M580 Isolated Device Networks

Introduction

Distributed I/O can be combined with RIO on a single network to reduce wiring and installation costs. However, with a large amount of DIO, this can impact performance of both the RIO and DIO networks.

A solution is to isolate the Distributed I/O onto a separate network. This chapter details the techniques for this and how to use the BME NOC to achieve network isolation.

Topic Objectives

By the completion of this topic you will be able to:

Understand the difference between combined and isolated Device Networks

Investigate possible network architectures

Configure an Isolated Device Network using the BME NOC 0311

Use the BME NOC 0311 Web Services

Configure a FactoryCast Web page

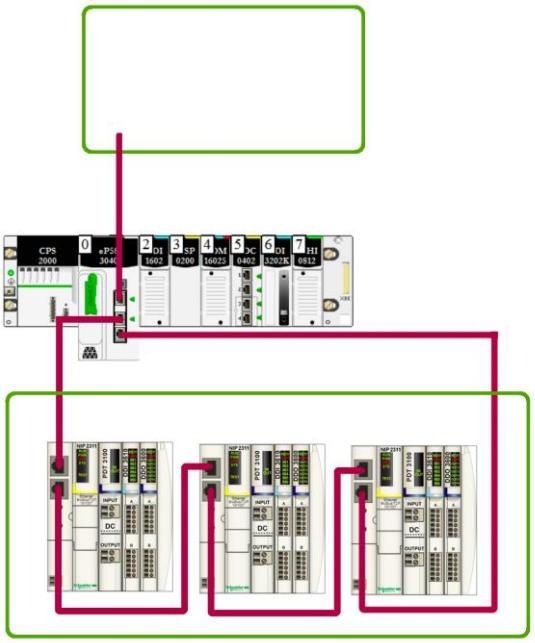
This Part Covers the Following Topics:

Device Networks

Distributed Devices

A **distributed device cloud** is one or more **distributed devices** that are daisy chained or linked to a standard switch or service port in the M580 architecture.

A cloud can be connected to the main ring via a dual-ring switch (DRS), or it can be isolated via a direct connection to an M580 CPU with the DIO Scanner Service or an Ethernet module (**BME NOC 03x1**) in the Local Rack.



A single connection allows a single device or multiple devices to be "daisy chained" shown above the CPU in the picture above. The configuration shown below the CPU is a Daisy Chain Loop

Isolated Device Networks

Isolated Distributed Device Network

The **second** way to integrate **distributed devices** is to separate them from the M580 Ethernet Remote I/O network. This allows for optimum utilisation of resources. Daisy chain loops are supported.
We will not learn how to do this in this training.