

**State of California Continuity  
of Operations (COOP) and  
Continuity of Government  
(COG)**

**Program**

**Workshop III - Resumption  
Strategies**



# 7 Steps to Creating a COOP/COG Plan



## **Workshop Objectives**

- Identify Resumption Strategies (Step 4)
  - Types of Strategies
  - Requirements
- Strategy Development Planning (Step 5)



## STEP 4: IDENTIFY RESUMPTION STRATEGIES



## From Vulnerabilities to Resumption Strategies

- Resumption strategies arise from a detailed review of resources employed by the essential functions
- The review is driven by an awareness of vulnerabilities
- The goal is not restoration of full functionality; rather, it is minimum necessary resources and processes to provide adequate functionality under emergency conditions
- Being aware of intra- and inter-department dependencies is important



## Types of Resumption Strategies

- Continue with restricted operational capabilities
- Virtual operations – work at home or telecommute
- Build in parallel capacity
  - Headquarters backs up field office
  - Field office backs up headquarters
  - Field office(s) back up each other
  - Part of workload is outsourced: vendor backup
- Like-kind exchange agreement: MOUs
- Re-construct or “mirror” operation(s) elsewhere



## Restricted Operations

- Example: Form processing center with loss of (personnel, communications, or computer equipment)
- Strategy – Carry on, but:
  - Shut down non-essential functions
  - Shift resources to essential functions
  - Alter performance goals for essential functions
  - Add second or third shift
  - Work weekends



## Virtual Operations

- Example: loss of access to administrative office for a week
- Solution:
  - Re-locate servers, operating systems to alternate site
  - Provide access via internet
  - Require staff to work from home
  - Executive team establishes alternative “command post” in alternate location
  - Pare down non-essential work, re-assign staff to essential functions



## Parallel Capacity (1)

- Example: Headquarters and field/regional offices employ same computer systems, applications, databases, similarly trained staff, to administer multiple functions in each field office (loss of field office)
- Solution
  - Transfer workload to headquarters
  - Move field staff to headquarters site
  - Shift physical customer interfaces to a near by field/regional office or to headquarters (if near by)



## Parallel Capacity (2)

- Example: Headquarters loses power for extended period and a large administrative process is shut down
- Solution
  - In advance, outsource some of the process to a third party vendor
  - During crisis, shift critical work to the vendor, vendor ceases non-essential operations (or vendor has capacity to absorb the additional work)



## Like-kind Exchange Agreement

- Example: Highly sophisticated and very expensive laboratory – scientists, equipment, facilities, materials
- Solution: Memorandum of Understanding
  - Identify comparable facility with adequate capacity to assume essential function workload
  - Private sector or equivalent facility in another government



## Re-Construction or “Mirror” Operations

- Example: Large and complex data processing operations, loss of facility
- Solution: Replicate operations at second site:
  - Utilize third party vendor services <or> build redundancy into other internally operated facilities
  - Hot site: near instantaneous recovery of data processing
  - Warm site: rapid recovery (few hours at most)
  - Cold site: 24 hours or more to re-construct systems
  - Staff work at:
    - Alternate site
    - Nearby hotels
    - From home via Internet



## Formulating Strategies: Considerations

- Simple and low cost – to maintain and to execute
- Reflective of risk environment and vulnerabilities
- Consistent with nature of essential functions
  - Labor-intensive versus computing intensive
  - Highly centralized (one site) versus multiple sites
  - If multiple sites: dispersed, or exposed to same environmental risks?
  - Time criticality: RTOs = seconds, hours or days?
  - Proportion of total operations that are essential



## Additional Considerations (1)

- Profile of recovery time objectives (RTOs)
  - Few are under 24 hours, many are under 72 hours
    - Solution: multi-tier response, with limited recovery capability for those under 24 hours, more extensive recovery capability for those under 72 hours but greater than 24.
  - One or two are under 1 hour
    - Solution: build in redundancy for these (hot/warm backup)
- Region-wide versus organization-specific disruption
  - Local, nearby recovery site works for latter, not former
    - Solution: multiple recovery sites, depending on circumstances



## **Additional Considerations (2)**

- Nature of essential function workload to be recovered
  - Work in process is lost versus “simply” backlogged
  - Disruptions can shift workloads (example: drop in surface mail, surge in e-mail or telephone calls)
  - Region-wide disruption may also stimulates increase (or decrease) in services demanded from essential function
- Reduce risk exposure profile of essential function (mitigation)
  - Distribute work processes over multiple locations
  - Institute “best practices” for recording and documenting work in process (protecting vital records)
  - Increase operating resiliency of facilities
    - Backup power systems
    - Improve security
    - Enhance workforce training practices



# STEP 5: PLAN FOR DEVELOPING RESUMPTION STRATEGIES



## Developing Strategies

- Specifying the requirements
  - Product specifications – Describe the services or products to be delivered by essential functions
  - Process specifications – Describe the methods or business activities necessary to execute essential functions
- Alternative approaches
  - Hire a contractor to develop using a Request for proposal (RFP): Specify product or process requirements, ask for proof of capability
  - Replicate operations: Identify minimum necessary resources



## Request for Proposal (RFP) Elements

- Performance descriptions and specifications
  - Who: specify or describe the customer/recipients
  - What: is delivered
  - When: schedule of performance delivery
  - Why: describe nature of the customer/public need
  - Where: distribution patterns
  - How: what processes: policies/business rules/procedures
  - Ability to activate/respond quickly (RTO requirements)
- “Top Down”: “Convince us you can do this”



## Replicating Operations

- Identify minimum necessary resources (return to Worksheet 3)
- Document business processes – policies, procedures, rules
- Find alternatives – sites, systems, communications, equipment, people
- “Bottom up”: Every necessary resource must be identified



## Supplement to Worksheet 1

- Supplement 1 can be used as a tool to analyze the steps or processes that underlie each Essential Function.
- COOP/COG plans may specify “standing down” some steps or procedures.
- By dissecting underlying business processes, the agency can streamline the delivery of its Essential Functions under emergency conditions
- Plan to recover only those operations that are time critical.



Supplement to Worksheet 1: Essential Functions Process Details

Department/Division: \_\_\_\_\_

• Function/Activity: \_\_\_\_\_

• Recipients (Who is Served?): \_\_\_\_\_

• Operations Schedule/Volume: \_\_\_\_\_

Stage	Brief Name	Process Description Notes	Key Policy, Procedure or Performance Issues	COOP/COG Process Variation Notes



## A Word about the Worksheets

- Worksheets 7 through 13 (next few slides) are optional:
  - Not every essential function will require the use of each of the worksheets, use only those that apply
  - Use them if they can be helpful for a bottom-up approach
  - Let Worksheet 5 – Vulnerabilities Assessment – guide the process (skip worksheets that address non-critical resources)



## Worksheet 7: Minimum Facility Requirements

- The goal of Worksheet 7 is to identify the types of facilities or physical locations that are needed in order to carry on an Essential Function.
- Factors that should be taken into consideration in selecting an alternate site include adequate space for personnel and equipment, and adequate methods of communication.
- Agencies should also consider security and access needs when determining alternate site requirements.



Worksheet 7: Minimum Facility Requirements

**If the Essential Function in Worksheet 3 requires facilities or space, this Worksheet must be completed.**

**Step 1:** For each Essential Function listed in Worksheet 1, identify the minimum number of personnel, equipment and communications services needed in order to carry out the Essential Function.

**Step 2:** Describe the minimum amount of space needed to carry out the Essential Function, as well as any security and access requirements required for the facility.

Essential Function	Number of Personnel	Equipment	Communications	Space Required	Security	Access



## Worksheet 8: Alternate Worksite Facilities

- Identification of alternate worksite facilities
  - What alternative facilities might be available?
  - Is the alternative site capable of supporting the function now?
  - If not, what deficiencies should be noted?
- Alternate facility issues
  - Are there alternate facilities currently in place for the agency?
  - Can these facilities address local disruptions (single facility disruptions)?
  - Can these facilities address regional or wide-spread disruptions where the subject facility and all near-by logical alternative facilities are all closed?



Worksheet 8: Alternate Worksite Facilities

**This Worksheet should be used to track alternate worksites and facilities.**

**Step 1:** Identify alternate worksites or facilities that could be used by the agency in the event of an emergency.

**Step 2:** Identify any legal agreements currently in place for that facility, and the date of the agreement.

**Step 3:** Provide pertinent information that is specific to the use of that facility.

Facility	Lease or other Agreement	Date Executed/Contact	Special Notes



## Alternate Facility Selection Criteria

The following criteria should be reviewed for each potential alternate facility:

- Accessibility: Major highways or thoroughfares
- Information Technology Capability: Data circuits, ability to increase capacity
- Infrastructure: Electrical power, water, sewer, HVAC
- Hazard Vulnerability: Flood plain, chemical facilities, dams, security threats
- Parking: Employees, communications vans, media trucks



## **Alternate Facility Selection Criteria (Cont.)**

- Restrooms and Handicap Access
- Feeding and/or sleeping facilities
- Security: Perimeters, access control, adjacent facilities
- Space: Square footage, configuration, meeting rooms
- Telecommunications Capability: Cellular telephones, Nextel, radios, satellite sight view.
- Other: Helipad, employees health and safety, after hours lighting, sufficient overhead lighting



## Worksheet 9: Interoperable Communications Systems

- Interoperable communications between departments in a single jurisdiction, or between jurisdictions, are critical to COOP/COG planning.
- Worksheet 9 should be used by the agency to list the communications systems that support Essential Functions for the agency.
- Worksheet 9 should be reviewed for each Essential Function identified by the agency to ensure that the function is adequately supported by varying modes of communication.
- Adequate communications systems include systems at the primary site as well as at alternate sites, and systems for first responders.



Sample Worksheet 9: Communications Systems  
Supporting Essential Functions

<b>Communications System</b>	<b>Current Provider</b>	<b>Services Provided</b>	<b>Emergency Services</b>	<b>Alternate Providers or Modes</b>
Voice Lines	<i>GCI</i>	<i>Local and long distance, Conference call; voice mail</i>	<i>Automatic call forwarding to SECC in the event of an emergency.</i>	<i>1. Cell phones</i>
Fax Lines	<i>GCI</i>	<i>Local and long distance fax services</i>		
Data Lines	<i>GCI</i>			
Cellular Phones	<i>Cellular One</i>			
Pagers	<i>Cellular One</i>	<i>Domestic Pagers services</i>		



## Worksheet 10: Key Personnel for Essential Functions

- Worksheet 3 identified the number of personnel needed to ensure the successful delivery of each Essential Function.
- In determining if a position is a “key position” for the agency consider the following:
  - Which positions do agency personnel and management consider to be critical to their division?
  - Which positions have been most critical during past emergencies?
  - What skills or requirements made these positions critical?
  - Were there any unfavorable consequences resulting from vacancies in this position in the past?
  - Has the agency faced unforeseen problems in the past resulting from a particular vacancy?



Worksheet 10: Key Personnel

**This Worksheet is used to identify backup personnel for key personnel for Essential Functions.**

**Step 1:** List each Essential Function or Critical Task/Activity, as identified on Worksheet 1.

**Step 2:** List the title of the positions that are critical to carrying out the Essential Function.

**Step 3:** For each position, list the backup personnel who would be responsible for ensuring that the Essential Function is carried out in the event that the current individual is unable to perform the responsibilities of that position.

Essential Function Or Critical Task/Activity	Key Position	Best Alternates



# Worksheet 11: Vital Records and Restoration and Resumption Resources

- Worksheet 3 identified records, documents and other reference materials that are deemed to be critical to the performance of one or more Essential Function (the “Vital Records”).
- The goal of Worksheet 11 is to:
  - Determine how Vital Records information can be accessed in an emergency from one or more alternate location.
  - Assess current protection methods for Vital Records and determine whether there are adequate protection methods in place.
  - Identify restoration and resumption resources that can be used to restore information lost or destroyed in an disaster.



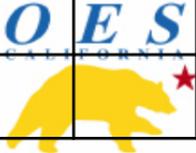
Worksheet 11: Vital Records and Restoration and Recovery Resources

**If the Essential Function in Worksheet 3 relies on the use of Vital Records, this Worksheet must be completed.**

- Step 1:** List the vital records needed to support the operation of the Essential Function for at least thirty (30) days. *Do not include records that may be useful but are not essential to performing the service.*
- Step 2:** List the activity or task that relies on this record.
- Step 3:** Describe the form (paper, electronic, microfilm), current location, and maintenance frequency of the record.
- Step 4:** Identify current and additional protection methods for the record.
- Step 5:** Identify restoration or recovery resources (internal or external) including contact information, and services that they can provide in the event of an emergency.

**Essential Function** \_\_\_\_\_

Vital Record	Associated Activity	Form of Record	Current Location	Current Policies and Procedures for Maintenance and/or Back Up	Current Protection Methods	Recommendations for Additional Protection Methods	Restoration Agency or Vendor	Services Provided



## **Alternate Resource Assessment**

- For each Essential Function, has the agency identified
  - The minimum amount of critical resources?
  - Alternate or back-up resources and locations?
  - Resource recovery options (internal or external?)
  - Workaround processes used in the absence of a critical resource?



## Resumption Strategy Approach

- RFP/"Top Down" approach: issue RFP, award contract(s)
- Replication/"Bottom Up" approach: identify resource inadequacies, develop budget requests
- Elements or components of resumption strategies:
  - Some require explicit budgeting with additional supporting evidence ("business impact assessments")
  - Some may not be funded for years: current capabilities to respond to disruptions will not satisfy desired responses
  - Some may be "OK for now"



## Resumption Strategy Development

- The person who actually performs the essential function to be resumed is the best source of information.
- A resumption can be as simple as a list of steps follow when a problem is encountered or a specific policy and procedure approved by the department.
- A call down list of personnel with the necessary experience and training should be included.
- The type of strategy will be dependant upon the responsibilities of the agency.
- Some will be simple and others will need to be more complicated due to the function being resumed.
- Strategies should be discussed and shared with all personnel who have responsibility for the function.



## Resumption Strategy Design

- A COOP/COG plan resumption strategy's operational components, are reflected in the Concept of Operations
- The Concept of Operations should reflect:
  - How the agency will organize itself to deliver essential functions
    - Central location only, or multiple field offices?
    - Prioritized resumption of selected essential functions followed by others?
  - How much of the essential functions must be recovered quickly
    - To serve all customers, or those with the most need?
  - The likely nature of disruptions
    - Localized or wide-area effects?
    - Critical systems? People? Facilities?
- Recovery strategies may reflect creativity
  - Alternative responses for different types of disruptions



## Workshop IV: Next Steps (6 and 7)



## Expectations Prior to Workshop IV

- Resumption strategy needs should be recognized
- Resumption strategy development should be well along the way toward consensus
- Resumption strategy capabilities will be in various stages:
  - In draft form
  - Under discussion due to associated costs
  - Ready for exercise and validation



## Goals of Workshop IV

- Map out continuity plan command and control needs
  - Orders of succession
  - Delegation of authority
  - Devolution
- Identify linkages to other plans
  - Emergency Operations Plan
  - Business Continuity Plan
  - Safety and Security Plan



## **Goals of Workshop IV** (Continued)

- Address where in the agency the responsibility for the COOP/COG plan lies on a day to day and emergency basis
- Review the purpose and components of a Concept of Operations



# Questions ??

