Continuity Program Testing, Maintenance, Training, and Awareness

Carl Jackson

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Introduction

People are what make the continuity plans of an organization work. Knowledgeable, experienced, and practiced individuals are vital to any enterprise effort to react to and recover from a serious incident that impacts the organization's ability to support time-critical business processes. Unfortunately, far too many otherwise competent managers place too much emphasis on the tools and deliverables or the business continuity process rather than focusing on the real success factors in measuring the organization's ability to recover: the people.

With these thoughts in mind, the purpose of this chapter is to focus readers on those aspects of the business continuity planning program where the "rubber really hits the road." And that is in ensuring that, once developed, crisis management and business continuity plans are appropriately tested and maintained, and even more importantly, that the organization's people receive the proper training and practice.

The Foundation: The Business Continuity Planning Process

To have an appreciation for the most efficient and effective components for continuity planning awareness, training, testing, and maintenance, it is helpful to have a broader understanding of where these essential elements fit within an overall continuity planning implementation.

Over the past decade, the vast majority of major enterprise business continuity planning implementations have shifted away from the once-traditional IT-focused disaster recovery-centric programs. Today, an enterprisewide continuity planning program is typically composed of three primary sub-processes: business process continuity planning, IT continuity plans, and crisis management plans. To be most effective, these three related continuity planning sub-processes should be closely linked and synchronized across the enterprise to ensure cross-discipline coordination for all development, implementation, testing, and maintenance undertakings. Figure 24.1 provides a graphical representation of how the enterprisewide continuity planning process framework might appear.

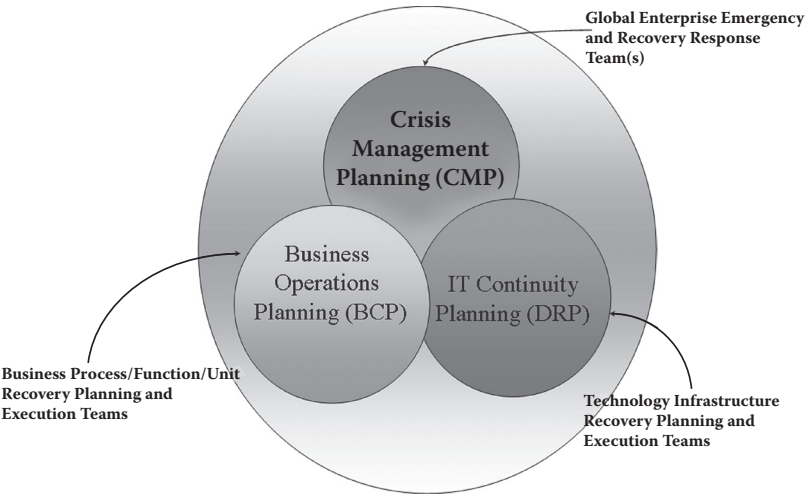

Figure 24.1 A graphical representation of how the enterprisewide business continuity planning process model might appear.

This multi sub-process approach to continuity planning consolidates three traditional continuity-planning disciplines, as discussed in the following sections.

IT Continuity Planning

Once referred to as disaster recovery planning (DRP), IT continuity planning addresses all things technological. This includes all types of IT technologies, voice and data communications, and any other automated support resources that the organization relies upon to support time-critical business process operations.

Business Process Resumption Planning (BRP)

Business process continuity disciplines address the continuity and recovery requirements of an organization's business processes (i.e., accounting, purchasing, sales, patient care, customer call center operations, etc.) should they lose access to or support of their infrastructure resources (i.e., IT, communications networks, facilities, key business partner support, etc.). The primary goal here is to understand the time-critical nature of each of the enterprise's business processes and their support components, and to prioritize those processes with the most time-critical needs for access to resources.

Crisis Management Planning (CMP)

Crisis management planning documents the activities and tasks necessary for overall coordination of an organization's response to a crisis in an effective and timely manner,

with the goal of avoiding or minimizing damage to the organization's profitability, reputation, or ability to operate. It is the crisis management process that provides the glue that holds the organization's business continuity planning process together. Crisis management planning focuses on the development of effective and efficient enterprisewide emergency/disaster response capabilities. A top-down approach to crisis management ensures that open lines of communication are maintained among executive management, the business process, and IT continuity teams, and with critical external entities (regulatory agencies, key business partners, customers, civil authorities, financial markets, etc.). This capability has three broad objectives:

1. The first is to provide the executive management group with a predefined organizational structure and the wherewithal to facilitate communication with continuity planning teams of the affected business units and their processes.
2. It also must be able to facilitate communication not only with the business units, but also among the various components of the continuity planning infrastructure, one to another (i.e., the IT continuity planning teams and the business process continuity teams).
3. The crisis management plan also addresses the issues associated with outsider communication. It aids management in effective communication with outsiders, such as civil authorities, key business partners, employees' families, regulatory agencies, audit entities, shareholder groups, the press, etc. This response capability includes forming appropriate management teams and preparing the members to react to serious disruptive emergency situations (i.e., hurricane, earthquake, flood, fire, kidnapping, systems outages caused by serious hacker or virus damage, pandemic, etc.).

Next Steps

Once this type of overall business continuity planning process is in place, the goal of management must be to ensure that it is tested and maintained properly, and that the organization's people are in position to execute the plans as designed.

Awareness/Training

A key component—awareness and training issues—are paramount to the success of any continuity planning program. At the end of the day, it is the organization's people who will have to recover the enterprise following a disaster or disruption, so it only makes sense that those same people are intimately involved in the development, implementation, testing, and maintenance of the program. Once the plans are developed by key personnel, however, it does not release these same people of further responsibilities. It is, therefore, critically important that a regular and ongoing program of continuity planning awareness and training be put into place.

Testing/Maintenance

Short- and long-term approaches to testing and maintenance should be formally defined and socialized with management, audit, and other interested parties to ensure that initial investments in the crisis and continuity planning program components are warranted and are sustained. Once documented, management must execute against these goals, monitoring and publishing results to provide a basis for measuring success and also to demonstrate empirically that the organization can truly recover. A significant benefit of regular and ongoing testing is that the hands-on practice the people of the organization receive increases both their awareness and their efficiencies in execution of the plans when required. Let's break these two broad categories of responsibility down even further and deal with each accordingly.

Linchpin of Success: Continuity Planning Awareness and Training

The continuity planning function must be much more people focused than technically focused.

The question should be asked, "Why are training, awareness, and education so important?" The answer: because it is the organization's people who know the business processes, who must document the plan recovery processes, who will test and maintain the plans, and who will be impacted by the event, and it is these same people who will have to recover the organization following the disaster.

Therefore, of overriding importance is a high level of awareness and understanding of continuity planning program components on behalf of the people who will be called upon to execute them. Although there is no question that continuity plan documentation is important, it must be recognized that, at the end of the day, it is the people of the enterprise who must have the knowledge and skills necessary to facilitate successful recovery efforts.

Designing the Program

The awareness and training program has to contain components specifically designed to enhance the skills required to develop, implement, maintain, and execute crisis and continuity plans. Toward this end, the continuity planner, in conjunction with other organizational disciplines, such as human resources, professional development, and risk management groups for instance, should establish training and awareness program objectives, define practical training requirements, develop a training method or approach, design and develop training aids, then schedule and conduct training sessions. In addition, the continuity planner should investigate and supplement, if appropriate, outside training opportunities that will enhance and broaden the scope and approach to internal training program components.

Delivering the Message

Unfortunately when it comes to awareness and training efforts, one size does not fit all. Various groups of folks within the confines of the organization's structure will need to have training and awareness messages customized to their levels or points of view. The approach to designing and delivering training and awareness program components to executive managers is far different than doing the same for manufacturing floor personnel, out of office sales staff, or customer service personnel. Identification and stratification of several different constituency groups within the enterprise will assist the continuity planner in developing awareness and training program components that will fit the audience, the importance of which should not be overlooked.

Continuity Program Testing

Crisis and continuity plan testing is not optional. Enterprise management cannot assert that they have an effective continuity planning program unless they can empirically demonstrate that that process has undergone regular and successful testing. A program of regular and ongoing testing helps to address a number of questions that arise pertaining to continuity planning effectiveness.

Why Test?

There are many reasons; for instance:

- To demonstrate that recovery strategies and continuity plans actually work as designed.
- To serve as a personnel awareness and training tool. Tests usually place the participants in a role-playing situation. By thinking and reacting during the test, they mentally place themselves in a recovery situation and gain an awareness and understanding of what it will take to help the enterprise survive.
- To supplement the maintenance process. In other words, a test is used as a motivator or incentive to maintain the crisis and continuity plans.
- To demonstrate that recovery capabilities (i.e., off-site recovery systems, networks, vendors, etc.) are sized appropriately and operate as intended.
- To satisfy regulatory or audit attestation requirements.

Developing Test Strategies

The continuity planner must develop and document both short- and long-term testing strategies. Continuity program testing strategies have to include requirements, set forth in advance for:

- Pre-test planning
- Criteria for evaluation of test plans
- What constitutes testing oversight
- Test documentation requirements
- Overall test evaluation criteria and oversight requirements
- Test follow-up and debrief processes, including continuity plan updates and management reporting

Types of Tests

An organization can undertake a number of different types of testing:

- Checklist testing: A checklist test is one in which the continuity planner or members of the continuity team (or both) validate the inventory checklists in their continuity plans by physically walking through the checklist and verifying that each of the inventory items is available and viable. These inventory items include hardware, software, telecommunications, people, equipment, documentation, data, space, transportation, procedures, etc.
- Tabletop walk-through testing: A tabletop walk-through test consists of convening the members of the recovery/continuity team named in each specific continuity planning document to achieve the following objectives:
  - The first objective is for the team members to study and discuss all aspects of the planning document or output thoroughly and to challenge every assertion, assumption, activity, task, action, etc., called for within the plan. This challenge involves open discussions about the practicality, correctness, viability, and suitability of every aspect of the plan. Continuity team members should be encouraged to question openly any aspect of the planning strategies, etc., to work through areas of the plan that may well need to be changed.
  - The second purpose for a tabletop walk-through is to serve as a training and awareness tool. It is intended to help the continuity planner to familiarize the continuity team members with their specific roles and responsibilities, and to begin to indoctrinate them into thinking like a continuity team. It serves as a practice event that allows the team members to participate and begin to get comfortable with acting in a continuity team environment.
- Simulation testing: A simulation test is one where the organization actually conducts some level of simulation of an emergency/disaster event. The breadth and scope of this type of simulation exercise can vary significantly from a very small localized departmental simulation to an all-out enterprisewide simulation, and all events in between.
- Parallel testing: A parallel test is often used in a transaction-oriented business environment supported by IT. An organization may decide to retrieve

yesterday's backup data and apply today's transactions against that data in a parallel way to compare the results to today's actual processing files to ensure that they are exactly alike. This process will highlight any faults in the data reconstruction process. A parallel testing approach can also be used to run a time-critical application/system at an alternate site and compare the results to that run at the primary site to ensure that the alternate site produces accurate results.

- Full interruption testing: Not usually recommended as an appropriate testing approach because it requires interruption of actual production activities on a real-time basis, a full interruption test is an all-encompassing continuity planning test. Extreme care should be taken not to actually disrupt production or even cause a real disaster when conducting this type of test. Under certain circumstances, this may be the only method that is useful, but care is advised as it involves a deliberate interruption and then recovery of a business process or processes.

Budgeting for Tests

The continuity planner should make sure to formalize a budget that supports an appropriate level of ongoing testing. The best approach to testing is to start simple, and make the testing and test scenarios more complex each time. Generally, a walk-through is the first test that is undertaken in the testing cycle, and an enterprisewide full simulation test would be undertaken at the end of the cycle. Where the organization is in the testing cycle will impact the size of budget needed for testing. The enterprisewide full simulation is obviously more expensive than walk-through tests, and the budget should be adjusted accordingly. The following categories should be considered when budgeting for tests:

- Airfare
- Ground transportation
- Lodging
- Food
- Off-site storage technologies
- Vital records/documentation shipping expenses
- Miscellaneous expenses related to continuity testing

There are absolutely no substitutes for testing. Without testing, evidence that the continuity planning process is effective is simply not there, period.

Investment Protection: Continuity Planning Maintenance

It has been said that the real cost of continuity planning is not in the preparation, development, and implementation of the continuity planning structure. Rather, it is in the long-term testing and maintenance of the process. In fact, the monetary and resource investment in continuity planning testing and maintenance will far outweigh the initial development and implementation costs.

With that said, however, to bring an effective continuity planning program to fruition is not an insignificant investment, requiring the time, skills, and financial investment of the organization to accomplish if done correctly. That includes the investment in appropriate business impact assessment (BIA) processes intended to define time-critical business processes, which usually account for one third to one half of all the business processes of the enterprise. The BIA also serves to provide the continuity planners with appropriate continuity time objectives with which to plan for and acquire continuity resources (backup and continuity technologies, facilities, people, equipment, supplies, data, etc.).

Developing Continuity Planning Maintenance Strategies

The continuity planner should develop long-term strategies for maintaining the continuity and crisis management structure. Among the considerations to be addressed are:

- Regular reviews and updates: Internal/external audit and internal compliance functions can be used to ensure that the plans are regularly reviewed and updated by the IT and business operations components that originally developed them.
- Continuity plan version control: This topic is critically important. Obviously, organizations change on a daily basis (employees, employee assignments, departmental shifts, IT and infrastructure changes, etc.). As a result, continuity plans, and especially hard-copy plans, can get out of date very quickly. Out-of-date date contact lists of key players can result in real execution problems later on, so updating, or worse yet, not updating, is vital, as simple as it may seem. As updates are made to the changing plans, a failure of version control could seriously and adversely impact the enterprise. This would happen if an event occurred, and the continuity and crisis management teams referred to different versions of the plans. Retrieval and destruction of outdated plans is an important issue, so a process designed to facilitate this is also important. It should go without saying that version control is an absolute must.
- Distribution of updated plans: Along the same lines as version control, distribution control of the plans can be challenging for a couple of reasons. The first, mentioned previously, concerns version control. The second, however,

also has serious ramifications because plans contain confidential information, such as personnel data and confidential company processes and locations. The continuity planner must ensure that plan distribution controls are adequate to protect this resource against disclosure to those who do not have the need to know. An automated system for documenting and storing continuity plans can be particularly useful for both version control and distribution challenges.

Continuity Planning Software Solutions Will Enhance Testing/Maintenance

Traditionally, organizations have documented continuity plans using paper-based technologies (i.e., word processing, spreadsheet, etc.). Although documented continuity plans are designed to facilitate the rapid continuity of business processes and supporting resource operations, the form they take can sometimes spell the difference between merely being developed and put on the shelf, or being developed and then appropriately tested and maintained into the future. As mentioned earlier, the true cost of continuity planning is not in the original development of the plans; it is in the ongoing testing and maintenance of the plans. Therefore, any tool that enhances an organization's capability to document, test, and maintain continuity plans effectively is beneficial.

It is recommended that organizations acquire and implement an appropriate continuity planning software tool (a large number of which are commercially available). Continuity planning software should be designed to help planners construct continuity plans by automating the planning documentation process. Use of continuity planning software should save time for the organization, improve the overall effectiveness of the continuity plan documentation process, and facilitate maintenance and execution of the plans. The continuity planning software solution or mechanism should be easy to use and maintain and should be based on a sound business continuity planning methodology. It must be compatible with existing organization operating systems and technological platform operating systems. The tool should also allow for an appropriate degree of plan roll-up for validation and review purposes, thereby assisting in management's understanding of the robustness of their continuity planning infrastructure implementation.

Use of a continuity planning tool will enhance the testability and maintainability of the continuity planning structure. Also, the use of a continuity planning software tool will enhance overall awareness and training of those individuals responsible for development, implementation, testing, and maintenance of continuity plans given standardization upon one data-gathering technique or method. This can add value to the organization, as they will likely be the same people who will have to execute the plans, should disaster strike.

Maintenance activities such as updating plan procedures to reflect the changing organization, maintaining inventory lists and call trees, etc., should all be planned for in the budget. The age of the continuity plans and the degree of change within the organization will impact the budgeting for maintenance activities. For IT technology-related continuity plans, the costs associated with application and database synchronization and change management should be considered for inclusion in the formal continuity plan budgeting process.

Complementary Component: Metrics

Establishing a meaningful set of metrics for measuring training/awareness and testing/maintenance activities is one additional way to enhance both of these program components.

In the past, continuity planning effectiveness was often measured in terms of a pass/fail grade on a technology platform recovery test or on the perceived benefits of backup/recovery sites and redundant telecommunications based on the expense for those capabilities. The difficulty with these types of metrics is that they only measure continuity planning direct costs and subjective perceptions about whether a test was effectively executed. This limited type of measurement does not indicate whether a test validates the appropriate infrastructure elements or even whether it tests a specific component thoroughly enough.

So, one might inquire as to the correct measures to use. Although financial measurements do constitute one measure of the continuity planning process, others measure the continuity planning's contribution to the organization in terms of quality and effectiveness, which are not strictly weighed in monetary terms. The contributions that a well-run continuity planning process can make to an organization include:

- Sustaining growth and innovation
- Enhancing customer satisfaction
- Providing people needs
- Improving overall mission-critical process quality

Awareness/Training Metrics

Implementation of a series of metrics that seek to measure the effectiveness of personnel training and awareness levels, conducting and monitoring regular drills, and undertaking surveys and supplemental employee job description and performance measurement criteria are all ways in which an organization can begin to establish effective metrics in this area.

Testing/Maintenance Metrics

A multitude of program components related to continuity plan testing and maintenance can be utilized in identifying program metrics. Examples include test planning goals, timing, execution, and follow-up processes, all of which provide opportunities for the development of sound measurements. There are many opportunities to track maintenance activities. Utilization of change control, human resource evaluations, internal audits, and continuity planning management reviews can provide ample prospects for development of meaningful metrics.

Summary

As mentioned at the beginning of this chapter, people are what make the crisis management and business continuity plans of an organization work. Knowledgeable, experienced, and practiced individuals are vital to any enterprise effort to react to and recover from a serious incident that impacts the organization's ability to support time-critical business processes.

Both of the broad-based initiatives of continuity planning awareness/training and testing/maintenance are people focused, which adds tremendous value to the organization and, if managed effectively, adds significantly to the ability of the organization to sustain a disaster with a minimum of impact or disruption. Documented crisis and continuity plans are important, no question; but only the ability of the organization's people to execute these plans will truly demonstrate success.