Stadium Redundancy Test Plan

	Start Date	End Date
Network Build (Setup)		
Testing Date		

Table of Contents

Attendees

Name	Company	Position
	NetworkingCompany	Account Manager
	NetworkingCompany	Network Designer
	NetworkingCompany	System Engineer

Introduction

An introduction to the testing explaining briefly what the purpose of the test is, and what should be observed. Include a brief description of testing goals. List all tests you intend to run.

Purpose of this test:

Tests to run:

- Test 1: Frame Relay Connectivity Test
    - Verify physical and IP connectivity between Edge2 and BR3 on the prototype network.
    - Document operation.
- Test 2: Floating Static Route Configuration Test
    - Demonstrate backup route interface configuration.
    - Verify connectivity through backup route.
    - Demonstrate backup static route configuration.
    - Verify routing priority
- Test 3: Link Failure Test
    - Demonstrate routing of traffic between separate Edge2 and BR3 with Frame network active.
    - Demonstrate routing of traffic after Frame network is inactive.
    - Demonstrate routing of traffic after Frame network is reactivated.
    - Document operation.

Equipment

List all of the equipment needed to perform the tests. Be sure to include cables, optional connectors or components, and software.

Qty. Req	Model	Any additional options or software required	Substitute	IOS Software Rev.
1	Personal Computer end-devices	FastEthernet NIC	At least one PC and any other IP end-device (camera, printer, etc.)	Windows, MAC or Linux operating system.

Design and Topology Diagram

Place a copy of the prototype network topology in this section. This is the network as it should be built to be able to perform the required tests, including IP Addressing and DLCI information. If this topology duplicates a section of the actual network, include a reference topology showing the location within the existing or planned network. Initial configurations for each device must be included in the Appendix.

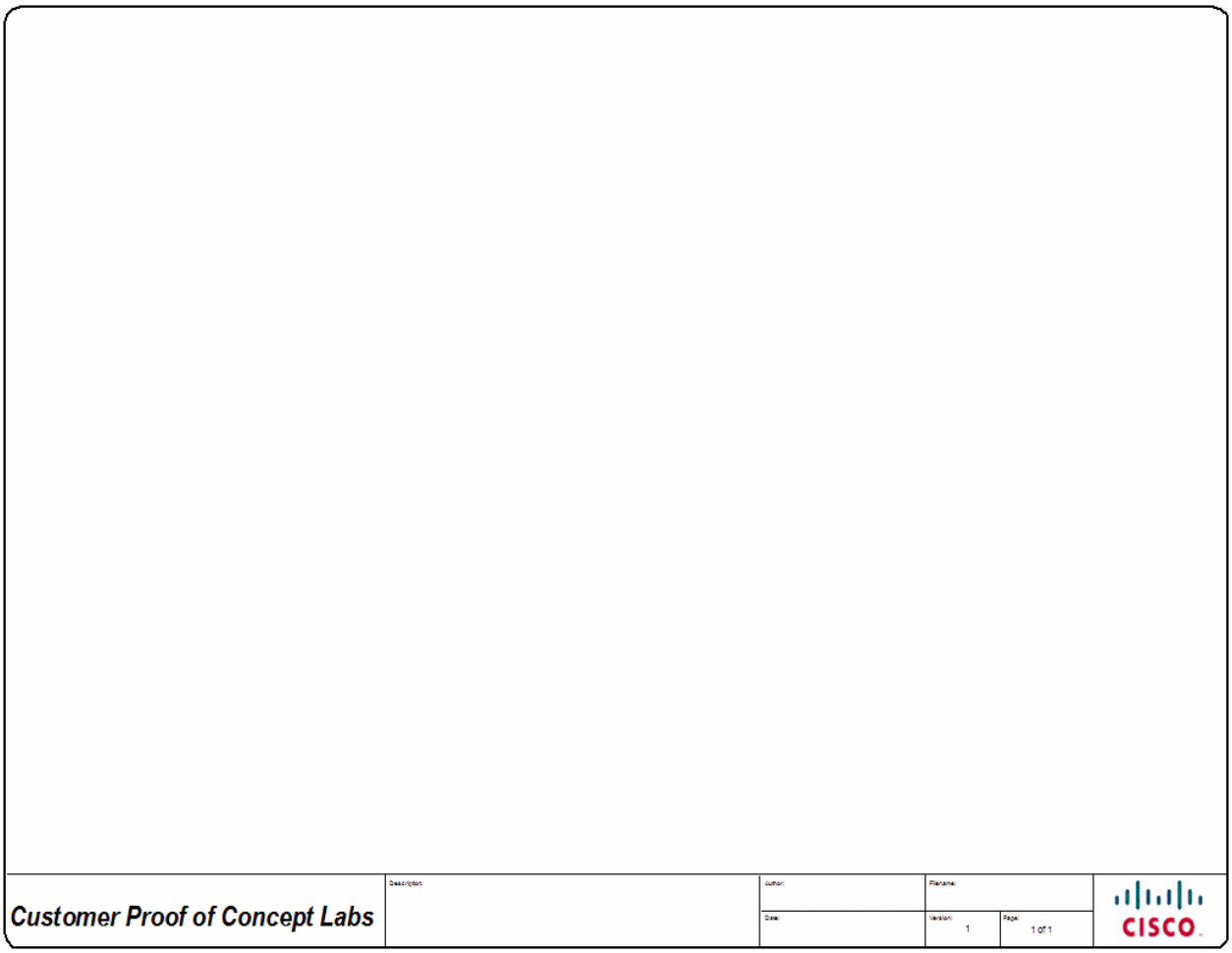

Figure 1: Topology - Prototype test topology.

IP Address Plan:

Device Name	Interface	IP Address	Subnet Mask	DLCI
Edge2	Serial 0/1/1	172.18.0.9	255.255.255.252	110
Edge2	Fa 0/1	172.18.0.249	255.255.255.252	
BR3	Serial 0/1/0	172.18.0.10	255.255.255.252	100
BR3	Fa 0/0	172.18.225.249	255.255.255.252	
BR3	Fa0/1	172.18.225.1	255.255.255.128	
ISPX	Fa0/0	172.18.225.250	255.255.255.252	
ISPX	Fa0/1	172.18.0.250	255.255.255.252	

Additional Notes and Instructions:

Add a description about this design here that is essential to provide a better understanding of the testing or to emphasize any aspect of the test network to the reader.

For each test to be performed state the goals of the test, the data to record during the test, and the estimated time to perform the test. Test 1 is given as an example.

Test 1. Description: Frame Relay Connectivity Test

Goals of Test:

The goal of the baseline is to verify that the Frame Relay network is up and running with the proper protocols and features.

Data to Record:
Configurations
Interface status
Routing Tables
CPU & Memory
Ping Test Output

Estimated Time:

45 minutes total

30 minutes build

15 minutes test

Test 1. Procedures:

Itemize the procedures to follow to perform the test.

1. Build the topology according to the diagram shown in Figure 1 without Ethernet backup link. Assign IP addresses according to the IP address plan. To configure the serial connections through the Frame Relay network, you will need to change the encapsulation type to frame relay. Then use the **`frame-relay map ip`** command to identify what circuit needs to be used to reach the distant IP address. Lastly, turn on the interface. For example, on the Edge2 router, you need to enter:

   Edge2(config)#interface Serial 0/1/1

   Edge2(config)#encapsulation frame-relay

   Edge2(config-if)#frame-relay map ip 172.18.0.10 100 broadcast

   Edge2(config-if)#no shutdown

   Notice that you are using the BR3 Serial 0/1/0 address and connecting it to the local 100 DLCI. The 'broadcast' will allow EIGRP multicast updates to use the link as well. The BR3 router Serial 0/1/0 will need to be configured in a like manner.

2. Create a basic configuration on each device. Include applicable passwords, device names, default routes, default gateways, and activate interfaces.

3. Console into one of the devices in the topology and ping all of the other devices in the topology. Record any anomalies.

4. Telnet to each device in the configuration and verify that each is reachable.

5. Start a log file and get the "**`show running-config`**", "**`show ip route`**", "**`show processes cpu sorted`**", "**`show interfaces`**" and the first few lines of "**`show memory`**" . Save the log file for later analysis. Repeat for all devices in the topology.

Test 1. Expected Results and Success Criteria:

List all of the expected results. Specific criteria that must be met for the test to be considered a success should be listed.

1. All networking devices, except ISPX, are connected and accessible through Telnet.
2. Hosts can ping successfully to other hosts, except ISPX on the network.

Test 1. Results and Conclusions

Record the results of the tests and the conclusions that can be drawn from the results.

Test 2. Description: Floating Static Routes Configuration Test

Goals of Test:

Data to Record: Routing tables CPU & Memory Ping Test Output

Estimated Time: 30 minutes total 15 minutes configure 15 minutes test

Test 2. Procedures:

Itemize the procedures to follow to perform the test.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Test 2. Expected Results and Success Criteria:

List all of the expected results. Specific criteria that must be met for the test to be considered a success should be listed.

1. _____
2. _____
3. _____

Test 2. Results and Conclusions

Record the results of the tests and the conclusions that can be drawn from the results.

Test 3. Description: Link Failure Test

Goals of Test:

Data to Record:
Router Configuration
IP Routing Table Information
CPU & Memory
Ping Test Output

Estimated Time:

20 minutes total

10 minutes configure

10 minutes test

Test 3. Procedures:

Itemize the procedures to follow to perform the test.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Test 3. Expected Results and Success Criteria:

List all of the expected results. Specific criteria that must be met for the test to be considered a success should be listed.

1. _____
2. _____
3. _____

Test 3. Results and Conclusions

Record the results of the tests and the conclusions that can be drawn from the results.

Appendix

Record the starting configurations, any modifications, log file or command output, and any other relevant documentation.