

Commonwealth of Massachusetts Continuity of Operations (COOP) Planning Guidance for State Agencies June 2021



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What is Continuity of Operations?

Continuity of Operations (COOP) refers to an agency's ability to perform its essential functions, provide essential services, and deliver core capabilities during a disruption to normal operations caused by a natural, man-made, or technological event.

Developing and sustaining a COOP program within your agency will:

- Enable your agency to continue their essential functions despite disruptive events
- Allow your agency to anticipate events and necessary response actions
- Protect the fundamental mission of your agency
- Protect the interests of your agency's customers
- Protects data and information your agency needs to continue operations

Additionally, Governor's Executive Order #490 requires all Executive Branch agencies to develop, maintain, and exercise Continuity of Operations Plans.

Building a Continuity Capability

This document provides an overview of the 5 step process your agency can use to implement a continuity plan and program:

- Form a Team
- Identify Essential Functions
- Assess Your Risk
- Build the Plan
- Sustain the Plan

Step 1: Form a Team

The continuity program should be representative of the entire organization and requires input from various subcomponents. The continuity planning team is comprised of representation from these subcomponents and provides assistance and subject matter expertise to the continuity program and planning efforts.

- **Agency Leadership (agency heads and senior management):** Leadership is ultimately responsible for ensuring the agencies they lead can continue the performance of essential functions and delivery of critical services when normal operations are disrupted.
- **Continuity Manager:** A senior accountable official, designated by agency leadership, who is responsible for oversight of the agency's continuity program. The Continuity Manager is responsible for managing day-to-day continuity program activities, coordinating continuity planning within the organization, representing his/her organization's program externally, as appropriate, and reporting to agency leadership on continuity program activities.
- **Each department or division.** Staff within a department or division carry out the agency's functions and services on a daily basis, can provide details and expertise to the planning effort, and can staff and support essential functions and critical services during a continuity activation
- **Information Technology.** Technology, including communications, critical systems, and data, is the foundation of many tasks, activities, functions, and capabilities. Experts play a key role ensuring these resources are available in a continuity activation.
- **Human Resources.** Organizations should facilitate dialogue among human resources and continuity planners when developing continuity plans and programs. Topics to address include incorporating reasonable accommodations into the plan, designating employees as continuity personnel, providing telework capabilities to support continuity operations, and personnel who may need to be excused from duty due to the emergency situation.
- **Facilities Management.** Facility managers assist with identifying ready and available alternate sites. In addition, they maintain responsibility for assessing damage to the primary operating facility and planning for reconstitution.
- **Fiscal.** Organizations must align and allocate the resources needed to implement their continuity plans. Through the budgeting and planning process, an organization's leaders and fiscal staff ensure the availability of critical continuity resources needed to continue the performance of the organization's essential functions before, during, and after an emergency or disruption.
- **Security.** A security strategy is needed to address the protection of data, personnel, and facilities. Additionally, the security strategy should address any mitigation measures required to prevent disruption of continuity plans and operations.
- **Legal.** An agency's general counsel or equivalent should develop and review the agency's delegations of authority, orders of succession, and Memorandums of Agreement or Memorandums of Understanding to ensure legal sufficiency.

***TIP:** Find continuity champions – individuals who support continuity and view it as a priority. Including them in the planning process allows them to advocate to others on behalf of the continuity program.*

- **Bargaining Unit or Union Representation (if applicable).** Agencies should work with bargaining units and labor unions in developing and bargaining over such procedures where bargaining unit employees are impacted.

Step 2: Identify Essential Functions

Essential functions are those functions required to accomplish core components of the agency's mission as defined by applicable laws, executive orders, and/or other policies or directives. These functions cannot be halted under any circumstances and are critical to the agency's operation.

Identifying essential functions is the first step to effective continuity planning, as this process enables an agency to identify key assets, supporting tasks, and resources that an organization must include in its continuity planning process, and assists in efficiently allocating resources during and after an emergency situation when the agency may not have a full range of staff or resources available to it.

An agency can identify its essential functions via the following three-step process

Step 1: Identify Organizational Functions

In this step, an agency identifies and lists all major organizational functions that support performance of its mission. As part of this step, an organization may review and validate existing lists of organizational functions, as appropriate.

The list of organizational functions must include:

- A description of each function in basic terms.
- The requirement to perform each function, listing the applicable statute, regulation, directive, or other legal authority.
- The products or services delivered or actions each function accomplishes.

***TIP:** Describing a function too broadly may inadvertently include elements that are not essential, but describing a function too narrowly may result in identifying too many functions to manage effectively.*

Step 2: Identify Essential Functions

After identifying and listing all major organizational functions that support the performance of its mission, organizations should review each identified function and identify whether a function is essential or non-essential. The distinction between these two categories is whether an organization must perform a function during a disruption to normal operations and must continue performance during emergencies. Essential functions are both important and urgent. Functions that can be deferred until after an emergency are identified as non-essential.

Step 3: Prioritize Essential Functions

Prioritizing essential functions during the planning process ensures a consensus within the agency as to priorities well before a continuity event occurs and assists in the allocation of potentially scarce personnel or resources. Agencies may employ various schema to prioritize essential functions, such as a numbering system, or categorizing essential functions as urgent/high/medium/low priority.

***TIP:** When prioritizing essential functions, consider the following:*

- *How quickly must this task or activity resume if disrupted?*
 - *What are the impacts of not conducting or delaying the performance of this task or activity?*
 - *Does this function affect another agency/organization's ability to conduct their essential functions?*
 - *Directives and guidance from agency leadership.*
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Step 3: Assess Your Risk

Risk management is the process of identifying, assessing, analyzing, and communicating risk, and accepting, avoiding, transferring, or controlling it to an acceptable level considering the costs and benefits of any action taken. Many methods of assessing risk exist, but your risk assessment should answer the following questions:

- What are the threats and hazards my agency faces?
- What are their characteristics?
- What is the likelihood of them occurring?
- What is the overall risk value for the threat or hazard?

Conduct a Business Process Analysis for Essential Functions:

An important first step in risk assessment is the Business Process Analysis, or BPA. The BPA is a systematic process that identifies and documents the activities and tasks that are performed within an organization. It captures and maps the functional processes, workflows, activities, subject matter expertise, systems, resources, controls, data, and facilities required in the execution of a function or task. An effective BPA supports the development of detailed procedures that outline how an organization accomplishes its mission.

A BPA involves the following nine steps:

Identify Outputs: Identify products, services, and information (i.e., deliverables or outputs) that result from performance of the function, as well as the partners and stakeholders that receive the outputs. The description should include appropriate metrics that identify specific performance measures and standards.

Identify Inputs: Identify products, services, information, supplies, equipment, and other resources required to perform the function and deliver outputs, which may be internal to the organization or depend on external partners. Organizations should identify what input is required, from whom, and when, as the input may be required at the beginning of essential function performance or as the functional process proceeds. The input descriptions should include delivery time requirements, which will inform the Business Impact Analysis.

Identify Dependencies/Interdependencies: Identify dependencies and interdependencies with partners and stakeholders required to perform the function, to include other government organizations, critical infrastructure owners and operators, non-governmental organizations, private sector organizations, and others as appropriate. The description should include information on the ability and expectations of dependent organizations to provide required inputs during a disruption to normal operations.

Identify Leadership: Identify organizational leadership required to make decisions and perform other key actions necessary to perform the function. The description should include the location of appropriate senior leadership, specifically if their action can be performed remotely or they are needed at a certain facility, as well as communication requirements.

Identify Staff: Identify staff required to perform the function. The description should include appropriate knowledge, skills, abilities, expertise, experience, certifications, licenses, clearances, or permissions needed, and the number of staff required.

Identify Communications and Information Systems: Identify communications and information systems required to perform the function. The description should include specific capabilities or data needed, classification requirements, and any other unique requirements. The description should also include information on system dependencies and interfaces with other systems or data sources.

Identify Alternate Location Requirements: Identify facility requirements needed to perform the function. The description should include space, configuration, security, safety, support services (e.g., lodging, food services, medical support), and storage requirements appropriate for the organization's operations.

Resources and Budgeting: Identify resource and budget requirements to perform the function for whatever time period is required by the organization's governing directives, authorities, etc. following a continuity activation or until normal operations are resumed. Resources not yet captured in the BPA process may include standard operating procedures, essential records, and reference materials. The description should include and account for funding requirements for all identified resources needed to perform the function and any supporting activities.

Process Details: Develop a narrative description that captures all information gathered during Steps 1-8 and describes the process of performing the function, including appropriate diagrams, flowcharts, or other informational aids to support the narrative description. Documenting the process will not only describe how the function is accomplished but will also validate the information compiled and limit omission of any details.

Conduct a Business Impact Analysis for Essential Functions:

The BIA provides a method of identifying and evaluating the effects of various threats and hazards and the impact they may have on the ability of an organization to perform its essential functions. It facilitates the identification and mitigation of vulnerabilities to ensure that when a disruption or crisis occurs, an organization can still effectively perform essential functions. The results of the BIA will establish the foundation for evaluating and establishing risk mitigation strategies, which ensure the continued performance of all essential functions.

A BIA involves the following five steps:

Identify Potential Threats and Hazards: Identify potential threats and hazards that are most likely to impact performance of each essential function, listed in priority order. Threats and hazards may be natural, human-caused (deliberate), or technological in nature. There are many common threats and hazards that should be considered. Table 1 below, adapted from the Massachusetts Hazard Identification and Risk Assessment, lists potential hazards.

***TIP:** In addition to evaluating direct threats and hazards, also assess what threats or hazards might impact your critical external partners or elements of your supply chain.*

Table 1: Potential Threats and Hazards

Natural Hazards	Deliberate Acts	Technological Hazards
Climate Change	Cyber Incident	Infrastructure Failure
Severe Winter Storm/Nor'easter		
Inland Flooding		
Coastal Flooding	Terrorism	
Other Severe Weather		
Hurricane/Tropical Storm	Civil Unrest	Nuclear Power Plant Event
Coastal Erosion		Hazardous Material Incident/Spills
Tornado		Major Air Crash
Extreme Temperatures		Dam Failure
Invasive Species		
Earthquake		
Wildfire		

Natural Hazards	Deliberate Acts	Technological Hazards
Drought	Chemical, Biological, Radiological, and Nuclear (CBRN) Incident	
Landslide		
Tsunami		
Public Health Emergency		

Describe Impacts on Essential Functions: In this step, organizations should specify associated characteristics, assumptions, and effects for each threat or hazard identified and describe the potential impact or consequences if the threat or hazard occurs (consider the worst case) and prevents or delays the performance of the essential function. Agencies should answer the following questions:

- What is the vulnerability of the function to each threat or hazard identified in Step 1?
- What would be the impact if the function's performance is disrupted?
- What is the timeframe for unacceptable loss of functions and critical assets?

Identify and Assess Risk Mitigation Strategies and Options: Each organization should review the BIA results with leadership to determine if risk mitigation is necessary and evaluate mitigation strategies. There may be more than one option developed to reduce a single vulnerability. For example, if telework is chosen as a primary mitigation strategy, there may be disruptions (such as power or communications outages) where telework will not work. An alternate facility a safe distance from the area impacted may be a viable strategy to continue an essential function in that circumstance.

Mitigation strategies might include the following:

- Additional backup systems and personnel
- Enhanced continuity planning (such as devolution plans or mutual aid agreements)
- Additional telework flexibility
- Additional suppliers
- Additional facilities
- Resilient communications and infrastructure (i.e. generator power)

***TIP:** When developing mitigation strategies, avoid situations that may introduce new vulnerabilities.*

Assess Mitigation Effectiveness: Agencies should use tests, training, and exercises (TT&E) to assess the implementation and effectiveness of the continuity plan and mitigation strategies.

Step 4: Build the Plan

Draft a comprehensive plan that outlines the requirements and procedures needed to perform essential functions and establishes contingency plans in the event key resources are not available. The plan should address, at a minimum, the following elements:

- **Purpose:** why the organization is developing the plan and the expected results.
- **Scope:** the applicability of the plan to the organization.

- **Situation and Planning Assumptions:** characterizes the environment for which the plan is written and the assumptions the organization is making during the planning process.
- **Concept of Operations:** Overview of plan implementation.
- **Roles and Responsibilities:** Who performs what role and what each role is responsible for under the plan.
- **Logistics:** The resources and capabilities needed to implement the plan.
- **Continuity Elements:** Describes how the agency will address the following elements:
 - **Essential Functions:** Those functions required to accomplish core components of the agency's mission as defined by applicable laws, executive orders, and/or other policies or directives.
 - **Orders of Succession:** Sequential listings of positions (rather than specific names of individuals) that identify who is authorized to assume a particular leadership or management role under specific circumstances.
 - **Delegations of Authority:** Legal authorization to certain agency personnel to act on behalf of the agency head or other officials for specified purposes and to carry out specific duties.
 - **Communications and Information Systems:** The capability (including hardware, software, and personnel), to exchange critical information with staff, external stakeholders, and the media.
 - **Essential Records Management:** Electronic or hardcopy documents, references, and records needed to support the performance of essential functions, or to protect the rights of individuals or the interests of organizations.
 - **Alternate Locations:** Sites other than an agency's primary operating facility where essential functions can be continued or resumed if the primary facility is rendered inoperable or inaccessible.
 - **Human Resources:** The personnel required to sustain essential functions.
 - **Devolution:** Capability to transfer statutory authority and responsibility for essential functions to another organization's staff and facilities if continuity personnel are unavailable.
 - **Reconstitution:** How the agency resumes normal operations following a continuity event.
 - **Testing, Training, and Exercises:** Assessing and validating continuity plans, policies, procedures, systems, and alternate locations.
- **Plan Development and Maintenance:** How the plan will be updated and kept current.
- **Authorities:** The legal basis for plan development and implementation.

***TIP:** MEMA has developed a COOP template, available at <https://www.mass.gov/info-details/continuity-and-safety-planning-guidance>, to assist agencies through the plan development process.*

Step 5: Sustain the Plan

- Establish a schedule for conducting regular testing, training, and exercise events to assess and validate continuity plans, policies, procedures, and systems.
- Create a corrective action program to implement and track areas for improvement identified during tests, exercises, or real-world incidents.

- Develop metrics and success criteria for evaluating and assessing the organization's continuity plans and program.
- Establish a schedule for conducting a review (using the continuity metrics and success criteria) and revision of the organization's continuity strategy, plan, and supporting documents and agreements such as Memorandums of Understanding and Memorandums of Agreement.
- Align and allocate resources (e.g., budget and staff time) to implement continuity activities before, during, and following a continuity activation.
- Develop a multi-year continuity strategic plan to provide for the development, maintenance, and review of continuity capabilities to ensure the program remains viable and successful to include testing, training, and exercise activities, and plan reviews.

Glossary of Terms

After-Action Report. A report analyzing the management or response to an incident, exercise, or event by identifying strengths to be built upon and potential areas of improvement.

Alternate Location. Alternate locations are locations to which continuity staff can report and implement essential functions. Alternate facilities must be capable of supporting operations in a threat-free environment if essential functions and supporting staff are relocated to the site. An alternate location must have sufficient space and equipment to sustain operations for a period of up to 30 days and should also have available the telecommunication and information systems, records and databases required to support the implementation of essential functions. In some cases, alternate locations may not consist of physical locations but alternative work arrangements such as telework or mobile work.

Business Impact Analysis (BIA). A method of identifying and evaluating the effects that various threats and hazards may have on the ability of an organization to perform its mission essential functions and the resulting impact of those effects.

Business Process Analysis (BPA). A systematic process that identifies and documents the activities and tasks that are performed within an organization. It captures and maps the functional processes, workflows, activities, subject matter expertise, systems, resources, controls, data, and facilities required in the execution of a function or task.

Continuity Manager. Serves as the COOP point of contact. Responsible for coordinating implementation of the COOP Plan; initiating appropriate notifications inside and outside the Agency/Organization during COOP Plan implementation; being the point of contact for all COOP training, testing, and exercising; assisting ERG efforts at the ERS; and initiating recovery of the Agency/Organization as part of reconstitution.

Continuity of Government (COG) Plan. A reference plan that provides for the continued functioning of constitutional government under all circumstances.

Continuity of Operations (COOP) Plan. An action plan that provides for the immediate continuity of mission essential functions of an organization at an alternative facility for up to 30 days in the event an emergency prevents occupancy of its primary facility.

Continuity Personnel. Those personnel necessary to perform an agency's essential functions.

Delegation of Authority. Delegation of authority ensures appropriate individuals are authorized to act on behalf of the organization head or other officials for specified purposes and to carry out specific duties to ensure an orderly transition of responsibilities. Delegations of authority will generally specify a particular function that an individual is authorized to perform and include any restrictions or limitations associated with that authority.

Devolution. The transfer of statutory authority and responsibility from an organization's primary operating staff and facilities to other staff and alternate locations to sustain essential functions when necessary.

Emergency Action Plan. A plan to facilitate and organize employer and employee actions during workplace emergencies. For example, an EAP may establish procedures for evacuating buildings or sheltering-in-place in the event a situation poses a threat to the health and safety of personnel, the

environment, or property. Such events may include a fire, hurricane, criminal attack, or a medical emergency. An EAP may also be known as an Occupant Emergency Plan.

Essential Functions. A subset of organizational functions that are determined to be critical activities. These functions are then used to identify supporting tasks and resources that must be included in the organization's continuity planning process.

Essential Records. Those records an organization needs to meet operational responsibilities under national security emergencies or other emergency conditions (emergency operating records) or to protect the legal and financial rights of the government and those affected by government activities (legal and financial rights records).

Exercise. An evaluation of agency performance against a set of standards or objectives.

Hazard Identification and Risk Assessment (HIRA). A hazard identification and risk assessment provides the factual basis for activities proposed in the strategy portion of a hazard mitigation plan. An effective risk assessment informs proposed actions by focusing attention and resources on the greatest risks. The four basic components of a risk assessment are: 1) hazard identification, 2) profiling of hazard events, 3) inventory of assets, and 4) estimation of potential human and economic losses based on the exposure and vulnerability of people, buildings, and infrastructure.

Primary Facility. The facility where an organization's leadership and staff operate on a day-to-day basis.

Reconstitution. The process by which surviving and/or replacement organization personnel resume normal operations.

Recovery Time Objective. The targeted duration of time and a service level within which a business process must be restored after a disruption to avoid unacceptable consequences associated with a break in business continuity.

Succession. A formal, sequential assumption of a position's authorities and responsibilities by the holder of another specified position in the event of a vacancy in office or if a position holder dies, resigns, or is otherwise unable to perform the functions and duties of that position.

Telework. A work flexibility arrangement under which an employee performs the duties and responsibilities of his/her position, and other authorized activities, from an approved worksite other than the location from which the employee would otherwise work.

Appendix: Worksheets and Job Aids

This section contains the following worksheets and job aids:

- Organizational Function Worksheet
- Business Process Analysis Worksheet
- Business Impact Analysis Worksheet
- Orders of Succession Worksheet
- Delegations of Authority Worksheet

Organizational Function Worksheet

Function	Requirement to Perform Function	Products or Services of Function	Essential / Non-Essential

Business Process Analysis Worksheet

Business Process Analysis Worksheet
Essential Function Number & Description:
Essential Function Outputs (Step 1):
Essential Function Inputs (Step 2):
Dependencies/Interdependencies (Step 3):
Leadership (Step 4):
Staff (Step 5):
Communications & Information Systems (Step 6):
Alternate Location Requirements (Step 7):
Resources & Budgeting (Step 8)
Process Details (Step 9):

Business Impact Analysis Worksheet

Essential Function	Threat/Hazard	Threat/Hazard Characteristics and Potential Impacts	Mitigation Strategies

Orders of Succession Worksheet

Position	Successor 1	Successor 2	Successor 3

Delegation of Authority Worksheet

Authority	Primary Holder	Successors	Triggers	Limitations