



## **Backup & Disaster Recovery Test**

A critical step in a Backup and Disaster Recovery plan is testing it, which is something overlooked by many organizations. While the technology has changed, from backing up to tapes, to backing up full virtual server's offsite, the same critical question remains...

### ***Does my Backup work?***

PrecisionBS recommends a Backup and Disaster Recovery test to be performed on a yearly basis, at a minimum. Depending upon your server/data criticality, including higher availability environments, a backup and disaster recovery test may be done quarterly or every six months.

As an example, we randomly test different virtual servers in our data center on a quarterly basis to ensure our backup policies and procedures are working properly, and we understand the time it takes to recover when an incident occurs.

### **Our Backup & Disaster Recovery Test Scenario:**

Our Backup & Disaster Recovery (BDR) test involves a real-world worst case scenario, where an incident occurred in which your server infrastructure has been destroyed. This could be the result of a fire, leaky pipe, theft, or a host of other cases in which your server infrastructure is physically non-functional. Our process involves documenting the time it takes for PrecisionBS BDR Technicians to restore your server infrastructure to our loaner server, bring it online, and test system services. The loaner server can be delivered to your office, or in the event of a major disaster, a temporary location, such as a hotel conference room, where you'll continue to operate your business. Please note the Total Disaster Recovery Time does not include delivery time on the loaner server.

### **Quick Data Recovery Test Details:**

The Quick Data Recovery test involves a BDR Technician accessing virtual machine data directly via our backup server. This provides faster access to any data, such as files, documents, etc., for immediate restoration. This would not include services data, such as Exchange or SQL, as those are often environment-specific. Delivery can occur via encrypted USB drive, or secure download from PBS Cloud.

Please note, the time indicated is how long it takes BDR Technicians to access your server data, and not the time it takes to copy the data requested. The time it takes to copy and deliver your data will vary based upon the amount of data requested. Delivery of raw data is significantly faster than a full server recovery, as we're only copying selected data, as opposed to the entire server infrastructure.

Quick Data Recovery may be useful when there is a physical server outage, such as a failed hardware component, which is being replaced under warranty the following business day or later the same day. In this type of scenario, you may only want a few files to work on locally, as opposed to implementing a full disaster recovery procedure.



## Backup & Disaster Recovery Test

### Backup & Disaster Recovery Test Notes/Details:

#### Virtual Machine Infrastructure Hyper-V

#### Virtual Machine Inventory:

- DC1
- Application Server

#### Instant Data Recovery: Yes

Instant Data Recovery provides instant access to data, retrieved directly from the virtual hard disk on Precision Business Solutions backup server infrastructure. PrecisionBS Technicians can mount (open) a virtual hard drive, and copy/retrieve any data required. This data is typically in the form of documents, photos, etc., as opposed to databases, as databases often involve software systems.

### Backup & Disaster Recovery Results:

#### Phase 1 – Server Preparation: 15 Minutes

Server Preparation involves a PrecisionBS Technician preparing our Backup & Disaster Recovery Loaner server for use. Currently our BDR Loaner Server is a Dell T410 with 64GB Ram, 580GB SAS Storage, iDRAC, and dual boot capabilities to HyperV 2012R2 or ESXi 5.5.

#### Phase 2 – Server Restoration & Configuration

The recovery process to restore your server infrastructure to our BDR Loaner Server first involves copying the server from our backup infrastructure, to the loaner server (which often takes the longest amount of time). After the server has been copied to the BDR Loaner, PrecisionBS Technicians can then power it on and make any necessary configuration changes.

Please note that only one virtual server is copied at a time to maximize bandwidth. In instances where there are multiple virtual servers, the process will be prioritized to restore the most crucial servers first.

- **DC1:** 40 + 10 = 50 Minutes
- **Application Server:** 130 + 50 = 180 Minutes

While the time indicated above represents the approximate time it takes to recover a virtual server, please note that if multiple virtual servers are required to bring a system back online, you must add the total time to get a representation of total server infrastructure recovery time.



## **Backup & Disaster Recovery Test**

### **Virtual Machine Restoration Notes & Comments:**

- DC1 – Restoration of this VM completed successfully. Event logs looked good and all Windows services were running as expected.
- Application Server – Restoration of this VM required some work to get everything functioning properly. A lot of services that were supposed to start didn't and couldn't. Required contacting support for all vendors to ensure all software functioned properly.

### **Backup and Disaster Recovery Technician Comments:**

Getting DC1 online did not require any special tweaks or configurations to do so.

However, the Application Server required some tweaking to get all of the software on that VM online. I needed to touch base with software support to determine how to get their software back online.

It turns out that with Microsoft Sync, I will need to acquire a temporary license to get it back online. With Symantec Go!, I will just need to work with them to get their software back online once the VM is back onsite as it requires an Internet connection to communicate and that's not available in a BDR scenario.

Otherwise, the Application Server VM itself fired right up and did not encounter any out-of-the-ordinary issues.

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