WHAT IS A BACnet/IP NETWORK?

A BACnet/IP network is a collection of one or more IP subnetworks (IP domains) that are assigned a single BACnet network number. A BACnet internetwork (3.2.26) consists of two or more BACnet networks. These networks may be BACnet/IP networks or use the technologies specified in Clauses 7, 8, 9, or 11. This standard also supports the inclusion of IP multicast groups in a fashion analogous to IP subnets, as described below in J.8.

The simplest case...

While it may seem overly simplistic to start with a single IP subnet of devices, many companies use an IP backbone for their intranet without being always connected to the Internet. Much of the current shift in focus from the large-scale Internet to small-scale intranets is based on the free and easy-to-use software that comes bundled with the latest desktop operating systems, as well as the popularity of HTML and HTTP servers for distributing documents.

We have defined the address of a BACnet/IP device to be the combination of the IP address and the UDP port number, thus allowing for the possibility of using port numbers beyond our registered X'BAC0'. This will come in particularly handy, as you will see, when we discuss routing between independent B/IP networks.

Note that the MAC layer is unspecified. IP is available for a wide variety of network types, and this addition to the standard is independent of the MAC layer technology. Also note that a new header containing "BACnet Virtual Link Control Information" has been added ahead of the NPCI.