Critical Infrastructure 101

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Agenda

• What is Critical Infrastructure and where did it come from?
• The current Critical Infrastructure landscape
• Documents you need to know
• Key players and entities you should know
• Sector Drilldown – Sectors: what are they, how do they usually operate, and how are they usually structured?
What is CI and where did it come from?

The short answers:

• **What is CI?**
  • A federal designation, made by the President (through the Secretary of DHS) stating that a type of infrastructure is critical to the function of the country
  • The designation primarily does two things:
    • Re-characterizes attacks on this infrastructure to enable the federal government to take additional steps not previously available against actors who attack this infrastructure
    • Prioritizes threat prevention information sharing to critical infrastructure entities and creates mechanisms that facilitate this information sharing
What is CI and where did it come from?

The short answers:

- **Where did CI come from?**
  - Critical infrastructure is a term that has been around for a long time
  - The Clinton administration created the first iteration of modern CI in 1996
    - Created a national commission on critical infrastructure
    - Designated the first eight CI sectors
  - The current definition of comes from the Patriot act and a presidential directive (PPD-21) as:
    - “systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.”
What is CI and where did it come from? – The timeline

- **EO 1310**
  - Establishes national commission on CI
  - Establishes the original eight CI sectors

- **PPD-63**
  - “cyber” is added to CI Definition
  - Designated federal agencies to lead sectors (SSAs)

- **2002 Patriot Act & Homeland Security Act**
  - Defines Critical Infrastructure
  - Establishes DHS

- **HSPD-7**
  - Supersedes PPD-63
  - Builds on top of PPD-63
  - Increased requirements on federal departments and agencies
  - New definition of SSA

- **2013**
  - PPD-21 is signed initiating the process of structuring the modern CI structure through the - 2013 NIPP
  - Government Facilities sector created

- **2017**
  - January 6: Elections Infrastructure designated as part of government facilities sector
The CI Landscape

- **Four categories of entities that make-up the CI landscape**
  - Department of Homeland Security (DHS) – Charged with administering and managing CI as a whole
  - Sector Specific Agencies (SSAs) – Charged with managing a sector and its sector specific plan
  - Sector: The way infrastructure is categorized
  - Operational Units: Entities that distribute information and
Documents You Need to Know

Three documents you must know to understand your sector’s CI operations:

- **Homeland Security Act**
  
  Created DHS and empowered DHS to designate CI as well as create sectors

- **Your Sector/Subsector’s Plan**
  
  Sets the vision and goals for overall critical infrastructure and security and resilience efforts

- This document governs how your sector is managed, maintained and shares information. There is no current elections infrastructure subsector plan
Key Players and Entities You Should Know

1. **Department of Homeland Security**
   - Charged with administering CI:
     - Designates infrastructure as Critical Infrastructure
     - Creates Sectors
     - Serves as many Sector’s SSA

2. **Sector Specific Agency (SSA)**
   - The federal agency that maintains the sector and the partnership of the councils within it
   - Maintains the sector specific plan

3. **ISACs and ISAOs**
   - Non-governmental information sharing organizations

4. **Protective Security Advisers & Cyber Security Advisers**
   - DHS employee that works to help inform entities within a geographic area of threats and vulnerability mitigation information

5. **Coordinating Council**
   - An organizing and information sharing entity to which entities from a critical infrastructure sector belong and interact to share security information with each other and the SSA
Sector Drilldown

Questions I’ll Answer:
• What is a sector?
• How is a sector usually structured?
• What is a Coordinating Council?
• How does a sector usually operate?
Definition: A logical collection of assets, systems, or networks that provide a common function to the economy, government or society – 2013 NIPP

What this means:

• Sectors are how DHS organizes its approach to the nation’s Critical Infrastructure

• If infrastructure is critical and similar to other infrastructure, then it is in the same sector

• Sectors each have their own governance structure and operational protocols - each is unique
Sectors contain relevant critical infrastructure and its owners and operators

Sectors also contain organizational mechanisms and entities that facilitate sector operation and information sharing

- These are usually:
  - Sector Coordinating Councils
  - Government Coordinating Councils
  - ISAC
Sector Drilldown: How does a sector usually managed?

- The Sector Specific Plan is drafted and managed by the SSA with input from the councils
  - This guides the sector as a whole
- The councils are self-chartered and self-organizing
  - The councils write their own rules and dictate their own membership and operations
    - This includes information sharing protocols
Sector Drilldown: What is a Coordinating Council?

**General Definition:** an organization to which a critical infrastructure entity, owner, or operator can belong. The coordinating councils facilitate information sharing and promote risk management efforts throughout the sector and between the sector and DHS.

**Typical (but not required) Types:**

1. Sector Coordinating Council – Represent the involved private sector entities
2. Government Coordinating Council – Represent the involved government entities
Sector Drilldown: How does a coordinating council usually operate?

**Generally:** The coordinating council meets regularly to discuss the state of the sector, needs of the members of the council, projected future needs, and events within the sector. The council also may usually set up working groups to explore issues.

**Special Treatment:** The coordinating councils may at times take advantage of CIPAC protection that allows council communications to be treated differently under FOIA.

**Disclaimer:** The councils are self-organizing and self-governing. So, none of this is set in stone and the council charters can affect the councils’ structure and operations significantly.
Questions?
More Resources

- **CI Scoop – Blog**
  - A new blog every few days
  - Covering all topics CI and elections as CI
  - Updates on the EAC and CI

- **Starting Point Document**
  - 6 page in-depth overview of Critical Infrastructure and Elections as Critical Infrastructure
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