

Laboratory #7

Lab #7: Identify Necessary Policies for Business Continuity – BIA & Recovery Time Objectives

Learning Objectives and Outcomes

Upon completing this lab, students will be able to complete the following tasks:

- Identify the major elements of a Business Continuity Plan (BCP)
- Align the major elements of a Business Continuity Plan with required policy definitions
- Review the results of a qualitative Business Impact Analysis (BIA) for a mock organization
- Review the results of defined Recovery Time Objectives (RTOs) for mission-critical business functions and applications
- Create a BCP policy defining an organization's prioritized business functions from the BIA with assigned RTOs

Required Setup and Tools

This is a paper-based lab. Internet access and the student's Microsoft Office applications are needed to perform this lab.

The following summarizes the setup, configuration, and equipment needed to perform Lab #7:

1. Standard onsite student workstation must have the following software applications loaded and Internet access to perform this lab:
 - a. Microsoft Office 2007 or higher
 - b. Adobe PDF reader
 - c. Internet access

Recommended Procedures

Lab #7 – Student Steps

The following represents the steps that students need to follow for this lab:

1. Review the sample BCP outline provided with this lab
2. Participate in class discussions on the sample BCP outline. Note the difference between Part 1 and Part 2 and where BCP policy definitions are required within Part 1

3. Participate in class discussions on the sample BIA report. Take notice of the prioritization of the mission-critical business functions from the Lab #7 – Assessment Worksheet – BIA
4. Identify which IT systems and applications are impacted by the prioritization of mission critical business functions in the BIA
5. Review these BIA/BCP metrics and incorporate into the BCP Policy Definition:

Recovery Time Objective (RTO) - defines how quickly IT systems, servers, applications, and access to data services and processes must be operational following some kind of incident, including recovery of applications and data and end-user access to those applications.

Recovery Point Objective (RPO) - defines the point in time that marks the end of the period during which data can still be recovered using backups, journals or transaction logs.

The following defines the RTO and RPO metrics for Lab #7 - Identify Necessary Policies for Business Continuity - BIA & Recovery Time Objectives:

Critical:	RTO: 8 Hours	RPO: 0 Hours
Major:	RTO: 24 Hours	RPO: 8 Hours
Minor:	RTO: 1 Week	RPO: 3 Days
None:	RTO: 1 Month	RPO: 7 Days

6. Review the BCP/BIA Policy Definition template and ask questions if you need clarification.
7. Create a Business Continuity Plan Policy Definition – Business Impact Analysis and reference the RTO and RPO standards in the Standards Section of the policy definition.
8. Answer the Lab #7 – Assessment Questions & Answers

Deliverables

Upon completion of the Lab #7 – Identify Necessary Policies for Business Continuity – BIA & Recovery Time Objectives, students are required to provide the following deliverables as part of this lab:

1. Lab #7 – Assessment Worksheet, Part B – BCP Policy Definition – BIA
2. Lab #7 - Assessment Questions & Answers

Evaluation Criteria and Rubrics

The following are the evaluation criteria and rubrics for Lab #7 that the student must meet:

1. Was the student able to identify the major elements of a Business Continuity Plan (BCP)? –
[20%]

2. Was the student able to align the major elements of a Business Continuity Plan to the required policy definitions? – [20%]
3. Was the student able to review the results of a qualitative Business Impact Analysis (BIA) for a mock organization? – [20%]
4. Was the student able to review the results of defined Recovery Time Objectives (RTOs) for mission-critical business functions and applications? – [20%]
5. Was the student able to create a BCP policy defining an organization's prioritized business functions from the BIA with assigned RTOs? – [20%]

Lab #7 – Assessment Worksheet

Part A – Sample Business Impact Analysis for an IT Infrastructure

Course Name: IAP301

Student Name: Nguyễn Quốc Vượng

Instructor Name: _____

Lab Due Date: _____

Overview

When conducting a BIA, you are trying to assess and align the affected IT systems, applications, and resources to their required recovery time objectives (RTOs). The prioritization of the identified mission-critical business functions will define what IT systems, applications, and resources are impacted. The RTO will drive what type of business continuity and recovery steps are needed to maintain IT operations within the specified time frames.

1. Sample BIA with prioritization in (parentheses):

Business Function Or Process	Business Impact Factor	RTO/RPO	IT Systems/Apps Infrastructure Impacts
Internal and external voice communications with customers in real-time	Critical	RTO – 8 hrs RPO - 0 hr	Server, Intra/Internet, Network, Telephone system
Internal and external e-mail communications with customers via store and forward messaging	Critical	RTO – 8 hrs RPO - 0 hrs	Email Systems, Internet, network
DNS – for internal and external IP communications	Major	RTO – 24 hrs RPO - 8 hrs	DNS Server, VOIP network
Internet connectivity for e-mail and store and forward customer service	Major	RTO – 24 hrs RPO - 8 hrs	Email server, Intra/Internet network
Self-service website for customer access to information and personal account information	Major	RTO – 8 hrs RPO - 12 hrs	Server, Intra/Internet network

e-Commerce site for online customer purchases or scheduling 24x7x365	Critical	RTO – 4 hrs RPO - 0 hrs	Intra/Internet network, Server
Payroll and human resources for employees	Critical	RTO - 4 hrs RPO - 0 hrs	Server, Internal Network
Real-time customer service via website, e-mail, or telephone requires CRM	Critical	RTO – 4 hrs RPO - 0 hr	Intra/Internet network, VOIP, e-mail serve
Network management and technical support	Major	RTO – 8 hrs RPO - 12 hr	Network, Helpdesk suppor
Marketing and events	Major	RTO – 48 hrs RPO - 24 hrs	Marketing server, planner app
Sales orders or customer/student registration	Major	RTO – 48 hrs RPO - 24 hr	Orders Database, registration database, Intra/Internetwork, Server
Remote branch office sales order entry to headquarters	Major	RTO – 48 hrs RPO - 24 hrs	Remote access, Internetwork, VPN
Voice and e-mail communications to remote branches	Major	RTO – 8 hrs RPO - 12 hrs	Remote access, Internetwork, VPN, Server, VOIP
Accounting and finance support: Accts payable, Accts receivable, etc.	Critica	RTO – 24 hrs RPO - 8 hrs	Accounting and Finance System

Lab #7 – Assessment Worksheet

Part B – Craft a Business Continuity Plan Policy – Business Impact Analysis

Course Name: IAP301

Student Name: Nguyễn Quốc Vượng

Instructor Name: _____

Lab Due Date: _____

Overview

When conducting a BIA, you are trying to assess and align the affected IT systems, applications, and resources to their required recovery time objectives (RTOs). The prioritization of the identified mission-critical business functions will define what IT systems, applications, and resources are impacted. The RTO will drive what type of business continuity and recovery steps are needed to maintain IT operations within the specified time frames. In this lab, you are to create a Business Continuity Plan Policy Definition – Business Impact Analysis that points to the RTOs and RPOs for the identified mission-critical business functions of the organization.

Instructions

Using Microsoft Word, create a Business Continuity Plan Policy Definition using the following policy template:

ABC Credit Union

Policy Name

Policy Statement

{Insert policy verbiage here} [Business Continuity Policy](#)

Purpose/Objectives

{Insert purpose of the policy as well as the objectives – bulleted list of the policy definition. This should mirror the purpose/objectives of a Business Impact Analysis (BIA).}

[To ensure resilience and continuity of critical business functions, the organization focuses on minimizing operational disruptions and financial losses. Clear roles, responsibilities, and procedures are established for effective incident response and recovery, aligning with regulatory requirements and industry standards to maintain operational stability](#)

Scope

{Define this policy's scope and whom it covers. [This policy applies to all ABC Credit Union staff, contractors, and third parties in critical operations, covering all sites and units. It outlines roles, resources, recovery strategies, and communication plans to ensure essential services continue during disruptions.](#)

Within a BCP outline, what are this policy's scope and boundaries?

What elements or criteria are within the scope of this policy?}

Standards

{Does this policy point to any hardware, software, or configuration standards? In this case, we need to reference the Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPO) as standards and metrics within the policy definition itself. List them here and explain the relationship of this policy to these standards.} [This policy sets Recovery Time Objectives \(RTOs\) for acceptable downtime and Recovery Point Objectives \(RPOs\) for allowable data loss, ensuring timely recovery and minimal data loss during incidents](#)

Procedures [Implementing this policy includes a thorough Business Impact Analysis \(BIA\) to identify critical functions, developing and updating Business Continuity Plans \(BCPs\), establishing communication protocols for incident response, and conducting regular testing and training to ensure BCP effectiveness](#)
{Explain how you intend to implement this policy across the entire organization.}

Guidelines [Potential challenges in implementing the policy include resource limitations, lack of awareness, and resistance to change. To overcome these, ABC Credit Union will allocate resources for BCP development and training, conduct awareness campaigns, and establish feedback mechanisms for ongoing improvement](#)

{Explain any road blocks or implementation issues that you must address in this section and how you will overcome them per defined policy guidelines.}

Note: Your policy document may be no more than 3 pages long.

Lab #7 – Assessment Worksheet

Perform a Business Impact Analysis for an IT Infrastructure

Course Name: IAP301

Student Name: Nguyễn Quốc Vương

Instructor Name: _____

Lab Due Date: _____

Overview

After completing your Business Continuity Plan Policy Definition, answer the following Lab #7 – Assessment Worksheet questions. These questions are specific to the sample BIA report provided with this lab.

Lab Assessment Questions & Answers

1. Why must an organization define policies for an organization's Business Continuity and Disaster Recovery Plans?

Organizations must define policies for Business Continuity and Disaster Recovery Plans to establish clear guidelines, roles, and procedures for effectively responding to and recovering from disruptive events, ensuring operational resilience, and minimizing downtime

2. When should you define a policy definition and when should you not define one?

A policy definition should be defined when clear guidelines, rules, and procedures are needed to govern specific actions or behaviors within an organization, while it should not be defined when flexibility, adaptability, and individual discretion are more appropriate for certain situations

3. What is the purpose of having a Business Continuity Plan policy definition that defines the organization's Business Impact Analysis?

The purpose of including the Business Impact Analysis in a Business Continuity Plan policy definition is to identify critical business functions, assess their dependencies and vulnerabilities, prioritize recovery efforts, and ensure that resources are allocated effectively to minimize disruptions and financial losses in the event of an incident

4. Why is it critical to align the RTO and RPO standards within the policy definition itself?

Aligning Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) standards within the policy definition is critical to ensure that the organization's business continuity and disaster recovery strategies are effectively designed to meet specific time and data loss thresholds, enabling timely recovery and minimal disruption to operations

5. What is the purpose of a Business Impact Analysis (BIA)?

The purpose of a Business Impact Analysis (BIA) is to identify, prioritize, and assess the potential impacts of disruptions on critical business functions, processes, and resources to guide effective business continuity planning and resource allocation

6. Why is a business impact analysis (BIA) an important first step in defining a business continuity plan (BCP)?

A Business Impact Analysis (BIA) is a crucial first step in defining a Business Continuity Plan (BCP) as it helps identify critical functions, dependencies, recovery priorities, and resource needs based on the quantified impact of disruptions, guiding the development of effective response and recovery strategies

7. How does risk management and risk assessment relate to a business impact analysis for an IT infrastructure?

Risk management involves the broader strategy of identifying, assessing, and mitigating risks across an organization, while risk assessment specifically evaluates the likelihood and impact of risks on IT infrastructure, both contributing essential inputs to a Business Impact Analysis for determining critical IT functions and prioritizing recovery efforts

8. True or False – If the Recovery Point Objective (RPO) metric does not equal the Recovery Time Objective (RTO), you may potentially lose data or not have data backed-up to recover. This represents a gap in potential lost or unrecoverable data.

True. When the Recovery Point Objective (RPO) does not align with the Recovery Time Objective (RTO), there is a potential gap where data loss may occur, as the RPO defines the maximum allowable data loss, while the RTO specifies the time within which systems and data must be recovered

9. What question should an organization answer annually to update its BCP, BIA, and RTOs and RPOs?

An organization should annually review and update its Business Continuity Plan (BCP), Business Impact Analysis (BIA), Recovery Time Objectives (RTOs), and Recovery Point Objectives (RPOs) by asking: "Have there been any changes in business operations, technology, or risks that necessitate adjustments to our continuity strategies and objectives?"

10. Why is it a good idea to have critical documentation recordkeeping defined in a policy definition?

Because it is beneficial to have critical documentation recordkeeping defined in a policy definition to ensure consistency, compliance, accessibility, and integrity of essential records, facilitating efficient business operations, audit readiness, and regulatory adherence

11. From Part A - Sample BIA for an IT Infrastructure Worksheet, which systems, applications, and functions were mission critical to this organization?

Critical systems include core banking, CRM, online and mobile banking apps, email, financial reporting, and backup/recovery systems. These ensure continuity in financial services, customer support, and regulatory compliance.

12. From Part B – Define a Policy Definition for a BCP/DRP, how did you answer the procedures for how to implement this policy throughout your business?

To implement the BCP/DRP policy, we established clear procedures including: conducting a Business Impact Analysis (BIA) to identify critical functions, developing and updating BCPs, defining roles and responsibilities, creating communication protocols, and regularly testing and training staff to ensure readiness

13. True or False. It is a best practice to define policy definitions for an organization-wide BCP and DRP.

True. It is a best practice to define policy definitions for an organization-wide Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP) to ensure consistent understanding and effective implementation across all departments

14. True or False. An organization must have a Business Impact Analysis and list of prioritized business functions and operations defined first prior to building a BCP and DRP.

True. An organization must conduct a Business Impact Analysis (BIA) and define a list of prioritized business functions and operations before building a Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP). This ensures that the plans are focused on the most critical areas for recovery and continuity

15. Explain how having proper security controls and documented BIA, BCP, and DRP can help organizations reduce their business liability insurance premiums and errors and omissions insurance premiums.

Proper security controls and documented BIA, BCP, and DRP can reduce insurance premiums by demonstrating effective risk management, resilience, and compliance. This proactive approach minimizes downtime and claims, enhancing the organization's risk profile and leading to potential premium discounts