

**FCIP Plugfest Interoperability Testing  
July 16-20, 2001  
University of New Hampshire**

**June 29, 2001**

# 1. Objectives:

## 1.1. Overall Goals of interoperability testing

The objective of these tests is to demonstrate interoperability with (at a minimum) the Fibre Channel equipment and Gigabit Ethernet switches/routers called for in section 2 of this document. To demonstrate this interoperability, we will use the UNH facility equipment as well as equipment brought in by the vendors and sponsors.

## 1.2. Equipment Matrix

<b><u>FC Switches</u></b>
Brocade
McData
QLogic
Gadzoox
Vixel
<b><u>Gig E Switches</u></b>
Cisco
Extreme
Foundry
Alteon
Riverstone
<b><u>Routers</u></b>
Cisco
Juniper
<b><u>DWDM Switches</u></b>
<b><u>Other Equipment</u></b>
<b>HBA's</b>
Qlogic
Emulex
JNI
Agilent
<b>Servers</b>
Intel Based
SPARC Based
<b>Storage</b>
RAID/JBOD

## 2. Proposed Configurations

Each of the following configurations shall be tested with the available equipment from the matrix in section 1 and any variations specified in the tests.

### Configuration 2.1.1

Basic connectivity at Ethernet Layer 3/4

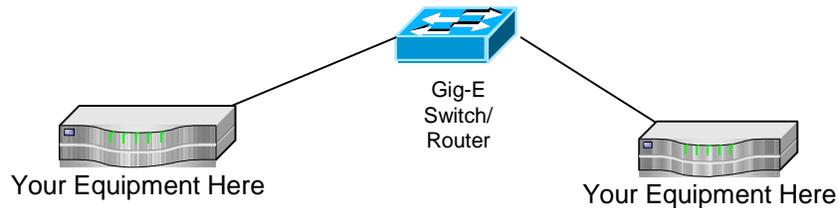
Setup the ports and configure the MAC, IP and Port properly

Configure the ports on the Ethernet switch so they are in different subnets

Build routes or setup dynamic protocols so one port knows how to get to the other

Check Connectivity / Link Lights on the Gig-E interfaces

Verify they detect each other.



### Configuration 2.1.2

Basic connectivity at Layer 3 with FC Initiator and Target routing Traffic through a L3 switch

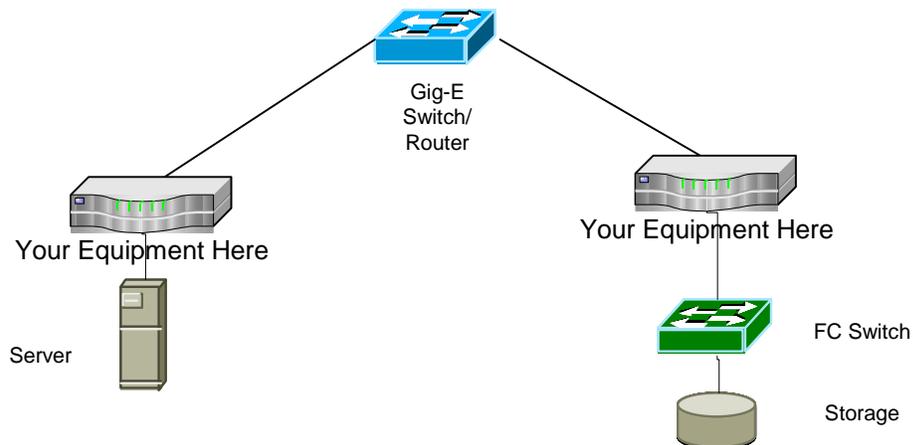
Setup the WAN ports and configure the MAC, IP and Port properly

Configure the ports on the Ethernet switch so they are in different subnets

Build routes or setup dynamic protocols so one port knows how to get to the other

Check Connectivity / Link Lights on all Gig-E and FC interfaces

Verify they detect each other. Pass Traffic from Initiator to Target



**Configuration 2.1.3**

Connectivity at Layer 3 with FC Initiator and Target routing Traffic through many L3 switches

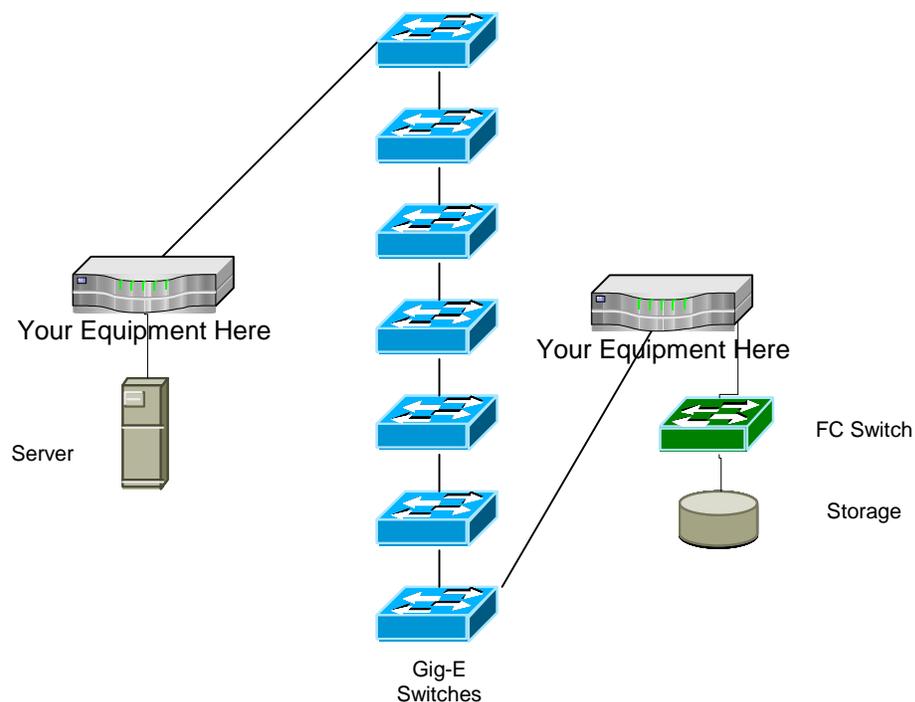
Setup the WAN ports and configure the MAC, IP and Port properly

Configure the ports on the Ethernet switches so they are in different subnets

Build routes or setup dynamic protocols so one port knows how to get to the other

Check Connectivity / Link Lights on all Gig-E and FC interfaces

Verify they detect each other. Pass Traffic from Initiator to Target

**Configuration 2.1.4**

Connectivity at Layer 3 with FC E-Port Traffic and a routing L3 Ethernet switch

Verify that each FC switch has a Unique Domain Number

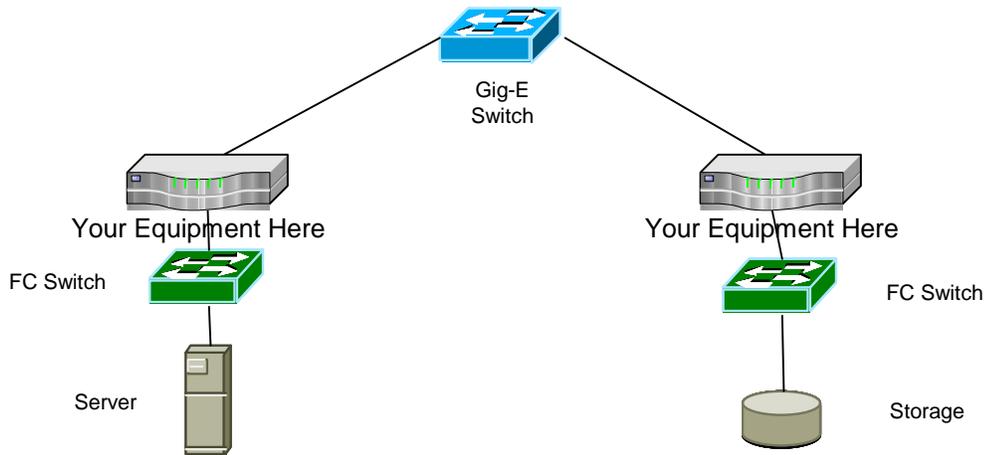
Setup the WAN ports and configure the MAC, IP and Port properly

Configure the ports on the Ethernet switch so they are in different subnets

Build routes or setup dynamic protocols so one port knows how to get to the other

Check Connectivity / Link Lights on all Gig-E and FC interfaces

Verify they detect each other. Pass Traffic from Initiator to Target



### 3. Configuration Set 3

#### Configuration 2.3.1

Connecting through 100km of Fibre with the assistance of WDM equipment

A WDM device will supply the optics used to push the signal down the 100km spool

Setup the ports and configure the IP or MAC Addresses properly

Verify they detect each other. Pass Traffic from Initiator to Target

