



WYANDANCH UNION FREE SCHOOL DISTRICT

Office of Media Information & Technology
Sharin Wilson, IT Coordinator

Technology Disaster Recovery Plan

updated 06/16/16

Overview

In the case of natural or other disaster the district needs to be back in operation and functioning in all areas - business, security, education and management as soon as possible. To devise a comprehensive Disaster Recovery Plan as it pertains to technology and data, a Technology Disaster Recovery Committee has been appointed to meet and discuss what levels of disaster recovery are cost-effective for the district. No separate funding has been allocated although there are some measures which can be taken within the current budget.

Goal

A reasonable recovery goal would be to have most systems operating in an emergency mode within 24 hours of a disaster; this assumes availability of outside connections.

Emergency Communication Systems

1. **Notifications:** Wyandanch School District utilizes Blackboard Connect as the notification system. Blackboard Connect can be accessed via the web or phone and messages can be sent out to preset specific groups of people as well as district wide broadcasts (i.e. school closings, etc.). The system can send voice messages, email messages and cell phone text (SMS) messages. While this system is constantly used, it would be beneficial to use text messaging. The district needs to obtain the cell phone numbers of all those people who would want to receive text messages in case of an emergency.

Point to discuss - Since the majority of secondary students and parents have cell phones, the district can add their phone numbers to Infinite campus and export that to Blackboard Connect. During a "lockdown" emergency in a secondary school – notification could be sent to the students/parents to stay in their locations, evacuate, etc.

2. **Computer Web Emergency Access** – Verizon Wireless Internet Access cards are in use by both the Director of Technology and the Director of Facilities. Additional cards for both individuals who are in charge of Disaster Recovery Planning (Project Safe) have been procured.
3. **Building Emergency Communication** – There will be an acquisition of 6 "Pay as you Go" cell phones to be kept in the safe at each school. These will be used for emergency communication whenever the phone system in the respective building is disabled. As listed in
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the plan, additional analog phone lines will be procured for back up. These lines will be mirrored to 3 emergency "red" phones that will be located in the Principals Office, the Nurses Office and the Custodian's Office. Fax machines with handsets can also be used to make phone call through analog lines.

- 4. District Web Site** – The District Web Site is a key communications portal for information about the school district. It is hosted online by Edline and would not be affected by a local disaster.

Disaster Scenarios

I have initially identified several scenarios of disasters that need to be addressed – I have also given our status and current restoration capabilities.

I. WAN Connections between district campuses are disrupted.

The district currently has 6 pairs of fiber that connect all locations back to the high school Datacenter - These fiber links are used for: Access to the Internet, Telecommunications, and access to financial and student management systems.

- a. There is no redundant or alternative path back to the Central Office which would supply redundant access to the Internet and the outside world.
- b. Current recovery in place
 - i. Every building has extra phone lines in their individual PBX's that act as back up for incoming and outgoing calls.
 - ii. Most of the buildings in the district have an alternate access to the internet via cable modem in the libraries - providing access to the student management system, Special Ed system and email system (these all are web based).
 - iii. Every building principal has access via phone or internet to the emergency notification system – in order to contact parents
 - iv. The number of back up phone lines in the school based PBX's is being increased so that more calls can be received/placed.
- c. Possible Additional Alternatives
 - i. The district should consider moving and/or installing a cable line to each campus through a router would then allow for traffic over the Internet to continue to give



WYANDANCH UNION FREE SCHOOL DISTRICT

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connectivity to support the most necessary applications such as the student management system, Special Ed, Website and email system.

- ii. Create an alternative network path for all buildings to the High School and then make a redundant Datacenter that syncs with the Central Admin Datacenter.

II. **The partial/complete destruction of the Central Admin Datacenter**

This is a much higher-cost scenario since it could be assumed that all of the servers and switching would be destroyed. The District Virtual Server Environment is located in the Central Admin Datacenter- Email Servers, WINCAP (Financial System), Print Servers, Lunch POS, Library Catalog, Webfilter/Firewall, District wide PBX, Security System and Telco connection, District wide Internet Access and the Document storage server for all users.

a. Current Recovery in place

- i. Financial System is backed up offsite to Harris Computer daily
- ii. Student Management System is backed up to Minnesota
- iii. All Virtual Servers – Data is backed up daily and weekly
- iv. District Wide PBX – Each building has a standalone PBX (see scenario 1)
- v. District Wide WAN/Internet Access – see scenario 1
- vi. Security System – district wide camera surveillance system – has been upgraded, each building houses their own servers, High School and Middle School would not be affected, only the Elementary Schools and Central Admin

b. Possible Additional Solutions Being Implemented:

- i. In the high school, designate a secondary Datacenter (far away from the Central Admin Datacenter as a backup with enough equipment to support a limited-use system. Install Fiber to reroute all buildings to the High School. Create a Virtual Server Environment to replicate the setup in the Central Admin Datacenter.
- ii. Establish a secondary proprietary Security server at the High School and use that as a hot backup location for the Elementary Schools

III. **Destruction of the Administration Building**

The Administration building houses the Financial/personnel system and server as well as a file storage server for the workers in that entire District. WINCAP is essential for payroll, purchasing, accounts receivable, paying bills and management of secure personnel files.

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- a. The Administration building is located at the center of a STAR network topology. If the building were destroyed, the remainder of the district would fail to function as needed.
- b. Current Recovery in place
 - i. WINCAP database is backed up offsite to Vendor's Datacenter at Harris Computer.
 - ii. District Website, Student Management Systems and Special ED system are run offsite so they would not be affected by a local disaster.
- c. Possible Additional Solutions to Implement:
 - i. We need to create a secondary Virtual Server solution at the High School Datacenter. We would need to have it do a daily synchronization with the primary server so that the restore process would be minimal.

IV. Individual Building Loss - other than the High School/ Admin

In all the other buildings, a loss of the NOC will not result in a loss of any data necessary for the governance or operation within the school district. In order to get the administrators of a damaged building back on line, we could deploy the administrators to the high school library where they could get online using the laptop computers and continue their work. Every building principal has access via phone or internet to the emergency notification system – in order to contact parents

V. Power Loss in building(s)

All equipment in all the data centers is on UPS's (backup power supplies). Only 2 buildings have generator back up – High School and Admin Building. The district should invest in additional generator back up at the Middle School – for disaster recovery

VI. Summary & Next Steps

In summary, the Wyandanch School District has a good disaster recovery plan in place. The Disaster Recovery Committee needs to verify all the items mentioned above and discuss/take



WYANDANCH UNION FREE SCHOOL DISTRICT

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steps to implement the suggestions in order to make this a failsafe recovery plan for the school district. These steps would include:

- a. Verifying backup schedule for all involved servers
- b. Verifying locations of tape backups – offsite and onsite
- c. Verification of all buildings with Cable access for the internet
- d. Verify that Finance manager backup is being managed through BOCES
- e. Do a Power failover test to confirm that generator cutover works in all covered buildings
- f. Confirm that all plans mentioned in section I-IV are possible and that the procedures are documented

Committee:

Bob Howard, Assistant Superintendent for Business; Sharin Wilson, IT Coordinator; Core BTS Team; Building Principals, Monty Grainger, Building & Grounds