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# Disaster Recovery Exercises Fall Short Of The Finish Line

by Rachel A. Dines

for Infrastructure & Operations Professionals



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## Disaster Recovery Exercises Fall Short Of The Finish Line

It's Time To Get Back In Shape With These 10 Tips For Improved Drills

by **Rachel A. Dines**

with Stephanie Balaouras and Jessica McKee

### EXECUTIVE SUMMARY

If you woke up tomorrow and someone or something compelled you to run a marathon, how would you fare? It's highly doubtful that you would successfully run the 26.2 miles without months of training, drills, and exercises. It's more likely that you would run 10 to 15 miles and then collapse from exhaustion or seriously injure yourself, or both. It's possible that you might actually finish, but by walking or crawling, and it would be hours or a full day later than you expected. The same is true for disaster recovery (DR): The chance that you could successfully recover IT operations without having exercised your DR plans on a regular basis is slim at best. The chance that you could successfully recover and meet your recovery objectives is zero. Yet Forrester finds that exercising DR plans is one area in which many organizations continue to fall short. As you look at improving your preparedness, one area you cannot ignore is your exercise regimen. This report details 10 tips for updating and improving your current DR exercise program.

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Forrester interviewed eight vendor companies, including Deloitte, EMC, Forsythe Solutions Group, HP, IBM, Recovery Point Systems, Steve Goldman Associates, and SunGard, and 12 end users at Fortune 500 companies.

#### Related Research Documents

["Wake-Up Call: You Aren't Ready For A Disaster"](#)  
February 9, 2011

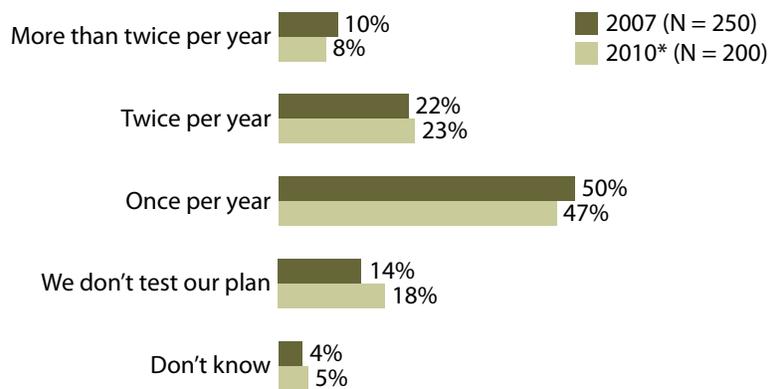
### RELAXED EXERCISE PROGRAMS UNDERMINE DR PREPAREDNESS

Today, enterprise DR preparedness is still lacking.<sup>1</sup> For the most part, it isn't for a lack of advanced technologies in DR architectures but a lack of formal processes and a strict regimen for exercising DR plans. Although most enterprises claim they conduct a full exercise of their DR plans at least once per year, anecdotal evidence suggests that the majority of these exercises are not comprehensive and thorough; enterprises often just exercise a portion of the plan or a subset of applications (see Figure 1). IBM Business Continuity and Recovery Services (IBM BCRS), which conducts thousands of business continuity and DR (BC/DR) exercises per year on behalf of clients, confirms this trend: "As of late, more and more customers are only performing component testing, instead of testing BC and DR simultaneously. We encourage clients to take advantage of full enterprise testing."

Many enterprises that we speak with know that they need to improve their DR exercise program but face barriers such as a lack of executive support, limited employee resources, and a fear of interrupting business processes. What's the danger in relaxing your DR exercise program? Enterprises that don't exercise their plans frequently and thoroughly increase the risk that when it comes time to declare and execute a specific plan, they will be unsuccessful and/or they won't come close to achieving the business' expected recovery objectives. Missing objectives can cost the business thousands, even millions, of dollars in lost revenue, customers, market share, as well as cause damage to its reputation and possible fines.

**Figure 1** About Half Of Companies Only Conduct Full Tests Once Per Year

**"How many times per year do you conduct a full test of your disaster recovery plan?"**



Base: disaster recovery decision-makers and influencers at businesses globally  
(percentages may not total 100 due to rounding)

Source: Forrester/*Disaster Recovery Journal* October 2007 Global Disaster Recovery Preparedness Online Survey  
\*Source: Forrester/*Disaster Recovery Journal* November 2010 Global Disaster Recovery Preparedness Online Survey

## HOW TO GET BACK IN SHAPE: TEN TIPS TO IMPROVE YOUR DR EXERCISE PROGRAM

In spring 2011, when Forrester surveyed 2,741 IT and business decision-makers, more than 60% stated that improving BC/DR capabilities was a high or critical priority for the next 12 months.<sup>2</sup> However, these same decision-makers also stated that they planned to spend only 6.6% of their IT capital and operating budget on BC/DR over that same time period — a number that has remained fairly flat over the past several years.<sup>3</sup> How can you significantly improve your DR preparedness with a flat budget? The most useful action you can take without spending upfront capital is improving your DR exercise program.

DR exercises are not one-off events; mature programs treat DR exercises as a continuous process (see Figure 2). Additionally, Forrester and leading DR practitioners offer the following 10 best practices for improving DR exercise programs:

1. **Define specific exercise objectives upfront.** Exercising for the sake of exercising is a waste of time. Before you run any exercise, make sure that there are clear and concrete objectives and goals set upfront that will help determine the ultimate success of an exercise. One objective may be as simple as, “Verify our stated recovery time and recovery point objectives.” You could orient other objectives around training, such as, “Familiarize the database administrators with the plans for recovering Oracle.”
2. **Include business stakeholders.** Business owners play a vital role in your DR exercises, and you need to involve them from the start of the exercise until you have recovered all services. Business stakeholders should verify the successful recovery of services. This has the dual benefit of ensuring that you have properly recovered business processes with all of their critical components as well as ensuring that business stakeholders know what to expect in terms of recovery capabilities and performance at the recovery site during an actual declaration.
3. **Rotate staff responsibilities.** When running technical DR tests, it’s imperative that the person who wrote the DR plan is not the same person who executes the test, as it is unlikely that that individual would be available in a real disaster. Some interviewed companies went so far as to have employees with little specific knowledge of a system executing those tests, such as a system administrator running the database DR test. “Our goal is that we can take the DR plans and hand them to anyone with a system administrator skill set, and they should be able to execute the recovery,” said Karla Upton, a technical analyst at The Pasha Group. An important secondary benefit of a DR exercise is training; by assigning staff to take on new roles during exercises, you are essentially cross-training staff in different areas.
4. **Develop specific risk scenarios for your exercises.** Many enterprises conduct their DR exercises without specific scenarios; they tell the response team to assume the data center is “a smoking hole.” It is important, however, to define specific risk scenarios even for DR testing for two main reasons: 1) It provides a more realistic situation for the response team to react to,

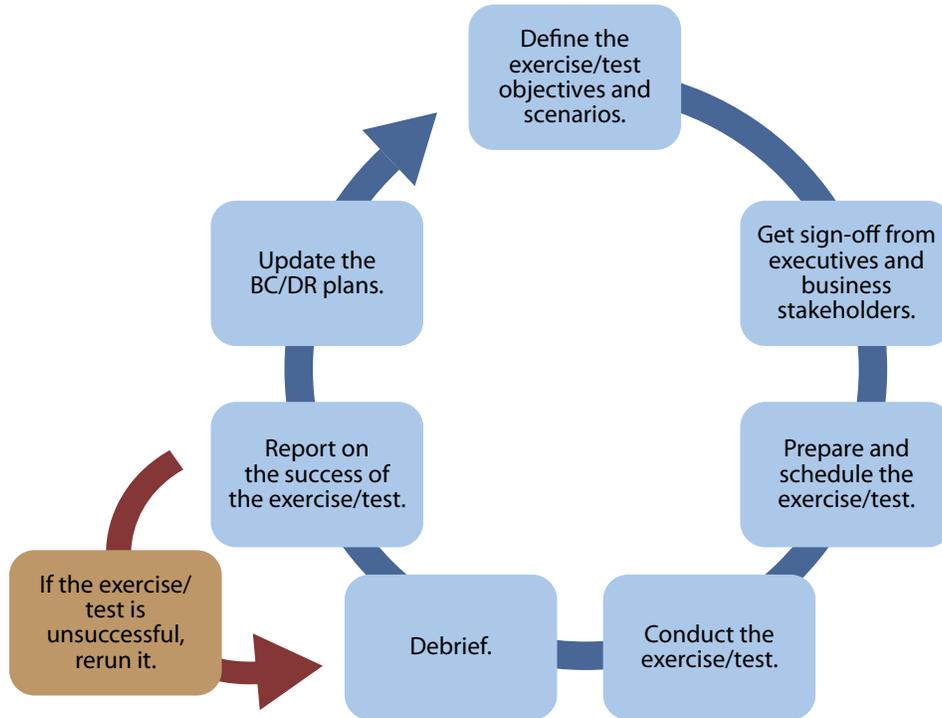
and 2) different scenarios require different actions from the IT staff. For example, the DR plan for a short outage at the primary data center that only requires resuming operations would be different from a long-term outage that requires failover (and eventually failback), which in turn would be different from scenarios where only portions of the IT infrastructure were down.

5. **Run joint exercises with BC teams.** In our research, Forrester found that many BC and DR teams run all of their exercises separately and often fail even to communicate when they run exercises. Because DR teams will most likely run technical drills with great frequency, it's not imperative that you run every exercise jointly with BC; but at least once per year, you should work with your counterparts in BC to exercise the full enterprise BC and DR concurrently. This is especially important if the data center is in the same location as corporate head quarters: "We advocate for our clients to run BC and DR exercises concurrently if the data center and the office buildings are at the same campus," said George Ferguson, worldwide marketing manager at HP Business Recovery Services.
6. **Vary exercise types from technical tests to walk-throughs.** A common misconception in IT is that walk-throughs and tabletop exercises are not necessary for DR exercises. It's true that these types of exercises won't test the technical capabilities of a failover, but they are still critical for training, awareness, and preparedness (see Figure 3). Interviewees told us that the majority of the time, exercises that didn't go as planned actually struggled most with communication and employees' understanding of their roles during the exercise. Non-technical exercises such as walk-throughs and tabletops will help make these processes go more smoothly. Marius Wierzbicki, DR analyst at Genzyme, told us, "When we conduct technical walk-through exercises, we have each recovery owner talk through their respective process among their peers in order to get the communication going."
7. **Make sure to test all IT infrastructure concurrently at least once per year.** With the rapidly changing nature of IT systems, it's important that organizations run a full test of the entire company's DR plans at least once per year. Waiting longer than a year risks too much change in IT environments and personnel — you need to bring new staff members throughout the organization up to speed on DR plans. The most advanced firms run full DR tests as often as four times per year. In between full tests, most firms conduct component tests that vary in frequency depending on the criticality of the systems and rate of change in the environment.
8. **Identify members for the core DR response team.** Let's face it, participating in DR exercises can be extremely stressful; the stress of working under time and resource restraints for long hours, often during nights and weekends, is something people cope with in different manners. As stressful as a DR exercise or test may be, an actual declaration would be much worse, so when picking a core response team to lead IT recovery, it's important to pick people who can work under extreme amounts of pressure (and sleep deprivation). During an exercise or

test, identify those individuals who can remain calm and collected. “During an exercise, you will find out who can’t handle the stress of a real disaster,” Dr. Steve Goldman, internationally recognized expert and consultant in BC/DR and crisis management, told us.

9. **Learn from your mistakes.** The point of running DR exercises is to find potential barriers to recovery while in a controlled environment. If you aren’t encountering problems during your exercises and tests, it’s more than likely you aren’t looking hard enough, aren’t testing thoroughly enough, or you have designed scenarios for recovery that are too simple.<sup>4</sup> When you complete exercises and tests and you have identified problem areas, use what you have learned to update plans and create best practice documents. “After the test, we compile all the notes and put together a posttest report. This would include who filled which roles and all issues that were encountered. At the end of the report, we provide recommendations and observations, as well as notes to improve the tests. We keep these documents handy to refer back to them to use as a knowledge guide,” said Frank Miraglia, director of IT at a large electronics manufacturer.
  
10. **Report results to stakeholders.** If your organization has recently made significant investments in improving preparedness, most likely executives and other business stakeholders want to know what the return is on their investment — how prepared are you? Reporting exercise and test results regularly and in a timely fashion gives executives and business leaders visibility into your DR program. Remember that the results are not pass/fail but should detail aspects of recovery that went well and areas for improvement. “We report on various aspects of our BC/DR exercises, including the quality of the exercises and the likelihood of a component failing and what risk that represents to the organization,” a senior BC/DR officer at a major financial services company told us.

**Figure 2** The Business Continuity And Disaster Recovery Testing Life Cycle



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Source: Forrester Research, Inc.

**Figure 3** Disaster Recovery Exercise/Test Types

	Description	Frequency
<b>Walk-through exercise</b>	Reviewing the layout and contents of a plan.	As necessary to familiarize response teams and individuals with a documented plan or changes to a plan.
<b>Tabletop exercise</b>	Using a scenario, discussing the response and recovery activities of a documented plan.	At least four times per year. Often done as the precursor to a full exercise.
<b>Component test</b>	Physically exercising a component of a documented plan, usually either systems on a single platform or systems supporting a single business process. For example, testing all applications that support order processing or testing all mainframe applications.	As necessary as major changes are made to the IT operating environment or infrastructure. Depending on criticality, some components may be exercised more frequently than others.
<b>Full exercise/simulation</b>	Using a scenario, carrying out the response and recovery activities of a documented plan for the entire organization. This is most often done as a simulation rather than an actual failover of IT infrastructure and operations.	At least once per year; twice is ideal.

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Source: Forrester Research, Inc.

## RECOMMENDATIONS

### AT THE STARTING LINE? TAKE IT SLOW. ALREADY IN THE RACE? PICK UP THE PACE.

Running a robust DR exercise is like a marathon, and similarly, an attempt to complete a full exercise without first training and getting in shape could end disastrously; you don't want to end up like Pheidippides, who ran the first marathon but died from exhaustion. However, if your DR program is in solid shape, there is still always room for improvement. Forrester recommends that:

- **If you haven't exercised your DR plans regularly, start with nontechnical drills.** Starting with walk-throughs and tabletop exercises sets the entire response team in their roles and responsibilities and the contents of the plan. You can then advance to component tests and finally to full tests involving all systems. "We conduct what we call progressive testing. We start with a tabletop to get the kinks out. The next step is to run an infrastructure test to see if all systems could be brought up successfully. Over time, we will add in various components beyond just the infrastructure to the tests — the network, the applications, and finally the end users to verify recovery and functionality. Eventually, we have built up to a full DR test," said Steve Hurley, director of information services risk management at a large financial services company.
- **If you already have a good exercise program, create more realistic scenarios.** One of the main reasons to run exercises is to find problems in a controlled environment rather than during a disaster declaration. If your exercises have been problem-free, you probably aren't looking hard enough or you aren't testing thoroughly enough. Also, if you haven't done so, create more realistic scenarios that include domino events, such as the loss of transportation and the loss of critical public infrastructure (e.g., power). How will you transport tapes from your third party? How long will the data centers run on backup power generators without the delivery of more diesel? It's often these domino events cause all of the challenges during real activations.

## SUPPLEMENTAL MATERIAL

### Companies Interviewed For This Document

Deloitte	IBM
EMC	Recovery Point Systems
Forsythe Solutions Group	Steve Goldman Associates
HP	SunGard

## ENDNOTES

- <sup>1</sup> How would you rate your ability to recover your data center in the event of a site failure or a disaster? The vast majority of your peers surveyed in a 2010 joint Forrester Research/*Disaster Recovery Journal* survey answered that they felt “very prepared” or “prepared.” But are they really? The same study found that DR spending has declined, testing has remained flat, plan maintenance occurs less frequently, and actual recovery times have increased. While DR clearly remains a priority, many organizations have lulled themselves into a false sense of security. Consider this your wake-up call: The majority of companies are less prepared for an outage today than they were three years ago. See the February 9, 2011, “[Wake-Up Call: You Aren’t Ready For A Disaster](#)” report.
- <sup>2</sup> Specifically, 20% stated that it was a critical priority, and 40% stated that it was a high priority. Source: Forrsights Budgets And Priorities Tracker Survey, Q2 2011.
- <sup>3</sup> BC/DR represents between 6% and 7% of the IT budget. As a percentage of overall operating and capital budgets, BC/DR spending still falls short of other IT functions, such as security at an average of 6% among enterprises and 7% for small and medium-size businesses (SMBs). However, considering the level of priority and increased investment, BC/DR can confidently consider itself among the critical elements of a comprehensive IT program. See the September 2, 2010, “[Business Continuity And Disaster Recovery Are Top IT Priorities For 2010 And 2011](#)” report and Forrsights Budgets And Priorities Tracker Survey, Q2 2011.
- <sup>4</sup> As one senior IT leader told Forrester, “If you’re not finding problems when you test your plan, you’re not testing thoroughly enough.” See the February 9, 2011, “[Wake-Up Call: You Aren’t Ready For A Disaster](#)” report.

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