shown below:

```
{
   "inventionReportNumber": "07654321-22-0103",
   "patentDocketNumber": "REST-PAT-0017",
   "patentStatus": "Institution Retains Rights",
   "patentTitle": "REST PAT 0017",
   "patentApplicationType": "PROV",
   "provisionalPatentApplication": {
      "provisionalApplicationNumber": "64/999,910",
      "provisionalApplicationDate": "02/02/2022"
   },
   "inventors": [
```

```json
        {
            "firstName": "John",
            "lastName": "Stewart",
            "fedEmployee": true,
            "middleInitial": "Q",
            "fedAgency": "NIST"
        },
        {
            "firstName": "Jane",
            "lastName": "Doe",
            "fedEmployee": false,
            "middleInitial": "",
            "fedAgency": ""
        }
    ],
    "foreignFilings": [
        {
            "countryName": "AFGHANISTAN",
            "status": "active",
            "filingDate": "02/02/2021"
        }
    ]
}
```

7.1.5   Response Examples

HTTP Status 200 (OK)

A sample success response for the Patent Create REST API is shown below:

```json
{
    "id": 338529127,
    "patentDocketNum": "REST-PAT-0018",
    "inventionReportNumber": "07654321-22-0103",
    "issuedApplicationNumber": "",
    "pctAppNum": "",
    "provisionalAppNum": "64/999,911",
    "provisionalAppDate": "02/02/2022",
    "nonProvisionalAppNum": "",
    "patentApplicationType": "PROV",
    "patentTitle": "REST PAT 0018",
    "confLicenseRejectComment": "",
    "govtSuppClauseRejectComment": "",
    "abandonedReason": "",
    "usptoAppStatus": "",
    "assigned": false,
```

```
    "patentStatus": "Institution Retains Rights",
    "explanatoryNotes": [],
    "governmentNotes": [],
    "govSupClauseActions": [],
    "inventors": [
        {
            "firstName": "John",
            "lastName": "Stewart",
            "fedEmployee": true,
            "middleInitial": "Q"
        },
        {
            "firstName": "Jane",
            "lastName": "Doe",
            "fedEmployee": false
        }
    ],
    "foreignFilings": [
        {
            "patentForeignFilingId": 12345,
            "countryName": "AFGHANISTAN",
            "status": "active",
            "filingDate": "02/02/2021"
        }
    ]
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "Failed Validation",
    "errors": [
        {
            "code": "400",
            "field": "provAppNum",
            "message": "Provisional Application Number value is required."
        }
    ]
}
```

HTTP Status 401 (Unauthorized)

```
{

    "message": "Access Denied",

    "timestamp": "2022-06-10T09:58:10.534055700"

}
```

7.2   Update Patent

7.2.1   Endpoint URI

Here's an example of the v1 endpoint for the Update Patent resource.

POST	/iedison/api/v1/patents/update

7.2.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the update Patent POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
patentRequest	The Patent JSON object content use to create the Patent in iEdison. Refer to Table 7-6: Patent Update API – patentResponse JSON Attributes below for details.	Yes	String	v1	form-data
confirmatoryLicense	The Confirmatory License document file for the Patent record.	No	File Binary	v1	form-data

Request Parameters	Description	Required	Data Type	Version	In
governmentSupportClause	The Government Support Clause document file for the Patent record.	No	File Binary	v1	form-data

The table below shows the parameters that will be included in the JSON body during the processing of Update Patents Request. The below parameters are included as JSON objects multiple times in JSON body as JSON Array. Each JSON object represents the metadata of each Patent that needs to be updated. The system updates the government clause file, if it is provided during update operation. If the government clause file is not provided during update operation, the system checks for the presence of a government clause file uploaded in previous operations. If a government clause file is not present, the system will not perform an update operation and returns an error.

Patent Update API – patentRequest JSON Attributes					
Request Parameter	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	100	v1
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
patentStatus	Used to identify the current status of a Patent. Refer to Section 11.1.7 Patent Status for a list of valid values.	Yes	String	255	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String		v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	Yes	String		v1

Patent Update API – patentRequest JSON Attributes					
Request Parameter	Description	Required	Data Type	Length	Version
pctPatentApplication		**Conditional**	JSON Object		v1
pctAppNum	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	Yes	String		v1
pctAppDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application. MM/DD/YYYY format.	Yes	String		v1
provisionalPatentApplication		**Conditional**	JSON Object		v1
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	Yes	String		v1
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO. MM/DD/YYYY format.	Yes	String		v1
nonProvisionalPatentApplication		**Conditional**	JSON Object		v1
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	10	v1
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	10	v1
nonProvisionalApplicationDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO). MM/DD/YYYY format.	Yes	String	10	v1
issuedApplicationNumber	The unique identifier of a Patent.	No	String	50	v1
issuedApplicationDate	The date the Patent number was issued. MM/DD/YYYY format.	No	String	10	v1

Patent Update API – patentRequest JSON Attributes					
Request Parameter	**Description**	**Required**	**Data Type**	**Length**	**Version**
expirationDate	Estimated date of Patent expiration. MM/DD/YYYY format.	No	String	10	v1
provisionalApplicationNumber	The unique identifier for a provisional Patent application created upon filing at the USPTO.	Yes	String	10	v1
provisionalApplicationDate	Used for the filing date of the U.S. provisional Patent application with the USPTO. MM/DD/YYYY format.	Yes	String	10	v1
pctApplicationNumber	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	Yes	String	10	v1
pctApplicationDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application provided by the World Intellectual Property Organization (WIPO). MM/DD/YYYY format.	Yes	String	10	v1
parentPatents	**Parent Patent**	**No**	**JSON Object**		v1
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
inventors	**List of Inventors**	**Yes**	**Array**		v1
firstName	First name of an inventor.	Yes	String	80	v1
lastName	Last name of an inventor.	Yes	String	80	v1
middleInitial	Middle initial of an inventor.	No	String	30	v1

Patent Update API – patentRequest JSON Attributes					
Request Parameter	Description	Required	Data Type	Length	Version
fedEmployee	Is the inventor a federal employee? Default: false.	No	boolean		v1
fedAgency	If the inventor is a federal employee, what agency does the inventor work for? Refer to Section 11.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	80	v1
foreignFilings	**Patent Foreign Filing**	**No**	**JSON Object**		v1
countryName	The country name of the foreign filing. Refer to 11.1.9 Country List for a list of valid country Name values.	Yes	String	15	v1
status	The foreign filing status for the Patent. Refer to Section 11.1.2 Patent Filing Status for a list of valid values.	Yes	JSON Array		v1
filingDate	The date that the foreign Patent was issued. MM/DD/YYY format.	Yes	String	10	v1

Table 7-6: Patent Update API – patentRequest JSON Attributes

Please send the following parameters for Binary Attachments along with the above Patent JSON Object.

Request Parameter	Description	Required	Data Type	Length	Version
confirmatoryLicense	Document that provides the federal government a non-exclusive, non-transferable, irrevocable, paid-up right to practice the Invention or have the Invention practiced on its behalf for federal government purposes.	No	Binary Attachment		v1
governmentSupportClause	Document/statement acknowledging federal support of a subject Invention that MUST be included in the specification of a U.S. Patent	No	Binary Attachment		v1

Request Parameter	Description	Required	Data Type	Length	Version
	application or a U.S. issued Patent.				

Note: The allowed file types for Confirmatory License Document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size:25MB.

Note: The allowed file types for Government Support Clause document are (csv, gif, jpeg, jpg, png, pdf, docx, doc, tiff, tif, txt, xls, xlsx, ppt, pptx, odt, rtf.) Max File Size:25MB

7.2.3   please reResponse Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Create Patent API provides the below response parameters.

Response Parameter	Description	Data Type	Version
id	System generated sequence number used for ID of the Patent.	Int	v1
patentDocketNum	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
inventionReportNumber	The unique Invention Report Number that identifies the Invention record in iEdison the Patent is associated with.	String	v1
issuedApplicationNumber	The Patent number provident when the Patent is issued.	String	v1
issuedApplicationDate	The date the Patent number was issued.	String	v1
pctAppNum	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	String	v1
pctAppDate	This field is used for the filing date of the Patent	String	v1

Response Parameter	Description	Data Type	Version
	Cooperation Treaty (PCT) application.		
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	String	v1
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO.	String	v1
nonProvisionalAppNum	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	String	v1
nonProvisionalAppDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO)	String	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	String	v1
patentReceiptDate	Date the Patent was received by the government.	String	v1
expireDate	Estimated date of Patent expiration.	String	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	String	v1
patentStatus	The Patent status.	String	v1
confLicenseReceiptDate	Confirmatory License Receipt Date.	String	v1
confLicenseRejectDate	Date Confirmatory License is rejected by Government Agency.	String	v1

Response Parameter	Description	Data Type	Version
confLicenseRejectComment	Reason for Confirmatory License rejection shared with the organization.	String	v1
confLicenseOutdated	Used to indicate if the Confirmatory License is outdated.	String	v1
govtSuppClauseReceiptDate	The date the Federal Support Clause was received by the government.	String	v1
govtSuppClauseRejectDate	Date Government Support Clause inclusion was rejected by the government.	String	v1
govtSuppClauseRejectComment	Reason for Government Support Clause rejection displayed to grantee/contractor institution.	String	v1
govtActionDate	Government Action Date.	String	v1
domesticWaiverDecisionFlag	Used to indicate Domestic Waiver decision.	Boolean	v1
domesticWaiverDecisionDate	Domestic Waiver Decision Date.	String	v1
parentPatents	Parent Patents list.	**JSON Object**	v1
inventionReportNumber	The unique Invention Report Number for the parent Patent.	String	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
confirmatoryLicenseExcutionDate	Confirmatory License date of execution for EPAS submission.	String	v1
abandonedReason	The reason why a Patent was abandoned.	String	v1

Response Parameter	Description	Data Type	Version
extensionDays	Number of days Patent provisional application date has been extended.	Int	v1
usptoAppStatus	USPTO application status of the Patent.	String	v1
usptoAppStatusDate	Date of USPTO application.	String	v1
usptoLastSyncDate	Date of last sync with USPTO.	String	v1
assigned	Used to indicate if the Patent has been assigned to another organization.	Boolean	v1
explanatoryNotes	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	**Array [JSON Object]**	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
governmentNotes	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record. This is populated only for agency system accounts.	**Array [JSON Object]**	v1

Response Parameter	Description	Data Type	Version
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1
creatorName	The full name of the user who entered the Government Note.	String	v1
createdDate	The date when the user entered the Government Note. It is in MM/DD/YYYY format.	String	v1
govSupClauseActions	Government Support Clause Actions	**Array [JSON Object]**	v1
id	System generated sequence number used for ID of the Government Support Clause Action	Int	v1
actionType	Type of Action. Refer to Section 11.1.23 Patent Action Type for a list of valid values.	String	v1
documentType	Type of document. Refer to Section 11.1.24 Patent Action Document Type for a list of valid values.	String	v1
actionDate	Date the action was taken. MM/DD/YYYY format.	Date	v1
reasonText	Reason for the action.	String	v1
createdDate	The created Date for the Patent record.	String	v1
lastUpdatedDate	The last updated date for the Patent record	String	v1

Table 7-7: Patent Update API – patentResponse JSON Attributes

HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)

When the system finds known errors related to validation or JSON formatting, it will return the following response in JSON format.

Error Response JSON Attribute Name	Description	Data Type	Version
responseCode	Response Code	String	v1
message	Response Message	String	v1
errors	**Errors**	**JSON Object**	**v1**
code	Error Code	String	v1
field	Error Field of the parameter that fails validation or cause the error.	String	v1
message	Error Message	String	v1

Table 7-8: Patent Update API Error 400 and 500 JSON Attribute List

HTTP Status 401 (Unauthorized)

Unauthorized JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v1
timestamp	The time and date string when the access was denied.	String	v1

Table 7-9: Patent Update API Unauthorized JSON

7.2.4   Request and Response Examples

A sample request for the Patent Update REST API is shown below:

```
{
  "inventionReportNumber": "07654321-22-0103",
  "patentDocketNumber": "REST-PAT-0017",
  "patentStatus": "Institution Retains Rights",
  "patentTitle": "REST PAT 0017-updated",
  "patentApplicationType": "PROV",
  "provisionalPatentApplication": {
    "provisionalApplicationNumber": "64/999,910",
    "provisionalApplicationDate": "02/02/2022"
  },
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",
      "fedAgency": "NIST"
    },
    {
```

```
          "firstName": "Jane",
          "lastName": "Doe",
          "fedEmployee": false,
          "middleInitial": "",
          "fedAgency": ""
      },
   ],
   "foreignFilings": [
      {
          "countryName": "AFGHANISTAN",
          "status": "active",
          "filingDate": "02/02/2021"
      }
   ]
}
```

A sample response and error for the Patent Update REST API is shown below:

```
{
   "id": 338529126,
   "patentDocketNum": "REST-PAT-0017",
   "inventionReportNumber": "07654321-22-0103",
   "issuedApplicationNumber": "",
   "pctAppNum": "",
   "provisionalAppNum": "64/999,910",
   "provisionalAppDate": "02/02/2022",
   "nonProvisionalAppNum": "",
   "patentApplicationType": "PROV",
   "patentTitle": "REST PAT 0017-updated",
   "confLicenseRejectComment": "",
   "govtSuppClauseRejectComment": "",
   "parentPatents": [],
   "abandonedReason": "",
   "usptoAppStatus": "",
   "assigned": false,
   "patentStatus": "Institution Retains Rights",
   "explanatoryNotes": [],
   "governmentNotes": [],
   "govSupClauseActions": [],
   "inventors": [
      {
          "firstName": "John",
          "lastName": "Stewart",
          "fedEmployee": true,
```

```
        "middleInitial": "Q",
        "fedAgency": "NIST"
    },
    {
        "firstName": "Jane",
        "lastName": "Doe",
        "fedEmployee": false
    }
  ],
  "foreignFilings": [
    {
        "patentForeignFilingId": 12345,
        "countryName": "AFGHANISTAN",
        "status": "active",
        "filingDate": "02/02/2021"
    }
  ]
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
  "responseCode": 400,
  "message": "Failed Validation",
  "errors": [
    {
        "code": "400",
        "field": "provAppNum",
        "message": "Provisional Application Number value is required."
    }
  ]
}
```

HTTP Status 401 (Unauthorized)

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

7.3   Search Patent

Search conditions for Patent Search is based on AND operation with different Patent Fields in JSON Request.

For Example, If the Patent search has Patent Docket Number and Primary Agency, the search results include all the searches that match both Patent Docket Number and Primary Agency.

7.3.1   Endpoint URI

Here's an example of the v1 endpoint for the Search Patent resource.

POST	/iedison/api/v1/patents/search

7.3.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search Patent POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Data Type	Version	In
accept	Setting to application/json	String	v1	header
patentSearchCriteria	The Patent search criteria filters in JSON string.			

Table 7-10: Patent Search API Parameters

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Patents Request.

Request Parameter	Description	Required	Data Type	Length	Version
limit	Total number of records to be retrieved per page. This field must be a number	No	Integer		v1

Request Parameter	Description	Required	Data Type	Length	Version
	Max Value = 100. The Default = 20.				
offset	Indicates the page index. Default offset starts with 0.	No	Integer		v1
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1
inventionReportDateFrom	The From Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	No	String	10	v1
inventionReportDateTo	The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	No	String	10	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	No	String	255	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	No	String	1	v1
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.11 Title	No	Array [String]	50	v1

Request Parameter	Description	Required	Data Type	Length	Version
	Election Status for a list of valid values.				
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	No	String	50	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.3 Patent Application Types for a list of valid values.	No	String	25	v1
patentStatus	Used to identify the current status of a Patent. Refer to Section 11.7 Patent Status for a list of valid values.	No	String	50	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
patentFilingDateFrom	The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date. MM/DD/YYYY format.	No	String	10	v1
patentFilingDateTo	The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. MM/DD/YYYY format.	No	String	10	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	No	String	50	v1
inventorFirstName	Inventor First Name.	No	String	50	v1
inventorLastName	Inventor Last Name.	No	String	50	v1

Request Parameter	Description	Required	Data Type	Length	Version
lastUpdatedFrom	The 'start from' search date against the Patent last updated date. MM/DD/YYYY format.	No	String	10	v1
lastUpdatedTo	The 'up to' search date against the Patent last updated date. MM/DD/YYYY format.	No	String	10	v1

7.3.3 Response Parameters

Based on request parameters, Search Patent API provides below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
limit	Limit entered by a user while making the request i.e., total number of records the user wished to retrieve per page.	Number	v1
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request.	Number	v1
patents	A list of Patent response Objects. Table 7-14 below lists the JSON object attributes.	Object Array	v1

Table 7-11: Patent Search API – patentSearchCriteria JSON Attributes

Below are the PatentResponse Object attributes.

Response Parameter	Description	Data Type	Version
id	System generated sequence number used for ID of the Patent.	Int	v1
patentDocketNum	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
inventionReportNumber	The unique Invention Report Number that identifies the Invention record in iEdison the Patent is associated with.	String	v1

Response Parameter	Description	Data Type	Version
issuedApplicationNumber	The Patent number provided by USPTO when the Patent was issued.	String	v1
issuedApplicationDate	The date the Patent number was issued.	String	v1
pctAppNum	The Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	String	v1
pctAppDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application.	String	v1
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	String	v1
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO.	String	v1
nonProvisionalAppNum	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	String	v1
nonProvisionalAppDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO)	String	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	String	v1
patentReceiptDate	Date Patent was received by the government.	String	v1
expireDate	Estimated date of Patent expiration.	String	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	String	v1
patentStatus	The Patent status.	String	v1
confLicenseReceiptDate	Confirmatory License Receipt Date.	String	v1
confLicenseRejectDate	Date Confirmatory License is rejected by Government Agency.	String	v1
confLicenseRejectComment	Reason for Confirmatory License rejection shared with the organization.	String	v1
confLicenseOutdated	Used to indicate if the Confirmatory License is outdated.	String	v1

Response Parameter	Description	Data Type	Version
govtSuppClauseReceiptDate	The date the Federal Support Clause was received by the government.	String	v1
govtSuppClauseRejectDate	Date Government Support Clause inclusion was rejected by Government.	String	v1
govtSuppClauseRejectComment	Reason for Government Support Clause rejection displayed to grantee/contractor institution.	String	v1
govtActionDate	Government Action Date	String	v1
domesticWaiverDecisionFlag	Used to indicate Domestic Waiver decision.	Boolean	v1
domesticWaiverDecisionDate	Domestic Waiver Decision Date.	String	v1
parentPatents	Parent Patents list.	**JSON Object**	v1
inventionReportNumber	The unique Invention Report Number for the parent Patent.	String	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
executionDate	Confirmatory license date of execution for EPAS submission.	String	v1
abandonedReason	The reason why a Patent was abandoned.	String	v1
extensionDays	Number of days the Patent provisional application date has been extended.	Int	v1
usptoAppStatus	USPTO application status of the Patent.	String	v1
usptoAppStatusDate	Date of USPTO application.	String	v1
usptoLastSyncDate	Date of last sync with USPTO.	String	v1
assigned	Used to indicate if the Patent has been assigned to another organization.	Boolean	v1
explanatoryNotes	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	**Array [JSON Object]**	v1
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1

131

Response Parameter	Description	Data Type	Version
creatorName	The full name of the user who entered the Explanatory Note.	String	v1
createdDate	The date when the user entered the Explanatory Note. MM/DD/YYYY format.	String	v1
governmentNotes	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record. This is populated only for agency system accounts.	Array [JSON Object]	v1
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1
creatorName	The full name of the user who entered the Government Note.	String	v1
createdDate	The date when the user entered the Government Note. MM/DD/YYYY format.	String	v1
govSupClauseActions	Government Support Clause Actions	Array [JSON Object]	v1
id	System generated sequence number used for ID of the Government Support Clause Action	Int	v1
actionType	Type of Action. Refer to Section 11.1.23 Patent Action Type for a list of valid values.	String	v1
documentType	Type of document. Refer to Section 11.1.24 Patent Action Document Type for a list of valid values.	String	v1
actionDate	Date the action was taken. MM/DD/YYYY format.	Date	v1
reasonText	Reason for the action.	String	v1
createdDate	The created Date for the Patent record.	String	v1
lastUpdatedDate	The last updated date for the Patent record	String	v1

Table 7-12: Patent Search API – PatentResponse JSON Object Attributes

7.3.4   Request and Response Examples

A sample request for the Patent Search REST API is shown below:

```
{
        "patentApplicationType": "DIV",
        "patentDocketNumber": "1087.3A"
}
```

A sample response and error for the Patent Search REST API is shown below:

```
{
   "patents": [
     {
        "id": 62978,
        "patentDocketNum": "1087.3A",
        "inventionReportNumber": "07654321-01-0001",
        "patentNum": "6197595",
        "patentDate": "03/05/2001",
        "provisionalAppNum": "",
        "provisionalAppDate": "04/19/1999",
        "nonProvisionalAppNum": "09/294,700",
        "nonProvisionalAppDate": "04/19/1999",
        "applicationType": "DIV",
        "expireDate": "04/19/2019",
        "patentTitle": "Integrated Nucleic Acid Diagnostic Device",
        "confLicenseRejectComment": "",
        "confLicenseOutdated": false,
        "govtSuppClauseRejectDate": "05/14/2021",
        "govtSuppClauseRejectComment": "Government Agency that awarded grant is
missing. Also, the language of the Government Support Clause is incorrect.",
        "oldPatentRule": true,
        "abandonedReason": "",
        "usptoAppStatus": "",
        "assigned": false,
         "patentStatus": "Institution Retains Rights",
        "explanatoryNotes": [],
        "governmentNotes": [],
        "userNotes": [],
        "govSupClauseActions": [
          {
             "id": 53038,
```

```
            "actionType": "R",
            "documentType": "SC",
            "actionDate": "12/31/2023",
            "reasonText": "Government Agency that awarded grant is missing. Also, the
language of the Government Support Clause is incorrect."
         }
      ]
    }
  ],
  "totalRecords": 1,
  "limit": 100,
  "offset": 0
}
```

8   Utilization API Reference

8.1   Create Utilization

8.1.1   Endpoint URI

Here's an example of the v1 endpoint for the Create Utilization resource.

POST	/iedison/api/v1/utilizations/create

8.1.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Create Utilization POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 8-2: Utilization Create API – utilizationRequest JSON Attributes for details.	Yes	String	v1	form-data

Table 8-1: Utilization Create API parameters

The table below shows the parameters that will be included in the JSON body during the processing of **Create Utilization Request**. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata for the utilization that needs to be created.

Request JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention Report number the utilization report is associated with.	Yes	String	25	v1
reportingYear	The year for which the utilization report is being submitted.	Yes	Integer		v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	Yes	String	30	v1
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	No	Integer		v1
totalIncome	Total income from royalty or option agreements for the Invention.	No	Number (float)		v1
manufacturingWaiver	Used to indicate if a waiver for Manufacturing Requirement has been requested. Accepted values are 0 (for No) and 1 (for Yes). Default: 0.	No	Integer		v1
manufacturingWaiverTotal	Total number of manufacturing waivers obtained.	No	Integer		v1
domesticLicenseNumber	Number of domestic manufacturing licenses.	No	Integer		
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention. In the designated reporting period, how many exclusive licenses and/or options are active?	No	Integer		v1

Request JSON Attribute Name	Description	Required	Data Type	Length	Version
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention. In the designated reporting period, how many non-exclusive licenses and/or options are active?	No	Integer		v1
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention. How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?	No	Integer		v1
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period.	No	Integer		v1
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v1
utilizationDescription	Describe how the development and commercialization of the subject Invention complies with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	No	String	1000	v1
totalGrossSales	Total Gross Sales for DOE Invention only.	No	Number		v1
commercialProds	FDA Approved Commercial products.	No	JSON Array		v1
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v1
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v1
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.1.15 in Appendix for a list of acceptable utilization Commercial Product Type values.	No	String	15	v1

Request JSON Attribute Name	Description	Required	Data Type	Length	Version
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.1.16 in Appendix for a list of acceptable utilization Government Review Status values.	No	String	10	v1
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.1.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	No	String	3	v1
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). Object attributes below.	No	JSON Array		v1
productName	The unique commercial product name.	Yes	String	100	v1
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments.	No	String	6	v1
productLocation	The manufacturing production location(s). Object attributes below.	No	**JSON Array**		v1
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	Yes	String	30	v1
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	No	String	14	v1
firstDate	The first date of manufacturing. MM/DD/YYYY format.	Yes	String	10	v1
firstDateType	The type for the first date of manufacturing. Refer to 11.1.18 for a list of acceptable type values.	Yes	String	8	v1
productQuantity	The total number of products at the manufacturing location.	Yes	Integer		v1

Table 8-2: Utilization Create API – utilizationRequest JSON Attributes

8.1.3 Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Create Utilization API provides the below response parameters.

Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v1
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	v1

Response JSON Attribute Name	Description	Data Type	Version
titleElectDate	The Invention Elect Title Date.	String	v1
reportingYear	The year for which the utilization report is being submitted.	Integer	v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v1
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v1
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v1
manufacturingWaiver	Used to indicate if a waiver for Manufacturing Requirement has been requested. 0 (for No) and 1 (for Yes).	Integer	v1
manufacturingWaiverTotal	Total number of manufacturing waivers obtained.	Integer	v1
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v1
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v1
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v1

Response JSON Attribute Name	Description	Data Type	Version
domesticLicenseNumber	Total number of domestic manufacturing licensees.	Integer	v1
newUsJobs	Approximate number of new US-based jobs created because of commercialization efforts during the reporting period.	Integer	
newUsCompanies	Number of new US-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	
utilizationDescription	Describes how the development and commercialization of the subject Invention comply with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	String	1000
totalGrossSales	Total Gross Sales for DOE Invention only.	Number	
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v1
commercialName	The name of the FDA approved commercial product.	String	v1
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v1

Response JSON Attribute Name	Description	Data Type	Version
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.1.15 in Appendix for a list of acceptable utilization Commercial Product Type values.	String	v1
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.1.16 in Appendix for a list of acceptable utilization Government Review Status values.	String	v1
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.1.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v1
manufacturingCommProds	The manufacturing commercial products made through the use of Embodying the Subject Invention(s). JSON Object attributes below.	**JSON Array**	v1
productName	The unique commercial product name.	String	v1
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments.	String	v1

Response JSON Attribute Name	Description	Data Type	Version
productLocation	The manufacturing production location(s). JSON Object attributes below.	**JSON Array**	v1
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	String	v1
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v1
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v1
firstDateType	The type for the first date of manufacturing. Please refer to list of acceptable type values.	String	v1
productQuantity	The total number of products at the manufacturing location.	Integer	v1
createdDate	The created Date for the utilization record.	String	v1
updatedDate	The last created Date for the utilization record.	String	v1

Table 8-3: Utilization Create API – utilizationResponse JSON Attributes

8.1.4 Request Examples

A sample request for the Utilization Create REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "reportingYear": 2010,
```

```
        "latestStageDev": "Commercialized",
        "firstCommercialSaleYear": 2009,
        "totalIncome": 3000,
        "manufacturingWaiver": 1,
        "manufacturingWaiverTotal": 5,
        "exclusiveLicensesOptions": 6,
        "domesticManufacturingLicenses": 7,
        "nonExclusiveLicensesOptions": 8,
        "smallBusinessLicensesOptions": 3,
        "totalGrossSales": 6500
}
```

A sample request for the Utilization Create REST API using the FDA Commercial Products.

```
{

        "inventionReportNumber": "00490201-21-0001",

        "reportingYear": 2020,

        "latestStageDev": "Commercialized",

        "firstCommercialSaleYear": 2020,

        "totalIncome": 1000,

        "manufacturingWaiver": 1,

        "manufacturingWaiverTotal": 3,

        "exclusiveLicensesOptions": 4,

        "domesticManufacturingLicenses": 5,

        "nonExclusiveLicensesOptions": 2,

        "smallBusinessLicensesOptions": 3,

        "commercialProds": [{

                "commercialName": "Test Prod1",

                "fdaApprovalNumber": "1000001",

                "publicInd": "Yes",

                "govtReviewStatus": "Approved",
```

```
                    "fdaApprovalType": "Drug"

        },

        {

                    "commercialName": "Test Prod3",

                    "fdaApprovalNumber": "1000003",

                    "publicInd": "Yes",

                    "govtReviewStatus": "Approved",

                    "fdaApprovalType": "Medical Device"

        }]

}
```

8.1.5   Response Examples

HTTP Status 200 (OK)

A sample response and error for the Utilization Create REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "granteeOrganizationName": "DAN'S INSTITUTION",
    "inventionTitle": "REST – Create Invention108",
    "primaryAgency": "Army Research Laboratory – Army Research Office",
    "inventionReportDate": "01/31/2022",
    "titleElectDate": "06/10/2022",
    "reportingYear": 2010,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2009,
    "totalIncome": 3000.0,
    "manufacturingWaiver": 1,
    "manufacturingWaiverTotal": 5,
    "exclusiveLicensesOptions": 6,
    "domesticLicenseNumber": 0,
    "nonExclusiveLicensesOptions": 8,
    "smallBusinessLicensesOptions": 3,
    "totalGrossSales": 6500.0
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "Invalid form-data content",
    "errors": [
        {
            "code": "400",
            "field": "reportingYear",
            "message": "Reporting Year (YYYY) * value is required."
        }
    ]
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "message": "Access Denied",
    "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.2   Create Utilization V2

8.2.1   Endpoint URI

Here's an example of the v2 endpoint for the Create Utilization resource.

POST	/iedison/api/v2/utilizations/create

8.2.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the create utilization POST request Header and Body parameters which are expected by the iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v2	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 8-5: Utilization Create API – utilizationRequest JSON Attributes for details.	Yes	String	v2	raw

Table 8-4: Utilization Create API parameters

The table below shows the parameters that will be included in the JSON body during the processing of Create Utilization Request. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata for the utilization that needs to be created.

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention Report number the utilization report is associated with.	Yes	String	25	v2
reportingYear	The year for which the utilization report is being submitted.	Yes	Integer		v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	Yes	String	30	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale). This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
totalIncome	Total income from royalty or option agreements for the Invention. This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Number (float)		v2
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Yes (Conditionally)	Integer		v2

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	In the designated reporting period, how many exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".				
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention. In the designated reporting period, how many non-exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention. How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
IsUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? Accepted values are N (for No) and Y (for Yes). This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	String	1	v2

147

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
IsUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", accepted value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", accepted value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	Yes (Conditionally)	String	3	v2

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
IsUSManufacturingRequired3	1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", accepted value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", accepted value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	Yes (Conditionally)	String	3	v2
notes	General notes.	Yes (Conditionally)	String	1000	v2

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	This is required when commercializationPlanId has a value of 3 or 6.				
commercializationPlanId	The commercialization plan for the invention. What are your current commercialization plans for this invention? This is required when latestStageDev has a value of "Not Licensed or Commercialized". Refer to Section 11.1.20 Utilization Commercialization Plan for a list of valid commercialization plans.	Yes (Conditionally)	Number		v2
exclusiveLicensees	The exclusive licensee names for the invention. This is required when exclusiveLicensesOptions has a value greater than 0.	Yes (Conditionally)	[String]		v2
nonExclusiveLicensees	The non-exclusive licensee names for the invention. This is required when nonExclusiveLicensesOptions has a value greater than 0.	Yes (Conditionally)	[String]		v2
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject	No	**JSON Array**		v2

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	Invention(s). Object attributes below.				
productName	The unique commercial product name.	Yes	String	100	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE invention only.	No	String	6	v2
licensees	The licensees associated with the product.	No	JSON Array		v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	Yes	String	255	v2
manufacturers	The manufacturers for the manufacturing commercial product.	Yes	**JSON Array**		v2
manufacturerName	The name of the manufacturer	Yes	String	255	v2
productLocation	The manufacturing production location(s). Object attributes below.	Yes	JSON Array		v2
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	No	String	30	v2
state	The manufacturing state for the location for applicable country. Refer to Section 1111.10 States List for a list of valid Code values.	No	String	14	v2
firstDate	The first date of manufacturing. MM/DD/YYYY format. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	String	10	v2

Utilization Create API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	String	8	v2
productQuantity	The total number of products at the manufacturing location. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	Integer		v2
commercialProds	FDA Approved Commercial products.	No	**JSON Array**		v2
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable utilization Commercial Product Type values.	No	String	15	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable utilization Government Review Status values.	No	String	10	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	No	String	3	v2

Table 8-5: Utilization Create API – utilizationRequest JSON Attributes

8.2.3   Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Create Utilization API provides the below response parameters.

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v2
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	v2
titleElectDate	The Invention Elect Title Date.	String	v2
reportingYear	The year for which the utilization report is being submitted.	Integer	v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v2
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v2

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v2
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v2
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v2
IsUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? N (for No) and Y (for Yes).	String	v2
IsUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes).	String	v2

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
	If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]		
IsUSManufacturingRequired3	1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	String	v2

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
notes	General notes.	String	v2
commercializationPlanId	The commercialization plan for the invention. What are your current commercialization plans for this invention? Refer to 11.1.20 Utilization Commercialization Plan for a list of valid commercialization plans.	Number	v2
exclusiveLicensees	The exclusive licensee names for the invention.	[String]	v2
nonExclusiveLicensees	The non-exclusive licensee names for the invention.	[String]	v2
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). Object attributes below.	**JSON Array**	v2
productName	The unique commercial product name.	String	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE invention only.	String	v2
licensees	The licensees associated with the product.	**JSON Array**	v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	String	v2
manufacturers	The manufacturers for the manufacturing commercial product.	**JSON Array**	v2

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
manufacturerName	The name of the manufacturer	String	v2
productLocation	The manufacturing production location(s). Object attributes below.	**JSON Array**	v2
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	String	v2
state	The manufacturing state for the location for applicable country. Refer to Section 11.10 States List for a list of valid Code values.	String	v2
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v2
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	String	v2
productQuantity	The total number of products at the manufacturing location.	Integer	v2
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v2
commercialName	The name of the FDA approved commercial product.	String	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable utilization Commercial Product Type values.	String	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable utilization Government Review Status values.	String	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v2
createdDate	The created Date for the utilization record.	String	v2

Utilization Create API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
updatedDate	The last created Date for the utilization record.	String	v2

Table 8-6: Utilization Create API – utilizationResponse JSON Attributes

8.2.4   Request Examples

A sample request for the Utilization Create REST API is shown below:

```
{
    "inventionReportNumber": "8046501-22-0004",
    "reportingYear": 2023,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2023,
    "totalIncome": 50000.0,
    "exclusiveLicensesOptions": 2,
    "nonExclusiveLicensesOptions": 2,
    "smallBusinessLicensesOptions": 10,
    "isUSManufacturingRequired1": "Y",
    "isUSManufacturingRequired2": "N",
    "isUSManufacturingRequired3": "Y",
    "notes": "new utilization notes",
    "exclusiveLicensees": [
        "John Wick",
        "Peter Griffin"
    ],
    "nonExclusiveLicensees": [
        "John Wick",
        "James Doe"
    ],
    "newUsJobs": 100,
    "newUsCompanies": 500,
    "manufacturingCommProds": [
        {
            "productName": "widgets",
            "naicsCode": "ABC123",
            "licensees": [
                {
                    "licenseeName": "John Wick",
```

```
          "manufacturers": [
            {
              "manufacturerName": "Intel",
              "productLocation": [
                {
                  "country": "CHINA"
                },
                {
                  "state": "MARYLAND",
                  "country": "UNITED STATES"
                }
              ]
            },
            {
              "manufacturerName": "IBM",
              "productLocation": [
                {
                  "state": "FLORIDA",
                  "country": "UNITED STATES"
                }
              ]
            }
          ]
        },
        {
          "licenseeName": "James Doe",
          "manufacturers": [
            {
              "manufacturerName": "IBM",
              "productLocation": [
                {
                  "state": "MARYLAND",
                  "country": "UNITED STATES"
                }
              ]
            }
          ]
        }
      ]
```

```
        },
        {
          "productName": "gadgets",
          "licensees": [
            {
              "licenseeName": "STANFORD UNIVERSITY",
              "manufacturers": [
                {
                  "manufacturerName": "Google",
                  "productLocation": [
                    {
                      "state": "COLORADO",
                      "country": "UNITED STATES"
                    }
                  ]
                }
              ]
            },
            {
              "licenseeName": "John Wick",
              "manufacturers": [
                {
                  "manufacturerName": "Apple",
                  "productLocation": [
                    {
                      "state": "TEXAS",
                      "country": "UNITED STATES"
                    }
                  ]
                }
              ]
            }
          ]
        }
      ],
      "commercialProds": [
        {
          "commercialName": "nih prods",
          "fdaApprovalNumber": "1234",
```

```
        "publicInd": "Yes",
        "govtReviewStatus": "Approved",
        "fdaApprovalType": "Medical Device"
      }
    ]
}   ]
}
```

8.2.5   Response Examples

HTTP Status 200 (OK)

A sample response and error for the Utilization Create REST API is shown below:

```
{
    "inventionReportNumber": "8046501-22-0004",
    "granteeOrganizationName": "STANFORD UNIVERSITY",
    "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",
    "primaryAgency": "National Institutes of Health",
    "inventionReportDate": "01/30/2022",
    "titleElectDate": "01/30/2022",
    "reportingYear": 2023,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2023,
    "totalIncome": 50000.0,
    "exclusiveLicensesOptions": 2,
    "nonExclusiveLicensesOptions": 2,
    "smallBusinessLicensesOptions": 10,
    "totalGrossSales": 0.0,
    "isUSManufacturingRequired1": "Y",
    "isUSManufacturingRequired2": "N",
    "isUSManufacturingRequired3": "Y",
    "notes": "new utilization notes",
    "exclusiveLicensees": [
        "John Wick",
        "Peter Griffin"
    ],
    "nonExclusiveLicensees": [
        "John Wick",
        "James Doe"
    ],
    "newUsJobs": 100,
    "newUsCompanies": 500,
    "manufacturingCommProds": [
        {
```

```json
        "productName": "widgets",
        "naicsCode": "ABC123",
        "licensees": [
          {
            "licenseeName": "James Doe",
            "manufacturers": [
              {
                "manufacturerName": "IBM",
                "productLocation": [
                  {
                    "state": "MARYLAND",
                    "country": "UNITED STATES"
                  }
                ]
              }
            ]
          },
          {
            "licenseeName": "John Wick",
            "manufacturers": [
              {
                "manufacturerName": "Intel",
                "productLocation": [
                  {
                    "state": "",
                    "country": "CHINA"
                  },
                  {
                    "state": "MARYLAND",
                    "country": "UNITED STATES"
                  }
                ]
              },
              {
                "manufacturerName": "IBM",
                "productLocation": [
                  {
                    "state": "FLORIDA",
                    "country": "UNITED STATES"
                  }
                ]
              }
            ]
          }
        ]
```

```
        },
        {
          "productName": "gadgets",
          "licensees": [
            {
              "licenseeName": "John Wick",
              "manufacturers": [
                {
                  "manufacturerName": "Apple",
                  "productLocation": [
                    {
                      "state": "TEXAS",
                      "country": "UNITED STATES"
                    }
                  ]
                }
              ]
            },
            {
              "licenseeName": "STANFORD UNIVERSITY",
              "manufacturers": [
                {
                  "manufacturerName": "Google",
                  "productLocation": [
                    {
                      "state": "COLORADO",
                      "country": "UNITED STATES"
                    }
                  ]
                }
              ]
            }
          ]
        }
      ],
      "commercialProds": [
        {
          "commercialName": "nih prods",
          "fdaApprovalNumber": "1234",
          "publicInd": "Yes",
          "govtReviewStatus": "Approved",
          "fdaApprovalType": "Medical Device"
        }
      ],
      "createdDate": "08/11/2023"
```

```
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
   "responseCode": 400,
   "message": "Invalid form-data content",
   "errors": [
     {
        "code": "400",
        "field": "reportingYear",
        "message": "Reporting Year (YYYY) * value is required."
     }
   ]
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
   "message": "Access Denied",
   "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.3   Update Utilization

8.3.1   Endpoint URI

Here's an example of the v1 endpoint for the Update Utilization resource.

| POST | /iedison/api/v1/utilizations/update |

8.3.2   Request Parameters

The API POST request has the following elements:

- **Headers:** these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- **Body:** body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the update utilization POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 8-8: Utilization Create API – utilizationRequest JSON Attributes for details.	Yes	String	v1	form-data

Table 8-7: Utilization Update API Parameters

The table below shows the parameters that will be included in the JSON body during the processing of Update Utilization Request. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Patent that needs to be updated.

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention report number the utilization report is associated with.	Yes	String	25	v1
reportingYear	The year for which the utilization report is being submitted.	Yes	Integer		v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1.1 Invention Development Stage for a list of latest valid values.	Yes	String	30	v1
firstCommercialSaleYear	Year product embodying the Invention was first sold (Date of first commercial sale).	No	Integer		v1
totalIncome	Total income from royalty or option agreements for the Invention.	No	Number (float)		v1
manufacturingWaiver	Used to indicate if a waiver for Manufacturing Requirement has been requested. Accepted values are 0 (for No) and 1 (for Yes). Default: 0.	No	Integer		v1
manufacturingWaiverTotal	Total number of manufacturing waivers obtained.	No	Integer		v1
domesticLicenseNumber	Number of domestic manufacturing licenses.	No	Integer		

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention. In the designated reporting period, how many exclusive licenses and/or options are active?	No	Integer		v1
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention. In the designated reporting period, how many non-exclusive licenses and/or options are active?	No	Integer		v1
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention. How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?	No	Integer		v1
newUsJobs	Approximate number of new US-based jobs created because of commercialization efforts during the reporting period.	No	Integer		v1
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v1
utilizationDescription	Describes how the development and commercialization of the subject Invention comply with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	No	String	1000	v1
totalGrossSales	Total Gross Sales for DOE Invention only.	No	Number		v1
commercialProds	FDA Approved Commercial products.	No	**JSON Array**		v1
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v1

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v1
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable Utilization Commercial Product Type values.	No	String	15	v1
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable Utilization Government Review Status values.	No	String	10	v1
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	No	String	3	v1
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). Object attributes below.	No	**JSON Array**		v1
productName	The unique commercial product name.	Yes	String	100	v1
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments.	No	String	6	v1
productLocation	The manufacturing production location(s). Object attributes below.	No	**JSON Array**		v1
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	Yes	String	30	v1
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	No	String	14	v1
firstDate	The first date of manufacturing. MM/DD/YYYY format.	Yes	String	10	v1

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	Yes	String	8	v1
productQuantity	The total number of products at the manufacturing location.	Yes	Integer		v1

Table 8-8: Utilization Update API – utilizationRequest JSON Attributes

8.3.3 Response Parameters

HTTP Status 200 (OK)

Based on the request parameters, Update Utilization API provides the below response parameters.

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
inventionReportNumber	The Invention Report Number which the utilization record is associated with.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v1
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	v1
titleElectDate	The Invention Elect Title Date.	String	v1
reportingYear	The year for which the utilization report is being submitted.	Integer	v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v1

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
firstCommercialSaleYear	Year product embodying the Invention was first sold (Date of first commercial sale).	Integer	v1
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v1
manufacturingWaiver	Used to indicate if a waiver for Manufacturing Requirement has been requested. 0 (for No) and 1 (for Yes).	Integer	v1
manufacturingWaiverTotal	Total number of manufacturing waivers obtained.	Integer	v1
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v1
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v1
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v1
domesticLicenseNumber	Total number of domestic manufacturing licensees.	Integer	v1
newUsJobs	Approximate number of new US-based jobs created because of commercialization efforts during the reporting period.	Integer	
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	
utilizationDescription	Describe how the development and commercialization of the subject Invention comply with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	String	1000
totalGrossSales	Total Gross Sales for DOE Invention only.	Number	
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v1
commercialName	The name of the FDA approved commercial product.	String	v1
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v1

169

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable Utilization Commercial Product Type values.	String	v1
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable Utilization Government Review Status values.	String	v1
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v1
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). JSON Object attributes below.	JSON Array	v1
productName	The unique commercial product name.	String	v1
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments.	String	v1
productLocation	The manufacturing production location(s). JSON Object attributes below.	**JSON Array**	v1
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	String	v1
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v1
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v1
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	String	v1
productQuantity	The total number of products at the manufacturing location.	Integer	v1

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
createdDate	The created date for the utilization record.	String	v1
updatedDate	The last updated date for the utilization record.	String	v1

Table 8-9: Utilization Update API – utilizationResponse JSON Attributes

8.3.4 Request Example

A sample request for the Patent Update REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "reportingYear": 2010,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2009,
    "totalIncome": 3100,
    "manufacturingWaiver": 1,
    "manufacturingWaiverTotal": 6,
    "exclusiveLicensesOptions": 6,
    "domesticManufacturingLicenses": 7,
    "nonExclusiveLicensesOptions": 8,
    "smallBusinessLicensesOptions": 3,
    "totalGrossSales": 6500
}
```

8.3.5 Response Examples

This section documents the response examples for success, error, and access denied requests.

HTTP Status 200 (OK)

A sample response for the Utilization Update REST API is shown below:

```
{
    "inventionReportNumber": "07654321-22-0103",
    "granteeOrganizationName": "DAN'S INSTITUTION",
    "inventionTitle": "REST - Create Invention108",
    "primaryAgency": "Army Research Laboratory - Army Research Office",
    "inventionReportDate": "01/31/2022",
    "titleElectDate": "06/10/2022",
```

```
    "reportingYear": 2010,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2009,
    "totalIncome": 3100.0,
    "manufacturingWaiver": 1,
    "manufacturingWaiverTotal": 6,
    "exclusiveLicensesOptions": 6,
    "domesticLicenseNumber": 0,
    "nonExclusiveLicensesOptions": 8,
    "smallBusinessLicensesOptions": 3,
    "totalGrossSales": 6500.0,
    "newUsJobs": 0,
    "newUsCompanies": 0
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "Invalid form-data content",
    "errors": [
        {
            "code": "400",
            "field": "reportingYear",
            "message": "Reporting Year (YYYY) * value is required."
        }
    ]
}
```

HTTP Status 401 (Unauthorized)

```
{
    "message": "Access Denied",
    "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.4   Update Utilization V2

8.4.1   Endpoint URI

Here's an example of the v2 endpoint for the Update Utilization resource.

POST	/iedison/api/v2/utilizations/update

8.4.2   Request Parameters

The API POST request has the following elements:

- Headers: These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: Body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the update utilization POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v2	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 8-11: Utilization Create API – utilizationRequest JSON Attributes for details.	Yes	String	v2	raw

Table 8-10: Utilization Update API Parameters

The table below shows the parameters that will be included in the JSON body during the processing of Update Utilization Request. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Patent that needs to be updated.

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention Report number the utilization report is associated with.	Yes	String	25	v2
reportingYear	The year for which the utilization report is being submitted.	Yes	Integer		v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	Yes	String	30	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale). This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
totalIncome	Total income from royalty or option agreements for the Invention. This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Number (float)		v2
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Yes (Conditionally)	Integer		v2

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	In the designated reporting period, how many exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".				
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention. In the designated reporting period, how many non-exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention. How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	Integer		v2
IsUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? Accepted values are N (for No) and Y (for Yes). This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Conditionally)	String	1	v2

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
IsUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", accepted value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", accepted value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	Yes (Conditionally)	String	3	v2

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
IsUSManufacturingRequired3	1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", accepted value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", accepted value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	Yes (Conditionally)	String	3	v2
notes	General notes.	Yes (Conditionally)	String	1000	v2

177

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	Description	Required	Data Type	Length	Version
	This is required when commercializationPlanId has a value of 3 or 6.				
commercializationPlanId	The commercialization plan for the invention. What are your current commercialization plans for this invention?

This is required when latestStageDev has a value of "Not Licensed or Commercialized".

Refer to 11.1.20 Utilization Commercialization Plan for a list of valid commercialization plans. | Yes (Conditionally) | Number | | v2 |
| exclusiveLicensees | The exclusive licensee names for the invention.

This is required when exclusiveLicensesOptions has a value greater than 0. | Yes (Conditionally) | [String] | | v2 |
| nonExclusiveLicensees | The non-exclusive licensee names for the invention.

This is required when nonExclusiveLicensesOptions has a value greater than 0. | Yes (Conditionally) | [String] | | v2 |
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject	No	**JSON Array**		v2

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	Invention(s). Object attributes below.				
productName	The unique commercial product name.	Yes	String	100	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE invention only.	No	String	6	v2
licensees	The licensees associated with the product.	No	**JSON Array**		v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	Yes	String	255	v2
manufacturers	The manufacturers for the manufacturing commercial product.	Yes	**JSON Array**		v2
manufacturerName	The name of the manufacturer	Yes	String	255	v2
productLocation	The manufacturing production location(s). Object attributes below.	Yes	**JSON Array**		v2
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	No	String	30	v2
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	No	String	14	v2
firstDate	The first date of manufacturing. MM/DD/YYYY format. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	String	10	v2
firstDateType	The type for the first date of manufacturing. Please refer to	Yes (Conditionally)	String	8	v2

Utilization Update API – utilizationRequest JSON Attributes					
Request JSON Attribute Name	**Description**	**Required**	**Data Type**	**Length**	**Version**
	11.18 for a list of acceptable type values. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.				
productQuantity	The total number of products at the manufacturing location. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	Integer		v2
commercialProds	FDA Approved Commercial products.	No	**JSON Array**		v2
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable utilization Commercial Product Type values.	No	String	15	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable utilization Government Review Status values.	No	String	10	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	No	String	3	v2

Table 8-11: Utilization Update API – utilizationRequest JSON Attributes

8.4.3 Response Parameters

HTTP Status 200 (OK)

Based on the request parameters, Update Utilization API provides the below response parameters.

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and ve rified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v2
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	v2
titleElectDate	The Invention Elect Title Date.	String	v2
reportingYear	The year for which the utilization report is being submitted.	Integer	v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v2
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v2
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v2
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v2

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v2
IsUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? N (for No) and Y (for Yes).	String	v2
IsUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable).	String	v2

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
	[See 11.21 and 11.22 for the questions logic]		
IsUSManufacturingRequired3	1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See 11.21 and 11.22 for the questions logic]	String	v2
notes	General notes.	String	v2
commercializationPlanId	The commercialization plan for the invention. What are your current commercialization plans for this invention?	Number	v2

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
	Refer to 11.1.20 Utilization Commercialization Plan for a list of valid commercialization plans.		
exclusiveLicensees	The exclusive licensee names for the invention.	[String]	v2
nonExclusiveLicensees	The non-exclusive licensee names for the invention.	[String]	v2
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). Object attributes below.	**JSON Array**	v2
productName	The unique commercial product name.	String	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by federal agencies in classifying business establishments. For DOE invention only.	String	v2
fdaApprovalNumber	The number of the FDA approved commercial product. For NIH Invention only.	String	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable utilization Commercial Product Type values. For NIH Invention only.	String	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable utilization Government Review Status values. For NIH Invention only.	String	v2

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	Description	Data Type	Version
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values. For NIH Invention only.	String	v2
isNih	Indicates whether product is an NIH product. For NIH invention only. Accepted value is Y (for Yes).	String	v2
licensees	The licensees associated with the product.	JSON Array	v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	String	v2
manufacturers	The manufacturers for the manufacturing commercial product.	JSON Array	v2
manufacturerName	The name of the manufacturer	String	v2
productLocation	The manufacturing production location(s). Object attributes below.	**JSON Array**	v2
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	String	v2
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v2
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v2
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	String	v2
productQuantity	The total number of products at the manufacturing location.	Integer	v2
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v2
commercialName	The name of the FDA approved commercial product.	String	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v2

Utilization Update API – utilizationResponse JSON Attributes			
Response JSON Attribute Name	**Description**	**Data Type**	**Version**
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable Utilization Commercial Product Type values.	String	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable Utilization Government Review Status values.	String	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v2
createdDate	The created Date for the utilization record.	String	v2
updatedDate	The last created Date for the utilization record.	String	v2

Table 8-12: Utilization Update API – utilizationResponse JSON Attributes

8.4.4   Request Example

A sample request for the Patent Update REST API is shown below:

```
{
    "inventionReportNumber": "8046501-22-0004",
    "reportingYear": 2023,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2023,
    "totalIncome": 50000.0,
    "exclusiveLicensesOptions": 2,
    "nonExclusiveLicensesOptions": 2,
    "smallBusinessLicensesOptions": 10,
    "isUSManufacturingRequired1": "Y",
    "isUSManufacturingRequired2": "N",
    "isUSManufacturingRequired3": "Y",
    "notes": "new utilization notes",
    "exclusiveLicensees": [
        "John Wick",
```

```
      "Peter Griffin"
    ],
    "nonExclusiveLicensees": [
      "John Wick",
      "James Doe"
    ],
    "newUsJobs": 100,
    "newUsCompanies": 500,
    "manufacturingCommProds": [
      {
        "productName": "motherboards",
        "naicsCode": "ABC123",
        "licensees": [
          {
            "licenseeName": "John Wick",
            "manufacturers": [
              {
                "manufacturerName": "Intel",
                "productLocation": [
                  {
                    "country": "CHINA"
                  },
                  {
                    "state": "MARYLAND",
                    "country": "UNITED STATES"
                  }
                ]
              },
              {
                "manufacturerName": "IBM",
                "productLocation": [
                  {
                    "state": "FLORIDA",
                    "country": "UNITED STATES"
                  }
                ]
              }
            ]
          },
```

```
          {
            "licenseeName": "James Doe",
            "manufacturers": [
              {
                "manufacturerName": "IBM",
                "productLocation": [
                  {
                    "state": "MARYLAND",
                    "country": "UNITED STATES"
                  }
                ]
              }
            ]
          }
        ]
      },
      {
        "productName": "gadgets",
        "licensees": [
          {
            "licenseeName": "STANFORD UNIVERSITY",
            "manufacturers": [
              {
                "manufacturerName": "Google",
                "productLocation": [
                  {
                    "state": "COLORADO",
                    "country": "UNITED STATES"
                  }
                ]
              }
            ]
          },
          {
            "licenseeName": "John Wick",
            "manufacturers": [
              {
                "manufacturerName": "Apple",
                "productLocation": [
```

```
                    {
                        "state": "TEXAS",
                        "country": "UNITED STATES"
                    }
                ]
            }
        ]
    }
    ]
    }
    ],
    "commercialProds": [
        {
            "commercialName": "nih prods",
            "fdaApprovalNumber": "431",
            "publicInd": "Yes",
            "govtReviewStatus": "Pending",
            "fdaApprovalType": "Biologic"
        }
    ]
}
```

8.4.5   Response Examples

This section documents the response examples for success, error, and access denied requests.

HTTP Status 200 (OK)

A sample response for the Utilization Update REST API is shown below:

```
{
    "inventionReportNumber": "8046501-22-0004",
    "granteeOrganizationName": "STANFORD UNIVERSITY",
    "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",
    "primaryAgency": "National Institutes of Health",
    "inventionReportDate": "01/30/2022",
    "titleElectDate": "01/30/2022",
    "reportingYear": 2023,
    "latestStageDev": "Commercialized",
    "firstCommercialSaleYear": 2023,
```

```
    "totalIncome": 50000.0,
    "exclusiveLicensesOptions": 2,
    "nonExclusiveLicensesOptions": 2,
    "smallBusinessLicensesOptions": 10,
    "totalGrossSales": 0.0,
    "isUSManufacturingRequired1": "Y",
    "isUSManufacturingRequired2": "N",
    "isUSManufacturingRequired3": "Y",
    "notes": "new utilization notes",
    "exclusiveLicensees": [
        "John Wick",
        "Peter Griffin"
    ],
    "nonExclusiveLicensees": [
        "John Wick",
        "James Doe"
    ],
    "newUsJobs": 100,
    "newUsCompanies": 500,
    "manufacturingCommProds": [
        {
            "productName": "motherboards",
            "naicsCode": "ABC123",
            "licensees": [
              {
                  "licenseeName": "James Doe",
                  "manufacturers": [
                    {
                        "manufacturerName": "IBM",
                        "productLocation": [
                          {
                              "state": "MARYLAND",
                              "country": "UNITED STATES"
                          }
                        ]
                    }
                  ]
              },
              {
```

```
      "licenseeName": "John Wick",
      "manufacturers": [
        {
          "manufacturerName": "Intel",
          "productLocation": [
            {
              "state": "",
              "country": "CHINA"
            },
            {
              "state": "MARYLAND",
              "country": "UNITED STATES"
            }
          ]
        },
        {
          "manufacturerName": "IBM",
          "productLocation": [
            {
              "state": "FLORIDA",
              "country": "UNITED STATES"
            }
          ]
        }
      ]
    }
  ]
},
{
  "productName": "gadgets",
  "licensees": [
    {
      "licenseeName": "STANFORD UNIVERSITY",
      "manufacturers": [
        {
          "manufacturerName": "Google",
          "productLocation": [
            {
              "state": "COLORADO",
```

```
                            "country": "UNITED STATES"
                        }
                    ]
                }
            ]
        },
        {
            "licenseeName": "John Wick",
            "manufacturers": [
                {
                    "manufacturerName": "Apple",
                    "productLocation": [
                        {
                            "state": "TEXAS",
                            "country": "UNITED STATES"
                        }
                    ]
                }
            ]
        }
    ]
  }
],
"commercialProds": [
  {
    "commercialName": "nih prods",
    "fdaApprovalNumber": "431",
    "publicInd": "Yes",
    "govtReviewStatus": "Pending",
    "fdaApprovalType": "Biologic"
  }
],
"createdDate": "08/11/2023",
"lastUpdatedDate": "08/11/2023"
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
    "responseCode": 400,
    "message": "Invalid form-data content",
    "errors": [
        {
            "code": "400",
            "field": "reportingYear",
            "message": "Reporting Year (YYYY) * value is required."
        }
    ]
}
```

HTTP Status 401 (Unauthorized)

```
{
    "message": "Access Denied",
    "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.5   Search Utilization

Search conditions for Utilization Records Search is based on the AND operation with different Utilization Records Fields in JSON Request.

For Example, if the Utilization Records search has Invention Report Number and Invention Report Year, the search results include all the searches that matches Invention Report Number and Invention Report Year.

8.5.1   Endpoint URI

Here's an example of the v1 endpoint for the Search Utilization resource.

POST	/iedison/api/v1/utilizations/search

8.5.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns

the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.

- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search utilization POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Data Type	Version	In
accept	Setting to application/json.	String	v1	header
utilizationSearchCriteria	The search utilization criteria filters in JSON String format.	String	v1	form-data

Table 8-13: Utilization Search API Parameters

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Utilization Request.

Utilization Search API – utilizationSearchCriteria JSON Attributes				
Request Parameter	Description	Data Type	Length	Version
limit	Total number of records to be retrieved per page. This field must be a number. Max Value = 100. The Default = 20.	Integer		v1
offset	Indicates the page index. Default offset starts with 0.	Integer		v1
inventionReportNumber	The Invention Report Number filter to search for utilization.	String	25	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	30	v1
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	50	v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	30	v1

Utilization Search API – utilizationSearchCriteria JSON Attributes				
Request Parameter	**Description**	**Data Type**	**Length**	**Version**
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	50	v1
granteeOrganization Name	The name of the organization established at registration.	String	100	v1
titleElectionStatus	The Title Election Status the institution's decision regarding the election of title for this Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	Array [String]	50	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractor's employee's Invention Report.	String	255	
inventionReportDate From	The From Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v1
inventionReportDate To	The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v1
fiscalYear	The year for which the utilization report is being submitted.	Int	50	v1
commercialProductN ame	The name of the product that was developed.	String	80	v1
fdaApprovalNumber	FDA Approval Number.	String	20	v1
fdaReportType	FDA Report Type			
lastUpdatedFrom	The 'start from' search date against the utilization last updated date. MM/DD/YYYY format.	String	10	v1
lastUpdatedTo	The 'up to' search date against the utilization last updated date. MM/DD/YYYY format.	String	10	v1

Table 8-14: Utilization Search API – utilizationSearchCriteria JSON Attributes

8.5.3 Response Parameters

Based on request parameters, Search Utilization provides the below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
limit	Limit entered by a user while making the request, i.e., the total number of records the user wished to retrieve per page	Integer	v1
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request.	Integer	v1
utilizations	A list of utilizations.	Array [UtilizationResponse]	

Table 8-15: Utilization Search API – utilizationSearchCriteria JSON Attributes

The following table contains the UtilizationResponse for the response list.

Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	The Invention Report Number the utilization record is associated with.	String	v1
granteeOrganizationName	The name of the organization established at registration.	String	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v1
inventionReportDate	The date the inventor disclosed the subject	String	v1

Response JSON Attribute Name	Description	Data Type	Version
	Invention in writing to the recipient institution. MM/DD/YYYY format.		
titleElectDate	The Invention Elect Title Date.	String	v1
reportingYear	The year for which the utilization report is being submitted.	Integer	v1
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v1
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v1
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v1
manufacturingWaiver	Used to indicate if a waiver for Manufacturing Requirement has been requested. 0 (for No) and 1 (for Yes).	Integer	v1
manufacturingWaiverTotal	Total number of manufacturing waivers obtained.	Integer	v1
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v1
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v1

Response JSON Attribute Name	Description	Data Type	Version
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v1
domesticLicenseNumber	Total number of domestic manufacturing licensees.	Integer	v1
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period.	Integer	
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	
utilizationDescription	Describe how the development and commercialization of the subject Invention comply with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	String	1000
totalGrossSales	Total Gross Sales for DOE Invention only.	Number	
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v1
commercialName	The name of the FDA approved commercial product.	String	v1

Response JSON Attribute Name	Description	Data Type	Version
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v1
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable Utilization Commercial Product Type values.	String	v1
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable Utilization Government Review Status values.	String	v1
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v1
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). JSON Object attributes below.	**JSON Array**	v1
productName	The unique commercial product name.	String	v1
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying	String	v1

Response JSON Attribute Name	Description	Data Type	Version
	business establishments.		
productLocation	The manufacturing production location(s). JSON Object attributes below.	**JSON Array**	v1
country	The manufacturing country for the location. Please refer to 11.9 for a list of acceptable country values.	String	v1
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v1
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v1
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	String	v1
productQuantity	The total number of products at the manufacturing location.	Integer	v1
createdDate	The created date of the utilization record. MM/DD/YYYY format.	String	v1
updatedDate	The updated date of the utilization record. MM/DD/YYYY format.	String	v1

Table 8-16: Utilization Search API – UtilizationResponse JSON Attributes

8.5.4   Request Example

Below is a sample of the utilizationSearchCriteria string for the Search Utilization REST API.

200

- Search by inventionTitle and fiscalYear example

```
{
    "inventionTitle": "Free-space time-domain method for measuring thin film dielectric properties",
    "fiscalYear": 2001
}
```

- Search by grantContractNumber example

```
{
    "grantContractNumber": "SB222222B2222"
}
```

8.5.5 Response Example

This section documents the response examples for success, error, and access denied requests.

HTTP Status 200 (OK)

A sample success response for the Utilization Search REST API is shown below:

```
{
    "utilizations": [
        {
            "inventionReportNumber": "07654321-22-0058",
            "granteeOrganizationName": "DAN'S INSTITUTION",
            "inventionTitle": "Test notification 311",
            "primaryAgency": "National Institute of Standards and Technology",
            "inventionReportDate": "04/18/2022",
            "reportingYear": 2011,
            "latestStageDev": "Commercialized",
            "manufacturingWaiver": 0
        }
    ],
    "totalRecords": 1,
    "limit": 1,
    "offset": 0
}
```

HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
   "responseCode": 400,
   "message": "Invalid form-data content",
   "errors": [
      {
         "code": "400",
         "field": "utilizationSearchCriteria",
         "message": "There in one of more JSON field not vaild:  'fiscaldaYear'. Please verify the Rest
parameters and submit request again."
      }
   ]
}
```

HTTPS 401 (Unauthorized)

```
{
   "message": "Access Denied",
   "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.6   Search Utilization V2

Search conditions for Utilization Records Search is based on the AND operation with different Utilization Records Fields in JSON Request.

For Example, if the Utilization Records search has Invention Report Number and Invention Report Year, the search results include all the searches that matches Invention Report Number and Invention Report Year.

8.6.1   Endpoint URI

Here's an example of the v2 endpoint for the Search Utilization resource.

POST	/iedison/api/v2/utilizations/search

8.6.2   Request Parameters

The API POST request has the following elements:

- Headers: These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.

- Body: Body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search utilization POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Data Type	Version	In
accept	Setting to application/json.	String	v2	header
utilizationSearchCriteria	The search utilization criteria filters in JSON String format.	String	v2	raw

Table 8-17: Utilization Search API Parameters

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Utilization Request.

Request Parameter	Description	Data Type	Length	Version
limit	Total number of records to be retrieved per page. This field must be a number. Max Value = 100. The Default = 20.	Integer		v2
offset	Indicates the page index. Default offset starts with 0.	Integer		v2
inventionReportNumber	The Invention Report Number filter to search for utilization.	String	25	v2
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	30	v2
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	50	v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	30	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	50	v2

Request Parameter	Description	Data Type	Length	Version
granteeOrganizationName	The name of the organization established at registration.	String	100	v2
titleElectionStatus	The Title Election Status the institution's decision regarding the election of title for this Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	Array [String]	50	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	255	v2
inventionReportDateFrom	The From Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v2
inventionReportDateTo	The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	String	10	v2
fiscalYear	The year for which the utilization report is being submitted.	Int	50	v2
commercialProductName	The name of the product that was developed.	String	80	v2
fdaApprovalNumber	FDA Approval Number	String	20	v2
fdaReportType	FDA Report Type			v2
lastUpdatedFrom	The 'start from' search date against the utilization last updated date. MM/DD/YYYY format.	String	10	v2
lastUpdatedTo	The 'up to' search date against the utilization last updated date. MM/DD/YYYY format.	String	10	v2

Table 8-18: Utilization Search API – utilizationSearchCriteria JSON Attributes

8.6.3   Response Parameters

Based on request parameters, Search Utilization provides the below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v2
limit	Limit entered by a user while making the request, i.e., the total number of records the user wished to retrieve per page	Integer	v2
offset	Page index specified by a user. Default offset starts with 0 if user does not provide any offset in the request.	Integer	v2
utilizations	A list of utilizations.	Array [UtilizationResponse]	v2

Table 8-19: Utilization Search API – utilizationSearchCriteria JSON Attributes

The following table contains the UtilizationResponse for the response list.

Response JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	String	v2
granteeOrganizationName	The name of the organization established at registration.	String	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 11.8 Agency Mapping List for a list of valid abbreviations.	String	v2
inventionReportDate	The date the inventor discloses the subject Invention in writing to the	String	v2

Response JSON Attribute Name	Description	Data Type	Version
	recipient institution. MM/DD/YYYY format.		
titleElectDate	The Invention Elect Title Date.	String	v2
reportingYear	The year for which the utilization report is being submitted.	Integer	v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 11.1 Invention Development Stage for a list of latest valid values.	String	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v2
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v2
exclusiveLicensesOptions	Number of exclusive licenses / option agreements for the Invention.	Integer	v2
nonExclusiveLicensesOptions	Number of non-exclusive licenses / option agreements for the Invention.	Integer	v2
smallBusinessLicensesOptions	Number of small business licenses / option agreements for the Invention.	Integer	v2
isUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? N (for No) and Y (for Yes).	String	v2
isUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the	String	v2

Response JSON Attribute Name	Description	Data Type	Version
	exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable).		

Response JSON Attribute Name	Description	Data Type	Version
	[See 11.21 and 11.22 for the questions logic]		
isUSManufacturingRequired3	1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1	String	v2

Response JSON Attribute Name	Description	Data Type	Version
	is "N", the value for this attribute can be "N" (for No), or "Y" (for Yes), or "N/A" (for Not Applicable). [See See 11.21 and 11.22 for the questions logic]		
notes	General notes.	String	v2
commercializationPlanId	The commercialization plan for the invention. What are your current commercialization plans for this invention? Refer to 11.1.20 Utilization Commercialization Plan for a list of valid commercialization plans.	Number	v2
exclusiveLicensees	The exclusive licensee names for the invention.	[String]	v2
nonExclusiveLicensees	The non-exclusive licensee names for the invention.	[String]	v2
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2
utilizationDescription	Describe how the development and commercialization of the subject Invention complies with any required U.S. manufacturing requirements (e.g., U.S. Preference, a U.S. Competitive Clause, U.S. Manufacturing Plan, etc.) For DOE Invention only.	String	v2

Response JSON Attribute Name	Description	Data Type	Version
manufacturingCommProds	The manufacturing commercial products made through the use of or Embodying the Subject Invention(s). Object attributes below.	**JSON Array**	v2
productName	The unique commercial product name.	String	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE invention only.	String	v2
fdaApprovalNumber	The number of the FDA approved commercial product. For NIH Invention only.	String	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable utilization Commercial Product Type values. For NIH Invention only.	String	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable utilization Government Review Status values. For NIH Invention only.	String	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values. For NIH Invention only.	String	v2

Response JSON Attribute Name	Description	Data Type	Version
isNih	Indicates whether product is an NIH product. For NIH invention only. Accepted value is Y (for Yes).	String	v2
licensees	The licensees associated with the product.	JSON Array	v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	String	v2
Manufacturers	The manufacturers for the manufacturing commercial product.	**JSON Array**	v2
manufacturerName	The name of the manufacturer	String	v2
productLocation	The manufacturing production location(s). Object attributes below.	**JSON Array**	v2
country	The manufacturing country for the location. Refer to 11.9 Country List for a list of valid country Name values.	String	v2
state	The manufacturing state for the location for applicable country. Refer to Section 11.1.10 States List for a list of valid Code values.	String	v2
firstDate	The first date of manufacturing. MM/DD/YYYY format.	String	v2
firstDateType	The type for the first date of manufacturing. Please refer to 11.18 for a list of acceptable type values.	String	v2
productQuantity	The total number of products at the manufacturing location.	Integer	v2

Response JSON Attribute Name	Description	Data Type	Version
commercialProds	FDA Approved Commercial products. Object Attributes are below.	**JSON Array**	v2
commercialName	The name of the FDA approved commercial product.	String	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to section 11.15 in Appendix for a list of acceptable Utilization Commercial Product Type values.	String	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to section 11.16 in Appendix for a list of acceptable Utilization Government Review Status values.	String	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to section 11.17 in Appendix for a list of acceptable utilization commercial product Public Announced values.	String	v2
createdDate	The created Date for the utilization record.	String	v2
updatedDate	The last created Date for the utilization record.	String	v2

Table 8-20: Utilization Search API – UtilizationResponse JSON Attributes

8.6.4 Request Example

Below is a sample of the utilizationSearchCriteria string for the Search Utilization REST API.

- Search by inventionTitle and fiscalYear example

```
{
    "inventionTitle": "Free-space time-domain method for measuring thin film dielectric properties",
    "fiscalYear": 2001
}
```

- Search by grantContractNumber example

```
{
    "grantContractNumber": "SB222222B2222"
}
```

8.6.5   Response Example

This section documents the response examples for success, error, and access denied requests.

HTTP Status 200 (OK)

A sample success response for the Utilization Search REST API is shown below:

```
{
    "utilizations": [
        {
            "inventionReportNumber": "8046501-22-0004",
            "granteeOrganizationName": "STANFORD UNIVERSITY",
            "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",
            "primaryAgency": "National Institutes of Health",
            "inventionReportDate": "01/30/2022",
            "titleElectDate": "01/30/2022",
            "reportingYear": 2023,
            "latestStageDev": "Commercialized",
            "firstCommercialSaleYear": 2023,
            "totalIncome": 50000.0,
            "exclusiveLicensesOptions": 2,
            "nonExclusiveLicensesOptions": 2,
            "smallBusinessLicensesOptions": 10,
            "totalGrossSales": 0.0,
            "isUSManufacturingRequired1": "Y",
            "isUSManufacturingRequired2": "N",
            "isUSManufacturingRequired3": "Y",
            "notes": "new utilization notes",
            "exclusiveLicensees": [
                "John Wick",
                "Peter Griffin"
            ],
            "nonExclusiveLicensees": [
```

```
        "James Doe",
        "John Wick"
    ],
    "newUsJobs": 100,
    "newUsCompanies": 500,
    "manufacturingCommProds": [
        {
            "productName": "gadgets",
            "licensees": [
                {
                    "licenseeName": "STANFORD UNIVERSITY",
                    "manufacturers": [
                        {
                            "manufacturerName": "Google",
                            "productLocation": [
                                {
                                    "state": "COLORADO",
                                    "country": "UNITED STATES"
                                }
                            ]
                        }
                    ]
                },
                {
                    "licenseeName": "John Wick",
                    "manufacturers": [
                        {
                            "manufacturerName": "Apple",
                            "productLocation": [
                                {
                                    "state": "TEXAS",
                                    "country": "UNITED STATES"
                                }
                            ]
                        }
                    ]
                }
            ]
        },
        {
            "productName": "motherboards",
            "naicsCode": "ABC123",
            "licensees": [
                {
                    "licenseeName": "James Doe",
```

```
        "manufacturers": [
            {
                "manufacturerName": "IBM",
                "productLocation": [
                    {
                        "state": "MARYLAND",
                        "country": "UNITED STATES"
                    }
                ]
            }
        ]
    },
    {
        "licenseeName": "John Wick",
        "manufacturers": [
            {
                "manufacturerName": "Intel",
                "productLocation": [
                    {
                        "state": "MARYLAND",
                        "country": "UNITED STATES"
                    },
                    {
                        "state": "",
                        "country": "CHINA"
                    }
                ]
            },
            {
                "manufacturerName": "IBM",
                "productLocation": [
                    {
                        "state": "FLORIDA",
                        "country": "UNITED STATES"
                    }
                ]
            }
        ]
    }
]
}
],
"commercialProds": [
    {
        "commercialName": "nih prods",
```

```
                "fdaApprovalNumber": "431",
                "publicInd": "Yes",
                "govtReviewStatus": "Pending",
                "fdaApprovalType": "Biologic"
            }
        ],
        "createdDate": "08/11/2023",
        "lastUpdatedDate": "08/11/2023"
    }
],
"totalRecords": 1,
"limit": 100,
"offset": 0
}
```

8.6.5.1   HTTP Status 400 (Bad Request) or 500 (Internal Server Error)

```
{
   "responseCode": 400,
   "message": "Invalid form-data content",
   "errors": [
      {
         "code": "400",
         "field": "utilizationSearchCriteria",
         "message": "There in one of more JSON field not 216ilen:  'fiscaldaYear'. Please verify the Rest
parameters and submit request again."
      }
   ]
}
```

HTTPS 401 (Unauthorized)

```
{
   "message": "Access Denied",
   "timestamp": "2022-06-10T09:58:10.534055700"
}
```

9   Document API Reference

The document APIs provide ways to search for a list of disclosure document, Confirmatory License, Government Support Clause, and others document type from the Inventions and Patents; or download a specific document.

9.1 Search Document

Search condition for documents is the combination of attributes of the SearchDocumentCriteria JSON object. System only will return documents which granted access permission to the user's organization.

9.1.1 Endpoint URI

Here's an example of the v1 endpoint for the Search Documents resource.

POST	/iedison/api/v1/documents/search

9.1.2 Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search download document POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
documentSearchCriteria	The documentSearchCriteria json objects containing fields to be used in the search. See table below.	Yes	String	v1	form-data

Table 9-1

The table below shows the parameters that will be included in the JSON body during the processing of Document Search Request. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata for the search criteria. The search will retrieve Invention documents only. If the JSON object contains Patent documents, then the search will retrieve Patent documents only.

Request Parameter	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Refer to Section 10.1.8 Agency Mapping List for a list of valid abbreviations.	No	String	30	v1
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
titleElectionStatus	The current status of the title to rights in the reported Invention. Refer to Section 11.1.11 Title Election Status for a list of valid values.	No	String	80	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	No	String	255	v1
inventionReportDateFrom	The From Date that the inventor disclosed in the subject Invention in	No	String	10	v1

Request Parameter	Description	Required	Data Type	Length	Version
	writing to the recipient institution. MM/DD/YYYY format.				
inventionReportDateTo	The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. MM/DD/YYYY format.	No	String	10	v1
patentFilingDateFrom	The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date. MM/DD/YYYY format.	No	String	10	v1
patentFilingDateTo	The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. MM/DD/YYYY format.	No	String	10	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 11.1.3 Patent Application Types for a list of valid values.	No	String	25	v1
patentStatus	Used to identify the current status of a Patent. Refer to Section 11.1.7 Patent Status for a list of valid values.	No	String	50	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	No	String	50	v1
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	No	String	50	v1
inventorFirstName	First name of an inventor.	No	String	50	v1
inventorLastName	Last name of an inventor.	No	String	50	v1

Request Parameter	Description	Required	Data Type	Length	Version
lastUpdatedFrom	Search the "From Date" of the document last updated date, MM/DD/YYYY format.	No	String	10	v1
lastUpdatedTo	Search the "To Date" of the document last updated date, MM/DD/YYYY format.	No	String	10	v1
lastUpdatedDate	Document last updated date, MM/DD/YYYY format.	No	String	10	v1
limit	Total number of records to be retrieved per page. This field must be a number Max Value = 100. The Default = 20.	No	Integer		v1
offset	Indicates the page index. Default offset starts with 0.	No	Integer		v1

Table 9-2

9.1.3 Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

9.1.3.1 HTTP Status 200 (OK)

Based on the request parameters, Document Search API provides the below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
documentsList	A list of document response Objects. Table 7-14 below lists the JSON object attributes.	Object Array	v1
limit	The limit used in the request	Integer	v1
offset	The offset used in the request	Integer	v1

Table 9-3

Below are the document response Object attributes.

Response Parameter	Description	Data Type	Version
inventionReportNumber	System generated sequence number used for ID of the Patent.	String	v1
patentDocketNum	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
documentType	The unique identifier for document category types.	Number	v1
documentTypeName	The name of document category types.	String	v1
documentID	Unique identifier.	String	v1
fileName	Name of the download file.	String	v1
documentCreateDate	Date document was created.	String	v1
documentUpdateDate	Last document update date.	String	v1

Table 9-4

9.1.4 Request and Response Examples

A sample request for the Document Search REST API is shown below (documentSearchCriteria):

```
{
        "inventionReportNumber": "7654321-22-0181"
}
```

A sample response and error for the Document Search REST API is shown below:

```
{
  "documentsList": [
    {
      "inventionReportNumber": "7654321-22-0181",
      "documentType": 6,
      "documentTypeName": "General",
      "documentID": 739268034,
      "fileName": "1408.txt",
      "documentCreateDate": "2022-10-28 10:26:32",
      "documentUpdateDate": "2022-11-02 11:20:58"
    },
    {
      "inventionReportNumber": "7654321-22-0181",
      "documentType": 9,
      "documentTypeName": "Invention Disclosure",
      "documentID": 739267910,
      "fileName": "1320_7654321-22-0181.txt",
      "documentCreateDate": "2022-10-18 20:22:41",
      "documentUpdateDate": "2022-11-02 11:20:58"
```

```
    },
    {
        "inventionReportNumber": "7654321-22-0181",
        "documentType": 6,
        "documentTypeName": "General",
        "documentID": 739268013,
        "fileName": "1717.txt",
        "documentCreateDate": "2022-10-26 16:04:18",
        "documentUpdateDate": "2022-11-02 11:20:58"
    },
    {
        "inventionReportNumber": "7654321-22-0181",
        "documentType": 20,
        "documentTypeName": "Publication",
        "documentID": 739268014,
        "fileName": "1361.txt",
        "documentCreateDate": "2022-10-26 16:05:30",
        "documentUpdateDate": "2022-11-02 11:20:58"
    }
  ],
  "totalRecords": 4
}
```

A sample request for the Document Search REST API is shown below:

inventionReportNumber + patentDocketNumber

```
{
        "inventionReportNumber": "7654321-22-0181",
         "patentDocketNumber": "22-0181-01"
}
```

A sample response and error for the Document Search REST API is shown below:

```
{

 "documentsList": [
     {
        "inventionReportNumber": "7654321-22-0181",
        "patentDocketNum": "22-0181-01",
        "documentType": 2,
        "documentTypeName": "Confirmatory License",
        "documentID": 739268015,
        "fileName": "confirmatorylicense338527583338529874.pdf",
        "documentCreateDate": "2022-10-26 16:12:15",
```

```
            "documentUpdateDate": "2022-11-02 17:15:16"
        },
        {
            "inventionReportNumber": "7654321-22-0181",
            "patentDocketNum": "22-0181-01",
            "documentType": 7,
            "documentTypeName": "Government Support Clause",
            "documentID": 739268016,
            "fileName": "Government Support Clause338529874.txt",
            "documentCreateDate": "2022-10-26 16:12:16",
            ""documentUpdateDate": "2022-11-02 11:20:58"
        },
        {
            "inventionReportNumber": "7654321-22-0181",
            "patentDocketNum": "22-0181-01",
            "documentType": 17,
            "documentTypeName": "Waiver",
            "documentID": 739268017,
            "fileName": "1307338529874.txt",
            "documentCreateDate": "2022-10-26 16:12:17",
            "documentUpdateDate": "2022-11-02 11:20:58"
        }
    ],
    "totalRecords": 3
}
```

9.2   Download Document

The Download Document API requires a document ID. This information is available by performing a document search which returns one or multiple records. Each returned document will have its document ID.

9.2.1   Endpoint URI

Here's an example of the v1 endpoint for the Download files.

POST	/iedison/api/v1/documents/download

9.2.2   Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns

the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.

- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the download document file POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to */*	Yes	String	v1	header
document	The document json objects containing fields to be used in the search download file. See table below.	Yes	String	v1	form-data

Table 9-5

The table below shows the parameters that will be included in the JSON body during the processing of Document Search Request. The below parameters are included as a JSON object in JSON body. The JSON object represents the metadata for the search criteria. The search will retrieve Invention documents only. If the JSON object contains a Patent document, the search will retrieve Patent documents only.

Request Parameter	Description	Required	Data Type	Length	Version
documentID	Unique document identifier.	Yes	Number		v1

Table 9-6

9.2.3   Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, the Document Search API provides the below response parameters.

9.2.4   Request and Response Examples
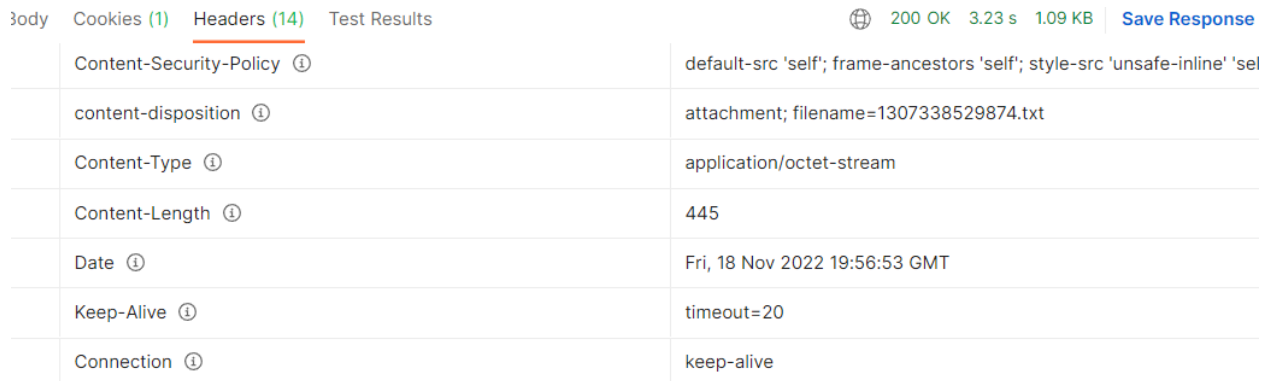
Response Parameter	Description	Data Type	Version
file	The actual file document.	Input stream	v1

A sample request for the Document Download REST API is shown below:

```
{
        "documentID": 739268017
}
```

A sample response for the Document Download REST API is shown below:

The response header contains the filename in the content-disposition header attribute (see below image for example).

10 Notification API Reference

The notification APIs provide ways to search for a list of pending notifications. Search condition for notifications is the combination of attributes of the NotificationSearchCriteria JSON object. System only will return pending notifictions which granted access permission to the user's organization.

10.1 Endpoint URI

Here's an example of the v1 endpoint for the Search Notifications resource.

POST	/iedison/api/v1/notifications/search

10.2 Request Parameters

The API POST request has the following elements:

- Headers: these are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. This Accept header is required in all requests.
- Body: body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the search download document POST request Header and Body parameters which are expected by iEdison API.

Request Parameters	Description	Required	Data Type	Version	In
accept	Setting to application/json.	Yes	String	v1	header
notificationSearchCriteria	The notificationSearchCriteria json objects containing fields to be used in the search. See table below.	Yes	String	v1	form-data

Table 10-1

The table below shows the parameters that will be included in the JSON body during the processing of Document Search Request. The below parameters are included as JSON object in JSON body. The JSON object represents the metadata for the search criteria.

Request Parameter	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by the iEdison system for a new Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
patentDocketNumber	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to	No	String	30	v1

Request Parameter	Description	Required	Data Type	Length	Version
	help track a reported Patent(s).				
messageNumber	Search for the "MessageNumber" of a pending notification	No	Integer	4	v1
fiscalYear	Search for the "FiscalYear" of a pending notification in the format 4-digit "YYYY"	No	Integer	4	v1
postedDateFrom	Search the "From Date" of a notification posting date, MM/DD/YYYY format.	No	String	10	v1
postedDateTo	Search the "To Date" of a notification posting date, MM/DD/YYYY format.	No	String	10	v1
dueDateFrom	Search the "From Date" of a notification due date, MM/DD/YYYY format.	No	String	10	v1
dueDateTo	Search the "To Date" of a notification due date, MM/DD/YYYY format.	No	String	10	v1
limit	Total number of records to be retrieved per page. This field must be a number Max Value = 100. The Default = 20.	No	Integer		v1

Request Parameter	Description	Required	Data Type	Length	Version
offset	Indicates the page index. Default offset starts with 0.	No	Integer		v1

Table 10-2

10.3 Response Parameters

This section documents the response JSON objects, attributes, and types for a success or error response.

HTTP Status 200 (OK)

Based on the request parameters, Document Search API provides the below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
notificationsList	A list of notification response Objects. Table below lists the JSON object attributes.	Object Array	v1
limit	The limit used in the request	Integer	v1
offset	The offset used in the request	Integer	v1

Table 10-3: Response Parameters

Below are the notification response Object attributes.

esponse Parameter	Description	Data Type	Version
inventionReportNumber	System generated sequence number used for ID of the Patent.	String	v1
patentDocketNum	The Patent Docket Number field is for an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
messageNumber	The Message Number of a notification	Number	v1
messageDescription	The Message Description of a notification		
organization	The recipient organization of a notification. It can be either be a federal agency of a grant contractor	String	v1
fiscalYear	The Fiscal Year of a notification.	Number	V1
status	The Status (Active/Inactive) of a notification.	String	V1
postedDate	Date when the notification was posted.	String	v1
dueDate	The Due Date of a notification.	String	v1

Table 10-4: Notification Response Object Attributes

10.4 Request and Response Examples

A sample request for the Notification Search REST API is shown below (notificationSearchCriteria):

```
{
    "inventionReportNumber": "7654321-0",
    "messageNumber": 310,
    "fiscalYear":2019
}
```

A sample response and error for the notification Search REST API is shown below:

```
{
    "notifications": [
        {
            "inventionReportNumber": "7654321-03-0010",
            "patentDocketNumber": "N/A",
            "messageNumber": 310,
            "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
            "organization": "DAN'S INSTITUTION",
            "fiscalYear": 2019,
            "status": "Active",
            "postedDate": "2020-12-31 19:05:01",
            "dueDate": "2019-12-31 19:00:00"
        },
        {
            "inventionReportNumber": "7654321-04-0039",
            "patentDocketNumber": "N/A",
            "messageNumber": 310,
            "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
            "organization": "DAN'S INSTITUTION",
            "fiscalYear": 2019,
            "status": "Active",
            "postedDate": "2020-12-31 19:05:01",
            "dueDate": "2019-12-31 19:00:00"
        },
        {
            "inventionReportNumber": "7654321-04-0023",
            "patentDocketNumber": "N/A",
            "messageNumber": 310,
            "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
            "organization": "DAN'S INSTITUTION",
            "fiscalYear": 2019,
            "status": "Active",
            "postedDate": "2022-04-03 02:00:13",
            "dueDate": "2019-12-31 19:00:00"
        },
        {
            "inventionReportNumber": "7654321-05-0064",
            "patentDocketNumber": "N/A",
            "messageNumber": 310,
```

```
        "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
        "organization": "DAN'S INSTITUTION",
        "fiscalYear": 2019,
        "status": "Active",
        "postedDate": "2022-09-08 22:00:03",
        "dueDate": "2019-12-31 19:00:00"
      }
  ],
  "totalRecords": 4,
  "limit": 100,
  "offset": 0
}
```

```
{
  "notifications": [
    {
      "inventionReportNumber": "7654321-03-0010",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0039",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0023",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2022-04-03 02:00:13",
```

```
            "dueDate": "2019-12-31 19:00:00"
        },
        {
            "inventionReportNumber": "7654321-05-0064",
            "patentDocketNumber": "N/A",
            "messageNumber": 310,
            "organization": "DAN'S INSTITUTION",
            "fiscalYear": 2019,
            "status": "Active",
            "postedDate": "2022-09-08 22:00:03",
            "dueDate": "2019-12-31 19:00:00"
        }
    ],
    "totalRecords": 4,
    "limit": 120,
    "offset": 0
}
```

11 Lookup Values

The tables below contain lookup values used in the API.

11.1 Invention Development Stage

List of available Invention Development Stages

Value
Commercialized
Licensed
Not Licensed

11.2 Patent Filing Status

List of available Patent filing status

Value
Active
Expired
Abandoned

11.3 Patent Application Types

List of available Patent Application Types

Patent Application Type	Description	Notes
CIP	Continuation-In-Part	Active Patent application type. This can be used in the Patent create and update API requests.
CON	Continuation	Active Patent application type. This can be used in the Patent create and update API requests.
CPA	Continued Prosecution Application	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
DIV	Divisional	Active Patent application type. This can be used in the Patent create and update API requests.
FWC	File Wrapper Continuing	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
ORD	Ordinary Utility	Active Patent application type. This can be used in the Patent create and update API requests.
PROV	Provisional	Active Patent application type. This can be used in the Patent create and update API requests.
PVP	Plant Variety Protection	Active Patent application type. This can be used in the Patent create and update API requests.
RCE	Request for Continued Examination	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
PCT	PCT Designating the US	Active Patent application type. This can be used in the Patent create and update API requests.

11.4 Award Type

List of the Invention funding agreement Award types

Value
Prime Award
Sub-Award

11.5 Agreement Types

List of available Agreement Types

Value
Cooperative Agreement
Grant
Contract
ACT = DoE Specific
Other Funding Agreement

11.6 Inventor US Federal Employee

Value
true
false

11.7 Patent Status

The iEdison Patent status list of value.

Value	Notes
Transferred/Assigned	This status value shall not be used in API request. Organization needs to use the UI to submit a Transfer Patent Request.
Voided	This status value shall not be used in API request. Organization needs to use the UI to submit a Void Patent Request.
Expired	This status value shall be used for the Patent Application Types of DIV, ORD, PVP, CIP, and CON
Abandoned/Intent to Abandon	This value can be used for both organization and agency clients in the Patent request
Institution Retains Rights	This value can be used for both organization and agency clients in the Patent request

11.8 Agency Mapping List

Click here to see list of all iEdison enrolled agencies. Be advised that you cannot use the API for agencies that have the following red notice "**THIS AGENCY IS CURRENTLY INACTIVE IN IEDISON**"

11.9 Country List

A list of valid country Names and FIPs Country Codes.

Name	FIPs Country Codes
AFGHANISTAN	AF
African Intellectual Property Organization	OAPI
African Regional Intellectual Property Organization	ARIPO
ALBANIA	AL
ALGERIA	AG
ANDORRA	AN
ANGOLA	AO
ANGUILLA	AV
ANTIGUA/BARBUD	AC
ARGENTINA	AR
ARMENIA	AM
ARUBA	AA
AUSTRALIA	AS
AUSTRIA	AU
AZERBAIJAN	AJ
BAHAMAS	BF
BAHRAIN	BA
BANGLADESH	BG
BARBADOS	BB
BELARUS	BO
BELGIUM	BE
BELIZE	BH
BENIN	BN
BERMUDA	BD
BHUTAN	BT
BOLIVIA	BL
BOSNIA/HERZEG	BK
BOTSWANA	BC
BRAZIL	BR
BRITISH VI ISS	VI
BRUNEI	BX
BULGARIA	BU
BURKINA	UV
BURUNDI	BY
CABO VERDE	CV
CAMBODIA	CB
CAMEROON	CM
CANADA	CA

Name	FIPs Country Codes
CAYMAN ISLANDS	CJ
CENTRAL AFR R	CT
CHAD	CD
CHILE	CI
CHINA	CH
COLOMBIA	CO
COMOROS	CN
CONGO	CF
CONGO DEM REP	CG
COSTA RICA	CS
COTE D'IVOIRE	IV
CROATIA	HR
CUBA	CU
CYPRUS	CY
CZECH REPUBLIC	EZ
DENMARK	DA
DJIBOUTI	DJ
DOMINICA	DO
DOMINICAN REP	DR
ECUADOR	EC
EGYPT	EG
EL SALVADOR	ES
EQUATOR GUINEA	EK
ERITREA	ER
ESTONIA	EN
ESWATINI	WZ
ETHIOPIA	ET
Eurasian Patent Organization	EAPO
European Patent Organization	EPO
FALKLAND ISS	FX
FIJI	FJ
FINLAND	FI
FRANCE	FR
FRENCH POLYNES	FP
GABON	GB
GAMBIA	GA
GAZA STRIP	GZ
GEORGIA	GG

Name	FIPs Country Codes
GERMANY	GM
GHANA	GH
GIBRALTAR	GI
GREECE	GR
GREENLAND	GL
GRENADA	GJ
GUATEMALA	GT
GUERNSEY	GK
GUINEA	GV
GUINEA-BISSAU	PU
GUYANA	GY
HAITI	HA
HONDURAS	HO
HONG KONG	HK
HUNGARY	HU
ICELAND	IC
INDIA	IN
INDONESIA	ID
IRAN	IR
IRAQ	IZ
IRELAND	EI
ISRAEL	IS
ITALY	IT
JAMAICA	JM
JAPAN	JA
JERSEY	JE
JORDAN	JO
KAZAKHSTAN	KZ
KENYA	KE
KIRIBATI	KR
KOREA PEO REP	KN
KOREA REP OF	KS
KOSOVO	KV
KUWAIT	KU
KYRGYZSTAN	KG
LAOS	LA
LATVIA	LG
LEBANON	LE

Name	FIPs Country Codes
LESOTHO	LT
LIBERIA	LI
LIBYA	LY
LIECHTENSTEIN	LS
LITHUANIA	LH
LUXEMBOURG	LU
MACAU	MC
MADAGASCAR	MA
MALAWI	MI
MALAYSIA	MY
MALDIVES	MV
MALI	ML
MALTA	MT
MAURITANIA	MR
MAURITIUS	MP
MEXICO	MX
MOLDOVA	MD
MONACO	MN
MONGOLIA	MG
MONTENEGRO	MW
MONTSERRAT	MH
MOROCCO	MO
MOZAMBIQUE	MZ
MYANMAR	BM
NAMIBIA	WA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NEW ZEALAND	NZ
NICARAGUA	NU
NIGER	NG
NIGERIA	NI
NORTH MACEDONIA	MK
NORWAY	NO
OMAN	MU
PAKISTAN	PK
PANAMA	PM
PAPUA N GUINEA	PP

Name	FIPs Country Codes
PARAGUAY	PA
Patent Office of the Cooperation Council for the Arab States of the Gulf	GCCPO
PERU	PE
PHILIPPINES	RP
POLAND	PL
PORTUGAL	PO
QATAR	QA
ROMANIA	RO
RUSSIA	RS
RWANDA	RW
SAMOA	WS
SAN MARINO	SM
SAO TOME/PRINC	TP
SAUDI ARABIA	SA
SENEGAL	SG
SERBIA	SR
SEYCHELLES	SE
SIERRA LEONE	SL
SINGAPORE	SN
SLOVAKIA	LO
SLOVENIA	SI
SOLOMON ISS	BP
SOMALIA	SO
SOUTH AFRICA	SF
SOUTH SUDAN	SS
SPAIN	SP
SRI LANKA	CE
ST HELENA	SH
ST KITTS/NEVIS	SC
ST LUCIA	ST
ST VINCENT/GRN	VC
SUDAN	SU
SURINAME	NS
SWEDEN	SW
SWITZERLAND	SZ
SYRIA	SY
TAIWAN	TW

Name	FIPs Country Codes
TAJIKISTAN	TI
TANZANIA U REP	TZ
THAILAND	TH
TIMOR-LESTE	TT
TOGO	TO
TONGA	TN
TRINIDAD/TOBA	TD
TUNISIA	TS
TURKEY	TU
TURKMENISTAN	TX
TURKS/CAICOS I	TK
TUVALU	TV
UGANDA	UG
UKRAINE	UP
Unified Patent Court	UPC
UNITED ARAB EM	TC
UNITED KINGDOM	UK
UNITED STATES	US
URUGUAY	UY
UZBEKISTAN	UZ
VANUATU	NH
VENEZUELA	VE
VIETNAM	VM
WEST BANK	WE
YEMEN	YM
YUGOSLAVIA	YO
ZAMBIA	ZA
ZIMBABWE	ZI

11.10 States List

This is the state value use for contractorState in Invention and state in Utilization Manufacturing location. Find the valid '**Code'** value for your requests.

Name	Code
ALABAMA	AL
ALASKA	AK
ALBERTA	AB
AMERICAN SAMOA	AS

Name	Code
AP0/FP0 EUROPE	AE
AP0/FP0 OT PAC	AP
AP0/FP0 S AMER	AA
ARIZONA	AZ
ARKANSAS	AR
BAKER ISLAND	FQ
BR. COLUMBIA	BC
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DELAWARE	DE
DIST OF COL	DC
FED MICRONESIA	FM
FLORIDA	FL
GEORGIA	GA
GUAM	GU
HAWAII	HI
HOWARD ISLAND	HQ
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
JOHNSTON ATOLL	JQ
KANSAS	KS
KENTUCKY	KY
KINGMAN REEF	KQ
LOUISIANA	LA
MAINE	ME
MANITOBA	MB
MARSHALL IS	MH
MARYLAND	MD
MASSACHUSETTS	MA
MICHIGAN	MI
MIDWAY ISLANDS	MQ
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NAVASSA ISLAND	BQ
NEBRASKA	NE
NEVADA	NV
NEW BRUNSWICK	NB
NEW HAMPSHIRE	NH

Name	Code
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NEWFOUNDLAND	NL
NORTH CAROLINA	NC
NORTH DAKOTA	ND
NORTHN MARIANA	MP
NOVA SCOTIA	NS
NW TERRITORIES	NT
OHIO	OH
OKLAHOMA	OK
ONTARIO	ON
OREGON	OR
PALAU	PW
PALMYRA ATOLL	LQ
PENNSYLVANIA	PA
PR. EDWARD ISL	PE
PUERTO RICO	PR
QUEBEC	PQ
QUEBEC	QC
RHODE ISLAND	RI
SASKATCHEWAN	SK
SOUTH CAROLINA	SC
SOUTH DAKOTA	SD
TENNESSEE	TN
TEXAS	TX
TRUST TER PACF	PS
US MINOR OUTLY	UM
UTAH	UT
VERMONT	VT
VIRGIN ISLANDS	VI
VIRGINIA	VA
WAKE ISLAND	WQ
WASHINGTON	WA
WEST VIRGINIA	WV
WISCONSIN	WI
WYOMING	WY
YUKON	YT

11.11 Title Election Status

Indication of your institution's decision regarding the election of title for this Invention. The Draft, Voided, and Transferred status values shall not be used when submitting Invention Create or Update API requests.

Value	Notes
Elect to Retain Title	This can be used for both organization and agency clients in the create or update request.
Does Not Retain Title	This can be used for both organization and agency clients in the Invention request. Once the Invention is saved with this status, organization client will no longer allow to modify the Invention metadata.
Designated as Unpatented Biological Material or Research Tool	This can be used for both organization and agency clients in the create or update request.
Under Evaluation	Allow both organization and agency clients to use in the create or update request.
Draft	This status is used in response data only. This status value shall not be used in API create or update request.
Voided	This status is used in response data only. This status value shall not be used in API request. The organization is required to use the UI to submit an Invention Void Request.
Transferred	This status is use in response data only. This status value shall not be used in API request. The organization is required to use the UI to submit an Invention Transfer Request.
Government Takes Title (Award Terms)	If the invention is made by a private for-profit large-size organization that is funded by the DOE, and the DOE Waiver ID has not been given, the iEdison system will automatically set the status to "Not Waived." This value should not be used in the API request.

11.12 Invention Disposition

Decision of the agency as to how to proceed with the technology. This field will be auto-populated or set by the Primary Agency. It will be populated either automatically as "Barred" if a Patent is not filed within one year of the "Date of the First Publication/Sale/Public Use" or as "Void," "Transferred"/Assigned" after a request is granted. Otherwise, the Disposition Status will be set by the Primary Agency in response to the selection of "Does Not Retain Title."

Value	Notes
Government Does Not Retain Rights	Active status to allow for agency clients to use in the request only. Organization can only view this in response data.
Government Retains Rights	Active status to allow for agency clients to use in the request only. Organization can only view this in response data.
Not Elect Title – Waive to Government	Non-Active status for response data view only. This shall not be used in the request for create or update.
Not Elect Title – Waive to Third Party	Non-Active status for response data view only. This shall not be used in the request for create or update.
Request for Inventor Waiver	Non-Active status for response data view only. This shall not be used in the request for create or update.
Assignment Approved	Non-Active status for response data view only. This shall not be used in the request for create or update.
Assignment Denied	Non-Active status for response data view only. This shall not be used in the request for create or update.
Barred	Active status to allow system to automatically set the Barred status. This status is used in response data only. This value shall not be used in API create or update request.
Voided	Active status value. But it cannot be used in API create or update request. Organization needs to use UI to submit a Void request for the Invention. This will be set automatically when the Primary Agency approves the request.
Transferred	Active status value. But it cannot be used in API create or update request. Response data for Organization. This will be set automatically when the Primary Agency approves the request.

Note: Transferred status is for response data only. Updating an Invention to transfer status must go through Web Application Interface.

11.13 Utilization Reporting Year

The Utilization Reporting Year value is any 4 digits year which is the 5 years back from the Date Invention Reported to Organization up to current Calendar year. For example, if Invention Reported to Organization is 03/01/2016 and Calendar year is 2022. The following table contains the valid year.

*Note: Utilization Reporting year is temporarily disabled due to an upcoming Utilization questionnaire change. The iEdison support team will communicate with the grantee/contractor organizations and agencies when the new feature is ready.

Value
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

11.14 Year of First Commercial Sale

The Year of First Commercial Sale value is any 4 digits year which is the 5 years back from the Date Invention Reported to Organization up to current Calendar year. For example, if Invention Reported to Organization is 03/01/2016 and Calendar year is 2022. The following table contains the valid year.

Value
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

11.15 Utilization Commercial Product Type

Value
Biologic
Medical Device

Drug

11.16 Utilization Commercial Product Government Review Status

Value
Approved
Rejected
Pending

11.17 Utilization Public Announced

Value
Yes
No

11.18 Utilization Manufacturing Location First Date Type

Value
Actual
Expected

11.19 Invention Does Not Retain Title Reason

The 11.1.19 Invention Does Not Retain Title Reason values must be provided when the Title Election Status is set to "Does Not Retain Title".

Value
Low Commercial Potential
Non-Patentable (Not Novel)
Non-Patentable (Not Useful)
Non-Patentable (Obvious)
Did Not Yield Expected Results
Budget Limitation
Immature Market
Other

11.20 Utilization Commercialization Plan

Value	Notes
1	Seeking additional funding to further develop this invention
2	Marketing and/or furthering development of this invention to attract commercial partners

Value	Notes
3	Developing and/or using this invention for internal purposes only
4	Developing and/or preparing this invention with intent to commercialize ourselves
5	Making available for distribution and/or licensing for research purposes only
6	No current commercialization plan

11.21 Licensed Utilization Questions Logics for US Manufacturing

This appendix section shows the answer relationship between the fields latestStageDev, isUSManufacturingRequired1, and isUSManufacturingRequired2 when latestStageDev value has "Licensed" in the request.
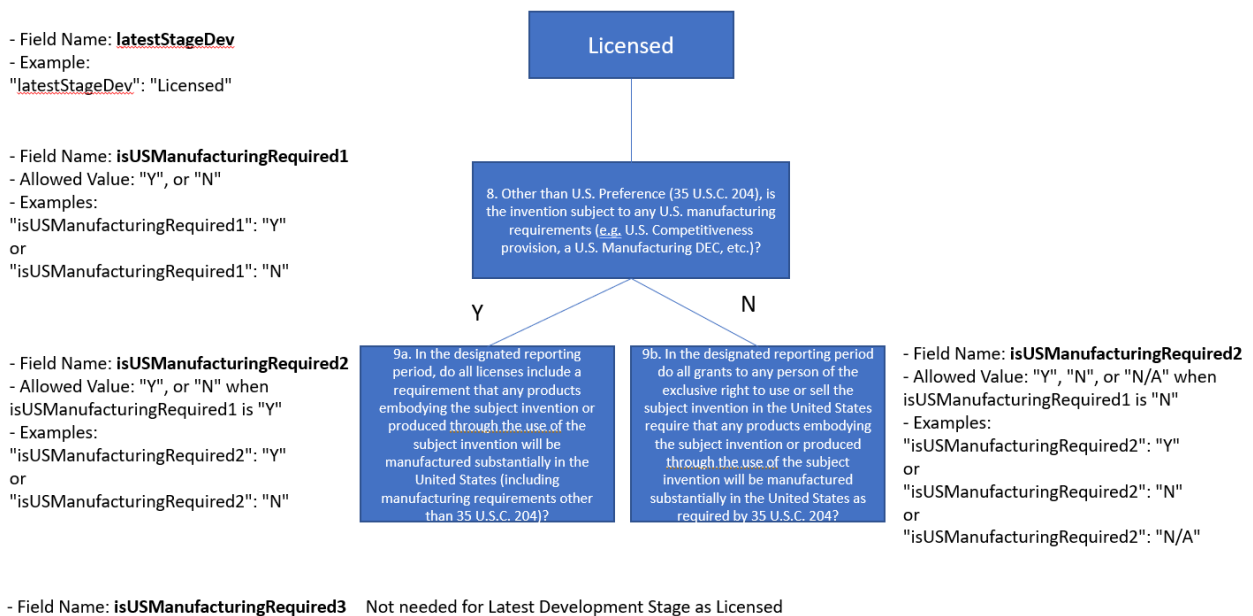
11.22 Commercialized Utilization Questions Logics for US Manufacturing

This section shows the answer relationship between the fields latestStageDev, isUSManufacturingRequired1, isUSManufacturingRequired2, and isUSManufacturingRequired3 when latestStageDev value has "Commercialized" in the request.

- Field Name: **latestStageDev**
- Example:
"latestStageDev": "Commercialized"

- Field Name: **isUSManufacturingRequired1**
- Allowed value: "Y", or "N"
- Examples:
"isUSManufacturingRequired1": "Y"
or
"isUSManufacturingRequired1": "N"

- Field Name: **isUSManufacturingRequired2**
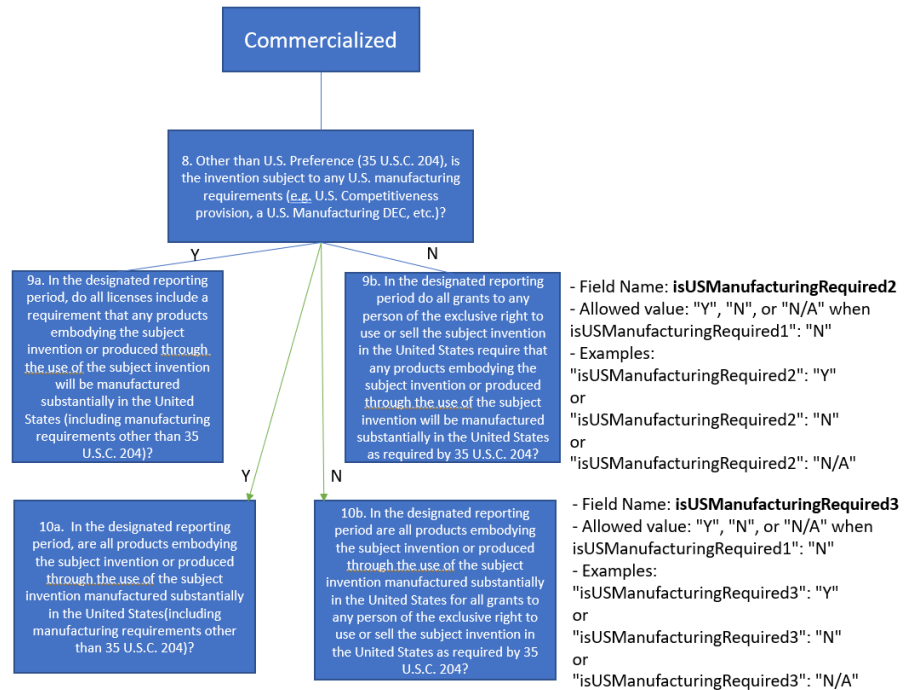- Allowed value: "Y", or "N" when isUSManufacturingRequired1": "Y"
- Examples:
"isUSManufacturingRequired2": "Y"
or
"isUSManufacturingRequired2": "N"

- Field Name: **isUSManufacturingRequired3**
- Allowed value: "Y", or "N" when isUSManufacturingRequired1": "Y"
- Examples:
"isUSManufacturingRequired3": "Y"
or
"isUSManufacturingRequired3": "N"

Commercialized

8. Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g. U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)?

9a. In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?

9b. In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?

10a. In the designated reporting period, are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)?

10b. In the designated reporting period are all products embodying the subject invention or produced through the use of the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204?

- Field Name: **isUSManufacturingRequired2**
- Allowed value: "Y", "N", or "N/A" when isUSManufacturingRequired1": "N"
- Examples:
"isUSManufacturingRequired2": "Y"
or
"isUSManufacturingRequired2": "N"
or
"isUSManufacturingRequired2": "N/A"

- Field Name: **isUSManufacturingRequired3**
- Allowed value: "Y", "N", or "N/A" when isUSManufacturingRequired1": "N"
- Examples:
"isUSManufacturingRequired3": "Y"
or
"isUSManufacturingRequired3": "N"
or
"isUSManufacturingRequired3": "N/A"

11.23 Patent Action Type

The iEdison Patent Action Type.

Value	Notes
A	Accept
R	Reject

11.24 Patent Action Document Type

The iEdison Patent Action Document Type.

Value	Notes
CL	Confirmatory License
SC	Government Support Clause

12 Sample Code Snippet to Consume APIs

The following code snippet shows how to connect to iEdison API and consume its services. Below is a sample Java code snippet to consume the iEdison Invention search API service.

Find below variables in the code snippet and replace them with your changes.

- INVENTIONS_SEARCH = Build and assign a request JSON string
- HOST_NAME   = iEdison API URL (Ex. https://api-iedisonuat.nist.gov/)
- KEY_STORE.JKS   = Location of a key store with imported certificate

- KEYSTORE_PASSWORD = Key Store password

```java
String INVENTION_SEARCH = "{ \"inventionTitle\": \" \"}";
String VENDOR_API_URL = {HOST_NAME} + "/iedison/api/v1/inventions/search";

SSLContext scl = SslConfigurator.newInstance()
            .keyStoreFile("{KEY_STORE.jks}")
            .keyPassword("{KEYSTORE_PASSWORD}")
            .securityProtocol("TLS")
            .createSSLContext();

final Client client = ClientBuilder
            .newBuilder()
            .sslContext(scl)
            .register(MultiPartFeature.class)
            .build();

FormDataMultiPart formDataMultiPart = new FormDataMultiPart();

final FormDataMultiPart multipart = (FormDataMultiPart)
    formDataMultiPart.field("inventionSearchCriteria", INVENTION_SEARCH);

final WebTarget target = client.target(VENDOR_API_URL);

final Response response = target.request()
  .post(Entity.entity(multipart, multipart.getMediaType()));

assertEquals(response.getStatus(), 200);
formDataMultiPart.close();
multipart.close();
```

Below is a sample curl code snippet to consume the iEdison Invention search API service.

```
curl --key /home/lgt2/client-store.key.pem -E /home/lgt2/client-store.crt.pem -X POST -F
'inventionSearchCriteria={"primaryAgency": "NIST","grantContractNumber": "T25252"}' https://api-
iedisonuat.nist.gov/iedison/api/v1/inventions/search
```

13 Abbreviations

Acronym	Description
IPU	Invention, Patent, and Utilization
API	Application Programming Interface

Acronym	Description
HTTP	Hypertext Transfer Protocol
JSON	JavaScript Object Notation
PKI	Public Key Infrastructure
REST	Representational state transfer
URI	Uniform Resource Identifier