

Continuum® BACnet Family™



CyberStation®/BACnet Operator Workstation

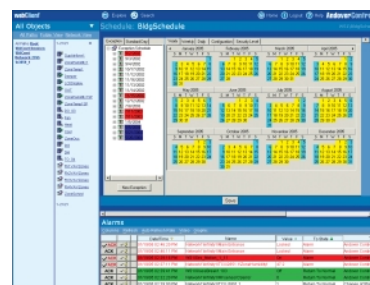
The Andover *Continuum* CyberStation Operator Workstation software includes native BACnet functionality, expanding the reach of CyberStation to the *Continuum* bCX1 System Controller/BACnet Router, all *Continuum* MS/TP BACnet controller family members, and other third-party BACnet controllers. As a BACnet Operator Workstation (B-OWS), CyberStation offers full alarm monitoring, display and control of all BACnet-compatible devices on your network, through a powerful and dynamic graphical interface.

Take control of your entire facility through a single workstation platform. Along with BACnet, CyberStation also supports full, simultaneous compatibility to all *Continuum* controllers, including HVAC controllers, security / card access controllers, lighting controllers, as well as all third-party systems. CyberStation also integrates seamlessly with digital video recorders from Integral Technologies, allowing live video feeds from any camera to be placed within a BACnet graphical environment.

CyberStation is built upon a solid foundation, designed and implemented in strict accordance with **ASHRAE standard 135-2001** to facilitate effortless interoperability with third-party BACnet systems. CyberStation runs on the Microsoft Windows 2000/XP platform, and employs either a Microsoft MSDE or SQL database. Configurations range from a single PC to multiple workstations with a central file server.

INCREASED ACCESSIBILITY WITH WEB.CLIENT

With the optional web.Client™ package, your BACnet system can be accessed anywhere on your network, through a standard browser interface. View graphic displays, modify setpoints, change schedules, view reports, respond to alarms, and manage your building without being pinned down to a dedicated workstation. web.Client functionality can be added to even the smallest existing system with ease, using the same graphic displays, user profiles, and system database as the standard CyberStation.



BEYOND BACNET WITH SUPPORT FOR MULTIPLE PROTOCOLS

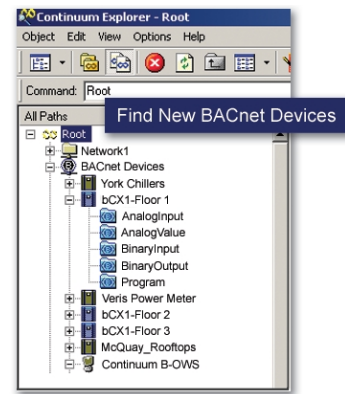
Chances are your building is multi-lingual — a chiller that talks BACnet, a lighting controller that may talk LONWorks, a power monitor that speaks Modbus, an older fire alarm system with its own unique protocol. Let *Continuum* be your translator. Our *Continuum* system allows interoperability between all types of devices simultaneously, providing a strong, common platform to manage your facility proactively.

- **Native BACnet Operator Workstation (B-OWS), per ASHRAE 135-2001**
- **Consolidate Multiple Systems and Vendors Under One Interoperable System**
- **Manage HVAC, Security, Card Access, Lighting, and Power Systems from a Single Workstation**
- **Web-Based Interface for Easy Access Anywhere**
- **Crisp Dynamic Graphic Displays for Quick Troubleshooting**
- **Fully Compatible with all Andover *Continuum* Controllers**
- **Add Digital Video Surveillance to Any Graphic Display**
- **BACnet Autodiscovery Reduces Setup Time**



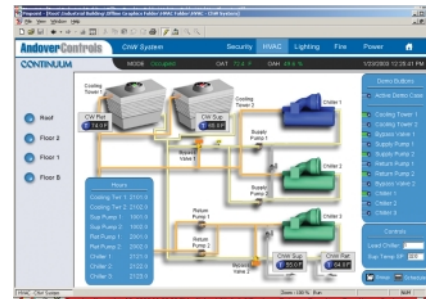
TIME-SAVING CONFIGURATION TOOLS

Get your BACnet system up and running quickly directly from *Continuum Explorer*. Start CyberStation's BACnet Learn Utility to auto-discover all BACnet devices on the network. Devices may then be tagged as out-of-service and hidden from *Continuum Explorer*. Once a device has been discovered, the user can then instruct the workstation to gather all the objects from the device. All learned objects reside in the CyberStation database, and are easily referenced in Programs, Graphics, Reports, and other application modules.



NO LIMITS TO YOUR GRAPHICS

CyberStation offers complete graphic freedom — a single graphic display may contain live point values from *Continuum* controllers (BACnet or Infinet) and third-party BACnet devices, as well as live video feeds, personnel images, and even embedded web pages! Graphics are easily created using CyberStation's powerful graphics editor, using imported bitmaps or image files if desired, and dynamic "controls" are placed on the graphic using a simple drag-and-drop technique.



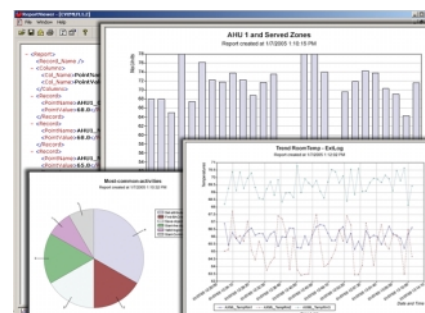
CONSOLIDATED, FLEXIBLE ALARM SYSTEM

All alarms, whether they originate from a BACnet controller or *Continuum* controller, are displayed in the same active alarm view, allowing for a quick yet complete assessment of each alarm condition. Take advantage of CyberStation's powerful alarm engine to define precise Alarm and Event Notifications, including which workstation the alarm type is delivered to, escalation path, alarm actions including email and pager, and acknowledgement rules. All alarms, including acknowledgement details and text, are logged in the central database. Alarm reports are easily generated based on time and date, priority, alarm type, or any other criteria.

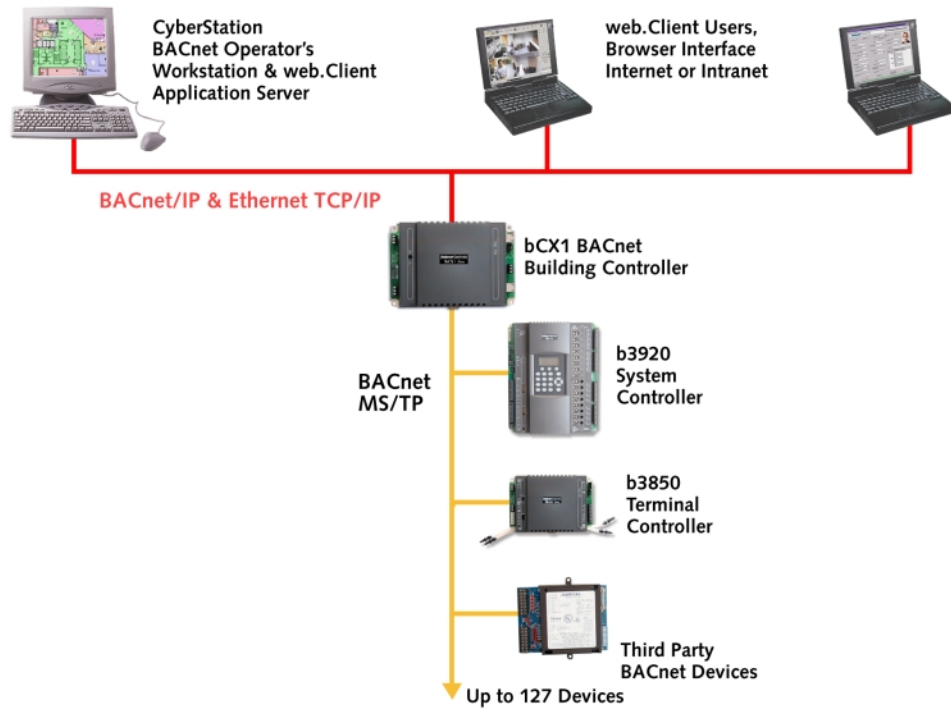
		Date/Time	Name
ACK	✓	1/19/2005 2:40:39 PM	Network1\Infinity1\Main Entrance
ACK	✓	1/19/2005 2:40:39 PM	Network1\Infinity1\Main Entrance
ACK	✓	1/19/2005 2:39:41 PM	WS1\GlassBreak1.103
ACK	✓	1/19/2005 2:39:16 PM	WS1\Sec_Motion_1_11
ACK	✓	1/19/2005 2:37:11 PM	Network1\Infinity1\TC42851_1
ACK	✓	1/19/2005 2:32:20 PM	Network1\Infinity1\VRFSensorCSend
ACK	✓	1/19/2005 2:29:00 PM	Network1\Infinity1\TC42851_1
ACK	✓	1/19/2005 2:28:30 PM	Network1\Infinity1

GRAPHICAL REPORTS

The graphics reporting package in CyberStation/web.Client presents data from extended trend, alarm, access event, and activity logs as well as instantaneous data in a graphical format. Choose between SVG scalable bar graphs, line graphs, and pie charts, and text formats using html and xml. Optionally, reports may be generated in Adobe Acrobat format for distribution. Regardless of format, all reports may be emailed either manually or by a schedule (using MS Scheduler included in OS.) The power of these report lies within some of the statistical reports - Display the top ten alarms, the most active personnel!

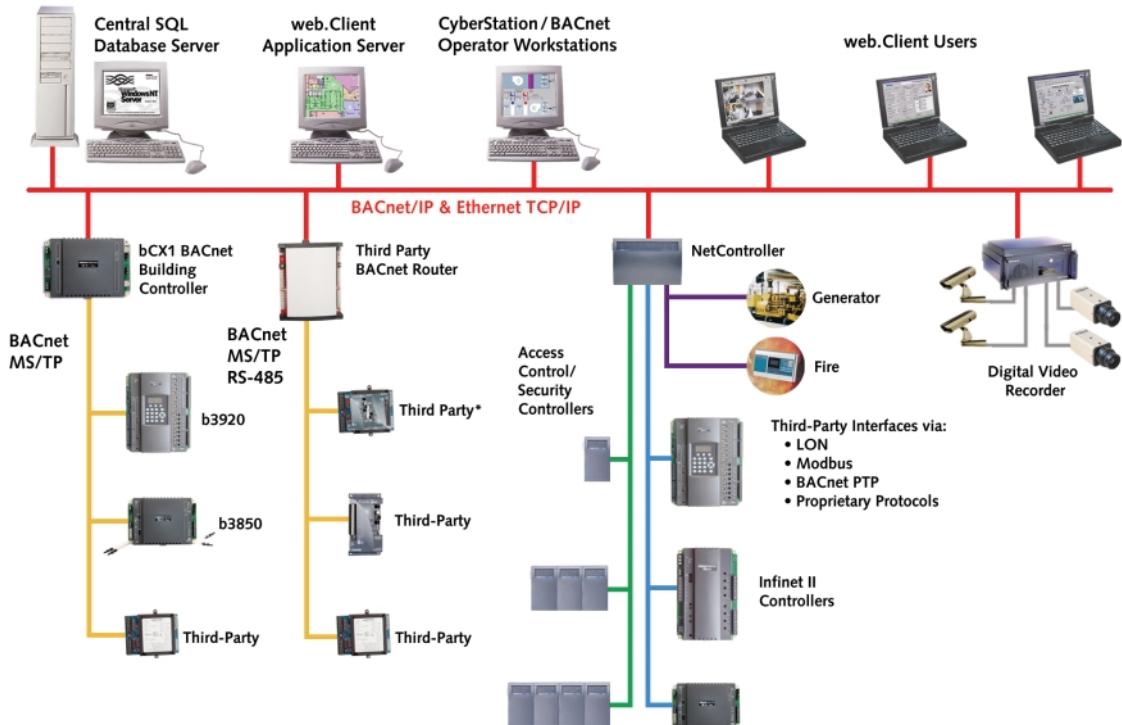


STANDARD BACnet ARCHITECTURE



EXPANDED BACnet ARCHITECTURE

Tour Andover Controls opens your system to the world beyond BACnet. Connect to LON, Modbus, *Continuum* and *Infinity* devices, along with legacy systems that use proprietary protocols. Easily add Access Control, Security, and Digital Video functions to your system, managed from the same workstation.



* Requires third-party operator workstation for configuration and programming

SPECIFICATIONS

CyberStation BACnet Operator Workstation

CYBERSTATION

Minimum Hardware Requirements, CyberStation Workstation and File Server: 750MHz Pentium III PC, 256 MB RAM, 20GB hard drive, CD drive, 10/100 Ethernet port, parallel or USB port

Operating Systems, CyberStation Workstation: Microsoft Windows 2000, Windows XP

Operating System, File Server (for multi-user systems): Microsoft Windows 2000 Server or MS Windows Server 2003, with Microsoft SQL Server 2000 database software

BACnet Device Profile: B-OWS, BACnet Operator Workstation

WEB.CLIENT OPTION

Minimum Hardware, Application Server: Pentium III 750 MHz, 512MB RAM (plus 5MB per user), 20GB hard drive, CD drive, parallel or USB port

Operating System, Application Server: MS Windows 2000 Server or MS Windows Server 2003, MS Windows 2000 Professional with MS Internet Information Services (IIS) 4.0 or higher with Active Server Pages (ASP) enabled

Client Browser: PC running MS Internet Explorer 5.5 or higher, Java-enabled, 20 MB minimum hard drive space. Windows NT/2000/XP, Microsoft Windows Server 2003

Maximum Simultaneous Connections per Server: 25 (contact Tour Andover Controls if you require more than 25)

COMMUNICATIONS

Network Connectivity: Ethernet TCP/IP

BACnet Connectivity: BACnet/IP, per ASHRAE standard 135-2001

BACnet Device Profile: B-OWS, BACnet Operator Workstation

Maximum Number of Ethernet Devices, including CyberStations: 4 million

USER ACCOUNTS

User Security: *Continuum* user accounts (encrypted). Database may be partitioned such that users have access to only certain collections of objects in the system. Examples include partitioning by site, by building, by function (HVAC or security, etc.), and by department. Minimum password length and password expiration may be enforced.

Auto-Logoff feature: User logoff after 0-255 minutes of inactivity (individually set per user)

Maximum User Accounts: 4 million

SOFTWARE SPECIFICATIONS

Maximum Number of Points: 4 million per point type

Maximum Number of Personnel: 4 million

Maximum Alarm and Event Log History: Limited only by disk space

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DS-B-FRONTEND-C



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