

NDS/BRIDGE

The NDS/Bridge (part number CEPL130386) serves two functions in a Carrier Comfort Network (CCN). First, as a Bridge, it interfaces a secondary communication bus to a primary communication bus. Second, its Network Directory Services (NDS) software maintains a directory of the system elements on its secondary bus and performs periodic diagnostic checks on them.

The NDS/Bridge also provides the ability to interface CCN system elements that operate at different baud rates. Each communication port can support 9600, 19.2K, or 38.4K baud.

A NDS/Bridge connected as a system element on the primary bus supports a secondary bus that can accommodate up to 239 system elements. A NDS/Bridge's primary bus system element number becomes the bus number of the secondary bus connected to the NDS/Bridge.

The NDS/Bridge consists of a CIO Module equipped with specialized communications software. It may be installed in a NEMA type 1 enclosure, or it may be mounted by itself.

A NDS/Bridge is used to provide a secondary bus primarily when a CCN system requires more than the 239 system elements that can be connected to a primary bus, or when the CCN has system elements operating at different baud rates.

A NDS/Bridge and secondary bus also may be used in a CCN that could fit on a single primary bus to isolate a particular system, such as a DAV system or a chiller plant, on its own bus.

NDS Directory

The NDS portion of the NDS/Bridge creates a directory of the system elements on the secondary bus by polling them for information. When commanded to update its directory, the NDS polls each of the 239 possible addresses on its bus. It then creates a directory entry for each system element from which it receives a reply.

An operator using a CCN user interface such as ComfortWORKS, ComfortVIEW, or a Network Service Tool can access the NDS directory using the Cold Call



command. Cold Call retrieves information from a NDS directory and uses it to construct a list of controllers and options. Cold Call is useful the first time a CCN user interface such as ComfortWORKS or ComfortVIEW is connected to a CCN.

NDS Diagnostics

The diagnostic portion of NDS performs diagnostic polling of the system elements in its directory at operator-specified intervals. The NDS sends each system element a command to which it must respond. If the NDS receives no response or an incorrect response, it sends an alarm or alert message that identifies the system element and the error condition.

NDS diagnostic polling takes place at two operator-specified intervals. All system elements on the bus are polled at a configured Standard Test interval that can range from 1 to 12 hours. Up to 24 system elements per bus can be designated as high-priority system elements. They are also polled at a configured High-Priority Test Interval that can range from 2 to 60 minutes.

