



COMMONWEALTH *of* VIRGINIA
Office of the
SECRETARY *of* TRANSPORTATION

Resiliency

Quintin Elliott, Deputy Secretary of Transportation
Stephen Brich, Commissioner of VDOT

Resiliency?

- **It's the ability to:**
 - withstand, recover from, or adjust to misfortune or change
 - “bounce back” from a difficult experience
- **Resilience involves behavior, thoughts that must be developed throughout an organization.**
- **Resilience is about:**
 - being *adaptable and flexible*
 - maintaining a sense of *perspective*

Threats to Resilience in an Organization

Types of threats

Cyber-attacks and thefts

Natural and manmade disasters

Economic fiscal crisis

Video on Georgia I-85

- [Video](#)

Development

- **A resilient organization:**
 - has the capacity to anticipate disruptions, adapt to crisis and create plans to immediately recover from misfortune
 - helps forward thinking leaders understand, manage and prepare for disruption
- **Not only do we need to have resilient infrastructure we need to have a resilient workforce.**
 - Resilience *must* be built into a organizations culture
 - How they will persevere in the face of a crisis and failures
 - The amount of effort they put towards the solution
- **The actions they take to overcome a misfortune will have a direct impact on recovery time.**

Building a Resilient Culture in the Workplace

- **Obtain senior leadership support.**
 - Resilient cultures begin with leaders who understand and support building resilience at the individual and organizational level.
- **A resilient organizational culture is one that fosters trust, accountability and flexibility.**
 - Resilient organizational cultures give all employees permission to take ownership of their area of responsibility, prepare for the worst, and understands what failure means to internal and external customers.
- **Resilient employees are engaged, have improved communication and are better team players.**

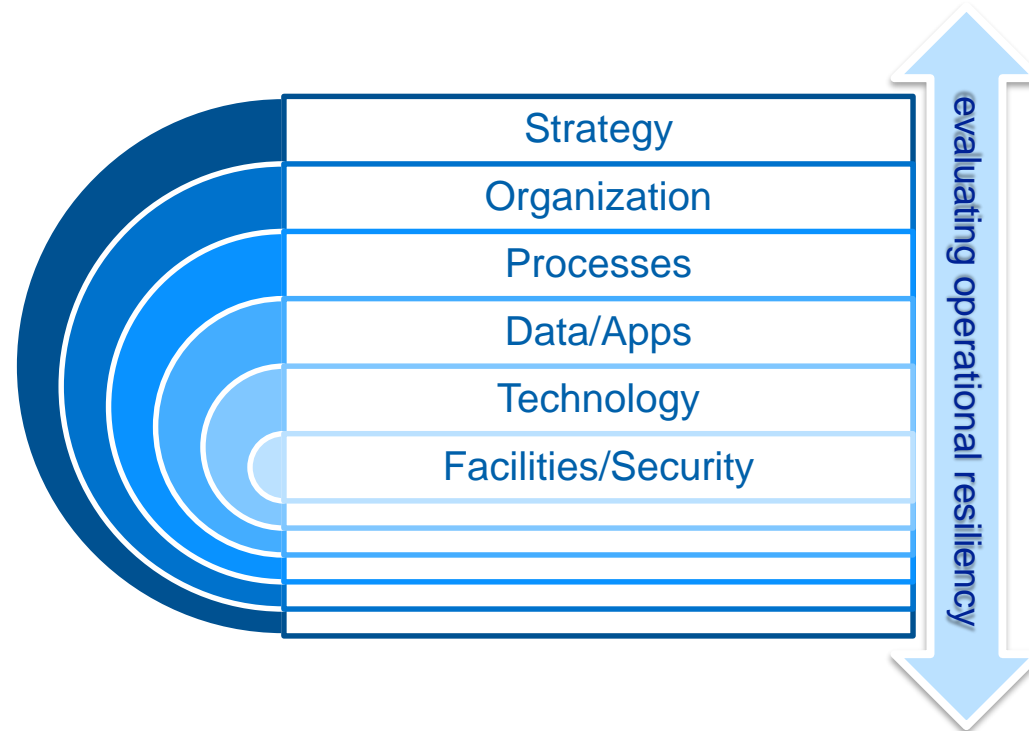
Infrastructure Resilience

The following should be considered part of *any* evaluation of infrastructure resilience:

- Buildings (safety focus)
- Telecommunications
- Electricity
- Storm water/Land drainage
- Roadways
- Railways
- Ports (Air, Sea, Inland)

How do We Address it?

- To begin to address this topic an organization needs to have the right controls in place
- Control is achieved through having the right information to allow us to assess the health of our organizations
- To have operational resiliency we need to ensure our strategy, organizational structure, processes, data applications, technology and infrastructure allows for resilience.





Transportation Resiliency – Transportation System

VDOT Mobility Programs

- **Integrate Detour Plans**
 - Incident Detour Plans
 - All metro areas
 - Critical locations on interstates
 - Detour Plans underway for all of I-64, I-81, and I-95
- **Integrated Corridor Management (ICM)**
 - ICM includes multi-modal responses for planned and unplanned events
 - ICM Concept of Operations Plans and Implementation Plans are available for Northern Virginia.

Transportation Resiliency – Transportation System

Incident Management Programs

- **Advanced Towing and Recovery Programs**
 - Prestaging towing
 - Insta Tow
 - Towing Recovery Incentive Programs (TRIP)

Evacuation Programs

- **Evacuation plans**
 - Hampton Roads
 - National Capital Region
- **Supporting service contracts**
 - Gasoline service



Transportation Resiliency – Transportation System

Traffic Operation Centers (TOC)

- **Utilities**
 - Backup generator power and UPS at all facilities
 - Redundant communications
- **Operating Systems**
 - NWRO & SWRO TOCs have fail over capability
 - Has been exercised
 - Central Region has fail over capability with the NWRO & SWRO
 - Northern Region TOC will have fail over capability in late 2018
 - Eastern Region TOC will have fail over capability upon implementing new system.

Transportation Resiliency – Transportation System

Signals

- **Uninterruptible Power Supply (UPS)**
 - Corridors of Statewide Significance
 - Approaches to critical infrastructure
- **Cabinets are designed with generator adaptors**
- **Signals with retroreflective backplates**
 - Improves visibility

