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When You're (Not) Through Playing Games: Disaster Plan Testing and Training

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What if...

It is late at night.

A graduate student working on research in the building has just reported an agitated man waving an axe and running around the floor where the Baylor University Computer Center is housed.

"Wait, wait, that couldn't happen," Bob Hartland, Director of IT Servers and Network Systems, says, "That floor of the building is locked off at night," but he quickly finds out that his information is outdated. That security measure is no longer in place, so it is possible that an intruder could gain access to the floor, but the door to the machine room is kept locked.

The facilitator asks about coffee and bathroom breaks for the night operators, and it becomes clear how the intruder gains access to the machine room. Both the academic web server and one of the servers for the administrative data system are damaged by the intruder. It is pretty clear that the administrative system will be back up the next day, certainly with some degraded performance. The bad news is that recovery of the web interface on an alternate server will require downtime, and that downtime will be repeated when a replacement is found.

The good news is that it's not real.

Baylor University, located in Waco, Texas, has always been a fairly high profile institution. Periodic visits from former President George W. Bush (whose ranch in Crawford is close by), turned up the public scrutiny a notch or two. That scrutiny, combined with what has sadly become almost nightly news events, led IT leadership to examine the existing technology disaster recovery plan more closely. The team charged with updating the plan decided that the optimum balance between cost and benefit would be achieved if Baylor IT Services rewrote the plan under expert guidance. We were pleased when they chose Compass Consulting International as their partner.

In the course of the project we made numerous recommendations including:

- Disaster avoidance suggestions as a result of our risk audit
- Streamlining the University's disaster response procedures
- Setting service level agreements with departments (spelling out disaster recovery procedures) and with vendors (getting explicit commitments for resources should an event occur).
- Making the critical policy decisions around restoration order for services in advance of an incident instead of during one.

High on the list was the need to make the existing plan more operational and less generic. That way it would describe what actions need to be taken should disaster strike. Since both Baylor and Compass believe that testing and training are a critical part of any disaster planning project, the scope of work included a testing and training session for Baylor IT staff. The session was designed to include a series of scenarios to test how the new disaster preparedness plan coped with different situations, to familiarize staff with the plan and to prepare them to think and act in appropriate ways should any potentially disastrous events occur.

“At the conclusion of the study, we were preparing ourselves for a rather lengthy interrogation of scenarios and how we would handle them,” said Bob Hartland, Baylor's Director of IT Servers and Network Systems. “What we got was a pleasant surprise -- a new approach to disaster testing and training: an interactive, role-playing, scenario-building game called **Master of Disaster**,[©] complete with gameboard, special dice, and “Uh-Oh Cards” that allow the Facilitator to change the scenario-in-play for better or worse.”

As many readers may remember, Compass penned a series of six articles on disaster planning for the ACUTA Newsletter (available on our website at www.compassconsulting.com/articles/). The last of those articles was called “A Living Disaster Plan (not Living with a Disastrous Plan),” and dealt with the importance of testing and training in the success of any disaster preparation effort. We were aware at the time of the lack of tools to facilitate that training and testing, but it was while working with Baylor that we got the idea to develop a disaster testing and training game.

The idea of using games for training is not new. It has long been known that people learn better by doing than by hearing and a hands-on, interactive environment is best. Games, it has been shown:

- Increase involvement
- Improve retention
- Build better teams
- Are less disruptive than drills or simulations
- Are fun

In the words of one Director of Training for a bank, “If they aren't laughing, they aren't learning.” But most of the training games that are available are aimed at fairly soft goals, like sensitivity and teamwork. We developed **Master of Disaster**[©] as a general tool for testing disaster recovery planning and for training in disaster preparedness.

Master of Disaster © is a cooperative game with everybody (except the Facilitator) on the same team. Disaster scenarios are generated using the special cards and dice and the team is asked to walk through the stages of responding to the specific situation using their own disaster plan as both a tool and as documentation. “Uh-Oh Cards” provide another level of depth to the game by bringing into play those unexpected blessings or curses that seem to come hand-in-hand with real disasters. Each “Uh-Oh Card” has a good side and a bad side – such as “Union strike (bad side) ... and the picket line pitches in to help (good side).” Depending on how the scenario is progressing, the Facilitator can simplify or compound the problem by playing the good side or bad side of the Uh-Oh Card. As part of the project, we created custom cards specifically for Baylor University. For example, where one person, the aforementioned Bob Hartland, was the focal point for Baylor IT disaster response efforts, a special “Uh-Oh” card was added to check what would happen if he in particular could not be contacted.

The scenario with which this article opened was one of those that was generated by **Master of Disaster** © and played out in the session at Baylor. This one scenario alone achieved several goals of the exercise, and had some beneficial side effects:

- The new disaster preparedness plan was exercised and found to cope quite well with the situation.
- Details brought out by the scenario (such as the access issue discussed at the beginning of this article) were noted for explicit mention in the plan.
- The Baylor IT team had already identified the need to resolve in advance the policy issue of which services to disable if the administrative system was temporarily impaired, but the scenario reinforced the importance of that prioritization.
- A need to change the physical security measures for the location in the scenario was identified.
- The staff members were trained on the new plan by being required to use the plan to address the components of disaster planning: preparation, notification, reaction, activation, recovery, and reconstitution.

Geoff Tritsch, President of Compass Consulting International said, “We all thought the revised plan covered all the bases. I was surprised, given how good the new plan put together by Baylor was, that **Master of Disaster** © still found some places for improvement and highlighted the list of tasks remaining to be done.” And Baylor received their own custom copy of the game for ongoing training of staff and testing of revisions of their plan.

Master of Disaster © generates realistic scenarios that fully exercise the university’s IT staff and its disaster plan, bringing out the strengths and weaknesses of disaster preparation. Other scenarios generated by **Master of Disaster** © and played out by Baylor and Compass included a hacker getting access to the telephone system through an IP port on the switch and an explosion taking out a section of a critical utility/communications tunnel. Of course, not all elements of every scenario are going to work quite as expected – if they did there would be less to gain from the game. In fact, one of the game cards led to some unexpected humor, and humor is a key component in using games to break the monotony of routine training. As the Baylor staff were getting pretty slick with their responses, we introduced a complication to an already-complex communication problem by revealing the “Uh-Oh” Card for the round – “Tanker trailer backs into cell tower ... (no cell service on campus).” It turns out that the cell tower is on top of the

tallest building on campus. Flying tanker trucks are not common, but given the events of September 11th...

While role-playing and scenario-building games like **Master of Disaster** © can be used to test a developing or already developed plan, they can also be useful to help kick-off a disaster planning project. This kind of role-playing helps the team visualize the project and process by making real exactly what you are trying to do and why you are trying to do it. By getting upper management involved, you can also get them to better understand what can happen and what must be done about it. That makes getting the resources you need all that much easier.

So, when someone says to you, “Disaster planning is serious stuff. We’re not playing games, here”, maybe your best response is “But we should be.”