

BUILDING TRUST

ROLE OF CYBER SECURITY IN CIVIL PROTECTION

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What builds Trust?

RESILIENCE



TRANSPARENCY



GOVERNANCE



WHY RESILIENCE ?

SERVICE ASSURANCE

Energy Security

A single green leaf with a prominent vein structure is shown from a slightly elevated angle. It rests on a dark, reflective surface that creates a clear reflection of the leaf below it. The background behind the leaf is a soft, out-of-focus green and blue gradient.

MISSION ASSURANCE

Structured Adversaries

HACKTAVIST



ORG CRIME



NATION-STATE



What is Resilience?

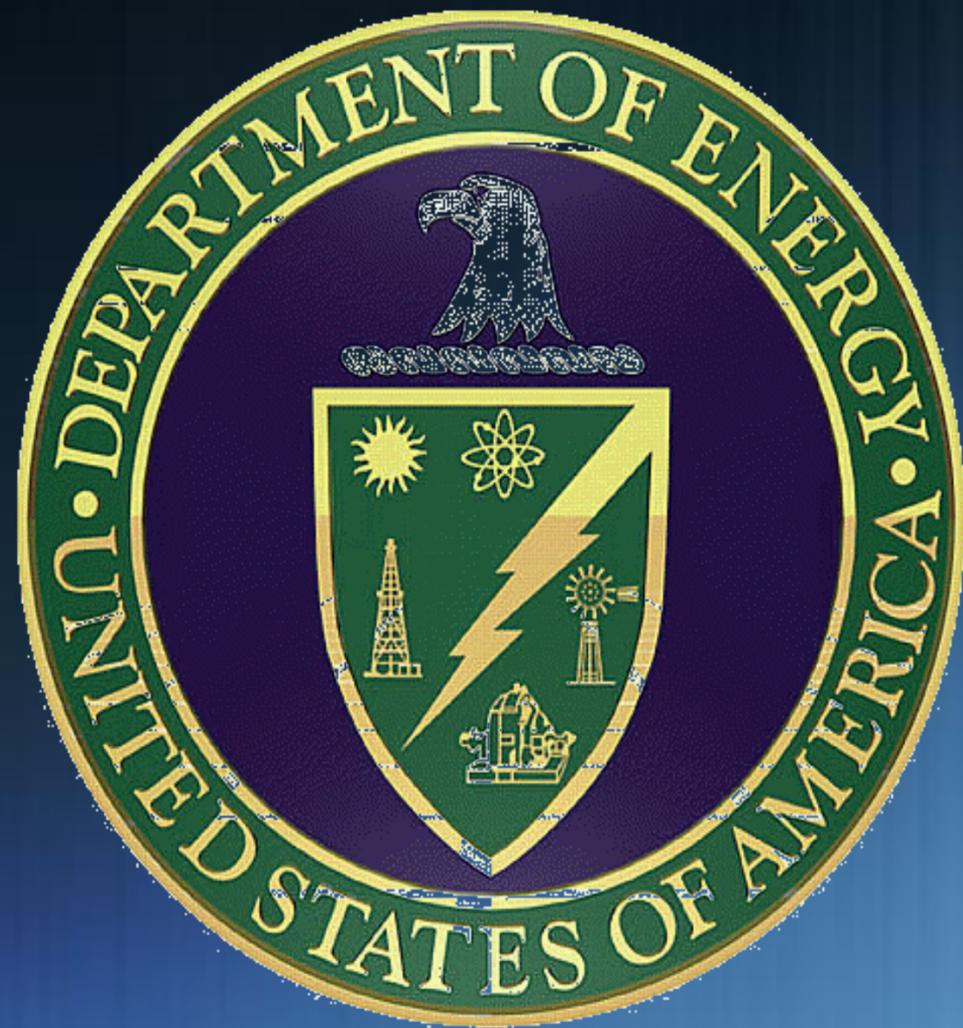


RESIST FAILURE

RAPID RESPONSE

SURVIVABILITY

Who's Talking Resilience?



Stakeholders



Government

Industry

Service Providers

CERTs

Standards Orgs

Smart Grid Challenges



Scale

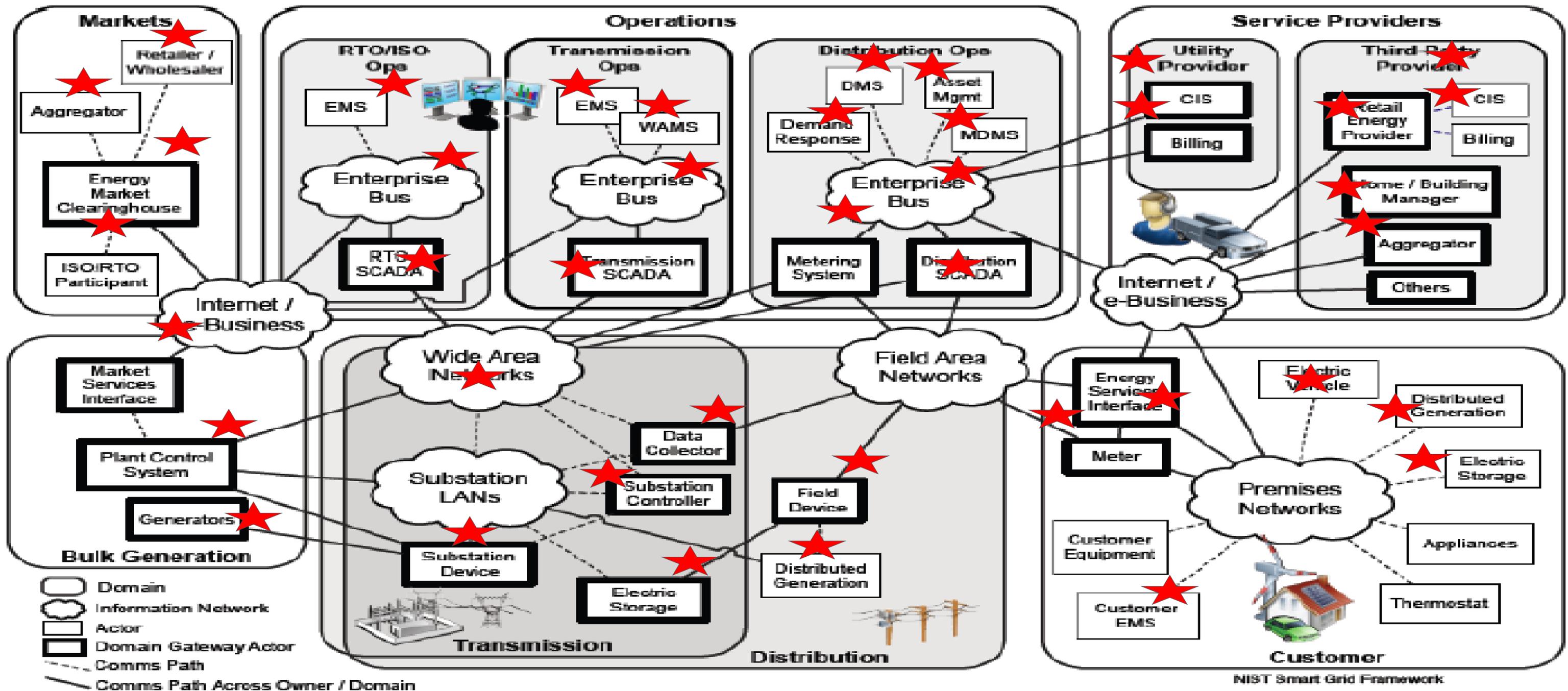
Life Cycle

Culture

Data Privacy

Standards

Current Grid Environment



Resilience (Cyber) Framework



Protected Environments

ENTERPRISE ENVIRONMENT



OPERATIONS ENVIRONMENT



SUPPLY CHAIN ENVIRONMENT



How important is Response?

6-9 months is average time an adversary maintains a presence on the network before they are detected



What's important in a Crisis?



Response OODA Loop

OBSERVE	<u>Detect</u> that an incident occurred
ORIENT	Rapid <u>Analysis</u> and <u>Comprehension</u>
DECIDE	<u>Validate</u> with <u>Intelligence</u> & <u>Context</u>
ACT	<u>Find</u> , <u>Contain</u> , <u>Fix</u> and <u>Prevent</u>

Speed = Survivability

How fast can we *FIND, CONTAIN* and *FIX* a security breach to contain damage?

How fast can we *ACQUIRE and INTEGRATE* new capability to maintain safety?

Intelligence is Critical

- Integrated intelligence and analytics allowed JSOC to increase hunt missions from a few a week to multiple per night





TERRORIST, INSURGENT

BOMB MAKER

SUPPLY CHAIN COMPONENTS

PAYLOAD

SELF PROTECTION

DISTRIBUTION NETWORKS

COMMAND AND CONTROL

IMPACT



CRIMINAL, SPY

MALWARE AUTHOR

SUPPLY CHAIN COMPONENTS

PAYLOAD

SELF PROTECTION

DISTRIBUTION NETWORK

COMMAND & CONTROL

IMPACT

Roles of Intelligence

1

Prevent Something Bad from Happening
Proactive Defense

2

Find Something Bad Inside the Network
Incident Response

3

Find The Bad Guy
Root Cause Investigation

Agile Intelligence Sharing

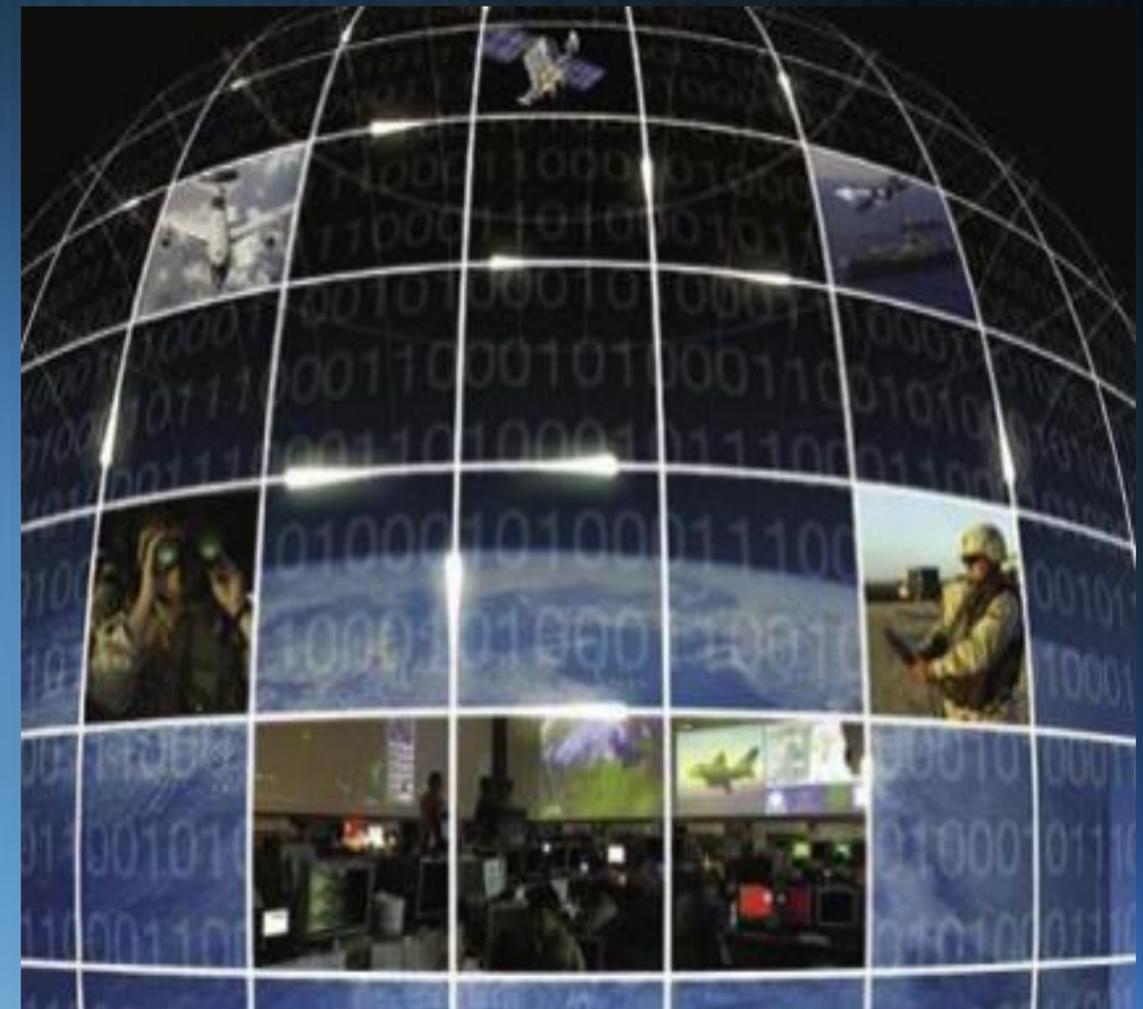
Analog

“Speed of Paper”



Digital

“Speed of the Network”



Barriers to Intelligence Sharing

Politics

Standards

Governance

Classifications



Summary of Key Points

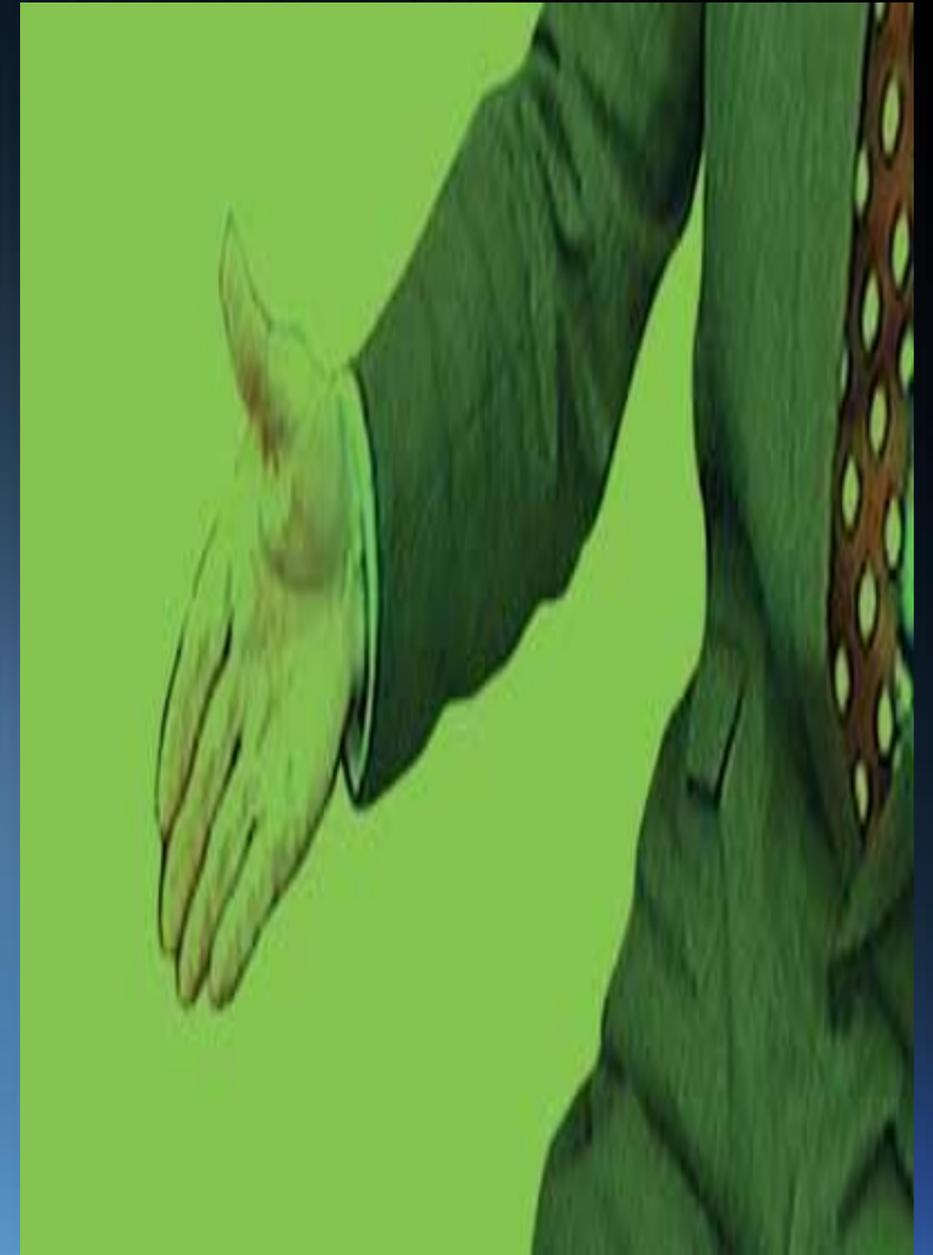


Stakeholders

Trust

Standards

Resilience





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