

Summary...

1) A BACnet network can be made up of one or more IP subnets.

For many installations, all subnets can share a single BACnet network number.

2) Management of broadcasts of all types (local, remote, global), and thereby the use of BACnet unconfirmed services, is supported both within and between BACnet/IP and nonBACnet/IP, i.e., traditional, BACnet networks.

There is no loss in BACnet functionality just because a device uses IP.

3) To accomplish broadcast management, a new device called a BACnet BroadcastManagement Device (BBMD) is defined.

Optionally, IP Multicast may be used as described in detail in the Annex.

4) To support the operation of BBMDs a new "microprotocol" called the BACnet Virtual Link Layer (BVLL) is defined. For use with IP networks, 12 BVLL messages are defined.

The BVLL not only provides a "clean" way to manage broadcasting within the IP environment, it also provides a mechanism for the eventual inclusion of other network technologies in BACnet along with other possible microprotocol functionality such as encryption or data compression.

5) Provision is made for "foreign" devices to join BACnet/IP networks thereby supporting the requirements for remote workstation access, including access via SLIP or PPP.

A person working at home can dial in to any internet service provider and get the same functionality as at the workstation in his/her office.

6) Routing between BACnet/IP and non-BACnet/IP networks is supported, including the case where IP and non-IP BACnet devices reside on the same LAN.

IP messages on existing LANs can co-exist with other protocols. Thus IP-speaking BACnet devices could reside on an Ethernet with non-IP BACnet devices without any problem.

7) Routing between multiple BACnet/IP networks is supported in various configurations.

Many configurations are possible, each with its own set of trade-offs, and all can interoperate.

Thank you for reading this tutorial!