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# NSCI: High-Performance Computing Security Workshop

<b>WHEN:</b> Sep. 29-30, 2016 Start Time: 8:30am End Time: 6:00pm	<b>WHERE:</b> NIST Gaithersburg 100 Bureau Drive Gaithersburg, MD 20899
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## AGENDA

Thursday, Sep. 29, 2016 Building 101, Green Auditorium		
		Topic
8:30 – 8:40	Chuck Romine (NIST)	<b>Welcome to NIST and the Information Technology Laboratory</b>
8:40 – 8:50	Tim Polk (OSTP)	<b>NSCI and Workshop Goals</b>
8:50 – 9:10	Chuck Romine (NIST)	<b>HPC Expert on Why Security Matters</b>
9:10 – 9:30	Sean Peisert (Berkeley Lab)	<b>Security Expert on Why HPC Matters</b>
9:30 – 9:50	John West (Texas Advanced Computing Center)	<b>HPC Current Use and Practice: HPC Center</b> <ul style="list-style-type: none"><li>• what's the application, user community, system architecture</li><li>• how to trade usability against security?</li><li>• what to worry/not-worry about wrt security</li></ul>
9:50 – 10:10	<b>Networking Break</b>	
10:10 – 10:30	Buddy Bland (Oak Ridge)	<b>HPC Current Use and Practice: USG</b> <ul style="list-style-type: none"><li>• what's the application, user community, system architecture</li><li>• why is HPC needed in this use case?</li><li>• how to trade usability against security?</li><li>• what to worry/not-worry about wrt security</li></ul>
10:30 – 10:50	David Pellerin (Amazon)	<b>HPC Current Use and Practice: Industry</b> <ul style="list-style-type: none"><li>• Current and emerging cloud use-cases in industry</li><li>• Architecting for high performance in the cloud</li><li>• Monitoring and managing cloud-based HPC for high security</li></ul>
10:50 – 11:10	David Kahaner (Asian Technology Information Program)	<b>A Snapshot of Advanced Computing Developments in China and Japan</b>
11:10 – 11:20	Matt Barrett (NIST)	<b>The NIST Security Framework for Critical Information Systems (presentation)</b> <ul style="list-style-type: none"><li>• might cause some shared terminology</li><li>• we can explain that all the areas are needed</li></ul>
11:20-11:40	Tom Hinke (NASA)	<b>Securing NASA's Most Powerful Supercomputer</b>

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11:40 – 1:00	<p style="text-align: center;"><b>Breakout Session: “HPC Security Best Practices: Strengths and Weaknesses”</b></p> <ul style="list-style-type: none"> <li>• multiple rooms, same topic</li> </ul>
1:00 – 2:00	Break for Lunch
2:00 – 3:20	<p style="text-align: center;"><b>Breakout Session: Open Science and the Insider Threat: Can They Be Reconciled?</b></p> <ul style="list-style-type: none"> <li>• multiple rooms, same topic</li> </ul>
3:20 – 3:40	<b>Networking Break</b>
3:40 – 5:00	<p style="text-align: center;"><b>Breakout Session: What New Hardware/Software Features and Architectural Structures Would Revolutionize Security for HPC?</b></p> <ul style="list-style-type: none"> <li>• E.g., what is current HW cutting edge, and what is on the way</li> <li>• Multiple rooms, same topic</li> </ul>
5:00 – 5:20	<b>Announcements and Feedback</b>
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5:20 – 5:40	<b>Hotwash</b> (just organizers)

<b>Friday, Sep. 30, 2016</b> <b>Building 101, Green Auditorium</b>		
8:30 – 8:40	Announcements. Feedback Forms Distributed.	
8:40 - 10:10	<b>Breakout Group Report Outs</b>	
10:10 – 10:40	Phil Colella (OSTP)	Security opportunity/challenge of high performance computing ( <b>keynote</b> )
10:40 – 11:00		<b>Networking Break</b>
11:00 – 11:20	Angelos Keromytis (DARPA)	<b>System and Application Monitoring (presentation)</b>
11:20 – 12:00	Lee Beausoleil (NSA) (moderator)	<b>Panel.</b> HPC monitoring: how detailed can it be? What problems would fine-grained monitoring solve? Can data provenance be maintained through monitoring? David Lombard (Intel), Sean Peisert (Berkeley Lab), Angelos Keromytis (DARPA)
12:00 - 1:00	Break for Lunch	
1:00 – 1:10	Lee Beausoleil	Agency Perspective: NSA
1:10 – 1:20	Robinson Pino	Agency Perspective: DOE
1:20 – 1:30	Anita Nikolich	Agency Perspective: NSF
1:30 – 1:40	Lee Badger	Agency Perspective: NIST
1:40 – 1:50	Reed L. Mosher	Agency Perspective: DOD

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1:50 – 2:30	Carl J. Williams (NIST) (moderator)	<b>Panel.</b> Revisit: <ul style="list-style-type: none"><li>• HPC Perspective on Why Security Matters</li><li>• Security Perspective on Why HPC Matters</li></ul> Panelists nominated by organizers based on previous sessions.
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