



Avaya Solution & Interoperability Test Lab

Application Notes for NovelVox Agent Accelerator 8.0 with Avaya Aura® Communication Manager 8.1 and Avaya Aura® Application Enablement Services 8.1– Issue 1.0

Abstract

These Application Notes describe the configuration steps required for NovelVox Agent Accelerator 8.0 to interoperate with Avaya Aura® Communication Manager 8.1.3.4 and Avaya Aura® Application Enablement Services 8.1.3.4. NovelVox Agent Accelerator used the Java Telephony Application Programming Interface from Avaya Aura® Application Enablement Services to route incoming calls to Avaya Aura® Communication Manager and provide screen pop and call control via a web-based agent interface.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any 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 required for NovelVox Agent Accelerator 8.0 to interoperate with Avaya Aura® Communication Manager 8.1.3.4 and Avaya Aura® Application Enablement Services 8.1.3.4.

NovelVox Agent Accelerator use Java Telephony Application Programming Interface (JTAPI) from Avaya Aura® Application Enablement Services to provide screen pop and call control via a web-based agent interface.

JTAPI is a client-side interface to the Telephony Services Application Programmer Interface (TSAPI) on Avaya Aura® Application Enablement Services. As such, these Application Notes will describe the required configurations for creation and connectivity to the TSAPI service.

2. General Test Approach and Test Results

The feature test cases were performed manually. Incoming calls were placed to the routing VDNs with available agents running the web based NovelVox Agent Accelerator on the desktops. Manual call controls were exercised from NovelVox Agent Accelerator to verify proper call actions such as answer and transfer.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet connections to the NovelVox Agent Accelerator server and to the agent desktop.

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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with this Application Notes, the interface between Avaya systems and NovelVox Agent Accelerator utilized enabled capabilities of secure JTAPI.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying the following on NovelVox Agent Accelerator:

- Handling of JTAPI/TSAPI messages in the areas of event notifications, value queries, and set agent states.
- Use of JTAPI/TSAPI routing services to properly route incoming calls.
- Use of JTAPI/TSAPI call control services to support call control actions such as answer and transfer from the agent desktops.
- Proper handling of call scenarios involving inbound, outbound, ACD, non-ACD, transfer, conference, multiple agents, multiple calls, and long duration.

The serviceability testing focused on verifying the ability of NovelVox Agent Accelerator to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connections to the NovelVox Agent Accelerator server and to the agent desktop.

2.2. Test Results

All test cases were executed and verified successfully.

2.3. Support

Technical support on NovelVox Agent Accelerator can be obtained through the following:

Email: support@novelvox.com

or

raise a ticket at <https://desk.zoho.com/portal/novelvox/en/signin#newticket>

3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**. The detailed administration of basic connectivity between Communication Manager and Application Enablement Services is not the focus of these Application Notes and will not be described. In the compliance testing, NovelVox Agent Accelerator monitored the agent station extensions shown in the table below.

Device Type	Extension
Routing VDN	88000, 88001
Skill Group	87000, 87001
Agent Station	70017, 70018
Supervisor Station	80000
Agent ID	80001, 80002

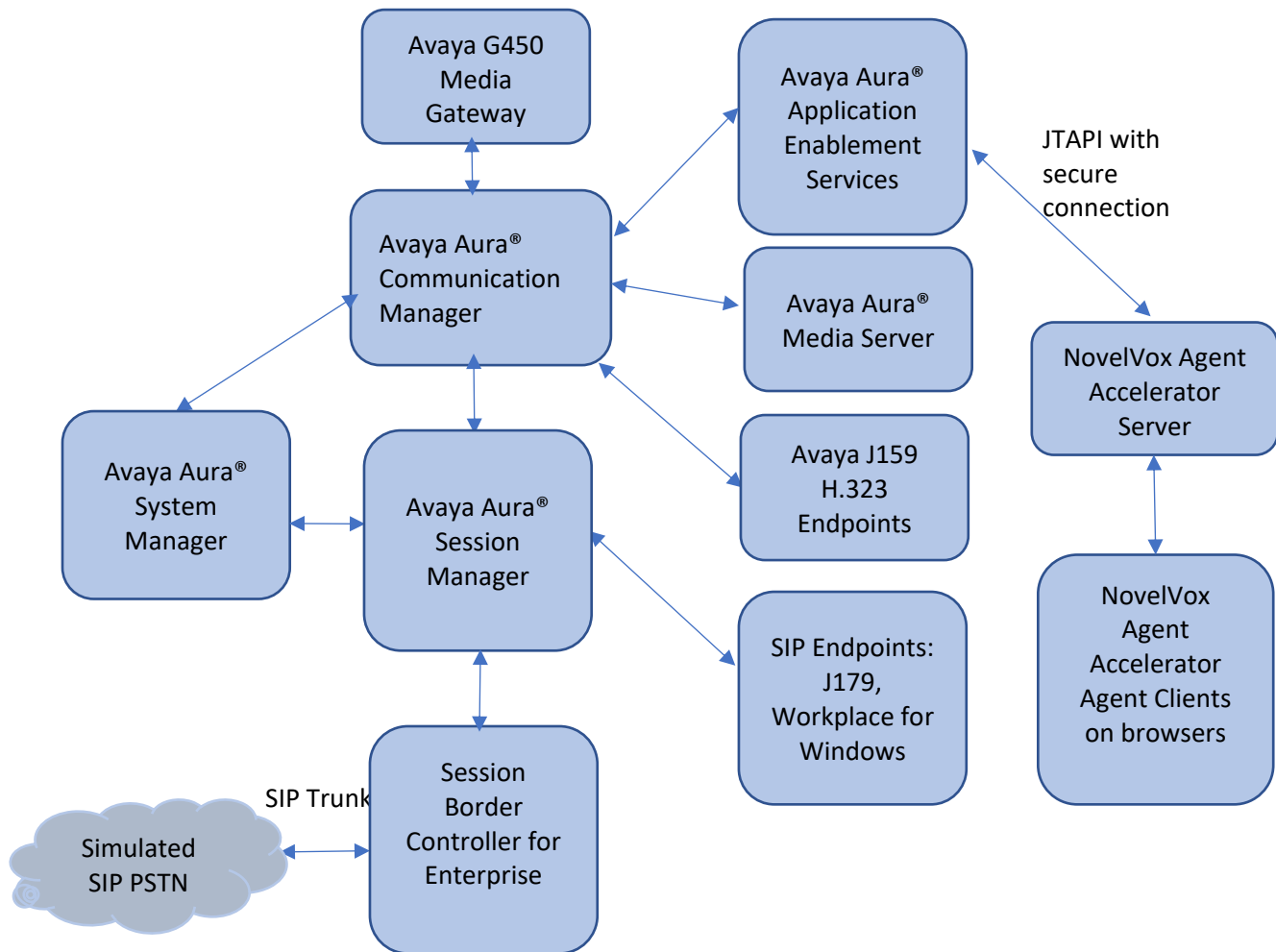


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager in Virtual Environment	8.1.3.4.1014185
Avaya Aura® Session Manager in Virtual Environment	8.1.3.4.813401
Avaya Aura® Communication Manager in Virtual Environment	8.1.3.4 - 01.0.890.0-27348
Avaya G450 Media Gateway	41.34.1
Avaya Aura® Media Server in Virtual Environment	8.0 SP2
Avaya Aura® Application Enablement Services in Virtual Environment	8.1.3.4.0.2-0
Avaya Session Border Controller for Enterprise	8.1.3
Avaya Workplace Client for Windows	3.22.0
Avaya J179 IP Phone (SIP)	4.0.9
Avaya J159 IP Deskphone (H.323)	6.8.5
NovelVox Agent Accelerator - Avaya JTAPI Client	8.0.0. 8.1.3

5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager. The procedures include the following areas:

- Verify license
- Administer CTI link
- Administer reason codes
- Administer hunt group and agent
- Administer vectors and VDNs

5.1. Verify License

Log into the System Access Terminal to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the **display system-parameters customer-options** command to verify that the **Computer Telephony Adjunct Links** customer option is set to **y** on **Page 4**. If this option is not set to **y**, then contact the Avaya sales team or business partner for a proper license file.

display system-parameters customer-options		Page	4 of 12
OPTIONAL FEATURES			
Abbreviated Dialing Enhanced List?	y	Audible Message Waiting?	y
Access Security Gateway (ASG)?	n	Authorization Codes?	y
Analog Trunk Incoming Call ID?	y	CAS Branch?	n
A/D Grp/Sys List Dialing Start at 01?	y	CAS Main?	n
Answer Supervision by Call Classifier?	y	Change COR by FAC?	n
ARS?	y	Computer Telephony Adjunct Links?	y
ARS/AAR Partitioning?	y	Cvg Of Calls Redirected Off-net?	y
ARS/AAR Dialing without FAC?	y	DCS (Basic)?	y
ASAI Link Core Capabilities?	y	DCS Call Coverage?	y
ASAI Link Plus Capabilities?	y	DCS with Rerouting?	y
Async. Transfer Mode (ATM) PNC?	n		
Async. Transfer Mode (ATM) Trunking?	n	Digital Loss Plan Modification?	y
ATM WAN Spare Processor?	n	DS1 MSP?	y
ATMS?	y	DS1 Echo Cancellation?	y
Attendant Vectoring?	y		
(NOTE: You must logoff & login to effect the permission changes.)			

Navigate to **Page 7**, and verify that **Vectoring (Basic)** is set to **y**.

display system-parameters customer-options	Page 7 of 12
CALL CENTER OPTIONAL FEATURES	
Call Center Release: 8.0	
ACD? y	Reason Codes? y
BCMS (Basic)? y	Service Level Maximizer? n
BCMS/VuStats Service Level? y	Service Observing (Basic)? y
BSR Local Treatment for IP & ISDN? y	Service Observing (Remote/By FAC)? y
Business Advocate? n	Service Observing (VDNs)? y
Call Work Codes? y	Timed ACW? y
DTMF Feedback Signals For VRU? y	Vectoring (Basic)? y
Dynamic Advocate? n	Vectoring (Prompting)? y
Expert Agent Selection (EAS)? y	Vectoring (G3V4 Enhanced)? y
EAS-PHD? y	Vectoring (3.0 Enhanced)? y
Forced ACD Calls? n	Vectoring (ANI/II-Digits Routing)? y
Least Occupied Agent? y	Vectoring (G3V4 Advanced Routing)? y
Lookahead Interflow (LAI)? y	Vectoring (CINFO)? y
Multiple Call Handling (On Request)? y	Vectoring (Best Service Routing)? y
Multiple Call Handling (Forced)? y	Vectoring (Holidays)? y
PASTE (Display PBX Data on Phone)? y	Vectoring (Variables)? y
(NOTE: You must logoff & login to effect the permission changes.)	

5.2. Administer CTI Link

Add a CTI link using the **add cti-link n** command, where **n** is an available CTI link number. Enter an available extension number in the **Extension** field. Note that the CTI link number and extension number may vary. Enter **ADJ-IP** in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

add cti-link 1	Page 1 of 3
CTI LINK	
CTI Link: 1	
Extension: 79999	
Type: ADJ-IP	
COR: 1	
Name: aes95	

5.3. Administer Reason Codes

For contact centers that use reason codes, enter the **change reason-code-names** command. Configure the **Aux Work** and **Logout** reason codes as desired. The compliance testing used the default values used by NovelVox Agent Accelerator are shown below.

```
change reason-code-names                                     Page 1 of 1

                                REASON CODE NAMES

                                Aux Work/                    Logout
                                Interruptible?

Reason Code 1: In a Meeting /n Break
Reason Code 2: Out of Office /n Lunch
Reason Code 3: Lunch /n
Reason Code 4: /n
Reason Code 5: /n
Reason Code 6: /n
Reason Code 7: /n Other
Reason Code 8: /n
Reason Code 9: /n

Default Reason Code:
```

5.4. Administer Hunt Group and Agent

This section shows the steps required to add a new service or skill on Communication Manager. Services are accessed by calling a Vector Directory Number (VDN), which points to a vector. The vector then points to a hunt group associated with an agent. The following sections give step by step instructions on how to add the following:

- Hunt Group
- Agent

5.4.1. Add Hunt Group

To add a new skillset or hunt group type, **add hunt-group x**, where **x** is the new hunt group number. For example, hunt group **1** is added for the **Voice Service** queue. Ensure that **ACD**, **Queue** and **Vector** are all set to **y**. Also, that **Group Type** is set to **ucd-mia**.

add hunt-group 1		Page 1 of 4
HUNT GROUP		
Group Number: 1		ACD? y
Group Name: Voice Service		Queue? y
Group Extension: 87000		Vector? y
Group Type: ucd-mia		
TN: 1		
COR: 1		MM Early Answer? n
Security Code:		Local Agent Preference? n
ISDN/SIP Caller Display:		
Queue Limit: unlimited		
Calls Warning Threshold:	Port:	
Time Warning Threshold:	Port:	

On **Page 2** ensure that **Skill** is set to **y** as shown below.

add hunt-group 1		Page 2 of 4
HUNT GROUP		
	Expected Call Handling Time (sec):	
Skill? y	180	
AAS? n		
Measured: none		
Supervisor Extension:		
Controlling Adjunct:		
Multiple Call Handling: none		
Timed ACW Interval		
(sec):	After Xfer or Held Call Drops? n	

5.4.2. Add Agent

In the compliance testing, the agents 80000 and 80001 were created.

To add a new agent, type **add agent-loginID x**, where x is the login id for the new agent.

add agent-loginID 80000		Page 1 of 3
AGENT LOGINID		
Login ID: 80000	AAS? n	
Name: Voice Agent	AUDIX? n	
TN: 1	Check skill TNs to match agent TN? n	
COR: 1		
Coverage Path:	LWC Reception: spe	
Security Code:	LWC Log External Calls? n	
	AUDIX Name for Messaging:	
	LoginID for ISDN/SIP Display? n	
	Password:****	
	Password (enter again):****	
MWI Served User Type: sip-adjunct	Auto Answer: station	
AUX Agent Remains in LOA Queue: system	MIA Across Skills: system	
AUX Agent Considered Idle (MIA): system	ACW Agent Considered Idle: system	
Work Mode on Login: system	Aux Work Reason Code Type: system	
	Logout Reason Code Type: system	
	Maximum time agent in ACW before logout (sec): system	
	Forced Agent Logout Time:	
WARNING: Agent must log in again before changes take effect		

On **Page 2**, add the required skills. Note that the skill **1** is added to this agent so when a call for **Voice Service** is initiated, the call can be routed to this agent.

add agent-loginID 80000		Page 2 of 3					
AGENT LOGINID							
Direct Agent Skill:	Service Objective? n						
Call Handling Preference: skill-level	Local Call Preference? n						
SN	RL SL	SN	RL SL	SN	RL SL	SN	RL SL
1: 1	1	16:		31:		46:	
2:		17:		32:		47:	
3:		18:		33:		48:	
4:		19:		34:		49:	
5:		20:		35:		50:	
6:		21:		36:		51:	
7:		22:		37:		52:	
8:		23:		38:		53:	
9:		24:		39:		54:	
10:		25:		40:		55:	

Repeat this section to add another agent 80001.

5.5. Administer Vectors and VDNs

Add a vector using the **change vector n** command, where **n** is a vector number. Note that the vector steps may vary, and below is a sample vector used in the compliance testing. The **adjunct routing link** number must match the number configured in the cti-link form in **Section 5.2**

change vector 1		CALL VECTOR		Page 1 of 6	
Number: 1		Name: VoiceService			
Multimedia? n	Attendant Vectoring? n	Meet-me Conf? n	Lock? n		
Basic? y	EAS? y	G3V4 Enhanced? y	ANI/II-Digits? y	ASAI Routing? y	
Prompting? y	LAI? y	G3V4 Adv Route? y	CINFO? y	BSR? y	Holidays? y
Variables? y	3.0 Enhanced? y				
01 adjunct	routing link 1				
02 wait-time	5 secs hearing silence				
03 route-to	number 88000		cov n if unconditionally		
04 stop					
05					
06					
07					
08					
09					
10					
11					
12					
Press 'Esc f 6' for Vector Editing					

Add a VDN using the **add vdn n** command, where **n** is an available extension number. Enter a descriptive **Name** and the vector number from above for **Destination**. Retain the default values for all remaining fields.

```

add vdn 88000
Page 1 of 3
VECTOR DIRECTORY NUMBER
Extension: 88000 Unicode Name? n
Name*: Voice VDN
Destination: Vector Number 1
Attendant Vectoring? n
Meet-me Conferencing? n
Allow VDN Override? n
COR: 1
TN*: 1
Measured: none Report Adjunct Calls as ACD*? n
VDN of Origin Annc. Extension*:
1st Skill*:
2nd Skill*:
3rd Skill*:
SIP URI:
* Follows VDN Override Rules

```

Repeat this section to administer the desired number of vectors and VDNs. In the compliance testing, two sets of vectors and VDNs were created, as shown below.

```
list vdn
```

VECTOR DIRECTORY NUMBERS									
Name (22 characters)	Ext/Skills	VDN		Vec			Orig		Evnt
		Ovr	COR	TN	PRT	Num	Meas	Annc	Noti
									Adj
Voice VDN	88000	n	1	1	V	1	none		1
Voice VDN	88001	n	1	1	V	2	none		1

6. Configure Avaya Aura® Application Enablement Services

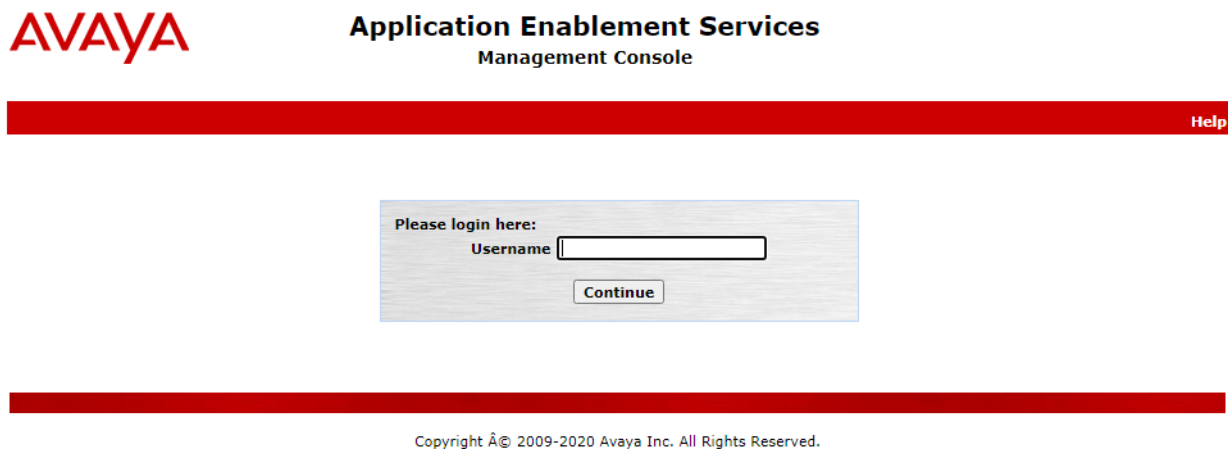
This section provides the procedures for configuring Application Enablement Services. The procedures include the following areas:

- Launch OAM interface
- Verify license
- Administer TSAPI link
- Administer NovelVox user
- Administer security database
- Restart services
- Obtain Tlink name

6.1. Launch OAM Interface

Access the OAM web-based interface by using the URL “https://ip-address” in an Internet browser window, where **ip-address** is the IP address of the Application Enablement Services server.

The **Please login here** screen is displayed. Log in using the appropriate credentials.



The screenshot shows the Avaya Application Enablement Services Management Console login interface. At the top left is the Avaya logo. To its right, the text 'Application Enablement Services' is displayed in bold, with 'Management Console' underneath it. A red horizontal bar spans the width of the page, containing a 'Help' link on the right. Below this bar is a light gray login box with the text 'Please login here:' and 'Username' followed by a text input field. A 'Continue' button is located below the input field. At the bottom of the page, another red horizontal bar contains the copyright notice: 'Copyright © 2009-2020 Avaya Inc. All Rights Reserved.'

The **Welcome to OAM** screen is displayed next.



Application Enablement Services Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:18:13 ICT 2022
HA Status: Not Configured

[Home](#)[Home](#) | [Help](#) | [Logout](#)

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ **Status**
- ▶ User Management
- ▶ Utilities
- ▶ Help

Welcome to OAM

The AE Services Operations, Administration, and Management (OAM) Web provides you with tools for managing the AE Server. OAM spans the following administrative domains:


- AE Services - Use AE Services to manage all AE Services that you are licensed to use on the AE Server.
- Communication Manager Interface - Use Communication Manager Interface to manage switch connection and dialplan.
- High Availability - Use High Availability to manage AE Services HA.
- Licensing - Use Licensing to manage the license server.
- Maintenance - Use Maintenance to manage the routine maintenance tasks.
- Networking - Use Networking to manage the network interfaces and ports.
- Security - Use Security to manage Linux user accounts, certificate, host authentication and authorization, configure Linux-PAM (Pluggable Authentication Modules for Linux) and so on.
- Status - Use Status to obtain server status informations.
- User Management - Use User Management to manage AE Services users and AE Services user-related resources.
- Utilities - Use Utilities to carry out basic connectivity tests.
- Help - Use Help to obtain a few tips for using the OAM Help system

Depending on your business requirements, these administrative domains can be served by one administrator for all domains, or a separate administrator for each domain.

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6.2. Verify License

Select **Licensing** → **WebLM Server Access** in the left pane, to display the applicable WebLM server log in screen (not shown). Log in using the appropriate credentials and navigate to display installed licenses (not shown).

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:19:18 ICT 2022
HA Status: Not Configured

LicensingHome | Help | Logout

▶ AE Services

▶ Communication Manager Interface

High Availability

▼ Licensing

WebLM Server Address

WebLM Server Access

Reserved Licenses

▶ Maintenance

▶ Networking

▶ Security

▶ Status

▶ User Management

▶ Utilities

▶ Help

Licensing

If you are setting up and maintaining the WebLM, you need to use the following:

- WebLM Server Address

If you are importing, setting up and maintaining the license, you need to use the following:

- WebLM Server Access

If you want to administer TSAPI Reserved Licenses or DMCC Reserved Licenses, you need to use the following:

- Reserved Licenses

NOTE: Please disable your pop-up blocker if you are having difficulty with opening this page

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Select **Licensed products** → **APPL_ENAB** → **Application_Enablement** in the left pane, to display the **Licensed Features** screen in the right pane.


Verify that there are sufficient licenses for **TSAPI Simultaneous Users**, as shown below. Also verify that there is an applicable advanced switch license, in this case **AES ADVANCED LARGE SWITCH**.

The screenshot shows the Avaya Aura System Manager 8.1 interface. The top navigation bar includes 'Users', 'Elements', 'Services', 'Widgets', and 'Shortcuts'. The left pane shows the 'Licenses' section with a tree view where 'Application_Enablement' is selected. The right pane displays the 'Application Enablement (CTI) - Release: 8 - SID: 10503000' page. The page includes a breadcrumb trail: 'You are here: Licensed Products > Application_Enablement > View License Capacity'. It also shows the license installation date: 'License installed on: September 6, 2019 4:38:44 PM +07:00'. The 'Licensed Features' section contains a table with 13 items.

Feature (License Keyword)	Expiration date	Licensed capacity
Device Media and Call Control VALUE_AES_DMCC_DMC	permanent	100
AES ADVANCED LARGE SWITCH VALUE_AES_AEC_LARGE_ADVANCED	permanent	100
AES HA LARGE VALUE_AES_HA_LARGE	permanent	100
AES ADVANCED MEDIUM SWITCH VALUE_AES_AEC_MEDIUM_ADVANCED	permanent	100
Unified CC API Desktop Edition VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	100
CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	100
AES HA MEDIUM VALUE_AES_HA_MEDIUM	permanent	100
AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	100
DLG VALUE_AES_DLG	permanent	100
TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	100
CVLAN Proprietary Links VALUE_AES_PROPRIETARY_LINKS	permanent	100

6.3. Administer TSAPI Link

Select **AE Services** → **TSAPI** → **TSAPI Links** from the left pane of the **Management Console**, to administer a TSAPI link. The **TSAPI Links** screen is displayed, as shown below. Click **Add Link**.

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:21:51 ICT 2022
HA Status: Not Configured

AE Services | TSAPI | TSAPI Links[Home](#) | [Help](#) | [Logout](#)


▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▼ TSAPI**
 - TSAPI Links**
 - TSAPI Properties
- ▶ TWS
- Communication Manager Interface**

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
Add Link	Edit Link	Delete Link		

The **Add TSAPI Links** screen is displayed next. The **Link** field is only local to the Application Enablement Services server and may be set to any available number. For **Switch Connection**, select the relevant switch connection from the drop-down list. In this case, the existing switch connection **CM93** is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:25:57 ICT 2022
HA Status: Not Configured

AE Services | TSAPI | TSAPI Links[Home](#) | [Help](#) | [Logout](#)

▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▼ TSAPI**
 - TSAPI Links**
 - TSAPI Properties
- ▶ TWS
- Communication Manager Interface**
- High Availability**

Add TSAPI Links

Link

1 ▼

Switch Connection

CM93 ▼

Switch CTI Link Number

1 ▼

ASAI Link Version

12 ▼

Security

Both ▼

[Apply Changes](#) [Cancel Changes](#)

6.4. Administer NovelVox User

Select **User Management** → **User Admin** → **Add User** from the left pane, to display the **Add User** screen in the right pane.

Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**. For **CT User**, select **Yes** from the drop-down list. Retain the default value in the remaining fields.



Application Enablement Services Management Console


User Management | User Admin | Add User

<ul style="list-style-type: none">▶ AE Services▶ Communication Manager Interface▶ High Availability▶ Licensing▶ Maintenance▶ Networking▶ Security▶ Status▼ User Management<ul style="list-style-type: none">▶ Service Admin▼ User Admin<ul style="list-style-type: none">▪ Add User▪ Change User Password▪ List All Users▪ Modify Default Users▪ Search Users▶ Utilities▶ Help	<h3>Add User</h3> <p>Fields marked with * can not be empty.</p> <table><tr><td>* User Id</td><td><input type="text" value="novelvox"/></td></tr><tr><td>* Common Name</td><td><input type="text" value="novelvox"/></td></tr><tr><td>* Surname</td><td><input type="text" value="novelvox"/></td></tr><tr><td>* User Password</td><td><input type="password" value="....."/></td></tr><tr><td>* Confirm Password</td><td><input type="password"/></td></tr><tr><td>Admin Note</td><td><input type="text"/></td></tr><tr><td>Avaya Role</td><td><input type="text" value="None"/></td></tr><tr><td>Business Category</td><td><input type="text"/></td></tr><tr><td>Car License</td><td><input type="text"/></td></tr><tr><td>CM Home</td><td><input type="text"/></td></tr><tr><td>Css Home</td><td><input type="text"/></td></tr><tr><td>CT User</td><td><input type="text" value="Yes"/></td></tr><tr><td>Department Number</td><td><input type="text"/></td></tr><tr><td>Display Name</td><td><input type="text"/></td></tr><tr><td>Employee Number</td><td><input type="text"/></td></tr><tr><td>Employee Type</td><td><input type="text"/></td></tr></table>	* User Id	<input type="text" value="novelvox"/>	* Common Name	<input type="text" value="novelvox"/>	* Surname	<input type="text" value="novelvox"/>	* User Password	<input type="password" value="....."/>	* Confirm Password	<input type="password"/>	Admin Note	<input type="text"/>	Avaya Role	<input type="text" value="None"/>	Business Category	<input type="text"/>	Car License	<input type="text"/>	CM Home	<input type="text"/>	Css Home	<input type="text"/>	CT User	<input type="text" value="Yes"/>	Department Number	<input type="text"/>	Display Name	<input type="text"/>	Employee Number	<input type="text"/>	Employee Type	<input type="text"/>
* User Id	<input type="text" value="novelvox"/>																																
* Common Name	<input type="text" value="novelvox"/>																																
* Surname	<input type="text" value="novelvox"/>																																
* User Password	<input type="password" value="....."/>																																
* Confirm Password	<input type="password"/>																																
Admin Note	<input type="text"/>																																
Avaya Role	<input type="text" value="None"/>																																
Business Category	<input type="text"/>																																
Car License	<input type="text"/>																																
CM Home	<input type="text"/>																																
Css Home	<input type="text"/>																																
CT User	<input type="text" value="Yes"/>																																
Department Number	<input type="text"/>																																
Display Name	<input type="text"/>																																
Employee Number	<input type="text"/>																																
Employee Type	<input type="text"/>																																

6.5. Administer Security Database

Select **Security** → **Security Database** → **Control** from the left pane, to display the **SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services** screen in the right pane. Uncheck both fields below.

In the event that the security database is used by the customer with parameters already enabled, then follow reference [4] to configure access privileges for the NovelVox user from **Section 6.4**.

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:31:46 ICT 2022
HA Status: Not Configured

Security | Security Database | Control


Home | Help | Logout

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▼ Security
 - ▶ Account Management
 - ▶ Audit
 - ▶ Certificate Management
 - ▶ Enterprise Directory
 - ▶ Host AA
 - ▶ PAM
 - ▼ Security Database
 - Control

SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services
☐ Enable SDB for DMCC Service
☐ Enable SDB for TSAPI Service, JTAPI and Telephony Web Services

6.6. Restart Services

Select **Maintenance** → **Service Controller** from the left pane, to display the **Service Controller** screen in the right pane. Check **TSAPI Service**, and click **Restart Service**.

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:34:04 ICT 2022
HA Status: Not Configured

Maintenance | Service ControllerHome | Help | Logout

▶ AE Services

▶ Communication Manager Interface

High Availability

▶ Licensing

▼ Maintenance

Date Time/NTP Server

▶ Security Database

Service Controller

▶ Server Data

▶ Networking

▶ Security

▶ Status

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running


For status on actual services, please use [Status and Control](#)

StartStopRestart ServiceRestart AE ServerRestart LinuxRestart Web Server

6.7. Obtain Tlink Name

Select **Security** → **Security Database** → **Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. A new Tlink name is automatically generated for the TSAPI service. Locate the Tlink name associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name, to be used later for configuring NovelVox Agent Accelerator.

In this case, the associated Tlink name is **AVAYA#CM93#CSTA-S#AES95**. Note the use of the switch connection **CM93** from **Section 6.3** as part of the Tlink name.

**Application Enablement Services**
Management Console

Welcome: User cust
Last login: Thu Jan 27 17:24:33 2022 from 10.128.224.59
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Jan 31 01:34:57 ICT 2022
HA Status: Not Configured

Security | Security Database | TlinksHome | Help | Logout

▶ AE Services

▶ Communication Manager Interface

High Availability

▶ Licensing

▶ Maintenance

▶ Networking

▼ Security

▶ Account Management

▶ Audit

▶ Certificate Management

Enterprise Directory

▶ Host AA

▶ PAM

▼ Security Database

▪ Control

▣ CTI Users

▪ Devices

▪ Device Groups

▪ **Tlinks**

▪ Tlink Groups

Tlinks

Tlink Name

☐ AVAYA#CM93#CSTA#AES95

☒ AVAYA#CM93#CSTA-S#AES95

Delete Tlink

7. Configure NovelVox Agent Accelerator

All installation and configuration related to NovelVox Agent Accelerator is performed by NovelVox engineers and thus, is not documented.

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Application Enablement Services, and NovelVox Agent Accelerator.

8.1. Verify Avaya Aura® Communication Manager

On Communication Manager, verify status of the administered CTI link by using the “status aesvcs cti-link” command. Verify that the **Service State** is “established” for the CTI link number administered in **Section 5.2.** as shown below.

```
status aesvcs cti-link
```

AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	12	no	aes95	established	14	14

Enter the command **list agent-loginID** verify that agent **80000** and **80001** shown in **Section 5.4** is logged-in to extension **70017** and **70018**.

```
list agent-loginID
```

AGENT LOGINID									
Login ID	Name	Extension		Dir	Agt	AAS/AUD		COR	Ag Pr SO
		Skil/Lv	Skil/Lv	Skil/Lv	Skil/Lv	Skil/Lv	Skil/Lv	Skil/Lv	Skil/Lv
80000	Voice Agent	70017						1	lvl
	1/01	/	/	/	/	/	/	/	
80001	Voice Agent1	70018						1	lvl
	1/01	/	/	/	/	/	/	/	

8.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** from the left pane. The **TSAPI Link Details** screen is displayed.

Verify the **Status** is “Talking” for the TSAPI link administered in **Section 6.3.** and that the **Associations** column reflects the number of agents that are logged in



Application Enablement Services Management Console

Welcome: User cust
Last login: Mon Mar 21 18:11:55 2022 from 10.128.224.163
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.3.0.4-0
Server Date and Time: Mon Mar 21 18:32:22 ICT 2022
HA Status: Not Configured

Status | Status and Control | TSAPI Service SummaryHome | Help | Logout

▶ AE Services

▶ Communication Manager Interface

High Availability

▶ Licensing

▶ Maintenance

▶ Networking

▶ Security

▼ Status

Alarm Viewer

▶ Logs

▶ Log Manager

▼ Status and Control

▪ CVLAN Service Summary

▪ DLG Services Summary

▪ DMCC Service Summary

▪ Switch Conn Summary

▪ **TSAPI Service Summary**

▶ User Management

▶ Utilities

▶ Help

TSAPI Link Details

☐ Enable page refresh every seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
<input checked="" type="radio"/>	1	CM93	1	Talking	Mon Mar 14 15:34:33 2022	Online	18	2	100	102	30

Online Offline

For service-wide information, choose one of the following:

TSAPI Service Status TLink Status User Status

Verify the CTI user status by selecting **Status → Status and Control → TSAPI Service Summary → CTI User Status**. The **Open Streams** section of this page displays open stream created by the **novelvox** user with the **Tlink**.



Application Enablement Services Management Console

Last login: Fri Jun 24 11:03:09 2022 from 1/2.16.8.16/
Number of prior failed login attempts: 0
HostName/IP: aes95/10.30.5.95
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 8.1.3.4.0.2-0
Server Date and Time: Fri Jun 24 11:47:10 ICT 2022
HA Status: Not Configured

Status | Status and Control | TSAPI Service Summary

Home | Help | Logout

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▼ Status
 - Alarm Viewer
 - ▶ Logs
 - ▶ Log Manager
 - ▼ Status and Control
 - CVLAN Service Summary
 - DLG Services Summary
 - DMCC Service Summary
 - Switch Conn Summary
 - **TSAPI Service Summary**

CTI User Status

☐ Enable page refresh every 60 seconds

CTI Users All Users Submit

Open Streams 3

Closed Streams 42

Open Streams

Name	Time Opened	Time Closed	Tlink Name
engelbart	Fri 24 Jun 2022 10:57:23 AM +07		AVAYA#CM93#CSTA#AES95
novelvox	Fri 24 Jun 2022 11:01:49 AM +07		AVAYA#CM93#CSTA-S#AES95
test	Thu 16 Jun 2022 05:44:01 PM +07		AVAYA#CM93#CSTA#AES95

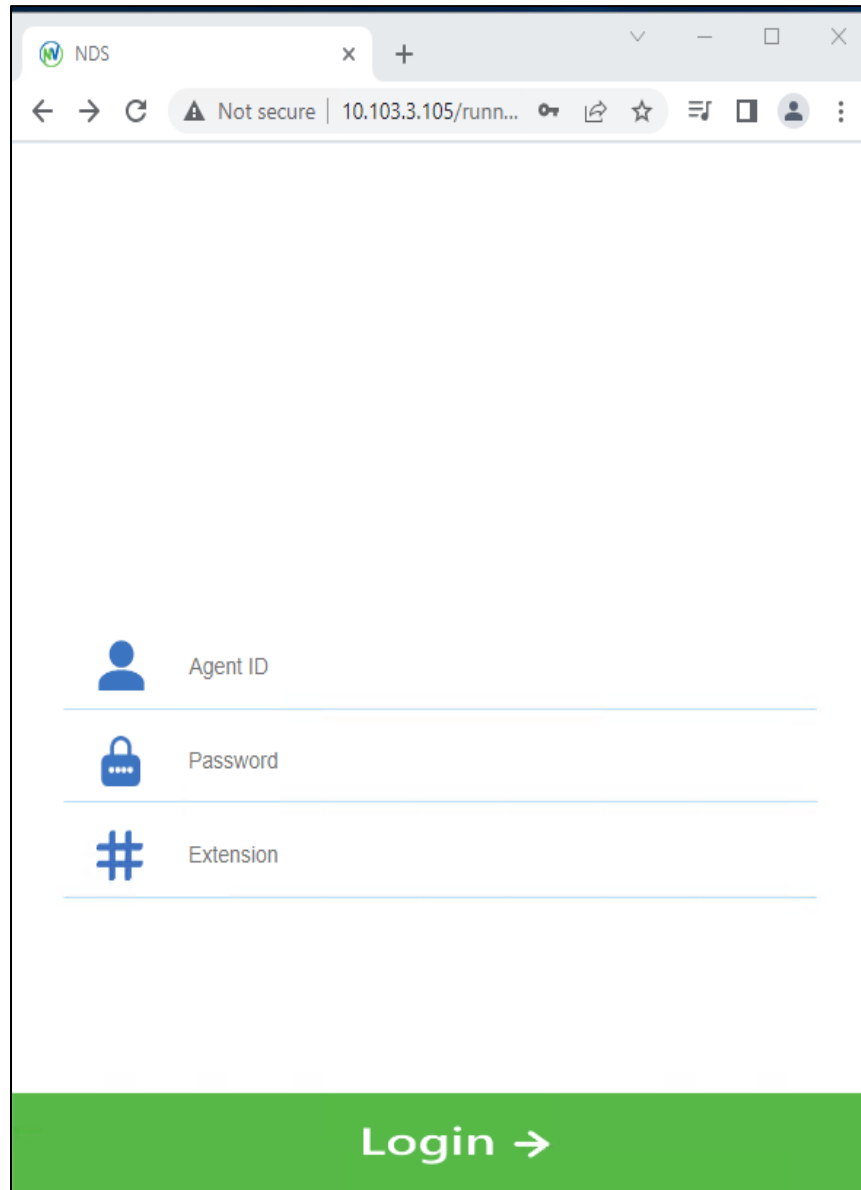
Show Closed Streams

Close All Opened Streams

Back

8.3. Verify NovelVox Agent Accelerator

From the agent PC, Launch NovelVox Agent Accelerator web-based interface using URL provide by NovelVox.

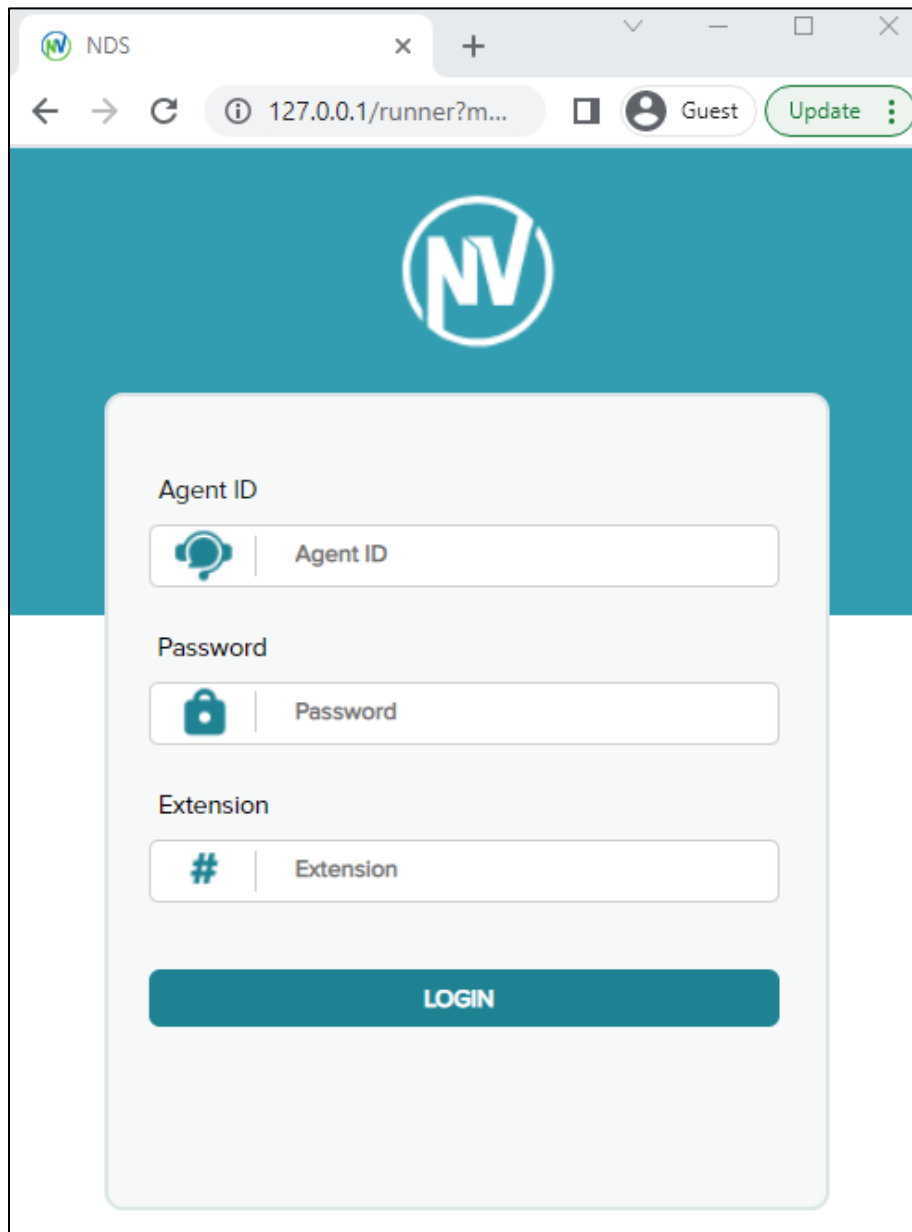


The screenshot shows a web browser window with a single tab labeled 'NDS'. The address bar displays 'Not secure | 10.103.3.105/runn...'. The main content area of the browser contains a login form with three input fields, each preceded by a blue icon: a person icon for 'Agent ID', a padlock icon for 'Password', and a hash symbol icon for 'Extension'. Below these fields is a large green button with the text 'Login →' in white.

The **Phone Login** is displayed. Enter the following values for the specified fields and retain the default values for the remaining fields. Click **Login**.

- **Agent ID:** The relevant agent ID from **Section 3**.
- **Password:** The relevant agent password from **Section 3**.
- **Extension:** The relevant agent station extension from **Section 3**.

The NovelVox Agent Accelerator screenshot below is Agent Accelerator official version:



The screenshot shows a web browser window with the NovelVox (NV) logo in the header. The main content area contains a login form with three input fields: 'Agent ID' (with a headset icon), 'Password' (with a lock icon), and 'Extension' (with a hash icon). Each field has a placeholder text matching its label. Below the fields is a teal 'LOGIN' button. The browser's address bar shows the URL '127.0.0.1/runner?m...' and the user is logged in as 'Guest'.

After login successfully, screenshot below shows the agent login screen.

NDS

Not secure | 10.103.3.105/runn...

80001 | 70017

Current State :- Not Ready
(00:00:18)

ACW

✓ Ready

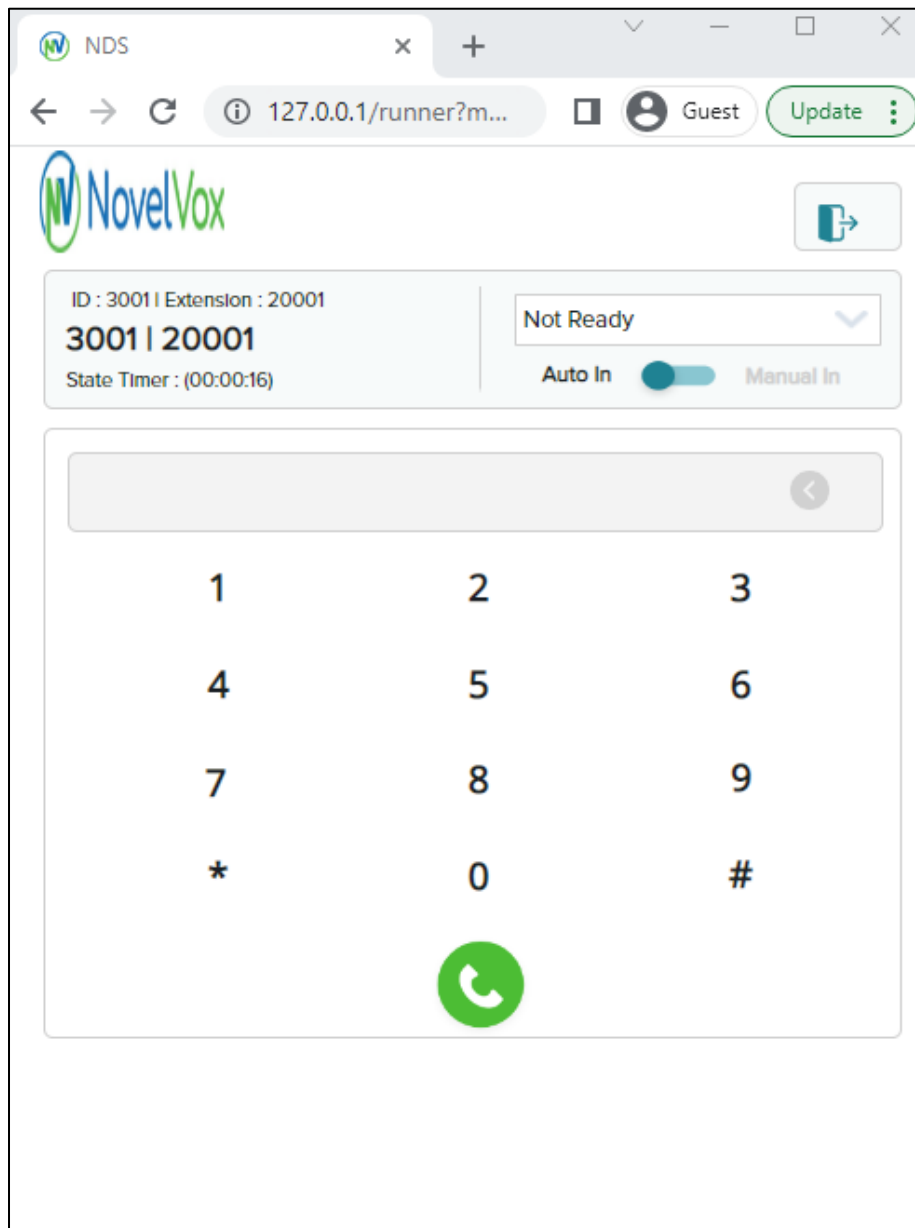
Auto In

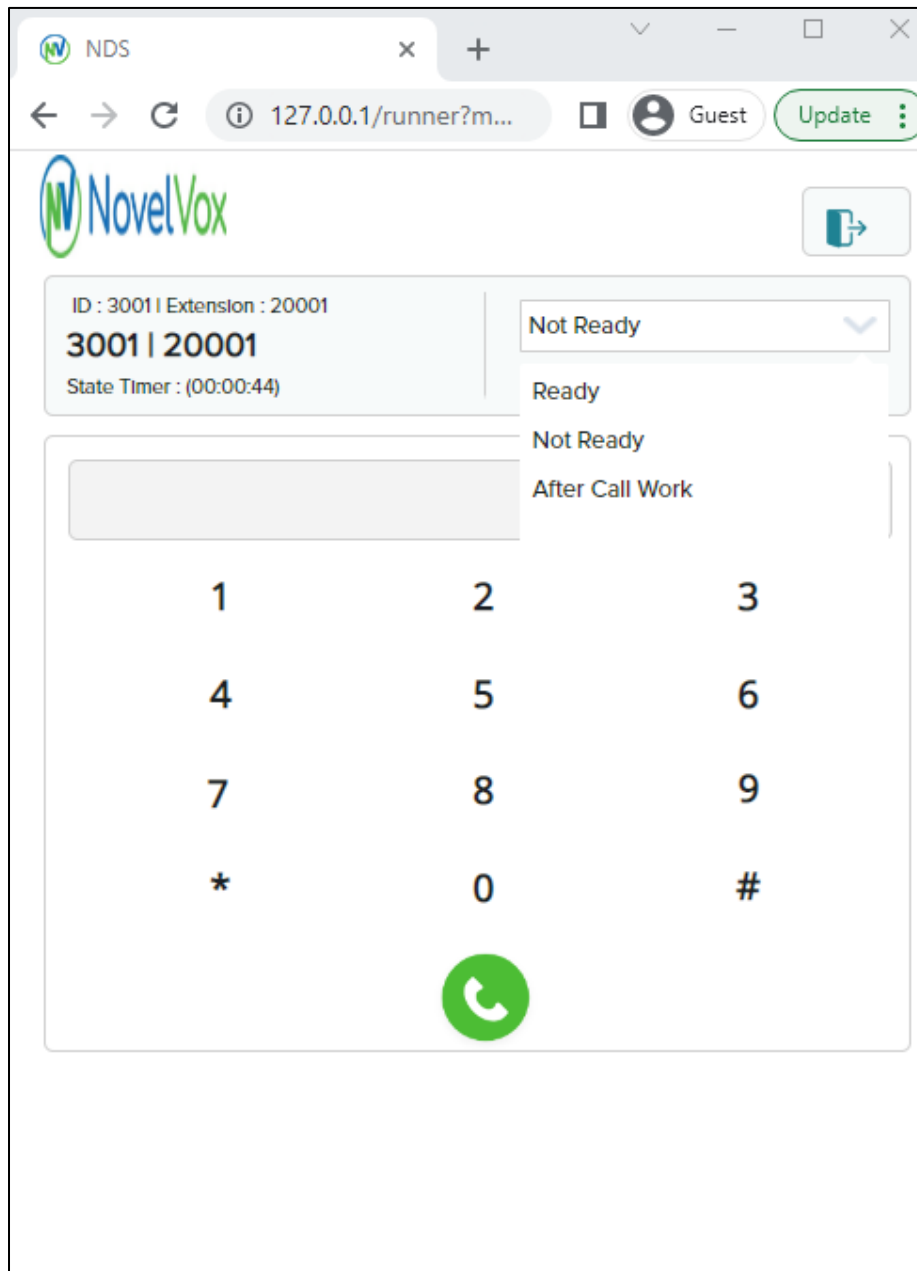
Dial Number

1	2	3
4	5	6
7	8	9
*	0	#

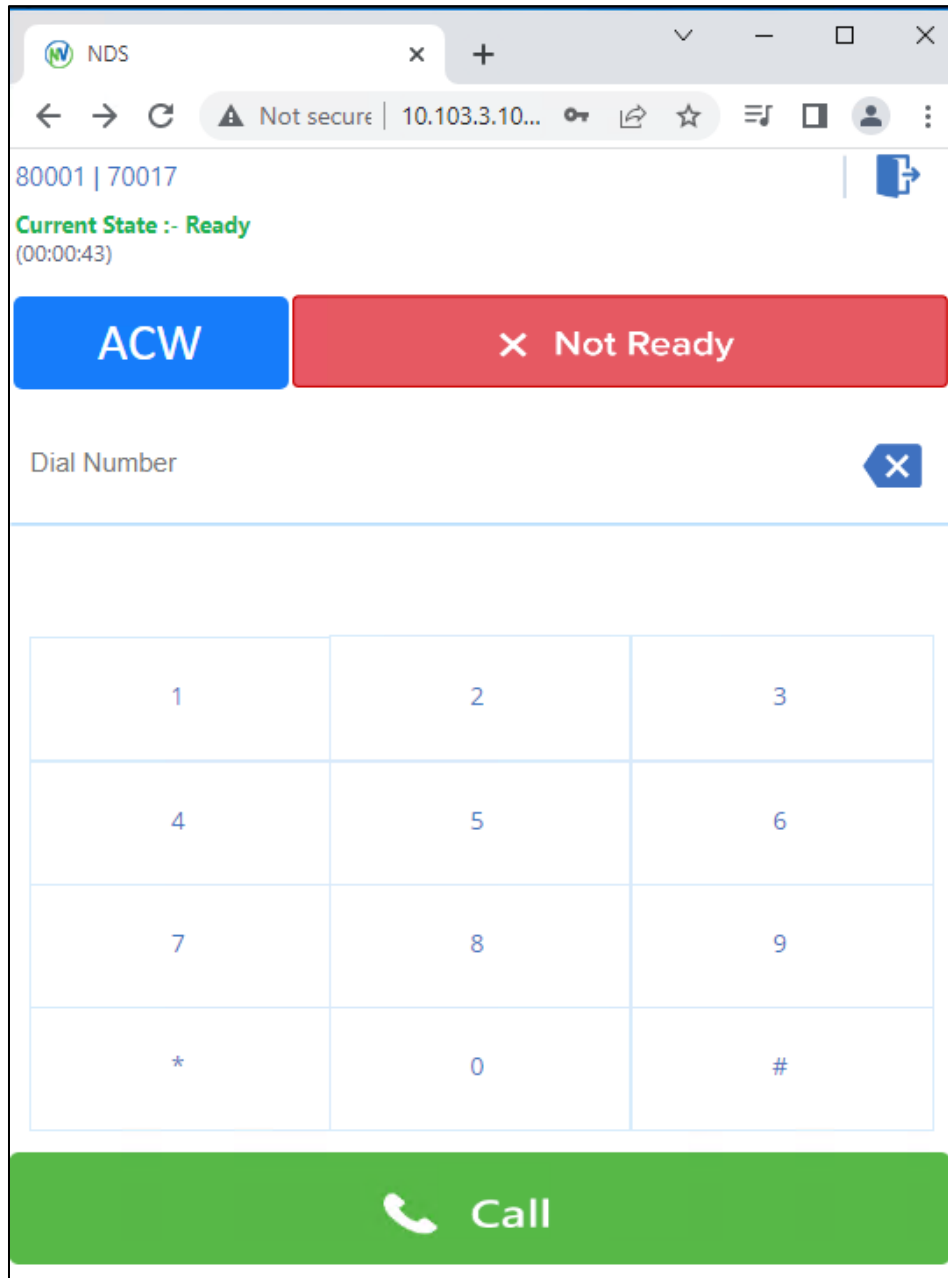
Call

The NovelVox Agent Accelerator UI screenshot below is Agent Accelerator official version.

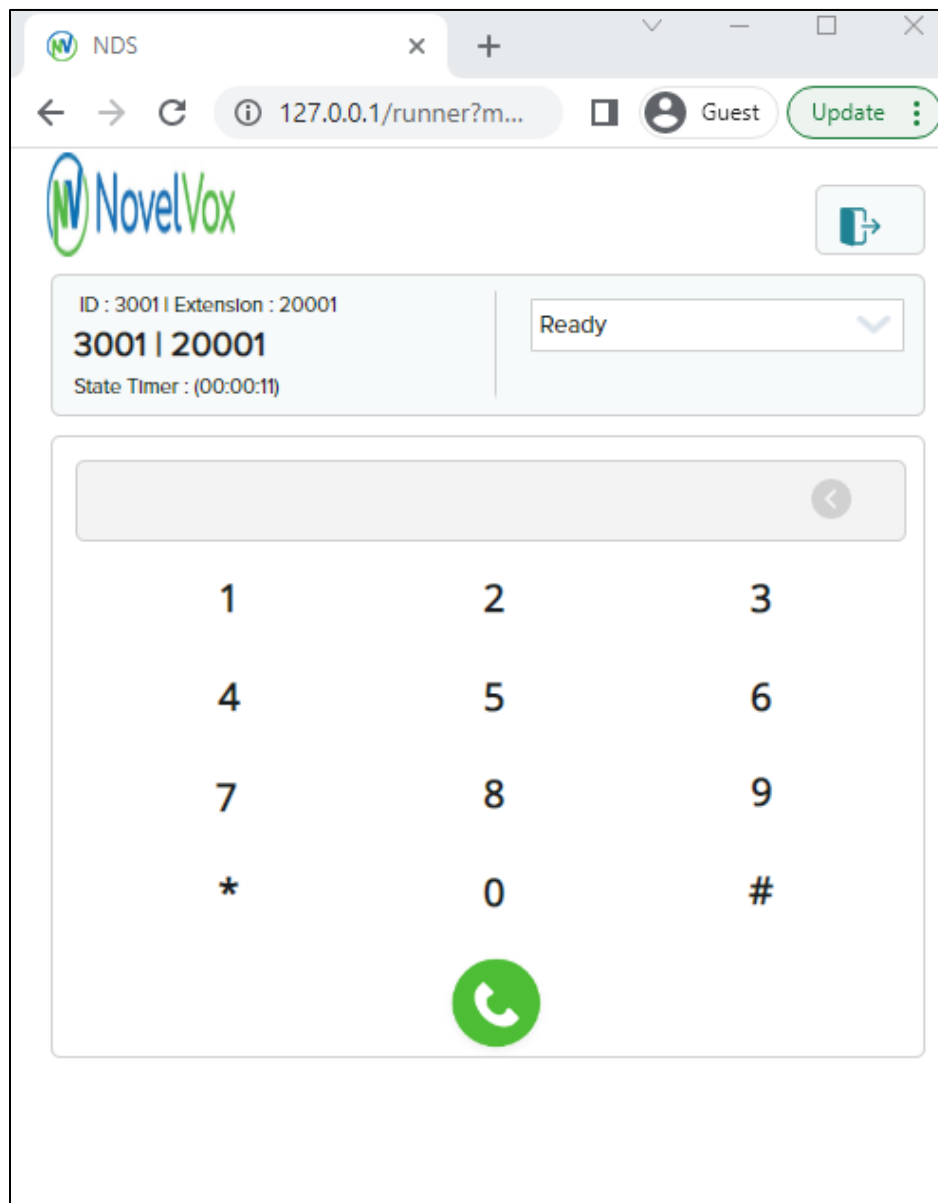




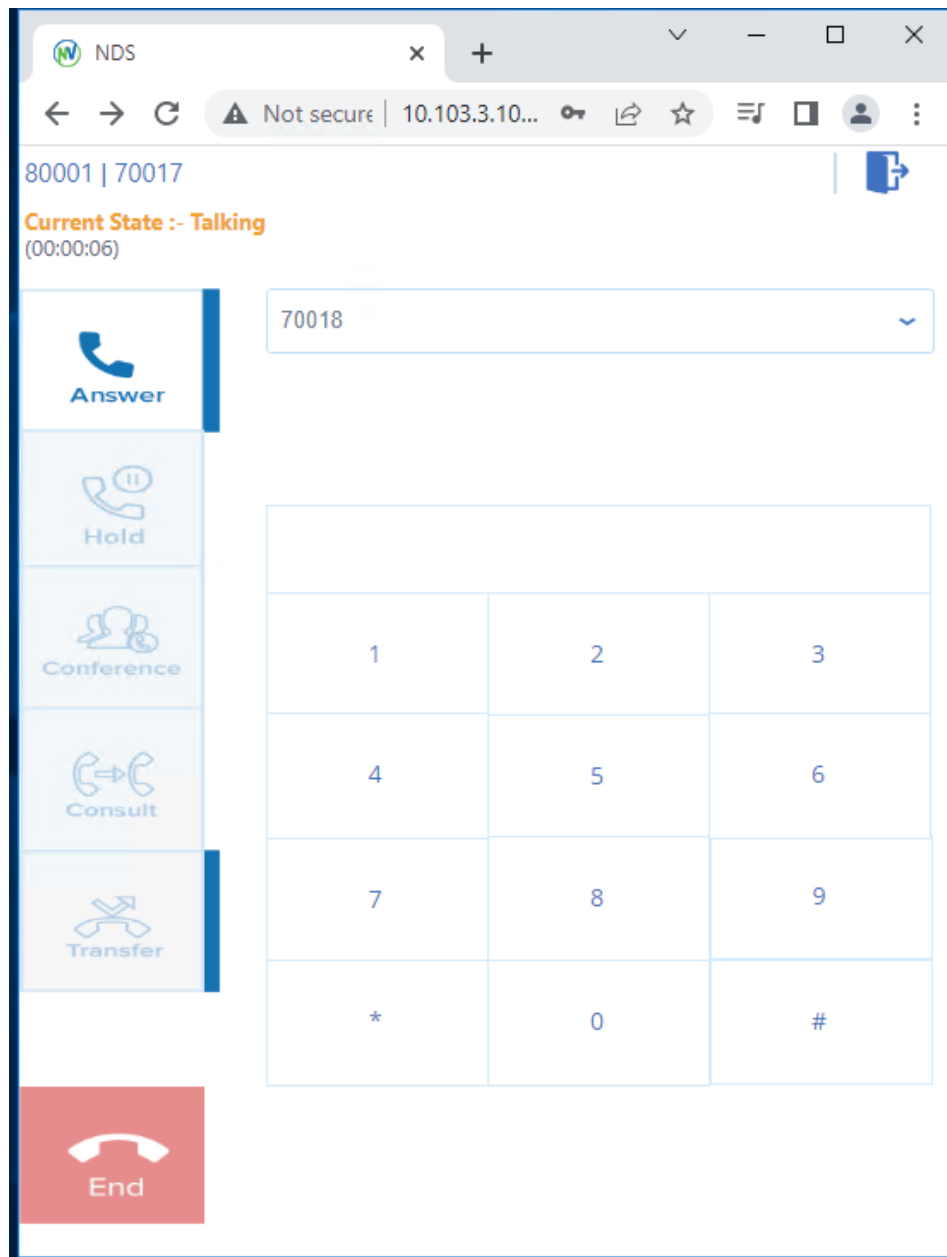
Press **Ready**. Verify that agent **Current State** change to **Ready**.



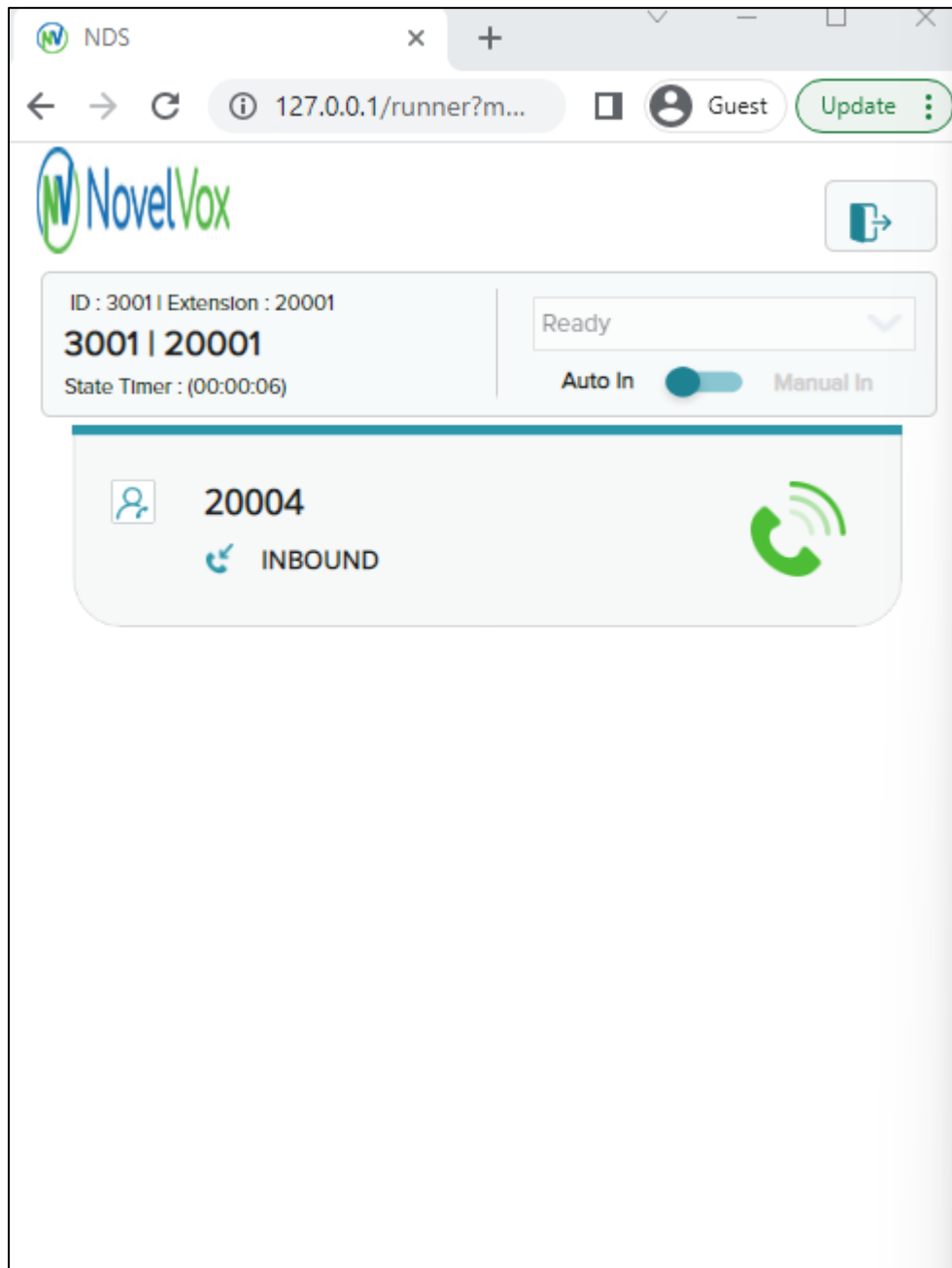
The NovelVox Agent Accelerator UI screenshot below is Agent Accelerator official version.



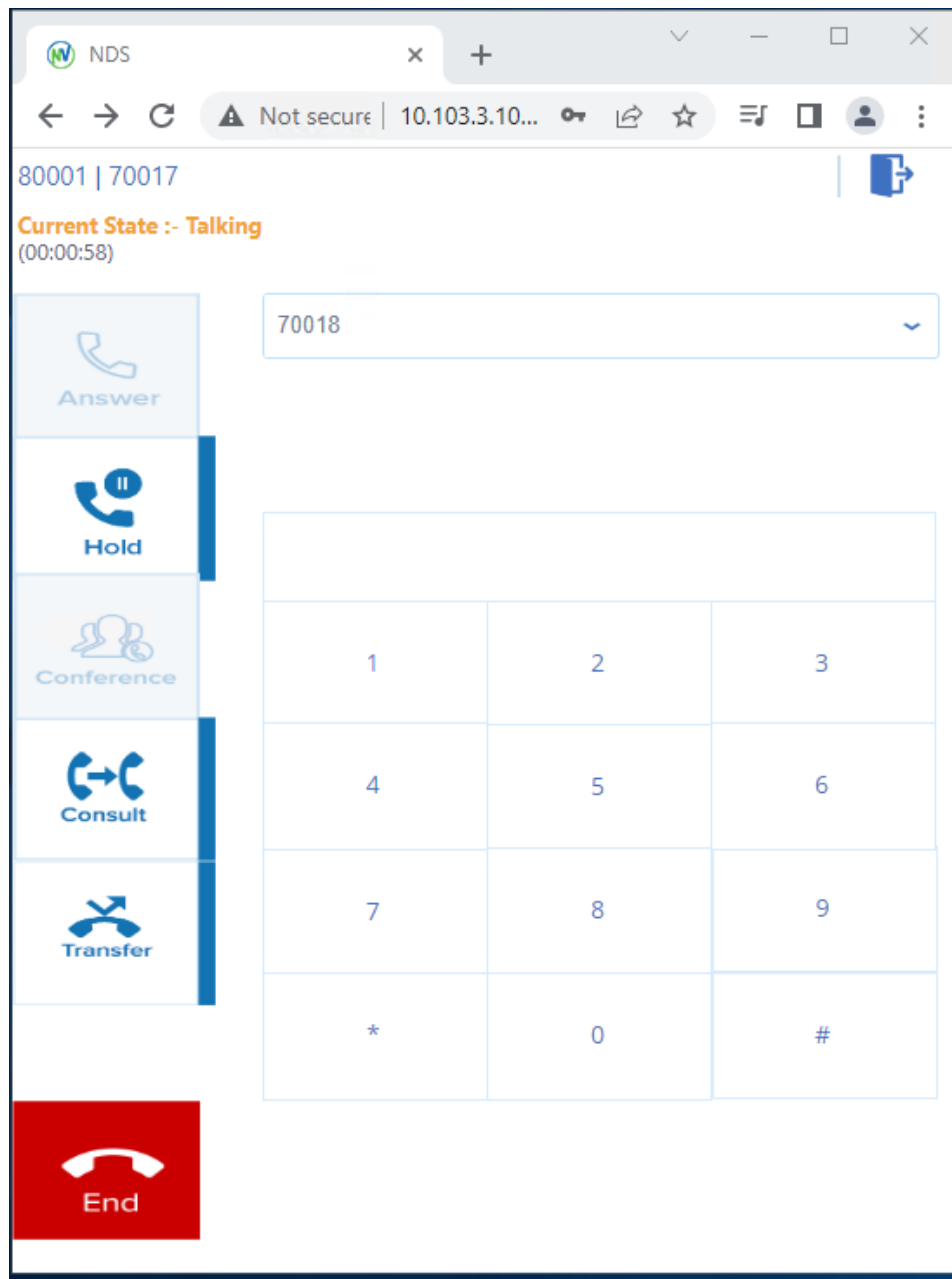
Make an incoming call from the PSTN to one of the routing VDNs. Verify that the call is ringing at the available agent's telephone. Also verify that a pop-up box is displayed on the agent desktop with proper call information, as shown below.



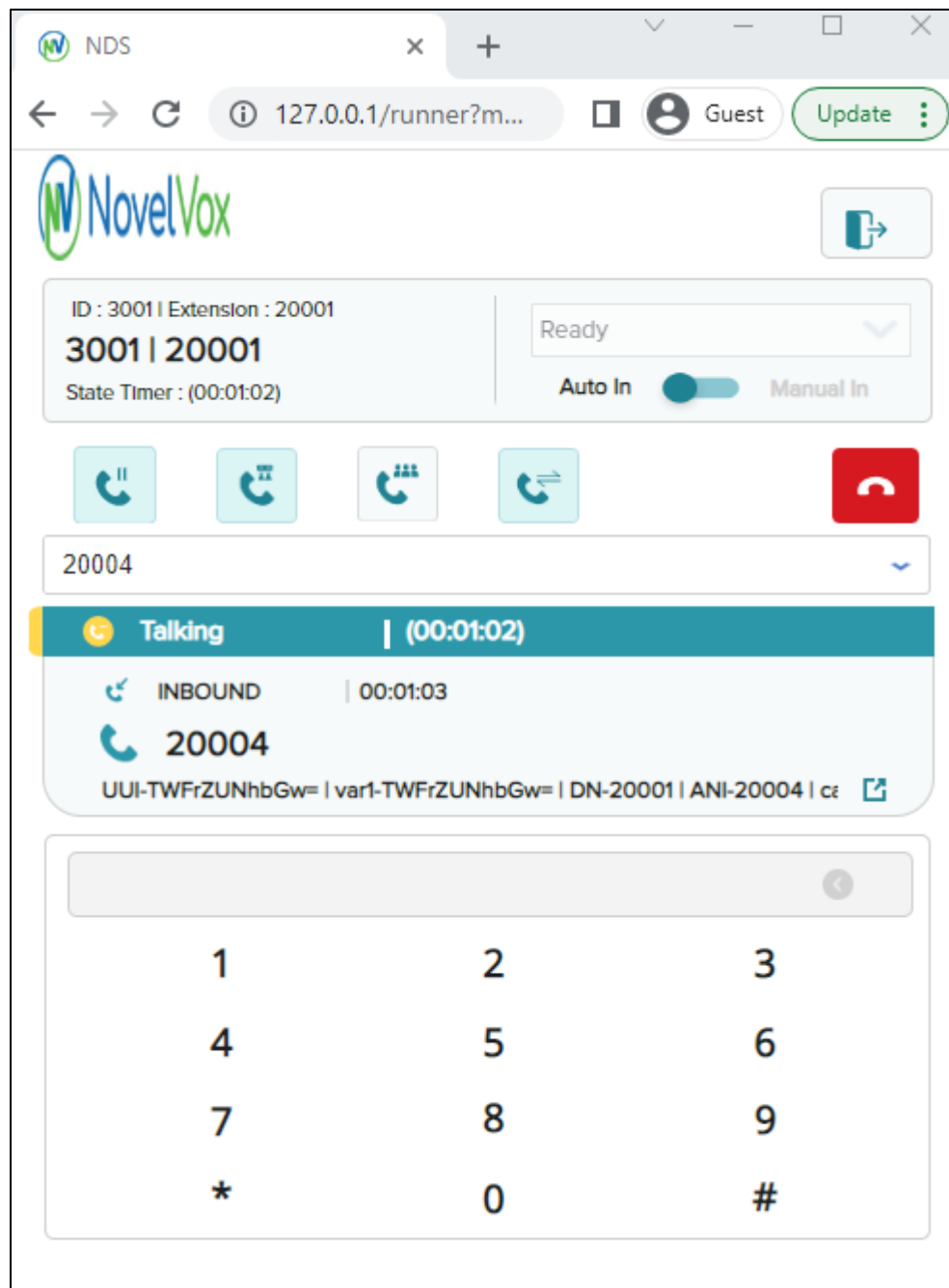
The NovelVox Agent Accelerator UI screenshot below is Agent Accelerator official version.



Press **Answer** line to connect the call. Verify that the agent is connected to the PSTN with two-way talk path, and that the agent screen is updated with **Talking** line as shown below.



The NovelVox Agent Accelerator UI screenshot below is Agent Accelerator official version



9. Conclusion

These Application Notes describe the configuration steps required for the NovelVox Agent Accelerator 8.0.0 to successfully interoperate with Avaya Aura® Communication Manager 8.1.3.4 and Avaya Aura® Application Enablement Services 8.1.3.4. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

10. Additional References

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

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

1. *Administering Avaya Aura® Communication Manager*, Release 8.1.x, Issue 12, July 2021
2. *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 10, Sept 2021
3. *Administering Avaya Aura® System Manager*, Release 8.1.x, Issue 17, Nov 2021
4. *Administering Avaya Aura® Application Enablement Services*, Release 8.1.x, Issue 12, Oct 2021

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