NH-HMIS Disaster Recovery Plan

Table of Contents

The New Hampshire Homeless Management Information System (NH-HMIS) is a critically important tool used to gather and maintain information about the homeless population in the state. This document describes the responsibilities of key personnel and three scenarios where HMIS recovery may be required:

1. On-site power outage at the Lead Agency in Nashua
2. Local disaster in New Hampshire
3. Outage or disaster at Bowman System's location

On-Site Power Outage or Service Interruption

If there is a power loss at the Lead Agency, users will not be able to access email, NH-HMIS website, the ServicePoint software, or open a ticket. Therefore, to provide optimal recovery:

- the NH-HMIS data is backed up nightly to an off-site, secure server bank. In the event of a disaster, this data can be immediately available via Internet connection and can be restored within 4 hours.
- the NH-HMIS website www.hmis.org is backed up nightly with on-site backups to a hard drive array.
- once a month, a backup of the HMIS network access storage (NAS) device is run and is stored off-site.

Additional information about hardware, recovery, and backups includes:

Network Data Recovery

The NH-HMIS is stored on a network access storage (NAS) device that is readily accessible for approximately 24 hours a day. The NH-HMIS website is also stored on the NAS and contains all HMIS forms, documentation, training materials, videos, and other HMIS-related information. Once a month, a back up of the NAS is created and is stored off-site.

Database Tape Backups

Tape backups of the database are kept for approximately one month. Upon recognition of a system failure, HMIS can be copied to a standby server. The database can be restored, and the site recreated within 3-4 hours if online backups are accessible. As a rule, a tape restoration can be made within 6-8 hours. On-site backups are made nightly to a hard drive array. A restore of this backup may incur some data loss between when the backup was made and when the system failure occurred.

Internal Server and Router Recovery

All internal servers are configured in hot-swappable hard drive RAID configurations. All systems are configured with hot-swappable redundant power supply units. Internet connectivity is comprised of a primary and secondary connection with separate internet service providers to ensure redundancy in the event of an ISP connectivity outage. The primary Core routers are configured with redundant power supplies, and are configured in tandem so that if one core router fails the secondary router will continue operation with little to no interruption in service. All servers, network devices, and related hardware are powered via APC Battery Backup units that are connected in turn to electrical circuits, which are connected to a building generator.

Local Disaster Plan

A local disaster is considered to be a disaster that affects locations in or around New Hampshire. In the event of a local disaster:

- NH-HMIS, in collaboration with the local Agencies, will provide information to local responders (fire, police, etc.) as required by law and within best practice guidelines.
- NH-HMIS in collaboration with the local Agencies will also provide access to organizations charged with crisis response within the privacy guidelines of the HMIS system and as allowed by law.
- If the disaster involves substantial loss of data or system downtime, HMIS will contact the CHO Security Officer by phone or email within one business day to inform them of the expected scale and duration of the loss or downtime.
- In the event that loss of data is expected to exceed three business days of activity or system downtime is expected to exceed 24 hours, the HMIS Team will begin to disclose estimates of loss and downtime to the COCs as well.

Staff Emergency Responsibilities

During a disaster, communication between the HMIS Lead Agency staff, the CoCs, the Agencies, and the software Vendor (Bowman Systems) will be a shared responsibility that is based on location and type of disaster. Appendix A- Emergency Contacts lists key contact people and their phone numbers.

In the event of an outage or system failure, staff responsibilities include:

- The NH-HMIS Project Manager or designee will notify all participating CoCs and local Agency Administrators should a disaster or major outage occur at Bowman System's or in the NH-HMIS Administrative Offices.
- When possible, the NH-HMIS Project Manager or designee will also provide a description of the recovery plan timeline.
- After business hours, NH-HMIS staff will report system failures to the software Vendor using the afterhours hotline.
- NH-HMIS staff will send an email to local Agency Administrators and HMIS staff no later than one hour following identification of the failure.
- NH-HMIS Project Manager or designated staff will notify the HMIS Vendor if additional database services are required.
- If an outage or failure happens at Bowman Systems, the Bowman Systems support staff will manage communication to the System Administrator as progress is made to address the service outage.

In order to ensure that HMIS data can be restored in the event of a disaster, HMIS Lead Agencies are required to:

- Back-up internal management data systems nightly.
- Provide a solution for off-site storage for internal data systems.

- Perform automated backups Monday through Friday to a local network access storage (NAS) device.
- Back up to tape on the 1st day of every month. This tape is moved to an off-site location and secured in a safety deposit box.
- Emergency contact information, including the names and phone numbers of local responders and key internal organization staff, designated representative of the CoCs, local HMIS Lead Agency, and the NH-HMIS Project Manager. See Appendix A-Emergency Contacts for a list of contacts.
- The HMIS team is responsible for notification and nature of the emergency and the timeline of NH-HMIS being available.

Software Recovery Services

HMIS data is entered into Bowman System's ServicePoint application. In the event that there is a service outage or disaster at Bowman's location, it is important that ServicePoint and all data is backed up and recovered as soon as possible so that personnel in New Hampshire can do their work. NH-HMIS is required to maintain disaster recovery services from our software provider; therefore, Bowman provides the following application and data recovery services:

- nightly database tape backups with offsite storage (3 miles away) of the backups
- 7 day backup history stored locally on instantly accessible RAID 10 storage
- 1 month backup history stored off site
- 24 x 7 access to Bowman System's emergency line to provide assistance related to "outages" or "downtime" during business hours (7:00 a.m. to 6:00 p.m. CST)
- 24 hour back up locally on instantly-accessible disk storage

In addition, NH-HMIS has a contract with Bowman that covers the following recovery and preventative options:

Standard System Failure Recovery

The NH-HMIS database is stored online, and is readily accessible approximately 24x7. Tape backups are kept for approximately one month. Upon recognition of a system failure, a site can be copied to a standby server, and a database can be restored, and site recreated within three to four hours, if online backups are accessible. As a rule, a tape restoration can be made within 6-8 hours. On-site backups are made once daily. A restore of this backup may incur some data loss between when the backup was made and when the system failure occurred.

Hardware Configuration

All internal servers are configured in hot-swappable hard drive RAID configurations. All systems are configured with hot-swappable redundant power supply units. Internet connectivity is comprised of a primary and secondary connection with separate internet service providers to ensure redundancy in the event of an ISP connectivity outage. The primary Core routers are configured with redundant power supplies, and are configured in tandem so that if one core router fails the secondary router will continue operation with little to no interruption in service.

Data Backups

All servers, network devices, and related hardware are powered via APC battery backup units that are all connected to electrical circuits; those circuits are connected to a building generator. All client data is backed up online and stored on a central file server repository for 24 hours. Each night, a tape backup is made of these client databases, and then they are then secured in a bank vault.

Data Restores

Historical data can be restored from tape as long as the data requested is 30 days or newer. As a rule, the data can be restored to a standby server within 6-8 hours without affecting the current live ServicePoint site. Data can then be selectively queried and/or restored to the live site.

System Crash Restore

After a system crash, there may be 6-8 hours before a system restore can be completed with potential for some small data loss (data that was entered between the last backup and when the failure occurred) if a tape restore is necessary. If the failure is not hard drive-related, these times will possibly be much less since the drives themselves can be repopulated into a standby server.

Major Outages

All major outages are immediately brought to the attention of executive management. Bowman System's support staff helps manage communication as progress is made to address the service outage. Bowman Systems takes major outages seriously, and understands and appreciates that ServicePoint is a tool used for daily activity and client service workflow, so every effort will be made to restore service quickly.

Power Outage

To prevent loss of power, Bowman's systems are backed up via APC battery back-up units, which are connected via generator-backed-up electrical circuits.

Appendix A – Emergency Contacts

This appendix lists the names, contact information, and email addresses for key personnel in the event of an emergency or disaster.

Title	Name	Office Phone Number	Cell Phone Number	Email Address
CoC Chairs-Greater Nashua (GNCOC)	Cate Sementa Ana Pancine	Cate 603-792-5009 Ana 603- 882-3616 x1134	Cate 603-769-9666 Ana ???	c.sementa@harborhomes.org a.pancine@harborhomes.org
CoC Chair-Manchester (MCOC)	Susan Howland	603-391-7927		susan.howland@graniteuw.org
CoC Chairs Balance of State (BOS)	Maureen Ryan Cathy Kuhn	603-271-9197 603-641-9441 x251	603-715-6480 603-325-1686	maureen.u.ryan@dhhs.state.nh.us ckuhn@fitnh.org
NH-HMIS Project Manager	Donna Curley	603-882-3616 x1243	603-809-1987	d.curley@harborhomes.org
Security Officer	TBD			
IT Director	Miles Pendry	603-882-3616 x1104	603-921-1395	m.pendry@harborhomes.org
Balance of State Office (BOS)	Patricia Jackson	603-271-9192		patricia.jackson@dhhs.state.nh.us
Bowman Systems (main number)		888-580-3831		wmcbride@bowmansystems.com
Customer Support Specialist	William McBride	318-213-8780		