In the Aftermath of Disaster

Lessons Learned

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“No battle plan survives contact with the enemy.”

German military strategist, Helmuth von Moltke
Make up of the State

Delivery of IT Services
Private Sector Businesses vs State Government:

- Have a good understanding of the business they are in
  - State Government has several businesses under the umbrella of government
- Are not disparate
  - State agencies and departments are statewide, serve several different populations and perform various functions
- Know what they have:
  - Inventory: hardware and software
  - There is a “single view” of what they have, not just in equipment but in people: where they are, who they are and what they do
There are over 100 agencies and departments in Vermont government.

Each agency or department is served by IT
  • Larger agencies or departments have their own IT department
  • Smaller departments fall under other IT departments
  • Some large agencies split their IT responsibilities

It’s Complicated
Preparations:

COOP plans were updated
Emergency Response Center was prepared
Agency and department heads were consulted and briefed
  • Overtime discussed
  • Communications centers readied
  • National Weather Service involved
  • Call lists reviewed and updated
  • Emergency IT centers were made hot
Waterbury Complex:
- IT people made plans for possible evacuation for people and the data center
  - Moving vans were rented and readied
  - Details of shutdown of servers and other equipment in the data center was reviewed and communicated
  - Removal of racks and relocation plans made
The Storm:

The Waterbury data center was in a flood plane. It contained two data centers. One for ANR and the other AHS. Both were lost.

- Risk of life
- Speed of flooding
- Loss of vans
- Loss of emergency response center and evacuation
The Aftermath

Deaths: 6
Damage: $750M - $1B
Power outages: 117,000
Setting Priorities:

Continuity of Operations
a. What departments were the most critical
b. Where could they be located to keep business going
c. Locating spaces for offices....quickly!
d. Agreements with vendors for fiber: faster turn around time
e. Getting AHS and ANR data centers back up:
   Fast merger of data centers
Relocation:

Originally, 109 locations were obtained. This number increased to 170 over time, 60 were temporary locations.

Coordinating circuits and data needs:
Cable and fiber: lead time for installation is usually 60 days. Fairpoint cooperated and agreed to a 3 day turn around time.

One third of state staff has been relocated to temporary facilities for a 3-4 year period.
Lessons Learned

There were many!

1. Don’t have a data center in a flood zone!
2. Be sure to have an accurate, updated, inventory of equipment. We did not.
   - We had to reverse engineer to try to figure out what was missing:
     - Servers
     - Laptops
     - Desktops
     - Printers
     - Racks
     - And so much more!
   - This required a tremendous amount of time and the accuracy of the final counts were questionable.
3. Have an understanding of what type of data are on hard drives and servers. Many ended up in landfills.
4. Have a plan for command centers to coordinate services.
5. Empower people to make decisions.
6. Keep good records of what has happened. This will pay off later.
7. Understand the limitations of some communications equipment within the environment: mountains do not allow radio equipment to extend very far.
8. Understand that COOP plans do not account for disposal and recovery of equipment. Be sure to have a separate plan for this.
9. Be flexible!
10. Staff will be stretched to the limit. Be sure to take good care of them.
Thank you!

Questions?