Avaya Solution & Interoperability Test Lab

Application Notes for Loquendo Speech Suite with Avaya Interactive Response – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Loquendo Speech Suite with Avaya Interactive Response and Avaya Communication Manager. Loquendo Speech Suite 7.0 uses the Media Resource Control Protocol (MRCP) version 1 for its Text-To-Speech (TTS) and Automatic Speech Recognition (ASR) features to interface with VoiceXML and TAS applications running on Avaya Interactive Response 3.0.

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.

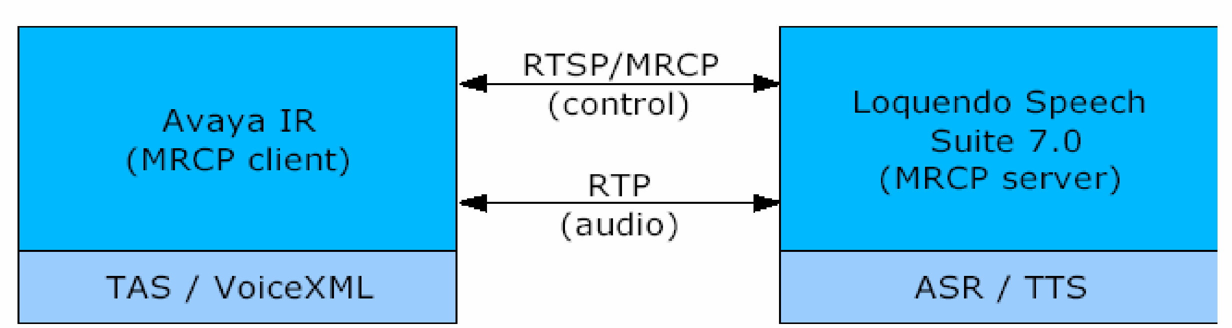
1. Introduction

These Application Notes describe the configuration steps required to integrate the Loquendo Speech Suite with Avaya Interactive Response (IR) and Avaya Communication Manager. Loquendo Speech Suite 7.0 uses the Media Resource Control Protocol (MRCP) version 1 for its Text-To-Speech (TTS) and Automatic Speech Recognition (ASR) features to interface with VoiceXML and TAS applications running on Avaya Interactive Response 3.0.

Loquendo's TTS engine provides synthetic multilingual/multivoice for all types of voice applications such as e-mail reading, real-time news, and self-service applications. Loquendo's Advanced Speech Recognition (ASR) engine supports speech enabled applications such as automated directory assistance services, mobile public voice ports and embedded applications by providing speaker-independent, large scale vocabulary, barge-in facilities and multi-languages capability.

The Loquendo Speech Suite interfaces to Avaya Interactive Response via a TCP/IP connection using two different protocols:

- Signaling requests for call set-up and teardown between servers use Real-time Streaming Protocol (RTSP) connections.
- Audio data (speech delivered to an ASR engine for recognition and synthesized speech delivered from a TTS engine) is carried over a Real-time Transport Protocol (RTP) connection.



Avaya IR and Loquendo Speech Suite interoperating.

Figure 1 illustrates the configuration used to verify the Loquendo Speech Suite solution. The Loquendo Speech Suite 7.0 was installed on a Windows Server with TTS and ASR Engines. VoiceXML and TAS Scripts that used the TTS and ASR engines were installed on Avaya Interactive Response. The Avaya G650 Media Gateway interfaced with the Avaya Interactive Response via a T1. The T1 channels were configured as DS1FD stations. Avaya IP phones were used to make calls that would run the Voice XML and TAS scripts on the Avaya Interactive Response. The scripts would use the TTS engine to play synthesized prompts and verify DTMF tones and barge-in attempts. The scripts would use the ASR engine to verify the speech recognition for user input and barge-in attempts. The application server, a Windows 2003 Server with IIS enabled, was used to host the VoiceXML scripts only. The TAS scripts were installed on Avaya Interactive Response using Avaya IR Designer.

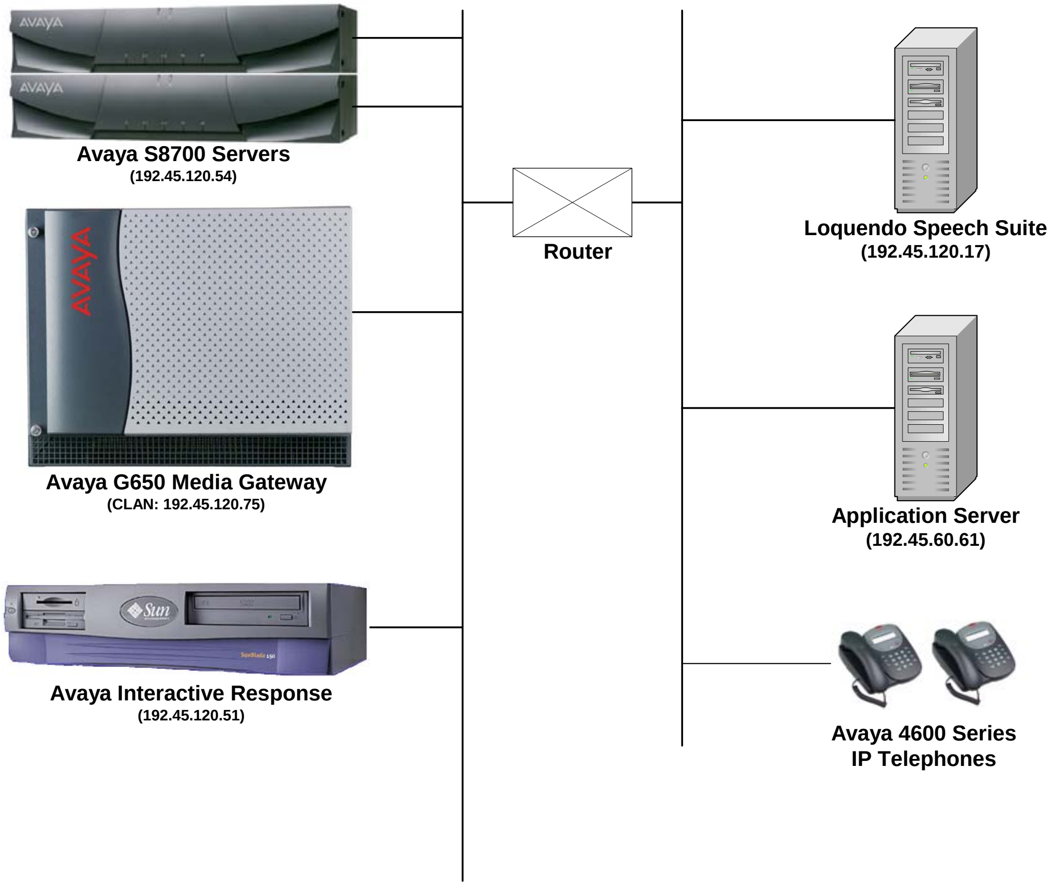


Figure 1: Configuration with Avaya Interactive Response and Loquendo Speech Suite

1.1. Equipment and Software Validated

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

Equipment	Software
Avaya Interactive Response	3.0
Avaya S8700 Servers with a G650 Media Gateway	Avaya Communication Manager 4.0 (R014x.00.1.731.2)
Avaya 4600 Series IP Telephones	2.8 (H.323)
Loquendo Speech Suite	7.0.12
Application Server – HTTP Server running Windows Server 2003	Internet Information Services (IIS) 5.1

2. Configure Avaya Communication Manager

This section describes the configuration of the T1/Robbed-Bit Signaling link between Avaya Communication Manager and Avaya IR and the stations that correspond to each Avaya IR port. Refer to [1] [2] [3] for additional information on configuring Avaya Communication Manager.

From the System Access Terminal (SAT), configure the DS1 board that provides T1 connectivity to Avaya IR. The **Signaling Mode** of the DS1 board is set to *robbed-bit* signaling with a **Line Coding** and **Framing Mode** of *b8zs* and *esf*, respectively.

```
add ds1 a11                                                 Page   1 of   2
                                DS1 CIRCUIT PACK

            Location: 01A11                           Name: Avaya IR
            Bit Rate: 1.544                    Line Coding: b8zs
   Line Compensation: 1                       Framing Mode: esf
      Signaling Mode: robbed-bit


Interface Companding: mulaw
           Idle Code: 11111111

      Slip Detection? n                Near-end CSU Type: other
```

Figure 2: DS1 Circuit Pack

Configure each IVR port as a station with the **Type** field set to *DS1FD*, configure the **Port** field and provide a descriptive name. In this configuration, two ports for Avaya IR were configured with an extension range of 23201 and 23224 Although not covered in this configuration, these stations could have been members of a hunt group so that callers can dial a single number that maps to a hunt group extension. The hunt group could then route the call to an available member (i.e., DS1FD station). Agent Login IDs can also be used to have the stations or Avaya IR ports automatically logged into the hunt group (or split). Refer to [3] for addition information on adding hunt groups and agent login IDs.

```
add station 23201                                           Page   1 of   4
                                     STATION

Extension: 23201                         Lock Messages? n             BCC: 0
     Type: DS1FD                         Security Code:                TN: 1
     Port: 01A1101                     Coverage Path 1:               COR: 1
     Name: IR Port 1                   Coverage Path 2:               COS: 1
                                       Hunt-to Station:             Tests? y
STATION OPTIONS
                                           Time of Day Lock Table:
              Loss Group: 4
    Off Premises Station? y
       R Balance Network? n

          Survivable COR: internal
   Survivable Trunk Dest? y
```

Figure 3: Station for Avaya IR Port

3. Configure Avaya Interactive Response (IR)

This section covers the configuration of Avaya IR. Avaya Communication Manager routes incoming calls to Avaya IR over a T1 interface. Each channel of the T1 interface is assigned a phone number that should match the corresponding station extension configured on Avaya Communication Manager and an Avaya IR VoiceXML or TAS script. Refer to [4] for additional information on Avaya IR.

The configuration steps required on Avaya IR are summarized below.

- Access the Avaya IR via an Internet Web browser and log in.
- Stop the Voice System (i.e., Avaya IR) prior to configuring the T1 interface.
- Configure the T1 interface to the Avaya G650 Media Gateway.
- Administer and assign the Loquendo Speech Suite as an ASR and TTS engine
- Start the Voice System.
- Assign channels to equipment groups.
- Assign phone numbers to channels.
- Assign services (VoiceXML and TAS applications) to channels.

The following packages need to be installed on Avaya IR to support MRCP Text-to-Speech and MRCP Advance Speech Recognition.

- Speech Proxy package (AVsproxy)
- Speech Proxy SR - Speech Recognition package (AVsrproxy)
- Proxy Text-to-Speech package (AVttsprxy)
- MRCP Advanced Speech Recognition package (*AVmrcpasr)*
- MRCP Text-to-Speech package (*AVmrcptts)*

To verify which packages are installed, use the “pkginfo | grep AV” command from the Avaya IR command line.

```
devconnectivr(root)# pkginfo | grep AV
IVR         AVbackrst                          Backup/Restore Utilities
IVR         AVfax                              Next Generation FAX Package
IVR         AVftst                             Feature Test Script Package
IVR         AVir                               Interactive Response Base System
IVR         AVjdbcint                          JDBC Integration
IVR         AVlm                               License Manager
IVR         AVmrcpasr                          MRCP ASR Proxy
IVR         AVmrcptts                          MRCP TTS Proxy
IVR         AVnms                              NMS Package
IVR         AVnmsfax                           Fax Actions
IVR         AVsc                               Service Creation Integration Package
IVR         AVsnmp                             Avaya IR SNMP agent
IVR         AVsproxy                           Speech Proxy Base Software
IVR         AVsrproxy                          Speech Proxy SR - Speech Recognition
IVR         AVtsm                              Transaction State Machine
IVR         AVttsprxy                          Proxy Text-to-Speech Package
IVR         AVucid                             Universal Call ID
IVR         AVval                              Avaya IR System Validation Package
IVR         AVvoicxml2-0                       Voice XML Interpreter
IVR         AVvoip                             Voice Over IP
IVR         AVwebadm                           Web Administration
IVR         AVweblm                            WebLM Server
IVR         AVwebservice                       Avaya IR Web Services
IVR         AVxfer                             Call Transfer and Bridge Package
system      SUNWav1394                         IEEE1394 AV Driver
JAVAAPPS    SUNWjavaapps                       A set of Java Demo Applications - j
dictionary, jdiskreport. jedit, jgraphpad and jspider
JAVAAPPS    SUNWjmf                            Java Media Framework
JAVAAPPS    SUNWjmfmp3                         JMF MP3 Plugin
```

Figure 4: Installed Avaya IR Packages

The Avaya IR configuration was performed via a web browser. Enter the IP address of Avaya IR in the URL field of the web browser. The initial Avaya IR webpage is displayed as shown in **Figure 5**. Select the **Web Administration** link to display the log in screen (not shown), and log into Avaya IR with the appropriate credentials.

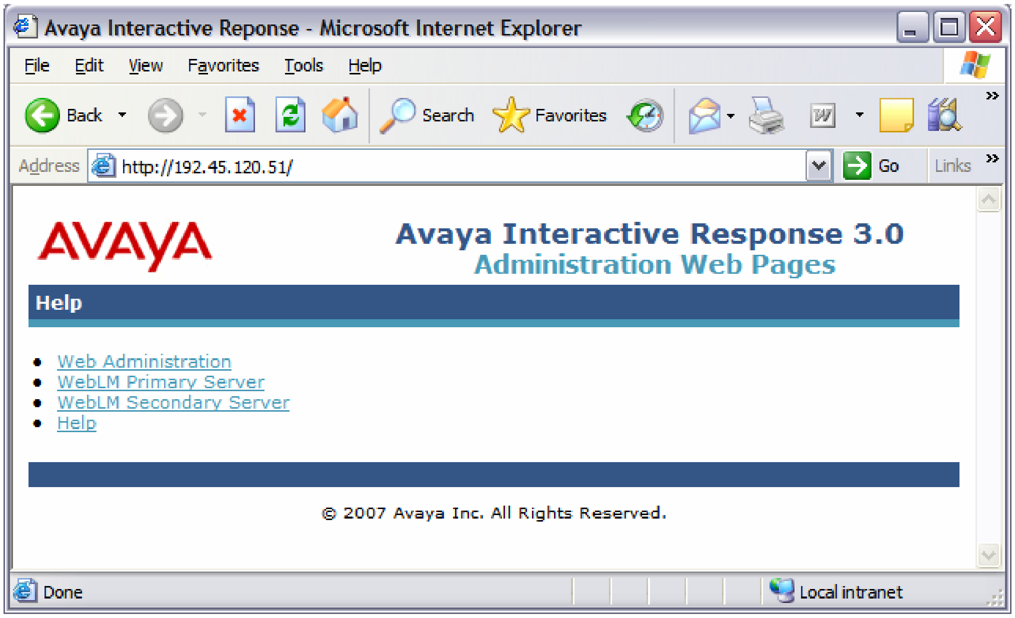


Figure 5: Initial Avaya IR Screen

After successfully logging into Avaya IR, the main Avaya IR configuration webpage is displayed as shown in **Figure 6**.

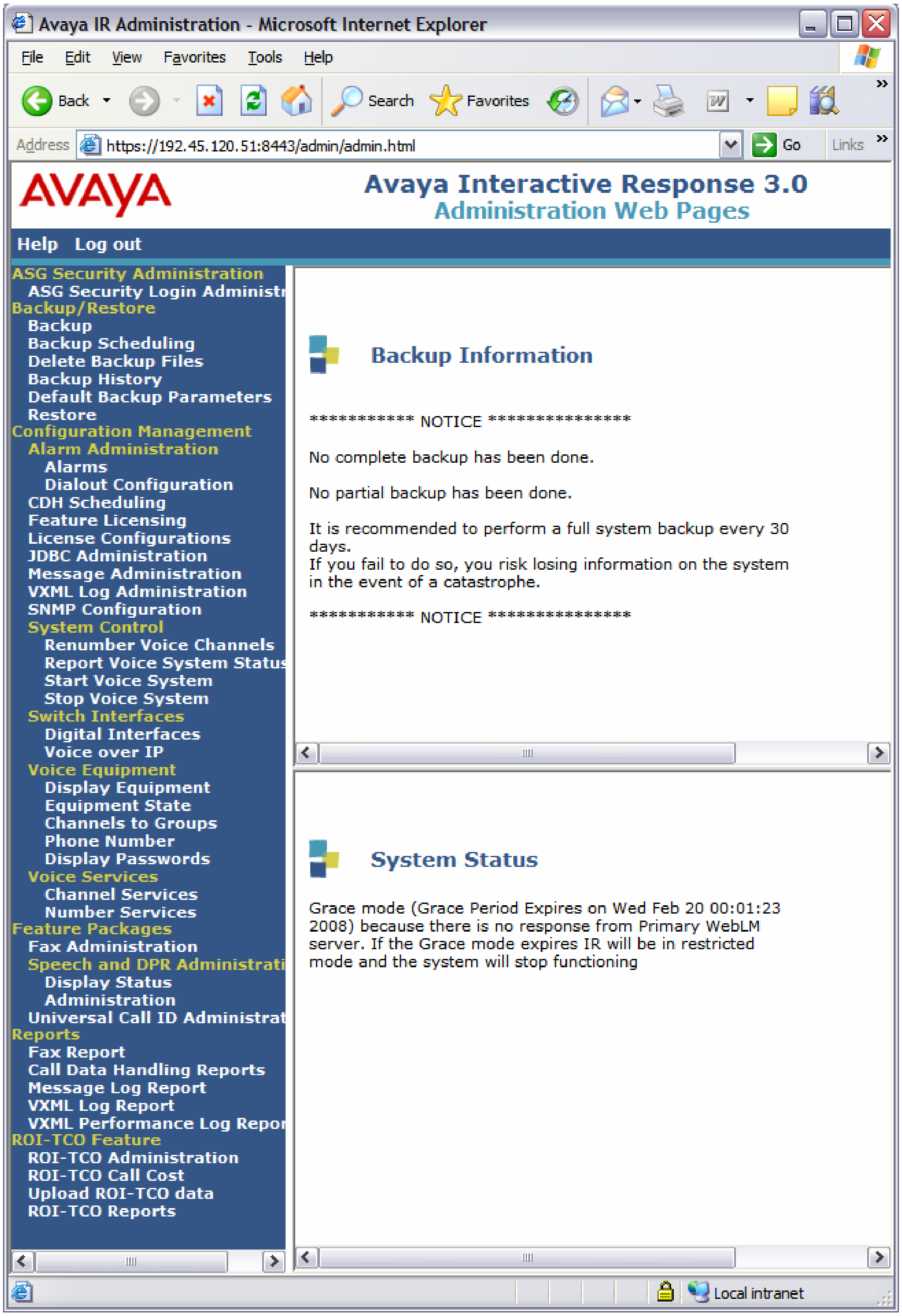


Figure 6: Main Avaya IR Webpage

Prior to configuring the T1 interface to the Avaya G650 Media Gateway, stop the Avaya IR by selecting the **Stop Voice System** link from the left pane in **Figure 6**. The **Stop Voice System** page is displayed. Click the **Submit** button and wait until the system displays a message at the bottom of the page indicating that the voice system has completely stopped.

To configure the T1 interface to the Avaya G650 Media Gateway follow these steps:

1. Under **Switch Interfaces** in the left pane, select the **Digital Interfaces** option to display the **Digital Interfaces Protocols** page.
2. Select the **Assign Card** link to display the **Assign Card** page shown in **Figure 7**. On this page, set the **Card** field to the appropriate number, set the **Card Type** field to *T1*, and set the **Trunk 1** field to *Loop Start T1*. When complete, click the **Submit** button to display the **Assign Card 1: Type T1** page shown in **Figure 8**.

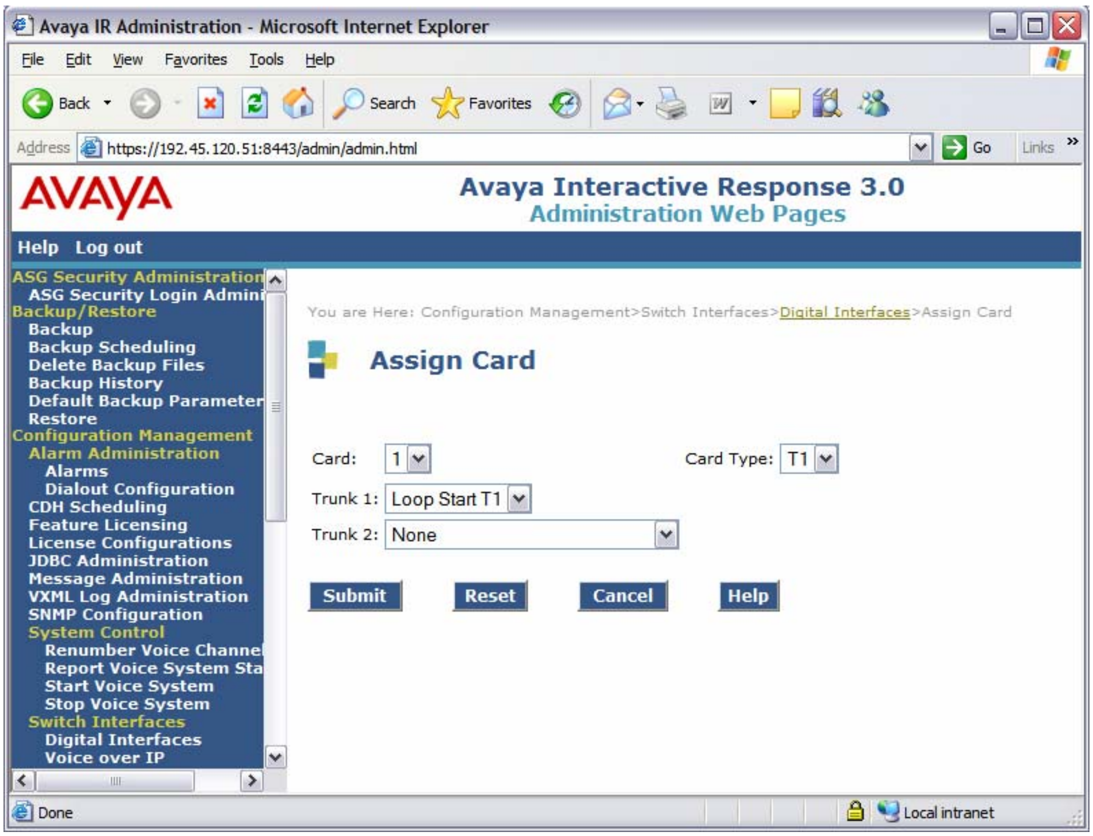


Figure 7: Assign Card

3. On the page shown in **Figure 8**, set the **Frame Type** field to *ESF* and the **Line Code** field to *B8ZS*. Accept the default for the other fields as shown in the figure. Click the **Submit** button.

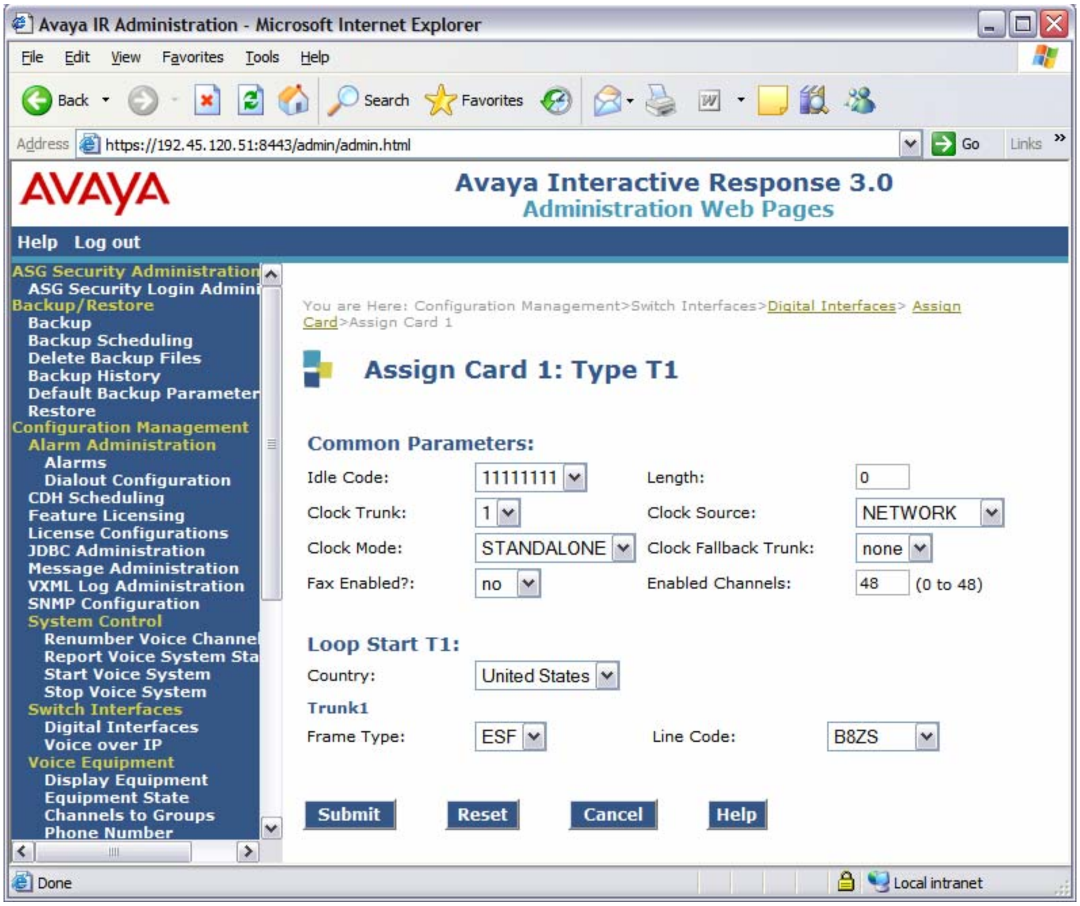


Figure 8: Assign Card Parameters

Next, configure the ASR server in Avaya IR by selecting the Administration option under Speech and DPR Administration in the left pane and then selecting **Speech Recognition and DPR Configuration**. The page shown in **Figure 9** is displayed. On this page, click the **Assign New Recognition Type** button. The **Assign Speech Recognition or DPR Type** page is displayed as shown in **Figure 10**.

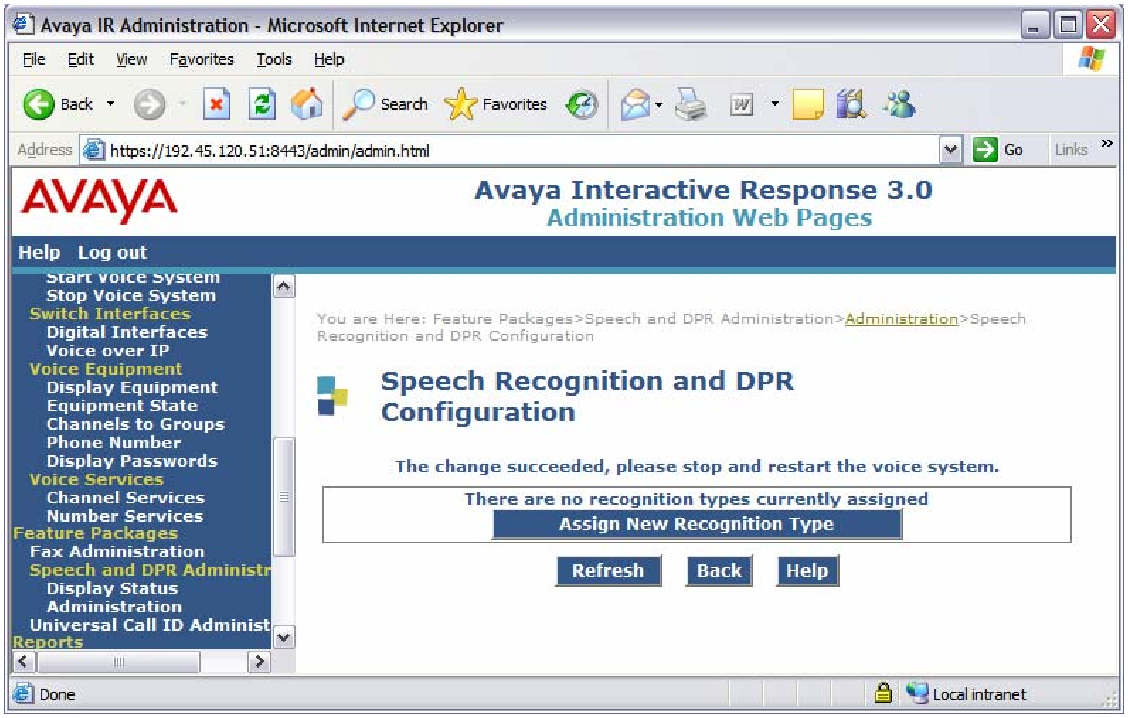


Figure 9: Speech Recognition and DPR Configuration

In the **Assign Speech Recognition or DPR Type** page, set the **Engine** field to *mrcp-other* as shown below. Click **Submit**.

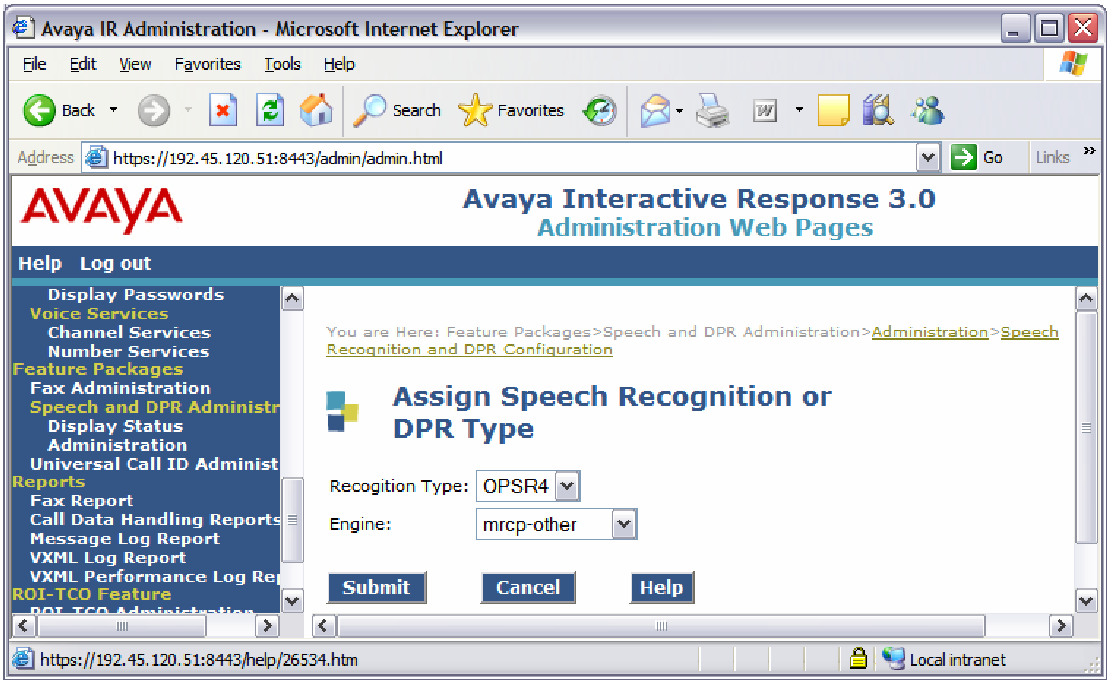


Figure 10: Assign Speech Recognition or DPR Type

On the page shown below, click the **Assign New Server** button to display the Speech Recognition or DPR Type page shown in **Figure 11**.

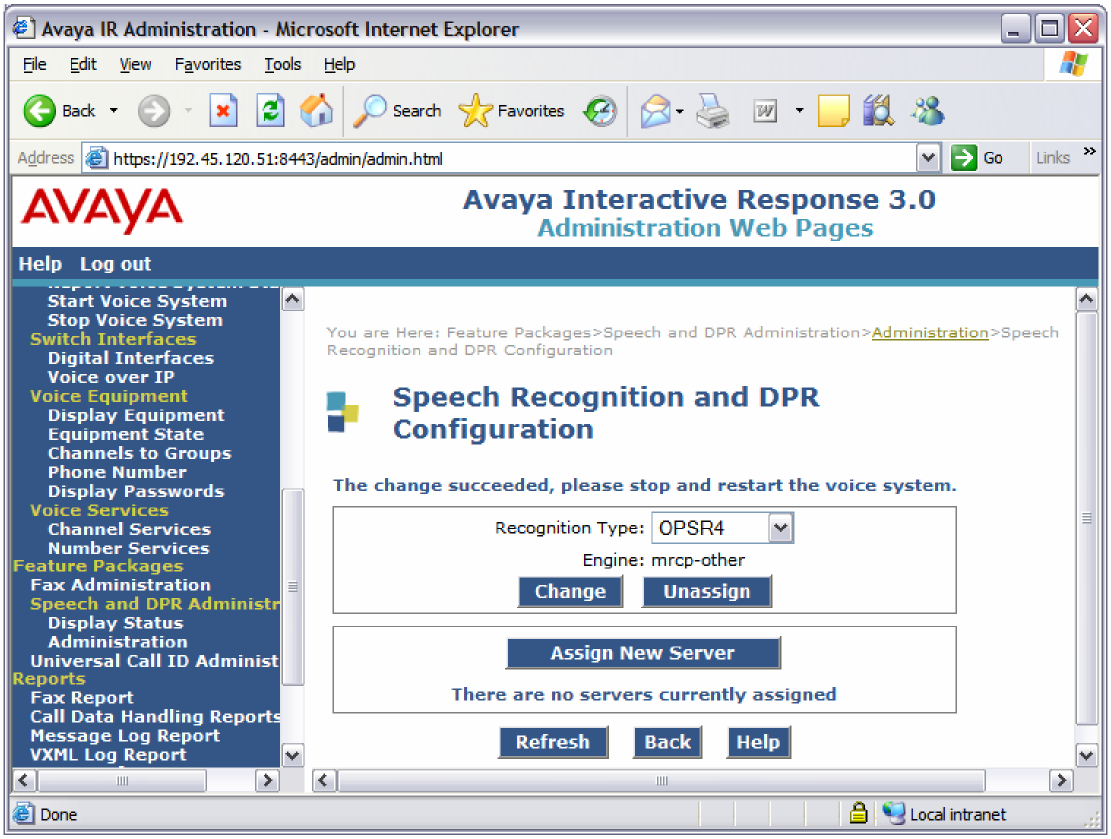


Figure 11: Speech Recognition and DPR Configuration – No Servers Assigned

In the **Assign Speech Recognition or DPR Server** page shown in **Figure 12**, set the **Server Name** field to *<IP Address>/recognizer* and the **IP Address** field to the IP address corresponding to the Loquendo Speech Suite. Set the **Ports** field to the number of ports available on the Loquendo Speech Suite according to its installed license and set the **Base Port** field to *554*. Click **Submit**.

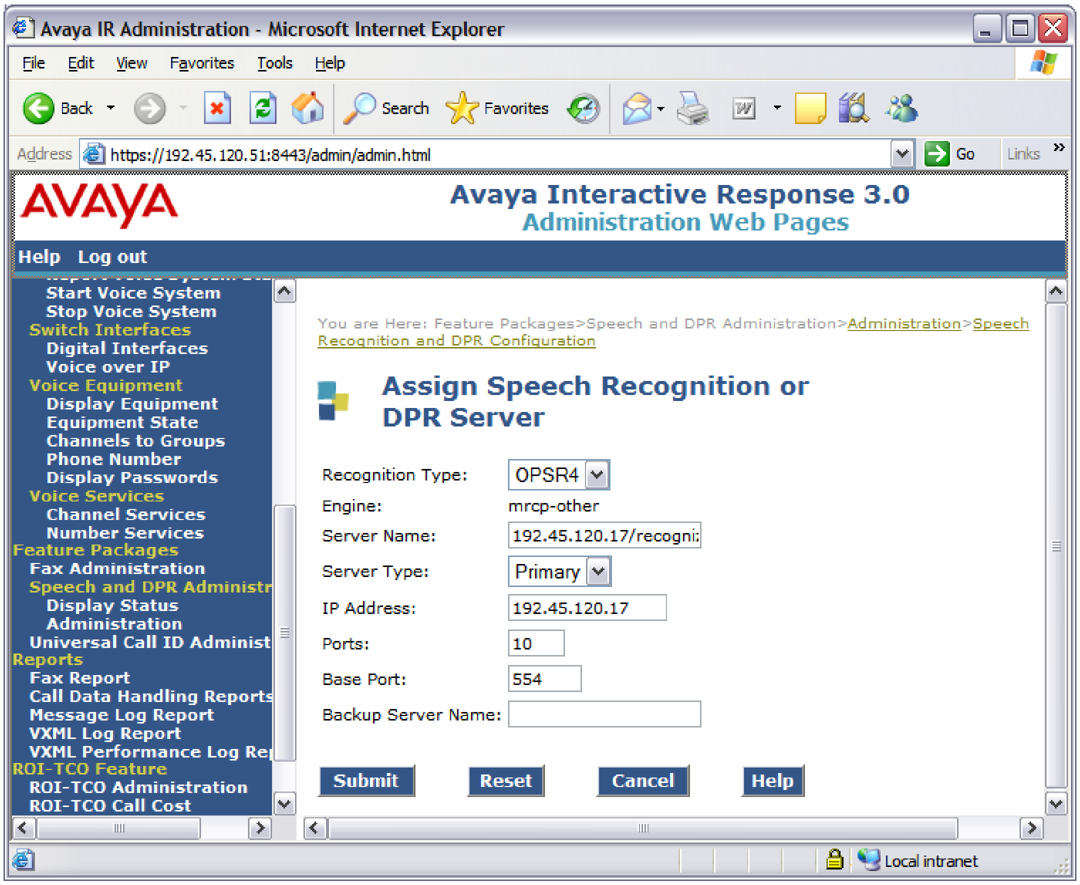


Figure 12: Assign Speech Recognition or DPR Server Parameters

Once the configuration of the speech recognition server is complete, a configuration summary page is displayed as shown below.

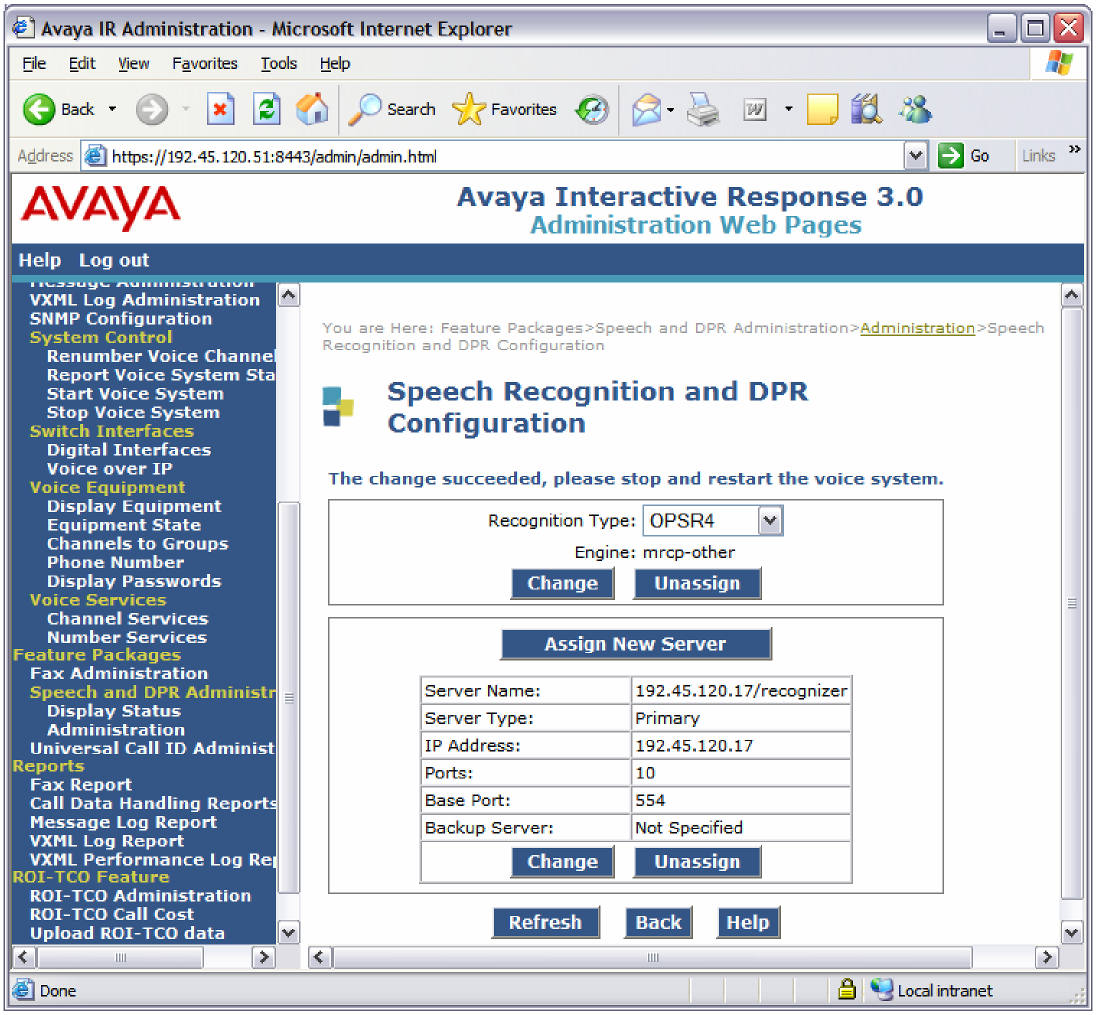


Figure 13: Speech Recognition and DPR Configuration Summary

To Configure the TTS engine in Avaya IR, select the Administration option under Speech and DPR Administration in the left pane and then select **Text-to-Speech Configuration**. The page shown in **Figure 14** is displayed. On this page, select the **Default Voice,** installed on the TTS server by clicking the **Change** button. The webpage shown **Figure 15** is displayed.

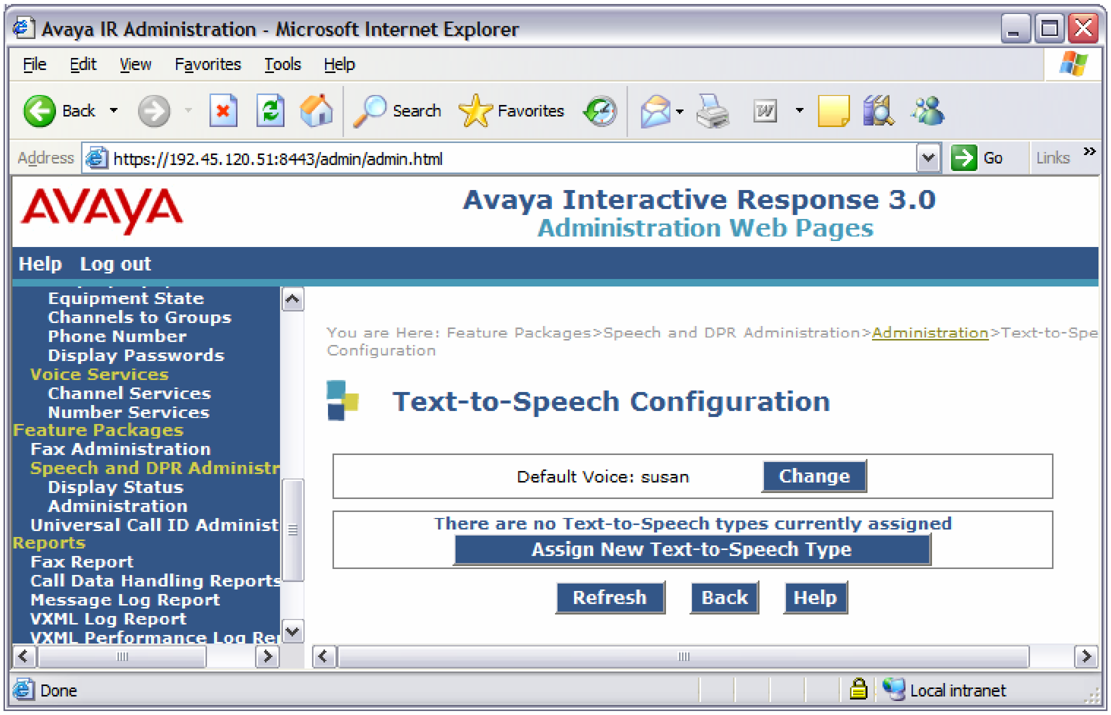


Figure 14: Text-to-Speech Configuration

Set the **Default Voice**. In this configuration, the default voice of *susan* was used. Click **Submit**. The user is returned to the webpage shown in **Figure 14**.

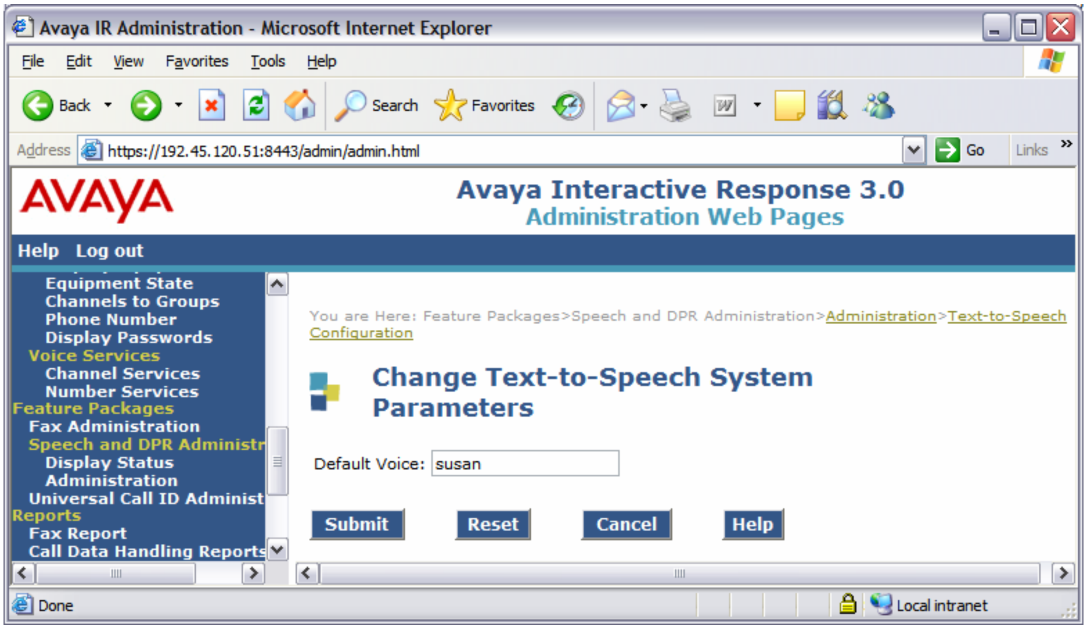


Figure 15: Configure Default Voice

On the webpage displayed, click the **Assign New Text-to-Speech Type** button. The **Assign Text-to-Speech Configuration** page is displayed as shown in **Figure 16**. Set the **Engine** field to *mrcp-other* and then click the **Submit** button. The Text-to-Speech Configuration page shown in **Figure 17** is displayed.

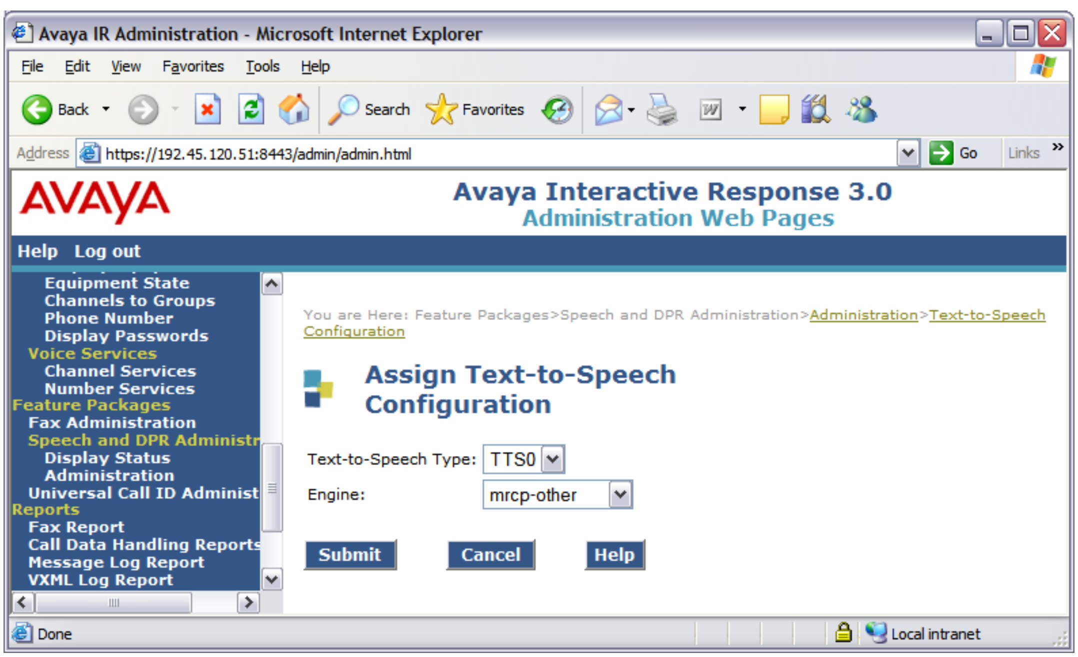


Figure 16: Assign Text-to-Speech Engine Type

In the Text-to-Speech Configuration page shown below, click on the **Assign New Server** button.

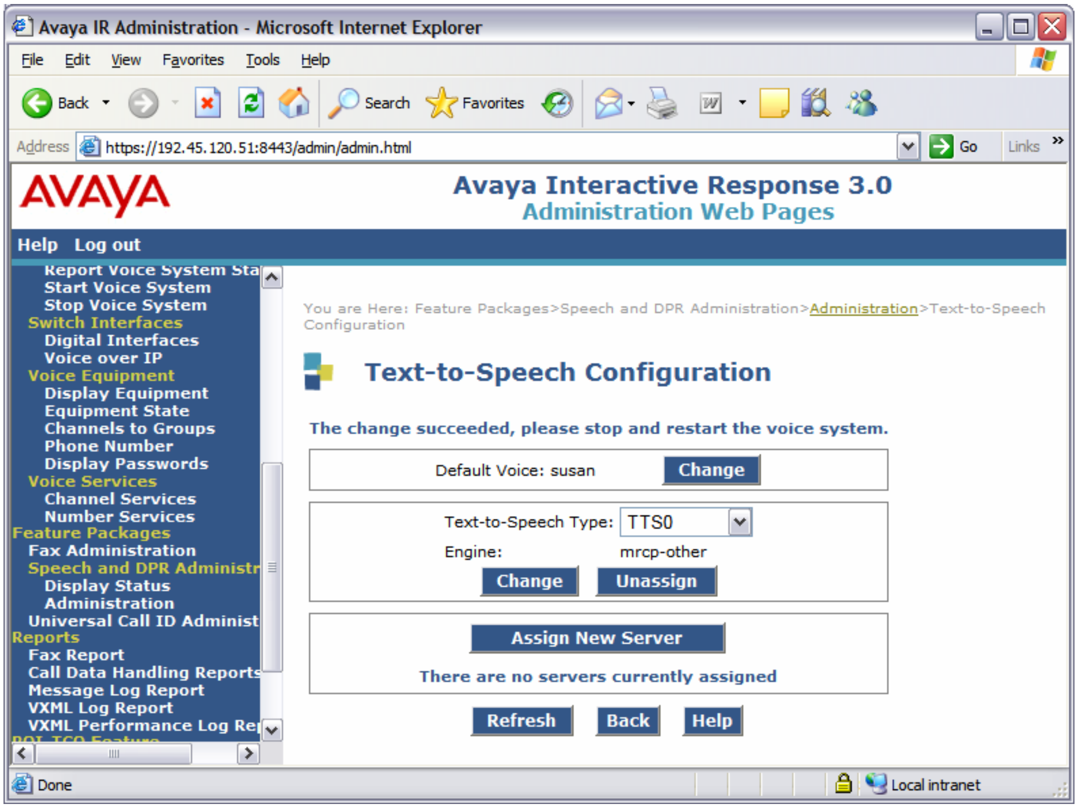


Figure 17: Text-to-Speech Configuration – No Servers Assigned

In the **Assign Text-to-Speech Server** page shown in **Figure 18**, set the **Server Name** field to *<IP Address>/synthesizer* and the **IP Address** to field to the IP address corresponding to the Loquendo Speech Suite. Set the **Ports** field to the number of ports available on the Loquendo Speech Suite according to its installed license and set the **Base Port** field to '554'. Click **Submit**.

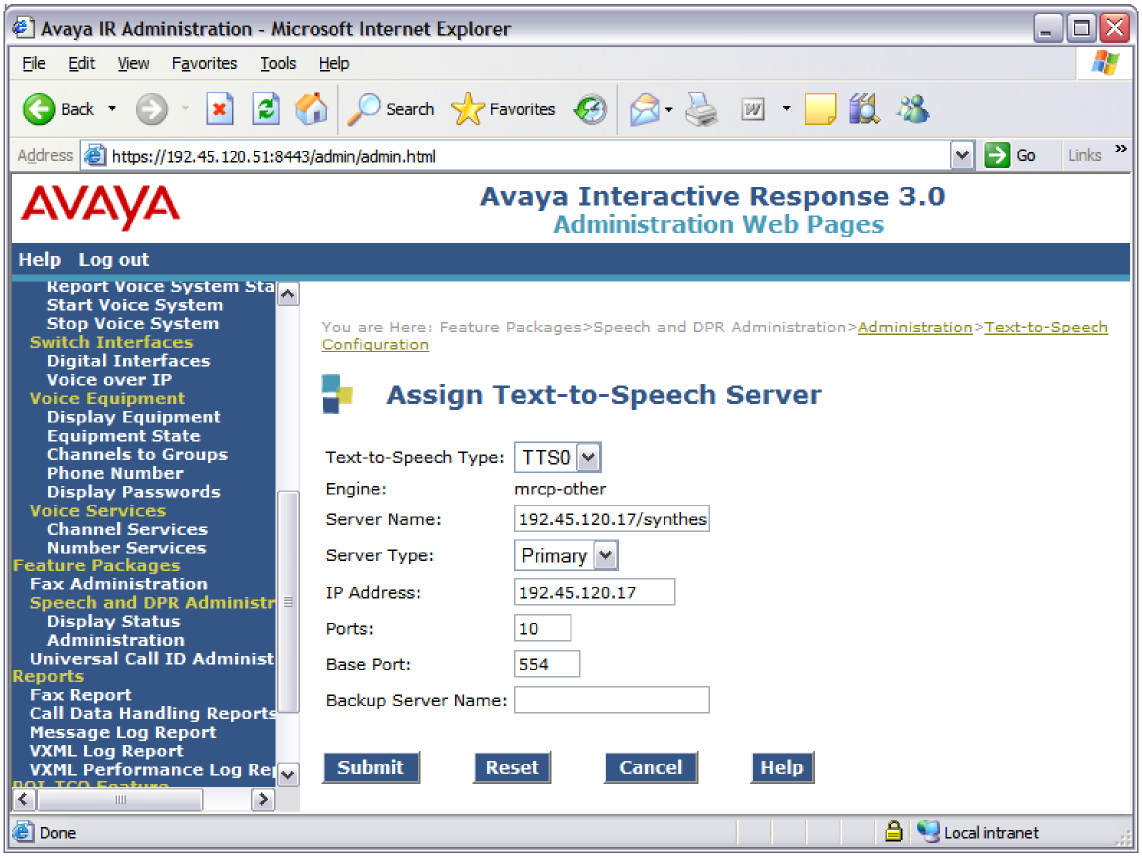


Figure 18: Assign Text-to-Speech Server Parameters

Once the configuration of the speech recognition server is complete, a configuration summary page is displayed as shown below.

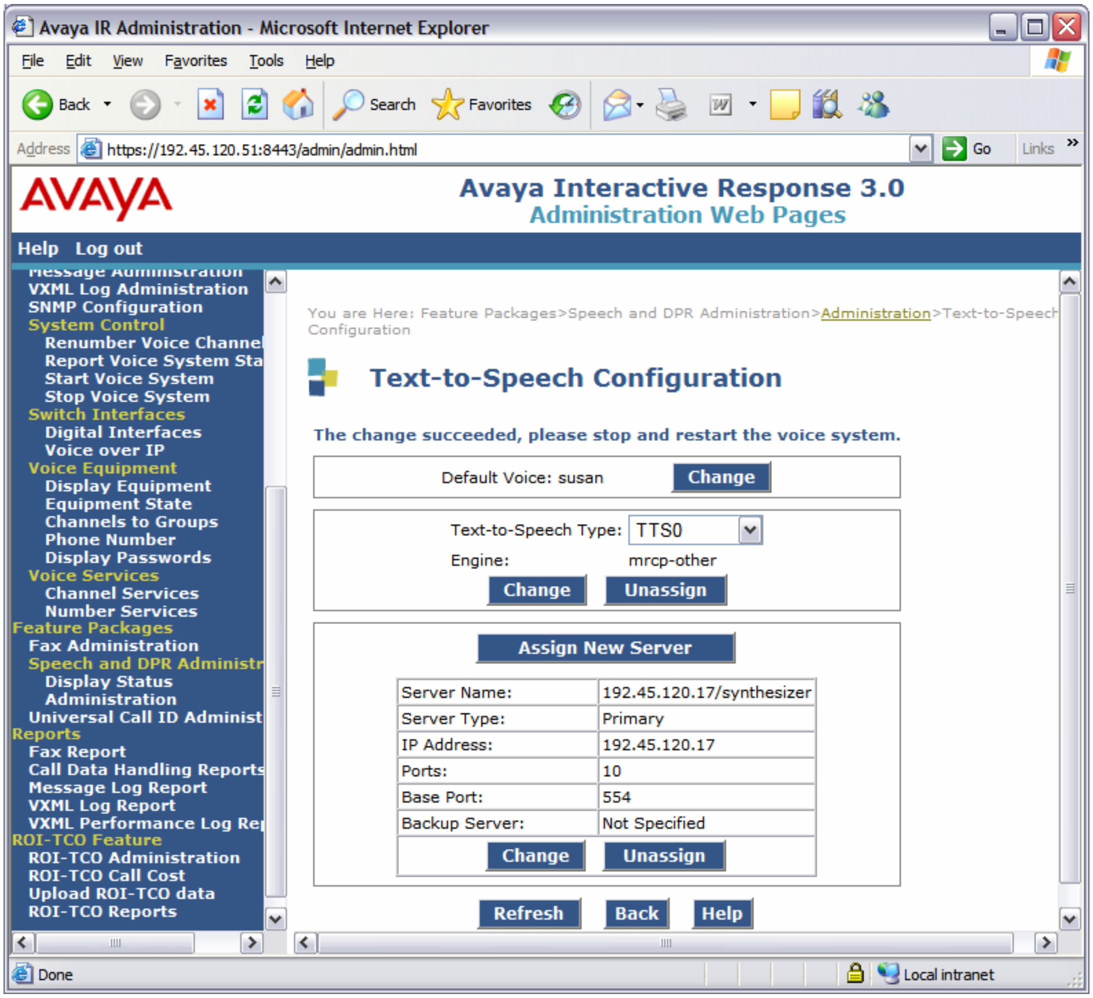


Figure 19: Text-to-Speech Configuration Summary

After the T1 card and speech server are successfully configured, start the Avaya IR by selecting **Start Voice System** under **System Control** in the left pane. Before proceeding, wait for the system to display a message indicating that the startup of the voice system is complete.

Next, assign the channels of the T1 card to equipment group '3'. Select the **Channels to Groups** option under Voice Equipment in the left pane, and then select the **Assign** link to display the **Assign Channels to Equipment Groups** page shown in **Figure 20**. Assign group '3' to channels 0-23, which corresponds to the 24 T1 channels, and then click **Submit**.

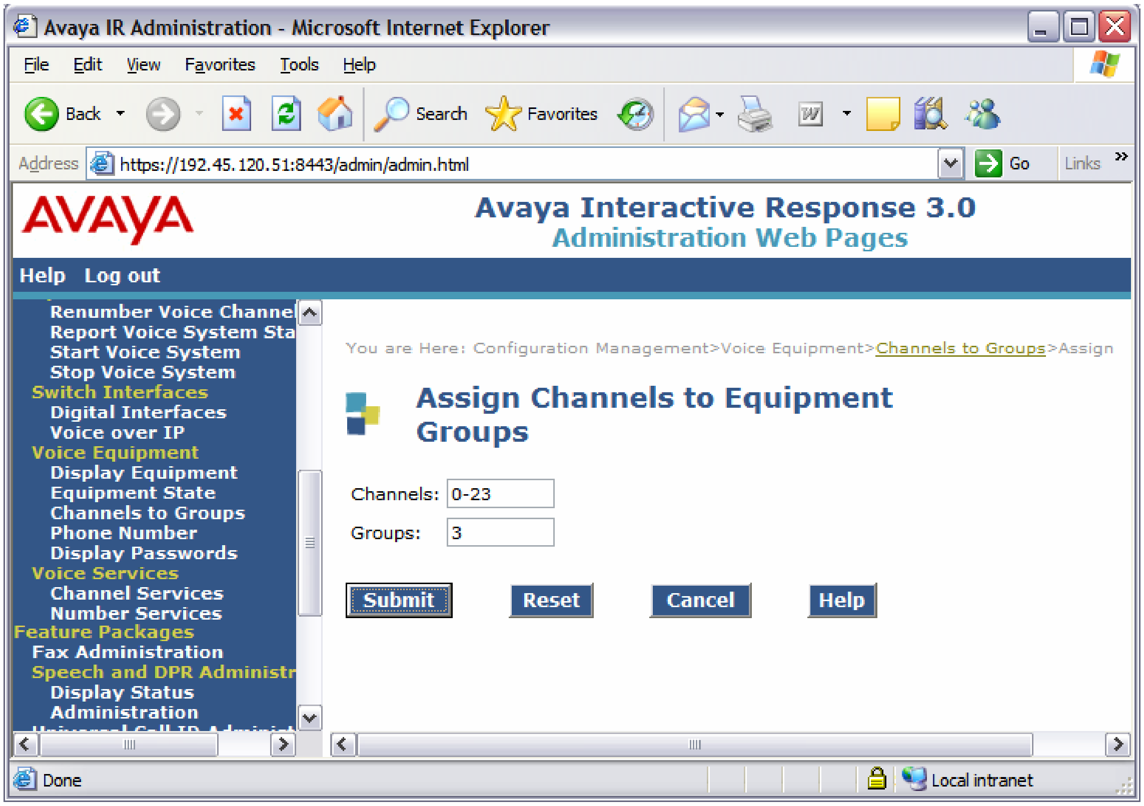


Figure 20: Assign Channels to Equipment Groups

After assigning channels to groups, assign phone numbers to channels. Select the **Phone Number** link under **Voice Equipment** in the left pane to display the **Phone Number – Channel Assignment** page and select the **Assign** link. Assign phone numbers 23201 to 23224 to channels 0 to 23, respectively, as shown in **Figure 21** and then click **Submit**. Essentially, the extensions of the DS1FD stations configured in **Figure 3** are assigned to each T1 channel.

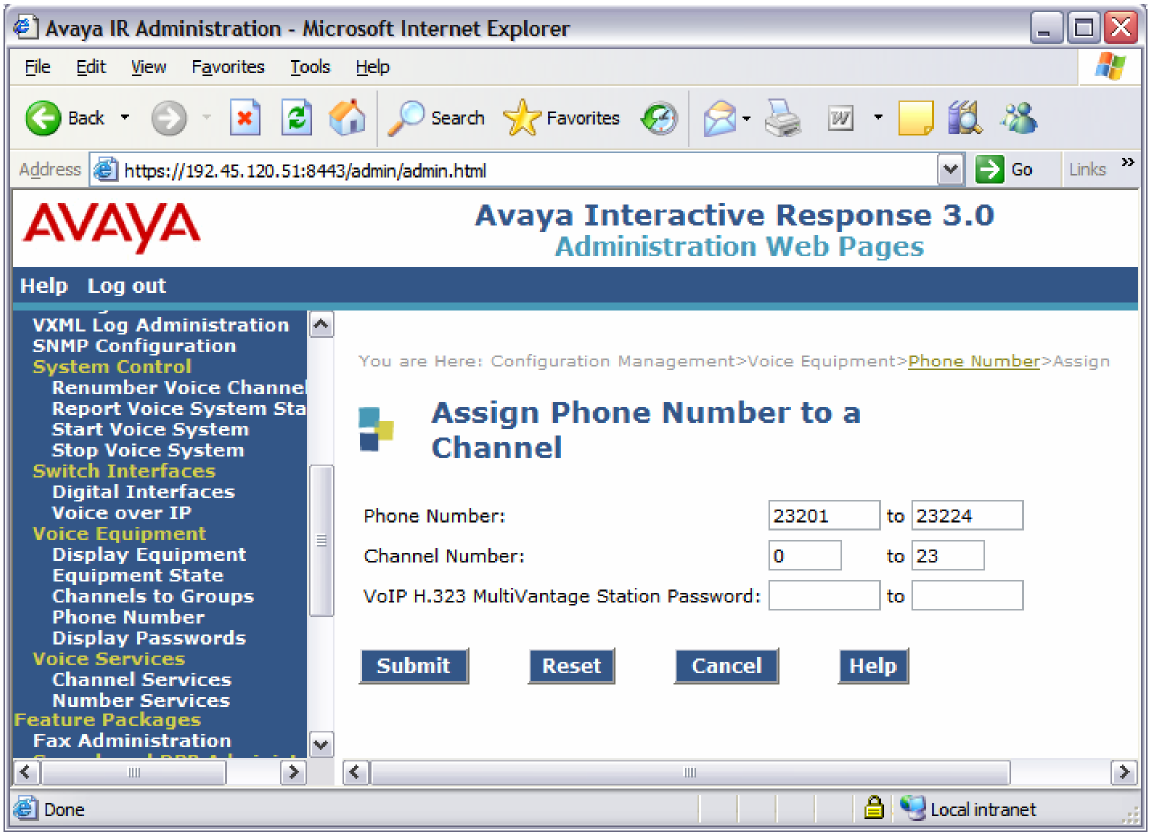


Figure 21: Assign Phone Number

Now, assign a VoiceXML application to channel 0 (i.e., the first channel of the T1 interface). This specifies which application a particular IVR channel would run when it receives a call. Select **Channel Services** from the left pane to display the **Channel Services** page in **Figure 22**. Enable the checkbox by channel 0 and then click the **Assign Selected** button.

Note: It is assumed that the VoiceXML application has already been developed and is hosted on the application server.

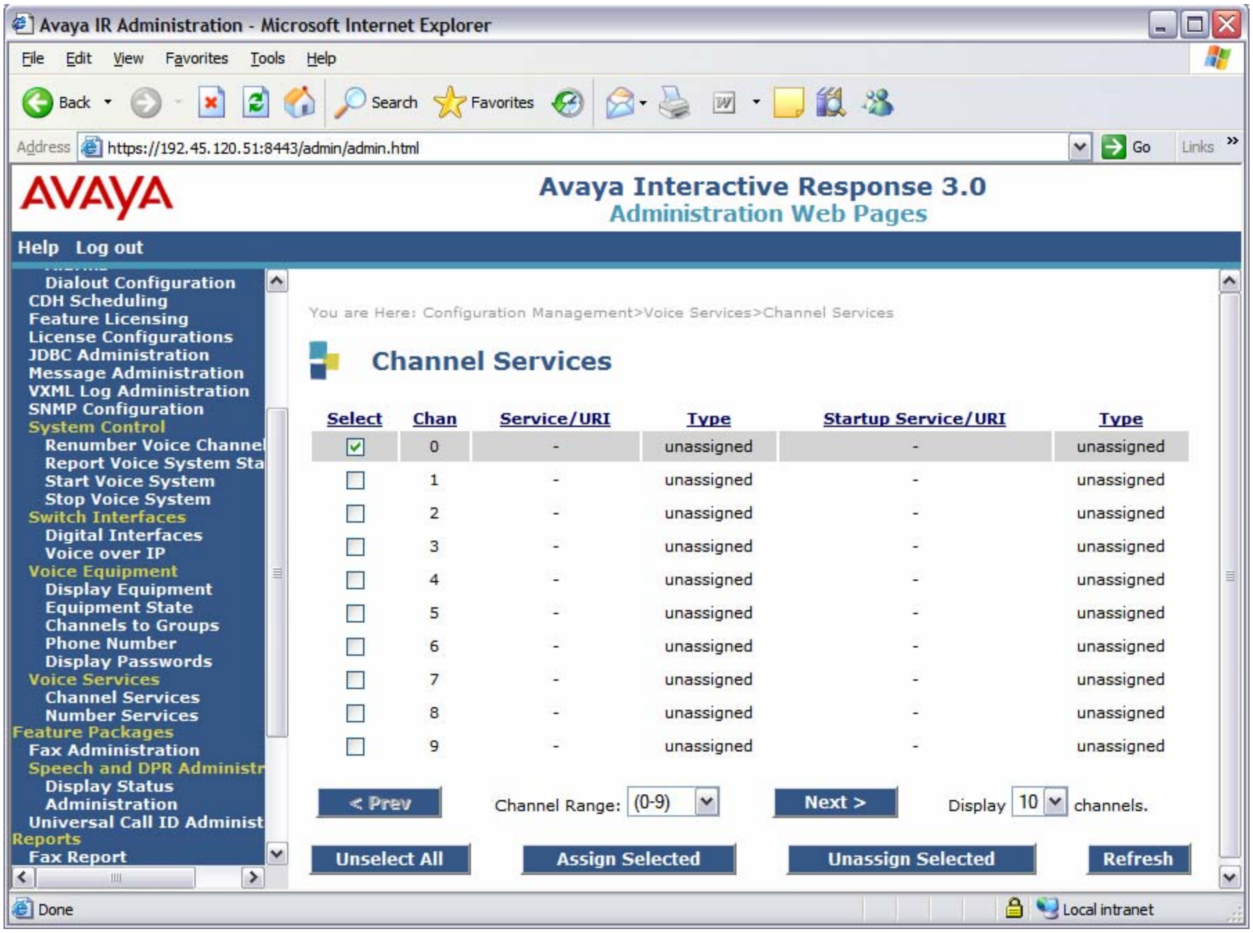


Figure 22: Channel Services

Configure the **Assign Services to Channels** page as shown in **Figure 23**. This configuration assigns a VoiceXML application named *VoiceExternal.xml* to channel 0. Set the **Assign** field to *VXML URI*, set the **URI** field to *http://192.45.60.61/avptestapp/Loquendo/scripts/VoiceExternal.vxml*, and set the **To Chan(s)** field to '0'. The VoiceXML script is hosted in an application server. Repeat this procedure for all channels that should run this application. Note that the user may change the **To Chan(s)** field to 0-23 to assign the application to the 24 T1 channels in a single step. Click **Submit**.

Note: The user may click the **Verify** button to verify connectivity with the application server. If successful, the VoiceXML code will be displayed in a web browser.

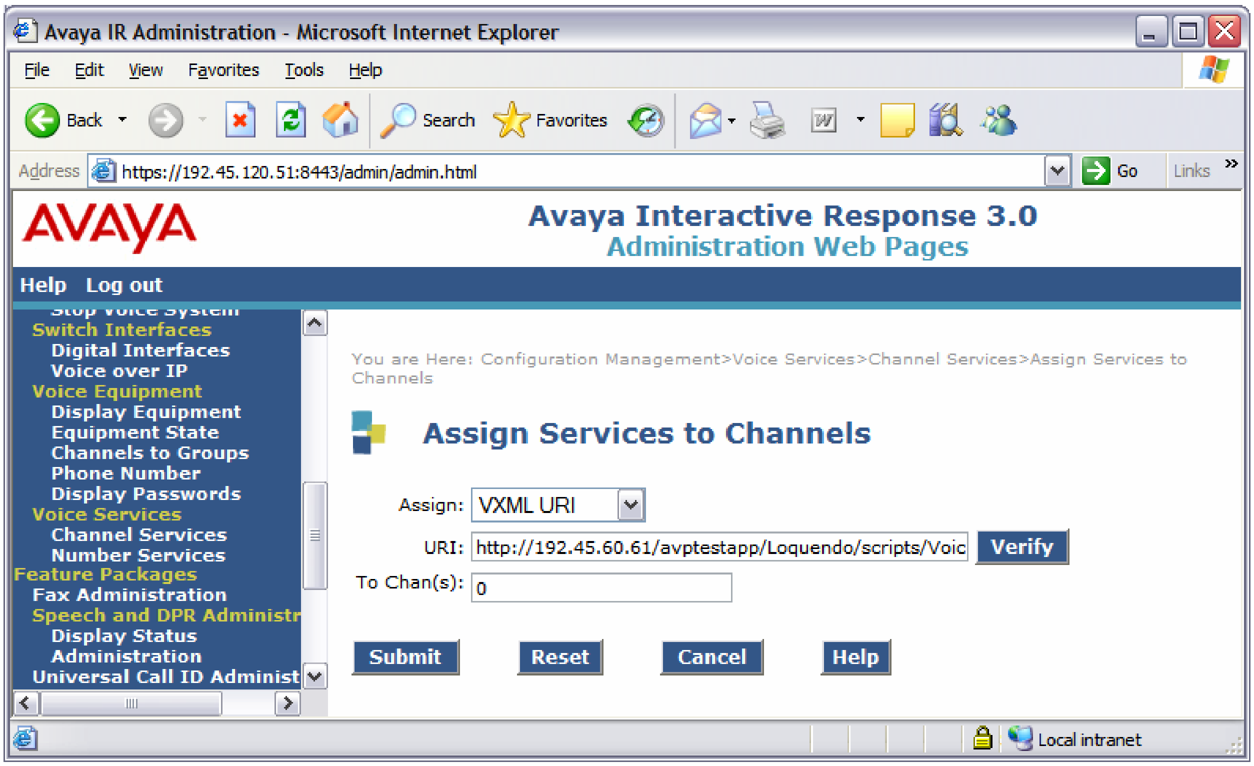


Figure 23: Assign Services to Channels – VXML Application

The following step will show how to assign a TAS script to an Avaya IR channel. Navigate to the Channel Services page shown in **Figure 22**, enable the checkbox by channel 1, and click the **Assign Selected** button. In the **Assign Services to Channels** page shown in **Figure 24**, set the **Assign** field to *TAS Service*, set the **Service** and **Startup Services** fields to the TAS application named *avftst* (stands for Avaya transfer test), and set the **ToChan(s)** field to '1'. Click **Submit**. The TAS application was installed on Avaya IR, not the application server.

Note: It is assumed that the TAS application has already been developed and installed on Avaya IR. Refer to [4] for instructions on how to install a TAS application on Avaya IR using Avaya IR Designer.

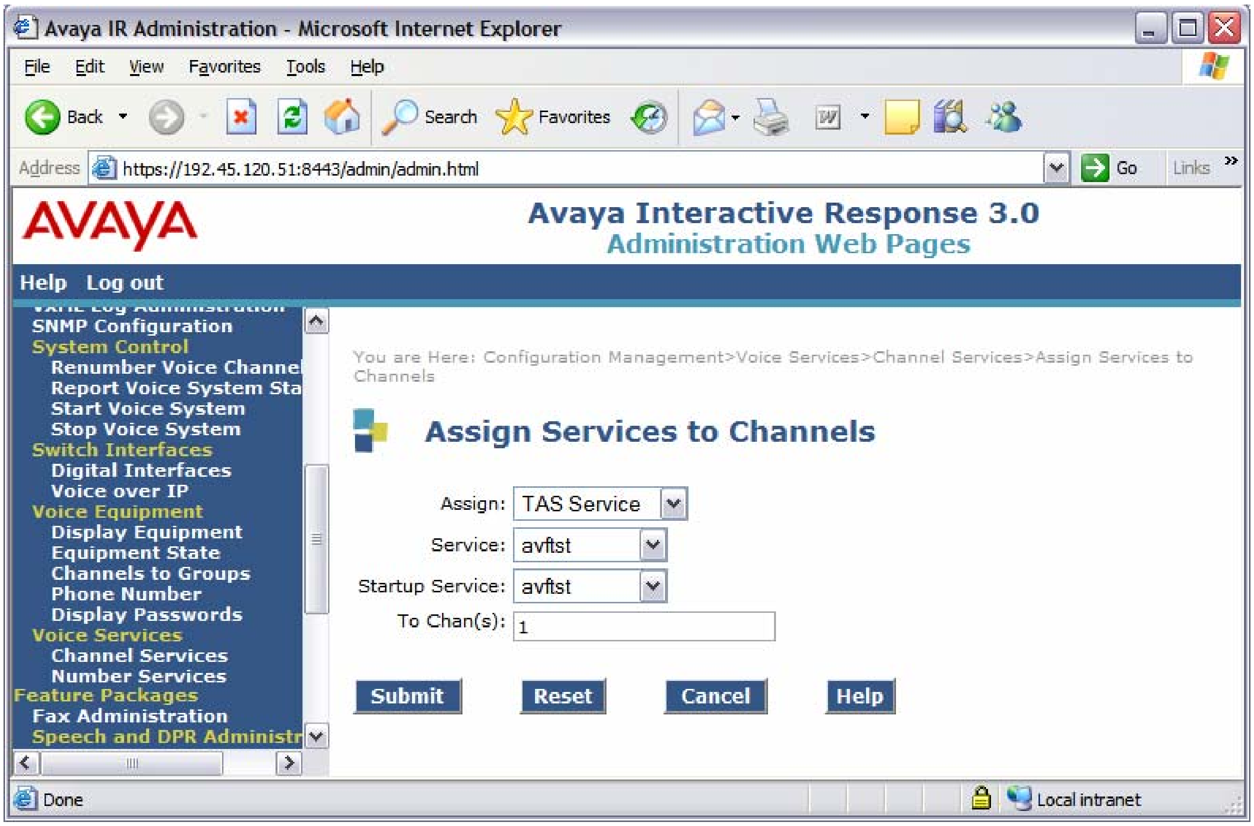


Figure 24: Assign Services to Channels – TAS Application

To view the status of the channels and the channel configuration details, select **Display Equipment** from the left pane. The page in **Figure 25** is displayed. Verify the status of the configured channels. In this configuration, channels 0-3 are in-service and channels 0 and 1 have been assigned a VXML and TAS application respectively. Channel 0 is assigned phone number 23201 and channel 1 has been assigned phone number 23202.

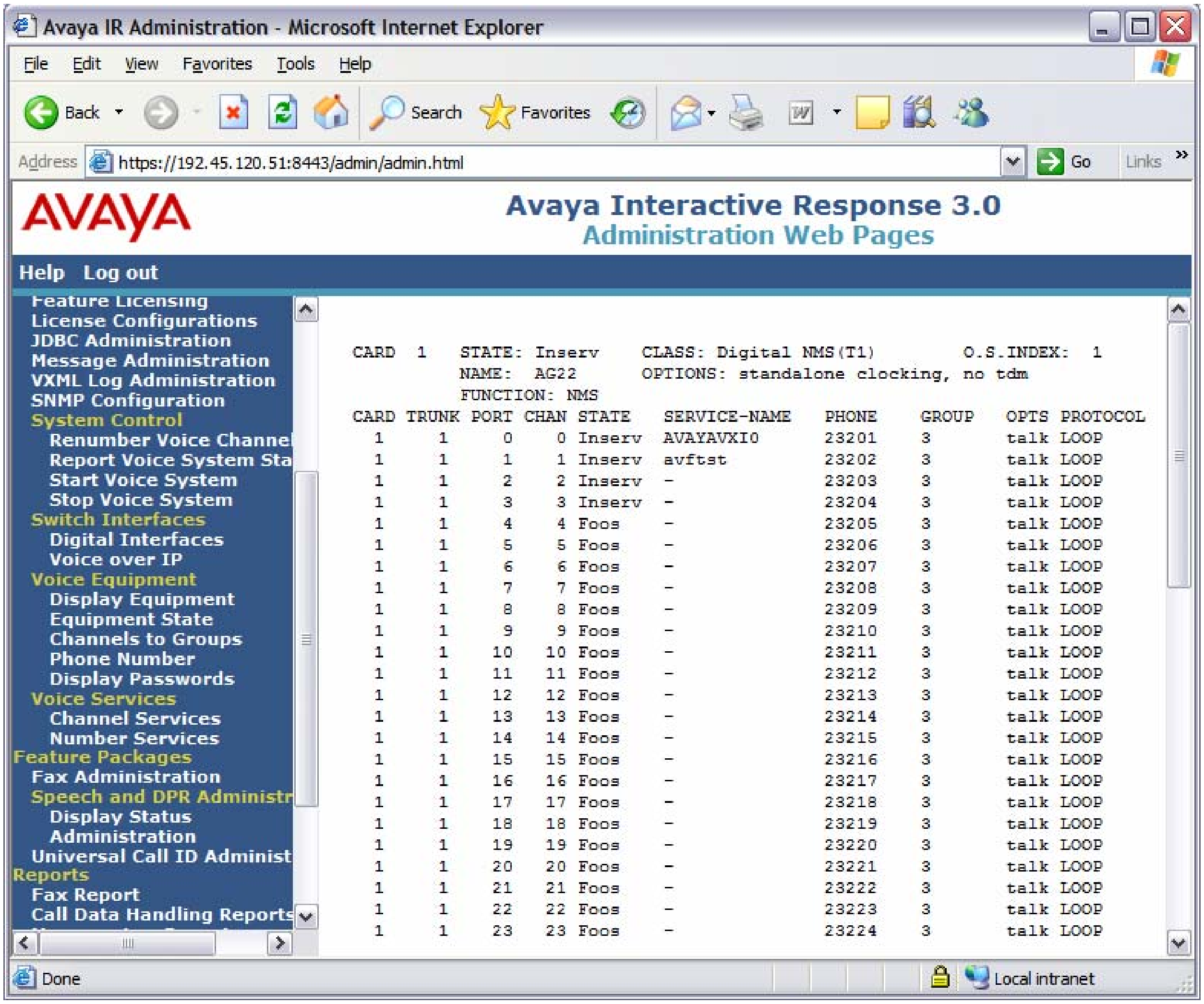


Figure 25: Display Equipment

4. Configure Loquendo Speech Suite

This section covers the administration required on the Loquendo Speech Suite server. The Loquendo Speech Suite can be configured through the Management Console, a graphical SNMP-based application, shipped with the Speech Suite. Optionally, the Loquendo Speech Suite may be configured by modifying the `MRCPv1Server.cfg` file shown in the Appendix. This section assumes that the Management Console is already installed and configured to manage the Loquendo Speech Suite instance that will interoperate with Avaya IR.

Start the Management Console by navigating to Start→Loquendo→Loquendo Speech Suite 7.0→Management Console. The initial screen is displayed as shown in **Figure 26**.

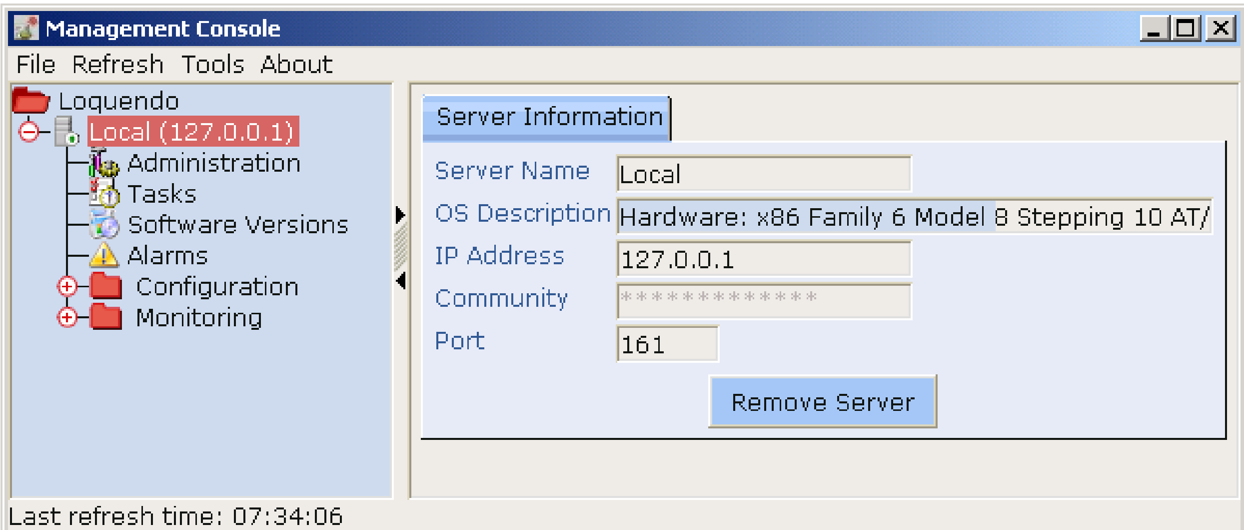


Figure 26: Initial Screen

From the Management Console, access the **Basic** configuration screen. Optionally, set the default language and voice under the **mrcpHeader** section.

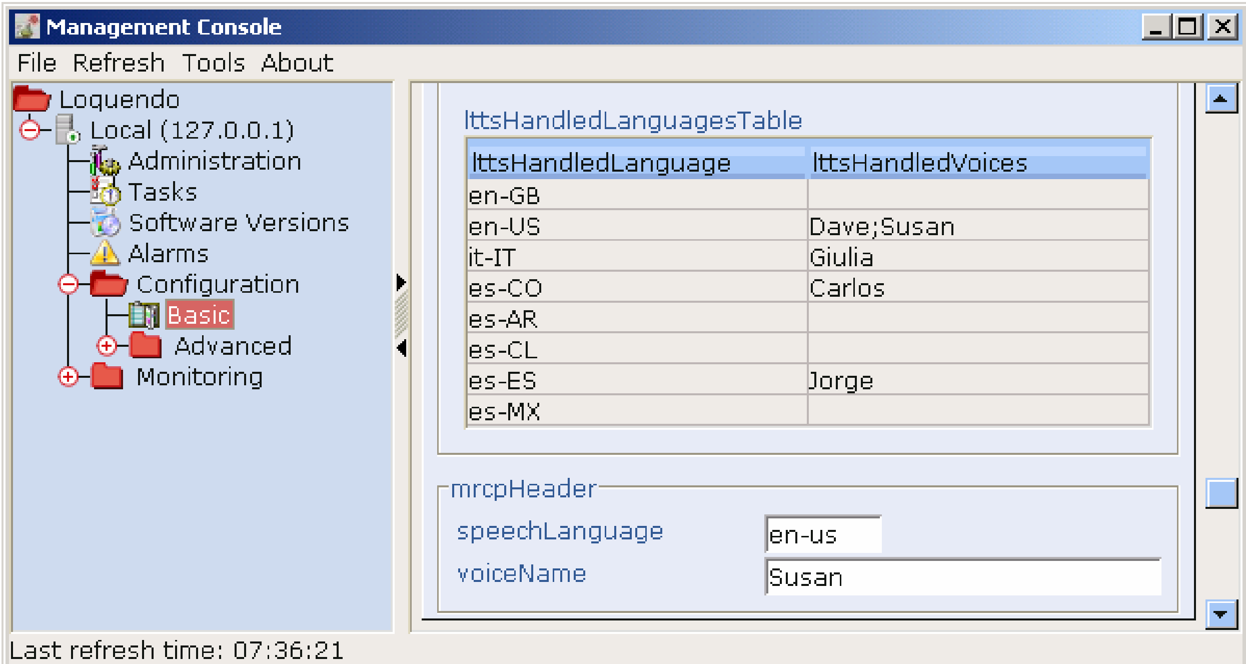


Figure 27: Default Language and Voice Parameters

Next, access the **Advanced** configuration screen for the MRCPv1Server and scroll down to the **speechRecognition** section. Note that this screen contains many parameters and the user needs to scroll to the desired section. The complete screen with all of the parameters cannot be shown in one screenshot. Set the **lasrAudioCodec** to *u-law* or *a-law* according to the configuration of the T1 interface between Avaya Communication Manager and Avaya Interactive Response. In this configuration, u-law was used. Set the **lasrLooseSISRSemantic** field to *enable* and the **lasrDefaultTagFormat** field to *SISR-semantics(2)*.

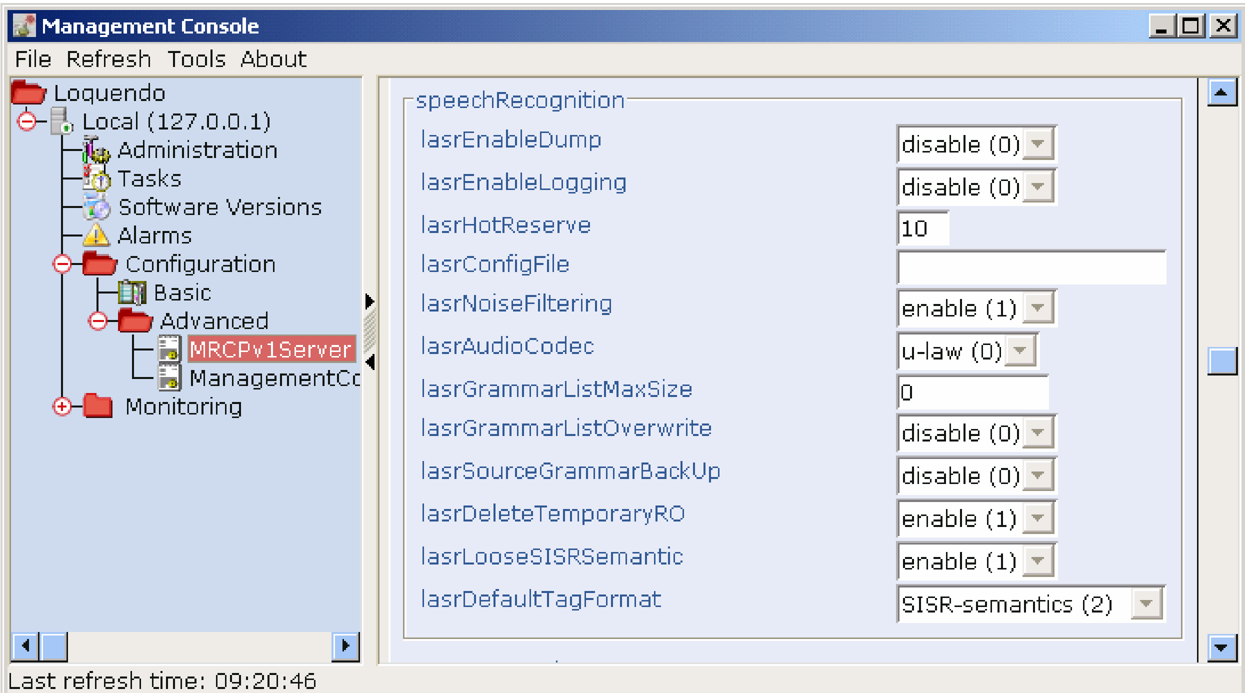


Figure 28: Speech Recognition Parameters

Scroll down to the **textToSpeech** section as shown in and set the **lttsDefaultAudioCodec** to *u-law* or *a-law* depending on the T1 configuration. In this configuration, u-law was used.

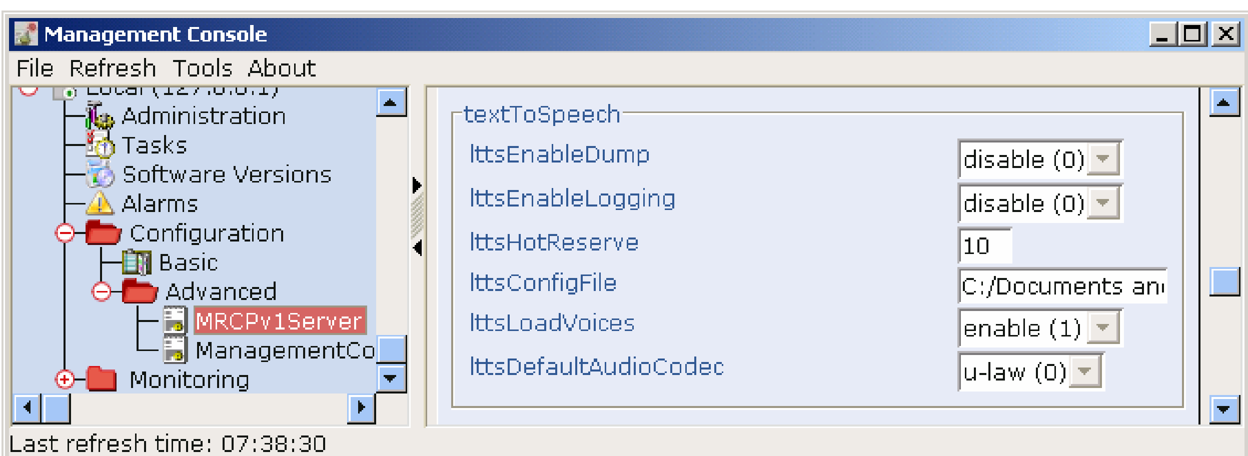


Figure 29: Text-to-Speech Parameters

In the same **Advanced** configuration screen, scroll down to the **nlsmlResult** section and set the highlighted parameters as shown in **Figure 30**.

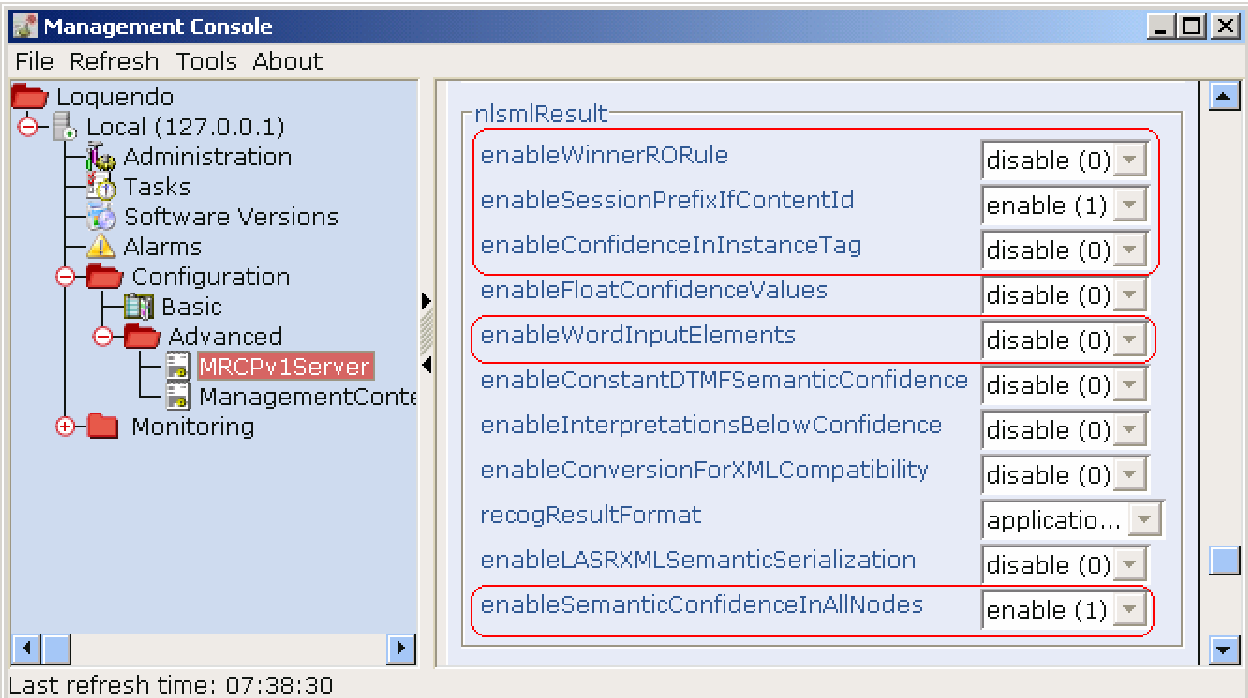


Figure 30: NLSML Parameters

Lastly, scroll down to the **ports** section and configure the **rtspPort** field to '554' as shown in

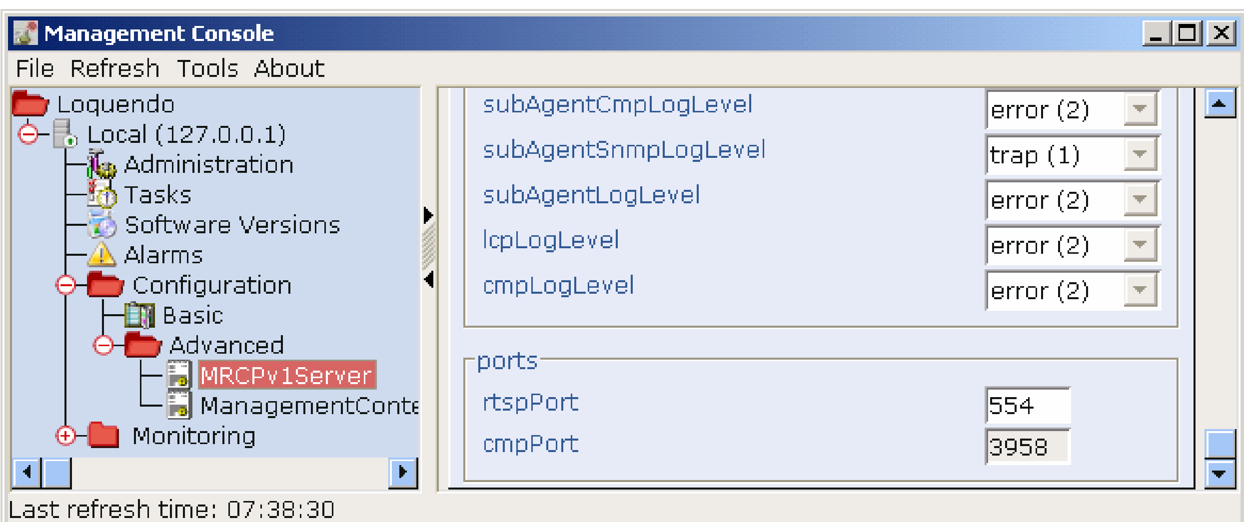


Figure 31: Ports Parameters

The Management Console will notify the user if a restart is required after changing a parameter. If necessary, the user may issue a restart by setting the **lifeCycleCmd** field to *restart(2)* under the **Administration** screen as shown in **Figure 32**.

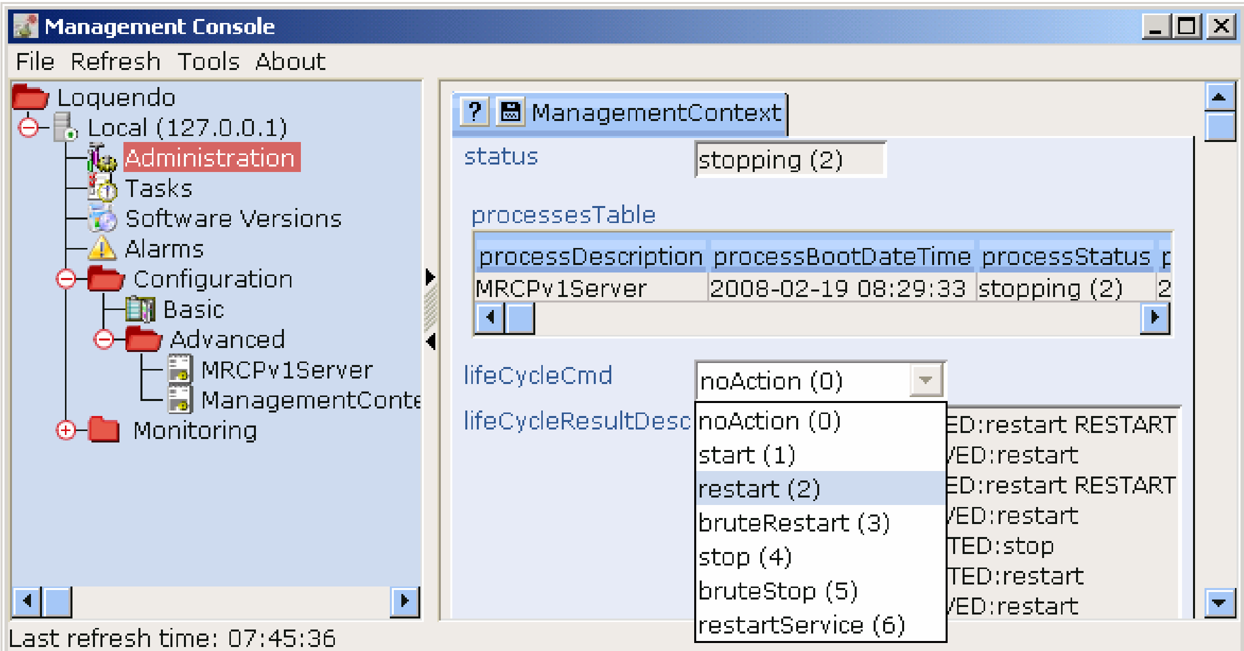


Figure 32: Restarting Loquendo Speech Suite

5. Interoperability Compliance Testing

This section describes the interoperability compliance testing used to verify Avaya IR VoiceXML and TAS applications that use the ASR and TTS engines in the Loquendo Speech Suite. This section covers the general test approach and the test results.

5.1. General Test Approach

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to Avaya IR that ran VoiceXML applications that use the ASR and TTS engines in the Loquendo Speech Suite. The compliance test focused on placing calls to verify TTS, speech recognition, and DTMF tone recognition.

The serviceability testing focused on verifying the ability of the Loquendo Speech Suite to recover from adverse conditions, such as power failures and disconnecting cables to the IP network.

5.2. Test Results

All test cases passed. Avaya IR was successful in running applications that use the ASR engine of the Loquendo Speech Suite.

6. Verification Steps

This section provides the verification steps that may be performed to verify that Avaya IR can run IVR applications that use the Loquendo Speech Suite.

1. From the Avaya IR web interface, verify that the Avaya IR channels are in-service as shown in **Figure 25**.

2. From the Avaya Communication Manager SAT, verify that the T1 channels are in-service using the **status station** `<extension>` as shown in **Figure 33.**

```
status station 23201                                            Page   1 of   3
GENERAL STATUS
Administered Type: DS1FD              Service State: in-service/on-hook
Connected Type: N/A
Extension: 23201
Port: 01A1101       Parameter Download: not-applicable
Call Parked? no                 SAC Activated? no
Ring Cut Off Act? no
Active Coverage Option: 1

EC500 Status: N/A        Off-PBX Service State: N/A
Message Waiting:
Connected Ports:


Limit Incoming Calls? no

User Cntrl Restr: none                        HOSPITALITY STATUS
Group Cntrl Restr: none                     Awaken at:
User DND: not activated
Group DND: not activated
Room Status: non-guest room
```

Figure 33: Status Station

3. From the Avaya IR web interface, click on **Display Status** under **Speech and DRP Administration** in the left pane to check the status of the Loquendo Speech Suite. In the resulting page, select the **Speech Resource Status** link and then select the **Resource Status** associated with the ASR server in the Loquendo Speech Suite (e.g., OPSR4). Click **Submit**. The following page will be displayed. Check that the ASR ports are INSERV.

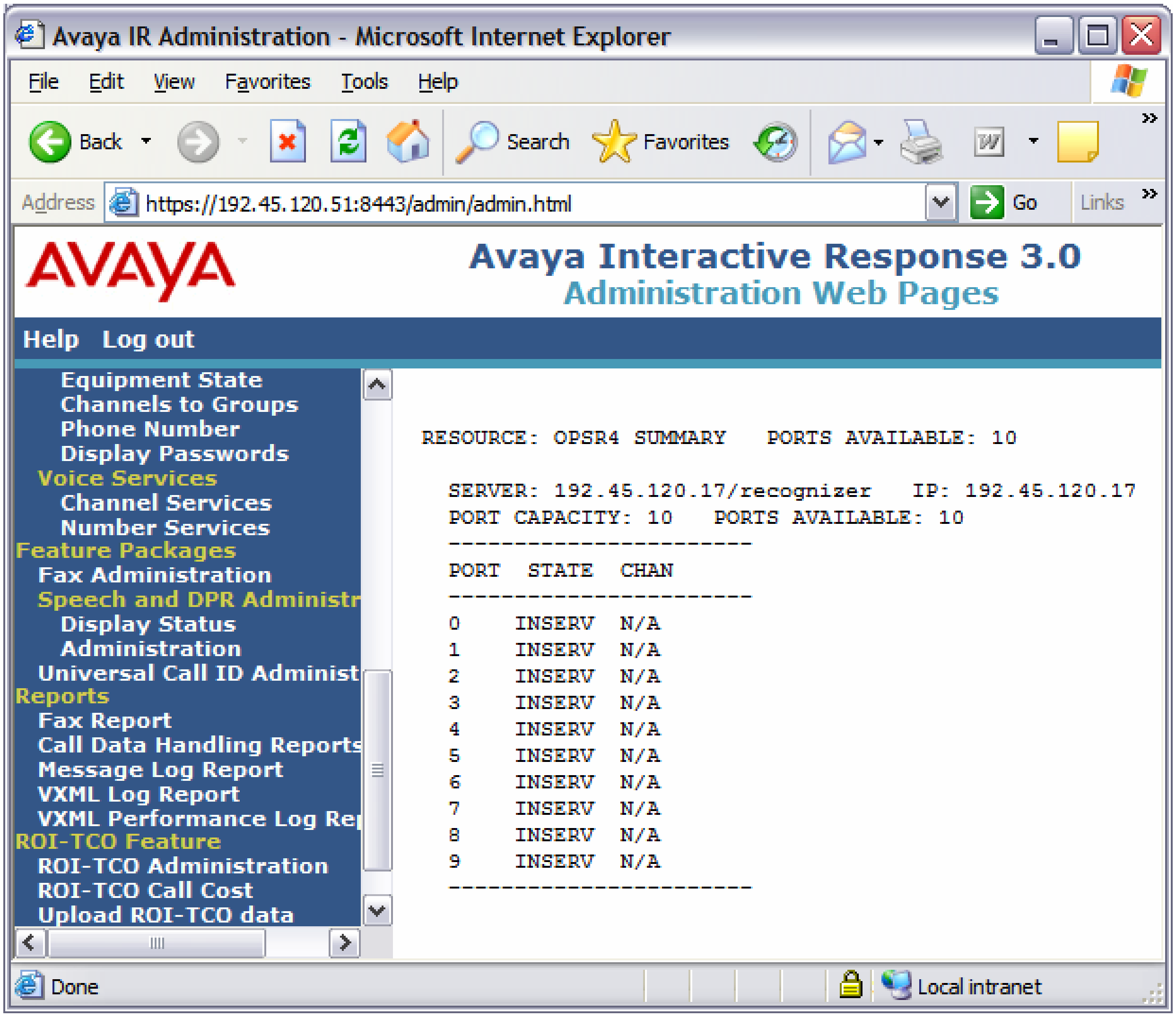


Figure 34: OPSR Status Summary

4. From the Avaya IR web interface, click on **Display Status** under **Speech and DRP Administration** in the left pane to check the status of the Loquendo Speech Suite. In the resulting page, select the **Speech Resource Status** link and then select the **Resource Status** associated with the TTS engine in the Loquendo Speech Suite (e.g., TTS0). Click **Submit**. The following page will be displayed. Check that the TTS ports are INSERV.

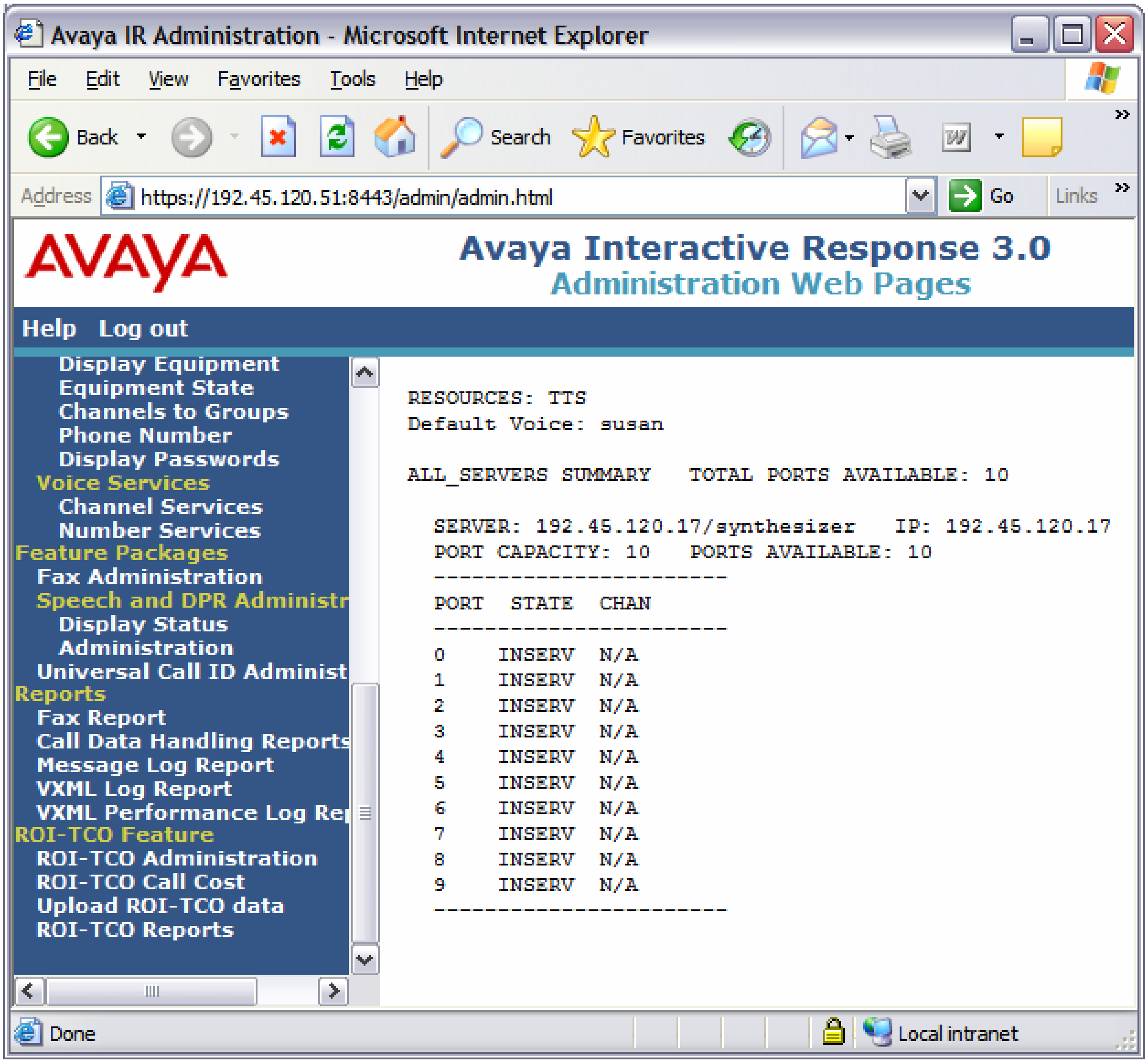


Figure 35: TTS Status Summary

5. Place a call to Avaya IR that runs a VXML or TAS application and uses the Loquendo Speech Suite. Verify that the application answers the call and that the application is able to recognize the speech and DTMF tones provided by the caller.

7. Support

To obtain technical support for the Loquendo Speech Suite, contact Loquendo via email or through their website.

- **Email:** lss@loquendo.com
- **Web:** http://www.loquendo.com/customerarea

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Loquendo Speech Suite with Avaya Interactive Response (IR). All feature and serviceability test cases were completed successfully.

9. Additional References

This section references the product documentation that is relevant to these Application Notes.

[1] *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 3.1, February 2007, available at http://support.avaya.com.

[2] *Feature Description and Implementation for Avaya Communication Manager*, Document 555-245-205, Issue 5, February 2007, available at http://support.avaya.com.

[3] *Feature Description and Implementation for Avaya Communication Manager*, Document 555-245-205, Issue 5, February 2007, available at http://support.avaya.com.

[4] *Avaya Interactive Response (IR) Release 3.0 Documentation Library*, June 2007, available at http://support.avaya.com.

[5] *Loquendo Speech Suite 7.0 Product Description*, Version 7.0.23, December 18, 2007, available with product CDs.

[6] *Loquendo Speech Suite 7.0 Operation Manual*, Version 7.0.9, December 20, 2007, available with product CDs.

10. Appendix: MRCPv1Server.cfg

This section displays the `MRCPv1Server.cfg` file located in the `%log_home%/cfg` directory.

Note: For the ASR and TTS codec type, set the parameters to '0' for u-law or '8' for a-law.

```
[GENERAL]
managementContextConfigFile=ManagementContext.cfg
loggerConfigFile=Logger.cfg
rtspPort=554
logLevel=2
lcpLogLevel=2
cmpPort=3958
cmpLogLevel=2
cmpNumberOfRetries=16
cmpRetryInterval=15
virtualAudioDumpPathForURI=
sessionDurationThreshold=120
dtmfCodec=96
dtmfCodecAlwaysOffered=1
reuseTechnologiesInstances=1
synthesizerHotReserve=10
recognizerHotReserve=10
waitForResourceTimeout=1000
createNewResources=0
publicIPAddress=

[AUDIODUMPURI]
audioDumpPath=%LOQ_HOME%/audioDump/
protocolType=file://
serverAddress=
virtualPath=

[HTTP]
httpProxyServer=
httpProxyUser=
httpProxyPassword=
httpProxyAuthType=0
httpFetchTimeout=60000
httpMaxAge=-1
httpMaxStale=0
httpMinFresh=0
httpSslVerifyPeer=1

[LASR]
lasrConfigFile=
lasrHotReserve=10
lasrEnableDump=0
lasrAudioCodec=0
lasrNoiseFiltering=1
lasrGrammarListOverwrite=0
lasrGrammarListMaxSize=0
lasrSourceGrammarBackUp=0
lasrDeleteTemporaryRO=1
lasrEnableLogging=0
lasrLooseSISRSemantic=1
lasrDefaultTagFormat=semantics/1.0

[LTTS]
"LogFile"=
"TraceFile"=
lttsConfigFile=
lttsHotReserve=10
lttsEnableDump=0
lttsDefaultAudioCodec=0
lttsLoadVoices=1
```

```
lttsEnableLogging=0
"FailOnLicenseError"="true"
"AutoGuess"="no"
"StrictSSMLSyntax"="false"
"IgnoreThreadBoundaryCrossing"="true"
"PhraseBoundaryOnAudioTag"="false"

[BEHAVIOUR]
notifyUnsupportedRequest=0
startOfVoiceEventSecureGeneration=1
dtmfNoMatchIfOnlyTermCharPressed=0
completeResponsesAreBargeinableEvents=1
[MRCP HEADER]
speechLanguage=en-us
voiceName=Susan

[NLSML]
enableWinnerRORule=0
enableSessionPrefixIfContentId=1
enableConfidenceInInstanceTag=0
enableFloatConfidenceValues=0
enableWordInputElements=0
enableInterpretationsBelowConfidence=0
enableConstantDTMFSemanticConfidence=0
enableConversionForXMLCompatibility=0
enableLASRXMLSemanticSerialization=0
enableSemanticConfidenceInAllNodes=1
recogResultFormat=application/nlsml+xml

[MRCP PARSER]
mrcpHeaderProfileCode=0
mrcpHeaderValueSpace=1

[RTSP PARSER]
rtspHeaderProfileCode=0
rtspEnableRTCPPort=0

[BEGIN SAKHR TTS]
TextCoding="UTF8"
TextFormat="Plain"
Content-Base=""
DiacritizerLoad=ON
Diacritizer=OFF
Speller=OFF
TextNormalization=OFF
UserDict=""
[END_SAKHR_TTS]
```

Figure 36: MRCPv1Server.cfg File

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.