Florida State University

Disaster Recovery & Business Continuity Planning

IT Professionals Meeting

June 1, 2017

Key Readiness Questions

- Has your department identified the assets that are most critical to your operations?
  - Assets may include systems, data, information, samples, facilities.
- What departmental assets, if any, need to be available or recovered during a disaster?
- Does your department have a documented plan to ensure that its critical assets are appropriately managed during a disaster?
  - Do you practice your plan?

What is an (IT) Disaster?

- The unplanned and significant interruption of normal business processes resulting from the failure or disruption of the IT infrastructure or IT facilities such processes rely on.
- Common Types of Disasters Source: Healthcare Information and Management Systems (himss.org)

Power outages	28%	Hurricanes	6%
Storm Damage	12%	Fires	6%
Floods	10%	Software Error	5%
Hardware Error	8%	Power surge/spike	5%
Physical Attack	7%	Earthquake	5%

A Few Definitions

- **Business Continuity (BC):** Addresses the academic, research and business activities of the University. This includes departmental plans, functional areas and critical business processes.
  - Business continuity planning often addresses a larger set of issues than DR planning.
  - **Recovery Point Objectives (RPO).** RPO are defined as the maximum time/period in which data is at risk of being lost due to a major incident.
- **Disaster Recovery (DR):** IT activities to enable recovery to an acceptable level of performance after a disaster occurs.
  - DR 'needs' guidance from BC to establish priorities and define scope.
  - **Recovery Time Objectives (RTO).** RTO are defined as the duration of time within which a system/business process must be restored to an acceptable level of service to avoid unacceptable consequences after a disruption in business continuity has occurred.

DR-BC Cost Benefit Analysis

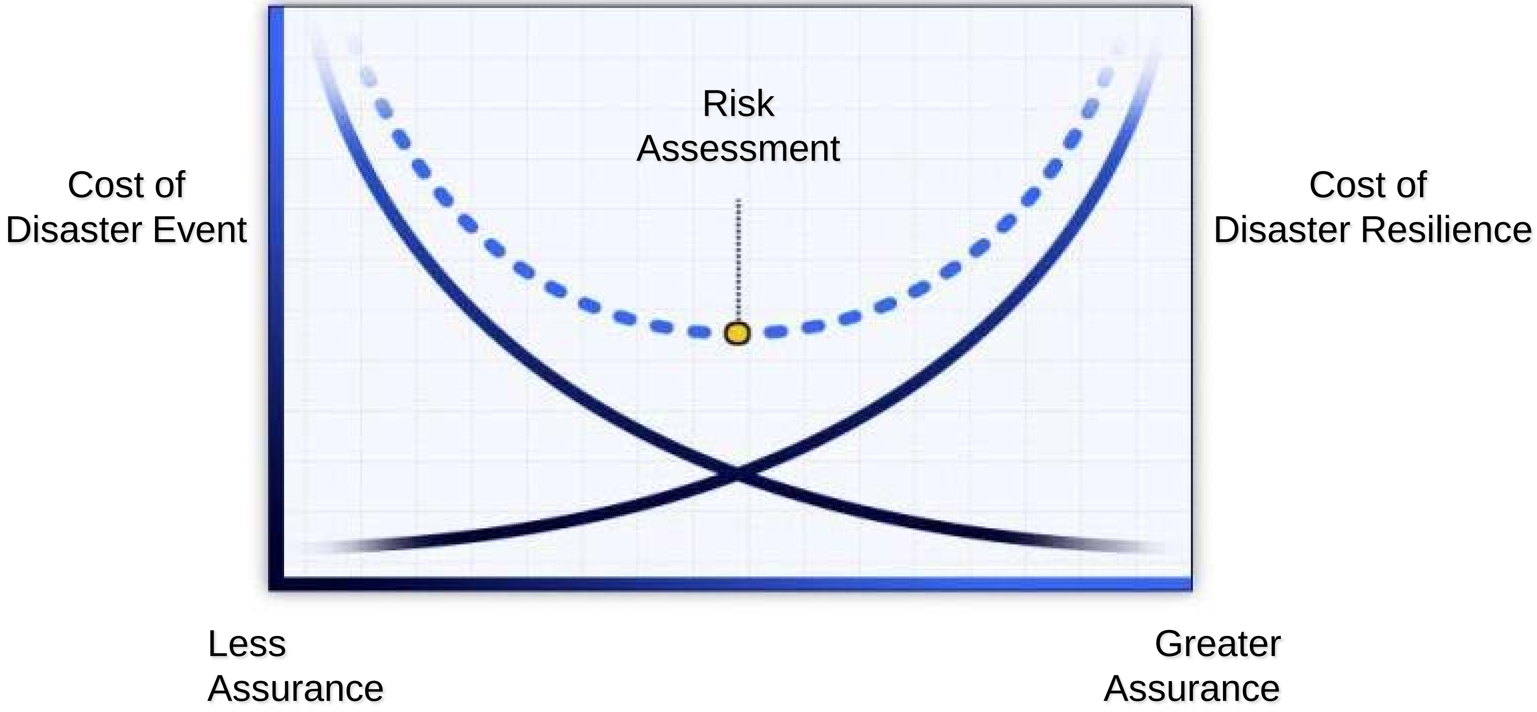


Chart adapted from CANHEIT 2012 Presentation

Develop an IT DR Plan

- Form a planning team made up of business/academic and IT personnel.
- Identify and prioritize the critical (essential) business processes and assets that need to be recovered or managed during a disaster.
  - Understand the impact of system downtime on essential business functions.
- Determine system/asset Recovery Point & Recovery Time Objectives.
- Understand who is responsible for recovery.
  - Responsibilities include coordination, implementation, and communication.
- Document the IT DR plan and include it as a component of the department's overall business continuity plan.

FSU Disaster Recovery Coordination

- Enterprise Systems managed by ITS are addressed in the ITS Continuity of Operations Plan (COOP).
  - The COOP is currently being reviewed and updated.
  - Departments are responsible for Non-Enterprise Systems.
- University-wide DR-BC activities are coordinated under the direction of the FSU Emergency Management center. (FSU PD)
  - The University maintains a Comprehensive Emergency Management Plan (CEMP) which serves as the official emergency operations plan of the University. For additional information, refer to:
  - https://emergency.fsu.edu/cemp/tableofcontents
  - https://emergency.fsu.edu/cemp/hazardspecificannexes
  - Emergency Management can assist <u>on-campus</u> units with scheduling short duration tabletop exercises or drills.

How to Get Started

- Identify single points of failure that could affect department systems/assets during a disaster.
- Plan for and perform preventive maintenance on backup generators, UPS, cooling systems, etc.
  - Identify secure parking locations for department vehicles.
  - Create a checklist to ensure maintenance is completed.
- Understand disaster related risks to departmental IT facilities
  - Shutdown non-essential systems in the face of an approaching disaster, such as a hurricane.
  - Ensure fuel tanks have been filled.
- Develop a communications call tree for department personnel required to participate in disaster response or recovery activities.
- Ensure that system backups are current and available.

FEMA Online Training

FEMA provides comprehensive disaster recovery training materials, many of which are available at no cost. *A few of the core courses are listed here.*

We recommend that Florida State University department IT DR personnel complete the following online training courses as time allows

- FEMA - Emergency Management Institute (EMI) Course | IS-700.A: National Incident Management System (NIMS) An Introduction

  https://training.fema.gov/is/courseoverview.aspx?code=IS-700.a

- FEMA - Emergency Management Institute (EMI) Course | IS-100.B: Introduction to Incident Command System, ICS-100

  https://training.fema.gov/is/courseoverview.aspx?code=IS-100.b

- FEMA – Continuity of Operations Awareness; Introduction to Continuity of Operations

  https://emilms.fema.gov/IS546.a/index.htm

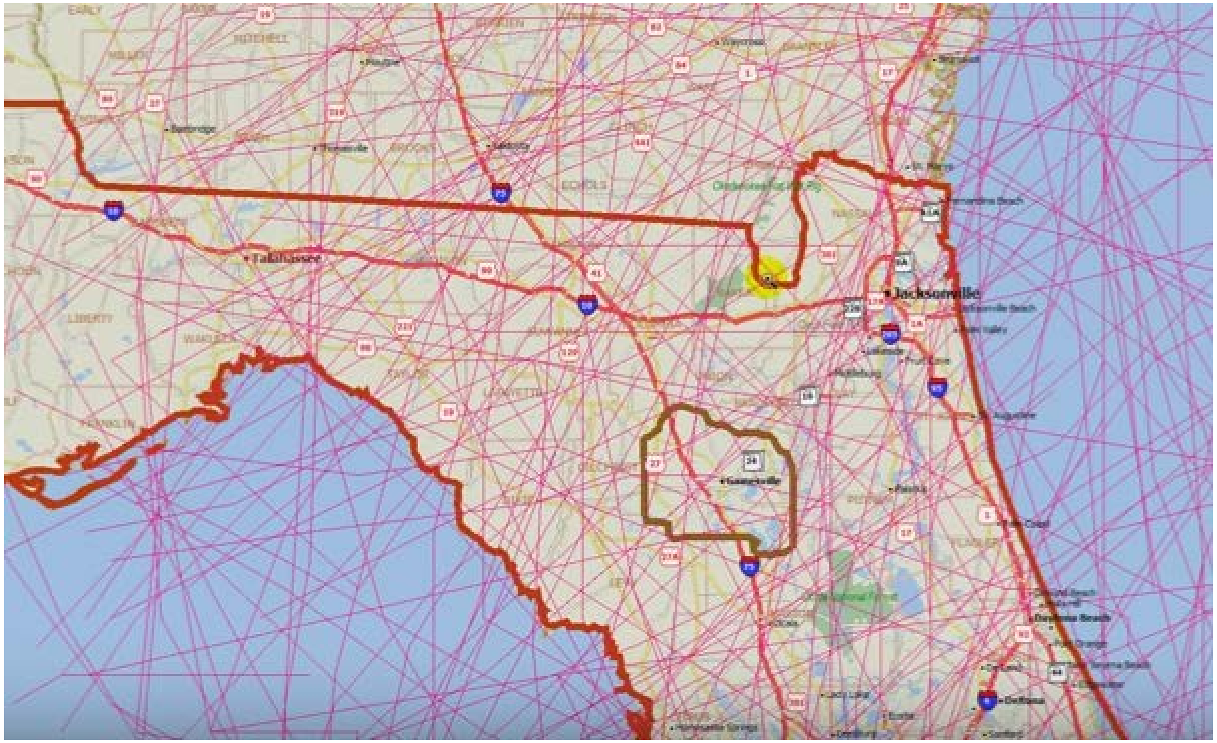
  https://emilms.fema.gov/IS547A/index.htm

Other Useful DR Resources

- Florida Division of Emergency Management
  - http://www.floridadisaster.org

- NIST Computer Security Resource Center
  - http://csrc.nist.gov/publications/PubsSPs.html
- NIST SP 800-34 Rev. 1: Contingency Planning Guide for Federal Information Systems
  - http://csrc.nist.gov/publications/nistpubs/800-34-rev1/sp800-34-rev1_errata-Nov11-2010.pdf
- NIST SP 800-84: Guide to Test, Training, and Exercise Programs for IT Plans and Capabilities
  - http://csrc.nist.gov/publications/nistpubs/800-84/SP800-84.pdf

Hurricane Season June 1 – Nov 30th



Source: Thrall, Grant, Ph. D, Maptitude Software Map, http://www.caliper.com, June 2013.

Next Steps

- Understand who is responsible for coordinating and implementing your department's disaster response.
- Develop an IT DR plan addressing departmental assets that need to be recovered or managed.
  - Practice Your Plan!
- Understand the FSU CEMP and key university contacts responsible for disaster response.
- Complete the online FEMA training.

Contact Information

Joseph Brigham, Disaster Recovery Program Coordinator

joseph.brigham@fsu.edu

(850)645-3601