



Router Colocated at MIX

Geographical circuits provided by the Carrier to the ISP must include the patch which connects inside MIX datacenter the Carrier termination node and the ISP router. MIX technical department will provide both the information regarding the required length.

Rack space made available for ISP router(s) colocation within MIX datacenter is allocated by MIX technical department based upon requirements provided by the ISP about equipment size, power feed and other technical aspects, and according to the number of requested peering ports.

MIX racks in the Blue Wing (the area dedicated to peering routers) are 19" wide, usually 600 x 600 and are all pre cabled towards MIX switches through Multimode Fiber 50-62.5/125 and through UTP copper CAT5E patch panels. All racks are reached by a redundant 220 V AC power feed distribution system.

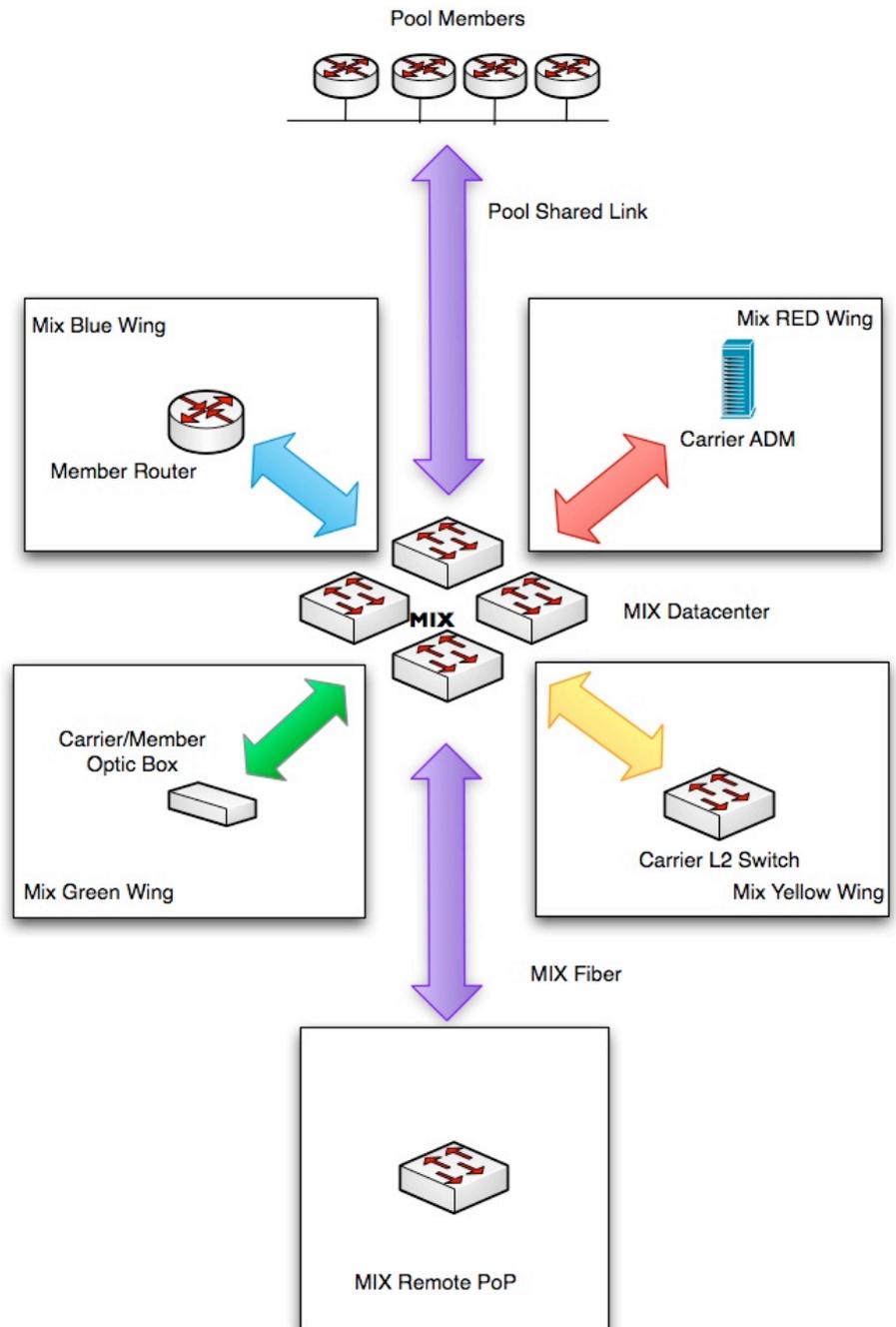
The ISP should provide everything needed for a proper equipment installation including power cords (2,5 mt. long at least), patches to reach MIX patch panels (2 mt. length) and rack mount kits for the equipment. Standard connectors on MIX fiber ODF is ST for MMF.

Campus Fiber connection (peering router in the campus)

If the ISP will install his own fiber ODF within MIX datacenter, Layer 1 MIX interconnection contract has to be signed by the ISP. In the page of MIX participants (Carriers) the list of existing fiber runs already reaching MIX datacenter (usually from other Caldera Campus locations) is available. If the ISP will keep the peering router remote and reaches MIX through Fast Ethernet connections over dark fibers a rack mount fiber/copper media converter must be used as MIX provides 100BaseT Fast Ethernet ports only. Standard MIX

technology for these appliances is Allied Telesis, and one of the following converter has to be made available from the ISP:

- 🔗 AT-MC 101 XL (ST, MMF, 100 Mbps)
- 🔗 AT-MC 102 XL (SC, MMF, 100 Mbps)





- 📡 AT MC 13 (ST, MMF, 10 Mbps)
- 📡 AT-MC 103 XL (SC, SMF, 100 Mbps)

Other model/types could be used if they can be installed in existing MIX chassis.

Layer 2 Remote Connection

MIX members can keep the peering router(s) remote with respect to MIX datacenter using a LAN extension service self provisioned or provided by one of the Carriers present at MIX.

Also in this scenario the terminating patch from the L2 terminating equipment and MIX switches has to be provisioned by the L2 Carrier. MIX technical Department is in charge of providing required length of the patch, and the MIX side connector standards for the link.

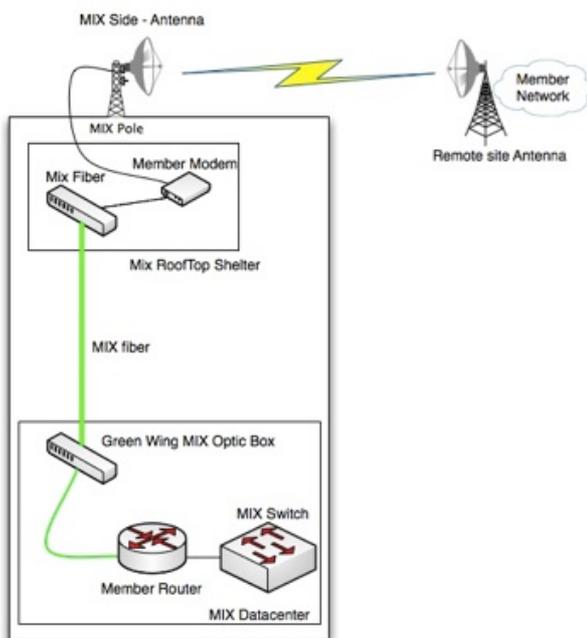
Connecting to a MIX satellite PoP

In case an ISP wants to connect from a datacenter different than the MIX one, there is the possibility to install the peering router (if not already present) in one of the datacenter where a MIX access switch has been installed, directly connected to the public peering LAN. The member router will be directly connected to the MIX local switch following the rules, procedures and costs of the colocation provider.

Connecting via the Pooling@MIX service

More remote members can share a single access circuit to MIX (LAN extension). One end of the link is directly connected to a MIX switch, and the other end is connected to the peering routers of the Pool members, in a location chosen by them.

Connection by a radio-link



For this type of access, MIX provides a dedicated structure on the top of building D inside Caldera campus (whose ground floor hosts the main MIX PoP) on which the operators can install their antennas, in order to connect to MIX through a radio-link circuit.

Management and control equipment (modems) of the operators can be installed and powered in a specific shelter near the structure that supports the antennas, and can be connected to the main datacenter by means of fibers provided by MIX. Within the datacenter, radio-links are then connected to the active equipment (routers or switches) of the MIX members.