



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring NovaLink NovaAlert H.323/QSIG with Avaya IP Office – Issue 1.0

Abstract

These Application Notes describe the configuration for connecting the NovaLink NovaAlert alarm system via an H.323/QSIG interface to Avaya IP Office.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

The purpose of this document is to describe the configuration for connecting the NovaLink NovaAlert alarm system via an H.323/QSIG interface to Avaya IP Office, as well as the compliance tests which were performed, and a summary of the results of those tests.

The NovaLink NovaAlert is a PC-resident application which is used in a health care, hotel or industrial environment for alerting, messaging or information services. NovaLink NovaAlert can react to external alarm stimuli which indicate the existence of an emergency situation by informing affected persons of the situation.

Alarms can be triggered from various possible input sources including manual input via Web browser, serial interfaces, potential free contacts, SNMP, etc. “Direct” alarms can also be defined which allow alarms to be input and triggered via telephone calls. The alarm triggering described within these Application Notes is restricted to those methods which involve interaction with Avaya IP Office.

Once an alarm has been triggered, the medium selected when the alarm was configured is used to deliver the alarm. Possible delivery interfaces include phone calls (including conferences), E-Mail, Pager, SMS, Fax, etc. Multiple recipients can be configured for an alarm, thus possibly creating multiple simultaneous telephone calls. These application notes only deal with those delivery methods which involve interaction with Avaya IP Office.

Alarms which are triggered via Avaya IP Office can include pre-recorded or ad hoc voice messages, or can generate voice messages via a text-to-speech mechanism. The calling party name can also be configured to contain a brief alarm message, so that this alarm message will appear in the caller list of intended recipients who are unable to answer an alarm call.

NovaLink NovaAlert supports a wide range of interfaces for input and output, where telephony is the one most commonly used for alarming.

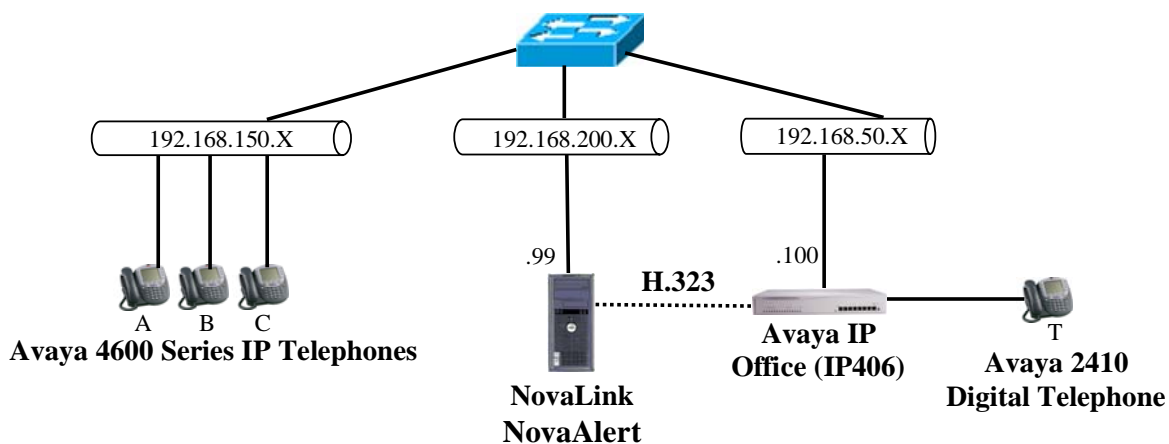


Figure 1: NovaLink NovaAlert Test Configuration

The function of each of the components in **Figure 1** is as follows:

- The NovaLink NovaAlert server is logically connected to Avaya IP Office (IP406) via an H.323/QSIG trunk using the physical LAN/IP interface as transport medium.
- Avaya Telephones are attached to Avaya IP Office (IP406) either directly via a digital interface or via the IP network.
- The NovaLink NovaAlert server signals alarm events via calls to the Avaya Telephones using the communication capabilities of Avaya IP Office.

The following extensions are used for testing:

Extension	Designation
5000136	A
5000134	B
5000133	C
5000001	T
7000000	NovaLink NovaAlert QSIG H.323

Table 1: Extensions Used for Testing

2. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment	Software Version
Avaya IP Office (IP406)	4.0 (5)
Avaya 4600 series H.323 Telephones	2.8
Avaya 2410 Digital Telephones	5.0
NovaLink NovaAlert	7.5
Microsoft Windows Server 2003 SE	SP2

Table 2: Version Numbers of Equipment and Software

3. Configuration

3.1. Configure Avaya IP Office

The configuration and verification operations illustrated in this section were all performed using the Avaya IP Office Manager application. The information provided in this section describes the configuration of Avaya IP Office for this solution. For other information concerning installation, configuration, and provisioning please refer to the product documentation in reference [1].

The configuration operations described in this section can be summarized as follows:

- Configure the dial plan and call routing required for the NovaLink NovaAlert configuration.
- Configure the telephone stations which are to be used for testing.

Note that the configuration screens shown within this section contain red frames around those parameters which are set to something other than the default values. The values for those parameters which are not contained within such frames are left with their default assignments.

Many of the descriptions contained within this section make reference to the “left frame.” This portion of the Manager’s main display contains a list of the components which can be configured, as follows:

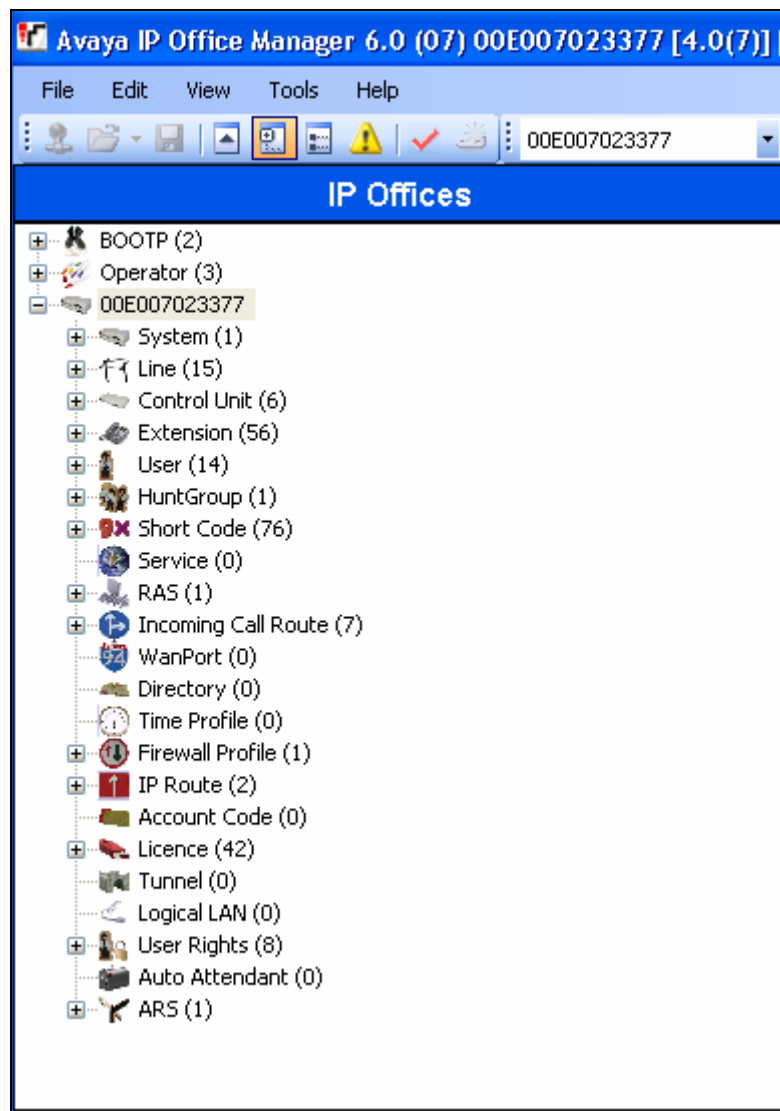


Figure 2: Avaya IP Office Manager Main Menu

3.1.1. Configure System Settings

Expand the “System” icon from the left frame, select the Avaya IP Office system to configure, and set the parameters as shown in **Table 3**.

Tab	Parameter	Usage
LAN1 / LAN Settings	IP Address	Enter the IP address which is to be assigned to Avaya IP Office.
	IP Mask	Enter the IP mask which is to be assigned to Avaya IP Office.
Telephony	Companding Law: Switch	Select the appropriate value for the region in which the system is located: ALAW for Europe.
	Companding Law: Line	Select the appropriate value for the region in which the system is located: ALAW for Europe.

Table 3: “System” Parameters

The screenshot displays the Avaya IP Office configuration interface. At the top, a blue header bar shows the system ID '00E007023377*'. Below this, a series of tabs are visible: System, LAN1 (selected), DNS, Voicemail, Telephony, LDAP, System Alarms, Twinning, CDR, and VCM. Under the LAN1 tab, there are three sub-tabs: LAN Settings (selected), Gatekeeper, and Network Topology. The LAN Settings sub-tab contains several configuration fields. The 'IP Address' field is highlighted with a red rectangle and contains the value '192 . 168 . 50 . 10'. The 'IP Mask' field also contains '255 . 255 . 255 . 0'. Below these, the 'RIP Mode' is set to 'None' with a dropdown arrow. The 'Number Of DHCP IP Addresses' is set to '200' with a spin button. At the bottom, the 'DHCP Mode' is set to 'Disabled', indicated by a green dot next to the 'Disabled' radio button. Other radio buttons for 'Server', 'Client', and 'Dialin' are present but not selected.

Figure 3: Avaya IP Office System Parameters: LAN1 / LAN Settings

00E007023377*

System

LAN1

DNS

Voicemail

Telephony

LDAP

System Alarms

Twinning

CDR

VCM

Default Outside Call Sequence

Normal

Default Inside Call Sequence

Ring Type 1

Default Ring Back Sequence

Ring Type 2

Dial Delay Time (sec)

1

Dial Delay Count

4

Default No Answer Time (secs)

15

Hold Timeout (secs)

15

Park Timeout (secs)

300

Ring Delay (secs)

5

☒ Local Dial Tone

☐ Local Busy Tone

☐ Conferencing Tone

☐ Inhibit Off-Switch Forward/Transfer

☒ Dial By Name

Default Currency

EUR

Companding Law

Switch

☐ ULAW

☒ ALAW

Line

☐ ULAW Line

☒ ALAW Line

Busy Tone Detection

Mode

System Frequency

Single Freq. [10Hz]

42

Dual Freq. [10Hz]

48

+

62

On Width [10ms]

50

Off Width [10ms]

50

☐ GSM Silence Suppression

☒ Show Account Code

☒ Auto Hold

☐ Use External Music on Hold

☐ WAN Mode Override

Disconnect Tone

Default

Figure 4: Avaya IP Office System Parameters: Telephony

3.1.2. Configure H.323 Line to NovaLink NovaAlert

Select the “line” icon from the left frame of the Avaya IP Office Manager, as shown in **Figure 2**. Click on the right mouse button and select “New” -> “IP Line” and set the parameters for the new line as shown in the table below.

Parameter	Usage
Telephone Number	This parameter is used for informational purposes only.
Incoming Group ID	Select an unused group number, or use the default value.
Outgoing Group ID	Select the same group as for “Incoming Group ID”.
Number of Channels	Select a number which is sufficient to handle the maximum anticipated number simultaneous calls.
Outgoing Channels	Select the same value as used for “Number of Channels”.
Voice Channels	Select the same value as used for “Number of Channels”.
Data Channels	Select the same value as used for “Number of Channels”.

Table 4: H.323 Line Parameters

The screenshot shows the 'IP - Line 2' configuration window in the Avaya IP Office Manager. The 'VoIP Line' tab is active. The 'Incoming Group ID' is set to 2, and the 'Outgoing Group ID' is also set to 2. The 'Number of Channels', 'Outgoing Channels', 'Voice Channels', and 'Data Channels' are all set to 20. The 'Line Number' is 2 and 'TEI' is 0. The 'Telephone Number' field is empty. The 'Prefix', 'National Prefix', and 'International Prefix' fields are also empty. Red boxes highlight the 'Incoming Group ID' and 'Outgoing Group ID' fields, and another red box highlights the 'Number of Channels', 'Outgoing Channels', 'Voice Channels', and 'Data Channels' fields.

Figure 5: H.323 Line - VoIP Line Tab

Select the parameters shown in the table below for the “VoIP Settings” tab.

Parameter	Usage
Gateway IP Address	Enter the IP address of the NovaLink NovaAlert server.
Compression Mode	Select “Automatic Select” from the drop-down list.
H450 Support	Accept the default value of “H450”.
Enable Faststart	Check this box.
Out Of Band DTMF	Check this box.
Allow Direct Media Path	Check this box.

Table 5: H.323 VoIP Settings Parameters

IP - Line 2

VoIP Line Short Codes VoIP Settings

Gateway IP Address 192 . 168 . 200 . 99

Voice Payload Size (ms) 0

Compression Mode Automatic Select

H450 Support H450

☐ VoIP Silence Suppression

☒ Enable Faststart

☐ Local Tones

☐ Enable RSVP

☒ Out Of Band DTMF

☒ Allow Direct Media Path

☐ Voice Networking

☐ Fax Transport Support

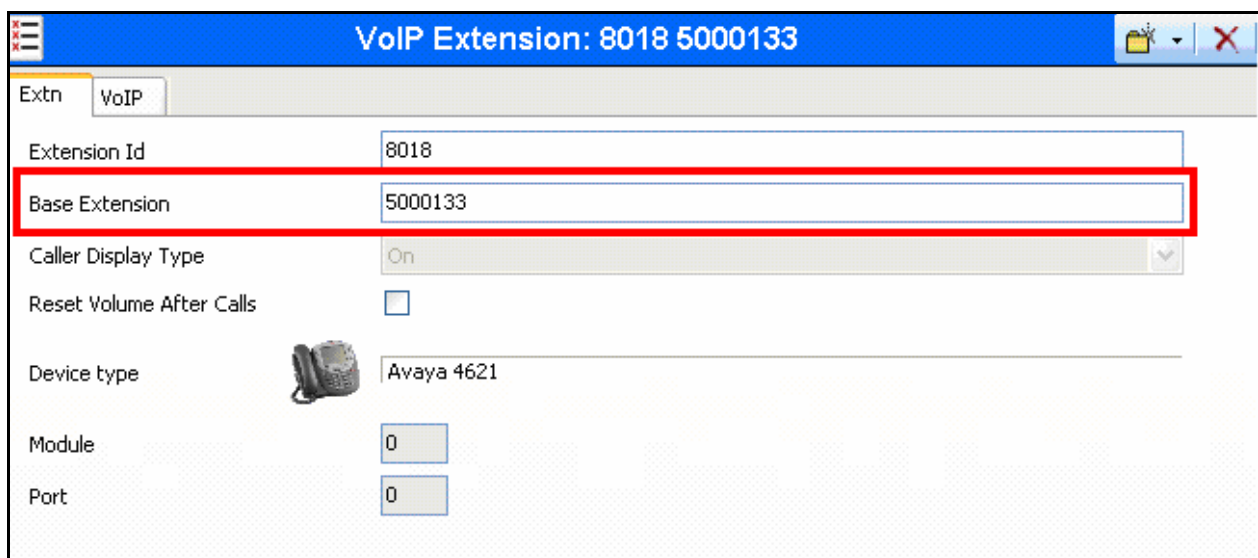
Figure 6: H.323 Line - VoIP Settings Tab

3.1.3. Configure H.323 Telephone Extensions

When the Call Server address Avaya IP Telephone is assigned to the IP address of IP Office, a default extension is allocated by IP Office for that device upon its initial registration. For each of the stations A-C, reassign this default extension to one of the extensions shown in **Table 1**, and configure each of these extensions using the parameters shown in **Table 6**.

Tab	Parameter	Usage
Extn	Base Extension	Enter one of the extensions to be assigned to stations A-C, as shown in Table 1 .
	Device type	Accept the device type which was assigned when this device was initially registered by IP Office.
VoIP	Compression Mode	Select G.711 ALAW 64K.
	Out Of Band DTMF	Check this box.
	Allow Direct Media Path	Check this box.

Table 6: Extension Parameters



The screenshot shows a configuration window titled "VoIP Extension: 8018 5000133". It has two tabs: "Extn" and "VoIP". The "Extn" tab is active. The "Base Extension" field is highlighted with a red rectangle and contains the value "5000133". Other fields include "Extension Id" (8018), "Caller Display Type" (On), "Reset Volume After Calls" (unchecked), "Device type" (Avaya 4621), "Module" (0), and "Port" (0).

Figure 7: Extensions: Extn Tab

VoIP Extension: 8018 5000133

Extn VoIP

IP Address 0 . 0 . 0 . 0

MAC Address 00 00 00 00 00 00

Voice Payload Size (ms) 20

Compression Mode G.711 ALAW 64K

Gain Default

H450 Support None

☐ VoIP Silence Suppression
☐ Enable Faststart for non-Avaya IP phones
☐ Fax Transport Support
☒ Out Of Band DTMF
☐ Local Tones
☐ Enable RSVP
☒ Allow Direct Media Path




Figure 8: Extensions: VoIP Tab

3.1.4. Configure Digital Telephone Extensions

When the Avaya 2410 Digital Telephone (shown as “T” in **Figure 1**) is initially attached to Avaya IP Office, it is assigned a default extension. Select the “Extension” icon from the IP Office Manager, as shown in **Figure 2**, and assign parameter the values shown in **Table 7**.

Tab	Parameter	Usage
Extn	Base Extension	Enter the extension to be assigned to station T.
	Device type	Use the value which was assigned by IP Office when the device was initially registered.

Table 7: Extension Parameters

 **Digital Extension: 35 5000001**  

Extn


Extension Id	35
Base Extension	5000001
Caller Display Type	On
Reset Volume After Calls	<input type="checkbox"/>
Device type	 Avaya 2410
Module	BD
Port	1

Figure 9: Extensions: Extn Tab

3.1.5. Configure Users

Configure users by performing an “add” operation via the “Users” icon contained in the left frame for stations A-C and T.

Tab	Parameter	Usage
User	Name	Enter a name which identifies the user.
	Extension	Enter one of the extensions A-C,T.
Telephony	Can Intrude	Check this box.
	Cannot be Intruded	Uncheck this box.

Table 8: User Parameters

Extn5000133: 5000133

User DND ShortCodes Source Numbers Telephony Forwarding Dial In Button Programming Menu Programming Twi

Name Extn5000133

Password

Confirm Password

Full Name

Extension 5000133

Locale

Priority 5

☐ Ex Directory

Device Type Avaya 4621

User Rights

User Rights view User data

Working hours time profile <None>

Working hours User Rights

Out of hours User Rights

Figure 10: Users: User Tab

Extn5000133: 5000133*

User DND ShortCodes Source Numbers **Telephony** Forwarding Dial In Button Programming Menu Programming Twir

Outside Call Sequence Default Ring

Inside Call Sequence Default Ring

Ringback Sequence Default Ring

No Answer Time (secs)

Wrap-up Time (secs) 2

Transfer Return Time (secs)

Individual Coverage Time (secs) 10

Login Code

Login Idle Period (secs)

Monitor Group <None>

Ring Delay (secs)

Call Cost Mark-Up 100

Status on No-Answer Logged On (No change)

Multi Line Options

☒ Ringing Line Preference

☒ Idle Line Preference

☐ Delayed Ring Preference

☐ Answer Pre-Select

Reset Longest Idle Time

☒ All Calls

☐ External Incoming

☐ Call Waiting On

☒ Answer Call Waiting On Hold (Analogue)

☐ Busy On Held

☐ Outgoing Call Bar

☐ Offhook Station

☒ Can Intrude

☐ Cannot be Intruded

☐ Force Login

☐ Force Account Code

☐ System Phone

☐ Inhibit Off-Switch Forward/Transfer

☐ Reserve Last CA

☐ Can Trace Calls

Figure 11: Users: Telephony Tab

3.1.6. Configure Short Codes

Configure Short Codes by performing an “add” operation via the “Short Codes” icon contained in the left frame of the main Manager window.

3.1.6.1 Configure Short Code for Routing to NovaLink NovaAlert

Create a short code to route calls to seven-digit extensions beginning with “7” to the NovaLink NovaAlert H.323 trunk.

Tab	Parameter	Usage
Short Code	Code	Enter “7XXXXXX”.
	Feature	Enter “Dial”.
	Telephone Number	Enter “.” to dial the entire extension which was recognized.
	Line Group Id	Enter the group number assigned to the H.323 line in Section 3.1.3 .

Table 9: User Parameters

The screenshot shows a configuration window titled "7XXXXXX: Dial". It has a tab labeled "Short Code". The form contains the following fields:

- Code: 7XXXXXX
- Feature: Dial (dropdown menu)
- Telephone Number: .
- Line Group Id: 2 (dropdown menu)
- Locale: (dropdown menu)
- Force Account Code: ☐

A red rectangular box highlights the "Code", "Feature", "Telephone Number", and "Line Group Id" fields.

Figure 12: Short Codes: Short Code Tab

3.2. Configure NovaLink NovaAlert

3.2.1. Configuration file NovaAlert.ini

The “NovaAlert.ini” configuration file (as shown in **Figure 13**) is a “flat” ASCII file which can be edited with a text editor. This file is contained in the main installation directory on the NovaLink NovaAlert server (e.g. C:\Program Files\NovaAlert). Set the parameter values in the file as indicated in **Table 10**. Note that the “DefaultCallingParty” and “LocalUserName” parameters can be assigned to the same extension, as these parameters are used by different subcomponents of the NovaAlert server.

Parameter	Usage
CardDriver	Set this value to “3” to select the H.323 driver.
DefaultCallingParty	This number should be configured to lie within the dialing plan and be chosen such that calls originating from Avaya IP Office are routed to the trunk used to connect to NovaLink NovaAlert. A value of “7000000” was used for testing.
QSIGStandard	Set this value to “2” for “QSIG ISO over H.323”.
CNIPAktiv	Set this value to “1” to enable Calling Name Interpretation Presentation.
DriverPref	Set this value to “2” for H.323.
LocalUserName	This number should be configured to lie within the dialing plan and be chosen such that calls originating from Avaya IP Office are routed to the trunk used to connect to NovaLink NovaAlert. A value of “7000000” was used for testing.
H323_Gateway	Enter the IP address of the Avaya IP Office platform.
H323_UseGateKeeper	Enter a value of “0” to disable the NovaLink NovaAlert gatekeeper.
H323_UseFastStart	Enter a value of “0” to disable the FastStart.
H323_UseH245Tunneling	Enter a value of “1” to enable H.245 tunneling.

Table 10: Extension Parameters

```
[CallInfo]
CardDriver=3
DefaultCallingParty=7000000
QSIGStandard=2
CNIPAktiv=1

[VoIP]
DriverPref=2
LocalUserName=7000000
H323_Gateway=192.168.50.10
H323_UseGateKeeper=0
H323_UseFastStart=0
H323_UseH245Tunneling=1
```


Figure 13: NovaAlert.ini Configuration File Content

3.2.2. Configure NovaLink NovaAlert Application

Start the “NovaAlert Web Client” application from the Windows “start” control. The administration screen (see below) is presented.

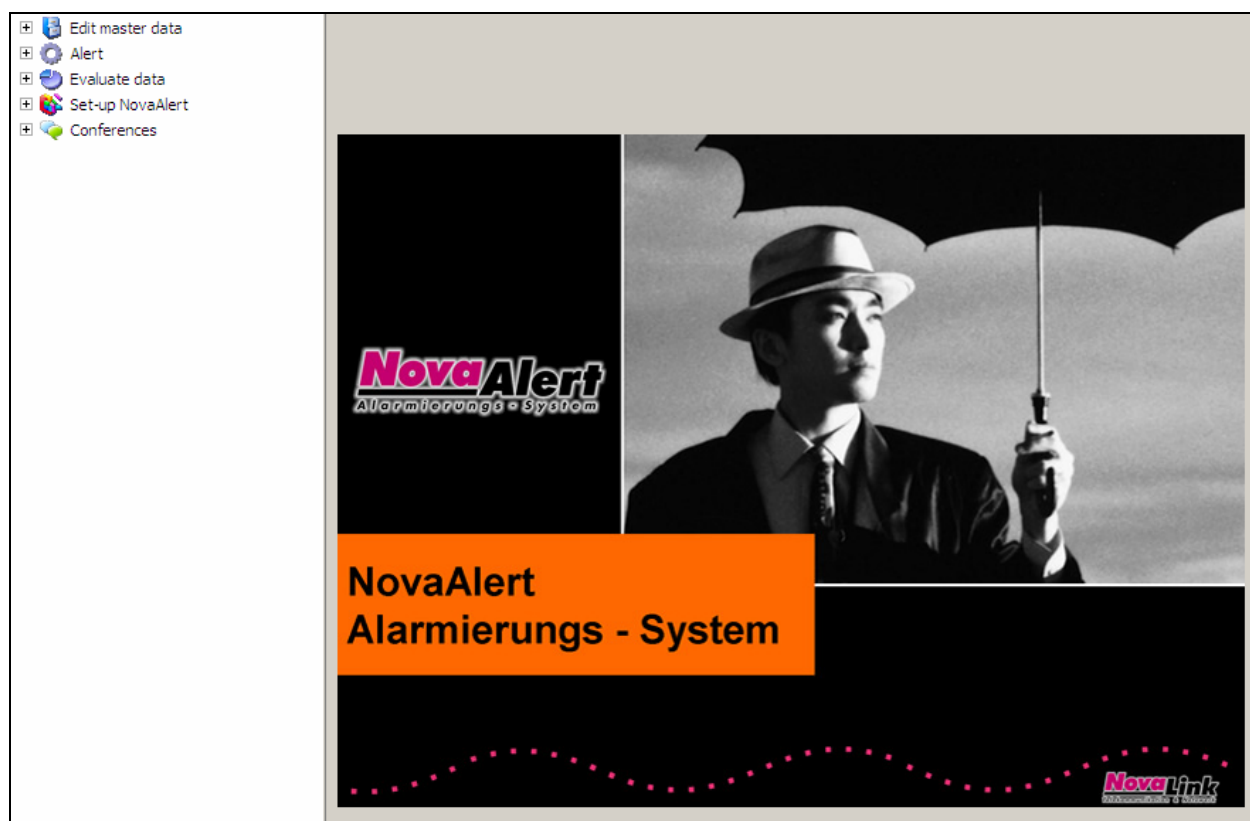


Figure 14: NovaLink NovaAlert Introductory Screen

3.2.3. Configure Users

Expand the “Edit master data” icon from the left frame, then select “User master data”. When the “Person definitions” screen appears, click the “New person” button to display the “Edit person” dialog box, shown below. In the “Personal details” tab, enter the name and a PIN code to be assigned to the user. This PIN code will be used by the user when an authorization sequence is required.

The screenshot shows the 'Edit person' dialog box with the 'Personal details' tab selected. The left sidebar contains a tree view with 'Edit master data' expanded, showing 'User master data' selected. The main area has fields for 'No.', 'Name', 'Name:', 'Add. information:', 'Name of street:', 'ZIP/Town/City:', 'Lingua:', 'PIN code:', 'Personal ID:', and a 'Deactivated' checkbox. The 'Name' field contains 'Apparat 5000136' and the 'PIN code' field contains '1234'. At the bottom are 'Save changes' and 'Discard' buttons.

Field	Value
No.:	
Name:	
Name:	Apparat 5000136
Add. information:	
Name of street:	
ZIP/Town/City:	
Lingua:	German
PIN code:	1234
Personal ID:	
Deactivated	<input type="checkbox"/>

Figure 15: Edit Person Screen, Personal Details Tab

Select the “Telephone numbers” tab, enter the telephone numbers to be assigned to the user (which should correspond to the telephones added in **Sections 3.1.4 and 3.1.5**), and click the “Save changes” button.

The screenshot shows the 'Edit person' screen with the 'Telephone numbers' tab selected. The sidebar on the left contains icons for 'User master data', 'Group definition', and 'Alarm definition'. The main content area has a search bar at the top and a list of configuration options on the left. The 'Telephone numbers' tab is active, showing a table with columns for 'On-call duty' and 'On-call duty'. The table has rows for Office 1, Home 1, Mobile 1, SMS GSM 1, DECT 1, Fax 1, Serial 1, Pager 1, Pager 2, E-Mail, and PC-Name/IP. Each row has a text input field and a checkbox. The 'Office 1' row has the value '5000136' in the text field. The 'Save changes' and 'Discard' buttons are at the bottom.

Figure 16: Edit Person Screen, Telephone Numbers Tab

Repeat this for the other extensions which are used for testing.

3.2.4. Configure Alarms

Select the “Alarm definition” icon in left frame of the display. When the “Alarm definition” screen appears, click the “New Alarm” button. In the screen that follows (see below), select the “General” tab and configure the information shown in the following table.

Parameter	Usage
Description	Enter a name to be assigned to the alarm.
Pin code for trigger	Enter the PIN code to be used for alarm recipient verification.
Priority	Select “Höchste Priorität” (highest priority) from the drop-down box.
Group call	Select “Group Call” from the drop-down box.
Nbr. Of pers. To be contac	Select “Alle” (all) from the drop-down box.
Based on person	Check this box.
Display on reports	Check this box.
Select contact group	Select the “Compile individual alert list” radio button.

Table 11: NovaLink NovaAlert General Alarm Configuration Parameters

The screenshot displays the 'Alarm definition' window with the 'General' tab selected. The left sidebar shows the 'Alarm definition' icon highlighted. The main form contains the following fields and values:

- No.:** [Empty text box]
- Description:** [Testalarm]
- Pin code for trigger:** [1234]
- Voice no.:** [Empty text box]
- Priority:** [Höchste Priorität]
- Group call:** [Group Call]
- Number of attempts:** [1]
- Nbr. of pers. to be contac.:** [Alle]
- Mailbox to be checked:** [Empty text box]
- Based on person:** ☒
- Display on reports:** ☒
- Select contact group:**
 - ☐ Use predefined group
 - ☒ Compile individual alert list
 - ☐ Use predefined group with time
- Contact group dropdown:** [<No selection>]
- Buttons:** [Save changes] [Discard]

Figure 17: Alarm Definition Screen, General Tab

Select the “Messages” tab, configure the information shown in the following table and click the “Save changes” button.

Parameter	Column	Usage
Phone display	Alarm messages	Enter the text message which is to be shown on the Avaya telephone display. The length of this message should not exceed the maximum calling party name text length which can be displayed by Avaya Telephones, which is 15 characters for telephones used for these tests.
	Event text	Select “Yes” from the drop-down box.
	Call type	Select “Dauer” from the drop-down box.
	copy	Select this check box.
Phone TTS		Select the check box which is positioned to the left of the “Alarm messages” text box.
	Alarm messages	Enter the text message which is converted to speech and announced to the party receiving the alarm.
	Event text	Select “Yes” from the drop-down box.

Table 12: NovaLink NovaAlert Alarm Messages Configuration Parameters

Figure 18: Alarm Definition Screen, Messages Tab

Select the “Alarm list” tab, configure the information shown in the following table and click the “Save changes” button.

Parameter	Usage
Person / IP output	Select the name of the recipient to which the alarm is to be sent from the upper drop-down box.
Tel. number	Select the recipient’s endpoint to which the alarm is to be sent from the lower drop-down box.

Table 13: NovaLink NovaAlert Alarm List Configuration Parameters

The screenshot displays the 'Alarm definition' window with the 'Alarm list' tab selected. The window includes a search bar at the top and a sidebar on the left with icons for various system functions. The main configuration area contains a table with the following data:

Item	Person / IP output	Tel. number	Conference	Quittance	Intrusion	Delay
	User 5000136 (Person)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
	Office 1 (5000136)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Below the table, there are buttons for 'Renummer positions', 'Cancel', 'Save', and 'Add'. At the bottom of the window, there are 'Save changes' and 'Discard' buttons.

Figure 19: Alarm Definition Screen, Alarm list Tab

3.2.5. Configure Direct Alarms

The Direct Alarm function maps a specific Called Party Number to an alarm, so that when this number is dialed, the caller records a message (optional) and the alarm is triggered. The recorded message is played on the alarmed stations.

Select the “Directalarms” icon in left frame of the display. When the “Direct alarm” screen appears, click the “New Alarm” button.

Select the “General” tab, configure the information shown in the following table, and click the “Save changes” button.

Parameter	Usage
Description	Enter a name to be assigned to the alarm.
Initiating call number	Enter the telephone number which is to be used by NovaLink NovaAlert to make the alarm call. For testing a number of 7111111 was used.
PIN Code	Enter a PIN code that needs to get input to trigger the alarm. Leave empty if none is required. Note that this PIN code is assigned to the alarm, and is independent of the PIN code assigned to the user in Figure 15 .
Alarm no.	Select one of the alarms configured in Section 3.2.4 from the drop-down box.
Alarm text	Input an alarm text to display on the alarmed stations (as Calling Party Name). Leave empty for the default alarm text.
Recording	Check this box to allow the recording of an alarm message per call.
Min. recording time	Enter the minimum recording time, in seconds.
Conference	Check this box to include the triggering (calling) party in an alarm conference with the alarmed stations.

Table 14: NovaLink NovaAlert General Direct Alarm Configuration Parameters

Search in: User master data Search for: Christoph Rölli

Edit master data
 User master data
 Group definition
 Alarm definition
 Potential-free contacts
 Serial interfaces
 Data base interfaces
 Email (SMTP)
 DECT
 SNMP
 OPC
 IP-In/Output
 Directalarms
 Automatic Alarms
 Alert
 Evaluate data
 Set-up NovaAlert
 Conferences

User master data
 Group definition
 Alarm definition

Direct alarm

Back

No.: Description:

General Notes

Description: Directalarm Testalarm

Initiating call number: 7111111

PIN code: 1234

Alarm no.: 15 (Testalarm)

Alarm text:

Recording: ☒

Min. recording time: 2 Second(s)

Conference: ☐

Save changes Discard

Figure 20: Direct alarm Screen, General Tab

4. Interoperability Compliance Testing

The interoperability compliance tests included feature and serviceability testing.

The feature testing focused on testing use case scenarios which involve interaction between the NovaLink and Avaya products, including various sequences involving:

- Verification of the correct delivery of alarm voice messages
- Verification of the correct display of alarm text messages
- Verification of the ability of NovaLink NovaAlert to recognize DTMF tones.
- Verification of the ability of Avaya telephones to correctly log unanswered alarms.

The serviceability testing focused on verifying that the NovaLink server can recover from interruption to interface connections which can occur during routine maintenance activities. Each of these units was also tested for recovery from unexpected power interruption.

4.1. General Test Approach

The test method employed can be described as follows:

- The individual features of the NovaLink NovaAlert were tested by manually generating alarms from the NovaLink NovaAlert console and manually making calls from Avaya Telephones.
- NovaLink NovaAlert server robustness was tested by verifying its ability to recover from interruptions to its external connections via the LAN between the NovaLink NovaAlert and the network.
- Verifying the ability to recover from power interruptions to the NovaLink NovaAlert server further tested its robustness.

All testing was performed manually. The tests were all functional in nature, and no performance testing was done.

4.2. Test Results

The following problems were encountered during testing:

- It is not possible to interrupt existing calls to deliver alarm messages, as Avaya IP Office does not support this capability over trunks.
- It is not possible for NovaLink NovaAlert to detect that an Avaya 4600 series IP Telephone is disconnected, as this status is not reported to the caller by Avaya IP Office.

These issues did not prohibit the solution from meeting Avaya compliance test requirements.

5. Verification Steps

The following steps can be performed to verify the basic operation of the various system components:

- Verify that Avaya IP Office and the NovaLink NovaAlert server can ping each other.
- Start the NovaLink NovaAlert Monitor from the Windows “Start” control, and verify that the “Line Status” control is green to indicate that the interface to the IP Office is operational.
- Verify that it is possible to navigate the NovaLink NovaAlert voice menu from each of the Avaya Telephones by calling the NovaLink NovaAlert extension, and entering key sequences in response to prompting requests from NovaLink NovaAlert.
- Verify the ability of Avaya Telephones to correctly log unanswered alarms by initiating an unanswered alarm call from NovaLink NovaAlert to each of the Avaya Telephones, verifying the name and number in the log of the telephone, and subsequently dialing the caller from the telephone log.

6. Support

Technical support from NovaLink can be obtained through the following:

NovaLink GmbH
Businessstower
Zuercherstrasse 310
8500 Frauenfeld
Switzerland
helpdesk@novalink.ch
Phone: +41 52 762 66 77
Fax: +41 52 762 66 99

7. Conclusion

These Application Notes describe the configuration for connecting the NovaLink NovaAlert alarm system via an H.323/QSIG interface to Avaya IP Office. The various features of the NovaLink NovaAlert which involve its telephone interface were tested. NovaLink NovaAlert passed all of the tests performed, which included both functional and robustness tests.

8. Additional References

- [1] *IP Office 4.0 Installation Manual*, February 2007, Issue 1, Document Number 15-601047.
[2] *NovaAlert 7.5 Manual*, May 2007

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