

**Internetworking with L2-Switch
RFL eXmux 3500® IP Access Multiplexer**

The RFL eXmux 3500 is a hardened IP Access Multiplexer engineered for mission critical infrastructures that seamlessly transport voice, serial, video and Ethernet data communications over Ethernet/IP or MPLS networks. The eXmux 3500 is a Layer 2 device with an integrated managed Ethernet switch which allows the eXmux 3500 to be used either in a private network with other eXmux 3500's or as part of a larger Ethernet/IP/MPLS network. Both fiber (using SFPs) and RJ-45 connections are available for the eXmux 3500; uplink speeds of up to a Gigabit are possible.

The purpose of this application note is to show the eXmux 3500 IP Access Multiplexer technology concepts installed and interoperate between other managed switches.

L2 Switch Internetworking

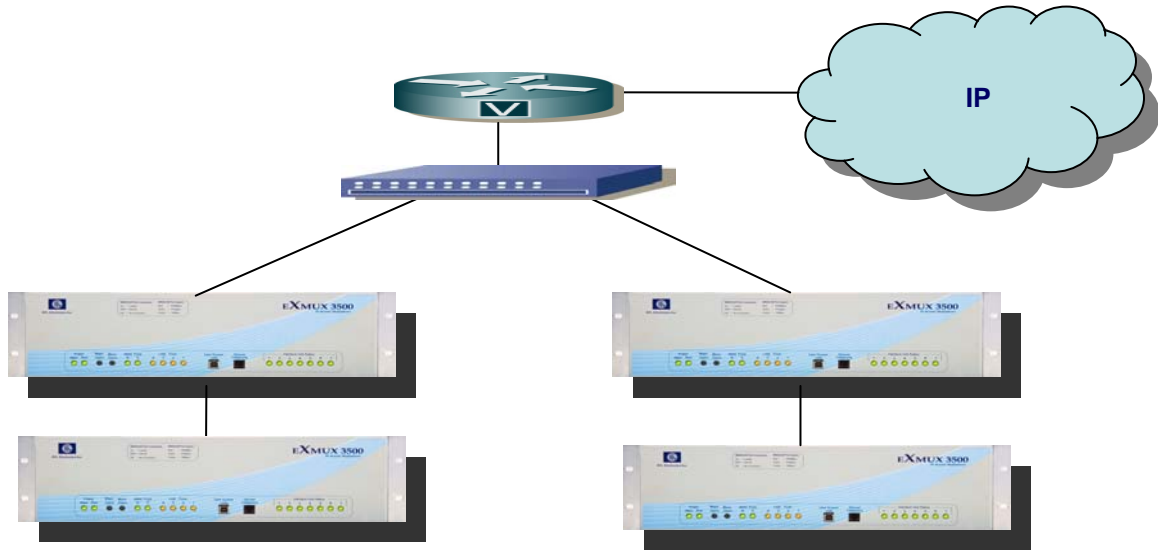
Nowadays, networking systems equipment e.g. switches, routers that allows multiple bridge networks to interoperate transparently with other vendor's equipment typically requires a full integration testing to meet the standard implementations set by the industry.

This application note should allow us to look into the eXmux 3500 IP access multiplexer basic ethernet capabilities in internetworking with other vendor's switches in different supported network topology that uses the widely acceptable IEEE 802.3 Carrier Sense Multiple Access with Collision Detection (CSMA/CD) standard.

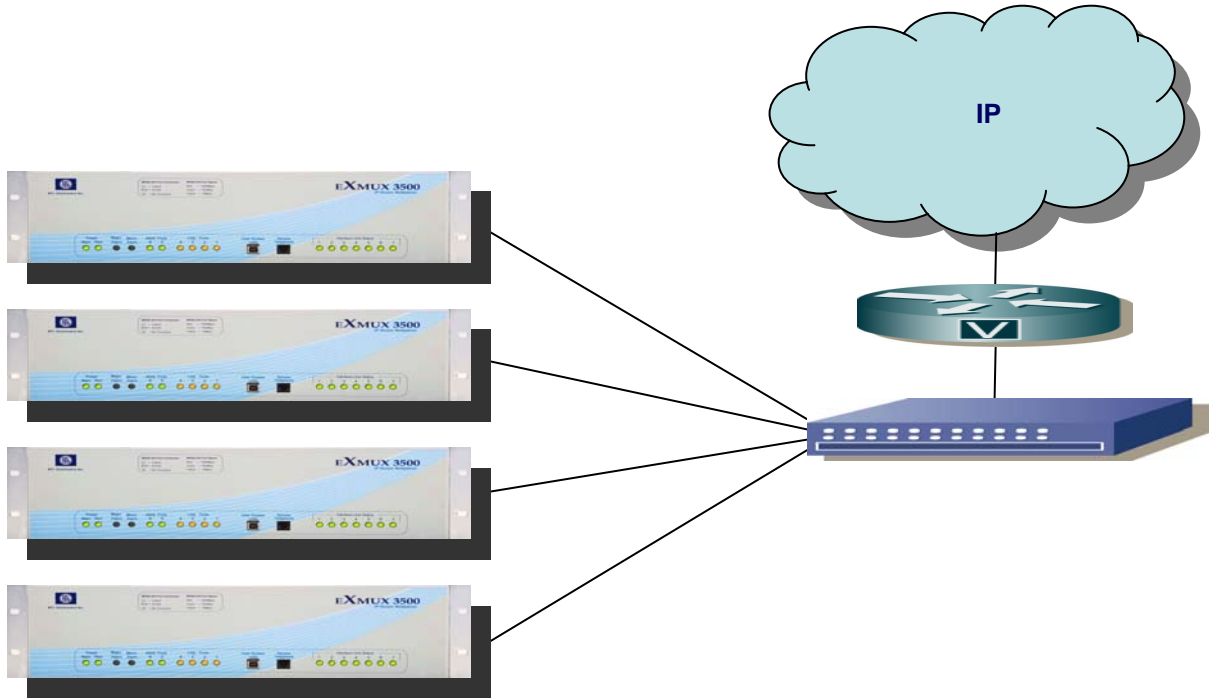
eXmux 3500 and Switches Supported Topologies

eXmux 3500 supported different network standard topologies as depicted in figures below:

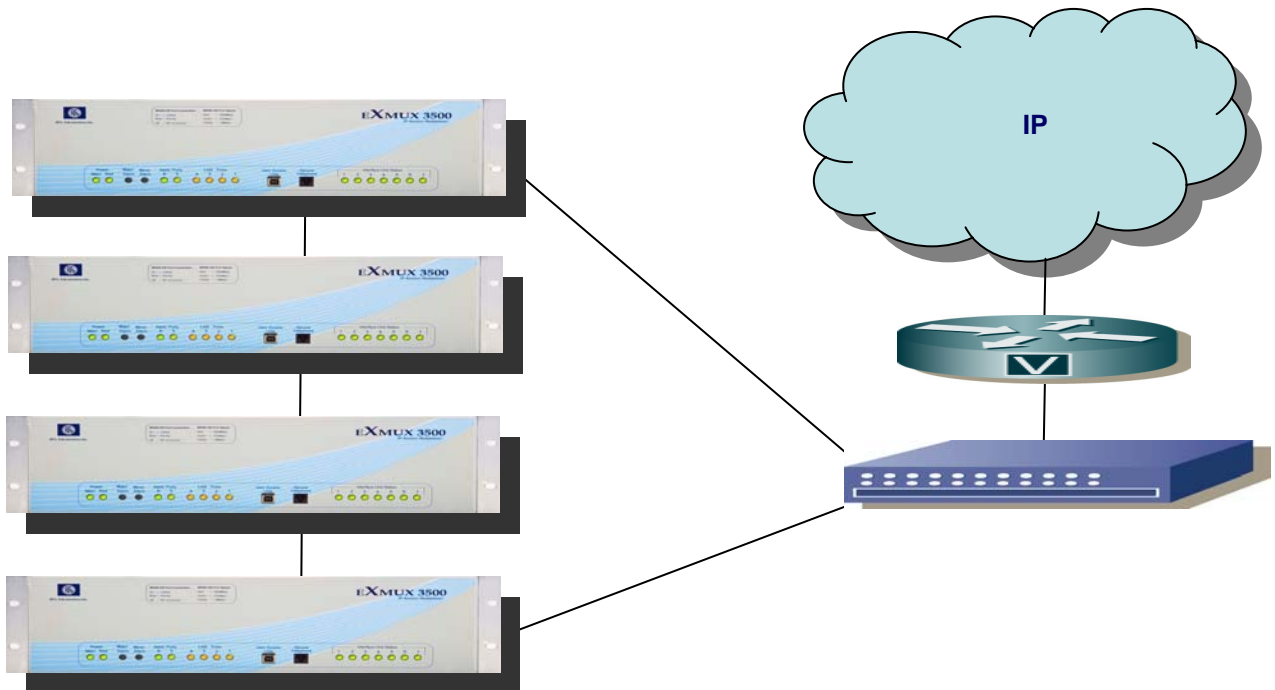
Linear Topology



Star Topology



Ring Topology



This application note may not apply to other standard network topologies not mentioned above. Contact RFL Electronics at 973-334-3100 for further assistance.