Disaster Recovery Testing Made MSPeasy

The purpose of IT disaster recovery testing is to discover flaws in your disaster recovery (DR) plan, so you can resolve them before they impact your ability to restore operations. For managed service providers, DR testing should be considered essential. Regular testing is the only way to be certain you can restore customer operations quickly following an outage.

As you are well aware, managed services success is all about delivering a stellar customer experience. DR testing is a key part of that. If you are serious about delivering top notch customer service, DR testing should be a priority. Here are five tips that can help ensure your testing efforts are effective.

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Choose Technology That Facilitates Testing

Not too long ago, SMB disaster recovery was all about local disk backups with offsite tape. Remote replication was far outside the typical SMB's budget, requiring massive hardware investment. However, restores from tape are slow, incurring significant business downtime. Additionally, tape backups typically only occurred once a day, so any information created between backups was vulnerable to data loss.

Today's disaster recovery systems take frequent image-based backups and replicate server images to the cloud. In the event of a primary server outage, operations can be restored directly from a backup instance of a virtual server on premises or in the cloud. This approach is commonly referred to as "instant recovery." Datto's version of this technology is known as Instant Virtualization.

Instant recovery technology fundamentally changed how DR testing is performed by allowing users to easily spin up virtual machines (VMs) and test the ability to restore operations. The testing process will vary depending on the backup system that you choose. However, here are some general guidelines from Datto Technical Support:

1. Test cloud virtualization without networking to verify VMs have basic functionality.

2. Start VMs with limited/internal networking.

3. Once the VM is booted, test the functionality of essential services. Remember, some services (Exchange, certain database applications) may not be able to start with limited networking.

4. Logout of the device and login as a different user to ensure that the the local VM is available.

For a more in-depth look at how these tasks are performed using Datto devices, check out these Knowledge Base articles:

1. Starting A Local Virtualization On A Datto Appliance

2. Cloud Virtualization And Batch Virtualization

Remember: If your customers are relying on outdated or ineffective technology, it is your responsibility as their managed services provider to recommend gear that enables DR testing.

Define The Scope Of Testing

Are you testing the ability spin up a virtual machine locally? In the cloud? Both? Is the test conducted in a cloud-based environment that mirrors the production environment? Or, is the scope broader than that? Other tests might go beyond IT—testing an emergency generator, for example. There is no single "right" approach. However, some types of testing can introduce the risk of data loss or corruption. For example, some MSPs go to the length of unplugging a server or other technology to simulate an outage. When determining the scope of your DR testing, you'll need to balance the specific needs of your customers, how much disruption they can tolerate during testing, and the amount of time and resources required for you to conduct tests.

"We serve businesses that range from two seats to 250, and the scope of testing totally depends on the customer," said Alain Lefebvre of Great White North Technology Consulting, an Ontario based Datto Partner. "

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With smaller customers we typically perform spin up tests, but with larger implementations we might intentionally tank a switch or something to make sure everything is in order across the network."

Andrew Hutchison of Blackpoint IT Services, an Oregon and Washington based Datto partner, said that tests are designed to validate on premises and cloud restores—however, they will expand their offering to meet customer needs. For example, "in some cases we allow customers to access applications in the cloud during testing for an additional fee. Or, we'll perform network authentication in addition to testing restores," he said.

Test Regularly

How frequently should you perform disaster recovery tests? Unfortunately, there's no magic number. Again, it's a matter of balancing customer needs with your time and resources. For example, you might conduct local spin up tests quarterly and a more comprehensive cloud failover twice a year.

"We perform a full DR test (on-premises and in the cloud) every six months," said Hutchison. "However, when we get alerts from system we may run additional tests to make sure everything is working correctly."

Additionally, It should be considered essential to perform a DR test following any significant changes to the production environment. Neglecting to do so has been the undoing of many a DR plan.

Document Everything

There are many tools available document networks, disaster recovery plans, and DR testing results. These tools range from basic and narrowly focused to highly comprehensive and flexible. For example, you might generate network topology diagrams using software such as this online app from Lucidchart. For more complex networks, discovery and documentation tools such as Network Detective and IT Glue can be valuable. Additionally, RMM tools such as Autotask AEM or Connectwise Automate are designed to collect information about customer networks and generate reports (among many other things).

Paul Franks of ThinkGard, an Alabama based Datto partner, recently launched a software company called PlanITDR. The company offers a cloud-based app designed to automate the creation of DR plan documents. According to Franks, they developed the application for use in-house about two years ago and are now bringing it to market. "Originally, we used a variety of different DR plan templates, but that got complicated over time," he said. "So, we created an application that integrates with Datto's API to automate about 95% of the DR planning documentation process." Currently, the company is developing a module focused on simplifying DR testing that is slated for release at DattoCon 2018 in Austin, TX.

It is important to remember that documentation goes beyond IT components. You should also have detailed contact lists for your customers, technology vendors, and any other pertinent information you might need following a disaster event.

Report The Results Of Your Tests

Sharing the results of your DR testing gives you the opportunity to illustrate the value you deliver to your customers. One popular approach is to share results of your DR testing during a quarterly business review (QBR) with your customers. According to Lefebvre, Great White North takes this approach. Another option would be simply to email a report detailing the results of your testing and proof of any issues you resolved.

"We use Network Detective, Connectwise Automate, and Brightgauge," said Hutchison. "Using these tools, we can scan the network, show the validity of testing and ability to recover, and create customer-facing reports."

Remember: the purpose of DR testing is to identify issues BEFORE they impact your ability to restore. Reporting after the fact gives you the ability to present testing in a way that highlights your value. Some MSPs perform live DR testing for their customers to demonstrate the ability to recover following an outage. However, this is not recommended. Depending on the results, live testing can actually have the opposite effect—decreasing customer confidence. If you must perform a DR test demonstration for customers, first conduct preliminary testing without customers present, so you can be sure of the test's outcome.

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Conclusion

As noted above, disaster recovery testing is all about finding flaws in your DR plan. However, many MSPs unintentionally conduct tests that fail to accomplish that goal. For example, many disaster recovery technology vendors have specific tasks that must be performed prior to testing. Neglecting these steps can create tests that yield inaccurate results.

For a more in-depth look at Datto's pre-test checklist, see this Knowledge Base article:

Preparing For A Cloud Virtualization Test

Another common mistake is conducting incomplete tests. For example, only you might test on-premises virtualization without testing cloud failover. "Don't cut corners with your DR testing. You will miss potential issues that can impact restores," said Lefebvre.

Finally, you don't have to go it alone. Be sure to partner with MSP-centric technology vendors that can help support your disaster recovery testing efforts.