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Reengineering the Business Continuity Planning Process

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The failure of organizations to accurately measure the contributions of the BCP process to its overall success has led to the downward spiraling cycle of the total business continuity program. The recurring downward spin or decomposition includes planning, testing, maintenance, decline → re-planning, testing, maintenance, decline → re-planning, testing, maintenance, decline, etc. The most recent (1998) *Contingency Planning and Management/Ernst and Young LLP Business Continuity Planning Survey*¹ clearly supports this observation. According to the latest survey results, 63 percent of the respondents ranked BCP as being either *extremely important* or *very important* to senior management. This study indicates that decision makers have a high level of awareness regarding the importance of BCP. These findings contrast with other survey results which illustrate that execution and follow-through of the BCP mission is often lacking. These statistics include:

1. 82 percent of the respondents do not measure the cost/benefit of their BCP programs;
2. Only 27 percent of the respondents' organizations train their people on how to execute the BCP;
3. 33 percent of the organizations responding do not test their BCPs;
4. Only 3.6 percent of the organizations' base pay increases for BCP personnel on the success of the BCP program.

Business Continuity Planning Measurements

These results also suggest a disconnect between top management's perceptions of BCP objectives and the manner in which they measure its value. In the past, BCP effectiveness was usually measured in terms of a pass/fail grade on a mainframe recovery test or on the perceived benefits of backup sites and redundant telecommunications capabilities weighed against the expense for these capabilities. The trouble with these types of metrics is that they only measure BCP direct costs and/or indirect perceptions as to whether a test was effectively executed. These metrics do not indicate whether a test validates the appropriate infrastructure elements or even whether it is thorough enough to test a component until it fails, thereby extending the reach and usefulness of the test scenario.

So, one might inquire as to what the correct measures to use are. While financial measurements do constitute *one* measure of the BCP process, others measure the BCP'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 BCP Process can make to an organization include:

1. Sustaining growth and innovation;
2. Enhancing customer satisfaction;
3. Providing for people needs;
4. Improving overall mission-critical process quality; and
5. Providing for practical financial metrics.

Each of these measurements is discussed later in this chapter.

A RECIPE FOR RADICAL CHANGE: BCP PROCESS IMPROVEMENT

During the 1970s and 1980s experts in organizational management efficiency began introducing *performance process improvement disciplines*. These process improvement disciplines have been slowly adopted across many industries and companies for improvement of *general manufacturing* and *administrative business processes*. The basis of these and other improvement efforts was the concept that an organization's *processes* (Process — see Definitions in [Exhibit 26.1](#)) constituted the organization's fundamental lifeblood and, if made more effective and efficient, could dramatically decrease errors and increase organizational productivity.

An organization's processes are a series of successive activities, and when they are executed in the aggregate, they constitute the foundation of the organization's mission. These processes are intertwined throughout the organization's infrastructure (individual business units, divisions, plants, etc.) and are tied to the organization's supporting structures (data processing, communications networks, physical facilities, people, etc.).

- Activities** — Activities are things that go on within a process or sub-process. They are usually performed by units of one (one person or one department). An activity is usually documented in an instruction. The instruction should document the tasks that make up the activity.
- Benchmarking** — Benchmarking is a systematic way to identify, understand, and creatively evolve superior products, services, designs, equipment, processes, and practices to improve the organization's real performance by studying how other organizations are performing the same or similar operations.
- Business Process Improvement (BPI)** — Business Process Improvement is a methodology that is designed to bring about self-function improvements in administrative and support processes using approaches such as FAST, process benchmarking, process redesign, and process reengineering.
- Comparative Analysis** — Comparative Analysis is the act of comparing a set of measurements to another set of measurements for similar items.
- Enabler** — An enabler is a technical or organizational facility/resource that makes it possible to perform a task, activity, or process. Examples of technical enablers are personal computers, copying equipment, decentralized data processing, voice response, etc. Examples of organizational enablers are enhancement, self-management, communications, education, etc.
- FAST** — Fast Analysis Solution Technique is a breakthrough approach that focuses a group's attention on a single process for a one- or two-day meeting to define how the group can improve the process over the next 90 days. Before the end of the meeting, management approves or rejects the proposed improvements.
- Future State Solution** — Future State Solution is a combination of corrective actions and changes that can be applied to the item (process) under study to increase its value to its stakeholders.
- Information** — Information is data that has been analyzed, shared, and understood.
- Major Processes** — A major process is a process that usually involves more than one function within the organization structure, and its operation has a significant impact on the way the organization functions. When a major process is too complex to be flowcharted at the activity level, it is often divided into sub-processes.
- Organization** — An organization is any group, company, corporation, division, department, plant, or sales office.
- Process** — A process is a logical, related, sequential (connected) set of activities that takes an input from a supplier, adds value to it, and produces an output to a customer.
- Sub-process** — A sub-process is a portion of a major process that accomplishes a specific objective in support of the major process.
- System** — A system is an assembly of components (hardware, software, procedures, human functions, and other resources) united by some form of regulated interaction to form an organized whole. It is a group of related processes that may or may not be connected.
- Tasks** — Tasks are individual elements and/or subsets of an activity. Normally, these tasks are related to how an item performs a specific assignment.
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Exhibit 26.1. Definitions⁵

A key concept of the **Process Improvement and Reengineering** movement revolves around identification of process enablers and barriers (see Definitions in [Exhibit 26.1](#)). These enablers and barriers take many forms (people, technology, facilities, etc.) and must be understood and taken into consideration when introducing radical change into the organization.

The preceding narration provides the backdrop for the idea of focusing on business continuity planning not as a **project**, but as a **continuous process** that must be designed to support the other mission-critical processes of the organization. Therefore, the idea was born of adopting a continuous process approach to BCP, along with understanding and addressing the people, technology, facility, etc., enablers and barriers. This constitutes a *significant* or even *radical change* in thinking from the manner in which we have traditionally viewed and executed recovery planning. An example of a BCP process is presented in [Exhibit 26.2](#).

Radical Changes Mandated

High management awareness and low BCP execution effectiveness, coupled with the lack of consistent and meaningful BCP measurements, call for radical changes in the manner in which we execute recovery planning responsibilities. The techniques used to develop mainframe-oriented disaster recovery (DR) plans of the '70s and '80s consisted of six distinct stages which required the recovery planner to:

1. Establish a project team and a supporting infrastructure to develop the plans;
2. Conduct a threat or risk management review to identify likely threat scenarios to be addressed in the recovery plans;
3. Conduct a business impact analysis (BIA) to understand time-critical applications/networks and determine maximum-tolerable-down-times;
4. Select an appropriate recovery alternative that effectively addresses the recovery priorities and time-frames mandated by the BIA;
5. Document the recovery plans; and
6. Establish and adopt an ongoing testing and maintenance strategy.

Shortcomings of the Traditional Disaster Recovery Planning Approach

This approach worked well when disaster recovery of *glass house* mainframe infrastructures were the norm. It even worked fairly well when it came to integrating the evolving distributed/client-server systems into the overall recovery planning infrastructure. However, when organizations became concerned with **business unit** recovery planning, the traditional DR methodology was ineffective in designing and implementing business

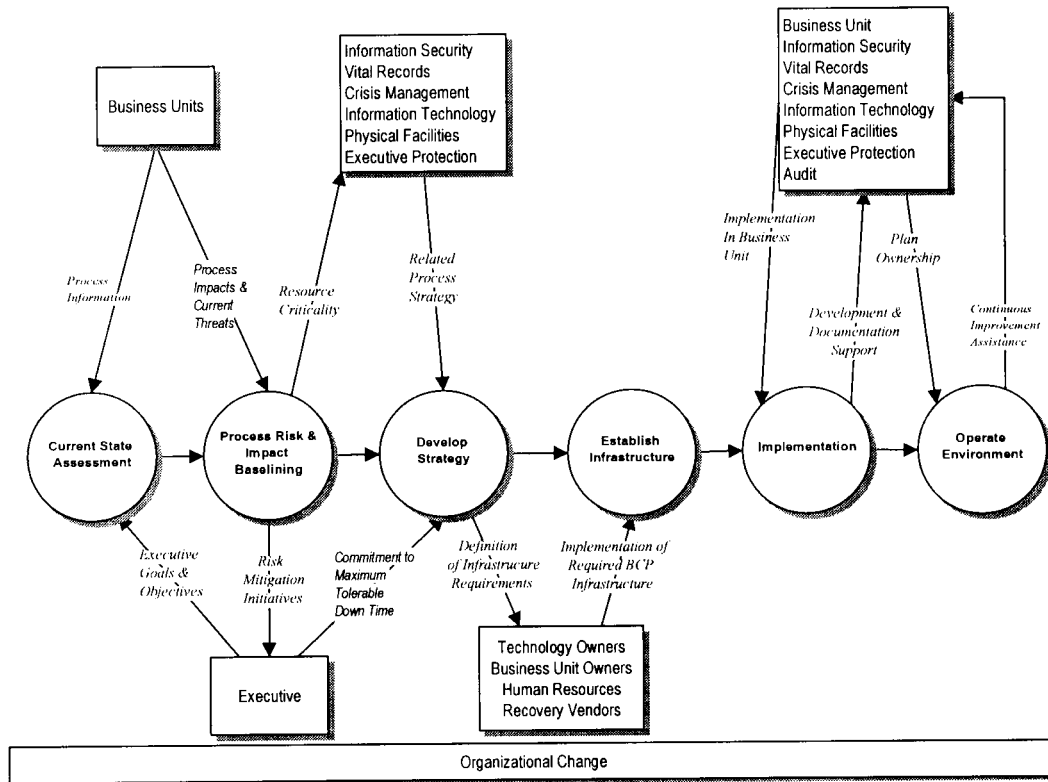


Exhibit 26.2. The BCP Process

unit/function recovery plans. Of primary concern when attempting to implement enterprise-wide recovery plans was the issue of **functional interdependencies**. Recovery planners became obsessed with identification of interdependencies between business units and functions, and the interdependencies between business units and the technological services supporting time-critical functions within these business units.

Losing Track of the Interdependencies

The ability to keep track of departmental interdependencies for BCP purposes was extremely difficult, and most methods for accomplishing this were ineffective. Numerous circumstances made tracking interdependencies difficult to achieve consistently. Circumstances affecting interdependencies revolve around rapid rates of change that most modern organizations are going through. These include reorganization/restructuring, personnel relocation, changes in the competitive environment, and outsourcing. Every time an organizational structure changes, the BCPs had to change, and the interdependencies had to be reassessed. The more rapid the change, the more daunting the BCP reshuffling. Because many functional interdependencies could not be tracked, BCP integrity was lost, and the overall functionality of the BCP was impaired. There seemed to be no easy answers to this dilemma.

Interdependencies Are Business Processes

Why are interdependencies of concern and what, typically, are the interdependencies? The answer is that, to a large degree, these interdependencies are the **business processes** of the organization, and they are of concern because they must function in order to fulfill the organization's mission. Approaching recovery planning challenges with a business process viewpoint can, to a large extent, mitigate the problems associated with losing interdependencies, and also ensure that the focus of recovery planning efforts is on the most crucial components of the organization. Understanding how the organization's time-critical business processes are structured will assist the recovery planner in mapping the processes back to the business units/departments, supporting technological systems, networks, facilities, vital records, people, etc., and also will help the planner keep track of the processes during reorganizations and/or during times of change.

THE PROCESS APPROACH TO BUSINESS CONTINUITY PLANNING

Traditional approaches to mainframe focused disaster recovery planning emphasized the need to recover the organization's technological and communications platforms. Today, many companies have shifted away from technology recovery and toward continuity of prioritized business

processes and the development of specific business process recovery plans. Many large corporations use the process reengineering/improvement disciplines to increase overall organizational productivity. BCP itself should also be viewed as such a process. The following figure provides a graphical representation of how the enterprise-wide BCP Process framework (see [Exhibit 26.3](#)) should look:

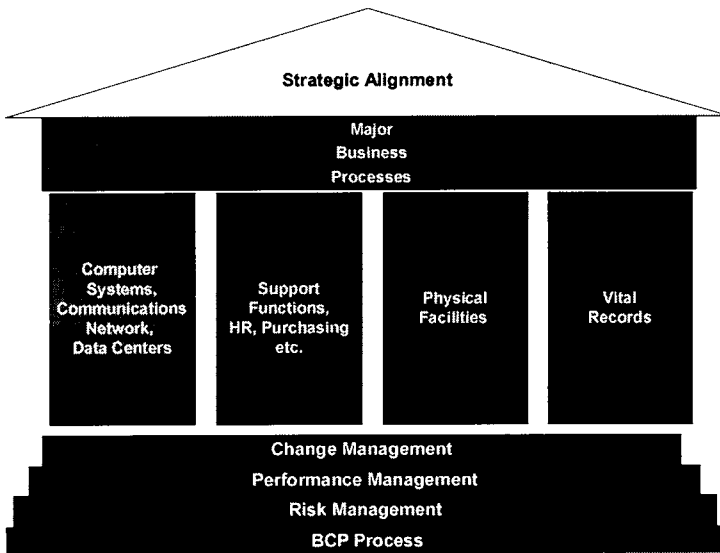


Exhibit 26.3. The BCP Process Framework

At the base or foundation of the business continuity planning structure are the business continuity planning support sub-processes. These sub-processes are relevant and necessary to ensure that:

- business continuity plans are complete
- plans address all business issues
- business process owners take responsibility for their area's BCP
- staff are trained and capable of executing the recovery plans effectively

The four pillars are the core infrastructure and service elements required to effectively support the business processes of the organization.

- Basic infrastructure includes supporting resources/services (i.e., technological platforms, voice and data communications networks, etc.).

- Support functions include HR, Purchasing, etc., support mechanisms and external service providers (the virtual organization).
- Facilities refer to locations where the business may be carried out.
- Vital records are those records, manual and electronic, that are used to support time-critical business processes in the relevant business units, in addition to the traditional legal obligations pertaining to government and other statutory record-keeping requirements.

Resting on the four supporting pillars are the key business processes which are required to keep the organization operating effectively after a disruption. The roof of the structure shows all these elements brought together and aligned with the strategies of the organization. It is within the overall context of the business strategies that BCP solutions are sought, evaluated, and prioritized.

While the base, columns, and roof of the continuity planning strategy are important and provide the strength of the structure, it is the business processes they support that determine the effectiveness of the business continuity plan.

MOVING TO A BCP PROCESS IMPROVEMENT ENVIRONMENT

Route Map Profile and High-Level BCP Process Approach

A practical, high-level approach to *BCP Process Improvement* is demonstrated by breaking down the BCP process into individual sub-process components, as shown in [Exhibit 26.4](#).

While this route map appears complex, it goes far beyond the BCP approaches which have been used in traditional DR planning methodologies, including:

- Business Impact Assessment
- Strategy Selection
- Plan Development, Testing, and Maintenance

Within this route map, it is important to note that:

- Provision is made for the identification and initiation of immediate “quick hits,” which are BCP-related recommendations that require urgent and immediate attention to provide protection in the short term) that can jump-start BCP initiatives. These initiatives can be effectively addressed without waiting until the end of the BCP process implementation project;
- Provision is made for introduction of Organizational Change Management components which will help facilitate deployment of the BCP Process;
- Emphasis is placed on Co-development of recovery strategies;

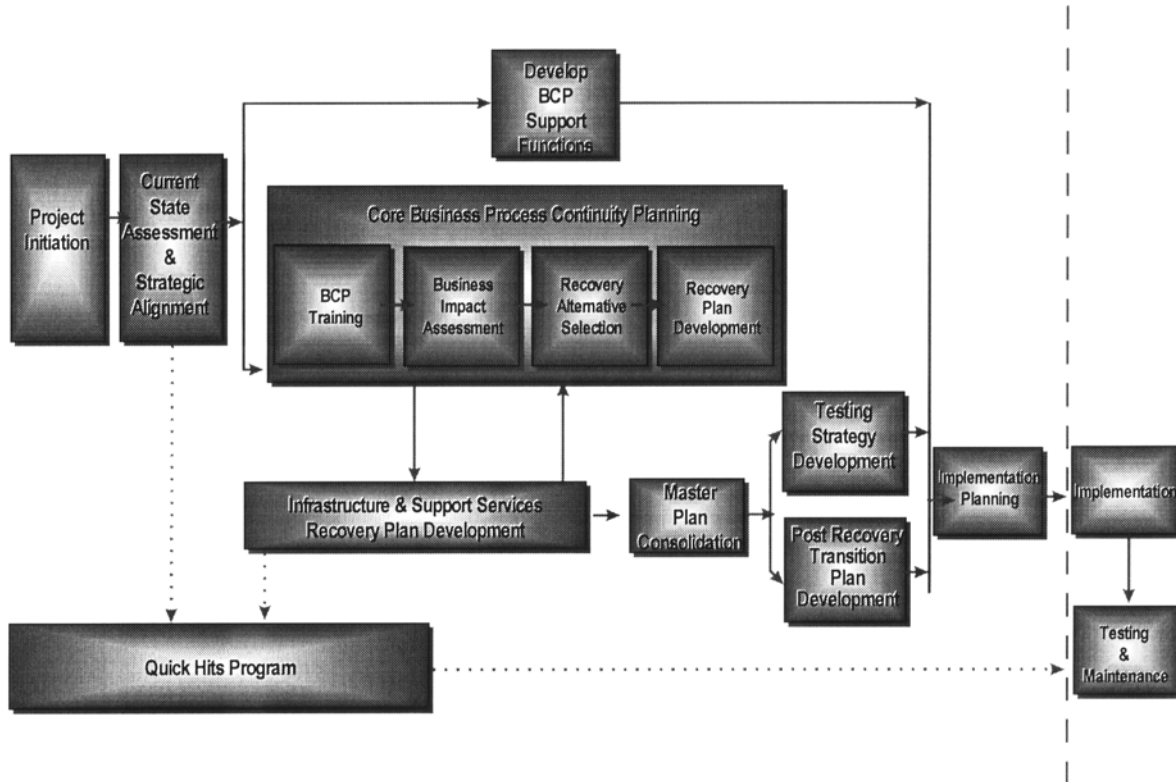


Exhibit 26.4. Sub-Process Components of BCP

- Development of business continuity plans must be business-process driven; and
- Development of process-oriented recovery plans independently for each time-critical business process is critical to overall success.

The activities in each of the major stages of the BCP Process Improvement route-map are described below.

Stage 1 — BCP Process Initiation

During this stage, the foundation for the business continuity planning is established by developing the BCP Process plan and obtaining approval. The BCP Process plan is a detailed account of the work to be done, the resources that should be used, and the management practices that should be followed to control it.

Stage 2 — Current State Assessment and Strategic Alignment

In this stage the BCP Process team should analyze the current state of the organization's Business Continuity and Disaster Recover capabilities. A threat/risk management review should be conducted to identify threat categories, the estimated probability (High, Medium, Low) of each particular threat occurring, and the likely impact if the threat were to occur (High, Medium, Low).

Another activity of this stage is identifying strategic alignments. It is imperative that whatever Business Continuity Plans and strategies are developed are aligned with the organization's overall business and technology plans.

Two portfolios of information result from this stage. The first stage consists of a portfolio of "quick hits," and the second stage consists of a portfolio of the core or key business processes for which comprehensive Business Continuity Plans must be developed.

Stage 3 — Develop Business Continuity Planning Support Processes

During this stage the key support elements of the Business Continuity Planning process are developed. To ensure that Business Continuity Planning is institutionalized, it must be integrated into the structure of the business. BCP program accountability must be defined and responsibilities allocated. Performance measurement criteria and processes must be developed. Policies and procedures must define how the organization plans to manage and execute the business continuity planning process.

A risk management framework should be developed that monitors business continuity risk factors and ensures that appropriate risk management and contingency action plans are maintained. Change management plans

should also be developed that focus on how business and technical changes are incorporated into the Business Continuity Planning process.

Core Business Process Continuity Planning. The following four stages that make up this phase should be repeated for each *core business process* identified during the Current State Analysis.

Stage 4 — Business Continuity Planning Training

Business Process Owners and staff participating in this BCP Process should be trained in the fundamentals of Business Continuity Planning and receive basic instruction in:

- Conducting Business Impact Assessments, and
- Recovery Plan Development.

The use of a knowledgeable and experienced person(s) from each of the organization's departments/business processes is vital to the success of this process. This should facilitate the preparation of viable continuity plans and procedures for each critical business process. It is also important to have these people involved during all stages of planning because they are most likely to be called upon to execute the user aspects of the continuity plan in the event of disruption.

Stage 5 — Business Impact Assessment

The purpose of the Business Impact Assessment stage is to understand the impact of a loss of business functionality due to an interruption of computing and/or infrastructure support services. Through an interview and information-gathering process these impacts should be measured quantitatively (financially) and qualitatively (operationally), such as confidence in the ability to deliver and track service to member institutions. The goal of the business assessment impact stage is twofold.

- *Resource Priorities for Recovery* — each business process is identified and business impact information is gathered. Attention is then focused on those “time-critical business processes” requiring recovery within the maximum tolerable downtime (MTD), while placing non-time-critical business processes at a lower priority for recovery. Resource requirements for continuity of critical processes are determined.
- *Maximum-Tolerable Downtime* — The BIA helps to estimate the longest period of time a business process can remain interrupted before it risks its ability to ever adequately recover. Those business processes that require continuity within shorter time periods are defined as “time-critical,” with the assumption they should receive priority attention following a disruption.

Once the analysis is complete, the BCP Process team should ensure that business units or support services management agree with the results. These results should then be formalized and presented to the responsible senior executive authority with recommendations and a request for authorization to proceed to the next BCP Process stage.

Stage 6 — Recovery Alternative Selection

Once the BIA is completed, the BCP Process team should identify available continuity strategy alternatives. Risk management options are considered during the strategy selection process, and issues such as risk avoidance, risk limitation, risk sharing, and risk transfer are analyzed. Criteria for evaluating available continuity strategies are determined. The primary objective of this stage is the development of a recovery alternatives matrix with an appropriate business case presented for the recommended continuity strategy.

Stage 7 — Recovery Plan Development

This stage involves documenting the continuity strategies that were determined in the steps above and organizing the information in a convenient format that can be used following a business interruption. The plans should address business process recovery team structures, emergency control center location(s), inventory information (i.e., people, equipment, documentation, supplies, hardware/software, vendors, critical applications, data processing reports needed, communications capabilities required, vital records, etc.), and high-level procedures to be followed. Business process managers and staff are responsible for providing additional detailed procedures, as required, to the continuity plan.

Vital records backup, storage strategies and plans are also reviewed during this stage.

Stage 8 — Infrastructure and Support Services Continuity Plan Development

During this stage, continuity plans are developed for the key support services and complex infrastructure services. The key drivers of the development of these plans are the infrastructure and service requirements identified and validated during the development of the business process recovery plans.

Stage 9 — Master Plan Consolidation

During this stage the individual Core Business Process Recovery Plans and the Infrastructure and Support Services Continuity Plans are consolidated and integrated into the organization's overall Crisis Management/

Continuity Plan. This acts as the central control and launch point in the event of a major service interruption or disaster. During the development of the overall Crisis Management/Continuity Plan, certain “global” issues are considered and planned for (e.g., Damage Assessment and Disaster Declaration Procedures, location of emergency control centers, etc.).

Stage 10 — Testing Strategy Development

During this stage, an appropriate Testing Strategy is developed, ensuring the business continuity capability is periodically tested and evaluated. Testing strategies generally include definition of test scope and objectives, measurement criteria, test scripts, test schedules, post-mortem reviews, and test reporting.

Stage 11 — Post Recovery Transition Plan Development

After an interruption occurs and the business continuity plan is implemented, organizations find themselves operating in a non-normal mode and environment with no plans for resumption of normal operating procedures. During this BCP Process stage, a high-level plan is developed to facilitate the transition back to a normal operating environment as quickly and efficiently as possible.

Stage 12 — Implementation Planning

During this stage, comprehensive implementation plans are developed for the Core Business Process Recovery Plans and Infrastructure and Support Services Recovery Plans that have been integrated into the overall Crisis Management/Contingency Plan. Implementation plans include the acquisition and installation of facilities and resources required to facilitate the continuity strategy.

Stage 13 — Quick Hits Program

The quick hits program identifies critical business continuity initiatives that require addressing in the short term in order to provide a level of comfort. This program enables organizations to provide partial services in the event of major service disruption or disaster. Solutions developed during this phase may be temporary or stop-gap solutions, until the enterprise-wide business continuity planning process is fully functional.

Stage 14 — Implementation and Testing and Maintenance Stages

These stages should become integral parts of the organization’s business continuity program. The regular maintenance and testing of the business continuity plans and strategy help to ensure that:

- The continuity strategy stays viable;
- Plan documentation is current and accurate; and
- Team leaders are trained in the execution of continuity plan procedures.

HOW DO WE GET THERE? THE CONCEPT OF THE BCP VALUE JOURNEY

The **BCP Value Journey** is a helpful mechanism for co-development of BCP expectations by the organization's top management group and those responsible for recovery planning. In order to achieve a successful and measurable recovery planning process, the following checkpoints along the *BCP Value Journey* should be considered and agreed upon. The checkpoints include:

- *Defining Success* — Define what a successful BCP implementation will look like. What is the Future State?
- *Aligning the BCP with Business Strategy* — Challenge objectives to ensure that the BCP effort has a business-centric focus.
- *Charting an Improvement Strategy* — Benchmark where the organization and the organization's peers are, the organization's goals based upon their present position as compared to their peers, and which critical initiatives will help the organization achieve its goals.
- *Becoming an Accelerator* — Accelerate the implementation of the organization's BCP strategies and processes. In today's environment, fast beats slow, and speed is a critical success factor for most companies.
- *Creating a Winning Team* — Build an internal/external team that can help lead the company through BCP assessment, development, and implementation.
- *Assessing Business Needs* — Assess time-critical business processes' dependence on the supporting infrastructure.
- *Documenting the Plans* — Develop continuity plans that focus on assuring that time-critical business processes will be available.
- *Enabling the People* — Implement mechanisms that can help to enable rapid reaction and recovery in times of emergency, such as training programs, a clear organizational structure, and a detailed leadership and management plan.
- *Completing the Organization's BCP Strategy* — Position the organization to complete the operational and personnel-related milestones necessary to ensure success.
- *Delivering Value* — Focus on achieving the organization's goals while also envisioning the future and handling all organizational changes which occur simultaneously.
- *Renewing/Recreating* — Challenge the new BCP process structure and organizational management to continue to adapt and meet the challenges of demonstrating availability and recoverability.

The Value Journey Facilitates Meaningful Dialogue

This *Value Journey* technique for raising the awareness level of management helps to both facilitate meaningful discussions about the BCP Process and to ensure that the resulting BCP strategies truly add *value*. As will be discussed later, this value-added concept will also provide additional metrics by which the success of the overall BCP process can be measured.

THE NEED FOR ORGANIZATIONAL CHANGE MANAGEMENT

In addition to the approaches of *BCP Process Improvement*, and the *BCP Value Journey* mentioned above, the need to introduce people-oriented *Organizational Change Management* (OCM) concepts becomes an important component in implementing a successful BCP process.

Mr. H. James Harrington, et al., in their book *Business Process Improvement Workbook*,² point out that applying process improvement approaches can often cause trouble unless the organization manages the change process. They state that, “Approaches like reengineering only succeed if we challenge and change our paradigms and our organization’s culture. It is a fallacy to think that you can change the processes without changing the behavior patterns or the people who are responsible for operating these processes.”³

Organizational change management concepts, including the identification of people enablers and barriers and the design of appropriate implementation plans which change behavior patterns, play an important role in shifting the BCP project approach to one of *BCP Process Improvement*. The authors also point out that, “There are a number of tools and techniques that are effective in managing the change process, such as pain management, change mapping, and synergy. The important thing is that every *BPI* (Business Process Improvement) program must have a very comprehensive change management plan built into it, and this plan must be effectively implemented.”⁴

Therefore, it is incumbent on the recovery planner to ensure that, as the concept of the BCP Process evolves within the organization, appropriate OCM techniques are considered and included as an integral component of the overall deployment effort.

HOW DO WE MEASURE SUCCESS? BALANCED SCORECARD CONCEPT

A complement to the *BCP Process Improvement* approach is the establishment of meaningful measures or metrics that the organization can use to weigh the success of the overall BCP process. Traditional measures include:

- How much money is spent on hotspots?
- How many people are devoted to BCP activities?
- Was the hotspot test a success?

Instead, the focus should be on measuring the **BCP Process** contribution to achieving the overall goals of the organization. This focus helps us to:

- Identify agreed-upon BCP development milestones
- Establish a baseline for execution
- Validate BCP Process delivery
- Establish a foundation for management satisfaction in order to successfully manage expectations

The *BCP Balanced Scorecard* includes a definition of the:

- Value Statement
- Value Proposition
- Metrics/Assumptions on reduction of BCP risk
- Implementation Protocols
- Validation Methods

Exhibit 26.5 illustrates the *Balanced Scorecard* concept and shows examples of the types of metrics that can be developed to measure the success of the implemented BCP Process. Included in this *Balance Scorecard* approach are the new metrics upon which the BCP Process will be measured.

Following this *Balanced Scorecard* approach, the organization should define what the *Future State* of the BCP Process should look like (see the preceding *BCP Value Journey* discussion). This *Future State* definition should be co-developed by the organization's top management and those responsible for development of the BCP Process infrastructure. Once the *Future State* is defined, then the BCP Process development group can outline the BCP Process implementation critical success factors in the areas of:

- Growth and innovation
- Customer satisfaction
- People
- Process quality
- Financial state

These measures must be uniquely developed based upon the specific organization's culture and environment.

SUMMARY

The failure of organizations to measure the success of their BCP implementations has led to an endless cycle of plan development and decline. The primary reason for this is that a meaningful set of BCP measurements

Balanced Scorecard

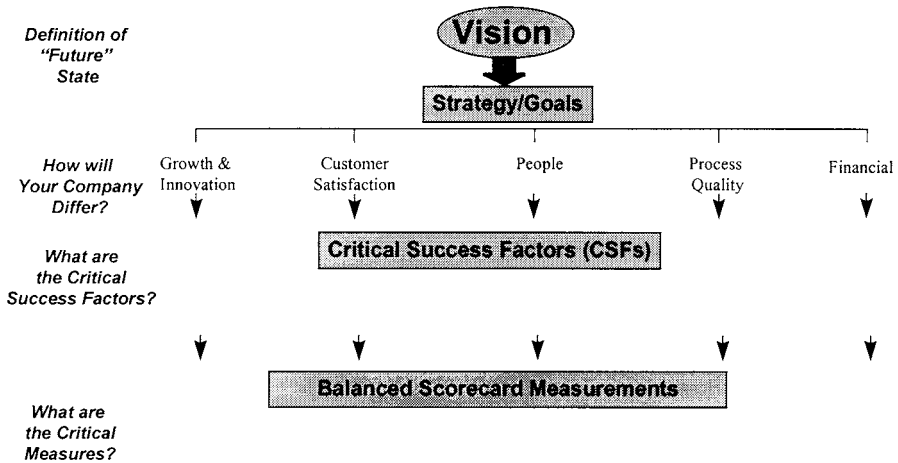


Exhibit 26.5. The Balanced Scorecard Concept

has not been adapted to fit the organization's future state goals. Because these measurements are lacking, expectations of both top management and those responsible for BCP often go unfulfilled. Statistics gathered in the *Contingency Planning and Management/Ernst and Young LLP Business Continuity Planning Survey* support this assertion. Based on this, a radical change in the manner in which organizations undertake BCP implementation is necessary. This change should include adapting and utilizing the *Business Process Improvement (BPI)* approach for BCP. This BPI approach has been implemented successfully at many *Fortune 1000* companies over the past 20 years. Defining BCP as a process, applying the concepts of the *BCP Value Journey*, expanding BCP measurements utilizing the *BCP Balanced Scorecard*, and exercising the *Organizational Change Management (OCM)* concepts will facilitate a radically different approach to BCP.

References

1. *Contingency Planning and Management*, April 1998. (The survey was conducted in the U.S. and consisted of 482 respondents drawn from *Contingency Planning and Management* magazine's domestic subscription list. Industries represented by respondents include "financial/banking" [20%]; "manufacturing/industrial" [14%]; and "government" [10%]).
2. H. James Harrington, Erick K. C. Esseling, Harm Van Nimwegen, *Business Process Improvement Workbook*, McGraw-Hill, 1997.
3. Harrington, p 18.
4. Harrington, p 19.
5. Harrington, pp. 1-20.