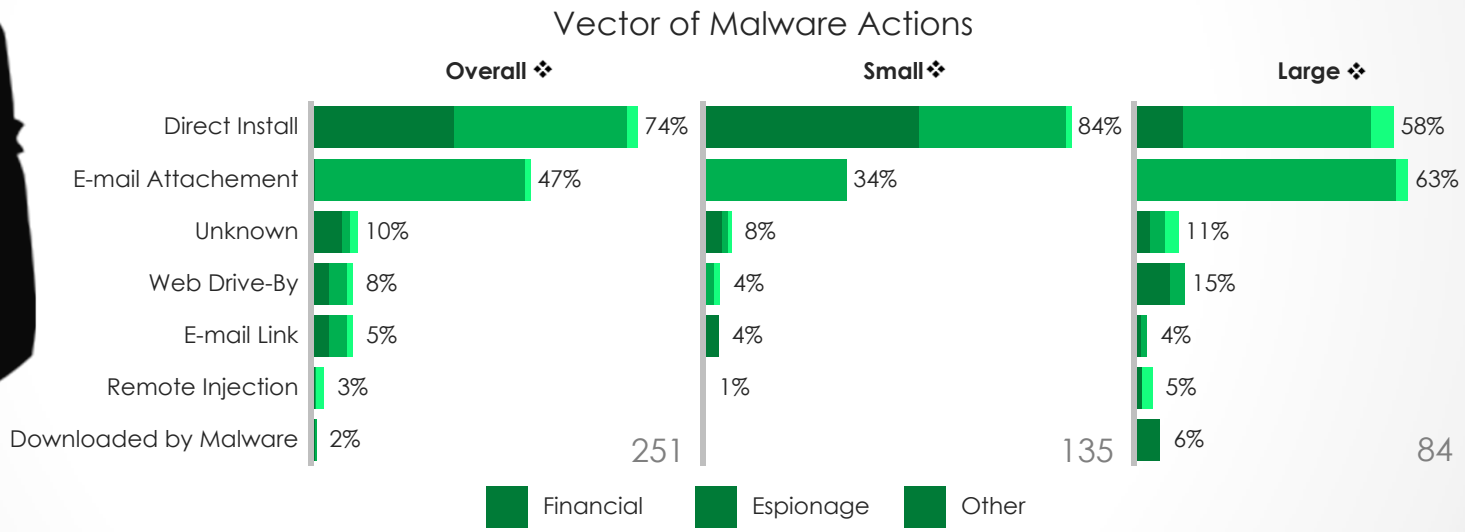
Securing .gov with EINSTEIN 3 Accelerated (E^3A)

April 19, 2016

Homeland Security

The Cyber Threats

- Adversaries are persistent, breaking into USG computers and networks on a consistent basis.
- They use a variety of methods to gain access, disrupt services, and steal data



❖ "Overall" (all breaches of all organizations)
❖ "Small" (organizations with fewer than 1,000 employees)
❖ "Large" (organizations with 1,000 employees or more)

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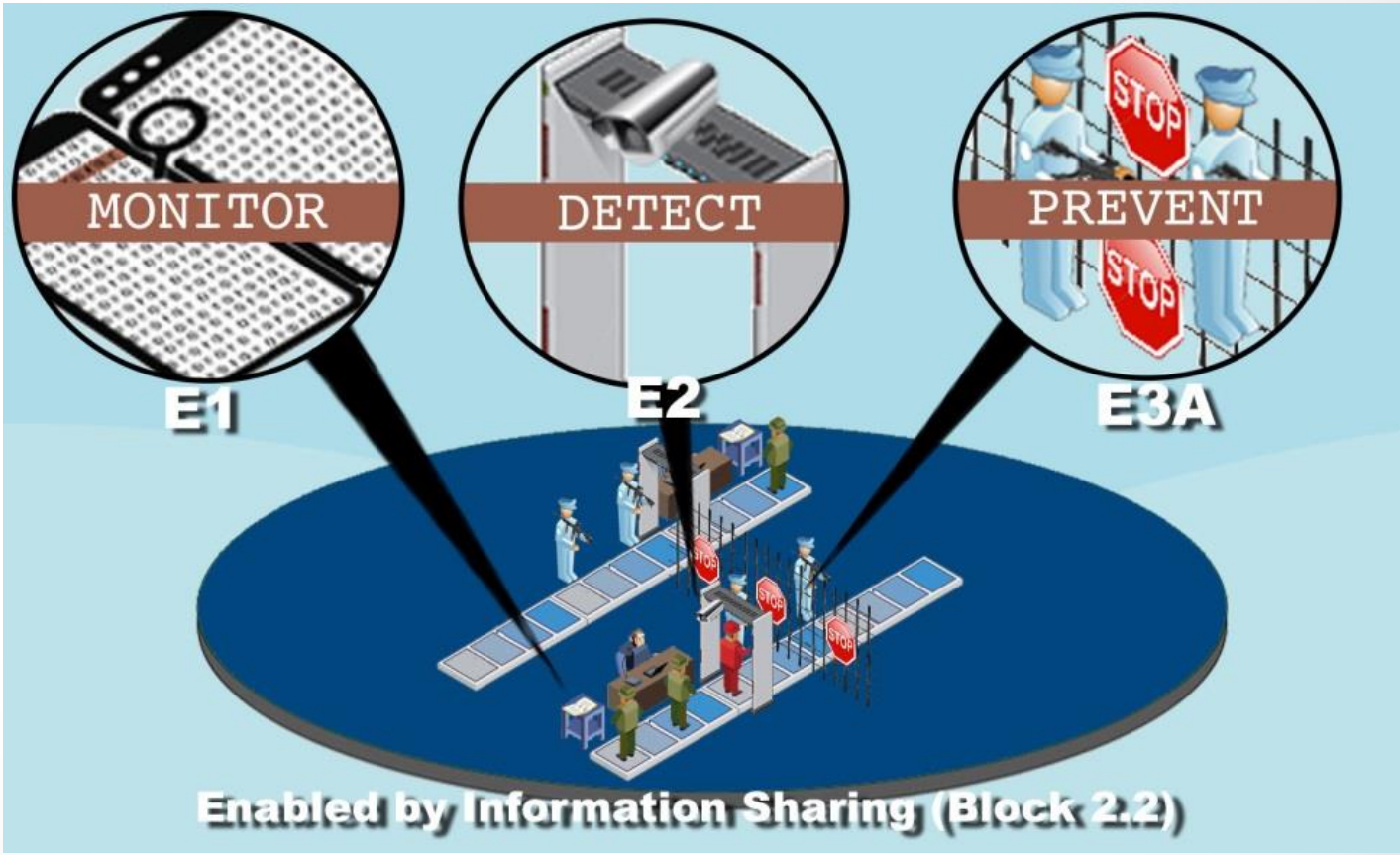
NCPS (EINSTEIN) Capability Overview

"EINSTEIN" is an operational moniker for the National Cybersecurity Protection System

Analogy to security for a building:

- **E1** is the logbook, where guests sign their name, who they are visiting, and the time.
- **E2** checks the names in the logbook against a list of bad guys. If a bad guy enters or exits the building, it sounds the alarm.
- **E³A** is the gate and the guard that stops the bad guy from entering or exiting.



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EINSTEIN Activity

- EINSTEIN 1 & 2 sensors see approximately **93%** of .gov traffic.

9,000,000,000

Average number of flow records collected per day

33,900

Average number of alerts generated per day

- EINSTEIN 3 Accelerated protects approximately **47%** of .gov users.

1,000

Average number of blocked traffic per day

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NCPS (EINSTEIN) Program Benefits

Direct Agency Benefits

- Prevents cyber attacks from the most common and pervasive threat vectors
- Insight into network activities
- Reduces time to respond, remediate, and recover from cyber attacks
- Does not obligate agency funds

Enterprise Level Benefits

- Correlation of cyber activity across the .gov enterprise
- National threat data view to support cyber risk management
- Aggregate view of malicious activity patterns to better understand scope of attacks across the enterprise

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Authorities

- Federal Cybersecurity Enhancement Act of 2015, Consolidated Appropriations Act, 2016, Pub. L. No. 114-113, Division N, section 223.
- Federal Information Security Management Act of 2002

  OMB M-15-01 streamline agency reporting of information security incidents and requires agencies to entered into a legally sufficient MOA with DHS relating to the deployment of EINSTEIN
- National Security Presidential Directive-54/Homeland Security Presidential Directive-23 (NSPD-54/HSPD 23)

  Need for expanded capabilities to address cyber threat
- Comprehensive National Cybersecurity Initiatives (CNCI)

  Initiative #1 – TIC
  Initiative #2 – IDS
  Initiative #3 – IPSS

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