Avaya Solution & Interoperability Test Lab

Application Notes for Tiger Communications InnOvation 2020 with Avaya IP Office 6.1 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required in order for Tiger Communications Tiger InnOvation 2020 to successfully interoperate with Avaya IP Office 6.1. Tiger Communications Tiger InnOvation 2020 provides voicemail functionality within the Tiger Hospitality package.

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 compliance-tested configuration using a Tiger InnOvation 2020 and Avaya IP Office 6.1. Tiger InnOvation 2020 is a hospitality system that provides a hotel with voicemail functionality. The voicemail feature is delivered via a Dialogic analogue voice processing card, which connects to analogue extension ports on Avaya IP Office.

The following areas of integration between the products have been validated:

- Call coverage is provided by routing internal calls from Avaya IP Office to analog lines on Tiger voicemail. The following scenarios of call coverage were verified:
    - No answer on dialed extension
    - Dialed extension is busy
- Recording messages on the voicemail system
- Retrieving messages by making a direct call to the voicemail system
- Message Waiting Indication (MWI) lamp
- Voicemail integration with hospitality features like check-in, check-out and room transfer
- Link Failure and Recovery for analog lines and IP connection.

The configuration in **Figure 1** was used to compliance test Tiger InnOvation 2020 interoperability with Avaya IP Office.

- IP Office was configured with analog and digital expansion modules.
- Dialogic analog voice processing card on the Tiger server was connected to analog extension using RJ11 connectors for delivery of the voicemail feature. Calls not answered at the destination extension were be diverted to the "Voicemail" hunt group with extension 89210.
- Tiger InnOvation 2020 was installed on the Tiger Hotel Pro server
- A TCP/IP link was established between Tiger Hotel Pro server and Avaya IP Office. From Tiger Hotel Pro, XML commands were passed via a secure IP port on Avaya IP Office for replication of hospitality features like check-in and check-out
- A T1 PRI Trunk card connected Avaya IP Office to another PBX, which simulated a PSTN environment for testing inbound/outbound external calls.
- Avaya 2420 digital telephones and Avaya 9620 and 9630 IP telephones were used to answer and/or place the calls.

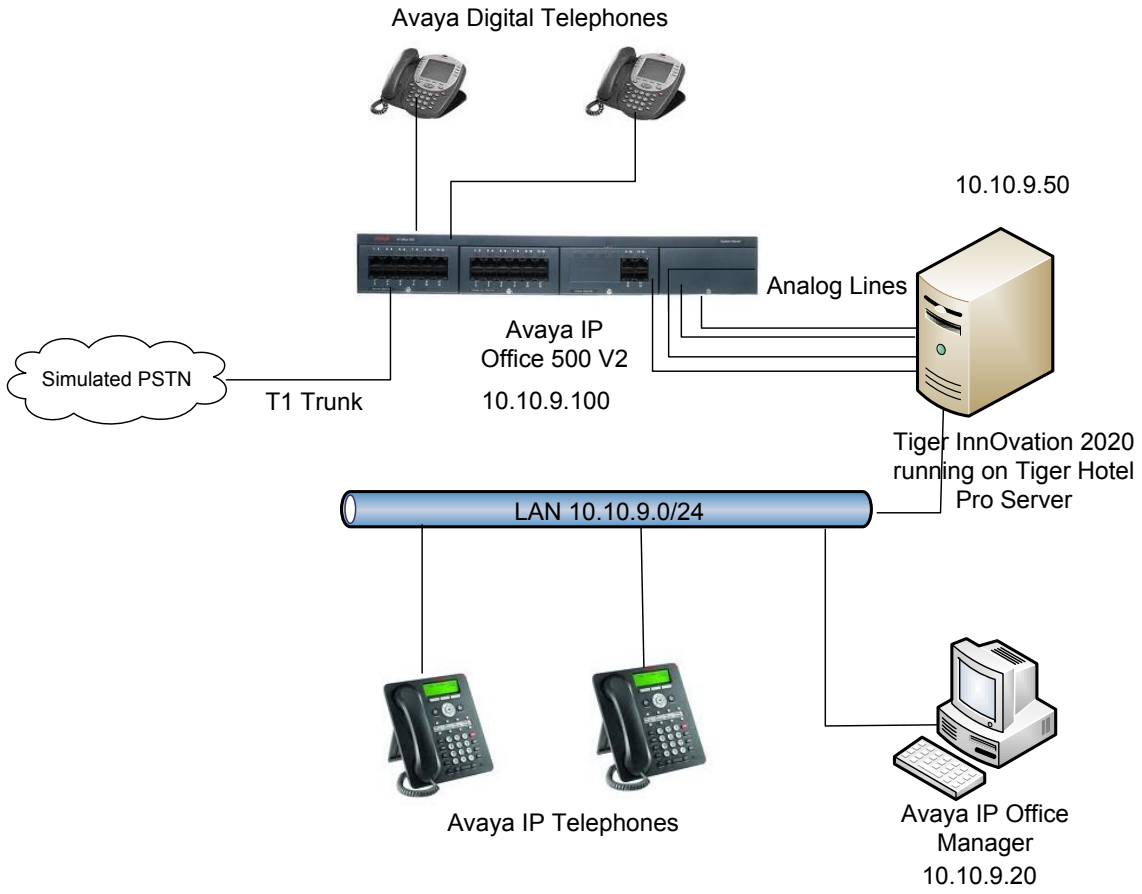


Figure 1 – Tiger Communications Sample Network Topology

Table 1 lists the Extensions used for this testing.

Extension	Notes
89019	Analog connection to Tiger analog dialogic card
89020	Analog connection to Tiger analog dialogic card
89021	Analog connection to Tiger analog dialogic card
89022	Analog connection to Tiger analog dialogic card
89210	Voicemail hunt group extension number
89100	IP Phone
89101	IP Phone
89102	IP Phone
89011	Digital Phone
89013	Digital Phone

Table 1 – Extension Setup

1.1. Support

If technical support is required for the Tiger Communications' Tiger InnOvation 2020, contact their Technical Support Department.

Email: support@tigercomms.com

Phone: +44 1425 891 000

2. Equipment and Software Validated

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

Equipment	Software /Firmware
Avaya IP Office • 700417231 Phone Card • 700417462 PRI Card • 700417330 DS1 Card	6.1(5)
Avaya IP Office Manager	8.1(5)
Avaya 9600-Series IP Telephones (9620, 9630)	3.1.1
Avaya 2420 Digital Telephones	-
Tiger InnOvation 2020	2.7.13

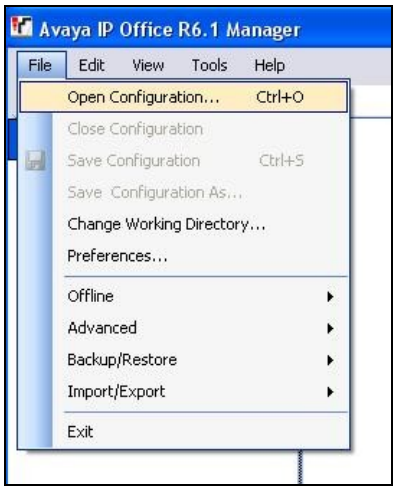
Table 2: Equipment and Software Validated

3. Configure Avaya IP Office

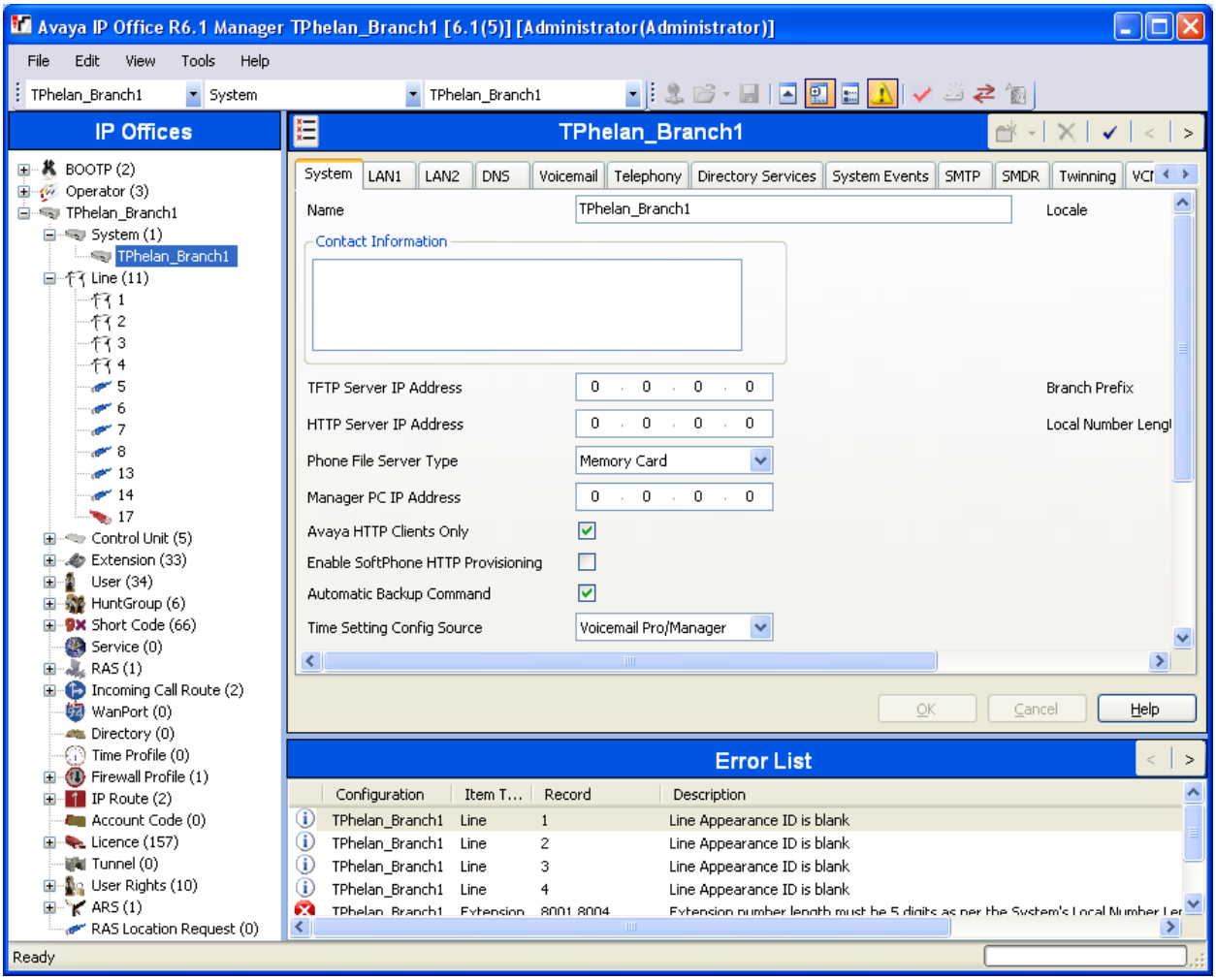
The configuration information provided in this section describes the steps required to set up Avaya IP Office for this solution. For all other provisioning information, such as Avaya IP Office installation and configuration, please refer to Avaya IP Office product documentation in reference **[1]**.

3.1. Launch Avaya IP Office Manager

Log in to the IP Office Manager PC and go to **Start → Programs→ IP Office → Manager** to launch the Manager application. In the Manager window, select **File → Open Configuration** to search for IP Office in the network and log into IP Office using the appropriate **Administrator Login** credentials to receive its configuration.

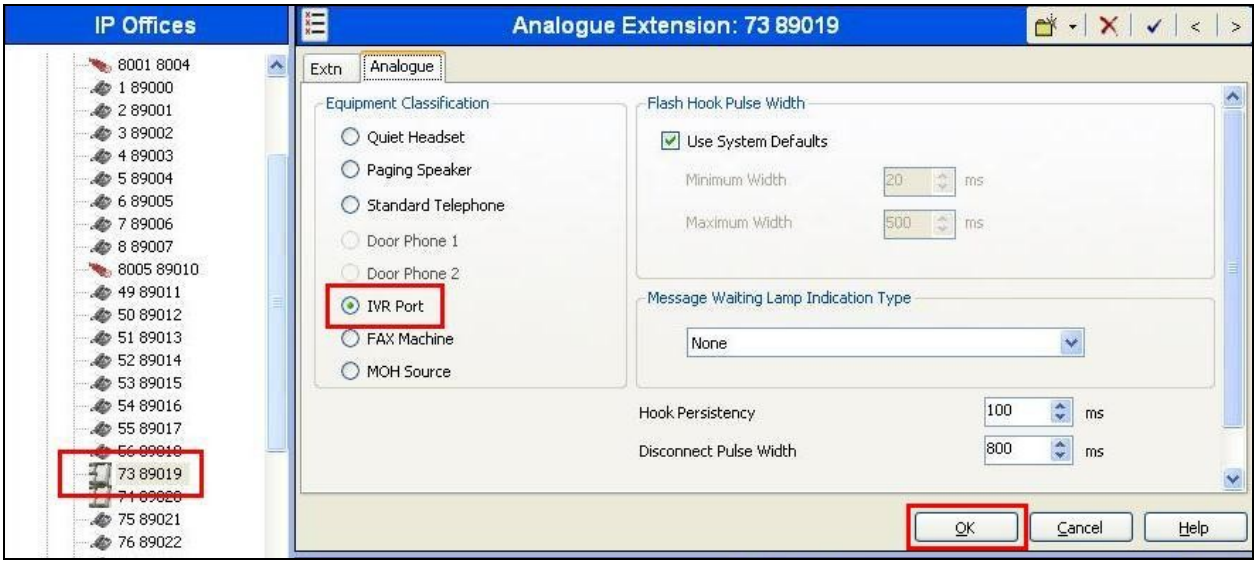


Below is the configuration screen that is shown after a successful login.

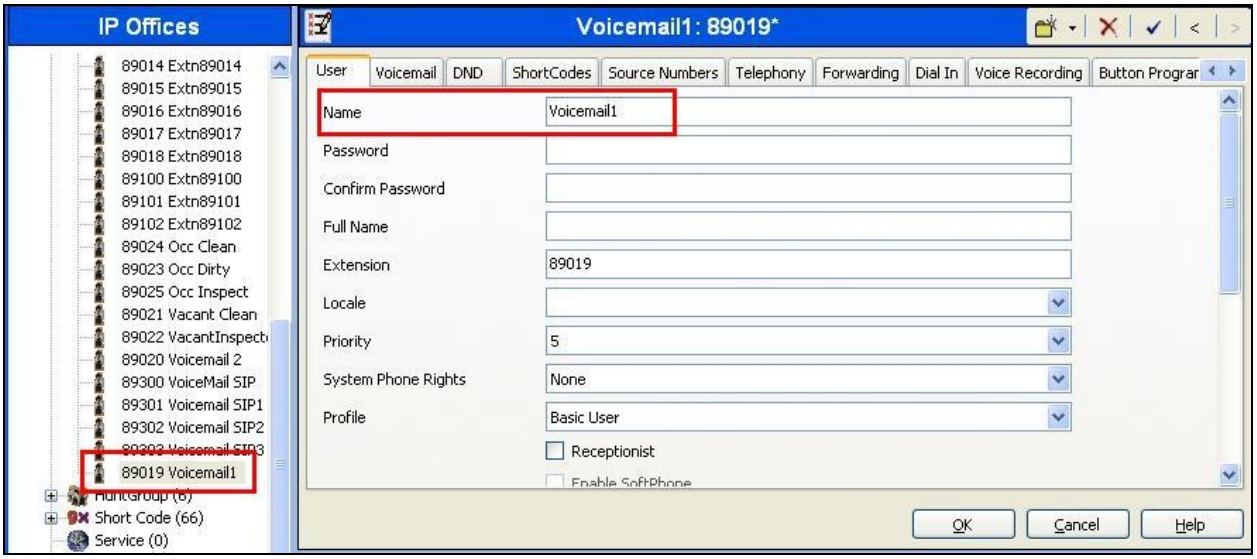


3.2. Configure Analog Extensions for Voicemail

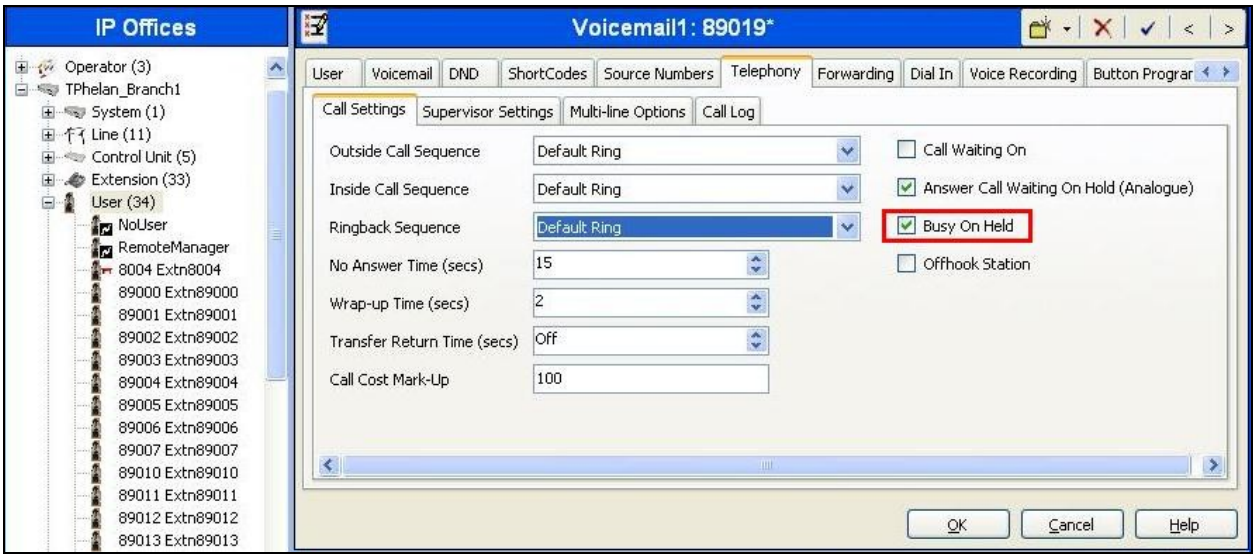
In the Manager window, go to the Configuration Tree and double-click **Extension**. In the list of extensions that appears, select extension **89019,** i.e. the first extension that will be connected to Tiger's Dialogic card listed in **Table 1**. In the Extension window that appears, leave default values for all settings and select **Analogue** tab. In that tab, select **IVR Port** for **Equipment Classification** and click **OK**.



In the Manager window, go to the Configuration Tree and expand **User** (not shown) and select the user that corresponds to the previously configured extension **89019.** In the User window that appears, set **Name** to a suitable value and select the **Telephony** tab.

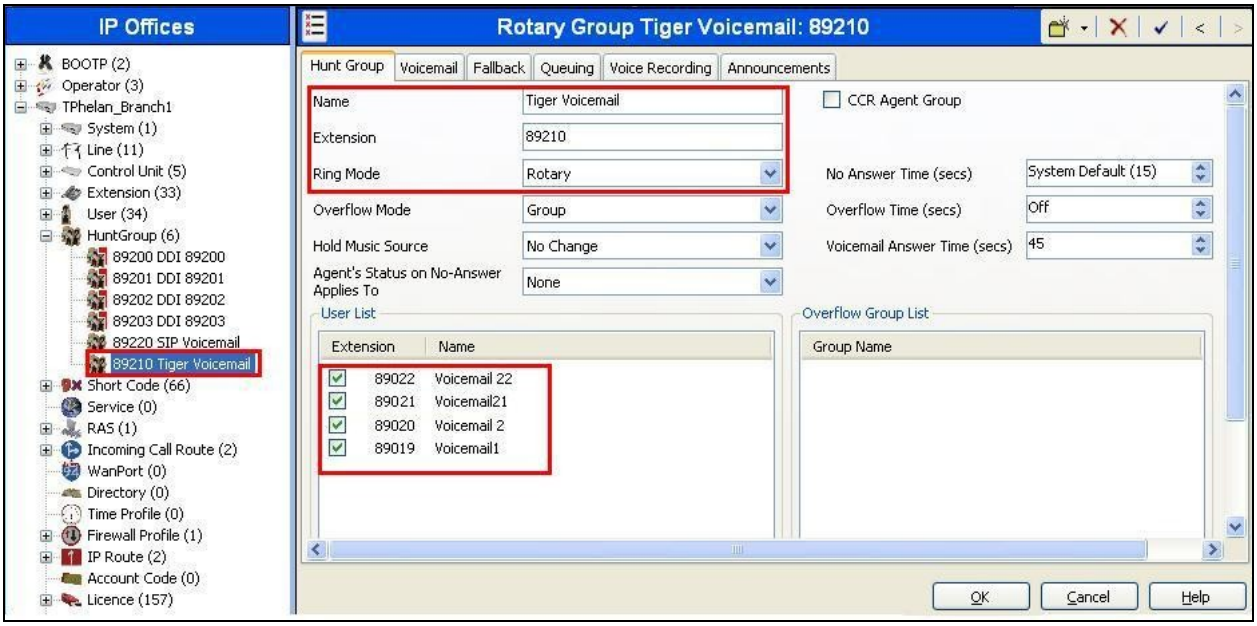


In the Telephony tab, check **Busy On Held** and click **OK**. Repeat this section for each of the analog lines listed in **Table 1**.

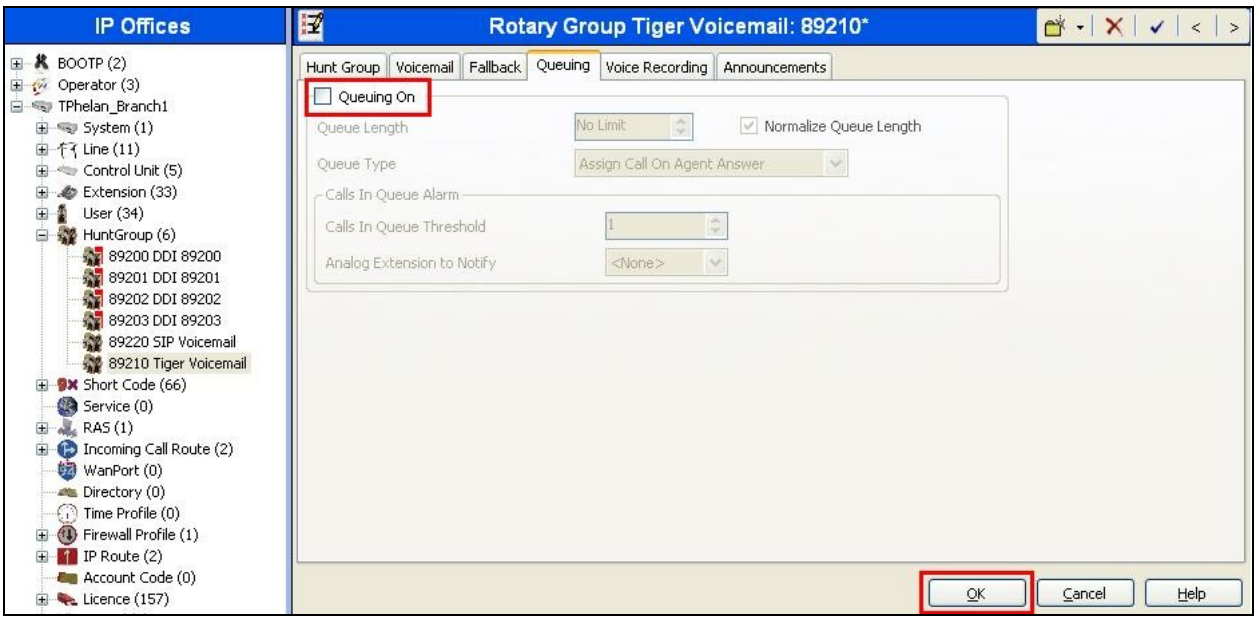


3.3. Configure Hunt Group

In the Manager window, go to the Configuration Tree, right-click **Hunt Group** and select **New** in the pop-up menu that appears. In the subsequent Hunt Group window, set **Name** to a suitable value, set **Extension** to the extension for the Tiger Voicemail hunt group listed in **Table 1**, set **Ring Mode** to **Rotary**, and add the Voicemail extension numbers listed in **Table 1** to the **Extension List**.

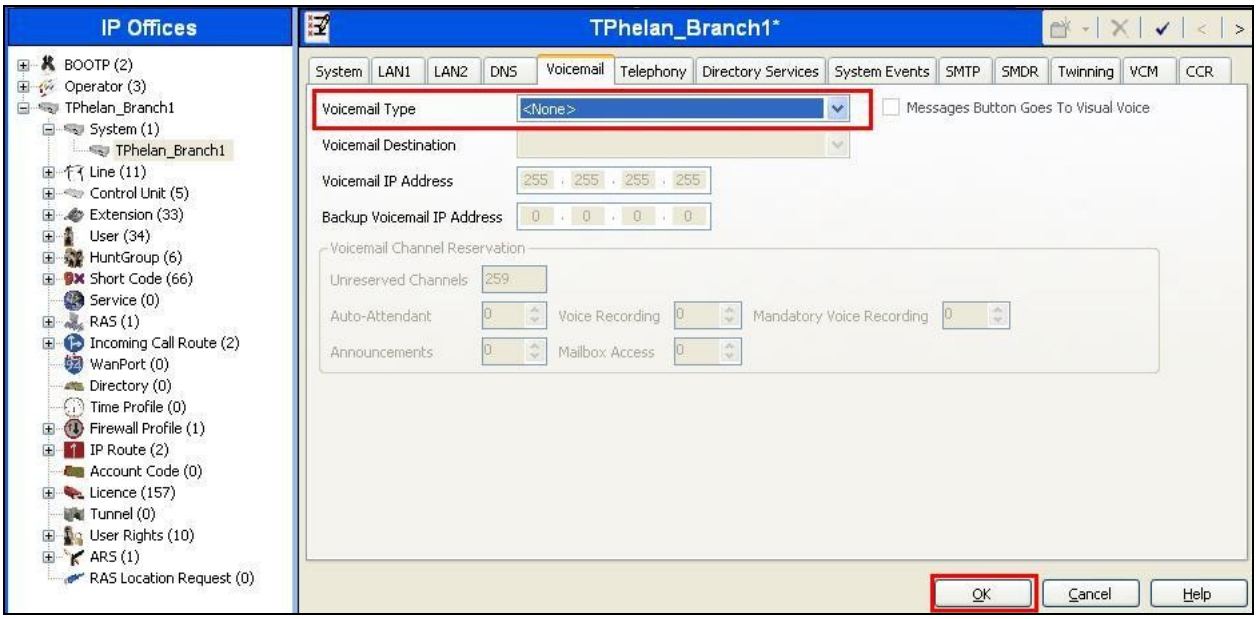


Select the **Queuing** tab and uncheck **Queuing On.** Click **OK**.



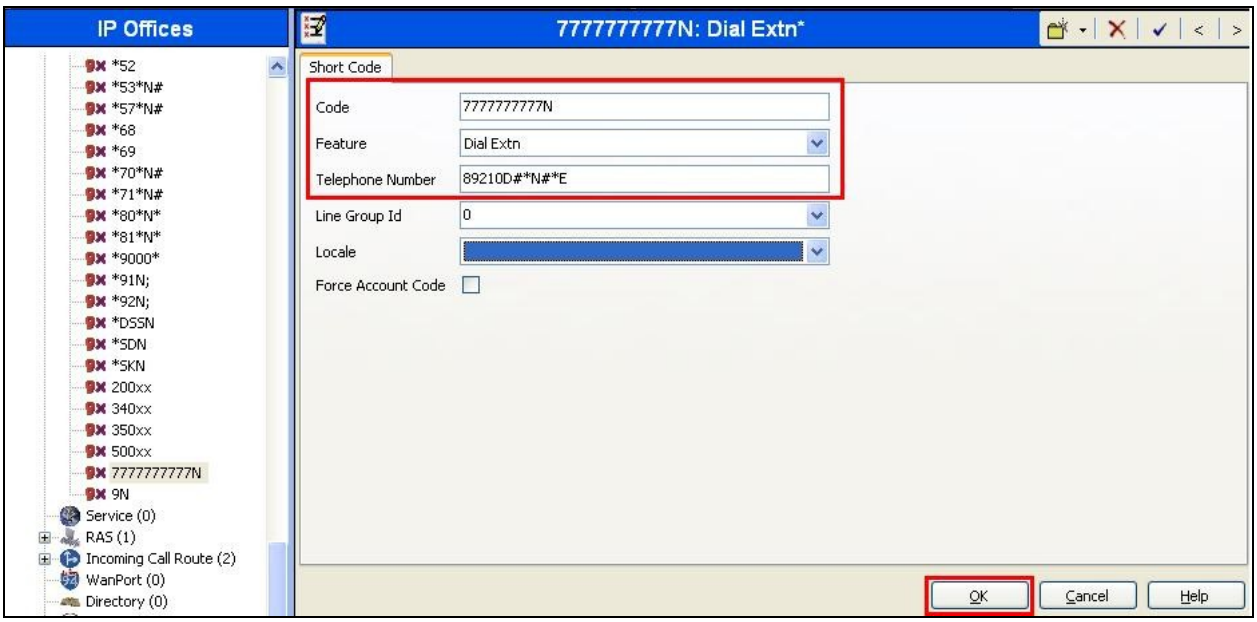
3.4. Disable System Voicemail

In the Manager window, go to the Configuration Tree and double-click **System**. Select the **Voicemail** tab. In the Voicemail tab that appears, select **None** for **Voicemail Type** and click **OK**.

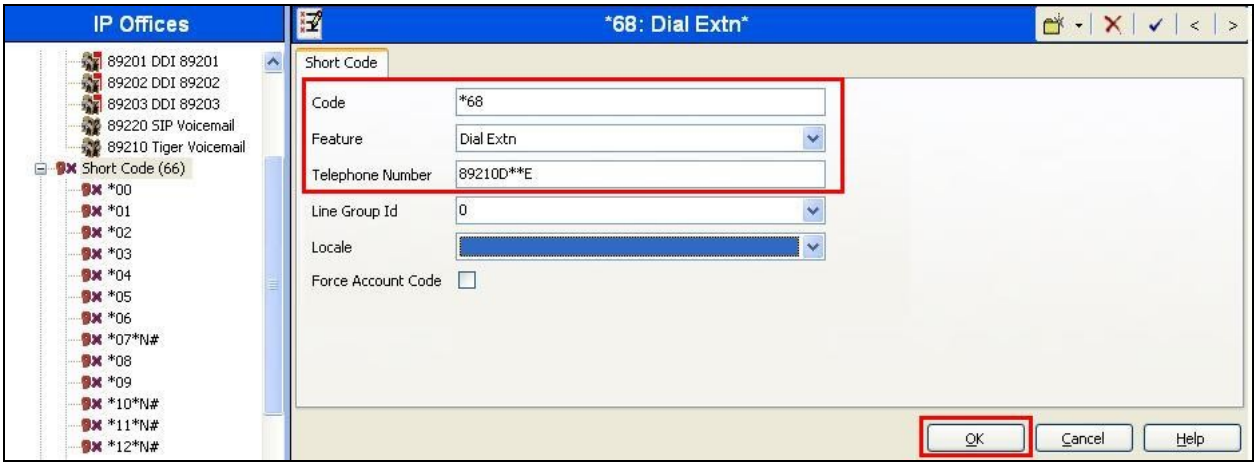


3.5. Create Short Codes

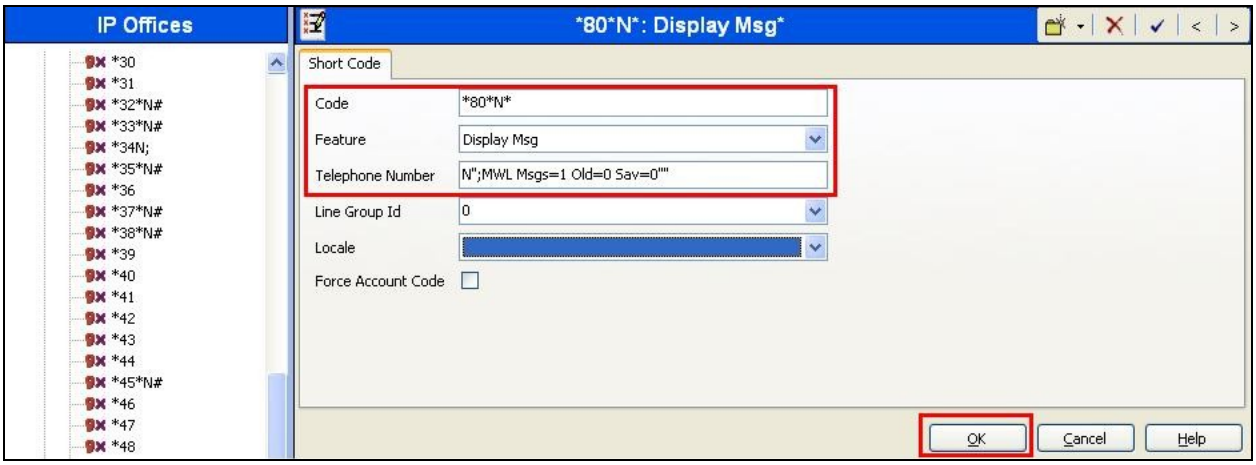
Create a Short Code used for Forward on No Answer and Forward on Busy**.** In the Manager window, go to the Configuration Tree, right-click **Short Code** and select **New** in the popup that appears. In the Short Code window that appears, set **Code** to **7777777777N**. Set **Feature** to **Dial Extn** and set **Telephone Number** to **89210D#*N#*E** where 89210 is the hunt group created in **Section 3.3**. Click **OK**.



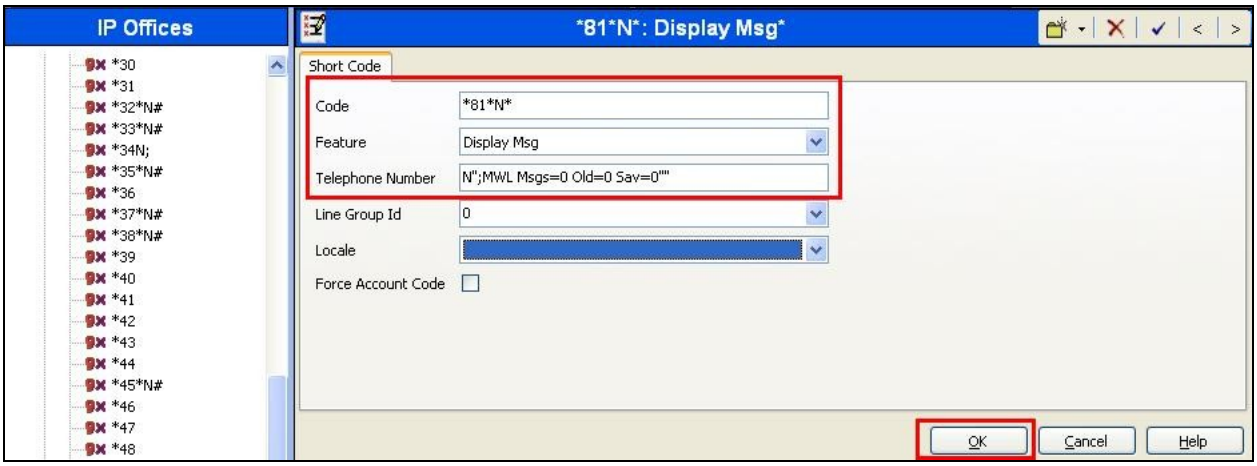
Create a Short Code used for Direct access to Tiger Voicemail. In the Manager window, go to the Configuration Tree, right-click **Short Code** and select **New**. In the new Short Code window that appears, set **Code** to ***68**, set **Feature** to **Dial Extn.** Set **Telephone Number** to **89210D**E** where 89210 is the hunt group created in **Section 3.3**. Click **OK**.



Create a Short Code used for set the MWI Lamp On. In the Manager window, go to the Configuration Tree, right-click **Short Code** and select **New** in the popup that appears. In the Short Code window that appears, set **Code** to ***80*N***, set **Feature** to **Display Msg** and set **Telephone Number** to **N";MWL Msgs=1 OLD=0 Sav=0""**. Click **OK**.

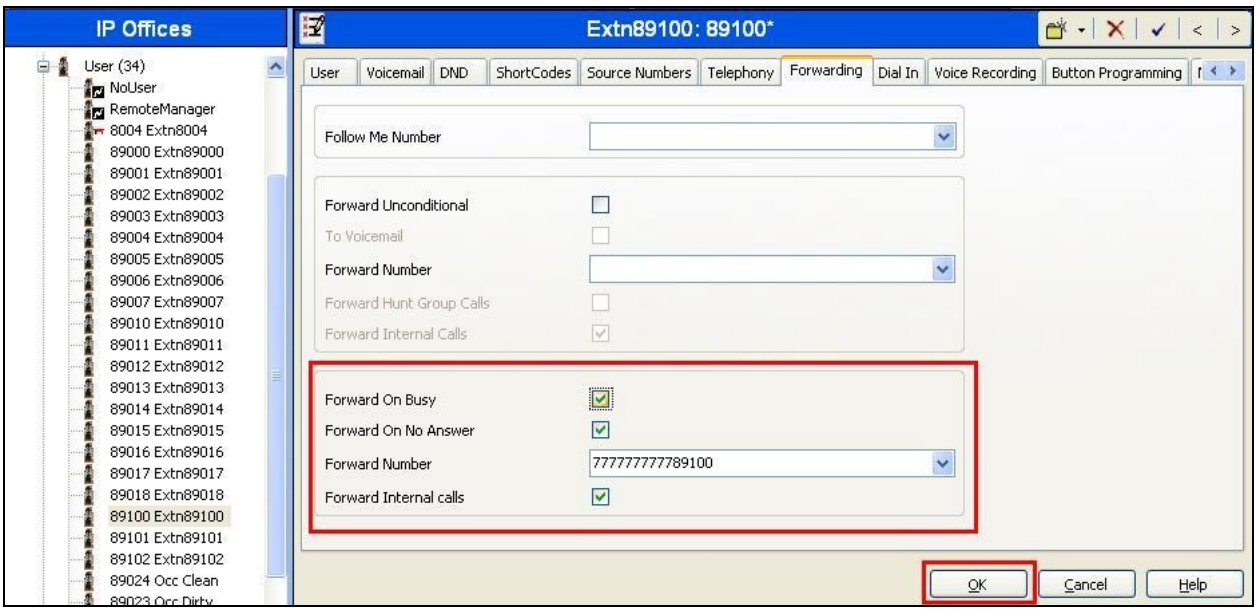


Create a Short Code used for set the MWI Lamp Off. In the Manager window, go to the Configuration Tree, right-click **Short Code** and select **New** in the popup that appears. In the subsequent window, set **Code** to ***81*N***, set **Feature** to "Display Msg" and set **Telephone Number** to **N";MWL Msgs=0 OLD=0 Sav=0""**. Click **OK**.



3.6. Configure Extensions for Voicemail

In the Manager window, go to the Configuration Tree, right-click **Extension** and select the User to be configured. Click on the Forwarding tab. Check **Forward on Busy**, **Forward on No Answer**, and **Forward Internal Calls** check boxes. In the **Forward Number** specify **7777777777X** where X is the Extension. For Extension=89100, the Forward Number will be 777777777789100. Click **OK**.

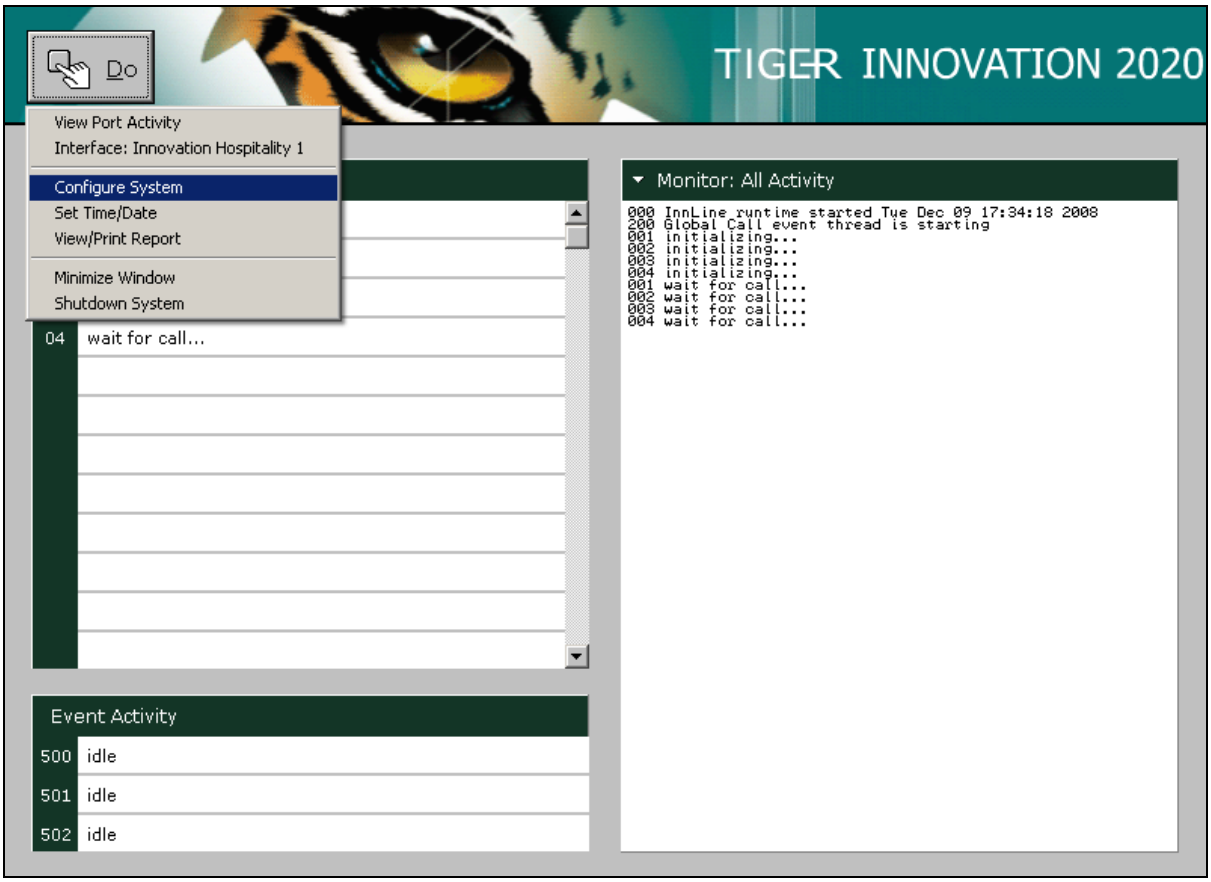


Repeat this configuration for each required user. In the Manager window, select **File → Save** to push the configuration to IP Office and wait for the system to update. This completes configuration of IP Office.

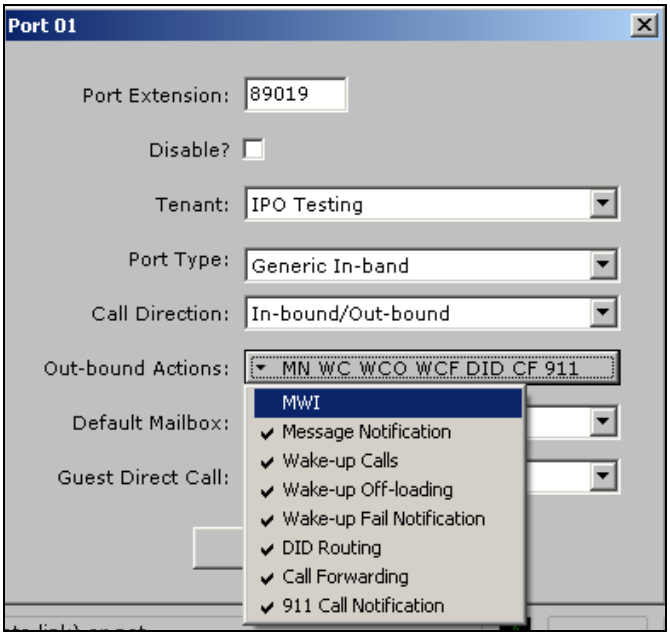
4. Configure Tiger Communications Server

The configuration information provided in this section describes the steps required to configure Tiger InnOvation 2020 to work with Avaya IP Office 6.1. For all other provisioning information, such as software installation, installations of optional components, and configuration of Tiger InnOvation 2020, please refer to the Tiger Communications product documentation in reference **[2]**.

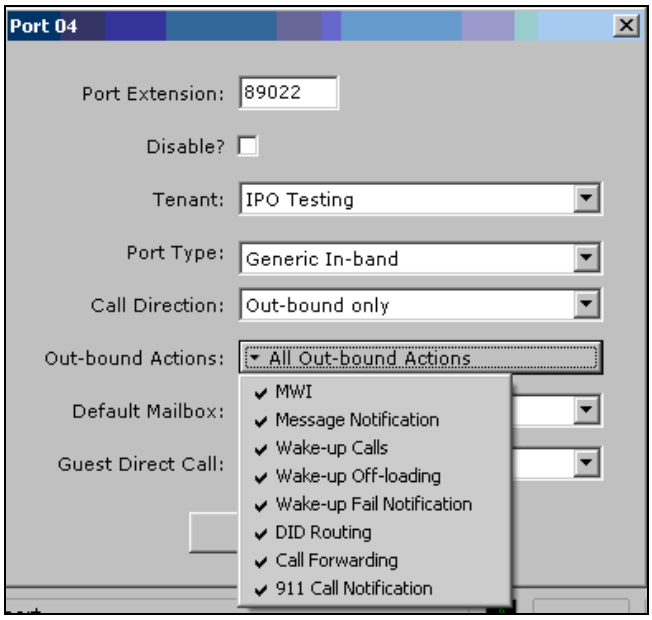
On the Tiger InnOvation 2020 server, navigate to **d:\Innline\bin** and click on **innline.exe** to launch the Tiger InnOvation 2020 voice mail configuration. Once the application is open click on **Do → Configure System**.



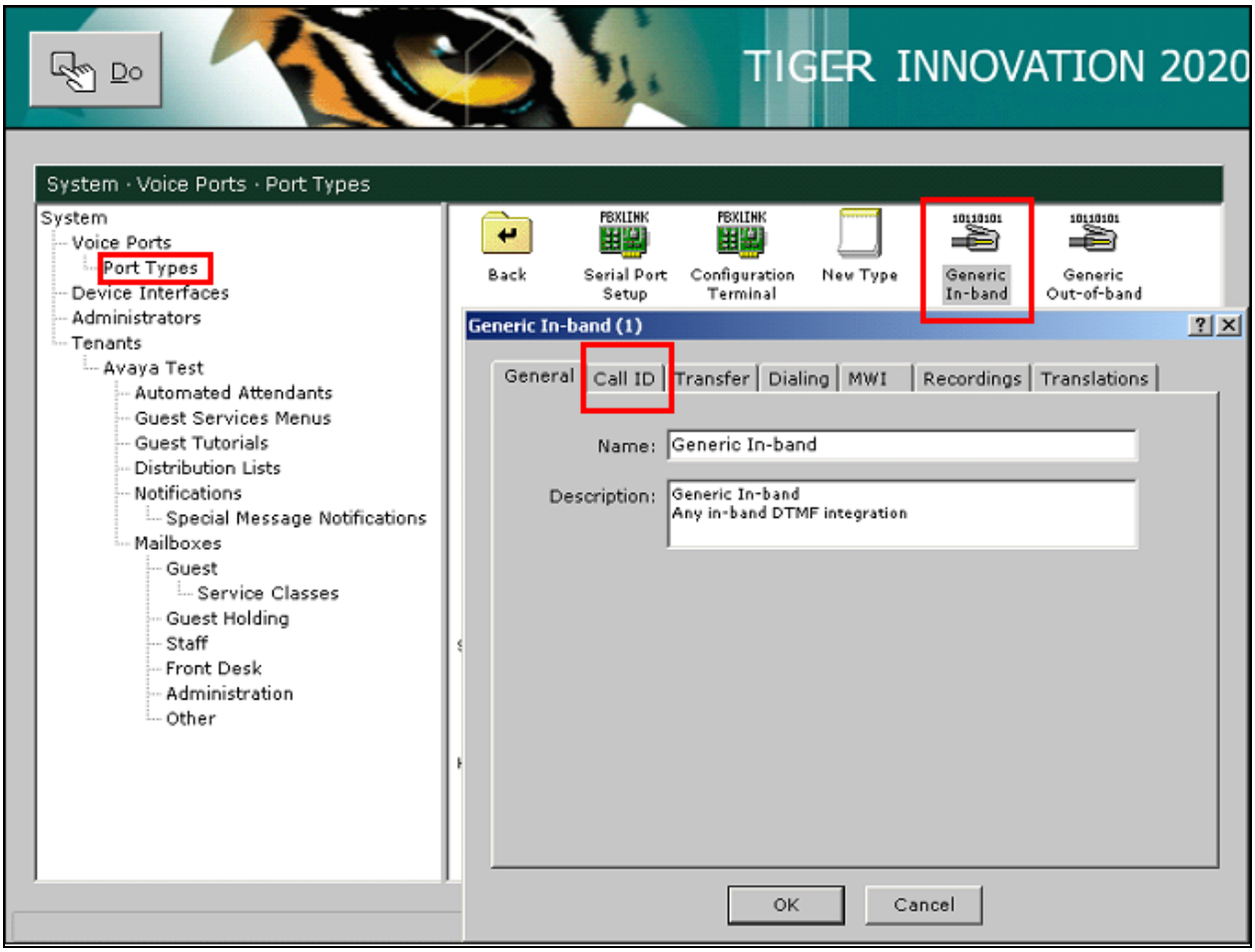
Expand the tree configuration menu on the left by clicking on **System → Voice Ports** and then clicking Port 0 on the right (not shown). In the dialog that appears, enter the **Port Extension** to match the analog extension configured in **Section 3.2**. Select **Generic In-band** from the **Port Type** drop-down list, and select **In-bound/Out-bound** for the **Call Direction**. In the drop-down list of the **Out-bound Actions,** uncheck **MWI**. The remaining parameters can be left with their default settings. Click **OK** (not shown).



Repeat this step for each analog connection that is required. When complete, right-click on the **Port 04** which corresponds to extension 89022 which was just created. Click **Edit**. In the drop-down list of the **Out-bound Actions,** check the **MWI** option. Click **OK.**



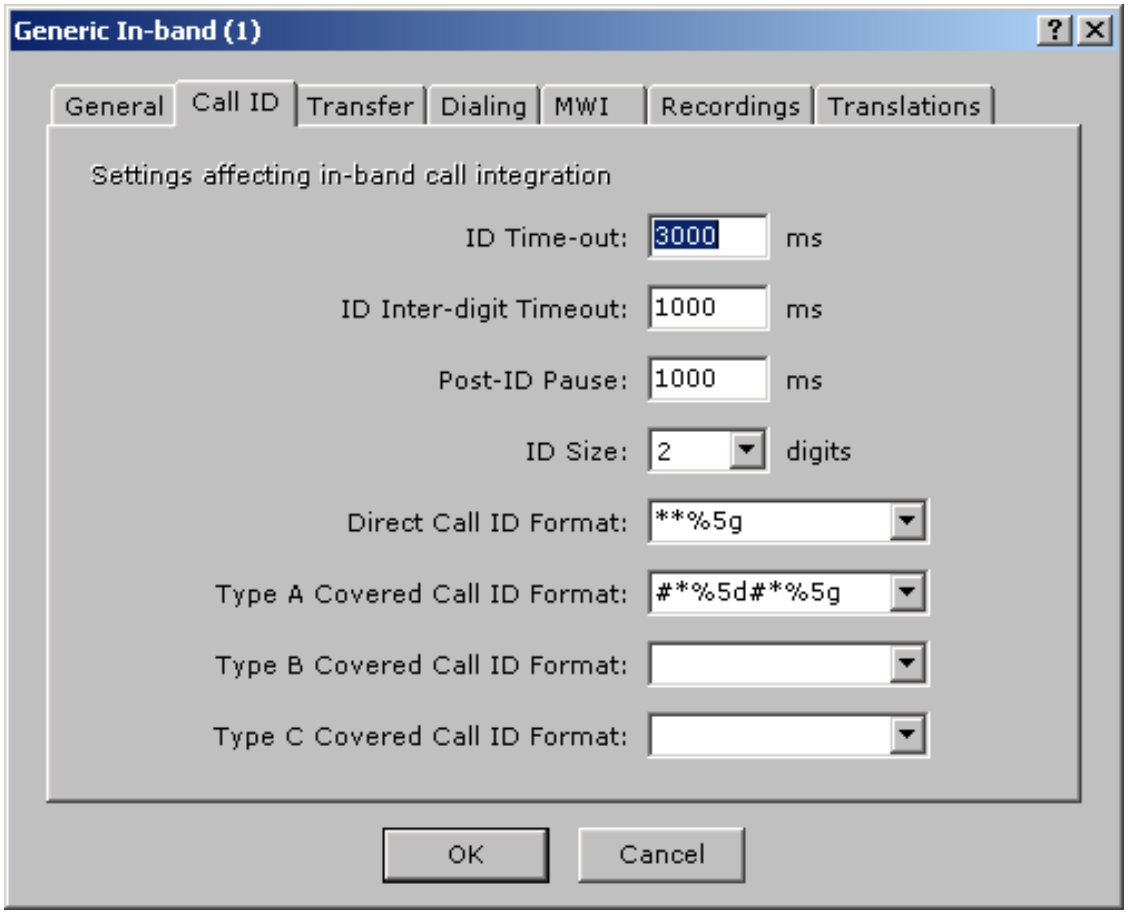
Expand the tree configuration menu on the left and click on **System → Voice Ports → Port Types**. In the screen on the right, double-click **Generic In-band** and select **Call ID** tab.



In the Call ID tab that appears specify following values:

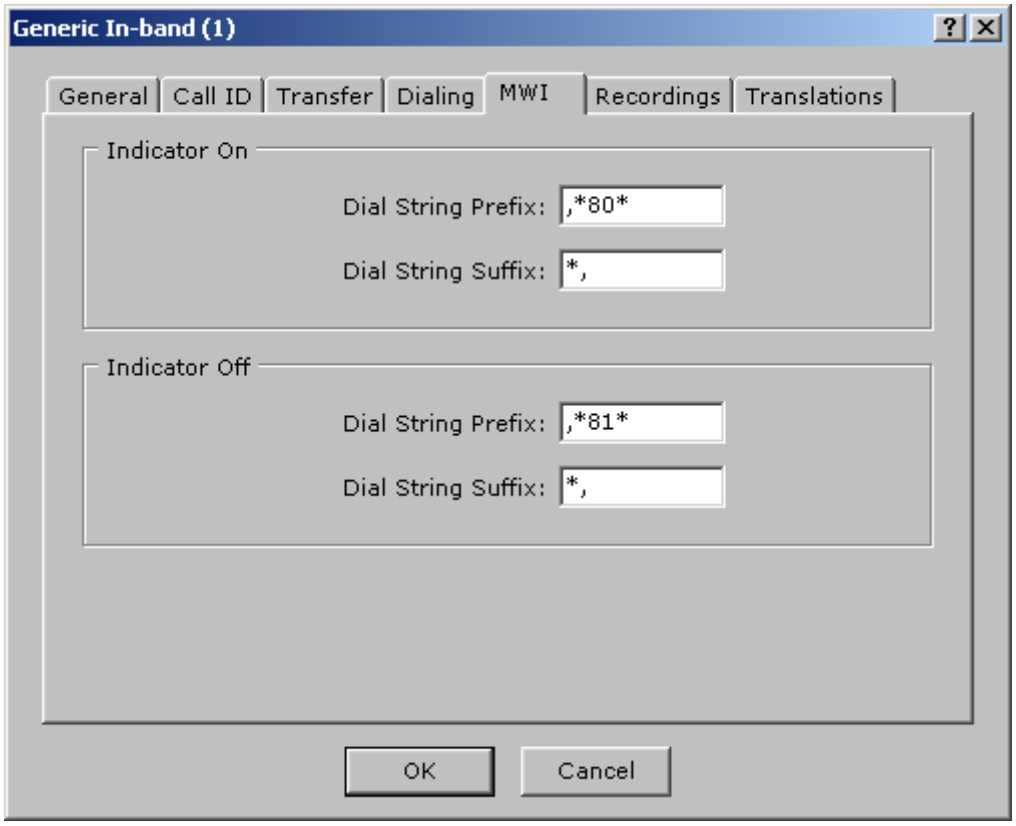
- **ID Time-Out:** **3000 ms**
- **Direct Call ID Format:** ****%5g**
- **Type A covered call ID Format:** **#*%5d#*%5g**

The remaining parameters can be left with their default settings. Click **OK**. **%5** represents the number of extensions (in this case 5 digits).



Click on the **MWI** tab and specify the following:

- **Dial String Prefix:** **,*80***
- **Dial String Suffix:** ***,**
- **Dial String Prefix:** **,*81***
- **Dial String Suffix:** ***,**



These values respond to the MWI Lamp On and MWI Lamp Off Short Codes configured on IP Office in **Section 3.5**.

5. Interoperability Compliance Testing

The interoperability compliance testing included feature and serviceability testing. The feature testing evaluated the voicemail functionality of Tiger InnOvation 2020 which is delivered via Dialogic analogue voice processing card connected to analogue extension ports of Avaya IP Office. The serviceability testing introduced failure scenarios to see if Tiger InnOvation 2020 could resume after a link failure with IP Office.

5.1. General Test Approach

The general test approach was to validate correct operation of typical voicemail functions including call coverage in following scenarios:

- Recording messages on the voicemail system
- Retrieving messages by making a direct call to the voicemail system
- Message Waiting Indication (MWI) lamp
- Voicemail integration with hospitality features like check-in, check-out and room transfer
- Link Failure and Recovery for analog lines and IP connection.

Feature functionality testing was performed manually. Call coverage was verified when there was no answer on a dialed extension or when a dialed extension was busy. Direct access to the Voicemail system was verified with message retrieval from the extension with voicemail and from a different extension by placing an inbound T1/PRI call to the Voicemail. Voicemail integration with hospitality features like check-in, room transfer and check-out were verified using Tiger InnOvation 2020 interface.

Check-in:

- Voice mailbox was set up for the extension
- Automatic check-in message was left at the extension
- MWI lamp was turned on

Room Transfer:

- Old extension's MWI lamp was turned off
- Voicemail was purged after moving it to the new extension number
- New extension's MWI lamp was turned on and voicemail had been moved to the new extension.

Check-out:

- Station MWI lamp was turned off
- Voice mailbox was emptied

5.2. Test Results

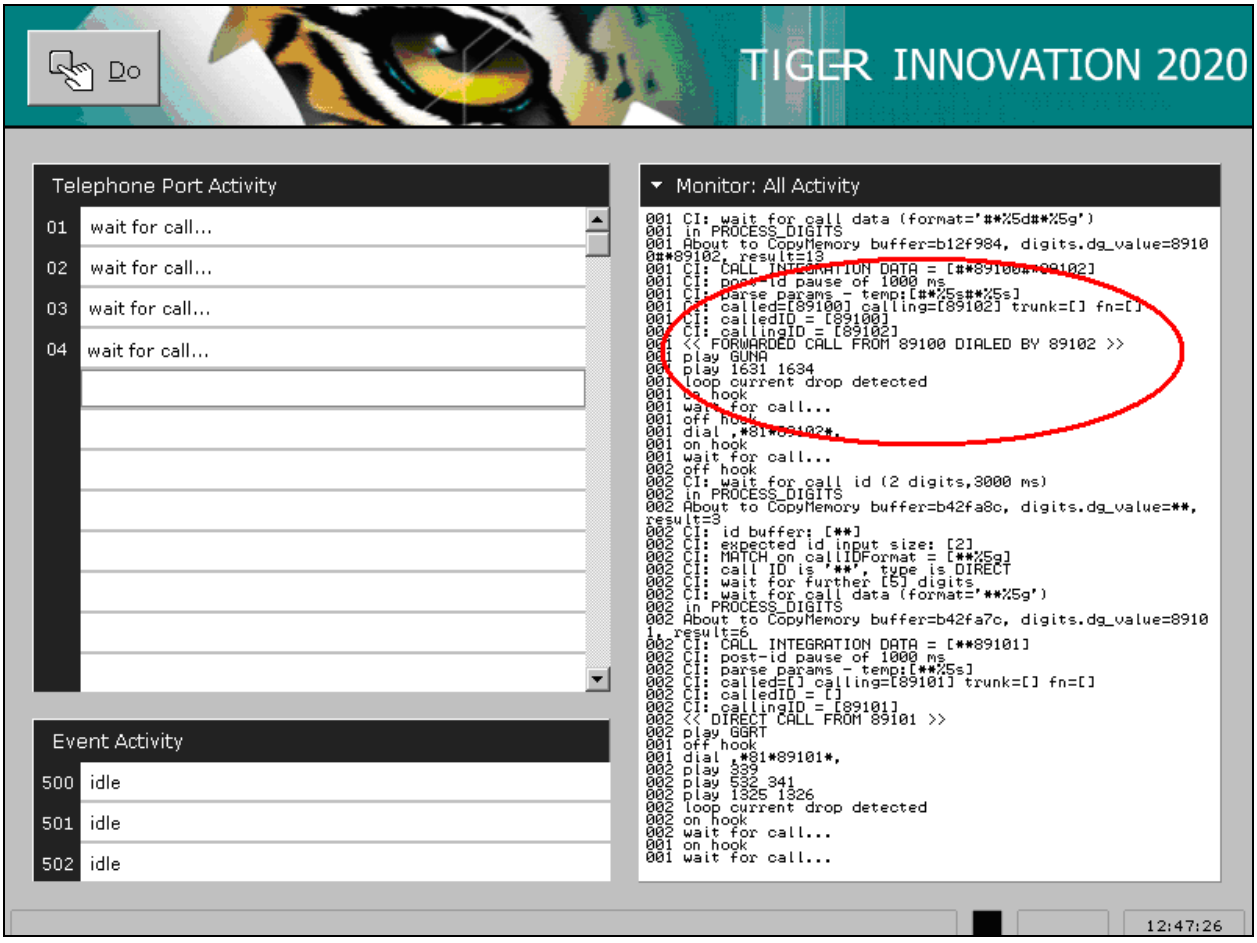
All executed test cases were completed successfully.

6. Verification Steps

Place a call to one of the guest extensions and allow it to go to coverage.

- Verify the Tiger voicemail greeting answers and leave a message.
- Verify that the MWI lamp of the dialed station is turned ON.

Also, in the Tiger InnOvation 2020 Monitor, confirm that the call was transferred using analog lines to Tiger Voicemail. The screenshot below shows a call placed to extension 89100 that covered to Voicemail.



7. Conclusion

These Application Notes describe the steps for configuring Tiger InnOvation 2020 to work with Avaya IP Office. All test cases that were executed have successfully passed. Tiger InnOvation 2020 version 2.7.13 was successfully compliance tested with Avaya IP Office version 6.1).

8. Additional References

The following documentation may be obtained from http://support.avaya.com.

[1] *Avaya IP Office Release 6.1 Manager 8.1, Issue 25j, 3rd December 2010* available at http://support.avaya.com

[2] Product documentation for Tiger Communication's products may be found at www.tigercomms.com

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 devconnect@avaya.com.