



BOGEN NYQUIST INTEGRATION GUIDE

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COMMUNICATIONS LLC



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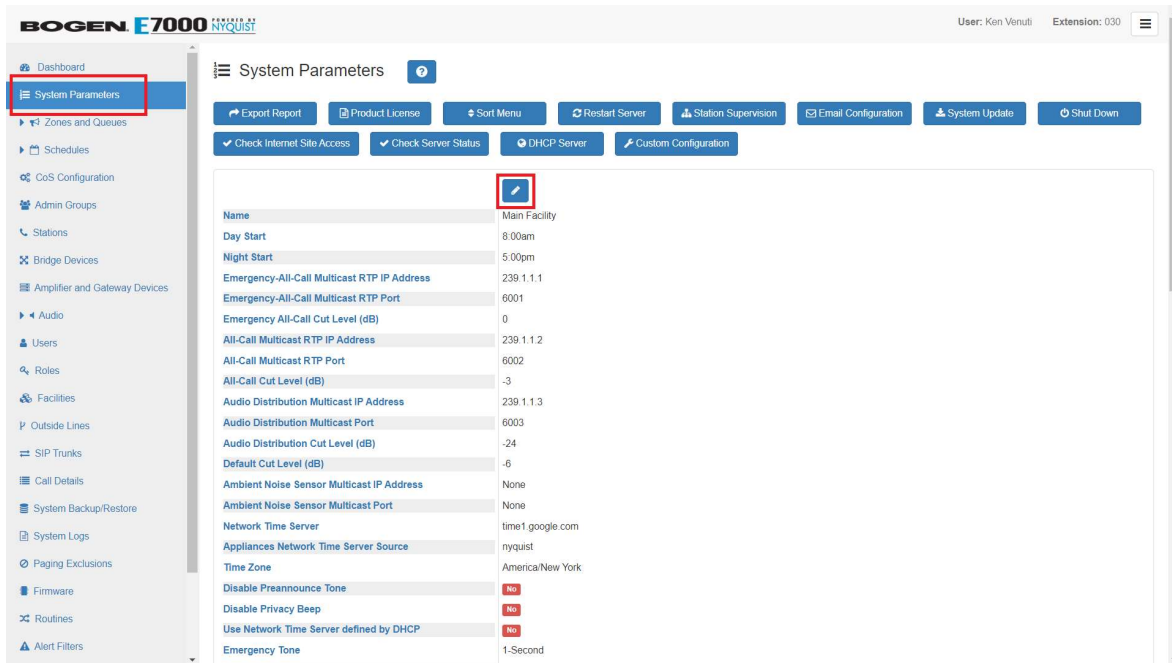
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INTRODUCTION

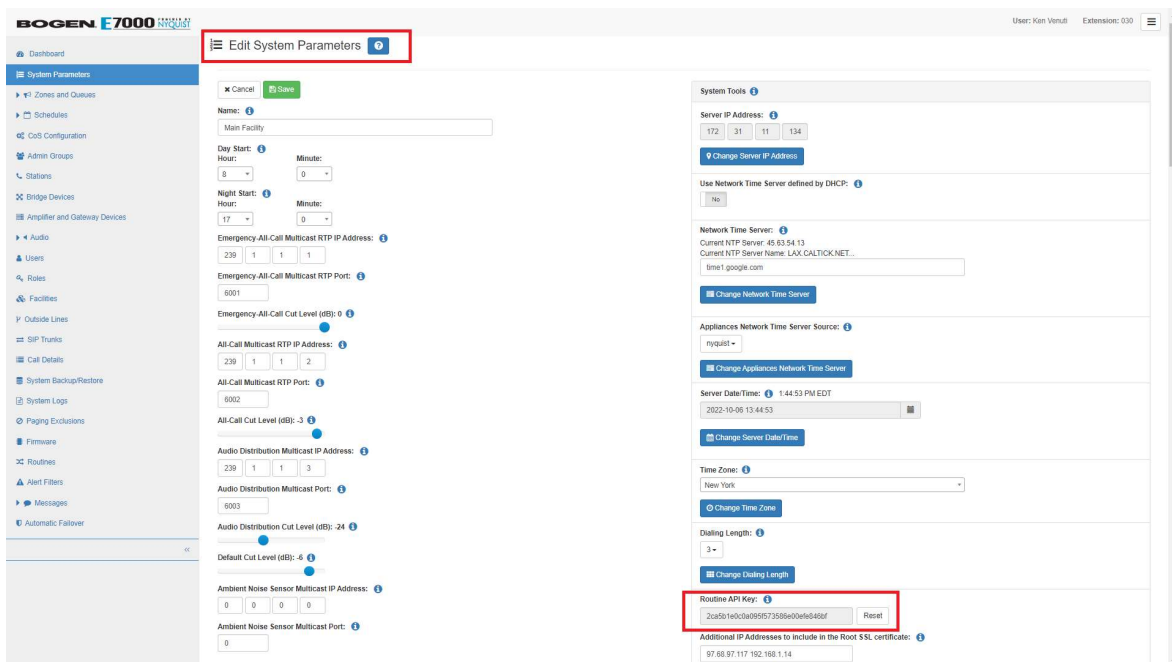
The HALO Smart Sensor can be integrated into the BOGEN Nyquist E7000 & C4000 solutions using HTTPS Messaging. This allows administrators to program HALO Smart Sensor to send notifications to NYQUIST to trigger the execution of Routines, which in turn, will trigger visual and audible notifications to be played in selected zones/areas.

Note : This integration was tested using Bogen Nyquist E7000 version 8.0 and HALO Smart Sensor Device Firmware 2.7.X This integration requires that the Nyquist system to have the Routines API License installed.

BOGEN NYQUIST – SYSTEM PARAMETERS



Click on System Parameters in the left navigation tree, and click the EDIT button as pictured above.



Copy the Routines API Key to the clipboard.

HALO SMART SENSOR – INTEGRATION

Navigate to the HALO Smart Sensor device user interface and click on Integrations.

Primary Integration

Integration Partner: --- Apply Settings ---

Protocol: TCP HTTP Repeat Holdoff: 5 sec

Set String: `https://[redacted]/routine/api/%UID%/0/0/abc/xyz[HEADER]Accept:application/json[HEADER]Content-Type:application/json[HEADER]Authorization:Bearer %PSWD%` On Off

Reset String: On Off

Above you can use:

%NAME% - device name	%THR% - event threshold	%FWVER% - firmware version
%IP% - ip address	%VAL% - sensor value	\\ - 1 back slash
%MAC% - mac address	%DATE% - local date of event	\n - new line
%EID% - event id	%TIME% - local time of event	\r - carriage return
%SOURCE% - data source	%PSWD% - password	\u#### - hex char code
	%USER% - user	More

User: Password:

1. Set Protocol to HTTP.
2. Paste the contents of the COPY of the Routines API Key into the Password field.
3. Copy the text below, edit the IP Address to match the Nyquist Server and paste into the Set String field.

`https://192.168.1.100/routine/api/%UID%/0/0/abc/xyz[HEADER]Accept:application/json[HEADER]Content-Type:application/json[HEADER]Authorization:Bearer %PSWD%`

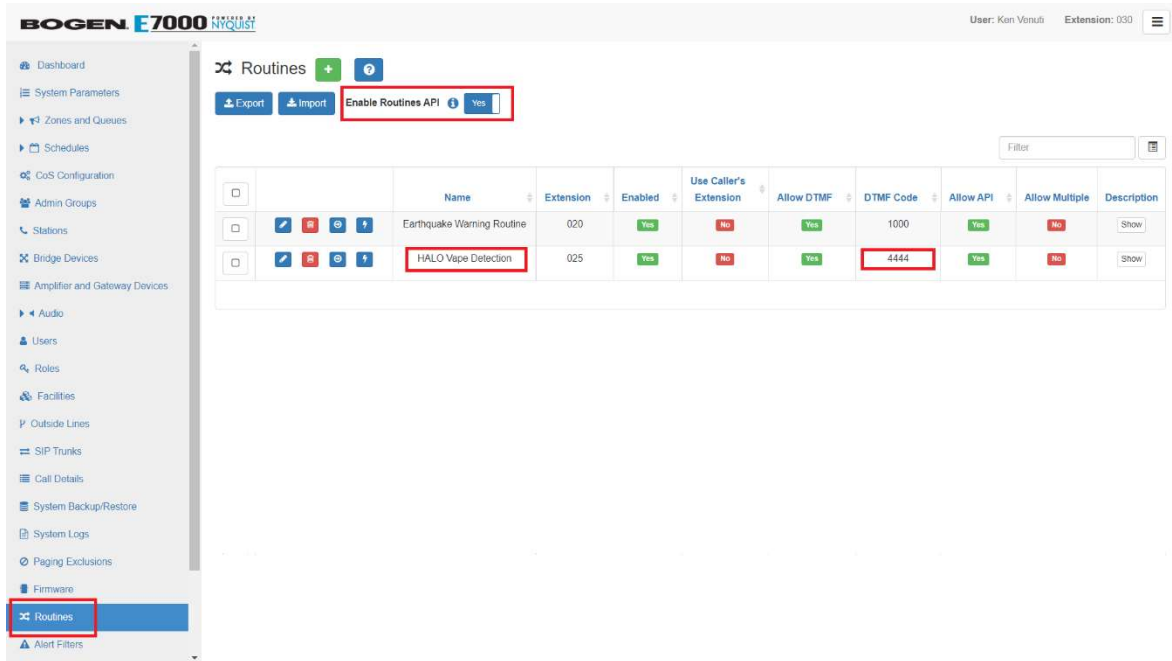
4. Click the On radio button for the Set String.
5. Click the Save button.

HALO SMART SENSOR – ACTIONS

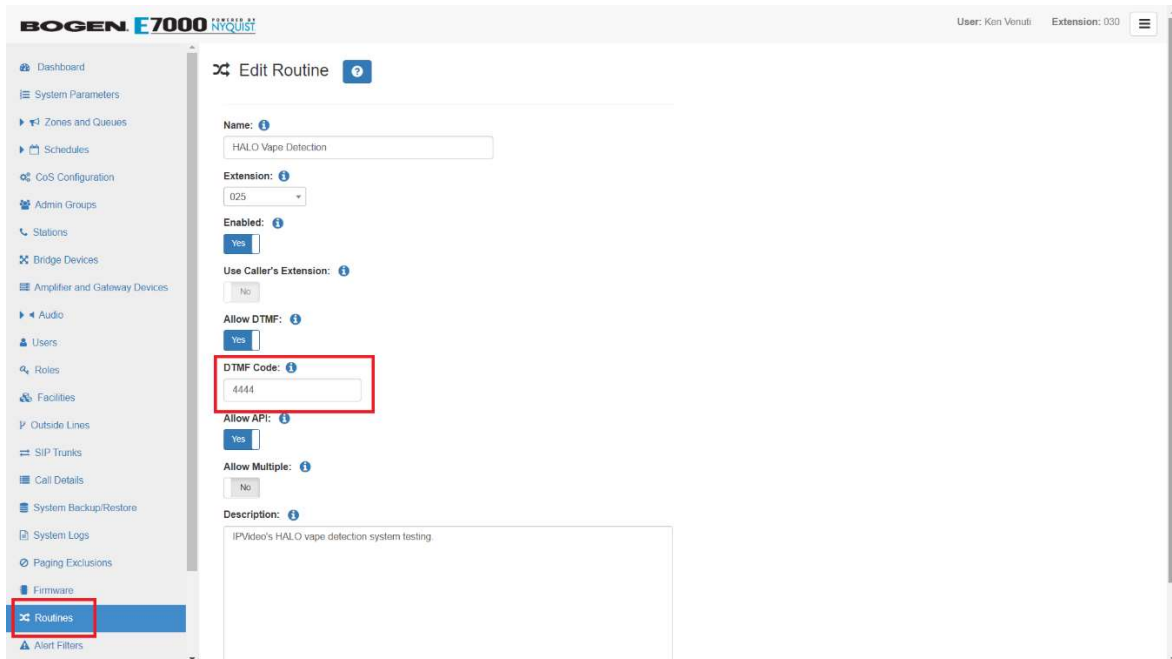
Click on the Actions page and ensure that the “Set” checkbox is checked for each of the integrated events.

Event Identifier	Email		Primary Integration	
	Set	Reset	Set	Reset
Aggression	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AQI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO2cal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gunshot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Health_Index	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Help	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOGEN NYQUIST – ROUTINES MANAGEMENT



1. Click on Routines in the left navigation bar.
2. Enable the Routines API.
3. Click the Add button to add a Routine for each HALO Smart Sensor Event type. Be sure to use a unique DTMF code (i.e., Routine ID) for each Routine.



Edit the Actions of the Routine to add/create the desired actions associated with the HALO Smart Sensor Event type.

The screenshot shows the configuration interface for the BOGEN E7000 NYQUIST system. The left sidebar contains a navigation menu with items such as 'Zones and Queues', 'Schedules', 'CoS Configuration', 'Admin Groups', 'Stations', 'Bridge Devices', 'Amplifier and Gateway Devices', 'Audio', 'Users', 'Roles', 'Facilities', 'Outside Lines', 'SIP Trunks', 'Call Details', 'System Backup/Restore', 'System Logs', 'Paging Exclusions', 'Firmware', 'Routines', and 'Alert Filters'. The 'Routines' item is highlighted with a red box. The main content area displays the configuration for a routine named 'HALO Vape Detection', which is also highlighted with a red box. Below the routine title are 'Done' and 'Triggers' buttons. A 'Filter' input field is present. The main configuration area contains a table with the following data:

	Name	Enabled	Type	Condition	Parameter 1
+ [edit] [delete]	Display Dashboard Alert Message	Yes	Dash-Text	Show	Style: Warning
+ [edit] [delete]	Vape Detect Alert with parameters	Yes	New-Announcement	Show	Emergency
+ [edit] [delete]	TTS Announcement	Yes	Add-Announcement-Audio	Show	TTS This is an IPVideo HALO test. Vaping has been detected c
+ [edit] [delete]	Play TTS Announcement	Yes	Play-Announcement	Show	None
+ [edit] [delete]	Vape Detection Alert Display Msg	Yes	Display-Msg	Show	Zones: All Displays
+ [edit] [delete]	HALO Email Alert	Yes	Email	Show	Emails

HALO SMART SENSOR – EVENTS

1. Click on the Events page on the HALO Smart Sensor device interface.
2. For each event type, enter the DTMF value from each of the Routines created in E7000 in the UID field. Make sure that UID/Event Type matches the desired Routine.
3. Click Save to save the UID values.

PM2.5	PM2.5 (2.5 µm particulates) µg/m³	51	15		Advanced	Test	
Tamper	Move (mm/100)	1400	0	1111	Advanced	Test	
Temp_F	Temperature (F)	80	15		Advanced	Test	
THC	PM10 (10 µm particulates) µg/m³	35	0	5555	Advanced	Test	
TVOC	TVOC ppb	1000	15		Advanced	Test	
Vape	PM10 (10 µm particulates) µg/m³	35	0	4444	Advanced	Test	

Save Changes

Close

HALO SMART SENSOR – TESTING THE CONNECTION

1. Click on the Actions button in the HALO Smart Sensor User Interface.
2. Click on the Test button of an Event Type that has been associated to a Routine to generate a test event.
3. In addition to the Email that all included users in the template receive, the HALO Event should be displayed in the primary dashboard of the Bogen Nyquist interface.

PM2.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	---	Steady	High	---	Test
Tamper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	Red	Steady	High	---	Test
Temp_F	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	---	Steady	High	---	Test
THC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	Green	Steady	High	---	Test
TVOC	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	---	Steady	High	---	Test
Vape	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---	Green	Steady	High	---	Test

Speaker Volume: 86% Upload sound file Choose Sound File Delete sound file ---File To Delete---

The screenshot shows the Bogen E7000 NYQUIST dashboard. The top navigation bar includes the logo, facility name (Main Facility), time (1:57 pm), user (Ken Venuti), and extension (030). The left sidebar contains a menu with categories like System Parameters, Zones and Queues, Schedules, CoS Configuration, Admin Groups, Stations, Bridge Devices, Amplifier and Gateway Devices, Audio, Users, Roles, Facilities, Outside Lines, SIP Trunks, Call Details, System Backup/Restore, System Logs, Paging Exclusions, Firmware, Routines, and Alert Filters.

The main dashboard area is titled "Dashboard" and contains several sections:

- Incoming Calls:** A section for displaying incoming calls.
- Messages:** A list of messages with timestamps and details. The messages are:
 - 2022-10-01 10:52:57 AM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-01 10:55:20 AM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-01 10:57:53 AM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-02 08:12:34 PM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-04 11:37:11 AM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-04 08:08:21 PM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
 - 2022-10-05 02:06:12 PM - This is an IPVideo HALO test. Vaping detected on-premises in building abc, near room xyz. Please alert school security accordingly.
- Site:** A section for site management.
- Calling/Paging:** A section with icons for Directory, Dial Pad, Page Exclusion, Call Forwarding, Zone Page, Record Page, Prepend Page, All Call, Emergency All Call, and Manage Check-in.
- Multi-Site Calling/Paging:** A section with icons for Facility Page, Multi-Site All Call, Multi-Site Emergency All Call, and Facility Announcement.
- Tones/Announcements:** A section with icons for Tone, Announcement, Alarm, and Stop Announcement.