

ConneXium Ethernet Cabling System Switch Management Manual

Version 3.0

35001898 03

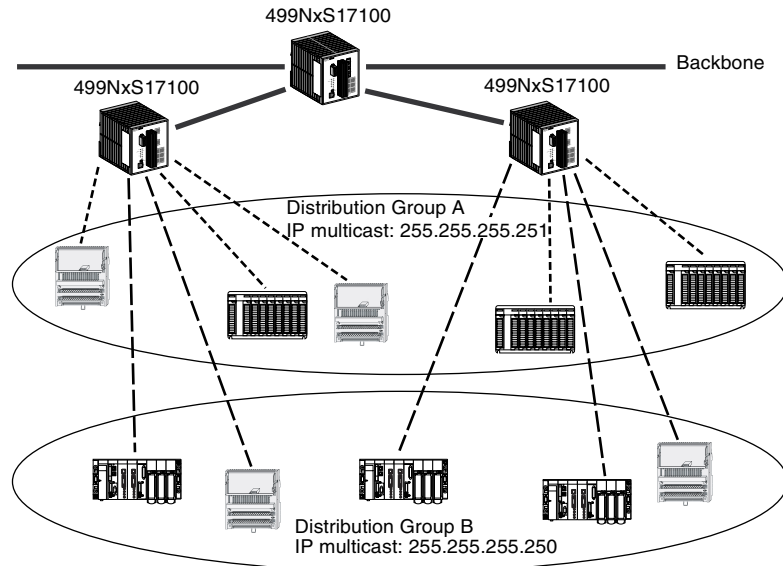


GMRP

Using GMRP in an Automation Setting

The GARP Multicast Registration Protocol (GMRP) describes how multicast information is distributed to other switches. This makes it possible for switches to learn multicast addresses.

The following figure shows GMRP is used in an automation setting.



GMRP is useful in an automation setting where switches connect several groups of modules using Global Data Service.

Note: Global Data Service exchanges variables on the network in order to synchronize automation applications.

ConneXium Switches (499NxS17100, V4.0) and SAUT Ethernet modules (TSX ETY4102/5102, 140NOE77x1) prevent network congestion using GMRP, sending data only to the multicast address of the local distribution group. Ethernet modules send their multicast addresses to the switches. The switches learn the addresses, henceforth propagating multicast frames only to ports that are members of the same group.

The multicast tree is set up within 5 seconds in a network of up to 20 NsX modules, after the multicast address has been entered for the first time at an NxS port.

Devices that do not support GMRP can be integrated into the multicast addressing scheme by means of a static filter address entry on the connector port.