End-to-End Trust & Security

Internet2 CINO End-to-End Trust & Security (E2ET&S) Working Group Collaborative Innovation Community Meeting

18 March 2016

Chairs:
Mark Cather, UMBC
Scot Ransbottom, Va. Tech
Donna Tatro, Princeton

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Meeting Objectives

- TIER Security & Audit Working Group: Helen Patton (The Ohio State University)
- E2ET&S Focus for 2016
- E2ET&S Working Group Plan Update
- Global Summit 2016

TIER Security & Audit Working Group

- **Group Charter:**
    - The TIER Security and Audit working group (SAWG) is charged with providing ongoing recommendations, oversight, and support of the TIER project through identification and review of security and audit standards and best practices for the TIER application suite as well as the delivery of the TIER as a SaaS for higher education customers.
    - The goal of the SAWG are to provide direction and feedback to TIER on the necessary best practices for secure coding as a part of the software design lifecycle; testing specifications to identify security issues; and standards and best practices that should be applied to TIER as a SAAS.

- More Information available on the TIER SAWG Wiki: http://bit.ly/21yQS2h

E2ET&S Innovation Working Group Focus for 2016

- *Develop an advanced architectural roadmap and recommended implementation approach to enable future "End-to-End Trust & Security" innovations for the Research & Education community*

- *Leverage existing resources and capabilities including TIER and InCommon*

- *Address trust, identity, privacy, physical & cyber security, compliance, etc.*

- **Focus areas include**
  - **Internet of Things (IoT)**
  - **Smart Campus**
  - **Healthcare & Life Sciences (HCLS)**

E2ET&S Use Cases and Plans (Page 1 of 2)

Initiative/Use Case	Description	Plan
IoT **Network Segmentation for IoT**	Network segmentation for IoT connected devices not compromising overall network security.	• Webinar held February 2, 2016. Slides and recording available: http://bit.ly/1Q2eDcI • Cisco blog post http://bit.ly/1A1acwl
End to End Trust & Security Open Architecture for IoT (including HCLS)	Create a point of view and next steps for a comprehensive E2ET&S Open Architecture for the Internet of Things.	• February 4, 2016, workshop in cooperation with IEEE, NSF, and GW University • Discussion at the CSG meeting in April 2016
Smart Cities/Campus (include HCLS) **Launch Smart Campus CIO Advisory Council and Initiative**	Enable Internet2 members to deploy Smart Campus initiatives by sharing best practices and develop next practices, use cases, and innovations.	• Launching Spring 2016
Provision strong credentials in the form of a virtual campus ID card	Mobile device as central access to all aspects of a campus – physical and digital. Applied at all levels within a campus: student, faculty, & administration.	• Determine requirements for solution • Identify testbed campuses

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E2ET&S Use Cases and Plans (Page 2 of 2)

Initiative/Use Case	Description	Plan
Coherent trust & identity protocols across multiple enterprises & networks		
IPsec and Identity based firewalls	Develop an 'Identity Based Firewall' technology based on the identity of authorized people rather than device IP numbers.	• Steve Wallace engaging SDN/Security WG • Potential to combine with External access to "research zone" systems use case
Assign, manage, and revoke permissions on a platform to support collaborative work	An international unified ID system utilizing existing secure credentials.	• Potential to combine with IPsec & ID-Based Firewalls • InCommon work Int'l Federations • Link with DBDA Digital Humanities focus
External access to "research zone" systems	Subset of the above. An international unified ID system utilizing existing secure credentials.	• Potential to combine with IPsec & ID-Based Firewalls • InCommon work Int'l Federations • Link with DBDA Digital Humanities focus
Improved interoperability among university and hospital networks	Consider use of Security Group Tags and Cisco's TrustSec policy management framework to integrate "cyberinfrastructure islands".	• Identify universities with AMCs to discover needs and create potential solutions

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Please join us in Chicago, May 15-18, 2016

Sunday, May 15
- Healthcare and Life Sciences Working Meeting: 10:30AM-12:00PM
- Smart Cities and Innovations: 4:00-5:30PM

Monday, May 16
- Internet of Things (IoT) Innovation Working Group Meeting: 8:00-9:30AM
- ***End-to-End Trust & Security Innovation Working Group Meeting: 10:00-11:30AM***
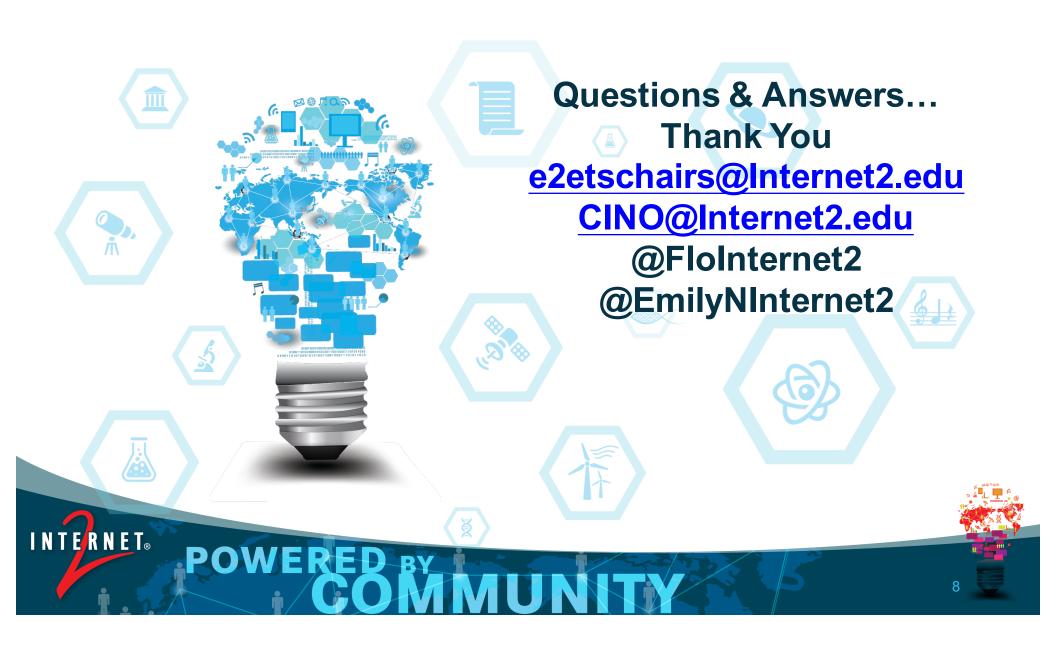
Tuesday, May 17
- Distributed Big Data and Analytics Innovation Working Group: 7:15-8:45AM
- Enabling Researcher Support and Success: 6:00-7:00PM

Wednesday, May 18
- Gender Diversity in the Internet2 Community: 7:15-8:45AM
- Innovation Development and Management – Think Local, Act Global: 12:00-1:15PM

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**Questions & Answers…
Thank You
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E2ET&S Use Cases for Future Action

Initiative/Use Case	Description	Plan
Software Defined Perimeter (SDP)	Leverage SDP against attacks to provide security for cloud, mobile computing, and IoT applications.	• SDP Webinar held 9/1/2015 • SDP session held at SC15 • Opportunity to work with CSA on SDP Spec V2
		Plan: Connecting with Other Initiatives
Security for web-based mobile applications	Adding support for OpenID Connect to Shibboleth IdPv3 allows secure authentication for mobile applications.	• Connected with the University of Chicago • Awaiting further maturation • Engage the TIER community
Preserving student privacy while enabling use of InCommon federated services	Allow students to access InCommon federated identity services while preserving student confidentiality and privacy.	• Dependent upon University Policy, and relationships between services & institutions • Awaiting further maturation • Engage InCommon community