



Avaya Solution & Interoperability Test Lab

Application Notes for configuring NovaLink NovaAlert with Avaya IP Office R9.1 - Issue 1.0

Abstract

These Application Notes describe the configuration steps for NovaAlert from NovaLink with Avaya IP Office R9.1. NovaAlert integrates with Avaya IP Office using SIP Trunks.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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

These Application Notes describe the configuration steps for NovaAlert from NovaLink to interoperate with Avaya IP Office R9.1 Server Edition with an Avaya v2 500 expansion.

NovaAlert is an application which is used in a health care, hotel or industrial environment for alerting, messaging or information services. 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, Smartphone Apps's, Databases, E-Mails, serial interfaces, potential free contacts, SNMP, OPC, SMS, IP, etc. "Direct" alarms can also be defined which allow alarms to be input and triggered via telephone calls. The alarm triggering described 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), Smartphone App's, Desktop-Clients, E-Mail, Pager, SMS, Fax, Printers, etc. Multiple recipients can be configured for an alarm, thus possibly creating multiple simultaneous telephone calls. This test plan focuses on 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

2. General Test Approach and Test Results

This section describes the compliance testing used to verify interoperability of NovaAlert with IP Office and covers the general test approach and the test results. Calls were made to and from NovaAlert over SIP trunks connecting Avaya IP Office and NovaAlert. IP Office Server Edition with a 500 v2 expansion was used for compliance testing and various Avaya endpoints were registered to the Server Edition side and the 500 v2 side using all endpoints during compliance testing. The SIP trunk was connected between the Server Edition and NovaAlert with all number/dial-plan setup with that in mind.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1 Interoperability Compliance Testing

The interoperability compliance testing evaluated the ability of NovaAlert to carry out a variety of alarming functions, in various conditions, to multiple types of endpoint according to the configuration made via the web interface. These included recording of alarms from SIP/H.323/Digital endpoints.

- Delivery of voice recorded and TTS alarm to SIP/H.323/Digital endpoints.
- Intrusion calls to deliver alarms.
- Verification of Calling Party Name.
- Over-ride forwarding to deliver alarms.
- Following forwarding to deliver alarms.
- Alarms delivered to Voicemail.
- DTMF PIN Entry.

Serviceability testing consisted of verifying the ability of NovaAlert to recover from power or network interruption to both IP Office and NovaAlert.

2.2 Test Results

All functionality and serviceability test cases were completed successfully. The following observation was noted during the compliance testing.

- Voicemail was not setup on IP Office so a test for the alarm going to voicemail was skipped.

2.3 Support

Technical support can be obtained for NovaAlert from the website <http://www.novalink.ch/en/> or from 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

3. Reference Configuration

The configuration in **Figure 1** is used to compliance test NovaLink NovaAlert with Avaya IP Office Server Edition R9.1 & an expansion using an Avaya IP Office 500v2. The connection between the NovaAlert and the IP Office solution is via SIP Trunks.

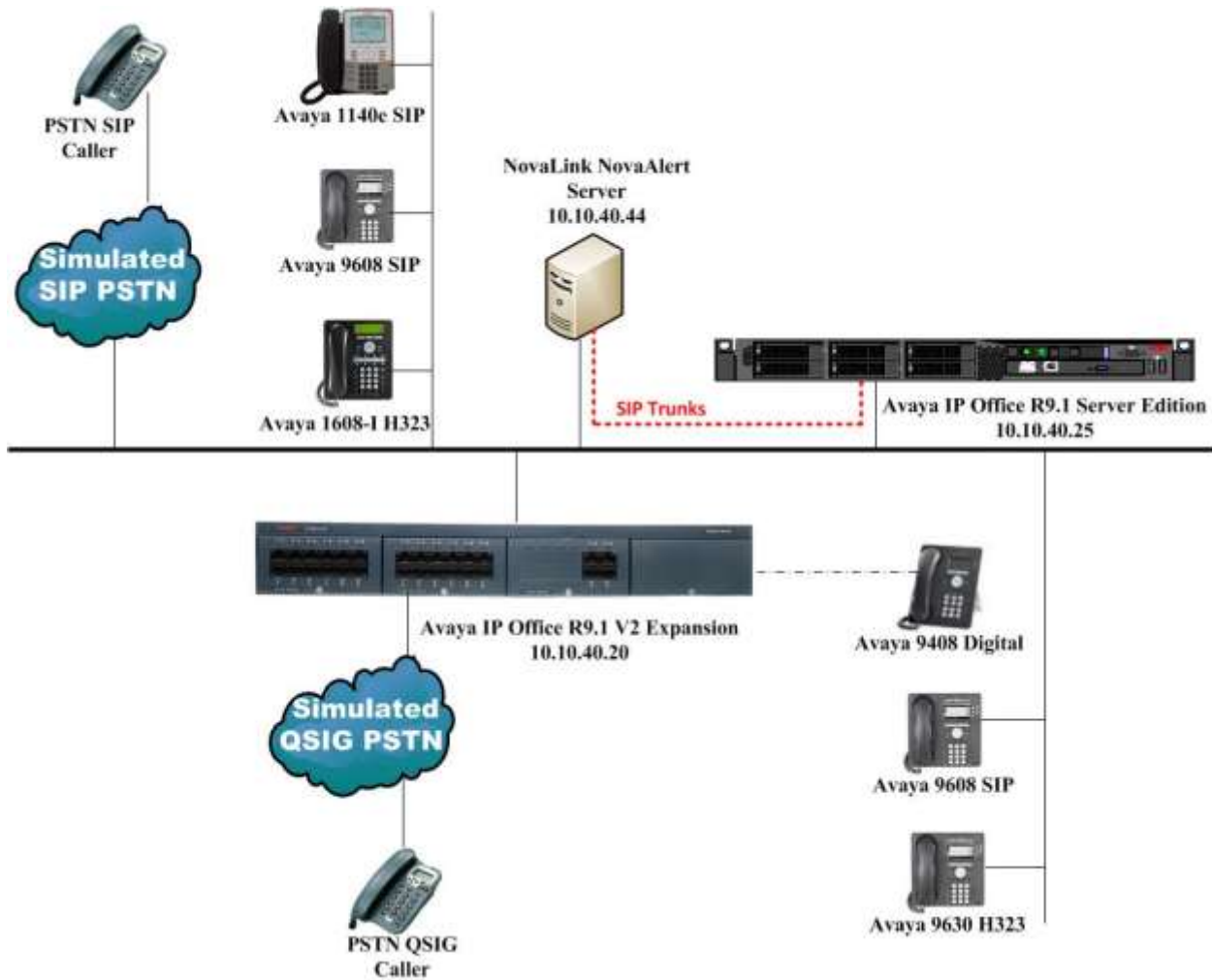


Figure 1: Connection of NovaAlert from NovaLink with Avaya IP Office Server Edition & Expansion R9.1

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office Server Edition running on a virtual server (Primary Server)	R9.1
Avaya IP Office v500 (Expansion)	R9.1
Avaya 1608 I Deskphone	H323 1608UA1_350B.bin
Avaya 9630 Deskphone	96xx H.323 Release 6.4014U
Avaya 9608 Deskphone	96x1 SIP 6.4.1.25
Avaya 1140e SIP	R 04.03.12.00
Avaya 9408 Digital	Version 2
NovaAlert running on a Windows 2012 virtual server	9.8

Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500 V2 and also when deployed with IP Office Server Edition in all configurations.

Testing was performed with IP Office Server Edition R9.1. Note that IP Office Server Edition requires an Expansion IP Office 500 v2 R9.1 to support analog or digital endpoints or trunks.

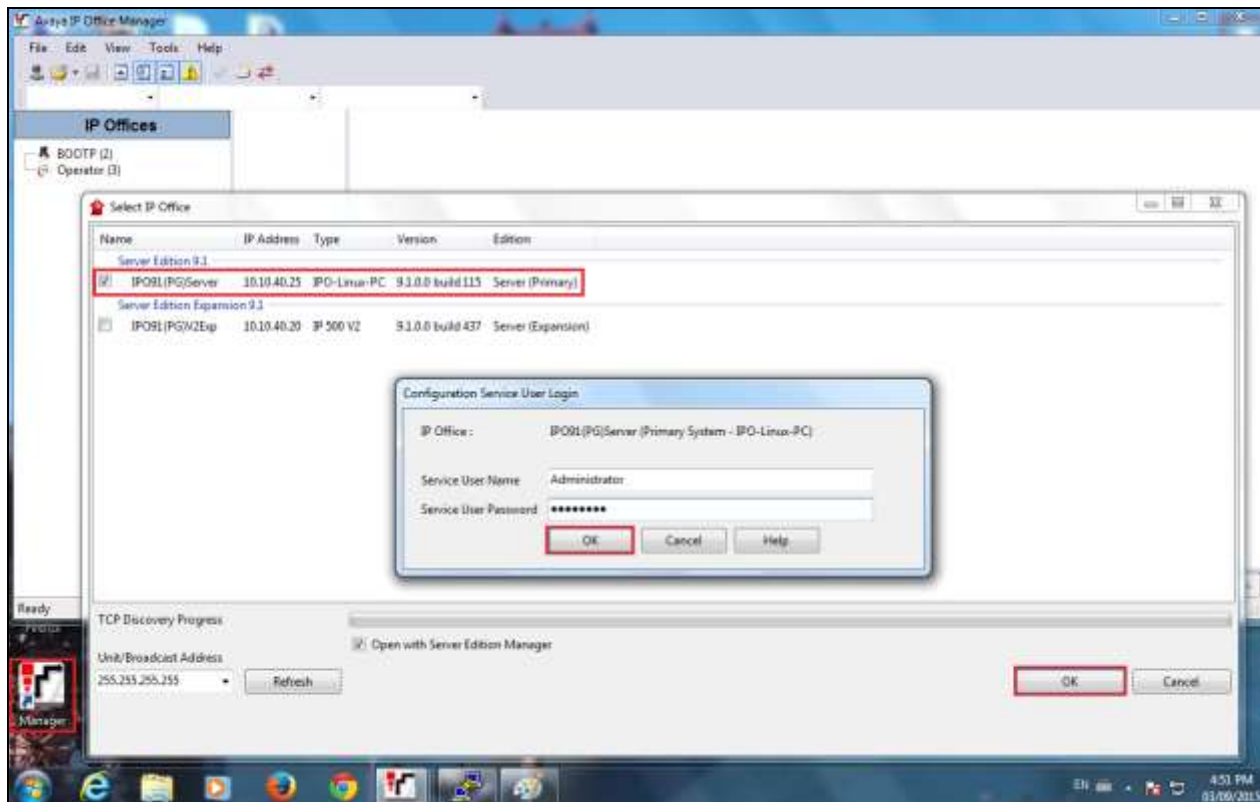
5. Configuration of Avaya IP Office

Configuration and verification operations on the Avaya IP Office illustrated in this section were all performed using Avaya IP Office Manager. The information provided in this section describes the configuration of the Avaya IP Office for this solution. It is implied a working system is already in place. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Launch Avaya IP Office Manager.
- Display LAN Configuration.
- Configure Incoming Route for SIP Trunk.
- Configure SIP Trunk.
- Save Configuration.

5.1 Launch Avaya IP Office Manager

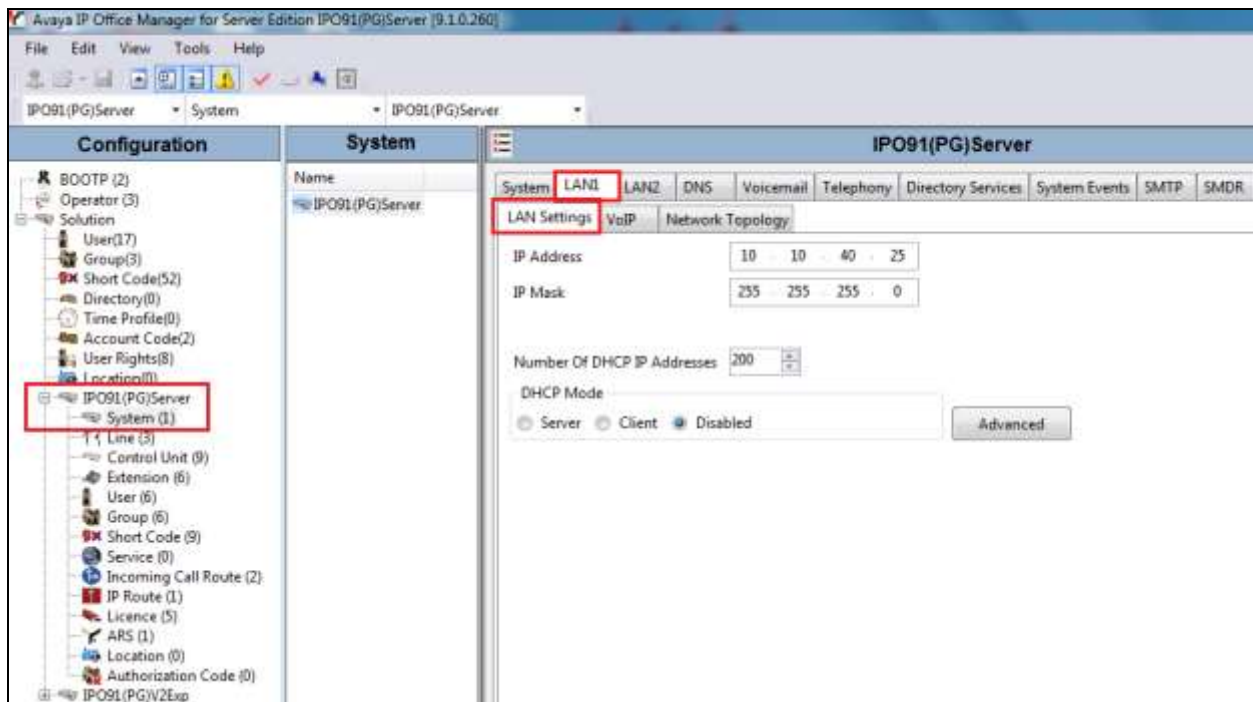
From the Avaya IP Office Manager PC, go to **Start → Programs → IP Office → Manager** to launch the Manager application or use the **shortcut on the desktop** highlighted. Tick the required server to log in to, this will be the Server Edition and log in to Avaya IP Office using the appropriate credentials to receive its configuration.



5.2 Display LAN Configuration

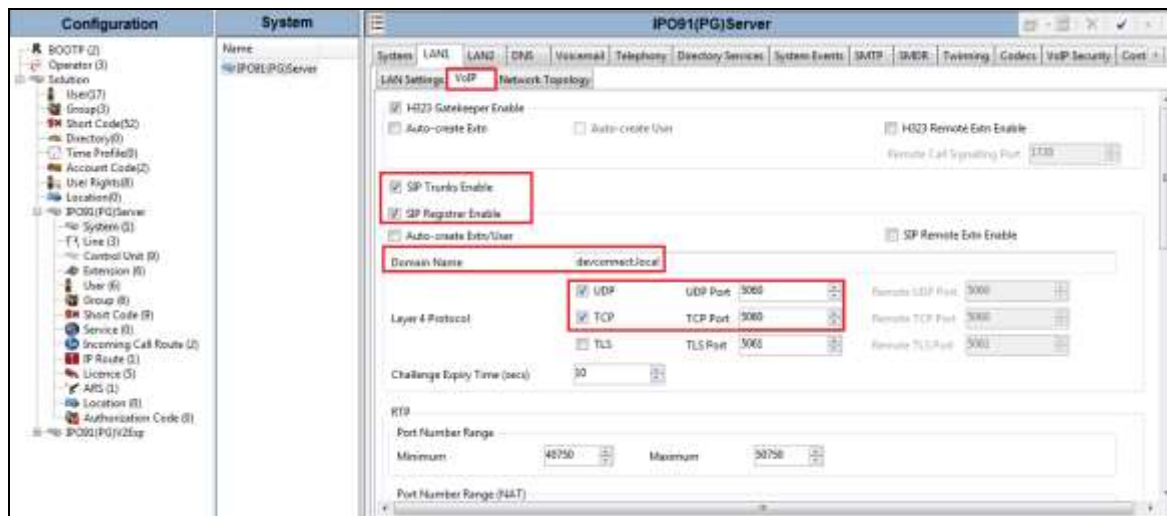
In the IP Offices window expand the configuration tree in the left pane and double-click **System**. During compliance testing the System was called **IPO91(PG)Server**. Select the **LAN Settings** tab within the LAN1 tab and note the following information:

- **IP Address** IP Address of the IP Office that will be required in **Section 6.1** for the configuration of the SIP Trunk on NovaAlert.
- **IP Mask** Subnet mask for the IP Office.
- **Primary Trans IP** Gateway IP Address.

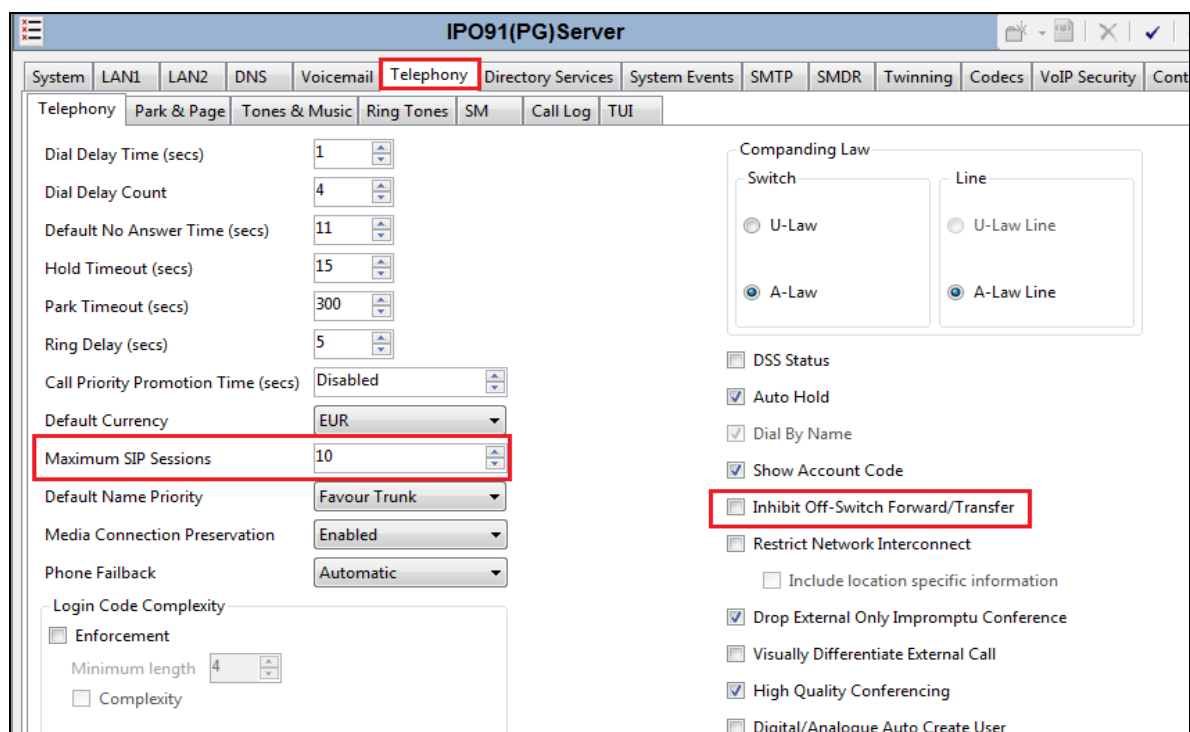


Click on the **VoIP** tab and set the following.

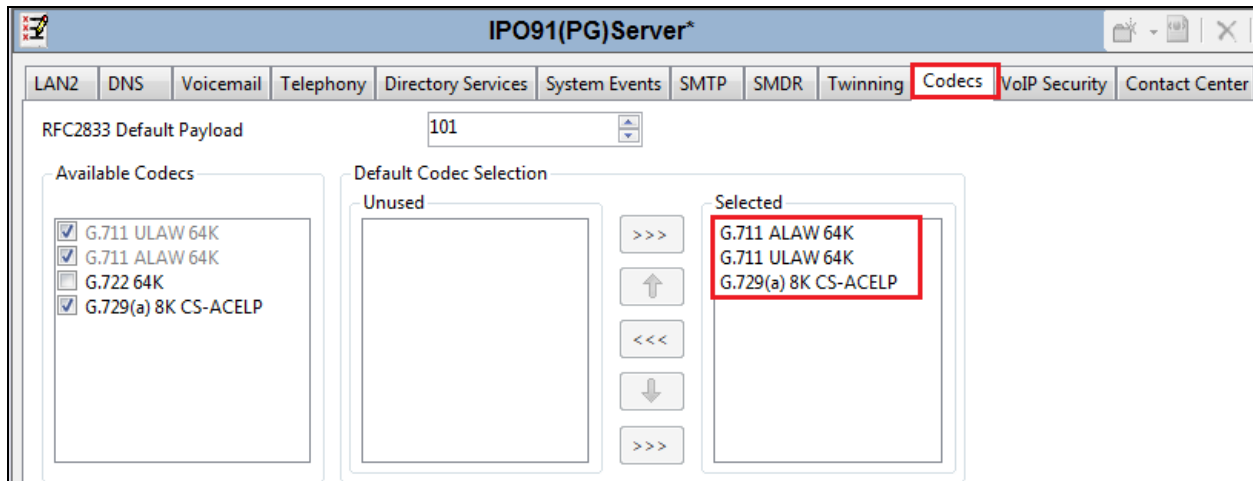
- **SIP Trunks Enable.**
- **SIP Registrar Enable.**
- **Domain Name**, set this to the telephony domain name.
- **UDP** set the UDP Port to **5060**.
- **TCP** set the TCP Port to **5060**.



Click on the **Telephony** tab. Ensure that the **Maximum SIP Sessions** is set to the correct number and is not set to 0. Also ensure that **Inhibit Off-Switch Forward/Transfer** is not ticked.

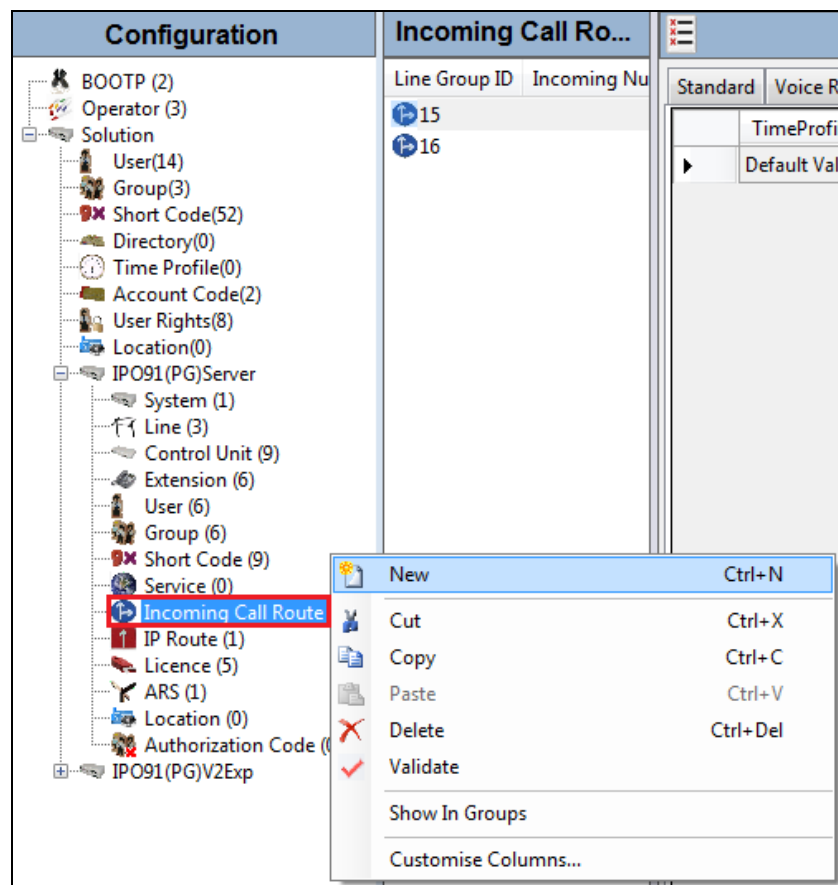


Click on the **Codecs** tab. Ensure that the correct codecs are selected.



5.3 Configure Incoming Route for SIP Trunk

An incoming route must be added for the SIP trunk that will be setup in **Section 5.4**. Navigate to **Server Edition → Incoming Call Route**. Right click on Incoming Call Route select **New**.



From the **Standard** tab, enter the **Line Group ID**; this can be kept the same as the SIP Line that is to be created for convenience. **Bearer Capability** can be set to **Any Voice**.

15

Standard Voice Recording Destinations

* This Incoming Call Route is common to all systems.

Bearer Capability Any Voice

Line Group ID 15

Incoming Number

Incoming Sub Address

Incoming CLI

Locale

Priority 1 - Low

Tag

Hold Music Source System Source

Ring Tone Override None

From the **Destinations** tab, select . for the **Destination**. Click on **OK** to continue.

15 *

Standard Voice Recording Destinations

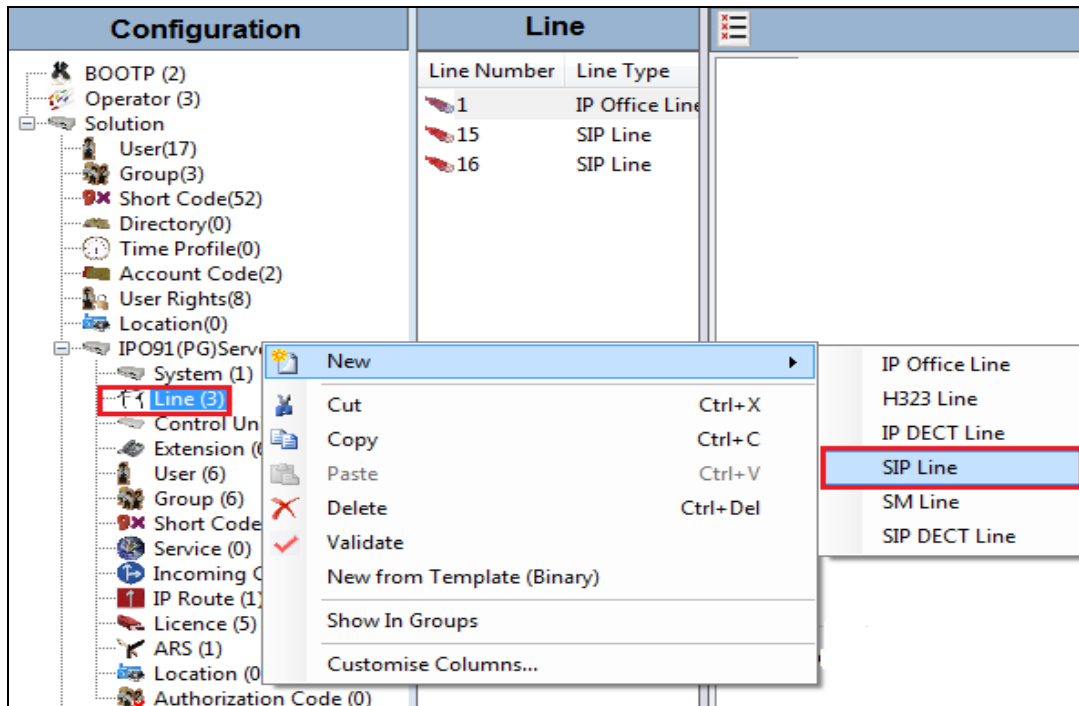
TimeProfile	Destination	Fallback Extension
Default Value	.	

OK Cancel Help

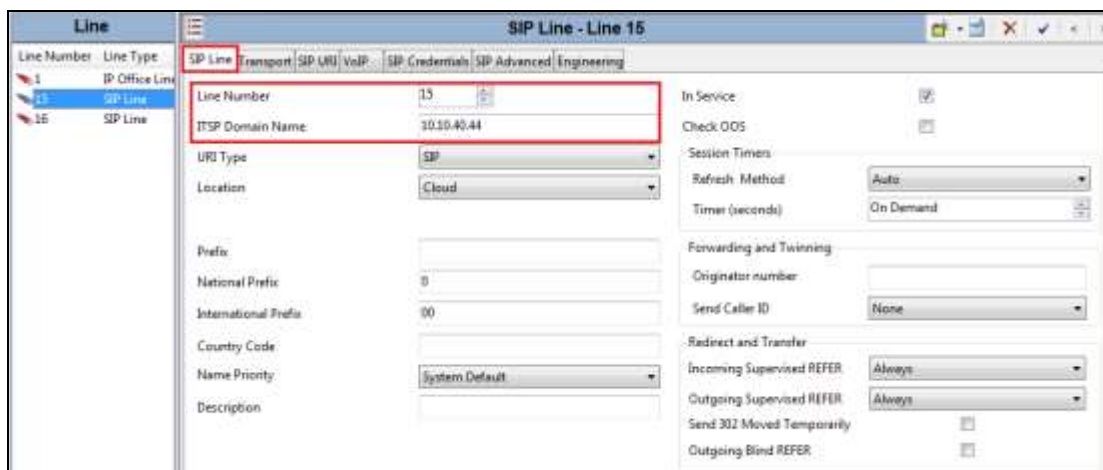
5.4 Configure SIP Trunk

This section shows how to add a new SIP Trunk in order to facilitate the connection to NovaAlert. Navigate to the Server Edition or the IP Office module that NovaAlert is connecting to. During compliance testing NovaAlert connected to the IP Office Server Edition using SIP trunks, the SIP Line was therefore created on the Server Edition.

Navigate to **Server Edition** → **Line**, then right click on **Line** and select **New** → **SIP Line**.



Click the **SIP Line** tab and select the new **Line Number** and insert the IP Address of the NovaAlert server for the **ITSP Domain Name**.



Click on the **Transport** tab and enter the IP Address of the NovaAlert server for **ITPS Proxy Address**. Ensure that the **Layer 4 Protocol** is set to **UDP** and that the **Send Port** and **Listen Port** are both set to **5060**.

The screenshot shows the 'SIP Line - Line 15' configuration page with the 'Transport' tab selected. The 'ITSP Proxy Address' field is set to '10.10.40.44'. In the 'Network Configuration' section, 'Layer 4 Protocol' is set to 'UDP', 'Send Port' is '5060', 'Use Network Topology Info' is set to 'None', and 'Listen Port' is '5060'. The 'Explicit DNS Server(s)' field shows two sets of IP addresses: '0 . 0 . 0 . 0' and '0 . 0 . 0 . 0'. The 'Calls Route via Registrar' checkbox is checked. The 'Separate Registrar' field is empty.

Click on the **SIP URI** tab and click on **Add**.

The screenshot shows the 'SIP Line - Line 15' configuration page with the 'SIP URI' tab selected. The table below has columns: Channel, Groups, Via, Local URI, Contact, Display Name, PAI, Credential, and Max Calls. To the right of the table are three buttons: 'Add...', 'Remove', and 'Edit...'. The 'Add...' button is highlighted with a red box.

Channel	Groups	Via	Local URI	Contact	Display Name	PAI	Credential	Max Calls
---------	--------	-----	-----------	---------	--------------	-----	------------	-----------

The following should be set as shown below; anything else can be left as default or as it is displayed in the screen shot below. Click on **OK** to continue.

Local URI	Set to *
Contact	Set to *
Display Name	Set to *
PAI	Set to None
Incoming Group	Set to the incoming group number for the SIP trunk (15 in this case)
Outgoing Group	Set to the outgoing group number for the SIP trunk (15 in this case)
Max Calls per Channel	Will depend on the number of SIP Licenses on IP Office and NovaAlert

SIP Line - Line 15

SIP Line	Transport	SIP URI	VoIP	SIP Credentials	SIP Advanced	Engineering
1	15	15	<... *	*	*	N... 0: <Non... 10

Remove
Edit...

Edit Channel

Via: <None>

Local URI: *

Contact: *

Display Name: *

PAI: None

Registration: 0: <None>

Incoming Group: 15

Outgoing Group: 15

Max Calls per Channel: 10

OK
Cancel

Select the **VoIP** tab and ensure that the correct **Codecs** are **Selected**. The **Re-invite Supported** and **Prack/100rel Supported** boxes are also ticked. Everything else can be left as default or as is shown below.

The screenshot shows the 'SIP Line - Line 15' configuration window with the 'VoIP' tab selected. The 'Codec Selection' section shows 'System Default' as the selected codec. The 'Unused' list is empty, and the 'Selected' list contains 'G.711 ALAW 64K', 'G.711 ULAW 64K', and 'G.729(a) 8K CS-ACELP'. The 'Fax Transport Support' is set to 'None', 'DTMF Support' is set to 'RFC2833/RFC4733', and 'Media Security' is set to 'Disabled'. On the right, the 'Re-invite Supported' and 'PRACK/100rel Supported' checkboxes are checked. Other options like 'Codec Lockdown', 'Allow Direct Media Path', 'Force direct media with phones', and 'G.711 Fax ECAN' are unchecked.

Under the **SIP Advanced** Tab, ensure that **Caller ID from From header** and **Send From In Clear** are both ticked. Click on **OK** to continue and that will also finish the Line setup.

The screenshot shows the 'SIP Line - Line 15*' configuration window with the 'SIP Advanced' tab selected. The 'Addressing' section shows 'Association Method' set to 'By Source IP address' and 'Call Routing Method' set to 'To Header'. The 'Identity' section shows 'Caller ID from From header' and 'Send From In Clear' checked. The 'Media' section shows 'Allow Empty INVITE', 'Send Empty re-INVITE', 'Allow To Tag Change', 'P-Early-Media Support', 'Send SilenceSupp=Off', 'Force Early Direct Media', and 'Media Connection Preservation' set to 'Disabled'. The 'Call Control' section shows 'Call Initiation Timeout (s)' set to 4, 'Call Queuing Timeout (m)' set to 5, 'Service Busy Response' set to '486 - Busy Here', 'on No User Responding Send' set to '408-Request Timeout', and 'Action on CAC Location Limit' set to 'Allow Voicemail'. The 'OK' button is highlighted.

5.5 Save Configuration

Once the configuration has been made it must be sent to the IP Office. Click on the **Save** Icon at the top left of the screen as shown below. Once the **Save Configuration** window opens, either the **Merge** or **Immediate** button will be filled in depending on the changes that are made. Click on the **OK** button.



6. Configuration of NovaLink NovaAlert

The following sections describe the steps required to configure NovaAlert in order to successfully connect to IP Office using SIP trunks. All configuration changes are made to NovaAlert using a web browser session to the NovaAlert server. Open a web browser session to the IP Address of the NovaAlert server followed by /NovaAlert. For example what was used for compliance testing was **http://10.10.40.44/NovaAlert**. The following screen is shown asking for the **User Name** and **Password**. Enter these and click on the tick box as shown then click on the **Login** button.

NovaAlert/NovaConf WebClient (NovaLink, Switzerland) - Internet Explorer

18/02/2015 14:17:12

NovaAlert
Monitoring and Messaging

User Name: Administrator

Password: [Change password](#)

☒ I accept the important information below.

Login

Important Instructions

The following points must be read carefully BEFORE start up.

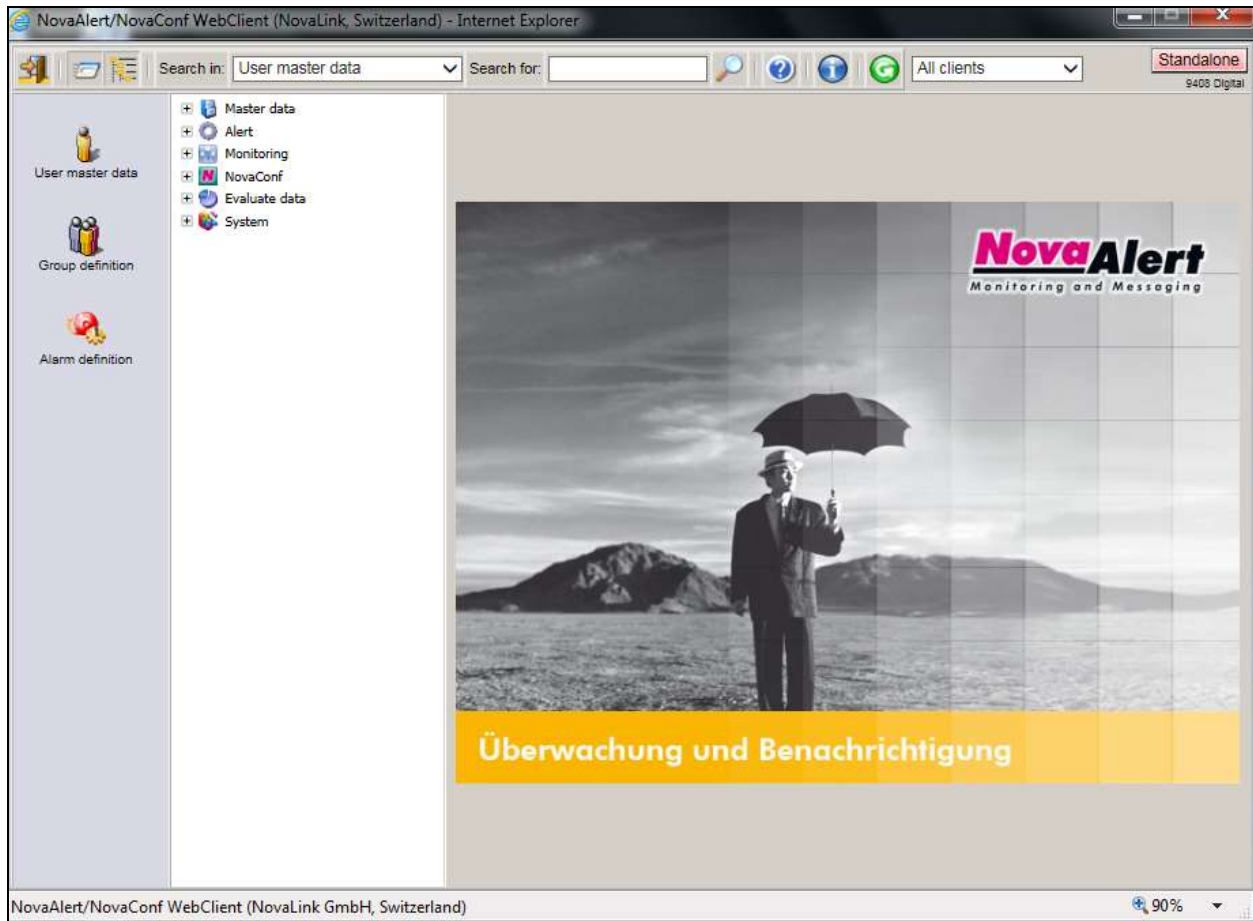
The instructions must be implemented BEFORE the system is started up!

- Modifications and adaptations of the product, especially the installation of additional software, can have a disadvantageous effect on the functionality of the system. This can cause system malfunctions leading to impairment or a total breakdown.
- Installation of the NovaLink watchdog is urgently recommended for the self-monitoring of the system. Especially if the system is intended to save lives and / or prevent major damage to property, this addition must be viewed as indispensable.

NovaAlert/NovaConf WebClient (NovaLink GmbH, Switzerland)

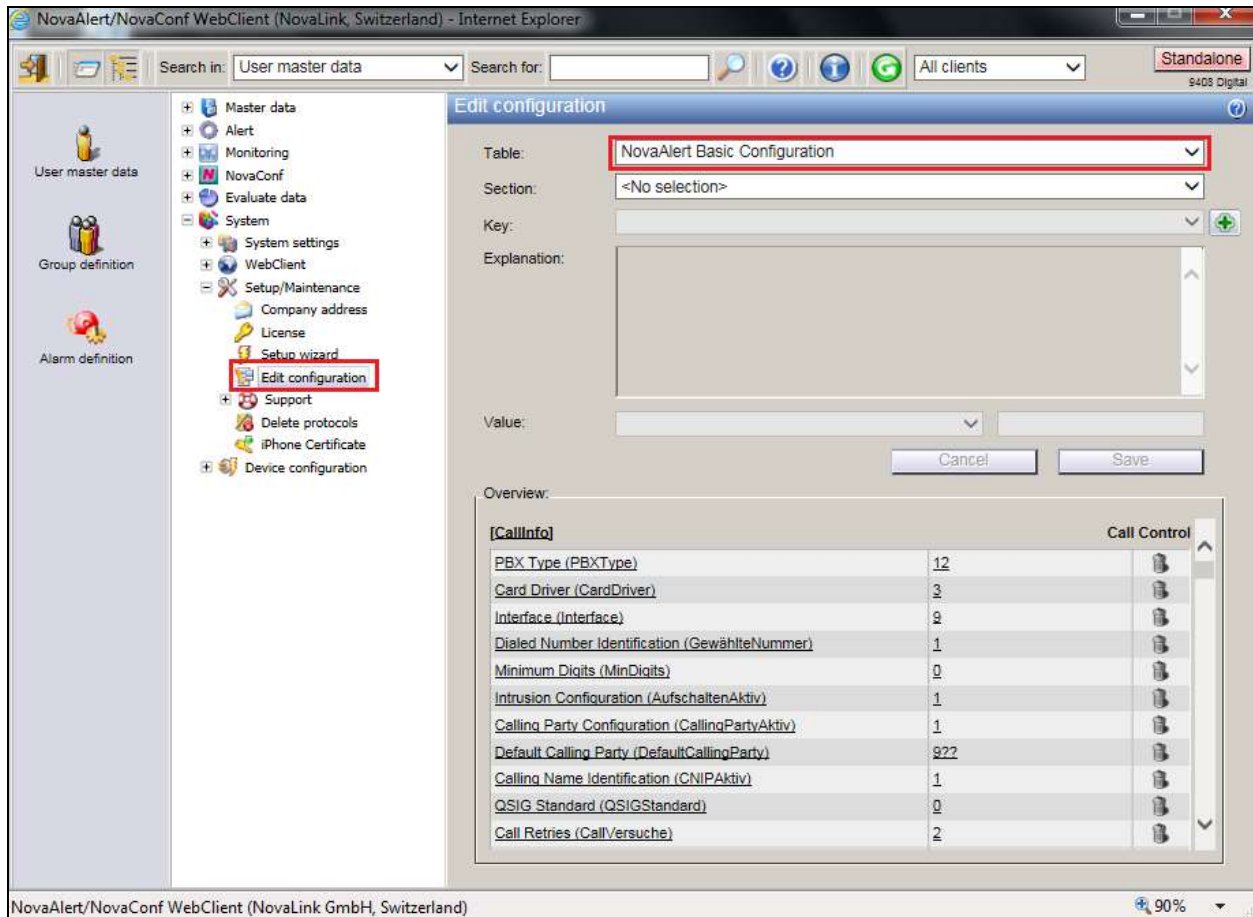
90%

Once logged in the following screen is presented to the user.



6.1 Configure NovaAlert SIP Trunk Connection

To begin the configuration of NovaAlert in order to connect to IP Office using SIP trunks, from the main menu, expand **System** → **Setup/Maintenance** and click on **Edit configuration**. From the main window select the **Table, NovaAlert Basic Configuration**, from the drop-down menu.



Select **Call Control (CallInfo)** from the **Section** drop-down menu. Select **PBX Type** from the **Key** drop-down menu or click on **PBX Type** highlighted at the bottom of the screen. Ensure that the **Value** is set to **Avaya IPO** and click on **Save**.

The screenshot shows the 'Edit configuration' window for 'NovaAlert Basic Configuration'. The 'Section' is 'Call Control (CallInfo)' and the 'Key' is 'PBX Type (PBXType)'. The 'Value' is set to 'Avaya IPO' with the number '12' in the adjacent text field. The 'Save' button is highlighted with a red box. Below the main configuration area, an 'Overview' table lists various configuration items, with 'PBX Type (PBXType)' highlighted in the first row.

[CallInfo]		Call Control
PBX Type (PBXType)	12	
Card Driver (CardDriver)	3	
Interface (Interface)	8	
Dialed Number Identification (GewählteNummer)	1	
Minimum Digits (MinDigits)	0	
Intrusion Configuration (AufschaltenAktiv)	1	
Calling Party Configuration (CallingPartyAktiv)	1	
Default Calling Party (DefaultCallingParty)	9??	
Calling Name Identification (CNIPAktiv)	1	
QSIG Standard (QSIGStandard)	0	
Call Retries (CallVersuche)	2	

Remaining in the same **Section**, select **Interface** from the **Key** drop-down menu and ensure that the **Value** is set to **VoIP**. Click on **Save** to complete.

Edit configuration

Table: NovaAlert Basic Configuration

Section: Call Control (CallInfo)

Key: Interface

Explanation: Telephony interface type?

Value: **VoIP** 9

Cancel Save

Overview:

[CallInfo]		Call Control
PBX Type (PBXType)	12	
Card Driver (CardDriver)	3	
Interface (Interface)	9	
Dialed Number Identification (GewählteNummer)	1	
Minimum Digits (MinDigits)	0	
Intrusion Configuration (AufschaltenAktiv)	1	
Calling Party Configuration (CallingPartyAktiv)	1	
Default Calling Party (DefaultCallingParty)	9??	
Calling Name Identification (CNIPAktiv)	1	
QSIG Standard (QSIGStandard)	0	
Call Retries (CallVersuche)	2	

In the same **Section** select the **Calling Party Configuration (CallingPartyAktiv)** Key. Set the **Value** to **Yes** and click on **Save**. This will send the calling party with the outgoing call.

Edit configuration

Table: NovaAlert Basic Configuration

Section: Call Control (CallInfo)

Key: Calling Party Configuration (CallingPartyAktiv)

Explanation: Would you like to send a calling party with an outgoing call?

Value: Yes 1

Cancel Save

Overview:

[CallInfo]		Call Control
PBX Type (PBXType)	12	
Card Driver (CardDriver)	3	
Interface (Interface)	9	
Dialed Number Identification (GewählteNummer)	1	
Minimum Digits (MinDigits)	0	
Intrusion Configuration (AufschaltenAktiv)	1	
Calling Party Configuration (CallingPartyAktiv)	1	
Default Calling Party (DefaultCallingParty)	9??	
Calling Name Identification (CNIPAktiv)	1	
QSIG Standard (QSIGStandard)	0	
Call Retries (CallVersuche)	2	

In the same **Section** select the **Default Calling Party (DefaultCallingParty)** Key. Set the **Value** to **9??** and click on **Save**. Note this value will be used for dialing out from IP Office.

Edit configuration

Table: NovaAlert Basic Configuration

Section: Call Control (CallInfo)

Key: Default Calling Party (DefaultCallingParty)

Explanation: Default calling party for outgoing calls?

Value: 9??

Cancel Save

Overview:

[CallInfo]		Call Control
PBX Type (PBXType)	12	
Card Driver (CardDriver)	3	
Interface (Interface)	9	
Dialed Number Identification (GewählteNummer)	1	
Minimum Digits (MinDigits)	0	
Intrusion Configuration (AufschaltenAktiv)	1	
Calling Party Configuration (CallingPartyAktiv)	1	
Default Calling Party (DefaultCallingParty)	9??	
Calling Name Identification (CNIPAktiv)	1	
QSIG Standard (QSIGStandard)	0	
Call Retries (CallVersuche)	2	

In the same **Section** select the **Calling Name Identification (CNIPAktiv)** Key. Set the **Value** to **Yes** and click on **Save**. This will send the CLID info on the outgoing call.

Edit configuration

Table: NovaAlert Basic Configuration

Section: Call Control (CallInfo)

Key: Calling Name Identification (CNIPAktiv)

Explanation: Would you like to send a display information with an outgoing call?

Value: Yes 1

Cancel Save

Overview:

[CallInfo]		Call Control
PBX Type (PBXType)	12	
Card Driver (CardDriver)	3	
Interface (Interface)	9	
Dialed Number Identification (GewählteNummer)	1	
Minimum Digits (MinDigits)	0	
Intrusion Configuration (AufschaltenAktiv)	1	
Calling Party Configuration (CallingPartyAktiv)	1	
Default Calling Party (DefaultCallingParty)	9??	
Calling Name Identification (CNIPAktiv)	1	
QSIG Standard (QSIGStandard)	0	
Call Retries (CallVersuche)	2	

Select **NovaAlert Basic Configuration and Line Configuration (NovaAlert)** from the **Section** drop-down menu. In order to add lines to any existing lines shown in the **Overview** window, click on the + icon to the right of the **Key** drop down menu, as is shown below.

Edit configuration

Table: NovaAlert Basic Configuration

Section: **NovaAlert Basic Configuration and Line Configuration (NovaAlert)**

Key: <No selection> +

Explanation:

To add additional Lines

Value:

Cancel Save

Overview:

Intrusion Code (AusdrickCode)		
Reserved Lines for Alarm Triqgering (NurAusloesen)	0	
Trace Level (Trace)	9	
Log Auto Delete (ProtokollMaxAlter)	730	
Timeout Localisation (MaxZeitLokalisation)	30	
Line allocation 1 (Linie1)	1	
Line allocation 2 (Linie2)	2	
Line allocation 3 (Linie3)	3	
Line allocation 4 (Linie4)	4	
International Prefix (InternationalPrefix)	49	
Min Connection Time (MinAnhoeren)	5	
Alarming after negative acknowledge (WiederhNeoQuit)	0	

The following window opens, enter **LinieX** into the window and click on **OK**, where X is the next line number to be added.

10.10.40.44 needs some information

Script Prompt:

Description of the new key (in section NovaAlert):

Linie5

OK Cancel

Group definition

Alarm definition

System settings

WebClient

Setup/Maintenance

Company address

License

Setup wizard

Edit configuration

Support

Delete protocols

Phone Certificate

Device configuration

Key: <No selection>

Explanation:

Value:

Cancel Save

The Key added above, Linie5 should now populate the **Key** menu. Enter the **Value X** where X is the next line number to be added; in this case it is **5**. Click on **Save** to continue.

Edit configuration

Table: NovaAlert Basic Configuration

Section: NovaAlert Basic Configuration and Line Configuration (NovaAlert)

Key: Linie5

Explanation: Line allocation, logical = physical?

Value: 5

Cancel Save

Overview:

[NovaAlert] NovaAlert Basic Configuration and Line Configuration

SQL Server Name (SQLServer)		
Static Direct Alarm (DirektAlarmNummer1)		
Word Replacement Type (Ersetzungsart)	1	
Timeout internal calls (CallLängeIntern)	30	
Timeout external calls (CallLängeExtern)	30	
Polling Interval (Intervall)	5	
Intrusion code (AufschaltCode)		
Reserved Lines for Alarm Triggering (NurAusloesen)	0	
Trace Level (Trace)	9	
Log Auto Delete (ProtokollMaxAlter)	730	
Timeout Localisation (MaxZeitlokalisation)	30	

Choose a new section, **Voice over IP Configuration (VoIP)** from the **Section** drop-down menu. Select **Driver Preferences (DriverPref)** from the **Key** drop-down menu. Select **Only SIP** from the drop-down menu for **Value** and click on **Save** to continue.

Edit configuration

Table: NovaAlert Basic Configuration

Section: **Voice over IP Configuration (VoIP)**

Key: Driver Preferences (DriverPref)

Explanation: Which VoIP protocol should be used?

Value:

<No selection>
 Only H.323
Only SIP

 3

Cancel Save

Overview:

[VoIP]		Voice over IP Configuration
Driver Preferences (DriverPref)	3	
Local User Name (LocalUserName)	NovaAlert	
H323 Gateway (H323_Gateway)		
H323 Use Fast Start (H323_UseFastStart)	0	
H323 Use H245 Tunneling (H323_UseH245Tunneling)	0	
H323 Listener Configuration (H323_ListenerConfig)	*:1720	
H323 Use GateKeeper (H323_UseGateKeeper)	0	
H323 GateKeeper Address (H323_GateKeeperAddress)		
H323 GateKeeper Zone (H323_GateKeeperZone)		
H323 GateKeeper Password (H323_GateKeeperPwd)		
SIP Gateway (SIP_Gateway)	10.10.40.25,10.10.40.25	

Staying with the same **Section**, using the drop-down menu change the **Key** to **SIP Gateway (SIP_Gateway)**. Enter the **Value** for the SIP Gateway which will be the IP address of the IP Office, in this case the IP address of the Server Edition. This is entered in the format IP Address, IP Address or **10.10.40.25, 10.10.40.25** as is shown below. Click on **Save** to continue.

Edit configuration

Table: NovaAlert Basic Configuration

Section: Voice over IP Configuration (VoIP)

Key: SIP Gateway (SIP_Gateway)

Explanation: SIP-Gateways with [Realm,IP,Prefix] (Prefix can be omitted) (separate multiple gateways with ";") (novalink.ch,192.168.25.1;novaalert.ch,192.168.25.200)?

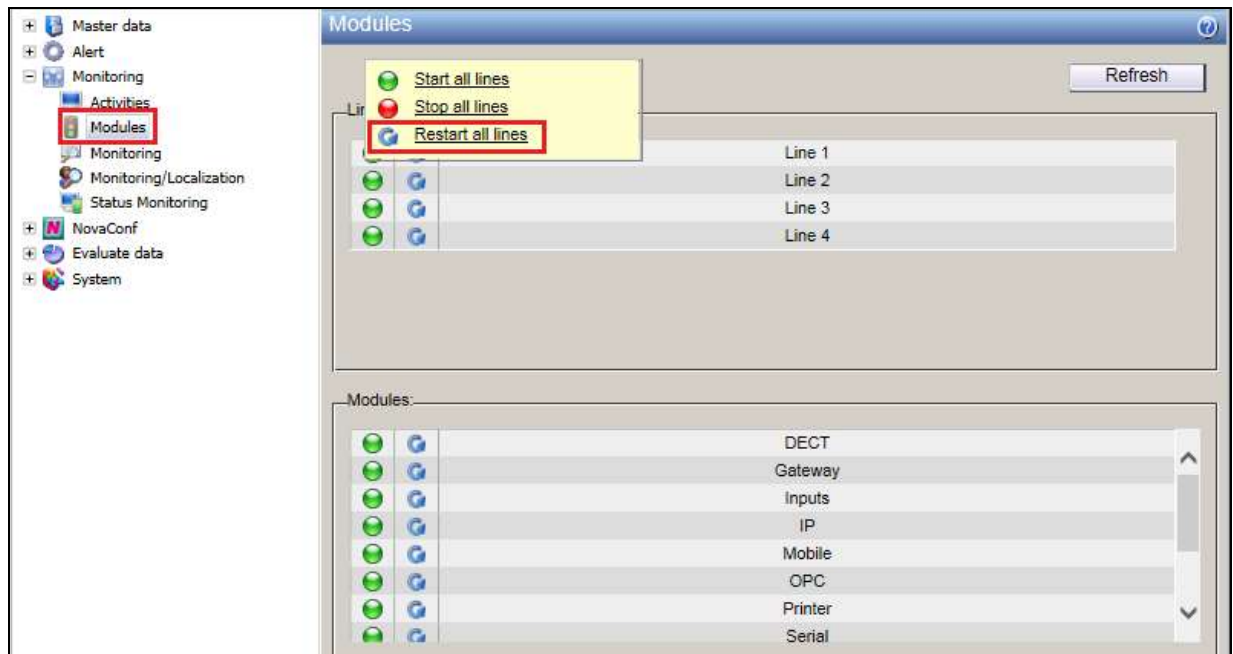
Value: 10.10.40.25,10.10.40.25

Cancel Save

Overview:

H323 Gateway (H323_Gateway)		
H323 Use Fast Start (H323_UseFastStart)	0	
H323 Use H245 Tunneling (H323_UseH245Tunneling)	0	
H323 Listener Configuration (H323_ListenerConfig)	*:1720	
H323 Use GateKeeper (H323_UseGateKeeper)	0	
H323 GateKeeper Address (H323_GateKeeperAddress)		
H323 GateKeeper Zone (H323_GateKeeperZone)		
H323 GateKeeper Password (H323_GateKeeperPwd)		
SIP Gateway (SIP_Gateway)	10.10.40.25,10.10.40.25	
SIP Alias (SIP_Alias)		
SIP Listener Config (SIP_ListenerConfig)	*:5060	
Fax Transport Codec (FaxTransportCodec)	1	

To finish out the configuration a restart of the lines is required. From the menu section navigate to **Monitoring** → **Modules** and from the main window click on the **refresh icon** beside any of the lines and select **Restart all lines**, as shown below.

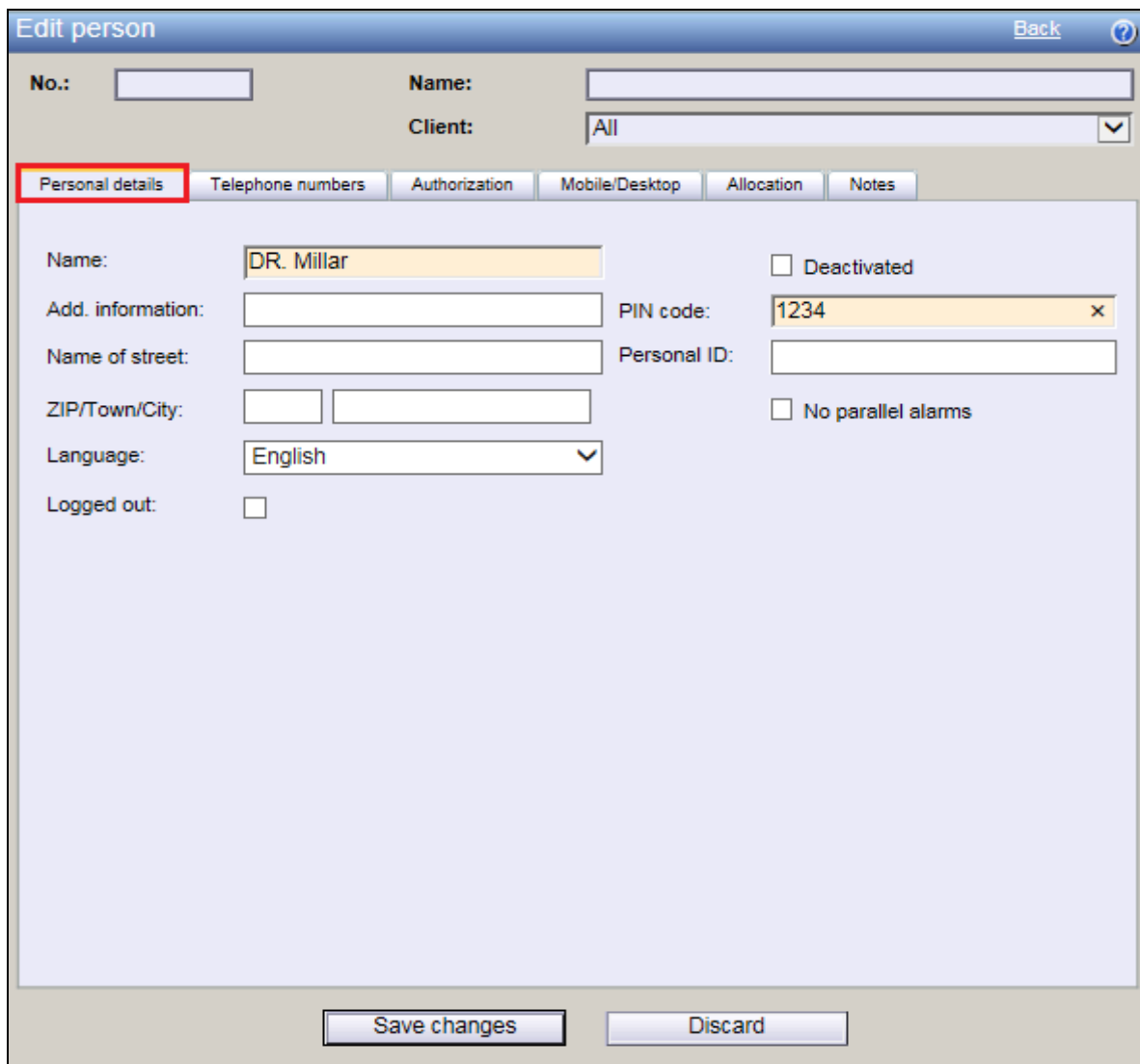


6.2 Add an Avaya IP Office extension to alert.

In order to send an alarm to IP Office, an extension will need to be added. This extension is then called by NovaAlert when the alarm is activated. From the main menu, navigate to **Master data** → **User master data**. In the main window select **New person** as shown below.



Click on the **Personal details** tab and enter a suitable **Name** and **Pin code**.



Edit person Back ?

No.: Name:
Client:

Personal details Telephone numbers Authorization Mobile/Desktop Allocation Notes

Name: ☐ Deactivated
Add. information: PIN code: x
Name of street: Personal ID:
ZIP/Town/City: ☐ No parallel alarms
Language: v
Logged out: ☐

Click on the **Telephone numbers** tab and enter the IP Office telephone number for this user and click on **Save Changes** at the bottom of the screen.

The screenshot shows the 'Edit person' window with the 'Telephone numbers' tab selected. The 'Office 1' field contains the value '5220' and is highlighted with a red box. The 'Save changes' button at the bottom is also highlighted with a red box. The window includes fields for 'No.', 'Name', 'Client', and various communication options like 'Home', 'Mobile', 'SMS GSM', 'WLAN/DECT', 'Fax', 'Serial', 'Pager', 'E-Mail/Task', 'PC-Name/IP', 'Printer/SysLog', and 'Web-Interface'.

The new user/extension is now clearly shown.

The screenshot shows the 'Person definitions' window. On the left is a sidebar with 'Master data' expanded, showing options like 'User master data', 'Group definition', 'On-Call-Duty lists', 'Alarm definition', 'Potential-free contacts', 'Serial interfaces', 'Data base interfaces', 'Email (SMTP)', and 'WLAN/DECT'. The main area shows a table of user definitions.

Pers. No.	Name	Personal no.	User name
1	DR. Millar		

7. Verification Steps

This section illustrates the steps necessary to verify that the NovaAlert is configured correctly to send an alarm to extensions on IP Office using SIP trunks.

7.1 Create a new Alarm on NovaAlert

From the main menu navigate to **Master data** → **Alarm definition**. From the main window, click on **New Alarm**, as shown below.



In the **General** tab, enter a suitable **Description** and **Pin code for trigger** for the new alarm. Select **Compile individual alert list** from the **Select contact group** drop-down menu.

The screenshot shows the 'Alarm definition' window with the 'General' tab selected. The 'Description' field is 'Alarm for Dr Millar' and the 'Pin code for trigger' is '1234'. The 'Select contact group' dropdown is set to 'Compile individual alert list'.

Alarm definition (Back ?)

No.: Description:
Client: All

General Messages Alarm list Alarm inputs Escalation Various Notes

Description:

Pin code for trigger: Voice no.

Priority: Highest Priority

Group call: Sequential Call

Number of attempts: 1

Nbr. of pers. to be contac.: All

Select contact group

<No selection>

Click on the **Alarm list** tab and select the user that was created in **Section 6.2**.

The screenshot shows the 'Alarm definition' window. At the top, there are fields for 'No.:', 'Description:', and 'Client:' (set to 'All'). Below these are tabs: 'General', 'Messages', 'Alarm list' (highlighted with a red box), 'Alarm inputs', 'Escalation', 'Various', and 'Notes'. The 'Alarm list' tab contains a table with columns: 'Item', 'Person / IP output', 'Tel. number', 'Conference', 'Acknow.', 'Intrusion', and 'Delay'. A dropdown menu is open under the 'Person / IP output' column, showing a list of users including '1140e SIP (Person)', '1608-I H323 (Person)', '9408 Digital (Person)', '9608 SIP (Person)', '9611 SIP (Person)', '9630 H323 (Person)', 'DR. Millar (Person)', 'HG All Systems (Person)', 'HG SE (Person)', 'HG V2 (Person)', 'QSIG PSTN (Person)', and 'SIP PSTN (Person)'. To the right of the table are checkboxes for 'Conference', 'Acknow.', and 'Intrusion', and a 'Delay' dropdown set to '0'. There is also a 'Logged in:' checkbox which is checked. At the bottom of the window are 'Save changes' and 'Discard' buttons.

Item	Person / IP output	Tel. number	Conference	Acknow.	Intrusion	Delay
	<No selection>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
	1140e SIP (Person)					
	1608-I H323 (Person)					
	9408 Digital (Person)					
	9608 SIP (Person)					
	9611 SIP (Person)					
	9630 H323 (Person)					
	DR. Millar (Person)					
	HG All Systems (Person)					
	HG SE (Person)					
	HG V2 (Person)					
	QSIG PSTN (Person)					
	SIP PSTN (Person)					

Once the **Person/IP output** has been correctly selected the **Tel. number** should also get populated automatically. Click on the **Add** button to add this new person.

The image shows a software window titled "Alarm definition" with a "Back" button and a help icon in the top right. The window contains several input fields: "No.:" (empty), "Description:" (empty), and "Client:" (set to "All"). Below these is a tabbed interface with tabs for "General", "Messages", "Alarm list" (selected), "Alarm inputs", "Escalation", "Various", and "Notes".

The "Alarm list" tab displays a table with the following columns: "Item", "Person / IP output", "Conference", "Acknow.", "Intrusion", and "Delay".

Item	Person / IP output	Conference	Acknow.	Intrusion	Delay
	DR. Millar (Person)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
	Office 1 (5220)		Logged in:	<input checked="" type="checkbox"/>	

Below the table, there is a link "Renummer positions" and three buttons: "Cancel", "Save", and "Add". The "Add" button is highlighted with a red rectangular box. At the bottom of the window are two buttons: "Save changes" and "Discard".

Click on **Save Changes** at the bottom of the screen.

Alarm definition [Back] [?]

No.: Description: Client:

General Messages **Alarm list** Alarm inputs Escalation Various Notes

Item Person / IP output Conference Acknow. Intrusion Delay
Tel. number

<No selection> ☐ ☐ ☐
 Logged in: ☒

Renummer positions

Item	Name	Phone no.	Conference	Acknowl.	Intr.	Dir.
1	DR. Millar	Office 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

From the main menu, navigate to **Alert → Manual alarm trigger**. In the main window select the **Alarm to be triggered**, which should be the alarm created above.

Manual alarm trigger [?] [?]

Person triggering alarm:

Alarm to be triggered:

- <No selection>
- Alarm to Hunt Group (3)
- Fallover from SE to V2 (4)
- Group Alarm (2)
- Test Alarm 1 (1)

Call type:

Plaintext:

Call number: Alarm message: ☐

Alarm PIN code: Personal PIN code:

Click on the Alert button at the bottom of the screen.

Manual alarm trigger

Person triggering alarm: 9408 Digital

Alarm to be triggered: Alarm for Dr Millar (5)

Call type: <Default>

Plaintext:

Call number:

Alarm PIN code:

Personal PIN code:

Alarm message:

Alert

Click on **OK** to proceed.

Manual alarm trigger

Person triggering alarm: 9408 Digital

Alarm to be triggered: Alarm for Dr Millar (5)

Call type: <Default>

Plaintext:

Call number:

Alarm PIN code:

Personal PIN code:

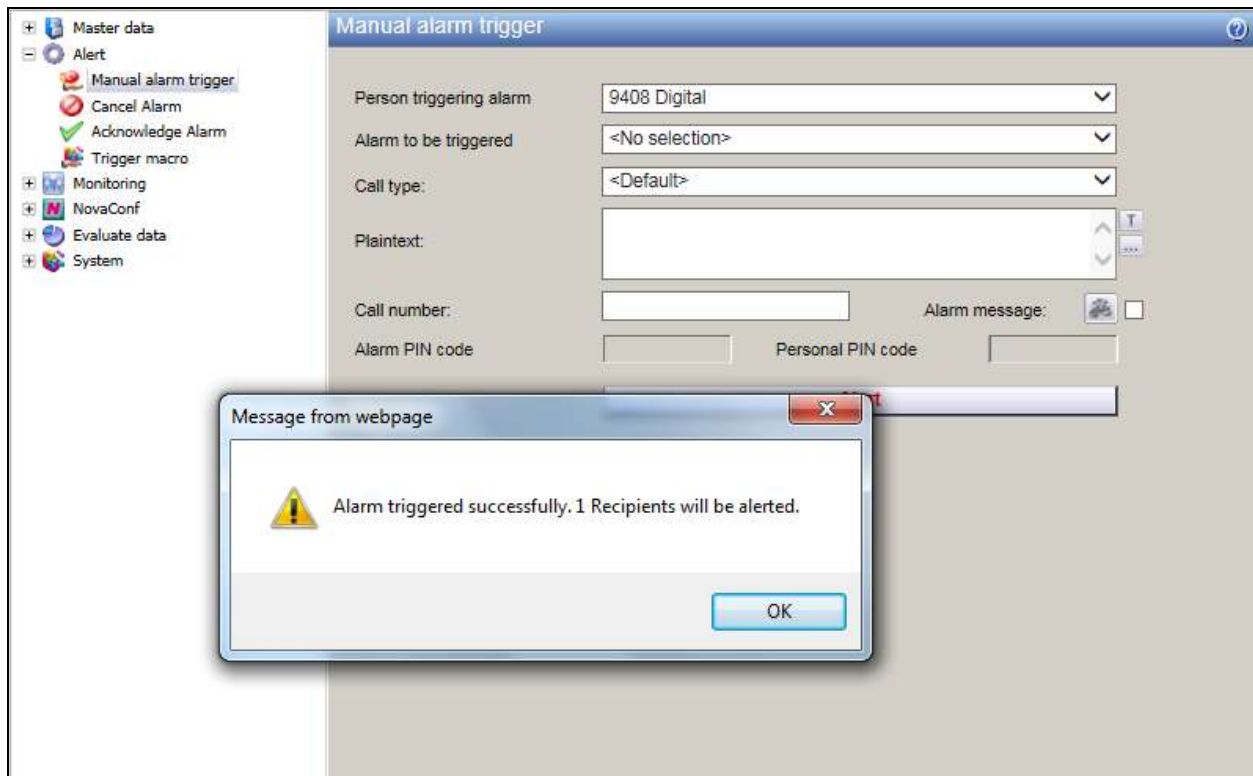
Alarm message:

Alert

WARNING: You are about to trigger an alarm. Do you wish to proceed?

OK Cancel

The following screen should be displayed along with the telephone set ringing and an alarm message being played upon answer.



8. Conclusion

These Application Notes describe the configuration steps required for NovaAlert from NovaLink to interoperate with Avaya IP Office R9.1 Server Edition with an Avaya v2 500 expansion. All feature functionality and serviceability test cases were completed successfully with any issues and observations noted in **Section 2.2**.

9. Additional References

This section references the Avaya and NovaLink product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at <http://support.avaya.com>.

[1] *Avaya IP Office R9.1 Manager 10.1, Document Number 15-601011*

[2] *Avaya IP Office R9.1 Doc library*

Technical support can be obtained for NovaAlert from the website <http://www.novalink.ch/en/> or from the following.

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