Business Impact Analysis Guidelines

Table of Contents

Introduction

The University of Colorado (CU) is aware that all types of events can disrupt operations and jeopardize the safety of university faculty, staff, and students. Emergency planning, including COOP planning, has become a necessary practice for CU.

CU Systems Administration (CU-SA) is committed to the safety and protection of its employees, students, operations, and facilities. In support of this commitment, CU-SA has critical operations that must be continuously performed, or rapidly and efficiently resumed in an emergency. The changing threat environment and recent events (i.e. active harmers, hurricanes, severe winter weather, etc.) has raised awareness of the need for COOP capabilities that will enable us to continue the performance of essential functions across a broad spectrum of emergencies. By planning for operations under such conditions, we hope to mitigate the impact of the incident on our people, our facilities, and our mission.

Business Impact Analysis Purpose

Completing a "Business Impact Analysis" (BIA) is a key step in developing a "Business Continuity Plan" and "Continuity of Operations (COOP) Plan" for your department. The BIA will identify critical business functions, predict the consequences of disruption of a business function and describe what would be necessary to recover these functions, in the event of a disaster or disruption in service. This information will help your department develop a COOP plan and will allow for the prioritization of available equipment and resources, were an event to occur. Potential loss scenarios should be identified in a [hazard vulnerability assessment](#) which has been completed for CU-SA operations and discussed in the CU-SA [COOP planning guideline.](#) There are a variety of scenarios which should be considered.

The objectives of the BIA are as follows:
- To identify and differentiate critical (urgent) and non-critical (non-urgent) business functions and prioritize them according to criticality.
- To identify the key staff, IT systems, physical assets/equipment (cell phones, laptops/workstations, etc.), applications and documents (electronic or physical) associated with each critical business function.
- To identify the quantitative and qualitative impacts that will be incurred should a disruption occur.
- To identify critical interdependencies associated with the business unit and its processes.

For each critical function, two values are assigned:
- Recovery Point Objective (RPO) - the acceptable latency of data that will not be recovered. For example, is it acceptable for the company to lose 2 days of data? The recovery point objective must ensure that the maximum tolerable data loss for each activity is not exceeded.
- To identify the Recovery Time Objective (RTO) – the acceptable amount of time to restore the function.

Conducting the Business Impact Analysis

<u>Designate Two Critical Positions</u>

- <u>BCP Coordinator</u>

  The BCP Coordinator is responsible for coordinating the development and maintenance of the agency's business continuity plan. As part of this responsibility, the BCP Coordinator should:

  - Direct the development of the business continuity plan.
  - Provide regular status updates to the department leader.
  - Coordinate access to distribution of the final plan.
  - Coordinate any revisions to existing business continuity plans or procedures necessitated by technological or organizational changes.
  - Ensure that the department staff is trained on business continuity planning.
  - Ensure that all technical components of the business continuity plan are successfully tested at least annually, or whenever significant changes are made to those components.

- <u>BCP Sponsor</u>

  The BCP Sponsor is the person who is ultimately responsible for the department within Systems Administration executive leadership who has the position and ability to exert pressure to ensure that the work gets completed. As part of this responsibility, the BCP Sponsor should:

  - Champion the project within the department.
  - Have authority to advise System executive leadership in the event of a disruption.
  - Obtain budget approval for the project as needed.
  - Ensure that staff throughout the department are involved in this project, as needed.

Complete the Business Impact Analysis

Identify Critical Business Functions

Critical Business Function Worksheet

- It is important that each department identifies their critical business functions. The purpose of the CBF is to list your department's critical business functions and determine how quickly these functions would need to be restored. Survey those with detailed knowledge of how the department provides its services. Ask them to identify the potential impacts if the business function or process that they are responsible for is interrupted. The BIA should identify the critical business processes and resources needed for the department to continue to function at different levels of disruption.
- The goal is to determine which business processes cannot be interrupted or unavailable for various lengths of time without having a significant negative impact on the organization.
- Staff will find that conditions and processes within their departments have changed since COOP plans were originally written. Business continuity planning means constantly reviewing and updating your document, as necessary.

Critical Business Function Worksheet

For each CBF, please answer the following:
Critical Business Function/Service:
Function Description:
Function must be restored within: ☐ 2 days ☐ 1 week ☐ 2 weeks ☐ 1 month
Priority Ranking: ☐ Priority 1 ☐ Priority 2 ☐ Priority 3 (1 = highest priority)
Who are the customers this function serves?
How many customers does this function serve?
Major Impact Type: ☐ Life, Health & Safety Impact ☐ Financial Impact ☐ Reputational Impact • Life, Health & Safety Impact – impacts the life, health, safety and welfare of faculty, students, staff • Financial Impact – financial impact to the university • Reputational Impact – impacts the university's public image regarding good will, integrity, community responsibility, stewardship of funds.
What are the impacts to constituents if this function or service is unavailable for longer than the specified time?
Are there fines or penalties due to missed deadlines of production? If yes, what?
Is there legal liability due to non-performance of this function? If yes, what?
Would there be loss of good will, poor public image and embarrassment for non-performance of this function? Explain?
Does this function depend on any statewide applications, outside services or products, or other state agencies for its successful completion (i.e. partners)?
Do any external partners (i.e. other state agencies, local government, private sector, business partners) depend on this function to provide their services? If yes, who and why?

Business Impact Analysis Considerations

Impact

The BIA should identify the operational and financial impacts resulting from the disruption of business functions and processes. After defining recovery requirements, each potential threat may require unique recovery steps. Impacts to consider include:

- Regulatory fines
- Contractual penalties
- Community dissatisfaction
- Delay of new business plans
- Lost or delayed revenue/funding
- Increased expenses (e.g., overtime labor, outsourcing, expediting costs, etc.)

Timing and Duration of Disruption

The point in time when a business function or process is disrupted can have a significant bearing on the loss sustained. A power outage lasting a few minutes would be a minor inconvenience but one lasting for hours could result in significant business interruption.

Business Disruption Potential Scenarios

- Absenteeism of essential employees
- Utility outage (e.g., electrical power outage)
- Damage to or breakdown of machinery, systems or equipment
- Physical damage to a building resulting in restricted access or use
- Interruption of the supply chain including failure of a supplier or disruption of transportation of goods from the supplier.
- Damage to, loss or corruption of information technology including voice and data communications, servers, computers, operating systems, applications, and data

Involve Staff

Recommended that the department BCP coordinator work closely with the department leadership and staff to answer the questions on the Business Impact Analysis Questionnaire form. Review these questions and determine if there are any questions you want to modify or add to suit your department.

- It is suggested that the coordinator also work with the department staff to determine which other department staff members might be helpful to answer the questions. You should identify staff who are the most familiar with the different functions of the department and are best able to provide specific information about the details of these functions.
- Once the BCP coordinator gathers answers and information from staff, the coordinator should compile these answers and take them to the department head for review. It is likely that there will be additional questions for staff to clarify recommendations. Expect to

repeat this process (perhaps several times) to develop answers that are both clear and complete.

The completed BIA will provide each section with the following information:
- Ranking of critical and non-critical business processes.
- Assignment of RTOs and RPOs for each business process.
- Document listings of key vendors, systems, and vital records.
- Estimates of the qualitative and quantitative impact impacts of an event, based upon duration of unplanned disruption. (e.g. 24 hours, 48 hours, 5 days, etc.)
- An overview of what would be necessary to recover the functions of the section or program.

For the purpose of answering the BIA questions, assume the following:
- Worst-case scenario is defined as a total outage for an extended period of time during peak processing.
- No current disaster recovery capability exists; pretend you are working with a "blank slate" as you answer questions.
- Don't focus on immediately restoring ALL services; instead, you are trying quickly to restore enough function to provide basic essential services.

Once you have identified your department's critical business functions, you will need to determine the processes involved in each critical business function and answer questions as part of a business impact analysis processes.

Business Impact Analysis Questionnaire:

Step	Description
Key Processes	▪ List the key processes which are necessary to continue the identified critical business function. ▪ Describe each process in a single phrase, if possible. ▪ Prioritize these processes – note those that are the most important. ▪ Note that these processes can include internal operations as well as operations within other agencies, outside vendors, etc.
Volume of Work	▪ What is the average work volume (e.g., number of businesses registered, number of audits completed, number of timesheets entered, etc.) processed by this program? ▪ Does the program have a peak volume or other critical timeframes? (e.g., elections are held in November, payments are processed at the end of the month, etc.)
Recovery Time Objectives (RTO)	▪ Identify the RTO for each key process. ○ RTO is defined as how quickly the process must be restored following a disaster; this is an estimate of how long the process can be unavailable. ▪ List the RTO by hours, days or weeks, as appropriate – decide how long the process could be "down" before you would have a serious problem functioning.
Facilities	▪ Where does this critical function occur? Provide address and directions if necessary. ▪ List applicable job titles and contact numbers of staff responsible for this facility. ▪ List any other facilities necessary for this function?
Staff	▪ Who is the key staff position responsible for this function? Provide the job title and contact information. ▪ List the approximate number of staff involved in this business function. List applicable job titles and contact numbers. ▪ What are the program's normal work hours? ▪ Provide a description of the function or type of work key person/ persons perform.
Key Dependencies	▪ What services from within your agency or an external organization do you need in order to restore this function? ▪ In order to provide this service, what other resources or information have to be provided?
Manual "Work Around"	▪ Can this function be performed manually, if necessary? ▪ If yes, how can this be done and for how long?
Computer Systems	▪ What computer systems/applications are required to perform this process?

Step	Description
Vital Records	- Describe the vital record(s) required and the location where these records can be found. Provide address and directions, if necessary. - Include all types of records – electronic, paper, microfilm, etc.
Equipment and Office Supplies	- Describe the pieces of equipment or supplies required. If a purchase is required, method of payment should be specified. - Describe the location where these items can be found or acquired. Provide address and directions if necessary.
Suppliers/Vendors	- List the agency's key suppliers which may need to be contacted in the event of an emergency. - List the key goods or services provided by these vendors. - List the usual contact information for these vendors, as well as emergency contact information. - If possible, list the name and contact information for alternate suppliers/vendors.
Budget Considerations	- Where applicable, relate work volume to dollars or revenue. (Revenue going out, revenue retrieved from registration fees, etc.) - If you had to store data files, hard copy documents, or supplies off-site, do you know the costs of various off-site options?

Revising and Updating the Business Impact Analysis

It is important to update this plan periodically, in order to keep the content current. The entire plan should be reviewed and revised any time that a new business process or program is put into place, with a complete review at least once a year.

TEST THE BCP AND WRITE A DISASTER RECOVERY PLAN

<u>"Exercise" the BCP</u>

- Business continuity plans need to be tested to identify and fix problems. It is best to exercise and update your plans at least annually, or when major programmatic or technological changes occur within your organization.

<u>Write a Disaster Recovery Plan</u>

- In addition to writing this Business Continuity Plan, you will also need to write a "Disaster Recovery Plan" for your agency, identifying the infrastructure (processes, records, IT applications) necessary to perform and restore the critical business functions. Guidance for writing a Disaster Recovery Plan will be provided separately.

The Business Impact Analysis Report

The BIA report should document the potential impacts resulting from disruption of business functions and processes. Scenarios resulting in significant business interruption should be assessed in terms of financial impact, if possible. The BIA report should prioritize the order of events for restoration of the business. Business processes with the greatest operational and financial impacts should be restored first.

Business Impact Analysis Planning Responsibilities

Each plan will have a section on BCP planning responsibilities with additional delineation of COOP responsibilities of each key faculty/staff position, to include individual Emergency Relocation Group (ERG) members, those identified in the order of succession and delegation of authority, and others, as appropriate.