
SOUTHSIDE VIRGINIA COMMUNITY COLLEGE INFORMATION TECHNOLOGY SECURITY PLAN

IT Contingency Planning: *IT Disaster Recovery Planning*

DRP and COOP Plan Testing

The IT Disaster Recovery test plan includes the steps to test the IT Disaster Recovery Plan and COOP recovery procedures to minimize the disruptions of critical functions and the capability to recover critical IT systems in accordance with [COV ITRM 501-01](#). The outcome may contribute to various plans that properly organize the response, recovery, and continuity activities for disruptions affecting the relationship between IT systems and business processes supported by the IT systems.

Once the Business Impact Analysis and Risk Assessment processes are complete, the business processes and supporting IT systems have been identified along with system vulnerabilities, threats, and current controls. The order of restoration has also been identified in these processes. The IT Disaster Recovery Test Plan involves procedures using information from the test results to ensure the contingency plan is able to address the risks completely and effectively.

The recovery test plan was developed in conjunction with Southside Virginia Community College Contingency IT Disaster Recovery and COOP Plans to test the rapid and organized recovery to the full or partial destruction of the College's information technology capabilities. The purpose of testing is to demonstrate to both management and recovery teams the ability of one or more vital business processes to continue functioning inside the identified timeframe post a business interruption event. An exercise is not a pass/fail work effort but an opportunity to identify vulnerabilities and gaps in your recovery plan.

Resources that could potentially be destroyed or impaired include the following: information, equipment, physical space housing the equipment, software, and personnel. The importance of planning for the eventuality of such losses is vital to limiting the amount of damage, decreasing the length of outages, and lowering the cost of recovery.

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Assumptions

This plan was developed based on the following assumptions:

- One of the backup sites will survive the contingency.
- Backup media and documentation will be secure at the surviving site.
- Personnel can be made available to implement the Recovery Plan.
- In the event of total or partial loss of the College's computer services personnel, assistance will be available from VCCS ITS Enterprise Services personnel to implement the Recovery Plan. In case of widespread regional disruptions access to emergency resources and personnel may be severely limited.

Recovery Test Plans

Network Infrastructure:

Cisco equipment covered under SmartNet:

The SVCC network infrastructure equipment is covered by the Cisco SmartNet 8 x 5 x NBD. This contract covers any hardware problem and parts with the following equipment (see Attachment C 2.1).

In an event of a hardware failure of any of the above mentioned equipment equipment, the following procedure is initiated:

If the Internet is accessible go to

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml> and follow the directions or call 1-800-553-2447 if the Internet is unavailable.

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Opening a Case

The online TAC Case Open Tool (www.cisco.com/tac/caseopen) is the fastest way to open **P3 and P4** (priority 3 and 4) cases. After you describe your situation, the TAC Case Open Tool recommends resources for an immediate solution. If your issue is not resolved via these automatic solutions, your case will be assigned to a Cisco TAC engineer.

For **P1 or P2** (priority 1 and 2) cases (when the production network is down or severely degraded) or if you do not have Internet access, contact the Cisco TAC via telephone.

Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case via telephone, use one of the following numbers:

- Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
- EMEA: +32 2 704 55 55
- USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, please visit:

http://www.cisco.com/en/US/support/tsd_contact_technical_support.html

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

- **Priority 1 (P1)**—The network is "down" or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.
- **Priority 2 (P2)**—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

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- **Priority 3 (P3)**—Operational performance of your network is impaired while most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- **Priority 4 (P4)**—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

The SVCC CCO contract information is maintained by the IT Network Administrators.

- Contact the Cisco Sales Representative at Dimension Data, Cynthia Reason (919) 791-1088; cynthia.reason@us.didata.com and place order for replacement Cisco equipment. Cisco will usually overnight equipment damaged in a catastrophic event.
- DiData will supply network technicians (at additional cost) who will assist in the installation and configuration of Cisco network infrastructure equipment.
- The SVCC IT Network Administrators maintain a backup network configuration of every Cisco device on the SVCC network.

Test Plan: Test is not necessary due to coverage of maintenance contracts; however IT staff should maintain, review and update all applicable documentation.

Cisco Equipment not covered under SmartNet:

Some Cisco switches, Cisco IP phones, and Cisco Wireless Access Points are not covered under the Cisco SmartNet agreement. The SVCC IT Network staff maintains spare units of each type of equipment to replace units that have failed.

Test Plan: Shut down a Cisco 3500 workgroup switch in a wiring closet and replace it with a spare 3500 switch.

Replacement of Cisco Equipment that is damaged or destroyed by fire, flood, hurricane, earthquake, or due to theft:

The Cisco SmartNet maintenance agreement does not cover equipment stolen or

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destroyed due to fire, flood, hurricane, earthquake, or by any other external force. In order to recover from such a catastrophic event, SVCC IT Network staff would perform the following steps:

- Assess the damage and take inventory of what needs to be replaced.
- Determine if the building and computer room or closet is still usable.
- Clear out the destroyed equipment and prepare location for replacement equipment.
- Call the COV Department of Treasury and contact the Risk Management officer to submit insurance claim. Ph (804) 786-3152 (select option 1).
- Contact the Cisco Sales Representative at Dimension Data, Cynthia Reason (919) 791-1088; cynthia.reason@us.didata.com and place order for replacement Cisco equipment. Cisco will usually overnight equipment damaged in a catastrophic event.
- DiData will supply network technicians (at additional cost) who will assist in the installation and configuration of Cisco network infrastructure equipment.
- The SVCC IT Network Administrators maintain a backup network configuration of every Cisco device on the SVCC network.

Test Plan: Test is not necessary; procedure as given above.

System Servers:

Servers covered under Maintenance Service Agreements:

(SVCC devices with four year onsite parts and labor maintenance service contract listed with the manufacturer): When the maintenance service contract expires, the servers will be replaced with a new server and a new four year maintenance service contract. (as practicable and as budgeted for)

When an SVCC server fails due to a hardware problem, the SVCC IT network staff will call the vendor server support hotline and provide the server's serial number to the technical support technician. The replacement part will be delivered the next business day. The product service technician will be onsite the next business day to install the replacement part. In most cases, an SVCC IT network staff member will volunteer to install the replacement part.

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Test Plan: Test is not necessary due to coverage of maintenance contracts; however IT staff should maintain, review and update all applicable documentation.

Replacement of Servers not covered by a maintenance agreement, that are damaged or destroyed by fire, flood, hurricane, earthquake, or due to theft:

The various server maintenance agreements and do not cover equipment stolen or destroyed due to fire, flood, hurricane, earthquake, or by any other external force. In order to recover from such a catastrophic event, the SVCC IT staff would perform the following steps:

- Assess the damage and take inventory of what needs to be replaced.
- Determine if the building and computer room or closet is still usable.
- Clear out the destroyed equipment and prepare location for replacement equipment.
- Call the COV Department of Treasury and contact the Risk Management officer to submit insurance claim. Ph (804) 786-3152 (select option 1).
- Contact server vendor to place an order to replace affected servers.
- The SVCC IT Network Administrator will install the server networking operating system and restore the server configuration, applications, and data files from the server backup tapes stored in a fireproof safe on and off campus.

Test Plan: Shut down a server and configure a spare one to take it's place.

User Desktops:

SVCC main campus and off campus Dell workstations covered under the Dell Maintenance Service Agreement:

Any Dell workstation computer that has a system hardware failure that is covered under the 4 year Dell Maintenance Service Agreement, will receive a replacement part by the

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next business day. When an SVCC desktop computer, covered under the 4 year Dell Maintenance Service Agreement fails due to a hardware problem, the SVCC IT Network staff desktop staff will call the Dell Desktop hotline at (800) 234-1490, provide the Dell desktop computer service tax number and express service code to the Dell Technical Support technician. The replacement part will be delivered the next business day. The Dell service technician will be onsite the next business day to install the replacement part. In most cases, the SVCC IT Network Services Department desktop staff member will volunteer to install the replacement part.

Test Plan: Test is not necessary due to coverage of Dell 4 year maintenance contract.

SVCC main campus and off campus Dell workstations not covered under the Dell Maintenance Service Agreement:

Any Dell workstation computer that has a system hardware failure and is not covered under the 4 year Dell Maintenance Service Agreement, will be analyzed by the SVCC IT Network staff to determine the extent of the computer problem. Once diagnosed, the hardware replacement part will be ordered through the Dell Corporation Parts website at www.dell.com. Replacement of the failed components can take up to one week. Typically, SVCC will replace desktop computers within three to four years in compliance with the useful life definitions of personal computer hardware and software recommended by the VCCS Technology Council and approved by the Advisory Council of Presidents.

Test Plan: Shut down a Dell classroom (or other) workstation and configure a spare workstation to take its place.

Replacement of Dell workstations that are damaged or destroyed by fire, flood, hurricane, earthquake, or due to theft:

The Dell desktop maintenance service agreement does not cover equipment stolen or destroyed due to fire, flood, hurricane, earthquake, or by any other external force. In order to recover from such a catastrophic event, the SVCC IT Network Services Department would perform the following steps:

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- Assess the damage and take inventory of what needs to be replaced.
- Determine if the building and computer room or closet is still usable.
- Clear out the destroyed equipment and prepare location for replacement equipment.
- Call the COV Department of Treasury and contact the Risk Management officer to submit insurance claim. Ph (804) 786-3152 (select option 1).
- Contact Dell Corporation and place an order for the replaced Dell workstations. Workstations will usually be delivered within one business week.
- The SVCC IT Network Services Department desktop staff will install the desktop computers and restore the desktop configuration, applications, and data files from the server backup tapes stored on and off campus.
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Test Plan: Test is not necessary; procedure as given above.

Tabletop testing of the DRP and COOP plans initiation:

Plan testing is a critical element of the IT disaster recovery plan. Testing should be done at least once a year and more often as necessary. SVCC will test the plan annually before June 15. The various Disaster Recovery Teams will perform the testing and the results will be reviewed by the SVCC Security Committee. Testing assists in identifying and addressing deficiencies. Testing also helps evaluate the ability of recovery teams to implement the plan quickly and efficiently. The following components will also be addressed during the SVCC IT Disaster Recovery Plan initiation test:

- Testing coordination and communication among recovery teams.
- Testing notification procedures.
- Validating and updating various recovery teams' information.
- Make recommendations for improvements as necessary.

The purpose of testing is to demonstrate to both management and recovery teams the ability of one or more vital business processes to continue functioning inside the identified timeframe post a business interruption event. An exercise is not a pass/fail work effort but an opportunity to identify vulnerabilities and gaps in your recovery plan.

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Test Plan: Tabletop Test of the initiation of the DRP and COOP plans as given above; results to be maintained on proper forms as indicated in the individual plans.