BOGEN®

E7000 SERIES

The Modern Educator's Digital Communication Solution
for safer, better managed schools

Nyquist E7000 is a software-based state-of-the-art IP paging and intercom solution that leverages the latest digital, mobile, and software technologies to address today's educational environments, security challenges, and mobile lifestyles. But to call it a paging and intercom system is to understate its capabilities. The E7000 Series is a suite of powerful, yet easy-to-use tools that allows educators to quickly and effectively manage campus and district-wide communications.

E7000 is built upon Bogen's award-winning Nyquist IP-based communications platform that features a rich software suite with an intuitive web-based graphical user interface (GUI). The GUI offers map-based paging and intercom management with hierarchical drill-down views, station supervision with email alerts, and text-to-speech functionality for scripted announcements. E7000 also provides analog telephone support via third-party 24-port VoIP gateways.

E7000 software resides on a network server, which can be a Nyquist System Controller (NQ-SYSCTRL) or a user-provided server, and utilizes existing LAN/WAN and/or legacy "home-run" cable infrastructure for two-way data and communication flow. IP phones and purpose-built appliances provide convenient communication control and interoperability with third-party devices.

E7000 SERIES

E7000 HIGHLIGHTS

- Easy to install, expand, and use

- Accessible – administrators, technicians, and other key users can access the system on web-enabled devices – desktop or mobile*

- Flexible – easily add features, stations, and facilities with virtually unlimited scalability*

- Compatible with legacy intercom infrastructure, including re-use of existing analog speakers, call switches, and cabling (with use of the NQ-E7030 Analog Station Bridge appliance)

- Allows any standard 8-ohm speaker to be transformed into a VoIP intercom speaker (with the use of NQ-GA10P or NQ-GA10PV appliance)

- SIP device and trunk support (IP-PBX, VoIP phones, and VoIP speakers)

- Feature rich audio
  - *Embedded music streaming services*   *- Multiple networked audio distributions*
  - *Imported Songs/Playlists*   *- Embedded pro-audio DSP controls in all networked amplifiers*

- Combination clock/messaging HDMI display modules use text and graphic images to deliver critical visual messaging on any size HDMI capable monitor

- Wall Baffle Combo Clock / Speaker / Message Display with LED Flasher facilitates user-programmable messages for standard or emergency announcements, along with two-way intercom communications

- 3rd-party system integrations with PBXs, security/alarm, fire, access control, and other enterprise systems
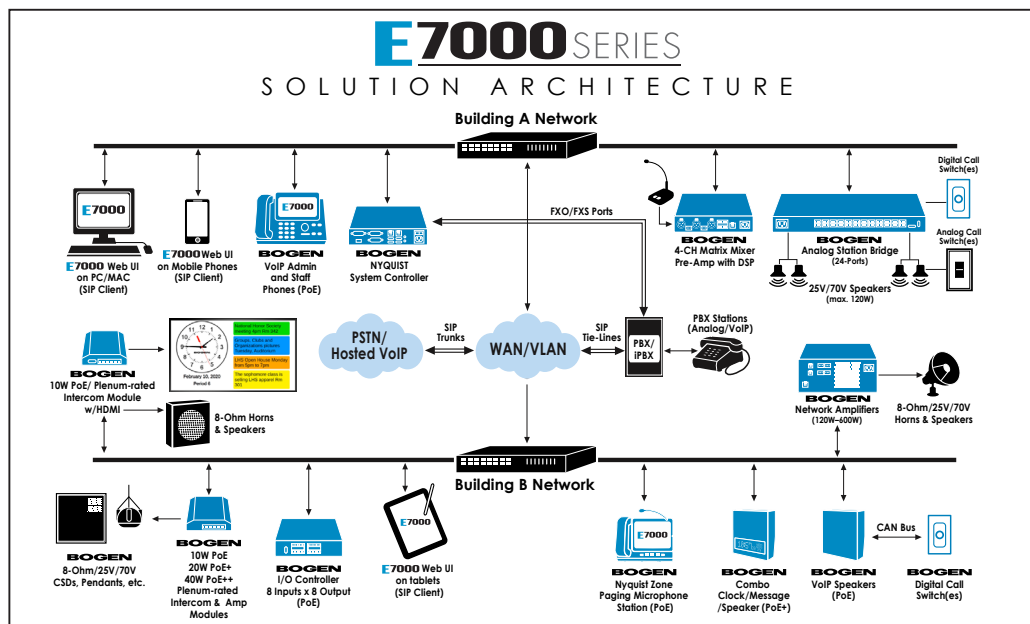
* When supported by the facility's infrastructure.

Virtually Unlimited Scalability
Without the limitations of purely hardware-based systems, E7000 can expand as the user's needs expand. The system can accommodate a virtually unlimited number of stations, facilities, zones, and bell schedules.

Easy and Economical to Install
E7000 easily integrates with the existing facility's cabling and infrastructure. Many of the Bogen E7000 appliances are PoE devices. With E7000 there are no bulky equipment racks to build; simply configure the E7000's System Controller via its intuitive setup wizards, then plug in the endpoint devices and appliances. Appliances are auto-discovered by the server to facilitate fast and easy system set up.
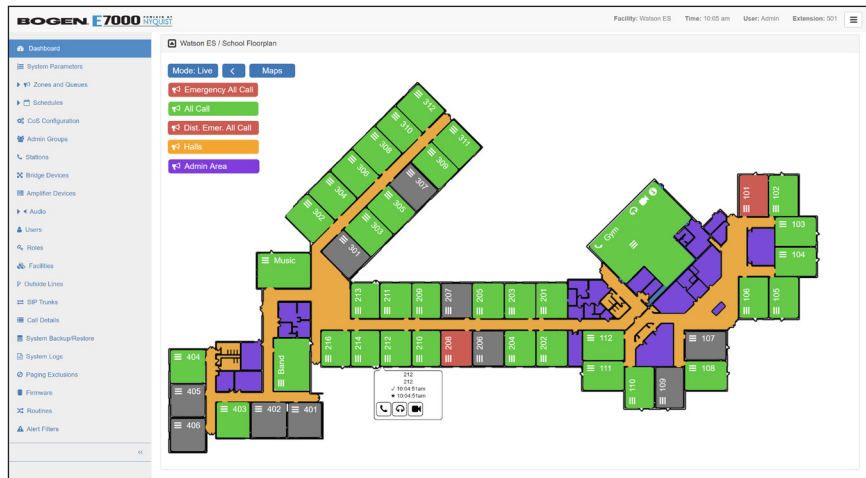
E7000 can be integrated with existing analog cabling as well as IP-only networks

E7000 SERIES SOLUTION ARCHITECTURE

Easy Graphical User Interface (GUI)

Administrators, educators, and support staff are going to love E7000! Users interface with the system either through a feature-rich touch display VoIP Admin Phone or via a browser-based GUI *(see Fig. 1)* on desktop and laptop computers, smart phones, and tablets, allowing users to access the system no matter where they are in the connected world.

The core principle of the E7000 user interface is simplicity. Form follows function, resulting in an interface that is functional, intuitive, and aesthetically pleasing.

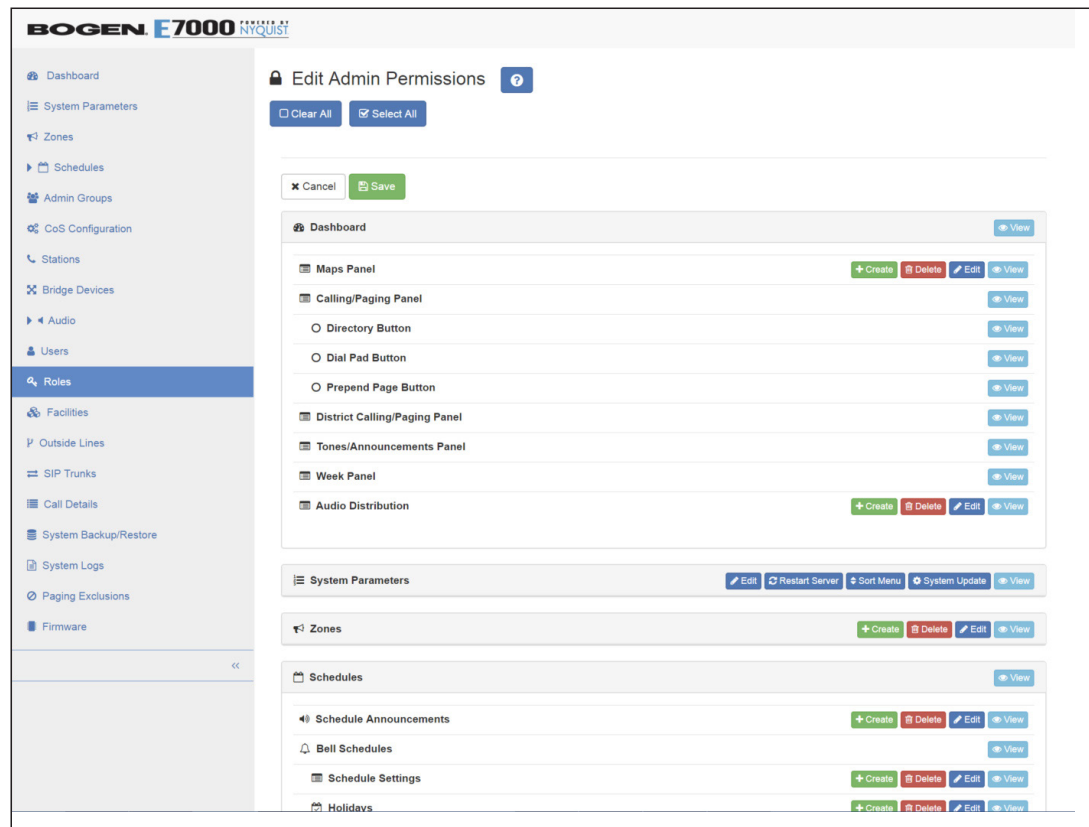**Figure 1 - Main Dashboard of the E7000 Graphical User Interface**

The map-based paging and intercom feature makes launching pages and announcements even more intuitive.

The optional text-to-speech feature eliminates the need to audibly record scripted announcements.

The E7000 GUI allows people with a broad spectrum of technical proficiencies to use the system. Buttons are large and clear; text is simple and legible. Embedded tooltips and guides aid in user self-sufficiency. Technical administrators can assign individual users permissions appropriate for their role and proficiency *(see Fig.2)*.

Figure 2 - E7000 makes it easy to define roles and permissions

"Nyquist users' login credentials can be centrally managed by IT – just like they do for all their other enterprise applications"

E7000 SERIES

E7000 CAPABILITIES

- **Enhanced Safety and Security** - Instantaneous accessibility to campus and district-wide communications vital for the safety and security of students and staff. E7000 can help with features such as district-wide paging/announcements, call monitoring, call recording and playback, emergency paging with prerecorded or Text-to-Speech announcements, emergency lockdowns, and much more.

- **Powerful Routines/Routines API** - Routines and Routines API facilitate automated sequences of events via multiple trigger types and connections to third party applications for crisis planning and situational awareness.

- **3rd-Party Integrations** - E7000 can interface with a variety of 3rd-party systems such as access control, fire, security/alarm, and even hardware sensors via the programmable I/O Controller appliance.

- **Unlimited Scheduling** - Administrators can easily configure and control all bell/event scheduling functions via E7000's powerful web-based user interface. Bell schedules can be controlled across the entire district from a single user interface.

- **Unmatched Audio Capability** - Bogen's 90-plus year history of audio excellence is evident in the range and quality of appliances and features, including embedded music streaming services and pro-audio DSP controls.

- **Technology Partnerships** - Seamlessly integrates with trusted third-party industry-leading platforms and solutions to enhance safety, communication, and operational efficiency.

- **Convenient and Powerful Configuration and Maintenance** - IT and Facilities technicians can remotely access the system's web interface to configure, troubleshoot, and control the system from wherever, anytime.

- **Telephony – Integrated and Elevated** - E7000 easily integrates with virtually any VoIP service provider, IP-PBX, or analog phone system to create a seamless communications platform.

NYQUIST SYSTEM CONTROLLER

Bogen's Nyquist System Controller offers a cost-effective means to deploy E7000 using a purpose-built processing platform pre-installed with the E7000 application server software. Alternatively, a dealer or school-furnished custom-built server can be used. When required, the System Controller can be configured for optional Automatic Failover to a secondary System Controller for enhanced system robustness.

E7000 SYSTEM SERVER REQUIREMENTS

Instead of using the Nyquist System Controller, you can select to install the Nyquist E7000 application on a server provided by the school system's IT department or the installing Bogen dealer. Ideally, there would be one server in each facility, although multi-school campuses can use a single centrally-located server. Minimum server requirements are as follows:

- OS— Debian Linux OS (AMD 64-bit version) release 12.9 or later
- CPU— Quad-core Intel-based processor running at 3.0 GHz or higher
- Memory— 8 GB RAM
- Disk Storage— One 250 GB disk drive (A RAID configuration is recommended for redundancy and high availability)
- NIC— Dual 10/100/1000 MB Ethernet ports
- PCI Expansion Slots— One or more PCI/PCIe slots if direct FXO telephony network connectivity other than, or in addition to SIP trunking is needed

NYQUIST The E7000 Series is built upon Bogen's award-winning Nyquist software-based IP communications platform, which provides users with unparalleled flexibility and scalability, whatever their application.

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