C4000 SERIES

IP-Based Paging and Audio Distribution

SYSTEM FEATURES

Administration/Staff
FEATURES

- District-wide schedule management from single interface (Remote Calendar Control)
- All Call Paging
- Emergency All Call Paging
- District-Wide All Call
- District-Wide Emergency All Call
- Zone Paging
- Unlimited number of Paging Zones
- Unlimited simultaneous paging calls
- Multi-facility paging/announcements
- Location Monitoring (Modes: Spy, Whisper, Barge)
- Web-based GUI Dashboard (Audio, Alarms, Announcements, Calling, Paging, Tones)
- Web-based GUI Directory Menus for Announcements, Alarms, Paging Zones, Stations, Tones
- Web User Interface: SIP Client (softphone) - allows calls, paging, etc., from Web UI
- Executive override to access intercom paths
- Admin can override others and interrupt page
- Admin Groups: "Emergency" admin group
- Admin Phone Menus: Alarms, Announcements, Zone Paging, Tones, and Routines
- Direct select rooms from VoIP admin phone
- Multi Station Page Exclusion (Ability to turn off paging into an area as needed, e.g., for testing, mtg's, etc.)
- Unlimited District Station Capacity

Networked Audio Power Amplifier Support
FEATURES

- Gen2 Amplifier Support (NQ-A2xxx-G2/NQ-A4xxx-G2)
- 4-Ch. x60W, x120W, and x300W models available
- 2-Ch. x60W, x120W, and x300W models available
- Public Address Mixer/Amplifiers NQ-PA120/240/600
- Integrated Pro-Audio Digital Signal Processing
- Enhanced DSP Controls
- 20W PoE+ Amplifier with Line Output

Audio Distribution & Announcement
FEATURES

- Tablet Based Zone Volume and Audio Distribution Control
- Unlimited Announcement Files
- Upload and Manage WAV & MP3 Announcement Files
- Audio Program Control via DTMF - Admin Phone (i.e., Can turn on or off from phone)
- Toggle Music Sources On/Off
- GUI-based Program Distribution
- Playlists (with easy title drag-n-drop capability)
- Music Import and Management
- Automatic Playlist Creation from USB Stick (Places all music files into a single playlist)
- Record Announcements from an Admin Phone or Web UI
- Separate Zone Volume Controls for Paging vs. Audio Distribution
- Audio Distribution to multiple zones simultaneously
- Integrated streaming Internet radio (airable)
- Integrated commercially-licensed streaming music service (SoundMachine)
- Scheduled Audio from any source (airable Radio, SoundMachine, Playlists, and Line-Input)
- Recurring Scheduled Announcements
- Targeted Announcements to any specified zone(s)
- Pink noise and white noise tones to assist with setting-up paging zone volumes

BOGEN®
COMMUNICATIONS, INC.

Traditional Intercom*
FEATURES

- Unlimited System Capacity
  (limited only by system licensing)
- Rollover to idle EOL in classroom on second call if one is busy (limited only by system licensing)
- Always an Answer (Calls can be put into admin groups so call will always be answered.) (limited only by system licensing)
- Intercom Call-in (From classroom call switch)
  (limited only by system licensing)
- Unlimited Simultaneous Intercom Calls (i.e., talk paths) per Facility (limited only by system licensing)
- Priority Paging Mic (ability to have external Mic for emergency page) (limited only by system licensing)
- Unlimited Program Channels (limited by system licensing)
- Unlimited # of Class of Service (CoS) Profiles
  (limited only by system licensing)
- Unlimited Audio Zones (limited only by system licensing)
- Emergency Call-in (Emergency calls from classroom ring with special ring & alert) (limited only by system licensing)
- Call Assurance Audio File plays in room to confirm call (Analogous to Call Assurance LED)
  (limited only by system licensing)
- 3 Call Priorities for Call Switch (Normal, Urgent, Emergency)
  (limited only by system licensing)
- Closed Contact Inputs for Response to Events (Low-voltage contact closures that are used to call in)
  (limited only by system licensing)
- Relay Driver Output Controls (Used to control events, e.g., open door, turn on lights, etc.)
- Emergency Call from Normal Call Switch (If call is in progress, it can be up graded to emergency)
- Transfer Call from Room Speaker to Room Phone (Call to ceiling speaker can be dropped to the phone or privacy)
- Change/Modify Preannounce Tone
- Create Text-To-Speech Based Announcements (Optional)
- External Amplifier Support (Ability to add amps for large wattage requirements)
- Analog Speaker Support (8-ohm / 70V)
- Analog Call Switch Support
- Page Stacking / Queuing
- Ambient Noise Sensing

* Intercom calling and associated features is optionally licensed

Event Schedules & Management
FEATURES

- Manually play Tones to a selected Zone
- Powerful, Innovative Web-based Scheduling Interface
- Activate a Routine in Conjunction with a Scheduled Event
- Execute Any Routine Action when a selected schedule is activated
- Trigger Routines Based on a Scheduled Tone
- Unlimited Time Zones
- Master Clock Capability
- Unlimited # of Holiday Schedules (Ability to change Event Schedules so that tones and bells don't disturb surrounding areas when business is closed)
- Ability to Sync External Master Clock with Contact Closure
- NTP Server Support (Ability to act as or sync to an external NTP Server)
- Unlimited Schedules (Restricted Edit & View by User Role)
- Unlimited Scheduled Events
- Ability to Import/Export Holiday Schedules
- Monthly Calendar Views
- Tones: Generate/Create Tones, Upload Tone, Manage Tones

IP Speaker Support
FEATURES

- Digital Call Switches (NQ-E7020 and NQ-E7020-G2))
- VoIP Ceiling Speaker Gen2 w/Talkback (NQ-S1810CT-G2)
- VoIP Ceiling Speaker w/Talkback (NQ-S1810CT)
- VoIP Wall Baffle Speaker Gen2 w/Talkback (NQ-S1810WT-G2)
- CAN Bus Device Support
- PoE Plenum-Rated VoIP Intercom Module (NQ-GA10P) (Turns any 8-ohm speaker into a VoIP talkback speaker)
- PoE Plenum-Rated VoIP Intercom Module with HDMI output (NQ-GA10PV) (Turns any 8-ohm speaker into a VoIP talkback speaker and TVs/monitors into clock message displays)

Configuration & Maintenance
FEATURES

- System Controller with pre-installed OS & C4000 application software
- Embedded Nyquist DHCP Server Support
- Added ability to Create a Self-Signed Bogen Root SSL Certificate
- Create a Self-Signed Bogen Root SSL Certificate
- Automatic server software and firmware check & download
- Wizard-Based System Setup & Configuration (when using the NQ-SYSCTRL Nyquist System Controller)
- Web GUI Programming and Diagnostics (Ability to program and test from anywhere)
- Log File Viewing and Export (Server and System)
- Web GUI Station Status (Real-time status of VoIP devices)
- System Backup/Restore
- Automated/Scheduled System Backup
- GUI-based System Status (Current operations displayed on Dashboard)
- Monitoring of Server Status via SNMP
- Unlimited Definitions of Users, Roles, and Permissions
- Software Adjustable Paging Zone Volume
- Device & Station Supervision (with Dashboard Notifications and Email Alerts)
- Automatic update of Appliance Firmware (to match server S/W version)

I/O Related Equipment
FEATURES

- Networked Matrix Mixer Pre-Amp with Pro-Audio DSP (NQ-P0100) (External MIC, AUX, & Digital Audio Support)
- Networked I/O Controller (NQ-E7010) (8 Inputs/8 Outputs per I/O Controller)

IP Phone Support
FEATURES

- VoIP LCD Display Admin/Staff Phone (NQ-T1000)
- Added support for third party ATA devices for FXO and FXS connections with custom configurations for FXS operation features like Off-Hook Ring Down

Security & Safety
FEATURES

- Nyquist Server available Automatic Failover
- Clock / Messaging Display capability with NQ-GA10PV
- Alert Filters to display specific Emergency Alert System (EAS) events on the video displays connected to the NQ-GA10PV
- Routines (allows automatic launching of a sequence of actions that the Nyquist system executes as a result of a manual input or "triggering" system event. Routines can support your crisis plans for situations such as school lockdown, weather events, or emergency evacuation.
- Expanded Routine API Parameters for 3rd Party Integrations
- Enhanced Routine API Authentication
- Multi-facility Routines
- Emergency Check-In feature that can be used for lockdowns
- Pop-up of a room's video feed via the Maps view
- Added optional password protection for all-call paging, emergency all-call paging, multi-site paging, facility paging, zone paging, alarms, and tones.
- Play Pre-Recorded Message with Contact Closure (via NQ-E7010 I/O Controller program logic)
- Speed-Dial Access to Common System Features (Used to make system easy to use for Administrators)
- Contact Closure Puts System Into Page Exclusion (via NQ-E7010 I/O Controller program logic)
- Contact Closure Triggers an External Event (via output relay control on the NQ-E7010 I/O Controller)
- Contact Closure Triggers an Internal Event (via NQ-E7010 I/O Controller program logic)
- Call Recording and Playback (911, Emergency, Normal)
- Emergency Page with Pre-Programmed Messages (WAV, MP3) (ex. "There is a Fire Emergency, please exit building, this is not a drill.")
- Interactive Map-Based Paging and Intercom (hierarchical drill-down views of multiple maps - including across multiple facilities)
- Text-to-Speech Based Announcements (optional feature) (Copy & paste-in complex emergency notifications and instructions)
- Event Schedule API to Integrate with Security/Access Control Systems

- Compatible with Enhanced 911 (FCC standard that tells 911 operator where a call is coming from; e.g., building/room location)
- Voice-Prompted Features (via embedded IVR functionality) (Users are instructed as to what the next step should be)
- Intercom Access from IP Phone System (SIP ATA or Tie-Line interface to IP-PBX)
- Voice-Prompted Call Forwarding Status (via embedded IVR functionality)
- Call Monitoring (Modes: Spy, Whisper, Barge, non-DISA)
- Call Detail Recording: Display, Manage, and Export (No limit to record count)
- Call or Page via Mobile Device: SIP Client Application
- Call or Page via Mobile Device: Web UI
- SIP Trunking to PSTN/Cloud or IP-PBX
- SIP trunk management to include PBX Connection access
- SIP Trunk can be used to register Nyquist with an iPBX as a SIP endpoint
- Outbound calling to PBX extensions via SIP Trunk
- E911: 911 Call Routing to facilitate E911 Device ID mapping
- 911 Call Alerts: Notifications sent to Web UI and Admin Phones with option to monitor call
- 911 Dial Through (Provisioned via CoS allows any authorized station to direct dial 911)
- Walking CoS
- Trunk Queuing (Searches for first available outside line/trunk)
- Unlimited # of Admin and/or Staff Phones
- Analog CO Trunk Support (Analog phone lines from phone company)
- Unlimited # of Telephonic Talk Paths (# of simultaneous conversations)

- # of Architectural Room Numbers Displayed (# of digits used in the dial plan)
- Off-Site Call Transfer (Transfer calls to phone numbers outside of the system)
- Routing to an External Number (Provisioned via CoS)
- Route selected call priorities (e.g., Emergency) to an external number (Provisioned via CoS)
- Remote Call Pickup (Ability to answer a phone from anywhere in the building/facility)
- Voice Mail (Assignable to any station via CoS)
- Analog Intercom Access from a PBX (via FXO or FXS ports)
- Voicemail Message Waiting Indication Light (on all Bogen VoIP phones)
- Call Forwarding (Automatically sends calls to another station on the system)
- Unlimited CoS Profiles
- DID Call Routing (Direct inward line routes to office phone)
- DISA Call Routing (Allows direct inward station access from outside the system)
- Security DISA Call Routing (Allows direct inward station access from outside the system using a passcode)
- Password Protected Access to Admin Phone Features
- Ability to Place Normal or Emergency Calls
- Dial Out to CO/PABX/EKTS (Outgoing CO lines)
- Receive Outside Calls (CO/PABX/EKTS)
- Analog Telephone (aka 2500 Set) Support (via 3rd-party 24-port FXS VoIP Gateway integration)

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