



IEDISON INVENTION, PATENT AND UTILIZATION (IPU)

REST API Specifications and Examples

Version 2.11

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

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Revision History

| Version | Date | Description of Change |
|---------|------------|--|
| --- | 09/25/2023 | Modified tables, content, and reviewed for formatting and ease of use. |
| --- | 06/04/2024 | Updated Section 12.4 Country List |
| 2.4 | 06/10/2024 | Fixed accessibility issues |
| 2.5 | 07/01/2024 | <ul style="list-style-type: none"> Added note that some APIs will no longer be supported after July 18th, 2025. Renamed attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention request and invention response data object Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object. Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object. Added 'id' attribute to invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects. General document cleanup and formatting <ul style="list-style-type: none"> Removed highlighting Fixed indentations |
| 2.6 | 08/21/2024 | <ul style="list-style-type: none"> Search uses the Created Date as well as the Last Updated Date for the From/To Date |
| 2.7 | 09/09/2024 | <ul style="list-style-type: none"> Updated for Utilization, Version 3 General document cleanup and formatting |
| 2.8 | 11/07/2024 | <ul style="list-style-type: none"> The maximum file size for the Government Support Clause (GSC) and Confirmatory License (CL) is 50MB. Foreign Filings: <ul style="list-style-type: none"> The countryName and filingDate do not have to be unique. Users can enter Foreign Filings from the same country on the same date. When updating foreign filings, the request must contain the complete list of countries. The system will update by removing the old list and replacing it with the new list. See Table 8-3: Rules for Updating Foreign Filings Using API. |

1 Scope

This document describes 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 the agency or organization administrator for a system account setup and a PKI certificate.

New System Account Requirements for Agency or Organization:

- ISA Document: Download a template from iEdison, sign and upload during the system account request process.
- PKI Certificate: Acquire a certificate 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 | Expiration Date |
|--|-----------------|
| DigiCert EV RSA CA G2 | 07/02/2030 |
| DIGICERT SHA2 ASSURED ID CA | 11/08/2028 |
| DIGICERT SHA2 ASSURED ID CA | 11/05/2028 |
| DIGICERT SHA2 EXTENDED VALIDATION SERVER CA | 10/27/2028 |
| DIGICERT SHA2 HIGH ASSURANCE SERVER CA | 10/22/2028 |
| DIGICERT SHA2 HIGH ASSURANCE SERVER CA | 10/22/2028 |
| DIGICERT TLS RSA SHA256 2020 CA1 | 04/13/2031 |
| ENTRUST CERTIFICATION AUTHORITY – L1K | 12/05/2030 |
| Entrust DV TLS Issuing RSA CA 1 | 08/22/2027 |
| Entrust EV TLS Issuing RSA CA 1 | 08/22/2027 |
| Entrust OV TLS Issuing RSA CA 1 | 08/22/2027 |
| Entrust DV TLS Issuing RSA CA 2 | 12/10/2027 |
| Entrust EV TLS Issuing RSA CA 2 | 12/10/2027 |
| Entrust OV TLS Issuing RSA CA 2 | 12/10/2027 |
| GO DADDY SECURE CERTIFICATE AUTHORITY – G2 | 05/03/2031 |
| GO DADDY SECURE CERTIFICATION AUTHORITY | 11/15/2026 |
| HydrantID Server CA O1 | 12/12/2029 |
| INCOMMON RSA SERVER CA | 09/09/2024 |
| INCOMMON RSA SERVER CA 2 | 11/15/2032 |
| SECTIGO RSA ORGANIZATION VALIDATION SECURE SERVER CA | 12/31/2030 |

Table 2-1: Certificate Issuers List

3 Abbreviations

| Acronym | Description |
|---------|------------------------------------|
| API | Application Programming Interface |
| HTTP | Hypertext Transfer Protocol |
| IPU | Invention, Patent, and Utilization |
| JSON | JavaScript Object Notation |
| PKI | Public Key Infrastructure |
| REST | Representational state transfer |
| URI | Uniform Resource Identifier |

Table 3-1: List of Abbreviations

4 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 as listed above in 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.
- All data is encrypted with TLS certificates across the network.
- The digital signature in the PKI certificate associated with the 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.

5 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.

6 Environment and URI

- **User Acceptance Testing (UAT)**

URI: <https://api-iedisonuat.nist.gov/iedison/api/{version}/{resourcetype}/{action}>

version : [v1, v2, v3]

resourcetype : [inventions, patents, utilizations, documents, notifications]

action : [create, update, search]

- **Production**

URI: <https://api-iedison.nist.gov/iedison/api/{version}/{resourcetype}/{action}>

version : [v1, v2, v3]

resourcetype : [inventions, patents, utilizations, documents, notifications]

action : [create, update, search]

* Notes: Each of the resource types has its own versioning incremental.

6.1 Specification File

To view the full details of this API in the specification file (the file generated by Swagger), click on the links below.

- **User Acceptance Testing (UAT)**

URI: <https://api-iedisonuat.nist.gov/iedison/swagger.json>

- **Production**

URI: <https://api-iedison.nist.gov/iedison/swagger.json>

7 Invention API Reference

The Invention API allows an organization users create, update and search for an invention record owned by the user's affiliated organization and with any agency as the Primary Agency. Agency users can create, update, and search an invention record owned by any institution and with the user's affiliated agency as Primary Agency.

The following changes were made to Version 2 (v2):

- Renamed the attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention request and invention response data object
- Added 'id' attribute to the invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects.

Note: Create Invention, Version 1 (v1) will no longer be supported after July 18th, 2025.

7.1 Create Invention, v2

The Create Invention API allows an organization/agency to create an Invention Report. Refer to Appendix A for samples of requests and responses.

7.1.1 Endpoint URI

This is an example of the endpoint for the Create Invention resource.

| | |
|-------------|-----------------------------------|
| POST | /iedison/api/v2/inventions/create |
|-------------|-----------------------------------|

7.1.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept and Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides a description of the Create Invention request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|---------------------|---|----------|-------------------|---------|-----------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1+ | header |
| inventionRequest | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |
| inventionDisclosure | <p>Invention Disclosure document contains 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.</p> <p>The following file types are allowed for the Invention Disclosure document: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB.</p> | Yes | Binary Attachment | v1+ | form-data |

Table 7-1: Create Invention Request Parameters

The table below lists the attributes that will be included in the **inventionRequest** parameter when creating an Invention Report. The attributes are included in the JSON object as part of the **inventionRequest** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|--|----------|-----------|--------|---------|
| granteeOrganizationName | <p>The name of the organization established at registration.</p> <p>This field is no longer used in the request. The system is using the institutionCode instead. If value is provided, the system will ignore it.</p> | No | String | 100 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------|---|----------|-----------|--------|---------|
| institutionCode | The unique code assigned to the reporting organizations. | Yes | String | 10 | v1+ |
| dunsNumber | The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor. This field is no longer used in the request. If value is provided for this field, the system will ignore it. | No | String | 9 | v1+ |
| | | | | | |
| inventionTitle | The title of the Invention as it appears in the grantee/contractors employee's Invention Report. | Yes | String | 255 | v1+ |
| inventionDocketNumber | An internal reference number of the grantee/contractor organization to help track a reported Invention(s). If no value is provided for this field, the system will generate one for the invention. | No | String | 30 | v1+ |
| doesNumber | The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system. This field is used by agency system users in invention create request only. If organization client submit a create invention request with this value, the system will ignore the value. | No | String | 15 | v1+ |
| parentInventionNumber | Invention Report number used when an Invention is combined into another Invention as a parent Invention. | No | String | 25 | v1+ |
| inventionReportDate | The date the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | 10 | 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------------------|---|----------|----------------------------|--------|------------|
| keywords | Any keywords used to identify or categorize your invention. | No | Array [String] | 80 | v1+ |
| doeWaiver | Refers to the government's waiver of rights under 10 CFR 784 in an invention arising from DOE-funded research so that private entities may expedite commercialization, quickly bringing their technologies from lab to market. There are three types of waivers: Advance, Identified, and Class patent waivers. | No | String | | v1+ |
| institutionCodeForOtherInstitutions | The 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+ |
| isExceptionCircumstanceDetermination | Is this invention made under a funding agreement subject to a determination of exceptional circumstances? If value is not provided, the system will set it to 'false'. | No | Boolean | | v2+ |
| Inventors | List of Inventors Persons considered "inventors" of this invention in the Invention Report. | | Array [JSON Object] | | v1+ |
| firstName | The first name of the inventor. | Yes | String | 80 | v1+ |
| lastName | The last name of the inventor. | Yes | String | 80 | v1+ |
| middleInitial | The middle name or first initial of the inventor. | No | String | 30 | v1+ |
| fedEmployee | Is the inventor a federal employee? <ul style="list-style-type: none"> true = federal employee false = not a federal employee (default) | No | Boolean | | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here for a list of valid abbreviations. | No | String | 80 | v1+ |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. | Yes | String | 50 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|--|------------|----------------------------|--------|------------|
| bayhDoleActVersion | The Bayh Dole Act Version for the Invention. This allows 1980 or 2018. • Default = 2018 | No | Integer | | 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. | Yes | Array [JSON Object] | | v1+ |
| agency | The federal government agency that made the award that was used to support the conception of the Invention or its first actual reduction to practice. Click here 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 | Indicates the type of award as a primary award or a sub-award. Refer to Section 12.3 for a list of valid values. | No | String | 5 | v1+ |
| agreementType | Indicates the type of agreement. Refer to Section 12.1 for a list of valid values. | No | String | 80 | v1+ |
| subContractInfos | Subcontractor Information | No | Array [JSON Object] | | v1+ |
| 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. This field had be replaced by contractorUEI. | No | String | 9 | v1+ |
| contractorUEI | The UEI number of the subcontractor that provided the grant or contract. | No | String | 12 | v3+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|---|------------|--------------------|--------|------------|
| 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 12.14 for a list of valid values. | No | String | 2 | v1+ |
| contractorCountry | The country name of the subcontractor that provided the grant or contract. Refer to Section 12.4 for a list of valid values. | No | String | 15 | v1+ |
| inventionStatus | Title Election and Disposition Status group | Yes | JSON Object | | v1+ |
| titleElectionStatus | Organization's decision regarding the election of title for this invention. Only "Under Evaluation" or "Elect to Retain Title" is allowed in the creation invention API request. | Yes | String | 80 | v1+ |
| titleElectionDate | The legally binding date that the grantee/contractor elected to retain title to an Invention. This field will be ignored by the system for Organization client since it is automatically generated when organization client submits an Invention API request with "Elect to Retain Title" Status. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| 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 Section 12.15 for a list of valid values. This field will be ignored in the create Invention API request since system only allow organization to submit a create invention API request with titleElectionStatus as "Under Evaluation" or "Elect to Retain Title". | No | String | 255 | v1+ |
| notElectTitleOtherReason | If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', | No | String | 255 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------|--|----------|-------------|--------|---------|
| | this field is used to provide the description of the custom reason for not electing title. This field will be ignored in the create Invention API request since system only allow organization to submit a create invention API request with titleElectionStatus as "Under Evaluation" or "Elect to Retain Title". | | | | |
| doesNotRetainTitleDate | The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. This field will be ignored in the create Invention API request since system only allow organization to submit a create invention API request with titleElectionStatus as "Under Evaluation" or "Elect to Retain Title". <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| dispositionStatus | The government's decision on the disposition of rights. This field is for agency users to update the disposition of rights. This field will be ignored in the create Invention API request. | No | String | 80 | v1+ |
| dispositionRightsDate | The date the government decided on the disposition of rights. This field is for agency users to update the disposition of rights. This field will be ignored in the create Invention API request. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| explanatoryNotes | Explanatory notes are used to note information about an Invention Report or Patent Report. | No | JSON Object | | v1+ |
| note | Explanatory notes are used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data | Yes | String | 500 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------|---|----------|----------------|--------|---------|
| | that is provided by other iEdison data fields. | | | | |
| governmentNotes | Government Notes This is for agency users only. If this is provided by organization client, the system will ignore it. | 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+ |
| budgetIdentifiers | This contains a list of Budget Identifiers for the Invention Report. | No | Array [String] | | v1+ |
| agencyCustom1 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |
| agencyCustom2 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |
| agencyCustom3 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |
| governmentStaff | Used to identify government staff. This field will be ignored in the create Invention API request. | No | String | 200 | v1+ |
| governmentCounsel | Used to identify the Government Counsel (law firm) for an Invention Report. This field will be ignored in the create Invention API request. | No | String | 200 | v1+ |

Table 7-2: inventionRequest JSON Attributes

7.1.3 Response Parameters

When the request is processed and the Invention Report is successfully created, the Create Invention API endpoint returns an **inventionResponse** data object. The attributes of this object are described in **Section 7.4**.

7.2 Update Invention, v2

The Update Invention API allows organization users to update an existing Invention Reports owned by the user's affiliated organization. Agency users can update Invention Reports with one or more funding agreements provided by the user's affiliated agency. Refer to Appendix A for samples of requests and responses.

7.2.1 Endpoint URI

This is an example of the endpoint for the Update Invention resource.

| | |
|-------------|-----------------------------------|
| POST | /iedison/api/v2/inventions/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 defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides a description of the Update Invention POST request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|---------------------|---|----------|-------------------|---------|-----------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1+ | header |
| inventionRequest | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |
| inventionDisclosure | The Invention Disclosure document for updating the document in iEdison. The following file types are allowed for the Invention Disclosure document: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB. | No | Binary Attachment | v1+ | form-data |

Table 7-3: Update Invention Request Parameters

The table below lists the attributes that will be included in the **inventionRequest** parameter when updating an invention report. The attributes are included in the JSON object as part of the **inventionRequest** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|----------|-----------|--------|---------|
| inventionReportNumber | Automatically generated by iEdison for an 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. This field is no longer used in the request. The system is using the institutionCode instead. If value is provided, the system will ignore it. | No | String | 100 | v1+ |
| institutionCode | The unique code is assigned to the reporting organizations. | Yes | String | 10 | v1+ |
| dunsNumber | The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor. This field is no longer used in the request. If value is provided for this field, the system will ignore it. | No | String | 9 | v1+ |
| inventionTitle | The title of the Invention as it appears in the grantee/contractor's employee's Invention Report. | Yes | String | 255 | v1+ |
| inventionDocketNumber | An internal reference number of the grantee/contractor organization to help track a reported Invention(s). If the field is not provide or with value of empty or null, the system will keep the current value in database. | No | String | 30 | v1+ |
| doesNumber | The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system. This field is used by Agency client request only. Organization client submit a request with this value will be ignored. | No | String | 15 | v1+ |
| parentInventionNumber | Invention Report number used when an Invention is combined | No | String | 25 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------------------|---|------------|----------------------------|--------|------------|
| | into another Invention as a parent Invention. | | | | |
| inventionReportDate | The date that the inventor discloses the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | 10 | 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| inventionSubmitDate | The date when Invention is submitted to agency. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| keywords | Any keywords used to identify or categorize your invention. | No | Array [String] | 80 | v1+ |
| doeWaiver | Refers to the government's waiver of rights under 10 CFR 784 in an invention arising from DOE-funded research so that private entities may expedite commercialization, quickly bringing their technologies from lab to market. There are three types of waivers: Advance, Identified, and Class patent waivers. | No | String | | v1+ |
| 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+ |
| isExceptionCircumstanceDetermination | Is this invention made under a funding agreement subject to a determination of exceptional circumstances? | No | Boolean | | v2+ |
| inventors | List of Inventors | Yes | Array [JSON Object] | | v1+ |
| firstName | First name of the inventor. | Yes | String | 80 | v1+ |
| lastName | Last name of the inventor. | Yes | String | 80 | v1+ |
| middleInitial | Middle name or first initial of the inventor. | No | String | 30 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|---|----------|----------------------------|--------|---------|
| fedEmployee | Is the inventor a federal employee? <ul style="list-style-type: none"> true = federal employee false = not a federal employee (default) | No | Boolean | | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here for a list of valid abbreviations. | No | String | 80 | v1+ |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. If organization client provides a new value for this field in the update invention request, the system will ignore it. If current primary agency user provides a new value for this field, the system will update the primary agency. | Yes | String | 50 | 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. (See the nested JSON Object attributes below with indentation) | Yes | Array [JSON Object] | | 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. Click here 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 | Indicates the type of award as a primary award or a sub-award. Refer to Section 12.3 for a list of valid values. | No | String | 5 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|--|-----------|----------------------------|--------|------------|
| agreementType | Indicates the type of agreement. Refer to Section 12.1 for a list of valid values. | No | String | 80 | v1+ |
| subContractInfos | Subcontractor Information | | Array [JSON Object] | | v1+ |
| 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 12.14 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 Section 12.4 for a list of valid country Name values. | No | String | 15 | v1+ |
| inventionStatus | Title Election Status | No | JSON Object | | v1+ |
| titleElectionStatus | The status of the title to rights in the reported Invention. Refer to Section 12.15 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. This field will be ignored by the system for Organization clients since it is automatically generated when organization clients submit an Invention API request with "Elect to Retain Title Status". If agency users submit a new date value with an update invention request, the system will update the database with the new value. | No | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|--|----------|-----------|--------|---------|
| | <ul style="list-style-type: none"> Format: MM/DD/YYYY | | | | |
| 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 Section 12.7 for a list of valid values. This field will be ignored by the system when titleElectionStatus is not equal to "Does Not Retain Title". | 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. This field will be ignored by the system when titleElectionStatus is not equal to "Does Not Retain Title" and notElectTitleReason is not equal to 'Other'. | No | String | 255 | v1+ |
| doesNotRetainTitleDate | The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. If organization clients provide a value for this field, the system will ignore the value. If agency user provides a value for this field and the titleElectionStatus is "Does Not Retain Title", the system will update the database with the new value. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| dispositionRightsDate | The date the government decided on the disposition of rights. If value is not given when dispositionStatus is selected, the system will use the system date as the value. The API provides this field is for ONLY agency users to update the disposition of rights date. If organization clients provide a value for this | No | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|---------------------|---|----------|---------------------|--------|---------|
| | field in the update invention request, the system will ignore the value. <ul style="list-style-type: none"> Format: MM/DD/YYYY | | | | |
| dispositionStatus | The Invention Disposition status which is the decision of the primary agency as to how to proceed with the technology. Refer to Section 12.6 for a list of valid values. The API provides this field for ONLY the agency clients to update the disposition of rights. If organization clients provide a value for this field in the update invention request, the system will ignore the value. | No | String | 255 | v2+ |
| explanatoryNotes | Explanatory notes are used to note information about the report. | No | Array [JSON Object] | | v1+ |
| note | Explanatory notes are 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 | 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. | Yes | String | 500 | v1+ |
| budgetIdentifiers | This contains a list of Budget Identifiers for the Invention Report. | No | Array [String] | | v1+ |
| agencyCustom1 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |
| agencyCustom2 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------|---|----------|-----------|--------|---------|
| agencyCustom3 | The agency custom note field. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 2000 | v1+ |
| governmentStaff | Used to identify government staff. Only available for agency users. If organization client provides a value for this field, the system will ignore it. | No | String | 200 | v1+ |
| governmentCounsel | Used to identify the Government Counsel (law firm) for an Invention Report. Only available for agency clients. If organization client provides a value for this field, the system will ignore it. | No | String | 200 | v1+ |
| voidDispositionReason | The reason from the primary agency for voiding the Invention report. The reason will be added to the system as an Explanatory Notes in the Invention report. If organization client provides a value for this field, the system will ignore it. | No | String | 500 | v2+ |

Table 7-4: inventionRequest JSON Attributes

7.2.3 Response Parameters

When the request is processed and the invention report is successfully updated, the Update Invention API endpoint returns an **inventionResponse** data object. The attributes of this object are described in **Section 7.4**.

7.3 Search Invention, v2

The Search Invention API allows users to specify any combination of the attributes to search for existing Invention Reports. 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. Refer to Appendix A for samples of requests and responses.

7.3.1 Endpoint URI

This is an example of the endpoint for the Search Invention resource.

| | |
|-------------|-----------------------------------|
| POST | /iedison/api/v2/inventions/search |
|-------------|-----------------------------------|

7.3.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides a description of the Search Invention request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Data Type | Version | In |
|-------------------------|---|-----------|---------|-----------|
| accept | Specifies the response format that is expected. Set to "application/json". | String | v1+ | header |
| inventionSearchCriteria | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | String | v1+ | form-data |

Table 7-5: Search Invention Request Parameters

The table below lists the attributes that will be included in the **inventionSearchCriteria** parameter when searching for an Invention Report. The attributes are included in the JSON object as part of the **inventionSearchCriteria** form-data text element.

| Request Parameter | Description | Data Type | Length | Version | In |
|-----------------------|--|-----------|--------|---------|------|
| limit | Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> • Max Value = 100 • Default = 20 | Integer | | v1+ | body |
| offset | Page index specified by the user. <ul style="list-style-type: none"> • Default = 0 if user does not provide any offset in the request | Integer | | v1+ | body |
| inventionReportNumber | Automatically generated by iEdison for an 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. | String | 80 | v1+ | body |

| Request Parameter | Description | Data Type | Length | Version | In |
|-------------------------|---|-------------|--------|---------|------|
| | The format is defined by the agency. | | | | |
| inventorFirstName | The first name of the inventor. | String | 50 | v1+ | body |
| inventorLastName | The last name of the inventor. | String | 50 | v1+ | body |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here 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 status of the title to rights in the reported Invention. Refer to Section 12.15 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | String | 10 | v1+ | body |
| inventionReportDateTo | The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | 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 invention last updated date. <ul style="list-style-type: none"> Will use the last updated date for the invention, | String | | v1+ | body |

| Request Parameter | Description | Data Type | Length | Version | In |
|-------------------|---|-----------|--------|---------|------|
| | but if that is null, then the created date will be used. <ul style="list-style-type: none"> Format: MM/DD/YYYY | | | | |
| lastUpdatedTo | The 'up to' search date against the Patent last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | String | | v1+ | body |

Table 7-6: inventionSearchCriteria JSON Attributes

7.3.3 Response Parameters

When the request is processed, the Search Invention API endpoint returns a list of inventions that match the search criteria in the **inventionResponse** data object. The attributes of this object are described in **Section 7.4**.

| JSON Attribute Name | Description | Data Type | Version |
|---------------------|--|---------------------------|---------|
| totalRecords | The total number of records for the search. | Number | v1+ |
| limit | The limit entered by the user while making the request i.e., total number of records the user wished to retrieve per page. | Number | v1+ |
| offset | The page index specified by the user. | Number | v1+ |
| inventions | A list of invention records which contains the inventionResponse data object. | Array [JSON Object] | v1+ |

Table 7-7: Search Invention Response Parameters

7.4 InventionResponse Data Object

The invention create, update, and search API endpoints share a common **InventionResponse** data object. The JSON attributes are described in the table below.

| JSON Attribute Name | Description | Data Type | Version |
|-------------------------|---|-----------|---------|
| inventionReportNumber | Automatically generated by iEdison for an 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/contractor's employee's Invention Report. | String | v1+ |

| JSON Attribute Name | Description | Data Type | Version |
|--------------------------------------|--|------------------------------------|------------|
| 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 | The 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+ |
| reportingOverdue | Indicates 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 | Indicates whether a Domestic Manufacture Waiver was requested by the organization. | Boolean | v1+ |
| doeWaiver | DOE Waiver. | String | v1+ |
| institutionCodeForOtherInstitutions | The 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 | Indicates any key terms for searching for Invention Reports. | Array [String] | v1+ |
| isExceptionCircumstanceDetermination | Is this invention made under a funding agreement subject to a determination of exceptional circumstances? | Boolean | v2+ |
| inventors | List of Inventors | Array [JSON Object] | v1+ |
| firstName | First name of the inventor. | String | v1+ |
| lastName | Last name of the inventor. | String | v1+ |
| middleInitial | Middle name or first initial of the inventor. | String | v1+ |
| fedEmployee | Is the inventor a federal employee? | Boolean | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here for a list of valid abbreviations. | String | v1+ |
| id | The unique identifier assigned to the inventor. | Integer | v2+ |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. | String | v1+ |

| JSON Attribute Name | Description | Data Type | Version |
|--------------------------|--|----------------------------|------------|
| 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 [JSON Object] | 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. Click here 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 | Indicates the type of award as a primary award or sub-award. Refer to Section 12.3 for a list of valid values. | String | v1+ |
| agreementType | Indicates the type of agreement. Refer to Section 12.1 for a list of valid values. | String | v1+ |
| id | The funding agreement primary unique identifier in the iEdison system. | Integer | v2+ |
| subContractInfos | Subcontractor Information | Array [JSON Object] | 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 12.14 for a list of valid values. | String | v1+ |
| contractorCountry | The country of the subcontractor that provided the grant or contract. Refer to Section 12.4 for a list of valid values. | String | v1+ |
| id | The subcontractor primary unique identifier in the iEdison system. | Integer | v2+ |
| inventionStatus | Title Election Status and Disposition Status | JSON Object | v1+ |
| titleElectionStatus | The status of the title to rights in the reported Invention. Refer to Section 12.15 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+ |

| JSON Attribute Name | Description | Data Type | Version |
|--------------------------|--|----------------------------|------------|
| notElectTitleReason | This field is for the grantee/contractor to select the reason for choosing Does Not Retain Title in an Invention Report. Refer to Section 12.7 for a list of valid values. | String | v1+ |
| 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 | The government's decision/outcome of the disposition of rights. Refer to Section 12.6 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 | Array [JSON Object] | v1+ |
| note | Explanatory notes or additional 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. | String | v1+ |
| id | The unique identifier assigned to the explanatory note. | Integer | v2+ |
| governmentNotes | Government Notes which only return for agency system users. This field and value will display to agency users only. | Array [JSON Object] | v1+ |
| note | Government Notes are information about an Invention Report or Patent Report by federal agency 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. | String | v1+ |
| id | The unique identifier assigned to the government note. | Integer | v2+ |
| budgetIdentifiers | This contains a list of Budget Identifiers for the Invention report. | Array [String] | v1+ |
| agencyCustom1 | The agency custom note field. Only available for agency users. This field will not show in the responses to the organization system users. | String | v1+ |

| JSON Attribute Name | Description | Data Type | Version |
|---------------------------------|--|-------------------|---------|
| agencyCustom2 | The agency custom note field. Only available for agency users. This field will not show in the responses to the organization system susers. | String | v1+ |
| agencyCustom3 | The agency custom note field. Only available for agency users. This field will not show in the responses to the organization system susers. | String | v1+ |
| governmentStaff | Used to identify government staff. This field and value will display to agency users only. This field will not show in the responses to the organization system susers. | String | v1+ |
| governmentCounsel | Used to identify the Government Counsel (law firm) for an Invention Report. This field and value will display to agency users only. This field will not show in the responses to the organization system susers. | String | v1+ |
| disclosureDocumentAcceptDate | The date the Disclosure document was accepted. | Date | v1+ |
| disclosureDocumentRejectDate | The date the Disclosure document was rejected. | Date | v1+ |
| disclosureDocumentRejectReasons | The reason the Disclosure document was rejected. | Array [String] | v1+ |
| createdDate | The date the Invention Report was created in the iEdison system. | String | v1+ |
| lastUpdatedDate | The date the invention Report was last updated in the iEdison system. | String | v1+ |
| id | The unique identifier assigned to the Invention Report in the iEdison system. | Integer | v2+ |

Table 7-8: InventionResponse JSON Attributes

8 Patent API Reference

The Patent API allows an organization/agency to create, update or search for patent records.

The following changes were made to Version 3 (v3):

- Renamed attribute 'patentDocketNum' to 'patentDocketNumber' in patent response data object.

The following changes were made to Version 2 (v2):

- Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object.
- Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object.
- Added 'id' attribute to invention response for 'inventor', 'fundingAgreement', and 'parents' JSON objects.

Note:

- Create Patent, Version 1 (v1) will no longer be supported after July 18th, 2025.
- Create Patent, Vresion 2 (v2) will no longer be supported after May 29th, 2026.

8.1 Create Patent, v3

The Create Patent API endpoint allows an organization/agency to create a Patent Report in the iEdison system. Refer to Appendix B for samples of requests and responses.

8.1.1 Endpoint URI

Below is the latest version 3 endpoint for the Create Patent resource. It is recommended to use the latest version of the

| | |
|-------------|--------------------------------|
| POST | /iedison/api/v3/patents/create |
|-------------|--------------------------------|

8.1.2 Request Parameters

The request has the following elements:

- Headers: These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- Body: The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Create Patent request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|---------------------|---|----------|-------------------|---------|-----------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1+ | header |
| patentRequest | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |
| confirmatoryLicense | The Confirmatory License document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB. | No | Binary Attachment | v1+ | form-data |

| Request Parameter | Description | Required | Data Type | Version | In |
|-------------------------|---|----------|-------------------|---------|-----------|
| governmentSupportClause | <p>The Government Support Clause document file for the Patent record.</p> <p>The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB.</p> | No | Binary Attachment | v1+ | form-data |

Table 8-1: Create Patent Request Parameters

The table below lists the attributes that will be included in the **patentRequest** parameter when creating a patent report. The attributes are included in the JSON object as part of the **patentRequest** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------------------|--|-------------|-------------|--------|---------|
| inventionReportNumber | Automatically generated by iEdison for an 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 is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | No | Integer | 30 | v1+ |
| patentStatus | Indicates the status of the Patent. Refer to Section 12.13 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 12.10 for a list of valid values. | Yes | String | 255 | v1+ |
| confirmatoryLicenseExecution Date | 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 | Conditional | JSON Object | | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------------------|---|--------------------|--------------------|--------|------------|
| | used for patentApplicationType. | | | | |
| 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). • Format: MM/DD/YYYY | Yes | String | 10 | v1+ |
| issuedApplicationNumber | The unique identifier of a Patent. | No | String | 50 | v1+ |
| issuedApplicationDate | The date the Patent number was issued. • Format: MM/DD/YYYY | No | String | 10 | v1+ |
| expirationDate | Estimated date of Patent expiration. • Format: MM/DD/YYYY | 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+ |
| 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. • Format: MM/DD/YYYY | Yes | String | 10 | v1+ |
| 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 Manufacturer Intellectual Property Organization (WIPO). • Format: MM/DD/YYYY | Yes | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|----------|---------------------|--------|---------|
| parentPatents | | No | Array [JSON Object] | | v1+ |
| inventionReportNumber | The unique Invention Report Number for the parent Patent. | No | String | 25 | v1+ |
| patentDocketNumber | The Patent Docket Number is 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 [JSON Object] | | v1+ |
| firstName | First name of the inventor. | Yes | String | 80 | v1+ |
| lastName | Last name of the inventor. | Yes | String | 80 | v1+ |
| middleInitial | Middle name or first initial of the inventor. | No | String | 30 | v1+ |
| fedEmployee | Is the inventor a federal employee? <ul style="list-style-type: none"> true = federal employee false = not a federal employee (default) | No | Boolean | | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here for a list of valid abbreviations. | No | String | 80 | v1+ |
| foreignFilings | Patent Foreign Filing The countryName and filingDate do not have to be unique. Users can enter Foreign Filings from the same country on the same date. | No | Array [JSON Object] | | v1+ |
| countryName | The country name of the foreign filing. The country name does not have to be unique. Refer to Section 12.4 for a list of valid country Name values. | Yes | String | 15 | v1+ |
| status | The foreign filing status for the Patent. Refer to Section 12.6 for a list of valid values. | Yes | String | | v1+ |
| filingDate | The date that the foreign Patent was issued. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | 10 | v1+ |
| explanatoryNotes | Explanatory notes are used to note information about the report. | No | JSON Object | | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------|--|-----------|--------------------|--------|------------|
| note | Explanatory notes are 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. If organization client provides value(s) for this list field, the system will ignore them. | 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+ |

Table 8-2: patentRequest JSON Attributes

8.1.3 Response Parameters

When the request is processed and the patent report is successfully created, the Create Patent API endpoint returns a **patentResponse** data object. The attributes of this object are described in **Section 8.4**.

8.2 Update Patent, v3

The Update Patent API endpoint allows an organization/agency to update an existing Patent Report in the iEdison system. Refer to Appendix B for samples of requests and responses.

When updating Foreign Filings, the request must contain the complete list of countries. The system will update by removing the old list and replacing it with the new list.

See the table below for examples,

| If there is an existing Foreign Filing in the Patent record | Submit and update request with the following Foreign Filing(s) | Result in iEdison |
|---|--|---|
| Country A | Country A Country B | Delete Country A from the Foreign Filing list and add Country A and Country B to the Foreign Filing list. |
| Country A | None | Delete Country A from the Foreign Filing list and no country is added to the Foreign Filing list. |
| None | Country A Country B | Add Country A and Country B to the Foreign Filing list. |
| None | None | No updates or changes. |

Table 8-3: Rules for Updating Foreign Filings Using API

8.2.1 Endpoint URI

This is an example of the endpoint for the Update Patent resource.

| | |
|-------------|--------------------------------|
| POST | /iedison/api/v3/patents/update |
|-------------|--------------------------------|

8.2.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the description of the Update Patent request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|-------------------|--|----------|-----------|---------|--------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1+ | header |

| Request Parameter | Description | Required | Data Type | Version | In |
|-------------------------|--|----------|-------------------|---------|-----------|
| patentRequest | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |
| confirmatoryLicense | The Confirmatory License document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB. | No | Binary Attachment | v1+ | form-data |
| governmentSupportClause | The Government Support Clause document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 50MB. | No | Binary Attachment | v1+ | form-data |

Table 8-4: Update Patent Request Parameters

The table below lists the attributes that will be included in the **patentRequest** parameter when updating a Patent Report. The attributes are included in the JSON object as part of the **patentRequest** form-data text element.

The system updates the government clause file if it is provided during the update operation. If the government clause file is not provided during the 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.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|----------|-----------|--------|---------|
| inventionReportNumber | Automatically generated by iEdison for an 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. The system is no longer using this field. | No | String | 100 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--|---|--------------------|--------------------|--------|---------|
| patentDocketNumber | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | No | String | 30 | v1+ |
| patentStatus | Indicates the status of the Patent. Refer to Section 12.13 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 12.10 for a list of valid values. | Yes | String | | v1+ |
| 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | | v1+ |
| nonProvisionalPatentApplication | | Conditional | JSON Object | | v1+ |
| nonProvisionalApplication Number | The Non-provisional Patent Application Number field is for the non-provisional Patent application. | Yes | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|---------------------------------|---|------------|----------------------------|--------|---------|
| 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). <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | 10 | v1+ |
| issuedApplicationNumber | The unique identifier of a Patent. | No | String | 50 | v1+ |
| issuedApplicationDate | The date the Patent number was issued. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| expirationDate | Estimated date of Patent expiration. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| parentPatents | Parent Patent | No | Array [JSON Object] | | v1+ |
| inventionReportNumber | Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified. | No | String | 100 | v1+ |
| patentDocketNumber | The Patent Docket Number is 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 [JSON Object] | | v1+ |
| firstName | First name of the inventor. | Yes | String | 80 | v1+ |
| lastName | Last name of the inventor. | Yes | String | 80 | v1+ |
| middleInitial | Middle name or first initial of the inventor. | No | String | 30 | v1+ |
| fedEmployee | Is the inventor a federal employee? <ul style="list-style-type: none"> true = federal employee false = not a federal employee (default) | No | Boolean | | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here | No | String | 80 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|--|----------|-------------|--------|---------|
| | for a list of valid abbreviations. | | | | |
| foreignFilings | Patent Foreign Filing <ul style="list-style-type: none"> The countryName and filingDate do not have to be unique. Users can enter Foreign Filings from the same country on the same date. When updating foreign filings, the request must contain the complete list of countries. The system will update by removing the old list and replacing it with the new list. | No | JSON Object | | v1+ |
| countryName | The country name of the foreign filing. The country name does not have to be unique. Refer to Section 12.4 for a list of valid values. | Yes | String | 15 | v1+ |
| status | The foreign filing status for the Patent. Refer to Section 12.13 for a list of valid values. | Yes | String | | v1+ |
| filingDate | The date that the foreign Patent was issued. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes | String | 10 | v1+ |
| explanatoryNotes | Explanatory notes are used to note information about the report. | No | JSON Object | | v1+ |
| note | Explanatory notes are 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. If organization client provides value(s) for this list field, the system will ignore them. | 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+ |

Table 8-5: *patentRequest JSON Attributes*

8.2.3 Response Parameters

When the request is processed and the patent report is successfully updated, the Update Patent API endpoint returns a **patentResponse** data object. The attributes of this object are described in **Section 8.4**.

8.3 Search Patent, v3

The Search Patent API allows users to specify any combination of the attributes to search for existing Patent Reports. The search criteria are applied using an "AND" operation across the various attributes specified in the JSON request. For example, if the patent search has a Patent Docket Number and Primary Agency, the search results include all the searches that match both the Patent Docket Number and the Primary Agency. Refer to Appendix B for samples of requests and responses.

8.3.1 Endpoint URI

This is an example of the endpoint for the Search Patent resource.

| | |
|-------------|--------------------------------|
| POST | /iedison/api/v3/patents/search |
|-------------|--------------------------------|

8.3.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Patent request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Data Type | Version | In |
|----------------------|---|-----------|---------|--------|
| accept | Specifies the response format that is expected. Set to "application/json". | String | v1+ | header |
| patentSearchCriteria | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | String | v1+ | |

Table 8-6: *Search Patent Request 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.

The table below lists the attributes that will be included in the **patentSearchCriteria** parameter when searching for a Patent Report. The attributes are included in the JSON object as part of the **patentSearchCriteria** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|--|----------|----------------|--------|---------|
| limit | Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 | No | Integer | | v1+ |
| offset | Indicates the page index. <ul style="list-style-type: none"> Default = 0 if user does not provide any offset in the request | No | Integer | | v1+ |
| inventionReportNumber | Automatically generated by iEdison for an 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| inventionReportDateTo | The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| inventionTitle | The title of the Invention as it appears in the grantee/contractor's employee's Invention Report. | No | String | 255 | v1+ |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. | No | String | 1 | v1+ |
| titleElectionStatus | The status of the title to rights in the reported Invention. Refer to Section 12.15 for a list of valid values. | No | Array [String] | 50 | v1+ |
| 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 | The Patent Application Type of a record. Refer to Section 12.10 for a list of valid values. | No | String | 25 | v1+ |
| patentStatus | Indicates the status of the Patent. Refer to Section 12.7 for a list of valid values. | No | String | 50 | v1+ |
| patentDocketNumber | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | No | String | 30 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|----------------------|--|----------|-----------|--------|---------|
| patentFilingDateFrom | The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| patentFilingDateTo | The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | 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 | The first name of the inventor. | No | String | 50 | v1+ |
| inventorLastName | The last name of the inventor. | No | String | 50 | v1+ |
| lastUpdatedFrom | The 'start from' search date against the Patent last updated date. <ul style="list-style-type: none"> Will use the last updated date for the invention, but if that is null, then the created date will be used. Format: MM/DD/YYYY | No | String | 10 | v1+ |
| lastUpdatedTo | The 'up to' search date against the Patent last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |

8.3.3 Response Parameters

When the request is processed, the Search Invention API endpoint returns a list of inventions that match the search criteria in the **patentResponse** data object. The attributes of this object are described in **Section 8.4**.

| JSON Attribute Name | Description | Data Type | Version |
|---------------------|---|---------------------|---------|
| totalRecords | The total number of records for the search. | Number | v1+ |
| limit | The limit entered by the user while making the request, i.e., total number of records the user wants to retrieve per page. | Number | v1+ |
| offset | The page index specified by the user. <ul style="list-style-type: none"> Default offset starts with 0 if user does not provide any offset in the request. | Number | v1+ |
| patents | A list of patent records which contains the patentResponse data object. | Array [JSON Object] | v1+ |

Table 8-7: patentSearchCriteria JSON Attributes

8.4 patentResponse Data Object

The create, update, and search Patent API shares the same **patentResponse** data object. The JSON attributes are described in the table below.

| Response Parameter | Description | Data Type | Version |
|--------------------------|--|-----------|---------|
| id | System generated sequence number used for ID of the Patent | Integer | v1+ |
| patentDocketNum | The Patent Docket Number is the internal reference number of the grantee/contractor organization to help track a reported Patent(s). This field is supported in version 1 and version 2 only. This attribute is replaced with patentDocketNumber in version 3. | String | v1, v2 |
| patentDocketNumber | The Patent Docket Number is the internal reference number of the grantee/contractor organization to help track a reported Patent(s). | String | v3 |
| 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 | The Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application. | String | v1+ |
| pctAppDate | 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 | 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 | The filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO) | String | v1+ |
| patentApplicationType | The Patent Application Type of a record. Refer to Section 12.10 for a list of valid values. | String | v1+ |
| patentReceiptDate | The date the Patent was received by government. | String | v1+ |
| expireDate | The estimated date the Patent will expire. | 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 | Indicates the status of the Patent. Refer to Section 12.13 for a list of valid values. | String | v1+ |
| confLicenseAcceptDate | The date the Confirmatory License was accepted. | String | v2+ |
| confLicenseRejectDate | The date the Confirmatory License was rejected by the Government Agency. | String | v1+ |
| confLicenseRejectComment | The reason the Confirmatory License was rejected. | String | v1+ |
| confLicenseOutdated | Indicates if the Confirmatory License is outdated. | String | v1+ |
| govtSuppClauseAcceptDate | The date the Federal Support Clause was accepted by the government. | String | v2+ |

| Response Parameter | Description | Data Type | Version |
|----------------------------------|---|----------------------------|------------|
| govtSuppClauseRejectDate | The date the Government Support Clause inclusion was rejected by the Government Agency. | String | v1+ |
| govtSuppClauseRejectComment | The reason for Government Support Clause rejection displayed to grantee/contractor institution. | String | v1+ |
| govtActionDate | Government Action Date | String | v1+ |
| domesticWaiverDecisionFlag | Indicates the Domestic Waiver decision. | Boolean | v1+ |
| domesticWaiverDecisionDate | The Domestic Waiver Decision date. | String | v1+ |
| parentPatents | List of Parent Patents | Array [JSON Object] | v1+ |
| id | The unique identifier for the parent patent record in iEdison system | Integer | v2+ |
| inventionReportNumber | The unique Invention Report Number for the parent Patent. | String | v1+ |
| patentDocketNumber | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | String | v1+ |
| confirmatoryLicenseExecutionDate | The Confirmatory License date of execution for EPAS submission. | String | v1+ |
| abandonedReason | The reason a Patent is abandoned. | String | v1+ |
| extensionDays | The number of days Patent provisional application date has been extended. | Integer | v1+ |
| usptoAppStatus | The USPTO application status of the Patent. | String | v1+ |
| usptoAppStatusDate | The date of USPTO application. | String | v1+ |
| usptoLastSyncDate | The date of last sync with USPTO. | String | v1+ |
| assigned | Indicates if the Patent has been assigned to another organization. | Boolean | v1+ |
| explanatoryNotes | Explanatory notes are notes about this patent that are permanently attached to this Patent Report. | Array [JSON Object] | v1+ |
| id | The unique identifier assigned to the explanatory note in the iEdison system. | Integer | v2+ |
| note | Explanatory notes that are permanently attached to this Patent Report. | 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. | 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+ |
| id | The unique identifier assigned to the government note in the iEdison system. | Integer | 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 | v1+ |

| Response Parameter | Description | Data Type | Version |
|----------------------------|--|----------------------------|------------|
| creatorName | The full name of the user who entered the Government Note. | String | v1+ |
| createdDate | The date when the user entered the Government Note. | String | v1+ |
| govSupClauseActions | Government Support Clause Actions | Array [JSON Object] | v1+ |
| id | The unique identifier assigned to Government Support Clause Action. | Int | v2+ |
| actionType | The type of action. Refer to Section 12.10 for a list of valid values. | String | v1+ |
| documentType | The type of document. Refer to Section 12.10 for a list of valid values. | String | v1+ |
| actionDate | The date the action was taken. | Date | v1+ |
| reasonText | The reason for the action. | String | v1+ |
| foreignFilings | Foreign Filings for the patent. | Array [JSON Object] | v1+ |
| id | The unique identifier assigned to the foreign filing record in the iEdison system. | Integer | v2+ |
| countryName | The country name of the foreign filing record. | String | v1+ |
| status | The status of the foreign filing. | String | v1+ |
| filingDate | The patent foreign filing date. | String | v1+ |
| inventors | The inventor records for the patent. | Array [JSON Object] | v1+ |
| id | The unique identifier assigned to the patent inventor record in the iEdison system. | Integer | v2 |
| firstName | The first name of the inventor. | String | v1+ |
| lastName | The last name of the inventor. | String | v1+ |
| middleInitial | The middle name or first initial of the inventor. | String | v1+ |
| fedEmployee | Is the inventor a federal employee? <ul style="list-style-type: none"> true = federal employee false = not a federal employee (default) | Boolean | v1+ |
| fedAgency | If the inventor is a federal employee, the agency the inventor works for. Click here for a list of valid abbreviations. | String | v1+ |
| createdDate | The date the Patent record was created. | String | v2 |
| lastUpdatedDate | The date the Patent record was last updated. | String | v2 |

Table 8-8: patentResponse JSON Attributes

9 Utilization API Reference

The Utilization API allows an organization/agency to create, update, and search for an existing utilization record. The information required to submit a request will depend on the reporting year and the latest stage of development specified. The graphic below shows what reporting years each version supports.



Figure 9-1: Utilization API Versions

The latest version of the Create Utilization API, Version 3 (v3) contains the following changes:

- There are 2 options for entering licensees' information:
 1. A new object, "licensees" was created with the following attributes. These parameters are for reporting year is 2023 and beyond.
 - a. 'licenseeName'
 - b. 'exclusiveCount'
 - c. 'nonExclusiveCount'
 - d. 'smallBusiness'
 2. If not using the "licensees" attribute above for reporting year 2023, then use the following attributes for backwards compatibility.
 - a. 'exclusiveLicensesOptions'
 - b. 'nonExclusiveLicensesOptions'
 - c. 'exclusiveLicensees'
 - d. 'nonExclusiveLicensees'
 - e. "smallBusinessLicensesOptions"
- v3 is backwards compatible and will continue to support all the changes that were previously made in v2 for utilizations with Fiscal Year 2023 and prior.

9.1 Create Utilization, v3

The Create Utilization API allows an organization/agency to create Utilization Report for an invention. Refer to Appendix C for samples of requests and responses.

9.1.1 Endpoint URI

This is an example of the endpoint for the Create Utilization resource.

| | |
|-------------|---|
| POST | /iedison/api/{version}/utilizations/create version: [v2, v3] |
|-------------|---|

9.1.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides a description of the Create Utilization request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|--------------------|---|----------|-----------|---------|--------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v2+ | header |
| utilizationRequest | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v2+ | raw |

Table 9-1: Create Utilization Request Parameters

The table below lists the attributes that will be included in the **utilizationRequest** parameter when creating a utilization report. The attributes are included in the JSON object as part of the **utilizationRequest** form-data text element.

| 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 | <p>The year for which the Utilization Report is being submitted.</p> <p>Accepted values:</p> <ul style="list-style-type: none"> • Enter up to 5 years back from the Date Invention Reported to Organization up to current Calendar year. <p>For example, if inventionReportDate =</p> | Yes | Integer | 4 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|---|---------------------|----------------|--------|---------|
| | 03/01/2016 and calendar year is 2024, the valid values are 2011 through 2024 (inclusive). | | | | |
| latestStageDev | The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values. | Yes | String | 30 | v2+ |
| firstCommercialSaleYear | <p>The year the product embodying the Invention was first sold (date of first commercial sale).</p> <p>Required if latestStageDev = "Commercialized".</p> <p>Accepted values:</p> <ul style="list-style-type: none"> Enter up to 5 years back from the Date Invention Reported to Organization up to current Calendar year. <p>For example, if inventionReportDate = 03/01/2016 and calendar year is 2022, the valid values are 2011 through 2022 (inclusive).</p> | Yes (Conditionally) | Integer | | v2+ |
| totalIncome | <p>Total income from royalty or option agreements for the Invention.</p> <p>Required if latestStageDev = "Commercialized" or "Licensed".</p> | Yes (Conditionally) | Number (float) | | v2+ |
| manufacturingWaiver | This is for "6. Did the grantee organization/contractor or any of the exclusive licensees request a waiver of the U.S. manufacturing requirements in the designated reporting period?". The value 1 should be used for "Yes" and 0 should be used for "No". This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for utilization with reporting fiscal year of 2023 and after, the system will ignore this field. | No | Number | | v1+ |
| manufacturingWaiverTotal | This is for "7. If yes, how many such waivers were obtained?". This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for | No | Number | | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------------|---|----------------------------|----------------------------|--------|-----------|
| | utilization with reporting fiscal year of 2023 and after, the system will ignore this field. | | | | |
| licensees | The licensees associated with the invention. This object is only used if reportingYear is greater than or equal to 2024. | Yes (Conditionally) | Array [JSON Object] | | v3 |
| licenseeName | The name of the licensee. The name must be unique. | Yes | String | 255 | v3 |
| exclusiveCount | The number of exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | | Integer | | v3 |
| nonExclusiveCount | The number of non-exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | | Integer | | v3 |
| smallBusiness | The flag to indicate if the licensee is designated as small business. | | Boolean | | v3 |
| exclusiveLicensesOptions | In the designated reporting period, how many exclusive licenses and/or options are active? <ul style="list-style-type: none"> The number of exclusive licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". This is only valid if reportingYear = "2023". | Yes (Conditionally) | Integer | | v2 only |
| exclusiveLicensees | The exclusive licensee names for the invention. <ul style="list-style-type: none"> Required if exclusiveLicensesOptions is greater than 0. This is only valid if reportingYear = "2023". | Yes (Conditionally) | Array [String] | | v2 only |
| nonExclusiveLicensesOptions | In the designated reporting period, how many non-exclusive licenses and/or options are active? <ul style="list-style-type: none"> The number of non-exclusive licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". | Yes (Conditionally) | Integer | | v2 only |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------------|---|------------------------|-------------------|--------|---------|
| | <ul style="list-style-type: none"> This is only valid if reportingYear = "2023". | | | | |
| nonExclusiveLicensees | <p>The non-exclusive licensee names for the invention.</p> <ul style="list-style-type: none"> Required if nonExclusiveLicensesOptions is greater than 0. <p>This is only valid if reportingYear = "2023".</p> | Yes (Conditionally) | Array [String] | | v2 only |
| smallBusinessLicensesOptions | <p>How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?</p> <ul style="list-style-type: none"> The number of small business licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". This is only valid if reportingYear = "2023". | Yes (Conditionally) | Integer | | v2 only |
| isUSManufacturingRequired1 | <ul style="list-style-type: none"> If latestStageDev = "Commercialized" or "Licensed". <p>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.)?</p> <ul style="list-style-type: none"> Accepted values are: <ul style="list-style-type: none"> N = No Y = Yes This is only used if reportingYear is greater than or equal to 2023. | Yes (Conditionally) | String | 1 | v2+ |
| isUSManufacturingRequired2 | <ul style="list-style-type: none"> If latestStageDev = "Commercialized" or "Licensed" If isUSManufacturingRequired1 = Y <p>Then, answer the following:</p> | Yes (Conditionally) | String | 3 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|----------------------------|--|------------------------|-----------|--------|---------|
| | <p>In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes • If isUSManufacturingRequired1 = N <p>Then, answer the following:</p> <p>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 using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes ▪ N/A = Not Applicable <p>Refer to Sections 12.21 and 12.22 for the question logic.</p> <p>This is only used if reportingYear is greater than or equal to 2023.</p> | | | | |
| isUSManufacturingRequired3 | <ul style="list-style-type: none"> • If latestStageDev is "Commercialized" • If isUSManufacturingRequired1 = Y <p>Then, answer the following:</p> | Yes (Conditionally) | String | 3 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|------------------------|-----------|--------|---------|
| | <p>In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes • If isUSManufacturingRequired1 = N <p>Then, answer the following:</p> <p>In the designated reporting period are all products embodying the subject invention or produced using 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?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes ▪ N/A = Not Applicable <p>Refer to Sections 12.21 and 12.22 for the question logic.</p> <p>This is only used if reportingYear is greater than or equal to 2023.</p> | | | | |
| notes | <p>General notes</p> <ul style="list-style-type: none"> • Required if commercializationPlanId = "3" or "6". | Yes (Conditionally) | String | 1000 | v2+ |
| commercializationPlanId | What are your current commercialization plans for this invention? | Yes (Conditionally) | Number | | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------------|---|------------|----------------------------|--------|------------|
| | <ul style="list-style-type: none"> The commercialization plan for the invention. Required if latestStageDev = "Not Licensed or Commercialized". <p>Refer to Section 12.20 for a list of valid values.</p> | | | | |
| newUsJobs | The 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 | The 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 using or Embodying the Subject Invention(s). | No | Array [JSON Object] | | v2+ |
| 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 | Array [JSON Object] | | 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 | Array [JSON Object] | | v2+ |
| manufacturerName | The name of the manufacturer. | Yes | String | 255 | v2+ |
| productLocation | The manufacturing production location(s). | Yes | Array [JSON Object] | | v2+ |
| country | The manufacturing country for the location. Refer to Section 12.4 for a list of valid values. | No | String | 30 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------|--|------------------------|----------------------------|--------|------------|
| state | The manufacturing state for the location for applicable country. Refer to Section 12.14 for a list of valid values. | No | String | 14 | v2+ |
| firstDate | The first date of manufacturing. Required if DOE is one of the funding agencies for the Invention Report this utilization is associated with. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes (Conditionally) | String | 10 | v2+ |
| firstDateType | The type for the first date of manufacturing. Refer to 12.19 for a list of acceptable type values. Required if 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. Required if DOE is one of the funding agencies for the Invention Report this utilization is associated with. | Yes (Conditionally) | Integer | | v2+ |
| commercialProds | The FDA Approved Commercial products. | No | Array [JSON Object] | | 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 12.16 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 12.17 for a list of acceptable utilization Government Review Status values. | No | String | 10 | v2+ |
| publicInd | The public announced indicator flag if the FDA approved commercial product. Please refer to Section 12.18 for a list of acceptable utilization commercial product Public Announced values. | No | String | 3 | v2+ |

Table 9-2: utilizationRequest JSON Attributes

9.1.3 Response Parameters

When the request is processed and the utilization report is successfully created, the Create Utilization API endpoint returns an **utilizationResponse** data object. The attributes of this object are described in **Section 9.4**.

9.2 Update Utilization, v3

The Update Utilization API allows organization/agency to update an existing Utilization Report to an invention for utilization reporting year for both legacy questions prior 2023 and new questions for 2023 and beyond. Refer to Appendix C for samples of requests and responses.

9.2.1 Endpoint URI

This is an example of the endpoint for the Update Utilization resource.

| | |
|-------------|---|
| POST | /iedison/api/{version}/utilizations/update version: [v2, v3] |
|-------------|---|

9.2.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides a description of the Update Utilization request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|-------------------|--|----------|-----------|---------|--------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1+ | header |

Table 9-3: Update Utilization Request Parameters

The table below shows the parameters that will be included in the JSON body when updating a Utilization Report. The parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Patent that needs to be updated.

The table below lists the attributes that will be included in the **utilizationRequest** parameter when creating an invention request. The attributes are included in the JSON object as part of the **utilizationRequest** form-data text element.

| 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 | <p>The year for which the Utilization Report is being submitted.</p> <p>Accepted values:</p> <ul style="list-style-type: none"> • Enter up to 5 years back from the Date Invention Reported to Organization up to current Calendar year. <p>For example, if inventionReportDate = 03/01/2016 and calendar year is</p> | Yes | Integer | 4 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|--------------------------|---|------------------------|-------------------|--------|---------|
| | 2024, the valid values are 2011 through 2024 (inclusive). | | | | |
| latestStageDev | The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values. | Yes | String | 30 | v2+ |
| firstCommercialSaleYear | <p>The year the product embodying the Invention was first sold (date of first commercial sale).</p> <p>Required if latestStageDev = "Commercialized".</p> <p>Accepted values:</p> <ul style="list-style-type: none"> Enter up to 5 years back from the Date Invention Reported to Organization up to current Calendar year. <p>For example, if inventionReportDate = 03/01/2016 and calendar year is 2022, the valid values are 2011 through 2022 (inclusive).</p> | Yes (Conditionally) | Integer | | v2+ |
| totalIncome | <p>Total income from royalty or option agreements for the Invention.</p> <p>Required if latestStageDev = "Commercialized" or "Licensed".</p> | Yes (Conditionally) | Number (float) | | v2+ |
| manufacturingWaiver | This is for "6. Did the grantee organization/contractor or any of the exclusive licensees request a waiver of the U.S. manufacturing requirements in the designated reporting period?". The value 1 should be used for "Yes" and 0 should be used for "No". This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for utilization with reporting fiscal year of 2023 and after, the system will ignore this field. | No | Number | | v1+ |
| manufacturingWaiverTotal | This is for "7. If yes, how many such waivers were obtained?". This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for utilization with reporting fiscal year | No | Number | | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------------|---|------------------------|------------------------|--------|---------|
| | of 2023 and after, the system will ignore this field. | | | | |
| licensees | The licensees associated with the invention. This object is only used if reportingYear is greater than or equal to 2024. | Yes (Conditionally) | Array [JSON Object] | | v3 |
| licenseeName | The name of the licensee. The name must be unique. | Yes | String | 255 | v3 |
| exclusiveCount | The number of exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | | Integer | | v3 |
| nonExclusiveCount | The number of non-exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | | Integer | | v3 |
| smallBusiness | The flag to indicate if the licensee is designated as small business. | | Boolean | | v3 |
| exclusiveLicensesOptions | In the designated reporting period, how many exclusive licenses and/or options are active? <ul style="list-style-type: none"> The number of exclusive licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". This is only valid if reportingYear = "2023". | Yes (Conditionally) | Integer | | v2 only |
| exclusiveLicensees | The exclusive licensee names for the invention. <ul style="list-style-type: none"> Required if exclusiveLicensesOptions is greater than 0. This is only valid if reportingYear = "2023". | Yes (Conditionally) | Array [String] | | v2 only |
| nonExclusiveLicensesOptions | In the designated reporting period, how many non-exclusive licenses and/or options are active? <ul style="list-style-type: none"> The number of non-exclusive licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". | Yes (Conditionally) | Integer | | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|------------------------------|---|------------------------|-------------------|--------|---------|
| | <ul style="list-style-type: none"> This is only valid if reportingYear = "2023". | | | | |
| nonExclusiveLicensees | <p>The non-exclusive licensee names for the invention.</p> <ul style="list-style-type: none"> Required if nonExclusiveLicensesOptions is greater than 0. <p>This is only valid if reportingYear = "2023".</p> | Yes (Conditionally) | Array [String] | | v2 only |
| smallBusinessLicensesOptions | <p>How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?</p> <ul style="list-style-type: none"> The number of small business licenses/option agreements for the Invention. Required if latestStageDev = "Commercialized" or "Licensed". This is only valid if reportingYear = "2023". | Yes (Conditionally) | Integer | | v2 only |
| isUSManufacturingRequired1 | <ul style="list-style-type: none"> If latestStageDev = "Commercialized" or "Licensed". <p>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.)?</p> <ul style="list-style-type: none"> Accepted values are: <ul style="list-style-type: none"> N = No Y = Yes This is only used if reportingYear is greater than or equal to 2023. | Yes (Conditionally) | String | 1 | v2+ |
| isUSManufacturingRequired2 | <ul style="list-style-type: none"> If latestStageDev = "Commercialized" or "Licensed" If isUSManufacturingRequired1 = Y <p>Then, answer the following:</p> | Yes (Conditionally) | String | 3 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|----------------------------|--|------------------------|-----------|--------|---------|
| | <p>In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes • If isUSManufacturingRequired1 = N <p>Then, answer the following:</p> <p>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 using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes ▪ N/A = Not Applicable <p>Refer to Sections 12.21 and 12.22 for the question logic.</p> <p>This is only used if reportingYear is greater than or equal to 2023.</p> | | | | |
| isUSManufacturingRequired3 | <ul style="list-style-type: none"> • If latestStageDev is "Commercialized" • If isUSManufacturingRequired1 = Y <p>Then, answer the following:</p> | Yes (Conditionally) | String | 3 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|------------------------|-----------|--------|---------|
| | <p>In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes • If isUSManufacturingRequired1 = N <p>Then, answer the following:</p> <p>In the designated reporting period are all products embodying the subject invention or produced using 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?</p> <ul style="list-style-type: none"> ○ Accepted values are: <ul style="list-style-type: none"> ▪ N = No ▪ Y = Yes ▪ N/A = Not Applicable <p>Refer to Sections 12.21 and 12.22 for the question logic.</p> <p>This is only used if reportingYear is greater than or equal to 2023.</p> | | | | |
| notes | <p>General notes</p> <ul style="list-style-type: none"> • Required if commercializationPlanId = "3" or "6". | Yes (Conditionally) | String | 1000 | v2+ |
| commercializationPlanId | What are your current commercialization plans for this invention? | Yes (Conditionally) | Number | | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------------|---|------------|----------------------------|--------|------------|
| | <ul style="list-style-type: none"> The commercialization plan for the invention. Required if latestStageDev = "Not Licensed or Commercialized". <p>Refer to Section 12.20 for a list of valid values.</p> | | | | |
| newUsJobs | The 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 | The 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 using or Embodying the Subject Invention(s). | No | Array [JSON Object] | | v2+ |
| 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 | Array [JSON Object] | | 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 | Array [JSON Object] | | v2+ |
| manufacturerName | The name of the manufacturer. | Yes | String | 255 | v2+ |
| productLocation | The manufacturing production location(s). | Yes | Array [JSON Object] | | v2+ |
| country | The manufacturing country for the location. Refer to Section 12.4 for a list of valid values. | No | String | 30 | v2+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|---------------------|--|------------------------|---------------------|--------|---------|
| state | The manufacturing state for the location for applicable country. Refer to Section 12.14 for a list of valid values. | No | String | 14 | v2+ |
| firstDate | The first date of manufacturing. Required if DOE is one of the funding agencies for the Invention Report this utilization is associated with. <ul style="list-style-type: none"> Format: MM/DD/YYYY | Yes (Conditionally) | String | 10 | v2+ |
| firstDateType | The type for the first date of manufacturing. Refer to 12.19 for a list of acceptable type values. Required if 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. Required if DOE is one of the funding agencies for the Invention Report this utilization is associated with. | Yes (Conditionally) | Integer | | v2+ |
| commercialProds | The FDA Approved Commercial products for the utilization with fiscal year prior 2023. | No | Array [JSON Object] | | 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 12.16 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 12.17 for a list of acceptable utilization Government Review Status values. | No | String | 10 | v2+ |
| publicInd | The public announced indicator flag if the FDA approved commercial product. Please refer to Section 12.18 for a list of acceptable utilization commercial product Public Announced values. | No | String | 3 | v2+ |

Table 9-4: utilizationRequest JSON Attributes

9.2.3 Response Parameters

When the request is processed and the utilization report is successfully updated, the Update Utilization API endpoint returns an **utilizationResponse** data object. The attributes of this object are described in **Section 9.4**.

9.3 Search Utilization, v3

The Search Utilization API allows users to specify any combination of the attributes to search for existing Utilization Reports. The search criteria are applied using an "AND" operation across the various attributes specified in the JSON request. For example, if the utilization search request includes both the Invention Report Number and the Invention Report Year, the search results will include all entries that match both the Invention Report Number and the Invention Report Year. Refer to Appendix C for samples of requests and responses.

9.3.1 Endpoint URI

This is an example of the v2 endpoint for the Search Utilization resource.

| | |
|-------------|---|
| POST | /iedison/api/{version}/utilizations/search version: [v2, v3] |
|-------------|---|

9.3.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Utilization request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Data Type | Version | In |
|-------------------|--|-----------|---------|--------|
| accept | Specifies the response format that is expected. Set to "application/json". | String | v2+ | header |

Table 9-5: Search Utilization Request 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.

The table below lists the attributes that will be included in the **utilizationSearchCriteria** parameter when searching for a Utilization Report. The attributes are included in the JSON object as part of the **utilizationSearchCriteria** form-data text element.

| JSON Attribute Name | Description | Data Type | Length | Version |
|-------------------------|--|----------------|--------|---------|
| limit | The total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 | Integer | | v2 |
| offset | Indicates the page index. <ul style="list-style-type: none"> Default = 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 12.1 for a list of latest valid values. | String | 30 | v2 |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. | String | 50 | v2 |
| 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 12.15 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. <ul style="list-style-type: none"> Format: MM/DD/YYYY | String | 10 | v2 |
| inventionReportDateTo | The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | 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 |

| JSON Attribute Name | Description | Data Type | Length | Version |
|---------------------|--|-----------|--------|---------|
| lastUpdatedFrom | The 'start from' search date against the utilization last updated date. <ul style="list-style-type: none"> Will use the last updated date for the invention, but if that is null, then the created date will be used. Format: MM/DD/YYYY | String | 10 | v2 |
| lastUpdatedTo | The 'up to' search date against the utilization last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | String | 10 | v2 |

Table 9-6: utilizationSearchCriteria JSON Attributes

9.3.3 Response Parameters

When the request is processed, the Search Utilization API endpoint returns a utilization report that matches the search criteria in the **utilizationResponse** data object. The attributes of this object are described in **Section 9.4**.

| Response Parameter | Description | Data Type | Version |
|--------------------|---|---------------------|---------|
| totalRecords | The total number of records for the search. | Number | v2 |
| limit | The limit entered by the user while making the request, i.e., the total number of records the user wished to retrieve per page | Integer | v2 |
| offset | The page index specified by the user. <ul style="list-style-type: none"> Default = 0 if user does not provide any offset in the request. | Integer | v2 |
| utilizations | A list of utilizations which contains the utilizationResponse data object.9.4 | Array [JSON Object] | v2 |

Table 9-7: utilizationSearchCriteria Response Parameters

9.4 utilizationResponse Data Object

The create, update, and search Utilization API shares the same **utilizationResponse** data object. The JSON attributes are described in the table below.

| JSON Attribute Name | Description | Data Type | Version | | |
|-------------------------|---|-----------|---------|--|--|
| inventionReportNumber | Automatically generated by iEdison for an 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 | The Primary Agency designated for each Invention Report in iEdison. Click here for a list of valid abbreviations. | String | v2+ | | |

| JSON Attribute Name | Description | Data Type | Version | | |
|------------------------------|---|-----------|---------|--|--|
| inventionReportDate | The date the inventor discloses the subject Invention in writing to the recipient institution. | 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 12.1 for a list of latest valid values. | String | v2+ | | |
| firstCommercialSaleYear | The year the product embodying the Invention was first sold (date of first commercial sale). | Integer | v2+ | | |
| totalIncome | The total income from royalty or option agreements for the Invention. | Integer | v2+ | | |
| manufacturingWaiver | This is for “6. Did the grantee organization/contractor or any of the exclusive licensees request a waiver of the U.S. manufacturing requirements in the designated reporting period?”. The value 1 should be used for “Yes” and 0 should be used for “No”. This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for utilization with reporting fiscal year of 2023 and after, the system will ignore this field. | Number | V1+ | | |
| manufacturingWaiverTotal | This is for “7. If yes, how many such waivers were obtained?”. This field is only used for utilization that has reporting fiscal year of 2022 and prior. If value is provided for utilization with reporting fiscal year of 2023 and after, the system will ignore this field. | Number | V1+ | | |
| exclusiveLicensesOptions | The number of exclusive licenses/option agreements for the Invention. | Integer | v2+ | | |
| nonExclusiveLicensesOptions | The number of non-exclusive licenses/option agreements for the Invention. | Integer | v2+ | | |
| smallBusinessLicensesOptions | The number of small business licenses/option agreements for the Invention. Note: If a value was entered in the request, it will not be updated regardless of how the licensee information is entered. | 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.)? <ul style="list-style-type: none"> N = No Y = Yes Refer to Sections 12.21 and 12.22 for a diagram of the question logic. | String | v2+ | | |
| isUSManufacturingRequired2 | <ul style="list-style-type: none"> If latestStageDev = “Licensed” and isUSManufacturingRequired1 = Y, | String | v2+ | | |

| JSON Attribute Name | Description | Data Type | Version | | |
|----------------------------|--|-----------|---------|--|--|
| | <p>Then,</p> <p>In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>Accepted values are:</p> <ul style="list-style-type: none"> ○ N = No ○ Y = Yes <ul style="list-style-type: none"> • If latestStageDev = "Licensed" and isUSManufacturingRequired1 = N, <p>Then,</p> <p>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 using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?</p> <p>Accepted values are:</p> <ul style="list-style-type: none"> ○ N = No ○ Y = Yes ○ N/A = Not Applicable <p>Refer Sections 12.21 and 12.22 for a diagram of the question logic.</p> | | | | |
| isUSManufacturingRequired3 | <ul style="list-style-type: none"> • If latestStageDev = "Commercialized" and isUSManufacturingRequired1 = Y, <p>Then,</p> <p>In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>Accepted values are:</p> <ul style="list-style-type: none"> ○ N = No | String | v2+ | | |

| JSON Attribute Name | Description | Data Type | Version | | |
|---------------------------|--|---------------------|---------|--|--|
| | <ul style="list-style-type: none"> ○ Y = Yes • If latestStageDev = “Commercialized” and isUSManufacturingRequired1 = N, Then, In the designated reporting period are all products embodying the subject invention or produced using 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? Accepted values are: <ul style="list-style-type: none"> ○ N = No ○ Y = Yes ○ N/A = Not Applicable <p>Refer to Sections 12.21 and 12.22 for a diagram of the question logic.</p> | | | | |
| notes | General notes | String | v2+ | | |
| commercializationPlanId | <p>What are your current commercialization plans for this invention?</p> <ul style="list-style-type: none"> • The commercialization plan for the invention. • Refer to Section 12.20 for a list of valid commercialization plans. | Number | v2+ | | |
| exclusiveLicensees | The exclusive licensee names for the invention. | Array [String] | v2 only | | |
| nonExclusiveLicensees | The non-exclusive licensee names for the invention. | Array [String] | v2 only | | |
| newUsJobs | <ul style="list-style-type: none"> • For DOE Inventions only. <p>The approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period.</p> | Integer | v2+ | | |
| newUsCompanies | <ul style="list-style-type: none"> • For DOE Inventions only. <p>The number of new U.S.-based companies created from the commercialization efforts during the reporting period.</p> | Integer | v2+ | | |
| manufacturingCommProducts | The manufacturing commercial products made using or Embodying the Subject Invention(s). Object attributes below. | Array [JSON Object] | v2+ | | |
| id | The unique identifier for the manufacturing commercial product record | Integer | v3+ | | |

| JSON Attribute Name | Description | Data Type | Version | | |
|---------------------|--|----------------------------|------------|--|--|
| productName | The unique commercial product name. | String | v2+ | | |
| naicsCode | <ul style="list-style-type: none"> For DOE inventions only. <p>The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments.</p> | String | v2+ | | |
| licensees | The licensees associated with the product. | Array [JSON Object] | 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. | Array [JSON Object] | v2+ | | |
| id | The unique identifier for the manufacturer | Integer | v3+ | | |
| manufacturerName | The name of the manufacturer | String | v2+ | | |
| productLocation | The manufacturing production location(s). Object attributes below. | Array [JSON Object] | v2+ | | |
| id | The unique identifier for the manufacturing production location record. | Integer | v3+ | | |
| country | The manufacturing country for the location. Refer to Section 12.4 for a list of valid values. | String | v2+ | | |
| state | The manufacturing state for the location for applicable country. Refer to Section 12.14 for a list of valid values. | String | v2+ | | |
| firstDate | The first date of manufacturing. | String | v2+ | | |
| firstDateType | The type for the first date of manufacturing. Please refer to Section 12.19 for a list of valid values. | String | v2+ | | |
| productQuantity | The total number of products at the manufacturing location. | Integer | v2+ | | |
| commercialProds | The FDA Approved Commercial products. Object Attributes are below. | Array [JSON Object] | v2+ | | |
| id | The unique identifier for the FDA Approved Commercial Product record. | Integer | v3+ | | |
| 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 12.16 for a list of utilization Commercial Product Type values. | String | v2+ | | |
| govtReviewStatus | The status of the FDA approved commercial product. Please refer to Section 12.17 for a list of utilization Government Review Status values. | String | v2+ | | |

| JSON Attribute Name | Description | Data Type | Version | | |
|---------------------|--|----------------------------|-----------|--|--|
| publicInd | The public announced indicator flag of the FDA approved commercial product. Please refer to Section 12.18 for a list of utilization commercial product Public Announced values. | String | v2+ | | |
| licensees | The licensees associated with the invention. | Array [JSON Object] | v3 | | |
| id | The ID number associated with the licensee. | String | v3 | | |
| licenseeName | The name of the licensee. | String | v3 | | |
| exclusiveCount | The number of exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | String | v3 | | |
| nonExclusiveCount | The number of non-exclusive licenses/option agreements that were active for the Invention in the designated reporting period. | String | v3 | | |
| smallBusiness | Indicates if a licensee is designated as small business. Values are: <ul style="list-style-type: none"> true = Is a small business false = Is not a small business | Boolean | v3 | | |
| createdDate | The date the utilization record was created. | String | v2+ | | |
| updatedAt | The date the utilization record was last updated. | String | v2+ | | |

Table 9-8: utilizationResponse JSON Attributes

10 Document API Reference

The document APIs provide ways to search for a disclosure document, Confirmatory License, Government Support Clause, and other document types from the inventions and patents; or download a specific document.

The latest version of the Search Document and Download Document API, Version 2 (v2) contains the following changes:

- Renamed attribute 'patentDocketNum' to 'patentDocketNumber' in document response data object.

10.1 Search Document

Search condition for documents is the combination of attributes of the **searchDocumentCriteria** JSON object. The system will only return documents that are granted access permission to the user's organization. Refer to Appendix D for samples of requests and responses.

10.1.1 Endpoint URI

This is an example of the endpoint for the Search Documents resource.

| | |
|-------------|----------------------------------|
| POST | /iedison/api/v2/documents/search |
|-------------|----------------------------------|

10.1.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Document request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|------------------------|---|----------|-----------|---------|-----------|
| accept | Specifies the response format that is expected. Set to “application/json”. | Yes | String | v1+ | header |
| documentSearchCriteria | The JSON object that contains attributes used in the request. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |

Table 10-1: Search Document Request Parameters

The table below lists the attributes that will be included in the **searchDocumentCriteria** parameter when searching for a document. The attributes are included in the JSON object as part of the **searchDocumentCriteria** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-------------------------|---|----------|-----------|--------|---------|
| inventionReportNumber | Automatically generated by iEdison for an 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 is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | No | String | 30 | v1+ |
| primaryAgency | The Primary Agency designated for each Invention Report in iEdison. Click here 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 status of the title to rights in the reported Invention. Refer to Section 12.15 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 | No | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------|---|----------|-----------|--------|---------|
| | subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | | | | |
| inventionReportDateTo | The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| patentFilingDateFrom | The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| patentFilingDateTo | The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| patentApplicationType | Patent Application Type of a record. Refer to Section 12.10 for a list of valid values. | No | String | 25 | v1+ |
| patentStatus | Indicates the status of the Patent. Refer to Section 12.13 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 | The first name of the inventor. | No | String | 50 | v1+ |
| inventorLastName | The last name of the inventor. | No | String | 50 | v1+ |
| lastUpdatedFrom | Search the "From Date" of the document last updated date. This will use the last updated date for the invention, but if that is null, then the created date will be used. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| lastUpdatedTo | Search the "To Date" of the document last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|---------------------|---|----------|-----------|--------|---------|
| lastUpdatedDate | Document last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1+ |
| documentType | The document type name for the invention and patent. Refer to Section 12.23 for a list of valid values. | No | String | 60 | v2 |
| limit | Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 | No | Integer | | v1+ |
| offset | Indicates the page index. <ul style="list-style-type: none"> Default = 0 | No | Integer | | v1+ |

Table 10-2: searchDocumentCriteria JSON Attributes

10.1.3 Response Parameters

This section contains response examples for searching for documents.

| Response Parameter | Description | Data Type | Version |
|--------------------|---|---------------------|---------|
| totalRecords | Total number of records for the search. | Number | v1+ |
| limit | The limit used in the request | Integer | v1+ |
| offset | The offset used in the request | Integer | v1+ |
| documentsList | A list of document response Objects. Refer to Section 10.1.4 for a description of the attributes. | Array [JSON Object] | v1+ |

Table 10-3: Search Document Response Parameters

10.1.4 Document Response Data Object

The JSON attributes are described in the table below.

| JSON Attribute Name | Description | Data Type | Version |
|-----------------------|---|-----------|---------|
| inventionReportNumber | A system generated sequence number used for ID of the Patent. | String | v1+ |
| patentDocketNum | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). This is supported in v1 endpoint only. This field is no longer supported in document v2 APIs. | String | v1 |
| patentDocketNumber | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | String | v2 |
| documentType | The unique identifier for document category types. | Number | v1+ |
| documentTypeName | The name of document category types. | String | v1+ |
| documentID | The unique identifier. | String | v1+ |
| fileName | The name of the download file. | String | v1+ |
| documentCreateDate | The date the document was created. | String | v1+ |

| JSON Attribute Name | Description | Data Type | Version |
|---------------------|--|-----------|---------|
| documentUpdateDate | The date the document was last update. | String | v1+ |

Table 10-4: Document Response JSON Attributes

10.2 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 own document ID. Refer to Appendix D for samples of requests and responses.

10.2.1 Endpoint URI

This is an example of the endpoint for the Download Document resource.

| | |
|-------------|------------------------------------|
| POST | /iedison/api/v2/documents/download |
|-------------|------------------------------------|

10.2.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Download Document request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|-------------------|---|----------|-----------|---------|-----------|
| accept | Set to */* | Yes | String | v1+ | header |
| document | The document JSON objects containing fields to be used in the search download file. Refer to the table below for a description of the attributes. | Yes | String | v1+ | form-data |

Table 10-5: Download Document Request Parameters

The table below lists the attributes that will be included in the **document** parameter when downloading a document. The attributes are included in the JSON object as part of the **document** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|---------------------|---------------------------------|----------|-----------|--------|---------|
| documentID | The unique document identifier. | Yes | Number | | v1+ |

Table 10-6: document JSON Attributes

10.2.3 Response Parameters

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

| Response Parameter | Description | Data Type | Version |
|--------------------|--------------------------------------|--------------------------|---------|
| file | The document file content in stream. | application/octet-stream | v1+ |

Table 10-7: Download Document Response Parameters

11 Notification API Reference

The Notification API provide ways to search for a list of pending notifications. Search condition for notifications is the combination of attributes of the **notificationSearchCriteria** JSON object. The system will only return pending notifications which granted access permission to the user's organization. Refer to Appendix E for samples of requests and responses.

11.1 Endpoint URI

This is an example of the endpoint for the Notification resource.

| | |
|-------------|--------------------------------------|
| POST | /iedison/api/v1/notifications/search |
|-------------|--------------------------------------|

11.2 Request Parameters

The request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header defines the expected response format when the API returns the response. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the POST request. When submitting a form, the format data and file content are sent in the body of the request.

The table below provides the explanation of the Notification request header and body parameters that are expected by the iEdison API.

| Request Parameter | Description | Required | Data Type | Version | In |
|----------------------------|---|----------|-----------|---------|-----------|
| accept | Specifies the response format that is expected. Set to "application/json". | Yes | String | v1 | header |
| notificationSearchCriteria | The notificationSearchCriteria JSON objects containing fields to be used in the search. Refer to the table below for a description of the attributes. | Yes | String | v1 | form-data |

Table 11-1: Notification Request Parameters

The table below lists the attributes that will be included in the **notificationSearchCriteria** parameter when searching for a notification. The attributes are included in the JSON object as part of the **notificationSearchCriteria** form-data text element.

| JSON Attribute Name | Description | Required | Data Type | Length | Version |
|-----------------------|---|----------|-----------|--------|---------|
| inventionReportNumber | Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified. | No | String | 100 | v1 |
| patentDocketNumber | The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s). | No | String | 30 | v1 |
| messageNumber | Search for the "MessageNumber" of a pending notification | No | Integer | 4 | v1 |
| fiscalYear | Search for the "FiscalYear" of a pending notification, <ul style="list-style-type: none"> Format: 4-digit "YYYY" | No | Integer | 4 | v1 |
| postedDateFrom | Search the "From Date" of a notification posting date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1 |
| postedDateTo | Search the "To Date" of a notification posting date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1 |
| dueDateFrom | Search the "From Date" of a notification due date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1 |
| dueDateTo | Search the "To Date" of a notification due date. <ul style="list-style-type: none"> Format: MM/DD/YYYY | No | String | 10 | v1 |
| limit | Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 | No | Integer | | v1 |
| offset | Indicates the page index. <ul style="list-style-type: none"> Default = 0 | No | Integer | | v1 |

Table 11-2: notificationSearchCriteria JSON Attributes

11.3 Response Parameters

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

| Response Parameter | Description | Data Type | Version |
|--------------------|---|---------------------|---------|
| totalRecords | The total number of records for the search. | Number | v1 |
| limit | The limit used in the request. | Integer | v1 |
| offset | The offset used in the request. | Integer | v1 |
| notifications | A list of notification response objects. | Array [JSON Object] | v1 |

Table 11-3: Notification Response Parameters

11.4 notificationResponse Data Object

The Utilization create, update, and search API endpoints return a common **utilizationResponse** data object. The JSON attributes are described in the table below.

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

Table 11-4: notificationResponse JSON Attributes

12 Lookup Values

The tables below contain lookup values used in the API.

12.1 Agency Mapping List

Click [here](#) to see list of all iEdison enrolled agencies. Be advised that the API cannot be used for agencies that have the following red notice "**THIS AGENCY IS CURRENTLY INACTIVE IN IEDISON**"

12.2 Agreement Types

List of available Agreement Types

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

12.3 Award Type

List of the Invention funding agreement Award types

| Value |
|-------------|
| Prime Award |
| Sub-Award |

12.4 Country List

A list of valid country Names and FIPs Country Codes.

| Name | FIPs Country Codes |
|--|--------------------|
| AFGHANISTAN | AF |
| African Manufacturer Intellectual Property Organization | OAPI |
| African Regional Manufacturer 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 |

| Name | FIPs Country Codes |
|------------------------------|--------------------|
| BRITISH VI ISS | VI |
| BRUNEI | BX |
| BULGARIA | BU |
| BURKINA | UV |
| BURUNDI | BY |
| CABO VERDE | CV |
| CAMBODIA | CB |
| CAMEROON | CM |
| CANADA | CA |
| 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 | EAP0 |
| European Patent Organization | EPO |
| FALKLAND ISS | FX |

| Name | FIPs Country Codes |
|----------------|--------------------|
| FIJI | FJ |
| FINLAND | FI |
| FRANCE | FR |
| FRENCH POLYNES | FP |
| GABON | GB |
| GAMBIA | GA |
| GAZA STRIP | GZ |
| GEORGIA | GG |
| 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 |

| Name | FIPs Country Codes |
|---------------|--------------------|
| KOREA REP OF | KS |
| KOSOVO | KV |
| KUWAIT | KU |
| KYRGYZSTAN | KG |
| LAOS | LA |
| LATVIA | LG |
| LEBANON | LE |
| 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 |

| Name | FIPs Country Codes |
|---|--------------------|
| NORTH MACEDONIA | MK |
| NORWAY | NO |
| OMAN | MU |
| PAKISTAN | PK |
| PANAMA | PM |
| PAPUA N GUINEA | PP |
| 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 |

| Name | FIPs Country Codes |
|----------------------|--------------------|
| SURINAME | NS |
| SWEDEN | SW |
| SWITZERLAND | SZ |
| SYRIA | SY |
| TAIWAN | TW |
| 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 |

12.5 Invention Development Stage

List of available Invention Development Stages

| Value |
|----------------|
| Commercialized |
| Licensed |

| Value |
|--------------|
| Not Licensed |

12.6 Invention Disposition

The 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 automatically to

- "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. Primary Agency can update the disposition status to Voided with API update request only. Title Election Status will change to Voided when Disposition Status is updated to Voided. |
| 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. |

12.7 Invention Does Not Retain Title Reason

The 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 |

12.8 Inventor US Federal Employee

Is inventor a federal employee?

| Value |
|-------|
| true |
| false |

12.9 Patent Filing Status

List of available Patent filing status

| Value |
|-----------|
| Active |
| Expired |
| Abandoned |

12.10 Patent Action Document Type

The iEdison Patent Action Document Type.

| Value | Notes |
|-------|---------------------------|
| CL | Confirmatory License |
| SC | Government Support Clause |

12.11 Patent Action Type

The iEdison Patent Action Type.

| Value | Notes |
|-------|--------|
| A | Accept |
| R | Reject |

12.12 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. |

12.13 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 |

12.14 States List

The 2-letter code for U.S. states and territories. For use contractorState and Utilization Manufacturing locations. Use the appropriate **'Code'** for in the request.

| Name | Code |
|----------------|------|
| ALABAMA | AL |
| ALASKA | AK |
| ALBERTA | AB |
| AMERICAN SAMOA | AS |
| APO/FPO EUROPE | AE |
| APO/FPO OT PAC | AP |
| APO/FPO 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 |

| Name | Code |
|----------------|------|
| MONTANA | MT |
| NAVASSA ISLAND | BQ |
| NEBRASKA | NE |
| NEVADA | NV |
| NEW BRUNSWICK | NB |
| NEW HAMPSHIRE | NH |
| 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 |
| | |

12.15 Title Election Status

The decision of the institution 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.
- 'Only Elect to Retain Title' and 'Does Not Retain Title' status will be allowed when submitting Invention Create Requests.
- 'Designated as Unpatented Biological Material or Research Tool' status is not available for DOE

| 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 create or update 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 update request. |
| Under Evaluation | Allow both organization and agency clients to use in the 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 an invention is created by a large for-profit private organization that receives funding from the Department of Energy (DOE), and a DOE Waiver ID has not been issued, the iEdison system will automatically set the status to "Not Waived." Users and administrators from the DOE and the National Nuclear Security Administration (NNSA) can update this status using the Restful API Services. For all other agencies, updates can only be made through the nightly job. |

12.16 Utilization Commercial Product Type

| Value |
|----------------|
| Biologic |
| Medical Device |
| Drug |

12.17 Utilization Commercial Product Government Review Status

| Value |
|----------|
| Approved |
| Rejected |
| Pending |

12.18 Utilization Public Announced

| Value |
|-------|
| Yes |
| No |

12.19 Utilization Manufacturing Location First Date Type

| Value |
|----------|
| Actual |
| Expected |

12.20 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 |
| 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 |

12.21 Licensed Utilization Question Logic for US Manufacturing

This section shows the dynamic question flow if the latestStageDev = "Licensed" for Questions 8 and 9. The answer to Question 8 will determine which variation of Question 9 should be answered.

Question 8 is for the attribute USManufacturingRequired1. Question 9 is for the attribute isUSManufacturingRequired2.

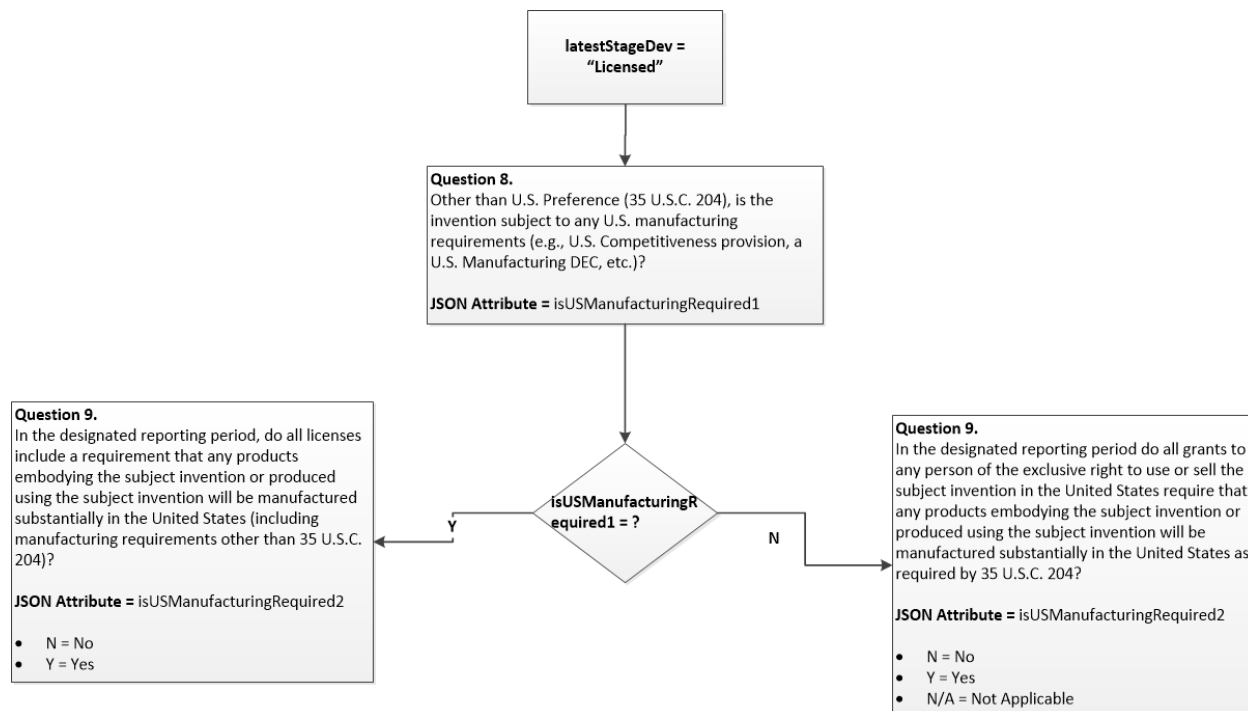


Figure 12-1: Licensed Utilization Questions

12.22 Commercialized Utilization Question Logic for US Manufacturing

This section shows the dynamic question flow if the latestStageDev = “Commercialized” for Questions 8, 9 and 10. The answer to Question 8 will determine which variation of Question 9 and Question 10 should be answered.

Question 8 is for the attribute USManufacturingRequired1. Question 9 is for the attribute isUSManufacturingRequired2. Question 10 is for the attribute USManufacturingRequired3.

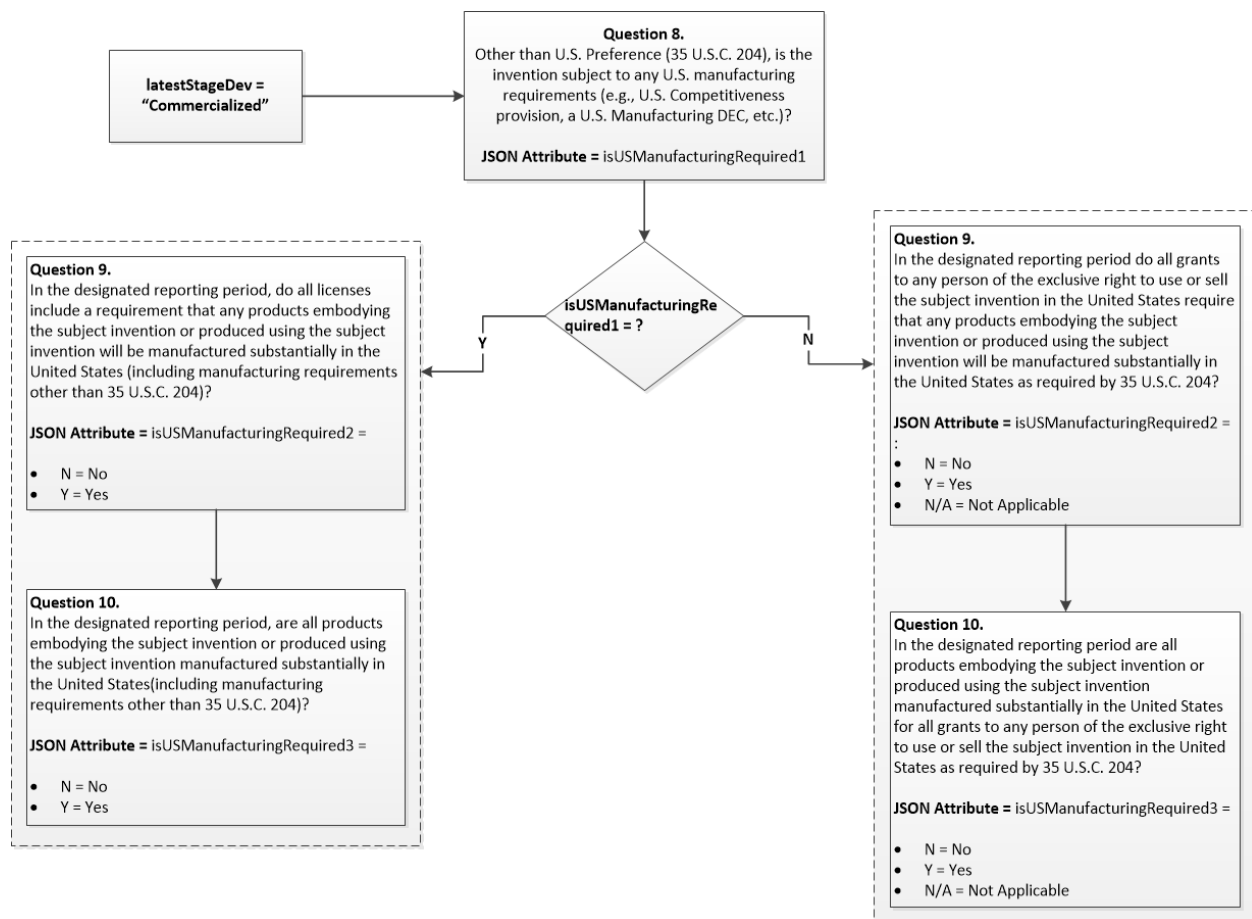


Figure 12-2: Commercialized Utilization Questions

12.23 Document Type Name

This section contains a list of Document Type Name for Invention and Patent. These values are used in the document search to target for specific documentType filter.

| Value |
|-----------------------------|
| Assignment |
| Confirmatory License |
| Domestic Manufacture Waiver |

| Value |
|-------------------------------|
| Election Extension |
| Foreign Filing |
| General |
| Government Support Clause |
| Greater Rights Determination |
| Invention Disclosure |
| Nonpatented Research Resource |
| Other Documents |
| Patent Extension |
| Provisional Extension |
| USPTO Recordation |
| Title Extension |
| Transfer |
| Waiver |
| Void |
| Domestic Manufacture Waiver |
| Approval Letter |
| Publication |
| Custom Report |

13 Sample Code Snippet to Consume APIs

The following code snippets show how to connect to iEdison API and consume its services.

The code below is a sample Java code snippet to consume the iEdison Invention search API service. Find the following variables below in the code snippet and replace them with the appropriate 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

```
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();
```

This 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
```

Appendix A: Sample Invention Requests and Responses

This appendix contains samples of requests and responses for the Invention API.

A.1 Invention API, v2

Below are sample requests and responses for the Invention API.

A.1.1 Sample 1: Create Invention, v2

| Request | Response |
|--|--|
| <pre>{ "institutionCode": "7654321", "dunsNumber": "790934285", "inventionTitle": "Sample Invention 1", "inventionDocketNumber": "REST-DOCK-1234", "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": [{</pre> | <pre>{ "id": 400047, "inventionReportNumber": "07654321-22- 0103", "granteeOrganizationName": "DAN'S INSTITUTION", "institutionCode": "7654321", "dunsNumber": "123456789", "inventionTitle": "Sample Invention 1", "inventionDocketNumber": "REST-DOCK-1234", "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",</pre> |

| Request | Response |
|---|---|
| <pre> "contractorState": "CO", "contractorCity": "Denver", "contractorName": "James", "subContractNumber": "AS-787342", "contractorCountry": "United States", "contractorDUNS": "738739399" }], "explanatoryNotes": [{ "note": "This is a testing note" }] }</pre> | <pre> "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": [] }</pre> <p>Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error)</p> <pre> { "responseCode": 400, "message": "JSON Validation Failed", "errors": [{ "code": "400", "field": "inventionTitle", "message": "Invention Title value is required." }] }</pre> |

| Request | Response |
|---------|--------------------|
| | <pre> }] } </pre> |

A.1.2 Sample 2: Update Invention, v2

| Request | Response |
|---|---|
| <pre> { "inventionReportNumber": "07654321-22-0103", "institutionCode": "7654321", "dunsNumber": "790934285", "inventionTitle": "Sample Invention 1", "inventionDocketNumber": "REST-DOCK-1234", "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" }], </pre> | <pre> { "id": 490047, "inventionReportNumber": "07654321-22-0103", "granteeOrganizationName": "DAN'S INSTITUTION", "institutionCode": "7654321", "dunsNumber": "123456789", "inventionTitle": "Sample Invention 1", "inventionDocketNumber": "REST-DOCK-1234", "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" }], </pre> |

| Request | Response |
|--|---|
| <pre> "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." }] </pre> | <pre> "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.", "creatorName": "", "createdDate": "06/10/2022" }], "governmentNotes": [] </pre> |

A.1.3 Sample 3: Search Invention, v2

- Search by Primary Agency, Date Range and Grant Number

| Request | Response |
|---|--|
| <pre>{ "primaryAgency": "NIST", "inventionReportDateFrom": "2015-01-01", "inventionReportDateTo": "2015-12-31", "grantContractNumber": "60NANB14D279" }</pre> | <pre>{ "inventions": [{ "id": 490047, "granteeOrganizationName": "ORGANIZATION B", "institutionCode": "0820102", "dunsNumber": "790934285", "inventionTitle": "Sample Invention 2", "inventionDocketNumber": "IS-2015-016", "doesNumber": "", "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",</pre> |

| Request | Response |
|---------|---|
| | <pre> "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,</pre> |

| Request | Response |
|---------|--|
| | <pre> "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'" }] </pre> |

A.2 Invention Error Responses

Below are samples of Hypertext Transfer Protocol (HTTP) response codes. These codes are returned in response to a request made to the server.

A.2.1 Sample 1: HTTP Status 400 Error Response

HTTP Status 400 errors occur because the server request was malformed and contains bad syntax. The error message will indicate which field is in error and a brief description of the error. Errors may include:

- Required field is missing.
- The attribute is invalid (not defined or misspelled, etc.)
- Using the wrong version of the API.

```

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

```

A.2.2 Sample 2: HTTP Status 401 Error Response

HTTP Status 401 errors occur when authentication is required and has failed or has not yet been provided.

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

A.2.3 Sample 3: HTTP Status 500 Error Response

HTTP Status 500 errors occur when an unexpected condition was encountered, and the server failed to process a request.

```
{  
  "responseCode": 500,  
  "message": "Invalid form-data content",  
  "errors": [  
    {  
      "code": "500",  
      "field": "inventionRequest",  
      "message": ""Unable to save the Invention."  
    }  
  ]  
}
```

Appendix B: Sample Patent Requests and Responses

This appendix contains samples of requests and responses for the Patent API.

B.1 Patent API, v2

Below are sample requests and responses for the Patent API.

B.1.1 Sample 1: Create Patent, v2

| Request | Response |
|---|---|
| <pre>{ "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": [{ "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" }] }</pre> | <pre>{ "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", "conflLicenseRejectComment": "", "govtSuppClauseRejectComment": "", "abandonedReason": "", "usptoAppStatus": "", "assigned": false, "patentStatus": "Institution Retains Rights", "explanatoryNotes": [], "governmentNotes": [], "govSupClauseActions": [], "inventors": [{ "id": "10001", "firstName": "John", "lastName": "Stewart", "fedEmployee": true, "middleInitial": "Q" }, { "id": "10002", "firstName": "Jane", "lastName": "Doe", "fedEmployee": false }] }</pre> |

| Request | Response |
|---------|---|
| } |], "foreignFilings": [{ "id": "1000", "patentForeignFilingId": 12345, "countryName": "AFGHANISTAN", "status": "active", "filingDate": "02/02/2021" }] } |

B.1.2 Sample 2: Update Patent, v2

| Request | Response |
|--|--|
| { "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": "" },], } | { "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", },] |

| Request | Response |
|---|--|
| <pre> { "foreignFilings": [{ "countryName": "AFGHANISTAN", "status": "active", "filingDate": "02/02/2021" }] } </pre> | <pre> { "fedAgency": "NIST", { "firstName": "Jane", "lastName": "Doe", "fedEmployee": false } }, { "foreignFilings": [{ "patentForeignFilingId": 12345, "countryName": "AFGHANISTAN", "status": "active", "filingDate": "02/02/2021" }] } </pre> |

B.1.3 Sample 3: Search Patent, v2

- Search by Patent Application Type and Patent Docket Number

| Request | Response |
|--|--|
| <pre> { "patentApplicationType": "DIV", "patentDocketNumber": "1087.3A" } </pre> | <pre> { "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": "Patent Title A", "confLicenseRejectComment": "", "confLicenseOutdated": false, "govtSuppClauseRejectDate": "05/14/2021", "govtSuppClauseRejectComment": "Government Agency that awarded grant is </pre> |

| Request | Response |
|---------|--|
| | <pre> 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 } </pre> |

B.2 Patent Error Responses

Below are samples of Hypertext Transfer Protocol (HTTP) response codes. These codes are returned in response to a request made to the server.

B.2.1 Sample 1: HTTP Status 400 Error Response

HTTP Status 400 errors occur because the server request was malformed and contains bad syntax. The error message will indicate which field is in error and a brief description of the error. Errors may include:

- Required field is missing.
- The attribute is invalid (not defined or misspelled, etc.)
- Using the wrong version of the API.

```
{
```

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

B.2.2 Sample 2: HTTP Status 401 Error Response

HTTP Status 401 errors occur when authentication is required and has failed or has not yet been provided.

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

B.2.3 Sample 3: HTTP Status 500 Error Response

HTTP Status 500 errors occur when an unexpected condition was encountered, and the server failed to process a request.

```
{  
  "responseCode": 500,  
  "message": "Invalid form-data content",  
  "errors": [  
    {  
      "code": "500",  
      "field": "patentRequest",  
      "message": ""Unable to save the Patent."  
    }  
  ]  
}
```

Appendix C: Sample Utilization Requests and Responses

This appendix contains samples of requests and responses for v2 and v3 of the Utilization API.

C.1 Utilization API, v2

Below are sample requests and responses for the Utilization API, v2.

C.1.1 Sample 1: Create or Update Utilization, v2

- reportingYear = 2020
- latestStageDev = Not Licensed

| Request | Response |
|--|--|
| <pre>{ "inventionReportNumber": "10004279-24-0011", "reportingYear": 2020, "latestStageDev": "Not Licensed", "firstCommercialSaleYear": 2018, "totalIncome": 132.0, "manufacturingWaiver": 1, "manufacturingWaiverTotal": 70, "domesticLicenseNumber": 14, "exclusiveLicensesOptions": 21, "nonExclusiveLicensesOptions": 30, "smallBusinessLicensesOptions": 30, "totalGrossSales": 8.95, "notes": "The quick brown fox jump" }</pre> | <pre>{ "inventionReportNumber": "10004279-24-0011", "granteeOrganizationName": "Organization A", "inventionTitle": "Sample Invention 3", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "07/08/2024", "reportingYear": 2020, "latestStageDev": "Not Licensed", "firstCommercialSaleYear": 2018, "totalIncome": 132.0, "manufacturingWaiver": 1, "manufacturingWaiverTotal": 70, "exclusiveLicensesOptions": 21, "domesticLicenseNumber": 14, "nonExclusiveLicensesOptions": 30, "smallBusinessLicensesOptions": 30, "totalGrossSales": 8.95, "notes": "The quick brown fox jump", "createdDate": "08/27/2024" }</pre> |

C.1.2 Sample 2: Create or Update Utilization, v2

- reportingYear = 2023
- latestStageDev = Licensed

| Request | Response |
|--|--|
| <pre>{ "inventionReportNumber": "10004279-24-0011", "reportingYear": 2023, }</pre> | <pre>{ "inventionReportNumber": "10004279-24-0011", "granteeOrganizationName": "Organization A", }</pre> |

| Request | Response |
|--|--|
| <pre> "latestStageDev": "Licensed", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 3, "nonExclusiveLicensesOptions": 3, "smallBusinessLicensesOptions": 10, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "exclusiveLicensees": ["Exclusive name 1", "Exclusive name 2", "Exclusive name 3"], "nonExclusiveLicensees": ["Non Exclusive name 1", "Non Exclusive name 2", "Non Exclusive name 3"], "newUsJobs": 100, "newUsCompanies": 500 } </pre> | <pre> "inventionTitle": "Sample Invention 3", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "07/08/2024", "reportingYear": 2023, "latestStageDev": "Licensed", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 3, "nonExclusiveLicensesOptions": 3, "smallBusinessLicensesOptions": 10, "totalGrossSales": 0.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "notes": "new utilization notes", "exclusiveLicensees": ["Exclusive name 1", "Exclusive name 2", "Exclusive name 3"], "nonExclusiveLicensees": ["Non Exclusive name 1", "Non Exclusive name 2", "Non Exclusive name 3"], "createdDate": "08/27/2024" } </pre> |

C.1.3 Sample 3: Create Utilization Error Response, v2

Note: This is a sample error response. Reporting Year 2024 cannot be used with Version 2. If the reporting year is 2024, Version 3 of the API must be used. A 400 error response is returned.

- reportingYear = 2024
- latestStageDev = Licensed

| Request | Response |
|--|--|
| <pre>{ "inventionReportNumber": "10004279-24-0011", "reportingYear": 2024, "latestStageDev": "Licensed", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 3, "nonExclusiveLicensesOptions": 3, "smallBusinessLicensesOptions": 10, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "exclusiveLicensees": ["Exclusive name 1", "Exclusive name 2", "Exclusive name 3"], "nonExclusiveLicensees": ["Non Exclusive name 1", "Non Exclusive name 2", "Non Exclusive name 3"], "newUsJobs": 100, "newUsCompanies": 500 }</pre> | <pre>{ "responseCode": 400, "message": "Invalid form-data content", "errors": [{ "code": "400", "field": "utilizationRequest", "message": "Invalid request. Must use version 3 for reporting year 2024 and later Please verify the Rest parameters and submit request again." }] }</pre> |

C.2 Utilization API, v3

Below are sample requests and responses for the Utilization API, v3.

C.2.1 Sample 1: Create or Update Utilization, v3

- reportingYear = 2021
- latestStageDev = Not Licensed

| Request | Response |
|---|---|
| <pre>{ "inventionReportNumber": "10004279-24-0011", "reportingYear": 2021, "latestStageDev": "Not Licensed", "firstCommercialSaleYear": 2018, "totalIncome": 132.0, "manufacturingWaiver": 1, "manufacturingWaiverTotal": 70, "domesticLicenseNumber": 14, "exclusiveLicensesOptions": 21, "nonExclusiveLicensesOptions": 30, "smallBusinessLicensesOptions": 30, "totalGrossSales": 8.95, "notes": "The quick brown fox jump " }</pre> | <pre>{ "id": 123456, "inventionReportNumber": "10004279-24-0011", "granteeOrganizationName": "Organization A", "inventionTitle": "Sample Invention 3", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "07/08/2024", "reportingYear": 2021, "latestStageDev": "Not Licensed", "firstCommercialSaleYear": 2018, "totalIncome": 132.0, "manufacturingWaiver": 1, "manufacturingWaiverTotal": 70, "exclusiveLicensesOptions": 21, "domesticLicenseNumber": 14, "nonExclusiveLicensesOptions": 30, "smallBusinessLicensesOptions": 30, "totalGrossSales": 8.95, "notes": "The quick brown fox jump ", "createdDate": "08/27/2024" }</pre> |

C.2.2 Sample 2: Create or Update Utilization, v3

- reportingYear = 2023
- latestStageDev = Commercialized
- Using previous attributes: "exclusiveLicensesOptions", "nonExclusiveLicensesOptions", "exclusiveLicensees" and nonExclusiveLicensees", "smallBusinessLicensesOptions

| Request | Response |
|--|---|
| <pre>{ "inventionReportNumber": "10004279-22-0006", "reportingYear": 2023, "latestStageDev": "Commercialized", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", }</pre> | <pre>{ "id": 123456, "inventionReportNumber": "10004279-22-0006", "granteeOrganizationName": "Organization A", "inventionTitle": "Sample Invention 6", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "10/12/2022", "reportingYear": 2023, "latestStageDev": "Commercialized", }</pre> |

| Request | Response |
|--|--|
| <pre> "exclusiveLicensesOptions": 4, "nonExclusiveLicensesOptions": 2, "smallBusinessLicensesOptions": 10, "exclusiveLicensees": ["Licensee A", "Licensee B", "Licensee C", "Licensee D"], "nonExclusiveLicensees": ["Licensee A", "Licensee E"], "newUsJobs": 100, "newUsCompanies": 500, "manufacturingCommProds": [{ "productName": "Processor", "naicsCode": "ABC123", "licensees": [{ "licenseeName": "Licensee A", "manufacturers": [{ "manufacturerName": "Manufacturer D", "productLocation": [{ "country": "CHINA", "firstDate": "10/10/2021", "firstDateType": "Actual", "productQuantity": "7" }, { "state": "MARYLAND", "country": "UNITED STATES", "firstDate": "11/11/2021", "firstDateType": "Expected", "productQuantity": "1" }] }, { "manufacturerName": "MANUFACTURER C", </pre> | <pre> "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 4, "nonExclusiveLicensesOptions": 2, "smallBusinessLicensesOptions": 10, "totalGrossSales": 0.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "exclusiveLicensees": ["Licensee A", "Licensee B", "Licensee C", "Licensee D"], "nonExclusiveLicensees": ["Licensee A", "Licensee E"], "manufacturingCommProds": [{ "id": 223456, "productName": "Processor", "licensees": [{ "id": 23456, "licenseeName": "Licensee A", "manufacturers": [{ "id": 1223456, "manufacturerName": "Manufacturer D", "productLocation": [{ "id": 1223456, "country": "CHINA" }, { "id": 1223457, "state": "MARYLAND", "country": "UNITED STATES" }] }] }] }, </pre> |

| Request | Response |
|--|--|
| <pre> "productLocation": [{ "state": "FLORIDA", "country": "UNITED STATES", "firstDate": "09/10/2021", "firstDateType": "Actual", "productQuantity": "3" }] }, { "licenseeName": "Licensee C", "manufacturers": [{ "manufacturerName": "MANUFACTURER C", "productLocation": [{ "state": "MARYLAND", "country": "UNITED STATES", "firstDate": "07/23/2021", "firstDateType": "Expected", "productQuantity": "8" }] }] }], { "productName": "Gmail", "licensees": [{ "licenseeName": "Licensee E", "manufacturers": [{ "manufacturerName": "Manufacturer B", "productLocation": [{ "state": "COLORADO", "country": "UNITED STATES", </pre> | <pre> { "id": 1323456, "manufacturerName": "MANUFACTURER C", "productLocation": [{ "id": 1223458, "state": "FLORIDA", "country": "UNITED STATES" }] }, { "id": 33456, "licenseeName": "Licensee C", "manufacturers": [{ "id": 1423456, "manufacturerName": "MANUFACTURER C", "productLocation": [{ "id": 1223459, "state": "MARYLAND", "country": "UNITED STATES" }] }] }, { "id": 33456, "productName": "Gmail", "licensees": [{ "id": 33450, "licenseeName": "Licensee E", "manufacturers": [{ "id": 1423457, </pre> |

| Request | Response |
|--|--|
| <pre> { "firstDate": "12/11/2021", "firstDateType": "Actual", "productQuantity": "0" }] }] }, { "licenseeName": "Licensee D", "manufacturers": [{ "manufacturerName": "Manufacturer A", "productLocation": [{ "state": "TEXAS", "country": "UNITED STATES", "firstDate": "01/12/2021", "firstDateType": "Expected", "productQuantity": "6" }] }] }] }], "commercialProds": [{ "commercialName": "NIH Product A", "fdaApprovalNumber": "GHD56", "publicInd": "Yes", "govtReviewStatus": "Approved", "fdaApprovalType": "Medical Device" }] } </pre> | <pre> "manufacturerName": "Manufacturer B", "productLocation": [{ "id": 1223450, "state": "COLORADO", "country": "UNITED STATES" }] }, { "id": 33451, "licenseeName": "Licensee D", "manufacturers": [{ "id": 1423458, "manufacturerName": "Manufacturer A", "productLocation": [{ "id": 1223452, "state": "TEXAS", "country": "UNITED STATES" }] }] }, "createdDate": "08/29/2024" } </pre> |

C.2.3 Sample 3: Create or Update Utilization, v3

- reportingYear = 2023
- latestStageDev = Licensed

- Using new “licensees” attribute, the “smallBusinessLicenseOptions” is automatically computed (smallBusinessLicenseOptions is not included in the request).

| Request | Response |
|--|---|
| <pre>{ "inventionReportNumber": "10004279-23-0004", "reportingYear": 2023, "latestStageDev": "Licensed", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "licensees": [{"licenseeName": "Licensee A", "exclusiveCount": 87, "nonExclusiveCount": 45, "smallBusiness": true}, {"licenseeName": "Licensee B", "exclusiveCount": 15, "smallBusiness": false}, {"licenseeName": "Licensee C", "exclusiveCount": 15, "smallBusiness": false}, {"licenseeName": "Licensee D", "exclusiveCount": 15, "smallBusiness": false}, {"licenseeName": "Licensee E", "nonExclusiveCount": 12}], "newUsJobs": 100, "newUsCompanies": 500 }</pre> | <pre>{ "id": 123456, "inventionReportNumber": "10004279-23-0004", "granteeOrganizationName": "Organization A", "inventionTitle": " Sample Invention 7", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "09/04/2022", "titleElectDate": "10/13/2023", "reportingYear": 2023, "latestStageDev": "Licensed", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 132, "nonExclusiveLicensesOptions": 57, "smallBusinessLicensesOptions": 132, "totalGrossSales": 0.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "notes": "new utilization notes", "exclusiveLicensees": ["Licensee A", "Licensee B", "Licensee C", "Licensee D"], "nonExclusiveLicensees": ["Licensee A", "Licensee E"], "createdDate": "08/28/2024" }</pre> |

A.2.4 Sample 4: Create or Update Utilization, v3

- reportingYear = 2024
- latestStageDev = Commercialized

| Request | Response |
|---|--|
| <pre>{ "inventionReportNumber": "10004279-12-0005", "reportingYear": 2024, "latestStageDev": "Commercialized", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "licensees": [{ "licenseeName": "Licensee A", "exclusiveCount": 87, "nonExclusiveCount": 45, "smallBusiness": true }, { "licenseeName": "Licensee B", "exclusiveCount": 15, "smallBusiness": false }, { "licenseeName": "Licensee D", "exclusiveCount": 15, "smallBusiness": false }, { "licenseeName": "Licensee C", "exclusiveCount": 15, "smallBusiness": false }, { "licenseeName": "Licensee E", "nonExclusiveCount": 12 }], "newUsJobs": 100, "newUsCompanies": 500, "manufacturingCommProds": [{ "productName": "Processor", "naicsCode": "ABC123", "licensees": [{ "licenseeName": "Licensee A", "manufacturers": [{ "manufacturerName": "Manufacturer D", "productLocation": [{ "country": "CHINA", "firstDate": "10/10/2021", </pre> | <pre>{ "id": 123456, "inventionReportNumber": "10004279-12-0005", "granteeOrganizationName": "Organization A", "inventionTitle": "Sample Invention 4", "primaryAgency": "U.S. Department of Energy", "inventionReportDate": "04/29/2012", "titleElectDate": "07/05/2016", "reportingYear": 2024, "latestStageDev": "Commercialized", "firstCommercialSaleYear": 2023, "totalIncome": 50000.0, "exclusiveLicensesOptions": 132, "nonExclusiveLicensesOptions": 57, "smallBusinessLicensesOptions": 132, "totalGrossSales": 0.0, "isUSManufacturingRequired1": "Y", "isUSManufacturingRequired2": "N", "isUSManufacturingRequired3": "Y", "notes": "new utilization notes", "newUsJobs": 100, "newUsCompanies": 500, "manufacturingCommProds": [{ "id": 123456, "productName": "Processor", "naicsCode": "ABC123", "licensees": [{ "id": 123456, "licenseeName": "Licensee A", "manufacturers": [{ "id": 123456, "manufacturerName": "Manufacturer D", "productLocation": [{ "id": 123456, "state": "MARYLAND", </pre> |

| Request | Response |
|---|---|
| <pre> "firstDateType": "Actual", "productQuantity": "7" }, { "state": "MARYLAND", "country": "UNITED STATES", "firstDate": "11/11/2021", "firstDateType": "Expected", "productQuantity": "1" }] }, { "manufacturerName": "MANUFACTURER C", "productLocation": [{ "state": "FLORIDA", "country": "UNITED STATES", "firstDate": "09/10/2021", "firstDateType": "Actual", "productQuantity": "3" }] }], { "licenseeName": "Licensee B", "manufacturers": [{ "manufacturerName": "MANUFACTURER C", "productLocation": [{ "state": "MARYLAND", "country": "UNITED STATES", "firstDate": "07/23/2021", "firstDateType": "Expected", "productQuantity": "8" }] }] } </pre> | <pre> "firstDate": "11/11/2021", "firstDateType": "Expected", "productQuantity": 1, "country": "UNITED STATES" }, { "id": 123457, "firstDate": "10/10/2021", "firstDateType": "Actual", "productQuantity": 7, "country": "CHINA" }] }, { "id": 12345, "manufacturerName": "MANUFACTURER C", "productLocation": [{ "id": 123458, "state": "FLORIDA", "firstDate": "09/10/2021", "firstDateType": "Actual", "productQuantity": 3, "country": "UNITED STATES" }] }], { "id": 123450, "licenseeName": "Licensee B", "manufacturers": [{ "id": 123451, "manufacturerName": "MANUFACTURER C", "productLocation": [{ "id": 123459, "state": "MARYLAND", "firstDate": "07/23/2021", "firstDateType": "Expected", </pre> |

| Request | Response |
|--|--|
| <pre>] }, { "productName": "Gmail", "licensees": [{ "licenseeName": "Licensee E", "manufacturers": [{ "manufacturerName": "Manufacturer B", "productLocation": [{ "state": "COLORADO", "country": "UNITED STATES", "firstDate": "12/11/2021", "firstDateType": "Actual", "productQuantity": "0" }] }] }, { "licenseeName": "Licensee C", "manufacturers": [{ "manufacturerName": "Manufacturer A", "productLocation": [{ "state": "TEXAS", "country": "UNITED STATES", "firstDate": "01/12/2021", "firstDateType": "Expected", "productQuantity": "6" }] }] }] }, "commercialProds": [</pre> | <pre> "productQuantity": 8, "country": "UNITED STATES" }] }] }, { "id": 12356, "productName": "Gmail", "licensees": [{ "id": 223456, "licenseeName": "Licensee E", "manufacturers": [{ "id": 23456, "manufacturerName": "Google", "productLocation": [{ "state": "COLORADO", "firstDate": "12/11/2021", "firstDateType": "Actual", "productQuantity": 0, "country": "UNITED STATES" }] }] }], { "id": 223457, "licenseeName": "Licensee C", "manufacturers": [{ "manufacturerName": "Manufacturer A", "productLocation": [{ "state": "TEXAS", "firstDate": "01/12/2021", "firstDateType": "Expected", "productQuantity": 6, </pre> |

| Request | Response |
|---|--|
| <pre>{ "commercialName": "NIH Product A", "fdaApprovalNumber": "GHD56", "publicInd": "Yes", "govtReviewStatus": "Approved", "fdaApprovalType": "Medical Device" }</pre> | <pre>"country": "UNITED STATES" }] }], "licensees": [{ "id": 9268, "licenseeName": "Licensee A", "exclusiveCount": 87, "nonExclusiveCount": 45, "smallBusiness": true }, { "id": 9269, "licenseeName": "Licensee B", "exclusiveCount": 15, "nonExclusiveCount": 0, "smallBusiness": false }, { "id": 9270, "licenseeName": "Licensee D", "exclusiveCount": 15, "nonExclusiveCount": 0, "smallBusiness": false }, { "id": 9271, "licenseeName": "Licensee C", "exclusiveCount": 15, "nonExclusiveCount": 0, "smallBusiness": false }, { "id": 9272, "licenseeName": "Licensee E", "exclusiveCount": 0, "nonExclusiveCount": 12, "smallBusiness": false }]</pre> |

| Request | Response |
|---------|---|
| | <pre> }, "createdDate": "08/27/2024" } </pre> |

C.3 Search Utilization, v3

Below are sample requests and responses for the Search Utilization API.

C.3.1 Sample 1: Search Utilization

- Search by InventionTitle and Fiscal Year

| Request | Response |
|---|--|
| <pre> { "inventionTitle": "Sample Invention 5", "fiscalYear": 2001 } </pre> | <pre> { "utilizations": [{ "id": 63831, "inventionReportNumber": "7654321-03-0010", "granteeOrganizationName": "DAN'S INSTITUTION", "inventionTitle": " Sample Invention 5", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "03/07/2003", "titleElectDate": "11/14/2023", "reportingYear": 2001, "latestStageDev": "Commercialized", "totalIncome": 5000.0, "manufacturingWaiver": 0, "exclusiveLicensesOptions": 12, "nonExclusiveLicensesOptions": 13, "smallBusinessLicensesOptions": 14, "createdDate": "04/26/2003", "lastUpdatedDate": "04/22/2022" }], "totalRecords": 1, "limit": 100, "offset": 0 } </pre> |

C.3.2 Sample 2: Search Utilization

- Search by Grant/Contract Number

| Request | Response |
|---|--|
| <pre>{ "grantContractNumber": "SB222222B2222", "limit": 5 }</pre> | <pre>{ "utilizations": [{ "id": 92322, "inventionReportNumber": "07654321-06-0001", "granteeOrganizationName": " DAN'S INSTITUTION ", "inventionTitle": " Sample Invention 8", "primaryAgency": "National Institutes of Health", "inventionReportDate": "03/06/2008", "titleElectDate": "07/22/2010", "reportingYear": 2010, "latestStageDev": "Licensed", "totalIncome": 2000000.0, "manufacturingWaiver": 0, "manufacturingWaiverTotal": 0, "exclusiveLicensesOptions": 3, "nonExclusiveLicensesOptions": 0, "smallBusinessLicensesOptions": 1, "totalGrossSales": 0.0, "createdDate": "10/26/2013", "lastUpdatedDate": "01/30/2015" }, { "id": 811022, "inventionReportNumber": "07654321-22-0040", "granteeOrganizationName": "DAN'S INSTITUTION", "inventionTitle": " Sample Invention 9", "primaryAgency": "National Institutes of Health", "inventionReportDate": "04/12/2022", "titleElectDate": "04/20/2022", "reportingYear": 2019, "latestStageDev": "Commercialized", "firstCommercialSaleYear": 2020, "totalIncome": 3.0, "manufacturingWaiver": 0, "createdDate": "04/27/2022" }, { "id": 811057,</pre> |

| Request | Response |
|---------|--|
| | <pre> "inventionReportNumber": "07654321-22-0058", "granteeOrganizationName": "DAN'S INSTITUTION", "inventionTitle": " Sample Invention 11", "primaryAgency": "National Institute of Standards and Technology", "inventionReportDate": "04/18/2022", "reportingYear": 2011, "latestStageDev": "Commercialized", "manufacturingWaiver": 0, "createdDate": "04/29/2022" }, { "id": 810964, "inventionReportNumber": "07654321-22-0028", "granteeOrganizationName": "DAN'S INSTITUTION", "inventionTitle": " Sample Invention 12", "primaryAgency": "U.S. Department of Energy", "inventionReportDate": "04/12/2022", "reportingYear": 2022, "latestStageDev": "Licensed", "firstCommercialSaleYear": 2021, "totalIncome": 5600.0, "manufacturingWaiver": 1, "manufacturingWaiverTotal": 3, "exclusiveLicensesOptions": 8, "nonExclusiveLicensesOptions": 3, "smallBusinessLicensesOptions": 5, "totalGrossSales": 6700.0, "newUsJobs": 0, "newUsCompanies": 0, "manufacturingCommProds": [{ "id": 145053209, "productName": "Namra API through Postman test", "naicsCode": "123", "productLocation": [{ "id": 169, "firstDate": "10/28/2021", </pre> |

| Request | Response |
|---------|---|
| | <pre> "firstDateType": "Expected", "productQuantity": 81, "country": "ARUBA" }] }], "commercialProds": [{ "id": 44636, "commercialName": "Test Prod1", "fdaApprovalNumber": "1000001", "publicInd": "Yes", "govtReviewStatus": "Approved", "fdaApprovalType": "Drug" }, { "id": 44637, "commercialName": "Test Prod3", "fdaApprovalNumber": "1000003", "publicInd": "Yes", "govtReviewStatus": "Approved", "fdaApprovalType": "Medical Device" }], "createdDate": "04/20/2022" }, { "id": 811058, "inventionReportNumber": "07654321-22-0059", "granteeOrganizationName": "DAN'S INSTITUTION", "inventionTitle": " Sample Invention 13", "primaryAgency": "National Institutes of Health", "inventionReportDate": "04/13/2022", "reportingYear": 2012, "latestStageDev": "Not Licensed", "firstCommercialSaleYear": 2012, "totalIncome": 10000.0, "manufacturingWaiver": 1, "createdDate": "04/29/2022", "lastUpdatedDate": "02/05/2024" } </pre> |

| Request | Response |
|---------|---|
| | <pre>], "totalRecords": 45, "limit": 5, "offset": 0 } </pre> |

C.4 Utilization Error Responses

Below are samples of Hypertext Transfer Protocol (HTTP) response codes. These codes are returned in response to a request made to the server.

C.4.1 Sample 1: HTTP Status 400 Error Response

HTTP Status 400 errors occur because the server could not handle the client request. The request may be malformed and/or contains bad syntax. The error message will indicate which field is in error and a brief description of the error. Errors may include:

- Required field is missing.
- The attribute is invalid (not defined or misspelled, etc.)
- Using the wrong version of the API.

```

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

```

```

{
  "responseCode": 400,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "400",
      "field": "utilizationRequest",
      "message": "Invalid request. Must use version 3 for reporting year 2024 and later Please verify the Rest parameters and submit request again."
    }
  ]
}

```

```
}
```

```
{
  "responseCode": 400,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "400",
      "field": "utilizationSearchCriteria",
      "message": "One or more parameters in JSON request are invalid. Please verify the parameters
and submit request again: 'fiscalYear'"
    }
  ]
}
```

C.4.2 Sample 2: HTTP Status 401 Error Response

HTTP Status 401 errors occur when authentication is required and has failed or has not yet been provided.

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

C.4.3 Sample 3: HTTP Status 500 Error Response

HTTP Status 500 errors occur when an unexpected condition was encountered, and the server was not able to process a request.

```
{
  "responseCode": 500,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "500",
      "field": "utilizationRequest",
      "message": ""Unable to save the Utilization."
    }
  ]
}
```

Appendix D: Document API Sample Requests and Responses

This appendix contains samples of requests and responses for the Document API.

D.1 Search Document

Below are sample requests and responses for searching for a document.

D.1.1 Sample 1: Search Document

- Search by Invention Report Number

| Request | Response |
|---|---|
| <pre>{ "inventionReportNumber": "7654321-22-0181" }</pre> | <pre>{ "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",</pre> |

| Request | Response |
|---------|---|
| | <pre> "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 } </pre> |

D.1.2 Sample 2: Search Document

- Search by Invention Report Number and Patent Docket Number

| Request | Response |
|--|--|
| <pre> { "inventionReportNumber": "7654321-22- 0181", "patentDocketNumber": "22-0181-01" } </pre> | <pre> { "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" }, { </pre> |

| Request | Response |
|---------|---|
| | <pre> "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 } </pre> |

D.2 Download Document

Below are sample requests and responses for downloading a document.

D.2.1 Sample 1: Download Document

- Download by Document ID will return the actual file content in binary stream.

| Request | Response |
|--|--------------------------|
| <pre>{ "documentID": 739268017 }</pre> | application/octet-stream |

D.2.1 Sample 2: Download Document Error Response

Note: This is a sample error response. The specified Document ID does not exist, and a 400 error response is returned.

- Download by Document ID

| Request | Response |
|--|---|
| <pre>{ "documentID": 739268017 }</pre> | <pre>{ "responseCode": 400, "message": "No record found.", "errors": [{ "code": "400", "field": "DownloadDocumentDTO [documentID=1349949494]", "message": "No Record found." }] }</pre> |

Appendix E: Notification API Sample Requests and Responses

This appendix contains samples of requests and responses the Notification API.

E.1 Search Notification

Below are sample requests and responses for the searching for a notification.

E.1.1 Sample 1: Search Notification

- Search by Invention Report Number, Message Number and Fiscal Year

| Request | Response |
|---|--|
| <pre>{ "inventionReportNumber": "7654321-0", "messageNumber": 310, "fiscalYear": 2019 }</pre> | <pre>{ "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" }] }</pre> |

| Request | Response |
|---------|---|
| | <pre> { "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 } </pre> |

E.1.2 Sample 2: Search Notification

- Search by Invention Report Number and Patent Docket Number

| Request | Response |
|---|--|
| <pre>{ "inventionReportNumber": "7654321-22-0181", "patentDocketNumber": "22-0181-01" }</pre> | <pre>{ "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", </pre> |

| Request | Response |
|---------|---|
| | <pre>"documentUpdateDate": "2022-11-02 11:20:58" }], "totalRecords": 3 }</pre> |