Ethernet Failover

VALIANT COMMUNICATIONS

VALCOMM

1+1 Automatic Ethernet Protection
Ethernet Failover
AB Fallback Switch

Overview:

VCL-SafeComm-E is a family of Ethernet Failover Protection Switches that provide 1+1 Automatic Ethernet Failover / AB Fallback Protection between an "active" and "standby" equipment; or between "main" and "standby" networks which are connected to the network through an Ethernet interface.

VCL-SafeComm-E is available in 3 versions:

1. VCL-SafeComm-E-D –10/100BaseT Fast Ethernet Failover (Compact DIN-Rail) unit which supports a maximum of 100MBits/sec. data throughput on its primary and standby interfaces. The unit is powered from a 12VDC power source with the option of an external AC-DC adapter.

2. VCL-SafeComm-E-FE – 10/100BaseT Fast Ethernet Failover (19 Inch Rack Mount) unit which supports a maximum of 100MBits/sec. data throughput on its primary and standby interfaces. The VCL-SafeComm-E-FE – 10/100BaseT Fast Ethernet Failover (19 Inch Rack Mount) unit features 1+1 redundant power supplies.

3. VCL-SafeComm-E-GE - 100/1000BaseT Gigabit Ethernet Failover (19 Inch Rack Mount) unit which supports a maximum of 1000MBits/sec. data throughput on its primary and standby interfaces. The VCL-SafeComm-E-GE – 100/1000BaseT Fast Ethernet Failover (19 Inch Rack Mount) unit features 1+1 redundant power supplies.

Salient Features:

1. Fail-Safe. The equipment never becomes a point of failure. It automatically reverts to and reconnects the "primary network" / even in a power down condition.

2. The Ethernet Failover equipment monitors end-to-end link connectivity.

3. Number of interfaces available in Fast Ethernet version: Three
   a. 1 x 10/100 Ethernet Interface: Network A (Primary)
   b. 1 x 10/100 Ethernet Interface: Network B (Standby)
   c. 1 x 10/100 Ethernet Interface User (Protected)

4. Number of interfaces available in Gigabit Ethernet version: Three
   a. 1 x 100/1000 Gigabit Ethernet Interface: Network A (Primary)
   b. 1 x 100/1000 Gigabit Ethernet Interface: Network B (Standby)
   c. 1 x 100/1000 Gigabit Ethernet Interface User (Protected)

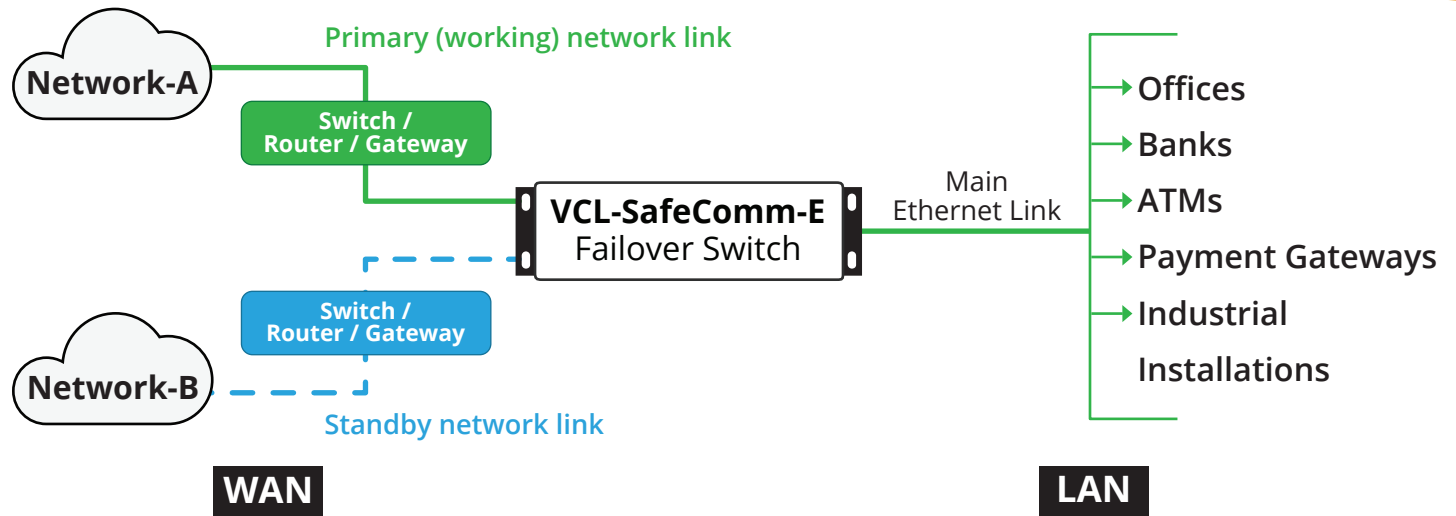5. 1+1 AC or DC power supply available in 19 Inch Rack Mount version.

Use Case # 1:

The VCL-SafeComm-E, Ethernet Failover equipment provides 1+1 Automatic Ethernet Failover Switching / Fallback Protection between two, Main and Standby Switches, Servers, RTUs or any other similar terminals to provide equipment redundancy in applications which require 99.99% terminal equipment up-time. The Ethernet 1+1 fail-over protection automatically switches to the "standby" terminal equipment in the event of failure of the "primary" terminal equipment to ensure that the 99.99% terminal equipment up-time requirements are always being met.
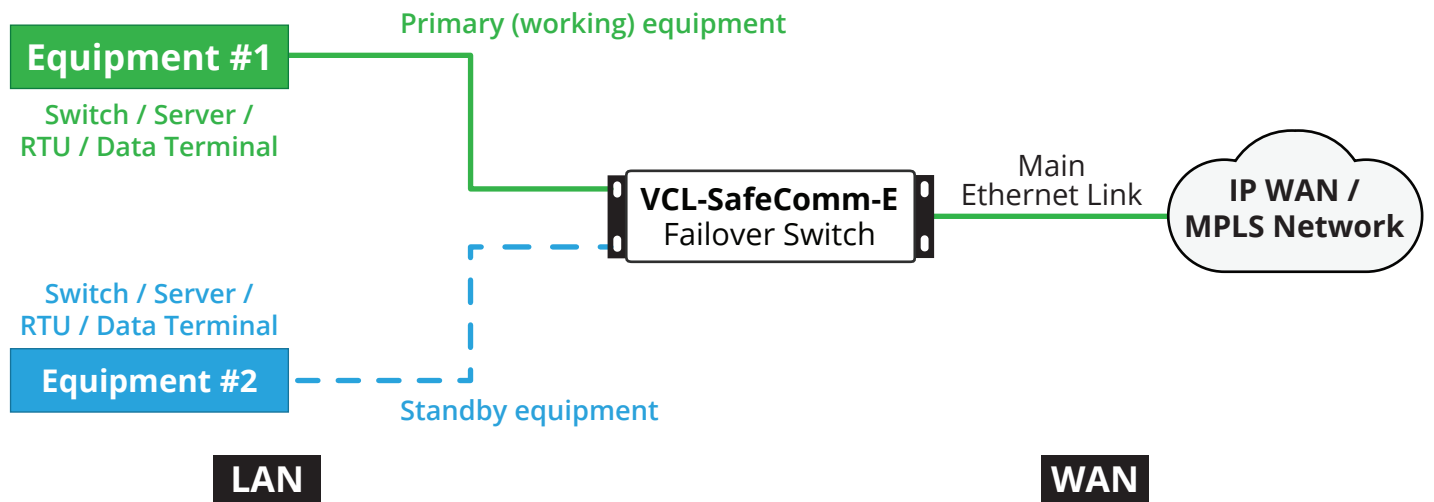
Use Case # 2:

The VCL-SafeComm-E, Ethernet Failover equipment provides 1+1 Automatic Ethernet Failover / AB Fallback Switch provides protection between an "active" and "standby" IP / Ethernet / MPLS Networks (including "active" and "standby" Gateways and Routers) to provide 1+1 automatic ethernet fail-over protection between two distinctly separate networks through an ethernet interface.
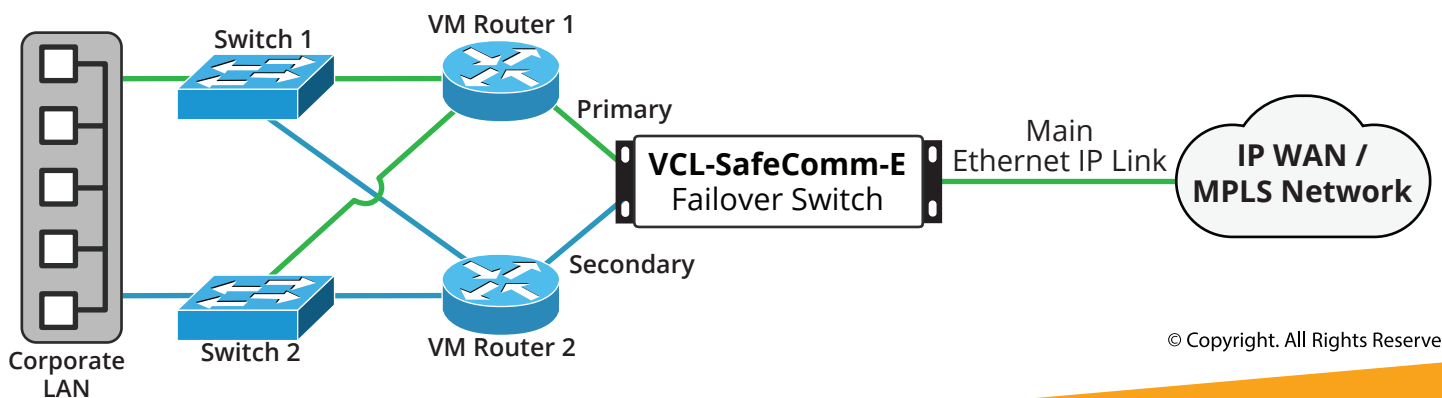
Application 1

Primary (working) network link

Network-A

Switch / Router / Gateway

VCL-SafeComm-E Failover Switch

Switch / Router / Gateway

Network-B

Standby network link

Main Ethernet Link

→ Offices
→ Banks
→ ATMs
→ Payment Gateways
→ Industrial
Installations

WAN

LAN

Application 2

Primary (working) equipment

Equipment #1

Switch / Server / RTU / Data Terminal

VCL-SafeComm-E Failover Switch

Main Ethernet Link

IP WAN / MPLS Network

Switch / Server / RTU / Data Terminal

Equipment #2

Standby equipment

LAN

WAN

Application 3

Switch 1

VM Router 1

Primary

VCL-SafeComm-E Failover Switch

Main Ethernet IP Link

IP WAN / MPLS Network

Secondary

Corporate LAN

Switch 2

VM Router 2