



## Avaya Solution & Interoperability Test Lab

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# Application Notes for Innovation Technologies Worldwide InnLine 2020 with Avaya Communication Manager - Issue 1.0

### Abstract

These Application Notes describe the procedures for configuring Innovation Technologies Worldwide InnLine 2020 as a third party voice messaging system.

Innovation Technologies Worldwide InnLine 2020 is a voice messaging systems that meets the needs of the lodging industry to help properties achieve a high level of guest service while enhancing operating efficiency.

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.

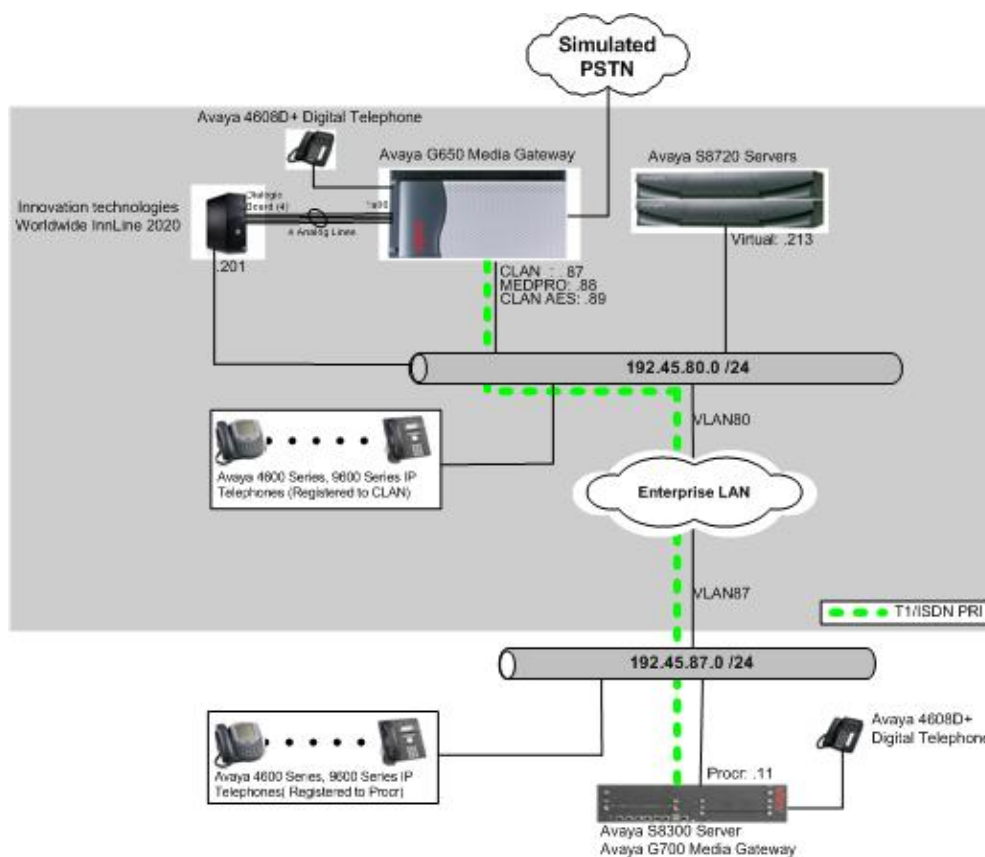
# 1. Introduction

These Application Notes describe a compliance-tested configuration comprised of an Avaya Communication Manager and Innovation Technologies Worldwide InnLine 2020.

The overall objective of this interoperability compliance testing is to verify that the Innovation Technologies Worldwide InnLine 2020 can interoperate with Avaya Communication Manager. Serviceability testing was conducted to assess the reliability of the solution.

Innovation Technologies Worldwide InnLine 2020 is a voice messaging systems that specifically meets the needs of the lodging industry to help properties achieve a high level of guest service while enhancing operating efficiency.

The compliance testing will focus on the interface between Avaya Communication Manager and the Dialogic board in Innovation Technologies Worldwide InnLine 2020. During the compliance test, four analog lines were utilized to record calls to Technologies Worldwide InnLine 2020.



**Figure 1: Configuration for the Innovation Technologies Worldwide InnLine 2020 Solution**

## 2. Equipment and Software Validated

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

Equipment	Software/Firmware
Avaya S8720 Server	Avaya Communication Manager 5.0 (R015x.00.0.825.4)
Avaya G650 Media Gateway	-
TN2312BP IP Server Interface	HW11 FW030
TN799DP C-LAN Interface	HW20 FW017
TN2302AP IP Media Processor	HW01 FW108
Avaya S8300 Server with Avaya G700 Media Gateway	Avaya Communication Manager 5.0 (R015x.00.0.825.4)
Avaya 4600 Series IP Telephones	
4620SW (H.323)	2.7
4625SW (H.323)	2.7
Avaya 9600 Series IP Telephones	
9630 (H.323)	1.5
9650 (H.323)	1.5
Avaya 6408D+ Digital Telephone	-
Innovation Technologies Worldwide InnLine 2020 on Windows XP Pro	2.8.2

## 3. Configure Avaya Communication Manager

This section provides the procedures for configuring node names, processor channel, analog recording stations, guestroom stations, hunt group, and coverage path on Avaya Communication Manager. All the configuration changes in Avaya Communication Manager are performed through the System Access Terminal (SAT) interface. The highlights in the following screens indicate the values used during the compliance test.

### 3.1. Configure Node Names

Enter the **change node-names audix** command, and provide a third party messaging system.

- Audix Names – Enter a descriptive name for a third party messaging system
- IP address – IP address of the Innovation Technologies Worldwide InnLine 2020 messaging system

```

change node-names audix                                     Page 1 of 1
                                                           AUDIX NODE NAMES

Audix Names  IP Address
audix       192.45 .80 .201
            .      .      .
            .      .      .
    
```

### 3.2. Configure Process Channel

Enter the **change communication-interface processor-channels** command to assign a processor interface channel.

- Proc Chan – Select a processor channel for this link. Use the first channel available.
- Enable – Enter **y**.
- Appl – Enter or select **audix**.
- Mode – Enter **s** for server.
- Interface Link – Enter the TCP/IP link number used on the DATA MODULE form. During the compliance test, link **1** was used.
- Interface Chan – Enter the TCP channel number (5000-64500 for Ethernet). This must match the PORT entry of the C-LAN device's parameters field in the InnLine 2020. The recommended entry for an InnLine 2020 is **5002**.
- Destination Node – Enter the node name for the InnLine system as assigned on the AUDIX NODE NAMES form. During the compliance test, **audix** is used.
- Destination Port – Use the default of **0**.
- Session Local – Enter **1**. This field must match the Local Node Number field in the switch dial plan.
- Session Remote – Enter **1**.
- Mach ID – Enter **1**.

```
change communication-interface processor-channels Page 1 of 24
PROCESSOR CHANNEL ASSIGNMENT
Proc          Gtwy      Interface      Destination      Session      Mach
Chan Enable   Appl.    To Mode Link/Chan      Node          Port  Local/Remote ID
1:  y      audix      s  1  5002  audix          0    1  1  1
2:  n
```

### 3.3. Configure Analog Recording Stations

Enter the **add station p** command, where **p** is a valid extension in the provisioned dial plan. On **Page 1**, provide the following information:

- Type – Enter **2500** for the station type.
- Port – Enter the port number.
- Name – Assign a descriptive name.

During the compliance test, four analog ports were assigned for the purpose of recording.

```
add station 26001 Page 1 of 4
STATION
Extension: 26001      Lock Messages? n      BCC: 0
Type: 2500           Security Code:         TN: 1
Port: 01A0601       Coverage Path 1:      COR: 1
Name: line-1         Coverage Path 2:      COS: 1
                    Hunt-to Station:      Tests? y

STATION OPTIONS
XOIP Endpoint type: auto      Time of Day Lock Table:
Loss Group: 1                 Message Waiting Indicator: none
Off Premises Station? n
Survivable COR: internal
Survivable Trunk Dest? y
```

On **Page2** of the STATION form, set the following fields:

- LWC Reception – Enter **audix**.
- LWC Activation – Enter **n**.
- Switchhook Flash – Enter **y**.
- AUDIX Name – Enter **audix** as assigned on the AUDIX NODE NAMES form.
- Distinctive Audible Alerting – Enter **n**.
- Adjunct Supervision – Enter **y**. This provides disconnect supervision on the voicemail station ports.

```

add station 26001                                     Page 2 of 4
                                                    STATION
FEATURE OPTIONS
  LWC Reception: audix
  LWC Activation? n
LWC Log External Calls? n
  CDR Privacy? n
  Redirect Notification? y
Per Button Ring Control? n
  Bridged Call Alerting? n
  Switchhook Flash? y
  Ignore Rotary Digits? n
  H.320 Conversion? n
  Service Link Mode: as-needed
  Multimedia Mode: basic
MWI Served User Type:
  AUDIX Name: audix
  Coverage Msg Retrieval? y
  Auto Answer: none
  Data Restriction? n
  Call Waiting Indication: y
  Att. Call Waiting Indication: y
  Distinctive Audible Alert? n
  Adjunct Supervision? y
  Per Station CPN - Send Calling Number?
  Coverage After Forwarding? s
  Direct IP-IP Audio Connections? y
  IP Audio Hairpinning? n
Emergency Location Ext: 26001

```

### 3.4. Configure guestroom stations

Enter the **add station p** command, where **p** is a valid extension in the provisioned dial plan. On **Page 1**, specify a phone type, descriptive name, phone security code, and coverage path. During the compliance test, coverage path is set to **1**.

```

add station 22001                                     Page 1 of 5
                                                    STATION
Extension: 22001
  Type: 4620
  Port: IP
  Name: guestroom-1
  Lock Messages? n
  Security Code: *
  Coverage Path 1: 1
  Coverage Path 2:
  Hunt-to Station:
  BCC: 0
  TN: 1
  COR: 1
  COS: 1
STATION OPTIONS
  Loss Group: 19
  Speakerphone: 2-way
  Display Language: english
  Survivable GK Node Name:
  Survivable COR: internal
  Survivable Trunk Dest? y
  Time of Day Lock Table:
  Personalized Ringing Pattern: 1
  Message Lamp Ext: 22001
  Mute Button Enabled? y
  Expansion Module? n
  Media Complex Ext:
  IP SoftPhone? y

```

### 3.5. Configure Hunt Groups

Enter the **add hunt-group n** command, where **n** is an unused hunt group number. On **Page 1** of the HUNT GROUP form, assign a descriptive Group Name, Group Extension valid in the provisioned dial plan, and Group Type.

- Group Name – Enter a name for this group.
- Group Extension – Enter an unassigned extension. This extension will be the access code for message retrieval. Both office staff and guests will use this access code.
- Group Type – Enter **ddc**.

```
add hunt-group 99                                     Page 1 of 60
                                                    HUNT GROUP

Group Number: 99                                     ACD? n
Group Name: test1                                    Queue? n
Group Extension: 50099                               Vector? n
Group Type: ddc                                       Coverage Path:
TN: 1                                                 Night Service Destination:
COR: 1                                               MM Early Answer? n
Security Code:                                       Local Agent Preference? n
ISDN/SIP Caller Display:
```

On **Page 2**, provide the following information:

- LWC Reception – Enter **none**.
- AUDIX Name – Enter **audix** as assigned on the AUDIX NODE NAMES form.
- Message Center – Enter **audix**.
- Message Center AUDIX Name – Enter **audix** as assigned on the AUDIX NODE NAMES form
- Calling Party Number to INTUITY AUDIX – Enter **n**.

```
add hunt-group 99                                     Page 2 of 60
                                                    HUNT GROUP

LWC Reception: none                                  AUDIX Name: audix

Message Center: audix

Message Center AUDIX Name: audix
Primary? n
Calling Party Number to INTUITY AUDIX? n
```

On **Page 3**, assign each extension to the group in sequential order.

```
add hunt-group 99                                     Page 3 of 60
                                                    HUNT GROUP
      Group Number: 99   Group Extension: 50099   Group Type: ucd-mia
Member Range Allowed: 1 - 1500   Administered Members (min/max): 1 /4
                                                    Total Administered Members: 4
GROUP MEMBER ASSIGNMENTS
  Ext      Name(19 characters)      Ext      Name(19 characters)
  1: 26001   line-1                 14:
  2: 26002   line-2                 15:
  3: 26003   line-3                 16:
  4: 26004   line-4                 17:
  5:
  6:                                     18:
                                       19:
```

### 3.6. Configure Coverage Path

Use the **add coverage path** command to define the coverage path that redirects unanswered calls to InnLine voicemail. After two rings, calls go to hunt group 99 (**h99**).

```
add coverage path 1                                   Page 1 of 1
                                                    COVERAGE PATH
      Coverage Path Number: 1
      Next Path Number:
      Hunt after Coverage? n
      Linkage


COVERAGE CRITERIA
  Station/Group Status   Inside Call   Outside Call
  Active?                 Y             Y
  Busy?                   Y             Y
  Don't Answer?          Y             Y   Number of Rings: 2
  All?                   n             n
  DND/SAC/Goto Cover?   Y             Y
  Holiday Coverage?     n             n

COVERAGE POINTS
  Terminate to Coverage Pts. with Bridged Appearances? n
  Point1: h99   Rng:   Point2:
  Point3:       Point4:
```

## 4. Configure Innovation Technologies Worldwide InnLine 2020

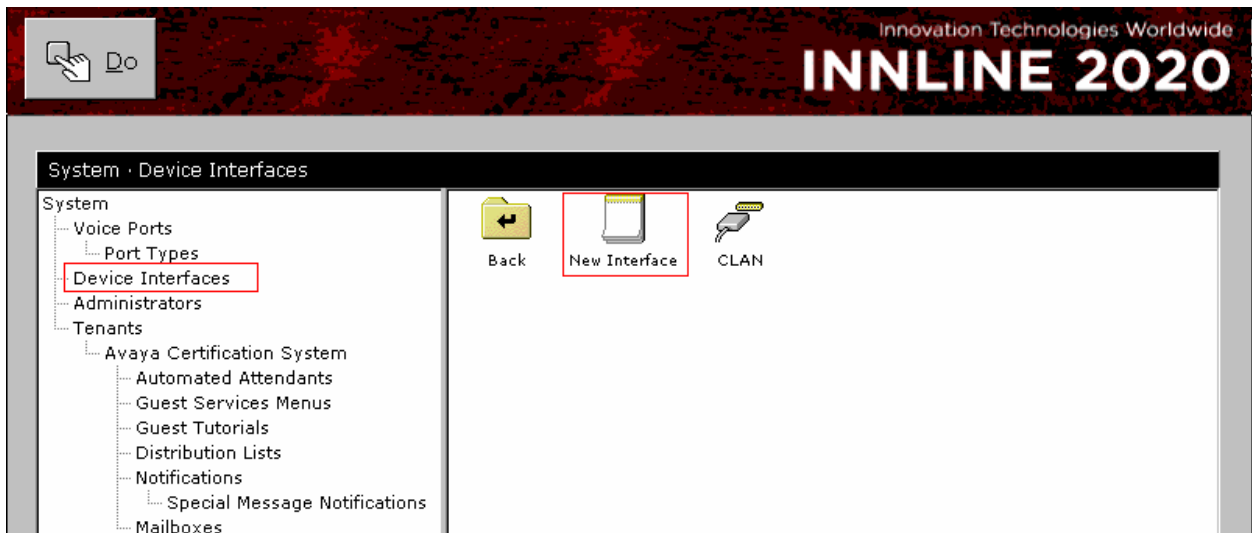
Innovation Technologies Worldwide installs, configures, and customizes the InnLine 2020 voice messaging system for their end customers. This section only describes the device interfaces and Ports configuration for the InnLine 2020 application to communicate with Avaya Communication Manager. Refer to [2] for configuring the InnLine 2020 application.

## 4.1. Configure Device Interfaces

Open the InnLine 2020 system page, and click the  button to open the InnLine 2020 system configuration page.

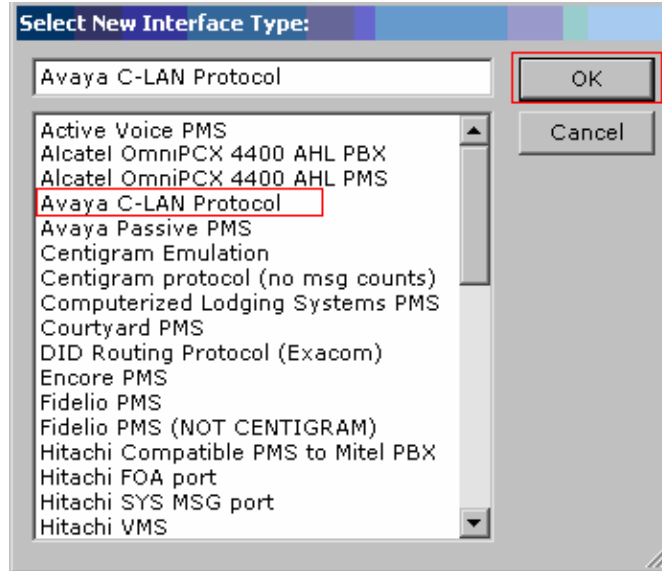


Click the **Device Interfaces** link from the left pane of the screen, and select **New Interface**.





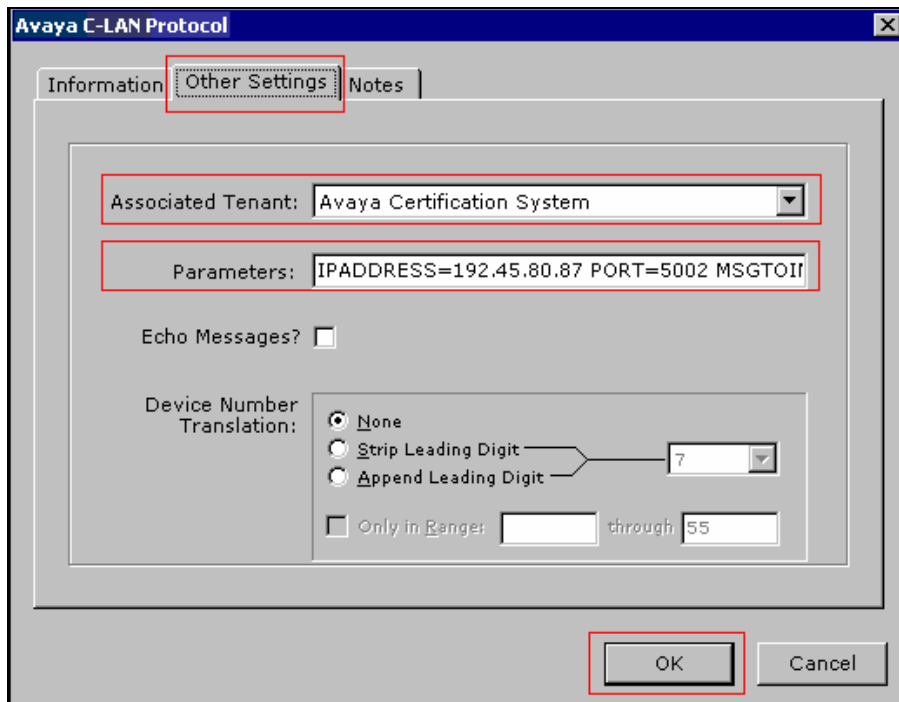
From the Select New Interface Type screen, select **Avaya C-LAN Protocol** and click on **OK**.



From the Avaya C-LAN Protocol screen, click on the **Other Settings** tab and provide the following information:

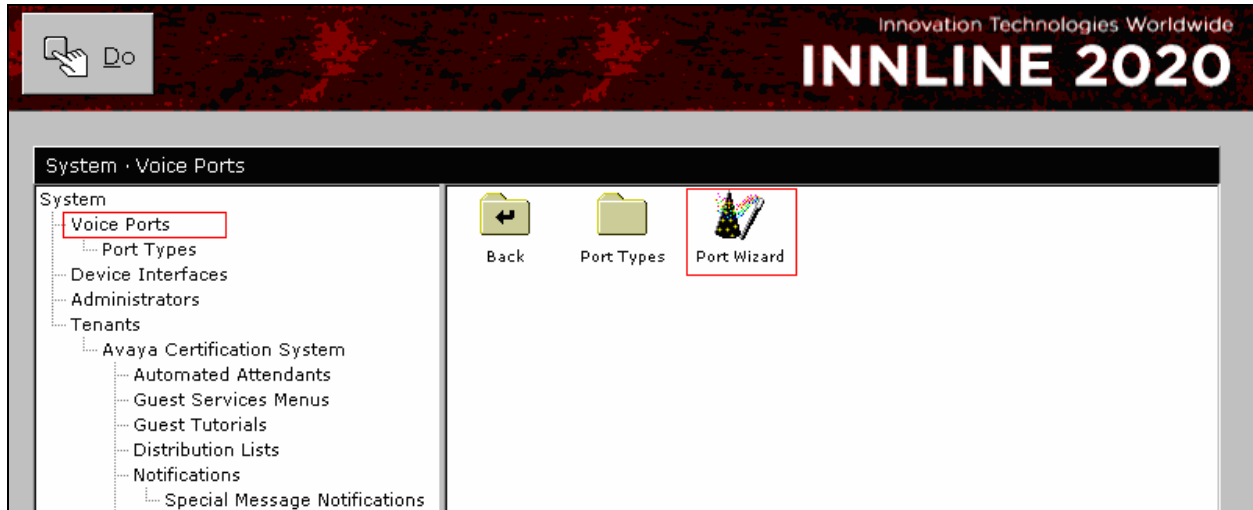
- Associated Tenant – select **Avaya Certification System** using the drop down menu.
- Parameters – Provide IP address of the C-LAN circuit pack for IPADDRESS, and the channel number configured in **Section 3.2** for PORT.

Click on **OK**.



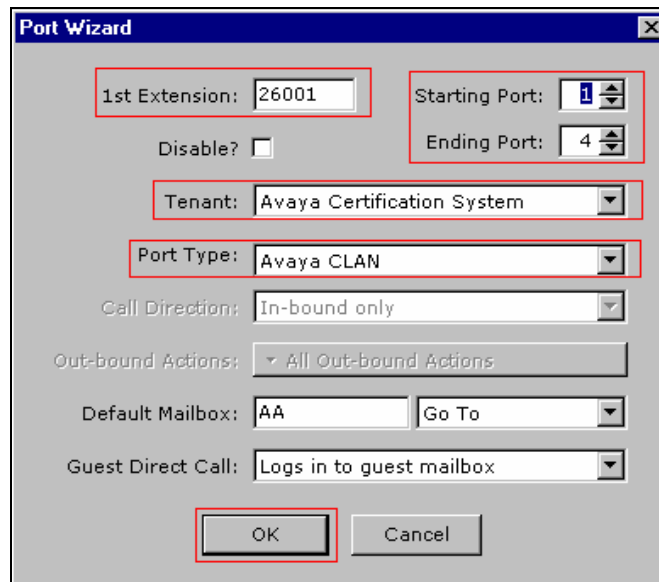
## 4.2. Configure Voice Ports

Open the InnLine 2020 system configuration page. Click the **Voice Ports** link from the left pane of the screen, and select **Port Wizard**.



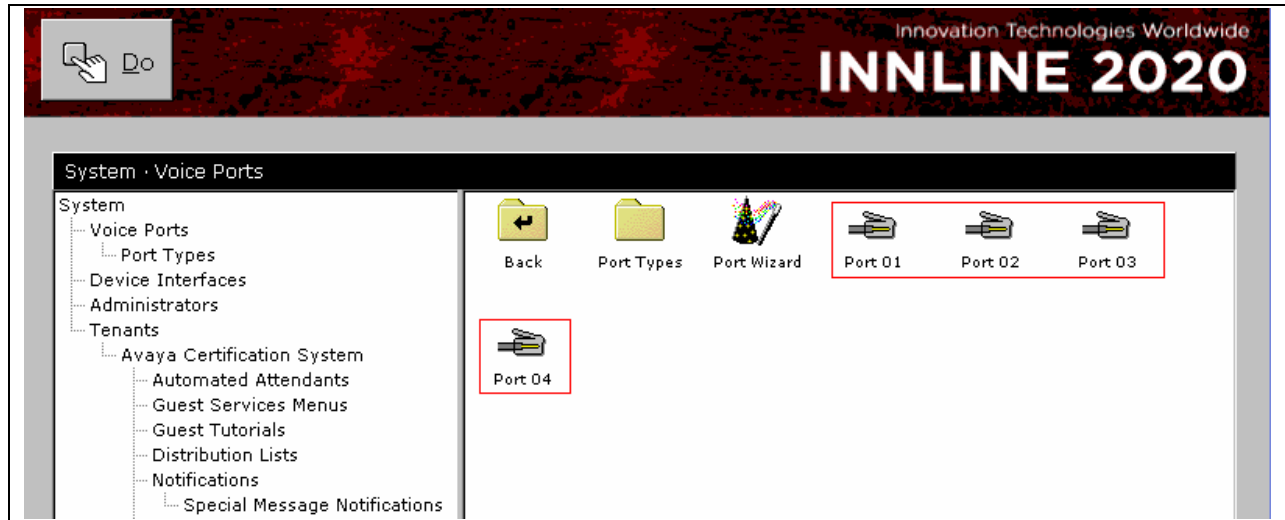
From the Port Wizard screen, provide the following information:


- 1<sup>st</sup> Extension – Enter the first analog recording extension
- Starting Port – Enter the starting port. During the compliance test, the starting port was set to **1**.
- Ending Port – Enter the ending port. During the compliance test, the ending port was set to **4**, since four recording stations are configured during the compliance test.
- Tenant – Select **Avaya Certification System** using the drop-down menu.
- Port Type – Select **Avaya CLAN** using the drop-down menu. Click on **OK**.

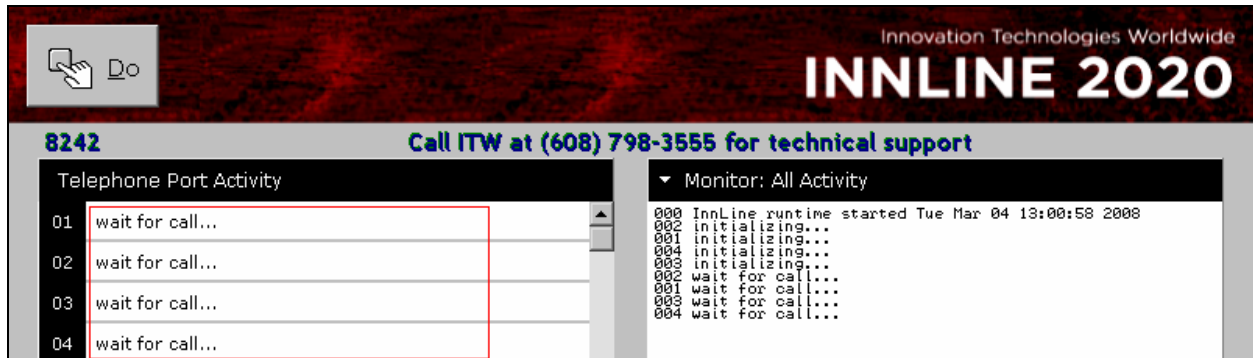
The screenshot shows the "Port Wizard" dialog box. It has several fields and controls:

- "1st Extension": Text box containing "26001".
- "Starting Port": Spin box containing "1".
- "Ending Port": Spin box containing "4".
- "Disable?": A checkbox that is unchecked.
- "Tenant": Drop-down menu showing "Avaya Certification System".
- "Port Type": Drop-down menu showing "Avaya CLAN".
- "Call Direction": Drop-down menu showing "In-bound only".
- "Out-bound Actions": Drop-down menu showing "All Out-bound Actions".
- "Default Mailbox": Text box containing "AA" and a "Go To" drop-down menu.
- "Guest Direct Call": Drop-down menu showing "Logs in to guest mailbox".
- "OK" and "Cancel" buttons at the bottom.

Under Voice Ports menu, four voice ports are created and configured.



Click the  button to start monitor and record stations. The following shows the InnLine 2020 Telephone Port Activity screen that is setup with four analog recording stations.



## 5. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing evaluated the ability of Innovation Technologies Worldwide InnLine 2020 as a voice messaging system by making calls from intra-switch, inter-switch and PSTN calls. The serviceability testing introduced failure scenarios to see if Innovation Technologies Worldwide InnLine 2020 can resume updating after failure recovery.

### 5.1. General Test Approach

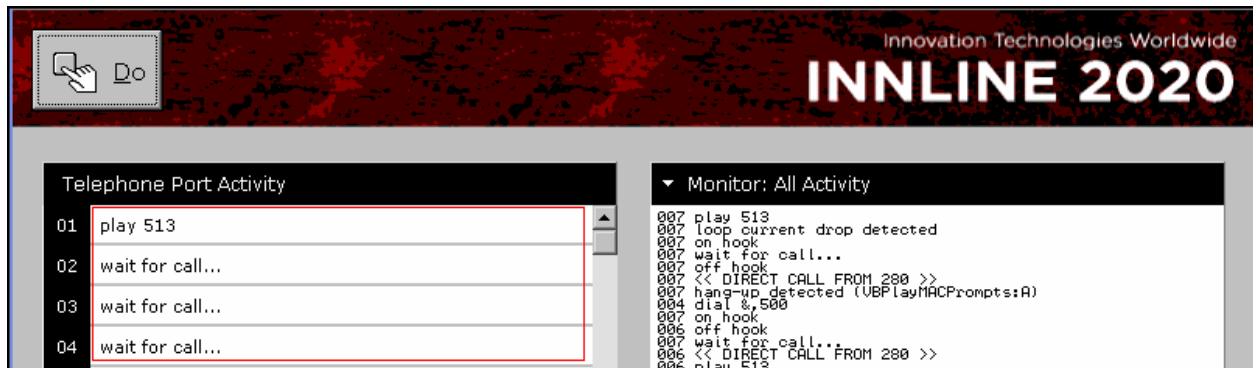
The general approach was to make manual calls to the hunt group number, recording lines, or guestroom phones, and messages are stored in Innovation Technologies Worldwide InnLine 2020. Retrieval of stored messages was verified. For serviceability testing, failures such as Ethernet cable pulls and resets were applied.

## 5.2. Test Results

All test cases were executed and passed.

## 6. Verification Steps

Place a call and verify that a voicemail message can be left and retrieved for the user. The following shows a sample screen shot of a voice message being stored in Innovation Technologies Worldwide Innline 2020.



## 7. Support

Technical support for Innovation Technologies Worldwide InnLine 2020 is available via the support link at <http://www.innovationtw.com/support> or by calling the support telephone number at (800)424-6757.

## 8. Conclusion

These Application Notes illustrate the procedures for configuring the Innovation Technologies Worldwide InnLine 2020 voice messaging system to store calls coming from a hunt group, direct recording lines, or guestroom via a coverage path. During compliance testing, Innovation Technologies Worldwide InnLine 2020 successfully stored calls and users were able to retrieve messages.

## 9. Additional References

This section references the Avaya and Innovation Technologies Worldwide documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at <http://support.avaya.com>.

[1] *Administrator Guide for Avaya Communication Manager*, Release 5.0, Issue 4, January 2008, Document Number 03-300509

The following Innovation Technologies Worldwide product documentation was provided by Innovation Technologies Worldwide.

[2] *InnLine 2020 & Express Voice Mail PBX Installation and Testing Guide*, 01 July 2001

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