CHAPTER 6
ORGANIZATIONAL BUSINESS CONTINUITY PLANNING

Business entities today exist in a highly competitive world. They are constantly innovating to meet their business objectives of providing essential and unique services to their customers. Technology advances have enabled them to achieve their varied strategies. And yet, the threats of disaster, on account of business interruption, are not extinct in fact, they have also evolved along with the technology. Business interruption does happen but what is of significance is, how much of the consequences of such interruptions can business afford.

Business Continuity Planning is the act of proactively working out a way to prevent, if possible, and manage the consequences of a disaster, limiting it to the extent that a business can afford.

Many organizations have Disaster Recovery Plans and documents are really implementing and drill operation is developing plan. Each organization should have mock drill of disaster as per plan.

Following are the various scenarios of BCP:

- Catastrophic events resulting into a major disruption of services and complete processing capability cannot be achieved for a substantial period of time. In these cases, recovery will require use of alternate processing site (DR Site) as well as offsite offices for employees over an extended period of time. Some examples of such events are war, earthquakes, acts of terrorism, etc.

- Disastrous events where overall business infrastructure may experience a severe disaster resulting in the total shut down and complete processing capability of all business processes may be down. Further, key personnel may not be able to
access the premises and also lead to non-availability of key resources in the building. Some examples of such events are floods, rain, fire, riots, power shutdown, etc.

- Moderate outages where some or all business processes at the location may experience moderate damage / outage. Processes may not continue or may run at a degraded level. In such cases, an alternate site may not be required for continuing business but alternate equipment / redundant network links / restoration of back-up may be required depending on the criticality of the business process and infrastructure. Some examples of such outages are LAN switch or router failure, damage of equipment due to power surge, temporary power failure, core access layer switch failure, MPLS / VSAT / Lease line failure, server crash, data corruption, etc.

- Minor outages where business processes may experience minor damage / outage and will run at a sub-standard level. Some examples of such outages are link connectivity being temporarily down, switch or router port failures, System or network CPU failures, System Fan failures, System or Network Power supply failures, Ethernet card failures, etc.

3. OBJECTIVES OF BCP

The objectives of this plan are:

- To develop a cost effective Business Continuity Plan (based on the recovery strategy) to resume operation of critical functions within a given time frame
- Define Roles & Responsibilities of “BCP Team Members”
- Define Schedules for Training and Mock Testing
- To ensure that all current projects at the time of the disruption / disaster are revived within the requisite time span, albeit at reduced capacity
- To make sure on that maximum possible service levels should maintained
- To minimize the likelihood and impact (risk) of interruptions
PRIORITIES

Ensure that the critical business processes and information assets that are required to support the business are identified and classified. The classification is done based on the following factors:

- Core Business Functions
- Primary Support Systems
- Key Personnel

BCP Management Team Responsibilities

- Ensure effective execution of the actions / directions given by Board of Directors.
- Appointment of various teams and coordinating with them as and when required.
- Communicate BCP roles and responsibilities to various BCP teams and authorities.
- Approval of Business Impact Analysis.
- Decision making in case of disaster / interruption i.e. necessary approval for the particular activity.
- Declare Emergency / Disaster.
- Summarize BCP status reports for submission to the IS Steering Committee.
- Advise various teams on business continuity plan conflicts, incongruities, etc.

Business Impact Analysis Team Responsibilities

- Ensure effective execution of the actions / directions given by BCP Management Committee.
• Carrying out Business Impact Analysis of all the processes of their respective department.
• Define RTO and RPO on the basis of criticality of the processes.
• Implement proper solution in case of disaster after carrying out cost benefit analysis.
• Updating the BIA in case of change or addition in any process, assets.

Disaster Recovery Team Responsibilities

• To ensure effective execution of the actions / directions given by BCP Management Team.
• To provide necessary guidance and assistance to their respective team members.
• To co-ordinate with other teams as and when required.
• To ensure full functioning of alternate site in case of disaster at primary site.
• Ensure proper replication of data at remote site.
• Install applications on the critical user’s machines.
• Install other necessary equipment like Printers, FAX or any other communication devices etc.
• Sets up the network as previous.
• Ensure full functioning of primary site at the earliest after the occurrence of disaster

Admin Support Team Responsibilities

• Ensure effective execution of the actions / directions given by BCP Management Team.
• To arrange for necessary transportation at the time of disaster/ interruption.
• To make necessary physical security arrangements during the movements and transportation.
• To provide necessary administrative support required by other teams.
To procure required assets for recovery from disaster / interruptions.
To liaison with the media and legal authorities.
Arrangement of Ambulance, Hospital if required.

**BCP Manager Responsibilities**

- Coordinate with BCP Management Team and each Head of Department.
- Report the recovery status to the BCP Management Team during a Disaster.
- Coordinate all BCP activities.
- Communicate change in BCP to the concerned department head.
- Ensure smooth execution of the plan.
- Ensure activation of the DR is conveyed to all Head of Departments.
- Act as a mediator between various teams.
- Analyze the disaster to recover the operations back to the primary site.

**DR Manager Responsibilities**

- Ensure effective execution of the actions / directions given by the BCP Management Team.
- Ensure physical and logical security at the Disaster Recovery Site.
- Report any incidents to the BCP manager.

**HR Team Lead Responsibilities**

- Handle Key personnel issues.
- Coordinate with Admin to arrange for necessary transportation at the time of a disaster/ interruption.
- Responsible for Internal Communications.
- Informs family members of any casualty due to the disaster.
- Scheduling BCP awareness training in consultation with the Audit team.

The objectives of this plan are:
• To develop policy for an effective Business Continuity Plan to resume business operation of critical functions within a given time frame
• Roles & Responsibilities should be defined for “BCP Team Members”
• Should be define schedules for BCP Training and Mock Testing
• To ensure that all current projects at the time of the disruption / disaster are revived within the requisite time span, albeit at reduced capacity
• To minimize the likelihood and impact (risk) of interruptions

All critical business processes and information assets should required from support the business are identified and classified. The classification is done based on the following factors:
- Core Business Functions
- Primary Support Systems
- Key Personnel

IS Steering Committee has approved this document. The guidelines specified in this document are to be followed by all the Business Units and Employees of organization without exception. BCP Teams can suggest changes to the Business Continuity Plan. The final approval of changes will be of the IS Steering Committee.

BUSINESS RISK ASSESSMENT

Business Risk Assessment analysis reviews the business and tries to understand how the business measures up to these parameters. Finally, an all round view of the assessment helps us understand what is lacking within the business to sustain itself in times of disaster.

Each of these areas has been looked at in the light of the business, and the exact possible source located. For each source identified, the Magnitude of the Risk and the Probability of its Occurrence has been evaluated to judge the extent of Risk Exposure. Risk Exposure is the easiest way to know how much attention needs to be paid to a source of risk. This section provides a detailed assessment of the potential business impacts of the classical threats of loss of
availability, integrity and confidentiality. The profile and value of the business unit itself is also considered. The results of this assessment can optionally be used to automatically determine which issues will be subsequently examined during the high-level risk assessment stage.

**BUSINESS IMPACT ANALYSIS**

The Board has issued a BCP Policy Statement on Business Continuity Planning.

BIA has been conducted individually for all the departments wherein the criticality along with the RTO and RPO for each process / sub-process is defined. Further, BIA will be conducted by the respective department on annual basis and as and when any major changes are implemented within the processes.

**GUIDELINES FOR EMERGENCY SITUATION AND HUMAN SAFETY**

Human beings are considered as the most important asset in any organisation. In case of any disaster or emergency, the safety and security of the employees should be considered first. Following are some guidelines to ensure human safety in an emergency situation:-

**Early Evacuation:** In case of a disaster, steps should be taken for early evacuation of the employees, staffs and other third parties. Exit and emergency doors should be clearly marked. In case of a disaster, safety of human lives should be given foremost priority.

**Medical treatment and care:** In case of physical injury, death etc. medical treatment and other necessary care should be taken. An emergency medical team should be kept on round the clock basis, or necessary tie-ups should be made with the nearest hospitals.

**Disaster contact person:** In case of a disaster situation, a person or a team should be designated as a contact point to communicate with the family members of the employees. This team would be informed about communicating with the designated person or team only in disaster condition. This would help in restricting the spread of rumors in an emergency situation.
Emergency fund: Employees and their family members affected by any disaster may require some emergency funding. The company should make necessary arrangements to make such funding.

Transportation and family communication facilities: In case of wide spread disaster, that has severely affected the transportation and communication facilities of the affected region, arrangements should be made for alternative transportation and communication facilities, so that employees can reach their dwelling place, or atleast contact their relatives.

Employee’s availability for work: All necessary arrangements should be made to ensure that employees can return to work as soon as possible, after the disaster. Alternative arrangements can be made to ensure that employees can temporarily work from their residence, immediately after the disaster.

Transportation & accommodation facilities: In case of temporary working from the remote disaster recovery site after any disaster, all necessary arrangements should be made for transportation and accommodation, at the remote site of the employees.

**PLANNING THE TEST**

BCP testing phase has to be carefully planned owing to the unique nature of the BCP process. It will only be activated in extreme circumstances, and the testing should be conducted in a realistic environment.

Any department requiring BCP to be implemented shall make a request to their respective HOD. Once a request for the BCP is approved by the HOD, such departments shall be included in the BCP.

Each organization have to tested Business continuity Planning for periodically. It should be on regular basis that must be carried out periodically. If Ignoring this exercise could mean that the plan gets tested only when a disaster actually occurs. If organization will perform on regular basis could not be in a risk.
Business Continuity Plan should be follow organization below mentioned scenarios:

a. Every time the plan should be revised
b. A system should added to the processes of if any changes
c. The process should be changed in a system
d. When a scheduling change in the business activities
e. If a process that falls in the scope of the plan, changes should be adopted  
f. The organization should be ready for a requirement arises for reporting on the proper of the plan
g. If report is required on the awareness.

The goal of the business continuity planning in a right direction to proceed. If business continuity planning fails the organization act on same issue take the discussion and resolve the issues and do the changes immediately basis the write the report on distribute with the organization on same issue for the precaution for should not repeat the same issue in the future. It will save the organization cost and efforts.

Business continuity planning exercise of testing the plan also serves as training for the team of organization. This will also one type of exercise to the computer department and business continuity team. It will give the good result to the organization as well as of the business continuity team. The team will get the confidence on business continuity plan.

Frequency of Test:

The organization should be perform the business continuity planning once in every six months, and it should be documented for future reference. The BCP team should be implement proper process is to be implemented for periodic testing of the BCPs continuing. Organization also timely updating of the document should be done on when changes occurs, specifically when there are changes in technology and processes of organization, legal or business requirements. We should be modifies BCP strategies based upon results of risk assessments and vulnerability assessments. The team of BCP should change management and appropriate version controls
should be implemented, to facilitate maintainability. All Test reports of BCP should be sent to the CTO for his review.

BCP Testing comes in the purview of the following:-

- Pre test - A set of actions required to set the stage for the actual test
- Test - The real action of BCP test
- Post test - The cleanup of group activities
- Post invocation review - The review of actions following the real invocation of the plan

BCP Planning should be test following and defining

- Test Scenario - major the disaster that should be happen as a part of the testing.
- Test Plan - whether weaknesses/gaps noticed in last BCP Test Plan have been removed, we should have proper audit schedule of test scenarios, with includes the each and every step to perform in the business continuity planning it should be in a simple language to understand a common employee of the organization.

The BCP test should be have proper checklist to maintain a Checklist exercise or a Tactical exercise and a decision regarding the same shall be taken by the BCP Management Team.

The BCP Checklist exercise should involves a structured performance. The BCP team should comes together with prior knowledge of the test scenario. Each BCP member should be play a defend role and perform the activities assigned to him/her in the continuity plan.

The organization should follow while testing the BCP, the each team member should follow activities will be performed:
• Should be prepare a test plan and select the test scenario and explain the expected results
• The BCP team should execute the plan
• The should be document the test results on the time basis
• The BCP team should be review the actual results and reports on actual time basis.
• The BCP team should be circulate the results and the report with various internal departments, BCP Teams and BCP Management Team.
• Team should identify the changes that are to be made to the BCP, and make sure to cover gaps and overcome observed points including last BCP Test Plan
• The organization should provide proper training to the BCP team

Test plan objectives should be reviewed to verify whether the test plan accomplishes the following:

• Verifies the completeness and precision of the BCP
• Evaluates the performance of the personnel involved in the BCP
• Appraises the training and awareness of the teams
• Evaluates coordination between BCP teams, DRP teams, external vendors, and service providers
• Measures the ability and capacity of the backup site to meet the organisation’s requirements
• Assesses retrieval capability of vital records
• Evaluates the state and quantity of equipment and supplies that have been relocated to the recovery site
• Measures the overall performance of the operational and the processing activity of the organisation

BCP testing should be designed carefully to avoid disruption to the business processes. Appropriate areas of BCP testing should be identified as a part of the annual review of risk, and
duplication of efforts should be avoided. In reviewing the plan of a BCP test, following criteria should be considered:

- Scope, Objectives and frequency of the Test plan
- Methodology and revisions to the test plan
- Details of Earlier BCP Test plan
- List of participants
- Type of exercise performed,
- Type, appropriateness sufficiency of tests
- Applications
- Volume of data
- Business areas
- Network rerouting
- System vulnerability, penetration and incidence response
- Change, configuration and patch management
- Audit evidence criteria and requirements
- The test environment is representative of the operational environment and exceptions are documented
- Test effectiveness and its relation to risk assessment and business impact conclusions
- BCP team operations that are to be executed

Learning from Test exercise:

- All test reports should be submitted to the BCP Management team.
- Any issues / failures observed during such tests should be appropriately obtained and escalated to the appropriate team.
- Necessary revisions / learning should be ensured from all such tests where required.
TRAINING TOWARDS BCP

1. Newly inducted employees shall undergo a dedicated Security Awareness training, which shall also highlight relevant BCP aspects.

2. The induction training shall at least highlight the following aspects to the extent relevant:
   - Details of DR Site (near as well as far site)
   - Availability / accessibility of BCP and DR plan
   - Details of various BCP team members
   - Immediate escalation process

3. Records pertaining to the same shall be maintained by the HR Department.

Advance Training

1. If any HOD is of the opinion that his / her respective staff needs to undergo a detailed training, the necessary request should be forwarded to the HR Department.

2. After appropriate evaluation of such request, HR should arrange for training once requisite no. of trainees are registered for such advanced training.

3. BCP training records shall be prepared by the HR department in coordination with the IT team, and the same shall be forwarded to the BCP management team.

Pre – Exercise Training

Pre exercise training includes:
   - Testing methodology and scheduling,
   - Developing objectives of exercises and scenarios,
   - Plan modification and update procedures subsequent to and based on the results of the exercises,
   - Auditing and evaluating the business continuity plan.
   - Appropriate awareness test through questionnaires, case studies, practical exercise etc shall be ensured post training.
   - After receiving such training, participants shall communicate the same to their respective department members.
• Documentation towards such communication shall be ensured by the respective HODs.
• BCP training report shall be prepared by the HR department in coordination with the IT team and the same shall be forwarded to the BCP management team.