

Avaya Solution & Interoperability Test Lab

# **Application Notes for Configuring NovaLink NovaConf SIP** with Avaya IP Office – Issue 1.0

## Abstract

These Application Notes describe the configuration of the NovaLink NovaConf conference system connected to Avaya IP Office via a SIP link.

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 of NovaLink NovaConf and Avaya IP Office, including a description of the tests that were performed, and a summary of the results of those tests.

The NovaLink NovaConf server includes a Web-based administration facility that allows remote administration of users and conferences from a Web browser. Various types of conferences can be configured, dependent on conference participant needs:

Incoming Conferences allow users to "dial in" to conferences held at specific times.

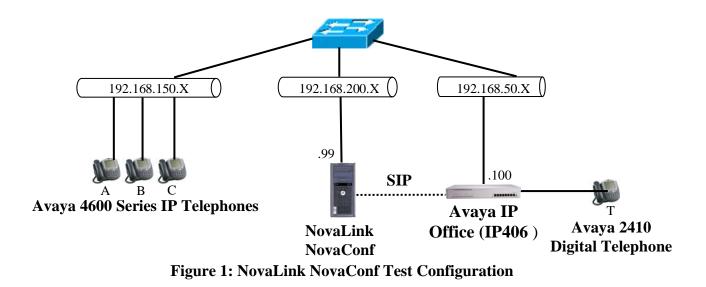
**Outgoing Conferences** can be configured to call a pre-defined list of conference participants as a specific time.

Ad-hoc conferences can be created to meet an immediate need.

**Chief conferences** are started by calling a pre-defined telephone number, and calling a pre-defined list of conference participants at that time.

Conference participants can optionally be assigned a PIN code with which they are required to authenticate themselves.

NovaLink NovaConf supports multiple interfaces, including the SIP link described in these Application Notes.



MRR; Reviewed: SPOC 12/5/2007

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

- The NovaLink NovaConf server is attached to Avaya IP Office via a SIP link.
- Avaya Telephones are connected Avaya IP Office either directly via digital interface or via the IP network.

The following extensions were used in the test configuration:

Extension	Designation
5000136	А
5000134	В
5000133	С
5000001	Т
3111111	NovaLink NovaConf via SIP

**Table 1: Extensions Used in Test Configuration** 

## 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 IP Telephones	2.8
Avaya 2410 Digital Telephone	5.0
NovaLink NovaConf	7.5 SP 1A
Microsoft Windows Server 2003 SE	SP2

#### Table 2: Version Numbers of Equipment and Software

# 3. 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 NovaConf configuration.
- Configure the SIP link which is used to connect to the NovaLink NovaConf server.
- Configure the telephone stations which are to be used for testing.

MRR; Reviewed:	Solution & Interoperability Test Lab Application Notes	3 of 29
SPOC 12/5/2007	©2007 Avaya Inc. All Rights Reserved.	NovaConfSIPIPO

Many of the descriptions contained within this section make reference to the "left frame" of the Avaya IP Office Manager application. This portion contains a list of the components which can be configured as follows:

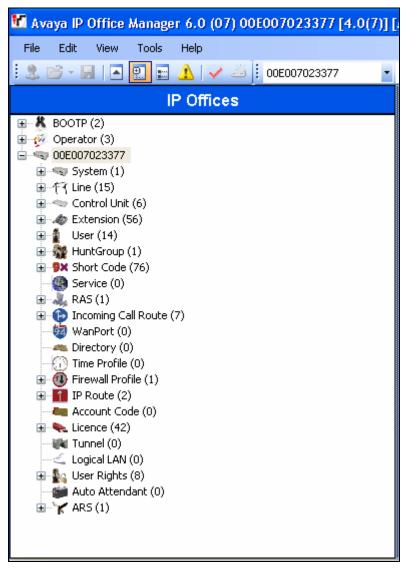


Figure 2: Avaya IP Office Manager Main Menu

## 3.1. Configure System Settings

Select the Avaya IP Office "System" icon and set the parameters as shown in Table 3.

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

#### Table 3: "System" Parameters

<b>1</b>	00E007023377*	<u> – 11</u>
System LAN1 DNS Voicem LAN Settings Gatekeeper Net		Alarms Twinning CDR VCM
IP Address IP Mask	192       168       50       10         255       255       255       0	
RIP Mode Number Of DHCP IP Addresses	None	×
	ent O Dialin	Oisabled

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

<b>≣</b> 2	00E00702	3377*	₫ -
System LAN1 DNS Vo	icemail Telephony LDAP Sys	stem Alarms Twinning CDR VCM	
Default Outside Call Sequence	Normal	Companding Law Line	
Default Inside Call Sequence	Ring Type 1 🛛 👻	O ULAW O ULAW Line	
Default Ring Back Sequence	Ring Type 2 🛛 👻	ALAW	
Dial Delay Time (sec)	1		
Dial Delay Count	4	Busy Tone Detection	
Default No Answer Time (secs)	15 🗢	Mode System Frequency	*
Hold Timeout (secs)	15 🛟	Single Freq. [10Hz]	
Park Timeout (secs)	300 🗢	Dual Freq. [10Hz] 48 🔶 + 62	*
Ring Delay (secs)	5 🗘	On Width [10ms] 50	
King Doldy (Socsy		Off Width [10ms]	
🗹 Local Dial Tone		GSM Silence Suppression	
Local Busy Tone		Show Account Code	
Conferencing Tone		🗹 Auto Hold	
📃 Inhibit Off-Switch Forward	i/Transfer		
🗹 Dial By Name		Use External Music on Hold	
		WAN Mode Override	
Default Currency	EUR 💉	Disconnect Tone Default 💉	

Figure 4: Avaya IP Office System Parameters: Telephony

## 3.2. Configure SIP Link to NovaLink NovaConf

## 3.2.1. Configure SIP Line

Configure the SIP line which connects Avaya IP Office to the NovaLink NovaConf server, using the parameters shown in the following table.

Tab	Value	Usage
	ITSP Domain Name	Enter the domain name configured for NovaLink
ITSP Domain Name		NovaConf.
	ITSP IP Address	Enter the IP address of the NovaLink NovaConf
	TISP IF Addless	server.
	Local URI	Select 5000000 from the drop-down list.
	Contact	Select 5000000 from the drop-down list.
SIP URI	Display Name	Select 5000000 from the drop-down list.
	Incoming Group	Enter "1", the group number of the SIP line.
	Outgoing Group	Enter "1", the group number of the SIP line.

#### Table 4: SIP Line Parameters

×××	SIP Line - L	ine 9		📸 •   🗙   •   <   >
SIP Line SIP URI				
Line Number	9 🗘	Registration Required		
ITSP Domain Name	ffm.com	In Service	<b>V</b>	
ITSP IP Address	192 - 168 - 200 - 99	Use Tel URI		
Primary Authentication Name		VoIP Silence Suppression		
Primary Authentication Password		Out Of Band DTMF		
Primary Registration Expiry	60 😂	Local Tones		
Secondary Authentication Name		Fax T38		
Secondary Authentication Password		RE-INVITE Supported		
Secondary Registration Expiry	60	Voice Packet Size	0	
		Compression Mode	Automatic Select	*
Network Configuration				
Layer 4 Protocol UDP	Send I	Port 5060	\$	
Use Network Topology Info None	e 🔽 Listen	Port 5060	\$	

### **Figure 5: SIP Line Form**

7	SIP Line - Line 9*	🖻 - 🗙	<ul><li>✓</li><li></li></ul>
SIP Line SIP URI			
Channel Groups	Via Local URI Contact		Add
			Remove
			Edit
New Channel			ОК
Via	<none></none>	ſ	Cancel
Local URI	5000000		
Contact	5000000		
Display Name	5000000		
Registration	Primary 📉		
Incoming Group	1		
Outgoing Group	1		
Max Calls per Channel	10		

Figure 6: SIP URI Form

### 3.2.2. Configure Incoming Call Routes

Configure the Incoming Call route for the SIP line which is connected to NovaLink NovaConf.

Value	Usage
Line Group Id	Specify "1", the group ID assigned to the SIP line.
Destination	Enter "." to preserve the number.

#### **Table 5: Extension Parameters**

The screen below shows Incoming Call Route assignments for the SIP connection to Avaya IP Office.

×××	1 📑 🖞	•   X   v   <
Standard Voice Recording		
Bearer Capability	Any Voice	*
Line Group Id	1	
Incoming Number		
Incoming Sub Address		
Incoming CLI		
Destination		~
Locale		~
Priority	1	~
Fallback Extension		~
Night Service Profile	<none></none>	×
Night Service Destination		~

Figure 7: Short Codes: User Tab

## 3.3. Configure H.323 Telephone Extensions

When the Call Server address Avaya IP Telephone is assigned to the IP address of Avaya IP Office, a default extension is allocated by Avaya 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 Error! Reference source not found., and configure each of these extensions using the parameters shown in Error! Reference source not found..

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

### Table 6: Extension Parameters

×II ×II	۷	olP Extension: 8018 5000133	🖻 - 🗙
Extn VoIP			
Extension Id		8018	
Base Extension		5000133	
Caller Display Type		On	~
Reset Volume After Calls			
Device type		Avaya 4621	
Module		0	
Port		0	

### Figure 8: Extensions: Extn Tab

Ξ	VoIP Extension: 8018 §	50001	33	
Extn VoIP				
IP Address	0 · 0 · 0 · 0			VoIP Silence Suppression
MAC Address	00 00 00 00 00	00		Enable Faststart for non-Avaya IP phones
Voice Payload Size (ms)	20			Fax Transport Support
Compression Mode	G.711 ALAW 64K	*	<b>V</b>	Out Of Band DTMF
				Local Tones
				Enable RSVP
Gain	Default	~		Allow Direct Media Path
H450 Support	None	*		

Figure 9: Extensions: VoIP Tab

## 3.4. Configure Digital Telephone Extensions

When the Avaya 2410 Digital Telephone (shown as "T" in **Error! Reference source not found.**) 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 **Error! Reference source not found.**, and assign parameter the values shown in Error! Reference source not found..

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

#### Table 7: Extension Parameters

	Digital Extension: 35 5000001 🛛 💣 🗸	X
Extn		
Extension Id	35	_
Base Extension	5000001	
Caller Display Type	On 💌	
Reset Volume After Calls		
Device type	Avaya 2410	
Module	BD	
Port	1	

### Figure 10: Extensions: Extn Tab

## 3.5. 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.	
User	Extension Enter one of the extension A-C,T.		
Talanhony	Can Intrude	Check this box.	
Telephony	Cannot be Intruded	Uncheck this box.	
SIP	All parameters	Accept defaults.	

#### Table 8: User Parameters

	Extn5000133: 5000133	<b>- 1</b>	X
User DND ShortCodes S	ource Numbers Telephony Forwarding Dial In Button Programming Mer	nu Programming	Twir
Name	Extn5000133	1	
Password		•	
Confirm Password			
Full Name		_	
Extension	5000133		20000
Locale	×		
Priority	5		
	Ex Directory		
Device Type	Avaya 4621		
User Rights			
User Ri <mark>ghts vie</mark> w	User data		
Working hours time profile	<none></none>		
Working hours User Rights	×		
Out of hours User Rights	2		

Figure 11: Users: User Tab

MRR; Reviewed: SPOC 12/5/2007

<b>1</b>	Extn5000133: 5000133*	🛋 - 🗙
User DND ShortCodes Source	e Numbers Telephony Forwarding Dial In Butt	on Programming Menu Programming Twi
Outside Call Sequence	Default Ring 💌	🔄 Call Waiting On
Inside Call Sequence	Default Ring 💌	Answer Call Waiting On Hold (Analogue)
Ringback Sequence	Default Ring	📃 Busy On Held
No Answer Time (secs)		Outgoing Call Bar
Wrap-up Time (secs)	2	Offhook Station
Transfer Return Time (secs)		🗹 Can Intrude
Individual Coverage Time (secs)	10	Cannot be Intruded
Login Code		Force Login
Login Idle Period (secs)		Force Account Code
Monitor Group	<none></none>	
Ring Delay (secs)		System Phone
Call Cost Mark-Up	100	🔲 Inhibit Off-Switch Forward/Transfer
Status on No-Answer	Logged On (No change)	📃 Reserve Last CA
Multi Line Options	Reset Longest Idle Time	Can Trace Calls
Ringing Line Preference	<ul> <li>All Calls</li> </ul>	
Idle Line Preference	External Incoming	
Delayed Ring Preference		
Answer Pre-Select		

### Figure 12: Users: Telephony Tab

Extn5000133: 500013				3		C	* •   X	
Menu Programming	Twinning	T3 Options	Phone Manager Options	Hunk	Group Membership	Announcements	SIP	
SIP Name	50	00133			]			
SIP Display Name (	Alias) Ex	tn5000133			]			
Contact	50	00133			]			
		Anonymous						

Figure 13: Users: SIP Tab

MRR; Reviewed: SPOC 12/5/2007

# 3.6. Configure Short Codes

### 3.6.1. Configure SIP Line Short Codes

Configure Short Codes by performing an "add" operation via the "Short Codes" icon.

Tab	Parameter	Usage
	Code	Enter "3XXXXXX" to match all NovaConf extensions.
	Feature	Enter "Dial".
Short Code	Telephone Number	Enter '3N"@ffm.com" to transform extensions assigned to NovaConf to the required form to cause Avaya IP Office to create a SIP URI which is sent on the NovaConf SIP trunk.
	Line Group Id	Enter the group number assigned to the SIP line.

#### Table 9: User Parameters

*=	3XXXXXX: Dial		🖻 - 🗙
Short Code			
Code	3000000		
Feature	Dial	*	
Telephone Number	3N"@ffm.com"		
Line Group Id	1	~	
Locale		~	
Force Account Code			

Figure 14: Short Codes: User Tab

# 4. Configure NovaLink NovaConf

## 4.1. Configuration file NovaConf.ini

The NovaConf.ini configuration file 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 NovaConf server (e.g. C:\Program Files\NovaConf). Note that the "DefaultCallingParty" and "LocalUserName" parameters can be assigned to the same extension, as these parameters are used by different subcomponents of the NovaConf server.

Parameter	Usage
CardDriver	Set this value to "3" to select the SIP driver.
DefaultCallingParty	This is the number to be used as the calling party number for calls which originate from NovaLink NovaConf.
DriverPrev	Set this value to "3" for to select the SIP driver.
LocalUserName	This is the number to be used as the calling party number for calls which originate from NovaLink NovaConf.
SIP_Gateway	This is the domain name used by Avaya IP Office, followed by the IP address of Avaya IP Office.
Rufnummer	This is the number to be used as the calling party number for calls which originate from NovaLink NovaConf.

#### **Table 10: Extension Parameters**

The other parameters in this file should be configured with the default values which are not shown.

```
[CallInfo]
CardDriver=3
DefaultCallingParty=3111111
[VoIP]
DriverPref=3
LocalUserName=311111
SIP_Gateway=ffm.com,192.168.50.10
[NovaConf]
Rufnummer=3111111
```

### Figure 15: NovaConf.ini Configuration File Content

## 4.2. Configure NovaLink NovaConf Application

Use the Windows "Start" button to select the program "NovaConf Webclient". After entering the user name and password, the NovaLink NovaConf startup screen is displayed. Click the "Show users" icon to show potential conference participants.



Figure 16: NovaLink NovaConf Startup Screen

## 4.2.1. Configure Users

Assuming that no other users have been defined, the user designated as administrator is displayed. The configuration of the administrator is beyond the scope of these Application Notes. See reference [2] for additional information. Click the "New person" icon to add a potential conference participant. A conference user should be configured for each of the telephone extensions shown in Error! Reference source not found..

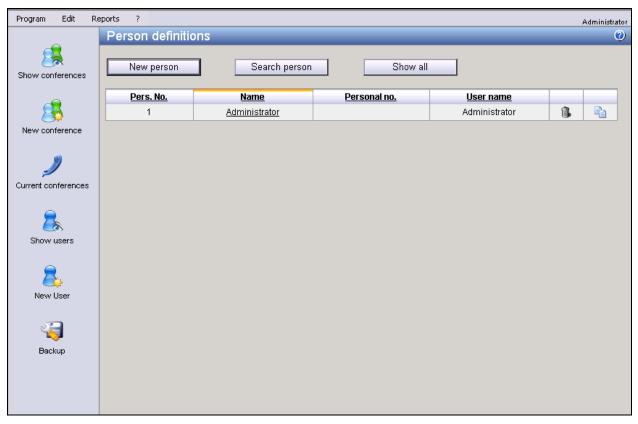


Figure 17: NovaLink NovaConf User Configuration Screen

In the "Personal details" tab, enter the user's name in the "Name" field and a numeric PIN code to be assigned to the user in the "PIN code" field. The user will use this PIN code when an authorization sequence for a conference operation is required.

Program Edit R	eports Extras ?				Administrator
(	Edit person				Zurück 🕐
Show conferences	No.:	Name:			]
8	Personal details Te	elephone numbers Authorization No	otes		
New conference	Name:	Extn 5000001		Deactivated:	
9)	Add. information:		PIN code:	1234	
	Name of street:		Personal ID:		
Current conferences	ZIP/Town/City:		-		
2	Lingua:	English	]		
Show users					
New User					
<b></b>					
Backup					
		Save changes	Discard	1	

Figure 18: NovaLink NovaConf Edit Personal Details Screen

Select the "Telephone numbers" tab to enter the telephone number to be assigned to the user. For testing purposes, it is sufficient to configure one telephone extension, which can be entered into the "Office 1" field. Click the "Save changes" button to save the user's configuration and return to the "Person definitions" screen.

Program Edit Reports Extras ? Administrat					
	Edit person	Zurück 🕐			
Show conferences	No.: Name:				
New conference	Personal details Telephone numbers Authorization Notes				
	Office 1: 5000001 Office 2:				
I III	Home 1: Home 2:				
Current conferences	Mobile 1: Mobile 2:				
8	DECT/WLAN 1: DECT/WLAN 2:				
Show users	E-Mail:				
New User					
4					
Backup					
	Save changes Discard				

Figure 19: NovaLink NovaConf Edit User Telephone Numbers Screen

Repeat the preceding user allocation steps for each of the extensions in Error! Reference source not found.. The newly configured users are now listed in the "Person definitions" screen, as show below. Click the "Show conference" icon to continue.

Program Edit Re	eports ?					Administrator
	Person definition	ons			_	0
Show conferences	New person	Search person	Show all			
-	Pers. No.	<u>Name</u>	<u>Personal no.</u>	<u>User name</u>		
8	1	<u>Administrator</u>		Administrator	1	<b></b>
New conference	207	<u>Extn 5000001</u>			1	
	210	<u>Extn 5000133</u>			1	
2	209	<u>Extn 5000134</u>			1	
Current conferences	208	<u>Extn 5000136</u>			1	
Show users						
New User						
ackup						

Figure 20: NovaLink NovaConf Personal User Display Screen

## 4.2.2. Configure Conferences

From the "Predefined Conferences" screen, click the "New Conference" button to create a new conference. This operation is performed once for each of the three conference types used by the tests described in these Application Notes: incoming conference, outgoing conference, and adhoc conference.

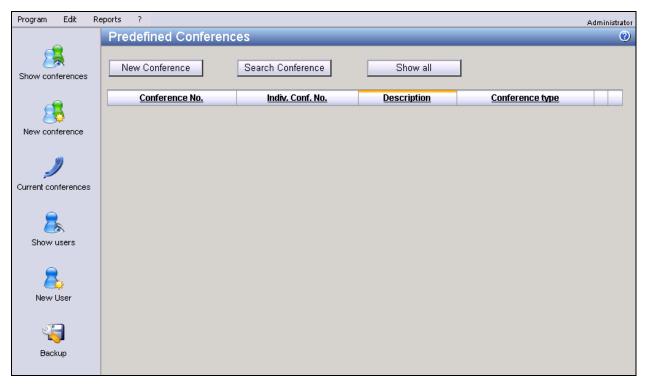


Figure 21: Predefined Conference List Screen

The "Common" tab of the "Edit conference" screen allows the creation of various conference types. Enter the parameters for the conference to be configured as shown in the table below. The example below illustrates the creation of an ad-hoc conference.

Parameter	Usage
Description	Assign a descriptive name to the conference.
Individual No.	No value is required for this example, as Ad-Hoc Conferences do not
	have an "Individual No" value.
	Select "Outgoing Conference", "Incoming Conference", or "Ad-hoc
Conforman Turna	Conference" from this drop-down box, dependent on the type of
Conference-Type	conference which it to be created. For this example, "Ad-Hoc
	Conference" is selected. This is a one-time, non-recurring conference.
Massaga	Select an existing message from the list of files contained within this
Message	drop-down box, or click the button to the right to record a new message.

#### Table 11: NovaLink NovaConf Conference Common Configuration Parameters

w conferences No.:		Description:		
Lon Lon	nmon User Timetable			
	Description: Conference-Type:	General Conference Ad-Hoc Conference	Individual No.:	
Show users	Message: Responsible: Call attempts:	Test Announcement <no selection=""></no>		
New User	Default values for Conf. U: Authentification-Type: Authentification:	None		
	Dial-In values for incoming Dial-In No.: Add. AuthentificType: Add. Authentific.:	conferences:	(Additional authentification to start a Chef conference)	

Figure 22: NovaLink NovaConf Edit Conference Screen

Select the "User" tab and allocate users to the conference using "drag and drop" operations, as shown below.

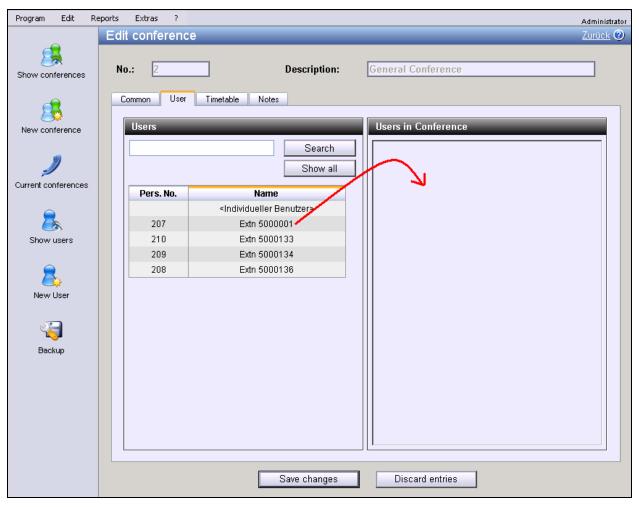


Figure 23: NovaLink NovaConf User Allocation via Drag and Drop

A newly selected conference participant is removed from the list of "Users" and added to the list of "Users in Conference". Repeat this operation for all users who are to participate in the conference.

Program Edit R	eports Extras ?		Administrator	
	Edit conference	e	Zurück 🥑	
Show conferences	No.: 2	Description:	General Conference	
New conference	Common User Users	Timetable Notes	Users in Conference	
, ")		Search Show all	Extn 5000001 (207) Add. information: Office 1 (5000001)	
Current conferences	Pers. No.	Name	None 🎤 🎧 Edit	
Show users	210 209 208	<individueller benutzer=""> Extn 5000133 Extn 5000134 Extn 5000136</individueller>		
New User				
Backup				
Save changes Discard entries				

Figure 24: NovaLink NovaConf Conference After Allocation of First Participant

# 5. Interoperability Compliance Testing

The interoperability compliance tests included feature and serviceability testing.

The feature testing focused on testing scenarios that involve interaction between the NovaLink NovaConf server and Avaya products, including various sequences involving the following:

- Verification of the ability to establish conferences initiated by various Avaya Telephones calling the NovaLink NovaConf server.
- Verification of the ability of the NovaLink NovaConf server to establish conferences by calling various Avaya Telephones.
- Verification of the ability of the NovaLink NovaConf server to establish conferences with parties that have activated call diversion. The conference should be established with the diverted-to station.
- Verification of the ability of NovaLink NovaConf to recognize DTMF tones.
- Verification of the ability of Avaya Telephones to correctly log unanswered conference calls.

The serviceability testing focused on verifying that the NovaLink NovaConf product components can recover from interruption to interface connections that can occur during routine maintenance activities. The NovaLink NovaConf server was also tested for recovery from unexpected power interruption.

## 5.1. General Test Approach

The test method employed can be described as follows:

- Correct interoperation between the NovaLink NovaConf server and Avaya IP Office was verified by confirming that the various telephony operations that can be invoked by conferencing activity all function properly.
- NovaLink NovaConf server robustness was tested by verifying its ability to recover from interruptions to its external connections via the LAN between the NovaLink NovaConf and the network.
- Verifying the ability to recover from power interruptions to the NovaLink NovaConf server further tested its robustness.

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

## 5.2. Test Results

The following problems were encountered during testing:

• It is not possible for NovaLink NovaConf to detect that an Avaya 4600 Series IP Telephone is disconnected, as this status is not reported to the caller by Avaya IP Office.

This issue did not prohibit the solution from meeting Avaya compliance test requirements.

# 6. 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 NovaConf server can ping each other.
- Verify that the IP phones can call each other.
- Start the NovaLink NovaConf Monitor from the Windows "Start" control, and verify that the "Line Status" control is green to indicate that the interface to Avaya IP Office is operational.
- Verify that each of the Avaya Telephones can call the extension allocated to NovaLink NovaConf to participate in an incoming conference.
- Verify that it is possible for NovaLink NovaConf to call each of the Avaya IP Telephones to participate in an outgoing conference.
- Verify that it is possible to navigate the NovaLink NovaConf voice menu from each of the Avaya Telephones by calling the NovaLink NovaConf extension, and entering key sequences in response to prompting requests from NovaLink NovaConf.
- Verify the ability of Avaya Telephones to correctly log unanswered calls by initiating an unanswered conference call from NovaLink NovaConf 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.

# 7. Support

Technical support from NovaLink can be obtained through the following:

NovaLink GmbH Businesstower Zuercherstrasse 310 8500 Frauenfeld Switzerland <u>helpdesk@novalink.ch</u> Phone: +41 52 762 66 77 Fax: +41 52 762 66 99

# 8. Conclusion

These Application Notes describe the configuration of the NovaLink NovaConf with Avaya IP Office. The various features of the NovaLink NovaConf which involve its telephone interface were tested. NovaLink NovaConf passed all of the tests performed, which included both functional and robustness tests.

## 9. Additional References

- [1] IP Office 4.0 Installation Manual, February 2007, Issue 1, Document Number 15-601047.
- [2] "IP Office 4.0 Manager: 01. Using Manager", Issue 19k (22nd January 2007)
- [3] "IP Office 4.0 Manager: 02. Configuration Settings", Issue 19k (22nd January 2007), Document Number 39DHB0002UKAB
- [4] "IP Office 4.0 Manager: 03. Short Codes", Issue 19k (22nd January 2007), Document Number 39DHB0002UKAC
- [5] "IP Office 4.0 Manager: 04. Telephony Features", Issue 19k (22nd January 2007), Document Number 39DHB0002UKAD
- [6] NovaConf 7.5 Manual, May 2007

#### ©2007 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and <sup>TM</sup> are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at <u>devconnect@avaya.com</u>.