

Appendix E: IT Recovery Plan Template

How to Use This Document

This document is a template, for use by DENR organizations, to develop a recovery plan for IT resources and operations. Highlighted, bracketed text is used throughout this template to indicate where an organization can personalize the template for their IT recovery plan. This template provides for a description of the system architecture being addressed, the contingency planning, tape management and support media management, and system recovery procedures that should be followed. Any components of this template that do not apply should be ignored.

INTRODUCTION

Purpose

[State what the IT Recovery plan is designed to do and who is to be served by it.]

Scope

[State the intended the location, environment, and situation where the IT Recovery Plan, is to operate. Please note that if your business unit has business processes in multiple buildings or locations, you will need separate IT Recovery plans for each building/location/process OR you will need to clearly specify in your IT Recovery plan which elements apply to which building/location/process.]

SUPPORTING INFORMATION

Key Positions and Employees

[Include in “Leadership” Section of the DENR Continuity of Operations Plan Guidance (and Worksheet 3) the identity of personnel responsible for executing the plan and also the personnel to assume authority for executing the plan in the event the designated person is unavailable or unable to do it.]

Responsibilities

[This section provides an overview of recovery team member roles (by position rather than specific individual) and responsibilities in a recovery situation. Document this in the “Leadership” and “Continuity of Operations Teams” Sections of the DENR Continuity of Operations Plan Guidance (and Worksheet 6).]

Notification Procedures

[Include identity of recovery personnel in “Leadership” Section of the DENR Continuity of Operations Plan Guidance (and Worksheet 3) for business and non-business hours and notifications to external points-of-contact. Document other notification procedures that apply in this section. The Damage Assessment Team must be the first notified to determine the status of the situation and the appropriate next steps.]

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Plan Activation

[This section describes the activation criteria, for the Damage Assessment Team to initiate the recovery process. You must indicate one or more criteria.]

SYSTEM INFORMATION

System Architecture

[This section describes the server, desktop and Laptop computers, printers, telecommunication equipment, and system accessories that are within the scope of this IT recovery plan. A system architecture diagram including security devices (e.g., firewalls, internal and external connections) is necessary. Location and important technical considerations must be in the descriptions provided.]

Servers

[This section describes the server configuration(s). Specific details should be included about the backup procedures and backup software that will be required to recover from backup media. This section also describes the server applications and databases that will be recovered.]

Desktop and Laptop Computers

[This section describes the desktop and laptop computers that will be included in recovery plan.]

Printers

[This section describes the local and network printers that will be included in recovery plan.]

Telecommunications Equipment

[This section describes the switches, network hubs, routers and Local Area Network (LAN) wiring that will be included in recovery plan.]

System Accessories

[This section describes the other system accessories that will be included in this recovery plan.]

System Backup and Support Media Management

[This section describes the process and procedures that are followed to secure accurate data and media backups and provide protection for these, including tapes and critical support media.]

System Backup Process

[This section describes the backup process, which includes the method and schedule for system backups. It should also list any programs and/or data that are not backed up. A description of the backup method should include a backup media schema. Examples of a schema are listed below.]

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Incremental Backups - Describe your incremental backup process.

EXAMPLE: Incremental backups are done Monday through Thursday. Two sets (A and B) are used. Each set is used on an alternate week and contains appended volume sets of differential data. Therefore, the Thursday daily backup includes appended volumes of differential data from Monday, Tuesday, and Wednesday.

Full Backups - Describe your full tape backup process.

EXAMPLE: A full backup, which covers all system volumes including the SYS volume, is done each Friday. A series of five backup sets is used to provide five weeks of historical data. The backup sets are rotated in order of sequential Fridays.

Quarterly Backups - Describe a quarterly backup process.

A quarterly backup is used in place of a full backup. This process might be used to backup all programs including commercial application software that might not normally be backed up during a full backup.

Special Backups - Describe a special backup process.

This backup process might be used if a job is skipped or fails and catch-ups are required.

System Backup and Recovery Procedures

[This section references the standard operating procedures and/or commercial backup software instructions for backup and recovery. These standard operating procedures should already exist as documented instructions or policies to guide system administration operations.]

Data and Vital Records Storage

[This section covers administrative and operational procedures for onsite and offsite storage of backup media and vital records listed in the "Vital Records and Equipment Worksheet" (Worksheet 4) of the DENR Continuity of Operations Plan Guidance. Examples of vital records include system and program documentation and software licenses and key codes for commercial programs. This section should include a description of the material stored, who has access to the site, the access security measures that are employed, and contact information for individuals who control access to the site.]

CONTINGENCY PLANNING MEASURES

[This section reviews and identifies the critical IT services that must be restored in the event of a disruption or disaster and who is responsible for ensuring a successful recovery. It includes coverage of the recovery team and other emergency contacts. Finally, it discusses the need for insurance and warrantee information management, remote site operations, and communication procedures.]

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Business Impact

[This section identifies required services for which contingency plans must be developed and minimum levels of output that can be tolerated under extraneous circumstances.]

- 1. Identify required IT services that need to be recovered*
- 2. Identify minimum acceptable levels of service and/or output that can be tolerated*
- 3. Identify critical system components that need to be available to support minimum levels of service*
- 4. Identify time frame requirements for service recovery*
- 5. Identify other system dependencies and interfaces that affect the IT services*
- 6. Identify Emergency Contacts for these services in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.*

Insurance and Warrantee Information Management

[This section lists or references insurance information that covers the IT resources needed to support critical business system. It also lists or references warrantee information that covers the IT hardware and software. Finally, it includes contact information for the administrator(s) of this information.]

Remote Site Operations

[This section should identify a predefined remote site that a DENR organization could relocate to in the event of a disaster. It should include a contact for the remote site and a list of procedures that should be followed to facilitate an organized move to the remote location.]

Communication Procedures

[This section describes the internal and public notification procedures that will be followed in the event of an emergency. This plan should describe escalation procedures through management that depend upon the severity of the event.]

SYSTEM RECOVERY PROCEDURES

[This section describes recovery procedures for each critical IT business system and the dependencies that will affect a successful recovery. A successful recovery restores all of the hardware and software components necessary for users to resume their operations. A recovery process should include procedures for both the existing site and a remote site.]

Dependencies

[This section lists and describes all of the dependent relationships that will affect a successful system recovery.]

[Specific System Name] Recovery

*[This section identifies a specific business system and describes the recovery procedure for the specified business system at the existing site and at a remote site. **An IT recovery***

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plan should have as many of these sections as they have business systems. A typical system will include the following hardware components:

- *file, print, application, web, and/or database servers*
- *desktop and Laptop systems*
- *telecommunications equipment*
- *other system accessories such as network printers and near-line or off-line storage devices*

The recovery of any system needs to include the software components that correspond with a hardware component. Server and desktop software is typically recovered from backup media or the original installation programs whereas telecommunication equipment and system accessories have firmware that is inherently part of these devices.]

Existing Site Recovery Procedures

Telecommunications

[This section contains the e steps required to restore operability of telecommunications equipment at the existing site. The individual(s) and/or organization responsible for recovering this equipment should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

Server(s)

[This section lists the various steps, utilities, applications, and/or database software, required to restore server computers operability at the existing site. The individual(s) and/or organization responsible for recovering this equipment and the operable system should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

Desktop Systems

[This section lists the various steps required to restore desktop computers operability at the existing site. The individual(s) and/or organization responsible for recovering this equipment and the operable desktop environment should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

System Accessories

[This section lists the system accessories and the steps required to restore operability at an existing site. The individual(s) and/or organization responsible for recovering this equipment should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

Remote Site Recovery Procedures

Telecommunications

[This section lists the steps required to restore operability of telecommunications equipment at a remote site. The individual(s) and/or organization responsible for

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recovering this equipment, should be included the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

Server(s)

[This section lists the various utilities, applications and/or database software, and the steps required to restore operability of server computers at a remote site. The individual(s) and/or organization responsible for recovering this equipment and the operable system should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

Desktop and Laptop Systems

[This section lists the various steps required to restore operability of desktop and laptop computers at a remote site. The individual(s) and/or organization responsible for recovering this equipment and the operable desktop environment should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]

System Accessories

[This section lists the steps required to restore operability of system accessories at a remote site. The individual(s) and/or organization responsible for recovering this equipment should be included in the “Leadership” Section of the DENR Continuity of Operations Plan Guidance.]