Disaster Recovery Testing in a Vendor-Rich Environment

Executive Summary

In the accelerating global economy, where companies turning to IT services providers is growing much more commonplace, disaster recovery (DR) testing (i.e., exercising your company’s disaster recovery plan or strategy) has become more complex. It can be argued that the need for a documented, comprehensive, actionable and accurate technology disaster recovery plan is more important now than ever before.

In the past, when systems and applications were supported primarily by in-house staff, IT management could point the finger and touch the engineers responsible for their critical systems and applications. Now, IT management must talk with a third-party account executive in order to set up a conversation with their support team. A trouble ticket request is then generated, which is responded to in the order in which it was received.

On its own, this may be tedious but certainly not onerous. But extrapolate this task flow across multiple platforms, applications, locations and vendors and the following challenges facing IT managers are revealed:

- Multiple assets, managed by multiple parties responsible for your critical data.
- The impact on disaster recovery testing and planning.
- The need to plan and test smarter, not necessarily longer.

Companies hire IT services partners to deliver vendor support for a number of reasons: cost savings, additional expertise, economies of scale and time and additional headcount with collective experience in particular architectures, applications and technology. Companies of all sizes and shapes now need to take advantage of that support and manage it effectively to support their organizations’ DR testing program. Round-the-clock testing is now much more palatable as long as vendor resources are scheduled accordingly. This is an area where vendor relationships—and capabilities—are widely underused and misunderstood.

DR exercise management and pre-test preparation are the keys to utilizing this model to your organization’s advantage. This paper will discuss what pitfalls to avoid and how to update your DR plan so that you are testing the plan and not planning the test. This includes:

- SLA and contract review to understand level of vendor support.
- Validation procedures to insure smooth hand-offs between staff.
- Identifying application owners to manage the end-to-end success within each application.
- Test management to help set goals and objectives, track issues and manage the entire process.
From the Beginning

“Isn’t that covered in my contract?”

Does this sound familiar? As accommodating as providers tend to be, when it comes to crisis situations it is best to have accurate contract language in place to support every requirement. All vendor contacts should be reviewed to understand what level of support is covered, both at time of test and in the event of a disaster declaration. Most contracts may mention technical support at time of incident, but frequently leave out support at time of test. Your contract should spell out the type and location (remote, onshore or offshore) of technical expertise you can expect when you need it most – during an emergency. Just as important, the contract should cover the same parameters when you test or exercise your DR solution. This review needs to be thorough so that there are no questions or assumptions that are left to chance. Consider the following questions:

- What level of support am I contracted for? Will the same resources that provide daily support to my systems and applications be available at time of incident?
- How many disaster recovery tests per year are covered in my contract?
- How many hours of test support are covered in my services contract?
- Exercise preparation typically includes a substantial amount of pre-work; will support be available to take part in these pre-test planning sessions?
- Similarly, the post-test process usually provides valuable mitigation steps to improve the program; will support be provided during these test wrap-up activities?

If you are working with an IT services partner on application development, daily IT operations, or both, you owe it to your organization to understand the level of support contracted for during testing and actual disaster recovery events.

Partnering with global IT services players is becoming mainstream, whether offshore, onshore or even semi-sourcing as with cloud computing and SaaS. The more moving parts required to support your organization’s IT, the greater the need to strictly manage your DR roles and responsibilities.

One way to help clear the clutter of all these moving parts is to focus an organization’s DR Plans around applications – as opposed to platforms. This solves a number of issues caused by multi-vendor support. These plans now pull together Servers, Data Feeds, Storage, Gateways, Network Connectivity and Legacy Databases – as well as the vendors that support them. Regardless of location, ownership, or vendor support, this plan will list all hardware and software components required to support said application. The Application owner can act at the DR Manager to pull all the required staffing resources together at time of test or disaster. An organization’s DR Manager can then administer all Application plans as part of their overall DR Program, which all leads to more efficient DR Testing.

Disaster recovery testing is geared to evaluate awareness, validate solutions and procedure documentation, demonstrate fail-over and recovery capabilities and train personnel in expected roles and duties. Today, these duties are performed by multiple vendors, in multiple countries, alongside in-house staff and end users. This adds not only to the complexity of managing a DR program, but to the criticality of implementing it properly. A poorly managed program often leads to poor execution at time of need. It is acceptable to point fingers following an unsatisfactory test; this becomes a lesson to be learned from. The same is not true following a lengthy delay when returning to normalcy from an actual outage. In this case relationships are severed, contracts canceled and jobs lost.

Typically, exercises create an opportunity for vendor support, and for team members – be they operational, application, or third-party – to execute DR tasks in a simulated environment. Tests shouldn’t be considered as a pass/fail, but rather exercises to be learned from. All DR exercises can be learned from, but it is what happens after the test that shows whether an organization’s DR solution will work or not. Many organizations fail to learn from their DR testing mistakes and thus fail to improve their overall DR programs. As exercises build upon one another, the program...
takes shape and provides real value to an organization. It is the responsibility of the DR manager to work with third-party providers to ensure that they embrace this test exercise process the same way they support a system upgrade or an application rollout. It needs to be an expected part of the provider’s contract responsibilities.

Test methodology roles and documentation should include:

- Assumptions, purpose and objectives.
- Test program elements and design criteria.
- Recovery team roles and members.
- Measurement criteria – test results, mitigation schedule, etc.
- Types of testing: table top, functional-sandbox, or alternate site.
- Test frequency and timeline.
- Definitions and templates for individual test plans and guides.

These need to be expanded to support today’s globally virtual organization. Consider the following:

- Who is responsible for development of restore procedures for critical systems?
  - What format will these procedures be delivered in?
  - Will the vendor adhere to the format we provide?
  - Will they be validated prior to testing?
  - How is the maintenance of procedures accounted for?
  - How is it covered in the contract? Is a one-time fee baked in?
- Who is responsible for obtaining copies of binaries and license keys?
  - Who maintains the copies?
  - How is information maintained?
- At time of test, will vendor provide round-the-clock support?

Most DR testing is done in blocks of twenty-four hours. This is where the vendor relationship should really provide value. Instead of in-house resources burning the midnight oil to support a DR exercise, the vendor can be asked to provide multiple resources to account for these second- and third-shift requirements. Offshore resources are even more convenient due to time zone shifts. One caveat: It is important to obtain a roster of all vendor resources that will support your exercise and the eight-hour shift which they will support. These resources should also be part of pre- and post-test processes.

**Continuous Testing and Learning**

Organizations need to use the post-test process not only to update recovery procedures and hardware requirements, but also to update service contracts based on shortcomings identified during testing. And you will not be the only one, according to numerous industry pundits; there has been a steady increase in contract renegotiations over recent years, as organizations strive to ensure current providers are delivering optimal value.

The post-test process is key to the ongoing recoverability of an organization. The issues, concerns, mistakes, upgrades, edits and changes that were identified as part of the testing process need to be incorporated into a remediation plan. This plan needs to be incorporated into a freestanding organization project so these items can be remediated, progress tracked and accountability assigned – all prior to the next test event. Organizations often fall short during this post-test process and as they fail to remediate they find themselves doomed to replicate many of the same mistakes during their next test event.

As remediation tasks are assigned, and vendors and suppliers are provided with their tasks, tracking and managing the process is key. You are relying on them to update the hardware, or improve the code, or fix the procedures; and you need to keep on top of them to ensure these steps are completed. As you manage the project, provide executive reporting regarding the status of the remediation and hold vendors accountable for their parts. They need to provide support, to improve your DR program, during this relative downtime, with the same level of support they would provide at time of emergency. As stated earlier, if these issues are not resolved, they tend to be repeated at the next test.
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