

# **Northern Oak Wealth Management, Inc.**

## Disaster Recovery Plan

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## 1. Purpose and Objective

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This Technology Recovery Plan is to be used in the event of a catastrophic disruption to the technology infrastructure. The goal of this plan is to outline the key recovery steps to be performed during and after a disruption to return to normal operations as soon as possible.

### Scope

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The scope of this document addresses technical recovery only in the event of a catastrophic disruption. The intent of the document is to be used in conjunction with a business continuity plan (BCP). A Technology Recovery Plan is a subset of the overall recovery process contained in the BCP. Plans for the recovery of people, infrastructure, and internal and external dependencies not directly relevant to the technical recovery outlined herein are not included.

**This document is not represented and should not be interpreted as a full Disaster Recovery document, as such a document would also include key client contacts, physical business records planning and personnel arrangements.**

**The scope of this plan only covers a full catastrophic technology event NOT requiring business relocation and specifically does NOT cover all other eventualities. A full in-depth DR plan will require greater analysis for various contingencies and other less-intrusive types of disruptions.**

The specific objectives of this recovery plan are to:

- Create an action framework for recovering from a technical outage event;
- Set technical priorities during the recovery period;
- Minimize the impact of the disruption to the impacted features and business groups;
- Stage the restoration of operations to full processing capabilities;
- Enable rollback operations once the disruption has been resolved if determined appropriate by the recovery team.

## 2. Dependencies

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This section outlines the dependencies made during the development of this recovery plan.

Dependency	Assumptions
<b>Network Layers</b> Infrastructure components	<ul style="list-style-type: none"><li>• Connectivity to network resources is compromised.</li><li>• Assumption is basic network connections (network switches, routers, internet devices) are non-functional.</li></ul>
<b>Storage Layer</b> Infrastructure components	<ul style="list-style-type: none"><li>• Loss of local area storage, or other storage component.</li></ul>
<b>Hardware/Host Layer</b> Hardware components	<ul style="list-style-type: none"><li>• Physical components are non-functional</li></ul>
<b>Virtualizations (VM's)</b> Virtual Layer	<ul style="list-style-type: none"><li>• Virtual components are unavailable</li><li>• Hardware and hosting services are accessible</li></ul>
<b>Administration</b> Infrastructure Layer	<ul style="list-style-type: none"><li>• Support functions are disabled such as management services, backup services, and log transfer functions.</li><li>• Other services are presumed functional</li></ul>

### 3. Disaster Recovery Strategies

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The overall strategy of the Northern Oak Wealth Management is summarized in the outline below and documented in more detail in the supporting sections. These scenarios and strategies are consistent across the technical layers (user interface, reporting, etc.)

The overall strategy in a scenario where relocation is NOT necessary includes the following:

1. Get basic communications (phone, internet, fax) functional as quickly as possible. With the heavy adoption of mobile phone usage, internal hardline phone communications are less critical. This includes replacement of any necessary networking components.
2. Restore access to client systems as quickly as possible. This could involve repair of hardware problems on the server or on workstations, depending on the cause of the outage.
3. Obtain replacement hardware for localized system (hosts, copiers, printers), if necessary.
4. Restore data as needed from local backup appliance (if operational), or enable cloud-hosted servers from backup and test connectivity, if extended outage of the server hardware is expected.

The overall strategy in a scenario where relocation IS necessary includes the following:

1. Get basic communications (phone, internet, fax) functional as quickly as possible. Lindsey will contact the telephone support firm and have them re-route phone calls direct to mobile phones of employees.
2. Remote access to the server is possible via standard remote access procedures, assuming that connectivity and systems are operational at the office, but rendered inaccessible due to travel or building access restrictions.

### 3. Disaster Recovery Procedures

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A disaster recovery event can be broken out into three phases: the response, the resumption, and the restoration phases. These phases are also managed in parallel with any corresponding business continuity recovery procedures summarized in the business continuity plan.

#### Response Phase

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The following are the activities, parties and items necessary for a response in this phase.

#### Response Phase Recovery Procedures

Step	Owner	Duration	Components
Identify issue, contact Lindsey	(identified by Northern Oak Wealth Management)	D + 1 hour	<ul style="list-style-type: none"><li>• Issue communicated / escalated</li><li>• Decision made to declare emergency</li></ul>
Identify the team members needed for recovery	(identified by Northern Oak Wealth Management)	D + 2 hours	<ul style="list-style-type: none"><li>• Selection of Technical Team members (dependent on systems that are offline)</li><li>• Lindsey or Dave Becker to bring in desktop backup image drive to Technical Team</li></ul>
Communicate the specific recovery roles	Lindsey	D + 3 hours	<ul style="list-style-type: none"><li>• Notification of Technical Team contacts</li><li>• Notification of Employees</li></ul>
Communicate to customers re: disaster and recovery expectations	Lindsey and Dave Becker	D + 6 hours	<ul style="list-style-type: none"><li>• Email list needs to be prepared in 99 email address "chunks" in advance of disaster and ready for use</li><li>• Email may need to be sent via webmail access to datacenter server or from a personal email address (non-business address)</li></ul>

## Resumption Phase/Recovery Strategy

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1. Technical team powers up virtual environment using the Datto datacenter as quickly as possible.
2. Restore basic network access and begin using the Datto-hosted server images
3. Restore the local host/server architecture

### Order of Desktop Recovery Priority

1. David Becker\*
2. Lindsey Riese\*
3. Mark Zellmer
4. Kerri Schanowski
5. Matt Bappert
6. Deanne Pick

\* denotes "Business Team" member

## Restoration Phase

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### *Powering up business data in the cloud datacenter*

Step	Owner	Duration	Components
Obtain necessary replacement hardware to restore basic networking and internet access	Technical team	D + 8 hours	<ul style="list-style-type: none"><li>• Network switches and routers</li><li>• New cabling or wireless, if current structure damaged/inoperable</li><li>• Laptops, workstations</li></ul>
Confirm status of on site backup	Technical team	1 hour	<ul style="list-style-type: none"><li>• Confirm integrity of on premise backup data and appliance</li></ul>
Contact Datto support	Technical team	2 hours	<ul style="list-style-type: none"><li>• Coordinate delivery of backup data via overnight (if on premise data backup is damaged)</li></ul>
Spin up virtualized servers at Datto datacenter	Technical team	D + 3 hours	
Create connections to virtualized cloud servers	Technical team	D + 6 hours	<ul style="list-style-type: none"><li>• Routing configuration, IP assignment to local laptops/workstations</li></ul>

### *Restore on-site resources*

Step	Owner	Duration	Components
Deploy necessary replacement equipment	Technical team	D + 24 hours	<ul style="list-style-type: none"><li>• Servers/hosts/disks</li><li>• Software, licenses</li></ul>
Reinstall software/data	Technical team	D + 48 hours	<ul style="list-style-type: none"><li>• Done on site, as long as data and hardware are available</li></ul>

### *Cutover back to local resources*

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This recovery procedure would only be the chosen alternative in the event no other options were available to (e.g. the cause and recovery of the Data Center is fully in the control of another department or vendor).

Step	Owner	Duration	Components
Bring up local images of server and business data	Technical team		<ul style="list-style-type: none"><li>•</li></ul>
Recreate virtual desktop environment.	Technical team		
Test access and functionality to local business data and applications	Business Team		

## Appendix A: Disaster Recovery Contact Lists

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The **critical team members** who would be involved in recovery procedures for feature sets are summarized below.

Property Manager for Northern Oak's office building:

Amy La Tona-Falk  
Pentagon Property Management, LLC  
414-225-5810  
amylatona@pentagonllc.com

Information systems support firm:

Michael Senkbeil  
Chortek LLP  
262-522-8226 – option 7 (during after-hours message) to leave emergency message  
support@chortek.com  
(Alternate contact info: 414-698-8227 mobile phone and msenkbeil@chortek.com email)

Telephone support firm:

TDS Metrocom  
888-850-5915

Brokerage contacts to obtain replacement keyfobs to resume trading:

Schwab: 1-800-647-5465  
Fidelity: 1-800-523-5518  
Morgan Stanley: 1-800-303-2495  
Scottrade: 1-877-726-8741

### Employee Contact List:

<u>Employee</u>	<u>Title</u>	<u>Email</u>	<u>Work #</u>	<u>Home #</u>	<u>Cell #</u>
Mark Zellmer	Chairman	<a href="mailto:mzellmer@northern-oak.com">mzellmer@northern-oak.com</a>	414-223-1080		414-840-6441
Dave Becker	President	<a href="mailto:dbecker@northern-oak.com">dbecker@northern-oak.com</a>	414-223-1079		414-732-6105
Matt Bappert	Financial Advisor	<a href="mailto:mbappert@northern-oak.com">mbappert@northern-oak.com</a>	414-223-1078		847-400-4547
Lindsey Riese	Operations Administrator	<a href="mailto:lriese@northern-oak.com">lriese@northern-oak.com</a>	414-223-1087		414-335-3832
Kerri Schanowski	Client Relations Manager	<a href="mailto:kschanowski@northern-oak.com">kschanowski@northern-oak.com</a>	414-223-1076		414-526-7588
Deanne Pick	Executive Assistant	<a href="mailto:dpick@northern-oak.com">dpick@northern-oak.com</a>	414-223-1089		262-312-0877

<u>Company Name</u>	<u>Web</u>	<u>Fax #</u>
Northern Oak Wealth Management, Inc.	<a href="http://www.northern-oak.com">www.northern-oak.com</a>	414-278-1294

## Appendix B: Document Maintenance Responsibilities and Revision History

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This section identifies the individuals and their roles and responsibilities for maintaining this Disaster Recovery Plan.

**Primary Disaster Recovery Plan document owner is: Northern Oak Wealth Management, Inc.**

Primary Designee: David P. Becker

Alternate Designee: Lindsey R. Riese

Name of Person Updating Document	Date	Update Description	Version #	Approved By
Lindsey Riese	3.1.18	Employees	2	David Becker

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