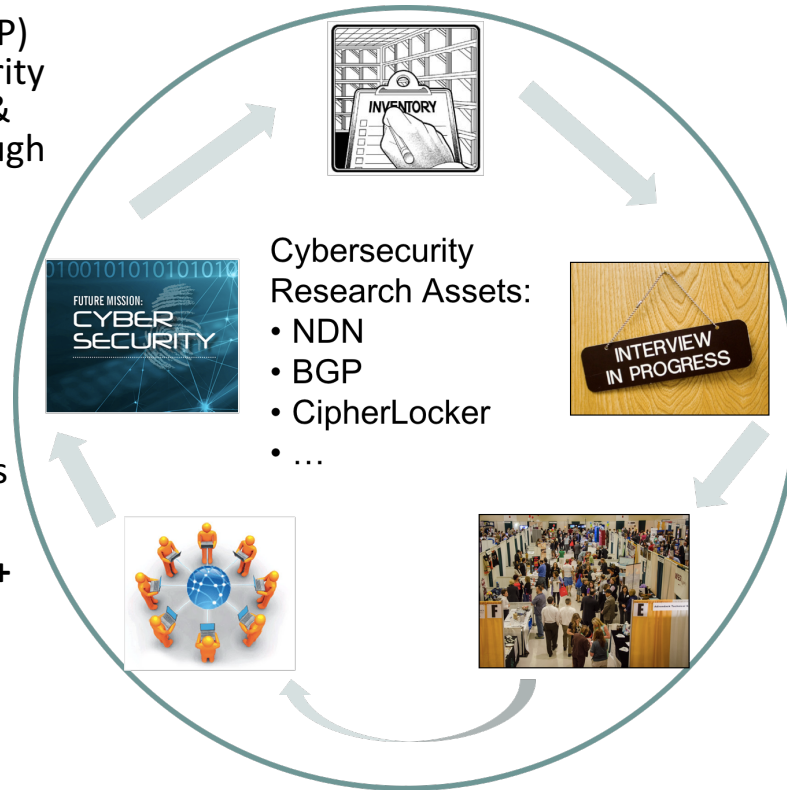# EAGER: Cybersecurity Transition To Practice (TTP) Acceleration

Challenge:

- Accelerate Transition To Practice (TTP) of NSF funded later stage cybersecurity research into operational Research & Education (R&E) environments through applied research pilot deployments

Solution:

- Identify & assess **inventory** of NSF cybersecurity research assets ready for applied research pilot phase

- **Interview** researchers & practitioners for needs/learnings/best practices

- **Leverage Internet2 community (315+ universities, 40+ regional networks) to enable** "matchmaking" between researchers and academia IT/NW operations for pilots/testing

- Deploy webinars, portal, in person **events for researcher/IT matchmaking**

- Identify cybersecurity **needs/gaps**

Cybersecurity Research Assets:
- NDN
- BGP
- CipherLocker
- …

Award Number: 1650445
Internet2
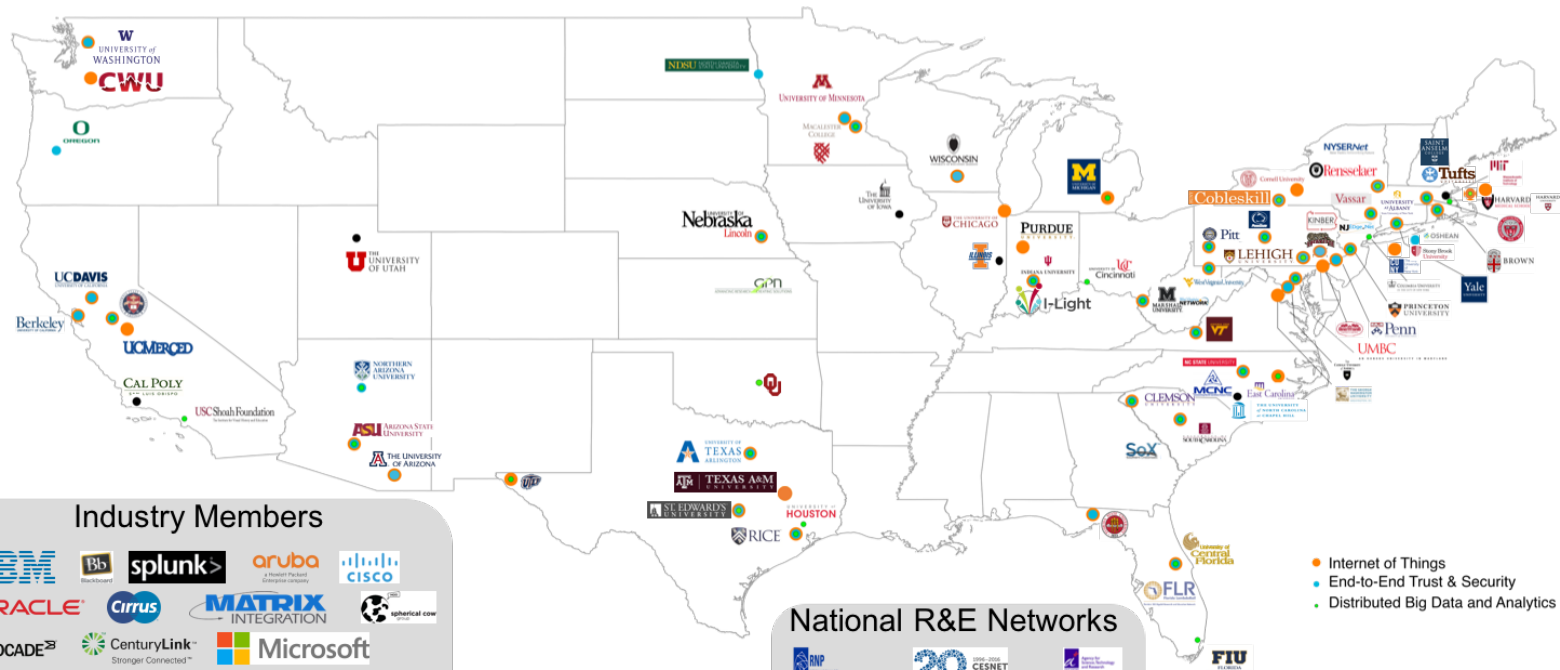PI: Florence Hudson, SVP/Chief Innovation Officer

Scientific Impact:

- Increase awareness of cybersecurity research & capabilities

- Accelerate cybersecurity transition to practice in the near to mid term to make cyberspace safer

- Identify cybersecurity needs to inform future NSF solicitations

Broader Impact:

- Enable partnership for NSF TTP with other Federal agency programs, including DHS, SBIR, etc. to accelerate and streamline the TTP pipeline

- Enable a more diverse research and education pipeline partnering with Society of Women Engineers and others

Collaborate with Internet2 Collaborative Innovation Community of 300+ individuals representing nearly 125 university and member institutions.

As of December 5, 2016

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Cybersecurity TTP Acceleration Project Plan
Start Date August 2016

Step	Project Activities	1Q	2Q	3Q	4Q	5Q	6Q	7Q	8Q
1	Project team in place	■							
2	Develop NSF Research Asset Inventory	■							
3	Interview NSF, researchers, practitioners, universities, industry, labs, DHS, other agencies	■							
4	Develop researcher/practitioner match-making showcase -online, events		■						
5	Develop TTP R&D showcase and technical workshops			■					
6	Deploy workshops				#1	#2	#3	#4	
7	Design, develop NSF TTP Portal		■	■					
8	Develop materials for NSF TTP Portal		■	■	■				
9	Deploy NSF TTP Portal					■	■	■	
10	Assess TTP program and develop recommendations								■

SME Interview insights regarding TTP acceleration

Cybersecurity Researchers

- Key needs for TTP identified: Funding from NSF and others, early user feedback
- User feedback from pilot deployments critical to accelerate TTP
- Opportunity for acceleration of the TTP process at multiple steps
- Researchers like opportunity to leverage NSF TTP, DHS TTP, I-CORPS multiple agency support
- NSF TTP dollars sometimes perceived as small & cumbersome to capture, prefer working with venture firms
- TTP not necessarily a priority for some researchers – looking to solve complex problems, not start a business

Practitioners for Pilot Deployments

- Practitioners need to know operational requirements for pilot use of TTP assets
- All size universities and regional networks interested in potential to test out / pilot cyber research early
- Smaller universities requested to participate in TTP as they have simpler approval processes
- Some universities unwilling to deploy unproven, non-production tested cybersecurity code

Agencies

- Interested in cross-agency collaboration opportunities for NSF and DHS to accelerate cyber TTP

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TTP matchmaking webinars, workshops, showcases

1. On-going recruitment of cybersecurity TTP researchers and R&E practitioners for matchmaking
2. Ongoing TTP matchmaking webinars/workshops/showcases for researchers and R&E practitioners
   - Kickoff with 5 research assets highlighted for R&E community: Sept. 27, 2016, Internet2 TechEx, Miami
   - 2 cyber researchers presented to 8 universities, 5 regional NWs on Internet2 webinar – Nov. 18, 2016
   - Recruiting researchers for TTP workshop/showcase at Internet2 Global Summit April 23-26, 2017 in DC
   - Considering regional, Internet2 TechEx, other pertinent events (e.g., ITANA (IT Architects iN Academia))
3. Potential TTP coaching webinars and workshops for researcher matchmaking success
   - Knowing when you are ready to transition to an applied research environment for user input
   - Other potential topics: clarify value proposition, user handbook, operational requirements, user support
   - Identify coaching mentors and how best to provide it

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