AudioCodes Voice.Al Solutions

# **Voca Conversational Interaction Center**

Version 10





Notice Voca | Installation Manual

# **Notice**

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Date Published: August-18-2022

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#### **Related Documentation**

Document Name
<u>Voca Release Notes</u>
Voca Administrator's Guide
Voca Interaction Center Flow Designer User's Manual

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# **Document Revision Record**

LTRT	Description
23732	Initial release for Version 10
23733	Added note to Infrastructure Requirements.



The latest software versions can be downloaded from AudioCodes' Services Portal (registered Customers only) at <a href="https://services.audiocodes.com">https://services.audiocodes.com</a>.

# **Software Revision Record**

Software Revision	Release Date
9.1.0	January 2022
10	July 2022

# **Table of Contents**

1	Introduction	1
2	Getting Started	<b>2</b>
	Hardware and Infrastructure Requirements	2
	Hardware Requirements	2
	On-premises Installation	2
	Private Cloud Installations	3
	Infrastructure Requirements	3
	On-premise and Private Cloud Deployment	
	AudioCodes Cloud Service Deployment	
	System Capacities	
	Entries Support	
	Using Clean Windows Installation	
	Additional Software Installation	
	Disabling Virtual Memory Paging File	
	Using AudioCodes Mediant 800 Installation	
	Installing Windows Security Updates	
	Configuring the OSN IP Address	
3	Installing Voca	
	Running Post-Installation	
4	Upgrading Voca	27
	Voca Versions that can be Upgraded	27
5	Configuring Enghouse Interactive Communication Portal (CP)	28
6	Installing Voca License	34
7	Installing Third-Party Licenses	39
	Installing Enghouse Interactive License	39
	Installing Control Panel License	
	Installing CT Connect Media Gateway License	41
	Installing Text-to-Speech Engine	41
	Acapela non-Hebrew Text to Speech	41
8	Configuring SBC Settings for Voca	45
	Coder Settings	45
	Voca IP Profile Settings	45
	Delayed Offer SDP Settings	45
	SIP UPDATE Support Settings	45
	Remote re-INVITE Settings	46
	Terminating SIP OPTIONS Requests	46
	Alternative Routing Settings	46
	SBC IP-to-IP Configuration	46
	Sending DNIS Instead of Caller Number During Advanced Transfer	46

	Typical Scenario	46
	Configuring the SBC	47
	Changing REFER with Replaces to Simple REFER Message	47
	Configuring the SBC	48
	SIP Contact Header	48
	SBC Configuration	49
	Call Queue Configuration	49
9	Installing Signed Certificates on the IIS	51
	Managing Certificates in the MMC Snap-in	51
	Adding a Certificate	55
	Selecting a Certificate in IIS Manager	55
10	Enabling .NET Framework 3.5 on Windows	57
11	Configuring WebRTC	62
12	Upgrading from Voca 8.0.2 to 8.4.0 Enghouse CTIC (Media Gateway)	
Apı	plication	63
13	Upgrading from Voca 8.0.1 to 8.4.0	66
14	Completing the Upgrade to Voca 10	71
15	Enabling Music on Hold on Enghouse Control Panel	73
16	Configuring Voca High Availability	77

CHAPTER 1 Introduction Voca | Installation Manual

# 1 Introduction

AudioCodes Voca is designed to provide an innovative, next-generation service experience for users interacting with company Workers, Agents and internal business lines using modern Behavioral Routing and Conversational AI technologies.

By combining Voice.AI, IVR and Voice Networking, the Interaction Center solution by AudioCodes features an advanced multi-language Conversational AI interface that instantly automates IVR flows by using simple, intuitive voice requests over natural language, providing robust support for a variety of Conversational IVR, Auto-Attendant flows and Self-Service usecases.

Coupled with Voca's Conversational capabilities, the application also includes an intuitive Nocode Flow Designer, dedicated Worker (Agent) and Supervisor experience, CRM integration, Skill-based routing, Real-time Dashboards and a set of Historical Reports, providing customers with a complete all-round Interaction Center solution.

With flexible deployment and connectivity models, Voca can integrate with any PBX, Contact Center or UC platform, allowing customers to manage CC, IVR, Auto-Attendant and Call Queues in one centralized multi-tenant application that serves multiple voice platforms in parallel. The solution is GDPR compliant and available for quick deployment from zero-to-service in just a few days.

# **2** Getting Started

There are a number of ways to install the Voca system:

- Clean Windows Installation: A customer provides a clean-installed Windows 2016/2019 system with the latest security updates. The installation will be provided by AudioCodes as a downloadable URL.
- AudioCodes Mediant 800 Installation: AudioCodes provides a Mediant 800 with a preinstalled Windows 2016. The installation package will be located at C:\ACVoca\_Installer.
- **Pre-installed:** AudioCodes offers Voca Software as a Service (SaaS) as a cloud deployment. Please contact your AudioCodes representative for more information on this option.



The default Administrator's password is "Pass123". It is highly recommended to change the password according to the Enterprise's policy. The updated password must be stored in a secure location, so that it is accessible to those that need to it.

# **Hardware and Infrastructure Requirements**

Voca is available either as a Cloud (AWS or Azure) deployment, or fully deployed On-Premises over virtual machines.

The following describes the hardware and infrastructure requirements.

#### **Hardware Requirements**

#### **On-premises Installation**

To support up to 50 Concurrent voice recognition channels and 140 Concurrent DTMF channels, the Voca server requires the following minimum hardware configuration (not including SBC):

- CPU: Intel Core i7-5th Gen @ 2.7GHz with 4 cores or higher (Hyper-threaded cores total of 8 logical cores).
- **RAM:** 32 GB
- SSD: 256 GB C (at least 100 GB) and D partition
- NIC: 1 GB Ethernet card with static MAC address (For Hyper-V installations, configure the MAC address using the **Advanced Features** option.)
- Operating System: Windows Server 2016 or 2019

To support up to 40 Concurrent voice recognition channels and 100 Concurrent DTMF channels, the Voca server requires the following minimum hardware configuration (not including SBC):

- CPU: Intel Atom® Processor C3758 16M Cache, up to 2.20 GHz
- **RAM:** 16 GB
- SSD: 256 GB C (at least 100 GB) and D partition

- NIC: 1 GB Ethernet card with static MAC address (For Hyper-V installations, configure the MAC address using the **Advanced Features** option.)
- Operating System: Windows Server 2016 or 2019



To support Hebrew language for On-premises deployments, the processor must at least support AVX2 and FMA features.

#### **Private Cloud Installations**

Voca server requires the following minimum hardware configuration per the selected cloud environment:

- **AWS:** c5.2xlarge instance or higher
- Azure: Standard F8s instance or higher
- For other configurations: Contact your AudioCodes representative



To enable Voca to use speech recognition via Azure Cognitive Services, you must verify the Internet connectivity between the Voca server (On-premises or Cloud) to Azure Cognitive Services.

Self-installation is designed to support single-tenant deployments. For multi-tenant deployments, contact your AudioCodes Sales or Technical Support representative.

#### **Infrastructure Requirements**



For Interaction Center deployment, customers must have an Active direct routing environment that includes the following:

- Direct routing SBC connected to Microsoft Teams tenant
- Teams users with phone numbers
- Voice Mail feature for Teams users, that use the Voca Conversational Interaction center MUST be disabled



When Media Bypass is enabled on the organization level (i.e., Teams tenant and SBC), the organization's Administrator must open the following ports and protocols in the organizational firewall:

- From Microsoft ACS (20.202.0.0/16) to the customer's SBC network UDP 3478 -3481
- From Microsoft ACS (20.202.0.0/16) to the customer's SBC network UDP 6000-10000 (SBC Media ports)
- From Microsoft ACS (20.202.0.0/16) to the customer's SBC network UDP 9580-9585
- From Microsoft ACS (20.202.0.0/16) to the customer's SBC network TCP Port
   443

#### **On-premise and Private Cloud Deployment**

To support languages based on Azure Cognitive Services, the Voca server must have connectivity to the following URL's using TCP Port 443:

- \*.cognitive.microsoft.com
- \*.cognitiveservices.azure.com

The following items should be addressed to enable the Interaction Center functionality:

#### Security Rules

The organizational Administrator should allow:

- HTTPS connectivity (Port 7204) from the On-Premise Voca server to \*.audiocodes.io
- HTTPS connectivity (Port 443) from the On-Premise Voca server to \*.cloudapp.net
- HTTPS connectivity (Port 8443) between the agent desktop clients network to the Voca server

#### DNS

 The Administrator should create an internal DNS for "workerapp.vocainteractioncenter.io" that should point to the Voca server.

#### Consent

The organization Administrator (Microsoft 365) should grant tenant-wide admin consent to the agent application on behalf of the organization.
 Use the following link to grant consent (replace {Tenant\_ID} with the organization Azure Tenant ID): https://login.microsoftonline.com/{Tenant\_ID}/adminconsent?client\_id=77f087b6-9731-4bb7-a6fa-7d3d0bccd725

#### **AudioCodes Cloud Service Deployment**

The following items should be addressed to enable Interaction Center functionality:

#### Security Rules

The organizational Administrator should allow:

 HTTPS connectivity (Port 8443) between the agent desktop clients network and the Voca Cloud \*.audiocodes.io.

#### Consent

The organization's Administrator (Microsoft 365) should grant tenant-wide admin consent to the agent application on behalf of the organization.
 Use the following link to grant consent (replace {Tenant\_ID} with the organization Azure Tenant ID): https://login.microsoftonline.com/{Tenant\_ID}/adminconsent?client\_id=77f087b6-9731-4bb7-a6fa-7d3d0bccd725

#### **System Capacities**

The Voca server supports the following channel capacities:

- For On-premises implementations based on Virtual Machine (VM):
  - 20 concurrent ASR sessions for Hebrew
  - 50 concurrent sessions for all other languages (via Microsoft Azure Cognitive Services)
- For Cloud implementations:
  - 30 concurrent ASR sessions for Hebrew
  - 50 concurrent sessions for all other languages (via Microsoft Azure Cognitive Services)

# **Entries Support**

Up to 20,000 entries

# **Using Clean Windows Installation**

It is the customer's responsibility to provide a clean-installed licensed Windows 2016/2019 system with the following requirements:

.NET Framework Features 3.5



If the server has Internet connectivity during installation, the framework will be installed automatically. Otherwise .NET 3.5 should be pre-installed (see Enabling .NET Framework 3.5 on Windows on page 57).

- Disabled Virtual Memory paging file
- Latest security updates
- Static IP address
- Disk Partitioning



The hard disk should be partitioned to the C:\ and D:\ drives.

Chrome or Microsoft Edge (chromium-based)

#### **Additional Software Installation**

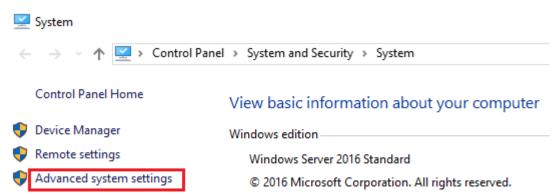
The user must not install any additional software on the server, including anti-virus or any realtime scanner. Installation of any third-party software may lead to performance issues, stability problems and may cause unpredictable results.

### **Disabling Virtual Memory Paging File**

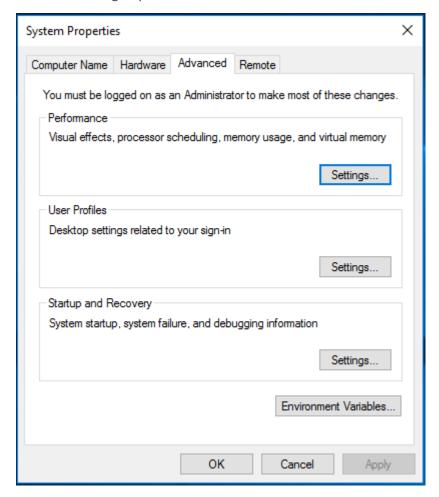
The procedure below describes how to disable the Virtual Memory Paging file.

- To disable Virtual Memory Paging File on a Windows System
- 1. Press the Windows key and open Control Panel.

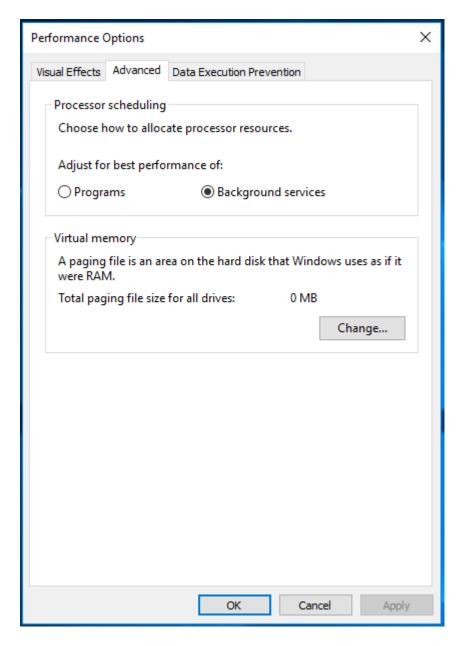
2. Navigate to System and Security > System, and then click Advanced system settings in the left pane.



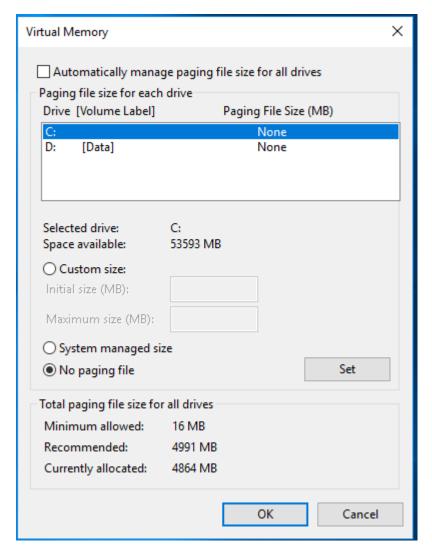
3. In the **System Properties** dialog box, click the **Advanced** tab, and then click **Settings...** under the 'Performance' group.



**4.** Click the **Advanced** tab, and then click the **Change...** button.



- **5.** Clear the 'Automatically manage paging file size for all drives' check box.
- **6.** Select the drive that it is on, and then click the **No paging file** option.



- 7. Click Set, and then click OK.
- 8. Select **Restart Now** to apply the changes.

# **Using AudioCodes Mediant 800 Installation**

Before installing the Voca system on AudioCodes Mediant 800, do the following:

- Install Windows 2016/2019 Security Updates
- Configure the OSN IP address
- Configure the Server System Time Settings

# **Installing Windows Security Updates**

Install Windows Security Updates to run the latest service patches and install all missing updates.

CHAPTER 2 Getting Started Voca | Installation Manual

#### **Configuring the OSN IP Address**

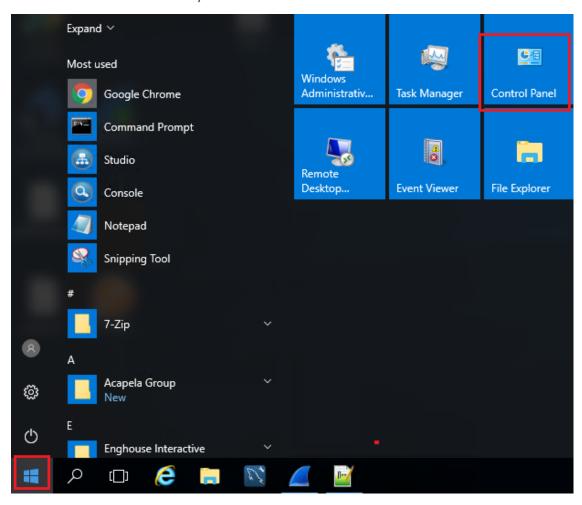
The Voca system must have a static IP address. You can configure a static IP address for the OSN server on the Mediant 800.



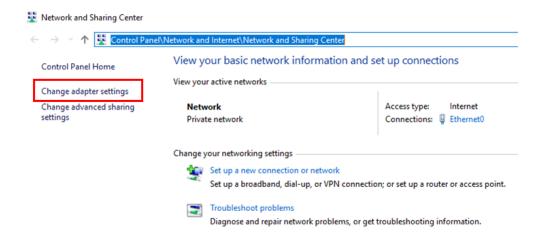
If you are connected remotely, performing this step will disconnect you from the system. After performing this step, you can re-connect the system with its new location and IP address.

#### To configure a static IP address for OSN:

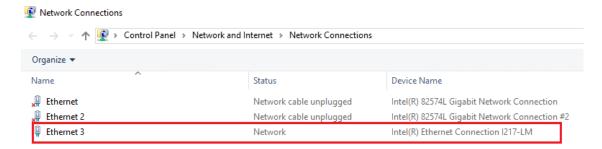
1. Press the Windows Start key.



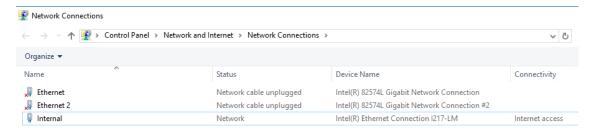
2. Open the Network and Sharing Center (Control Panel > Network and Internet > Network and Sharing Center).



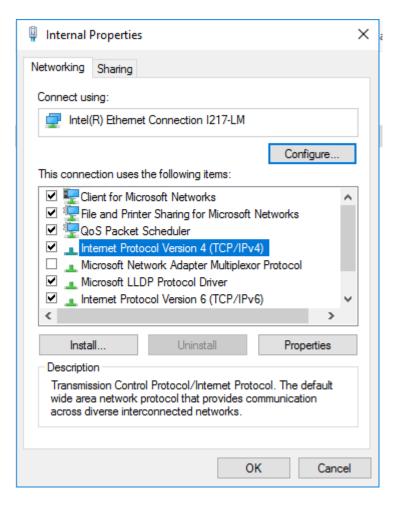
**3.** Right-click the *Intel(R) Ethernet Connection I217-LM* network connection, and then from the shortcut menu, select **Rename**.



4. Assign the new alias name as Internal.

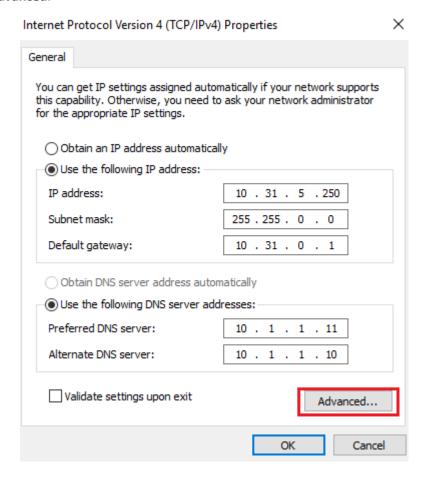


5. Right-click the **Internal** network connection, and then from the shortcut menu, choose **Properties**.

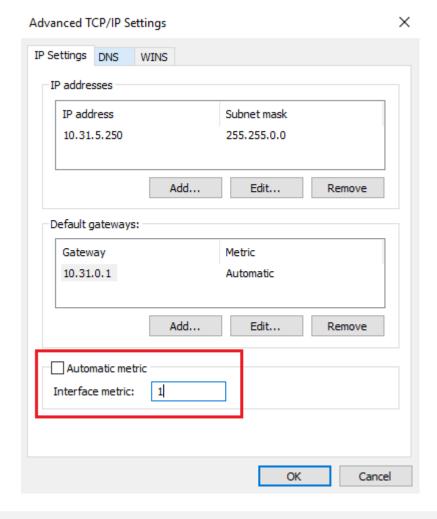


6. Double-click Internet Protocol Version 4 (TCP/IPv4).

- 7. Enter the IP address and DNS server addresses.
- 8. Click Advanced.



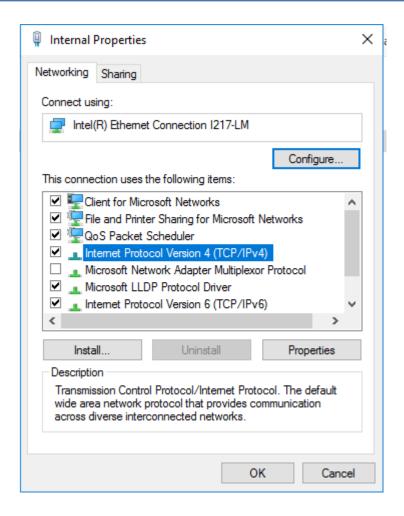
9. Clear the 'Automatic Metric' check box, and then in the 'Interface Metric' field enter "1".



priori

A low metric number indicates higher priority. A high metric number indicates low priority.

**10.** Click **OK** to apply the configuration.

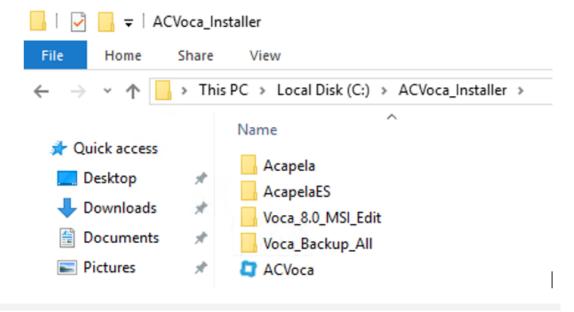


- $\textbf{11. Click OK} \ to \ close \ the \ Internal \ Properties \ window.$
- 12. Close the Network Connections window.

# 3 Installing Voca

The procedure below describes how to install Voca. As noted in Getting Started on page 2, there are a number of ways to install the Voca system.

Copy the installation files to the C:\ACVoca\_Installer directory.





A restart may be required during installation. After the restart has completed, log in to the server and the installation process will continue automatically.

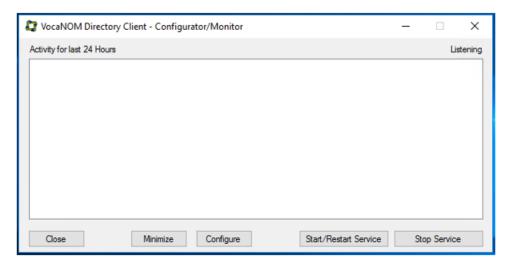
#### > To run pre-installation in case of upgrade:

- 1. Backup the recent systems data.
  - **a.** The backup procedure will be performed automatically by the Voca installer. The backup directory is C:\NSC\Backup\_<Time Stamp>\BackupFiles\.
  - **b.** It is highly recommended to save the:
    - licenses files in C:\NSC\License\ directory
    - SBC configuration files in C:\NSC\SBCconfig directory

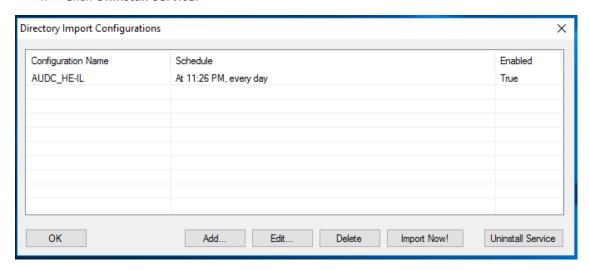
These and other important Voca directories will be backed up during the upgrade or during the daily scheduler backup procedure.

- 2. If the LDAP standalone synchronization feature is used:
  - a. Un-install the old VocaEnterpriseDirectoryService.
  - b. Open the VocaNOM Directory ClientC:\NSC\LDAP\VocaLdapService\VocaLdapSetup.exe.
  - c. Click Stop service.

#### d. Click Configure.



- e. Click Configure.
- f. Click Uninstall Service.



- g. Close the VocaNom Directory Client.
- **h.** Rename the 'C:\ProgramData\VocaLdapService\Settings.xml' file to 'settings\_bak.xml'.
- **3.** If the CSV synchronization feature is used:
  - a. Backup CSV synchronization files located under C:\NSC\LDAP\Import\_CSV\_to\_Cloud
  - **b.** Restore the feature after the upgrade.
- 4. Upgrade Voca Version 8.0.1.

The upgrade procedure fails when you try to upgrade Voca Version 8.0.1 (primary or secondary) to Voca Version 8.4.0 (primary or secondary). This issue did not occur during upgrading Voca Version 8.0.1 (standalone) to Voca Version 8.4.0 (standalone). See Upgrading from Voca Version 8.0.1 to Voca Version 8.4.0.htm.

5. Upgrade Voca Version 8.0.2.

During the upgrade of Voca Version 8.0.2 to Voca Version 8.4.0, the Enghouse CTIC (Media Gateway) application is removed by installer.



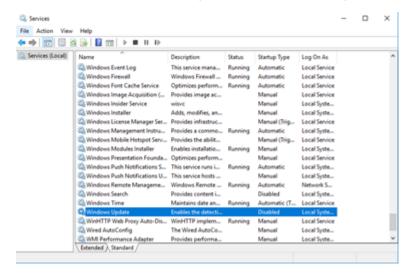
Backup the CTIC (Media Gateway) license before you run the upgrade procedure. The license can be found in C:\Program Files (x86)\Enghouse Interactive\CTI Connect\Licenses.

See Installing Enghouse CTIC (Media Gateway) application in Enghouse CTIC directory.

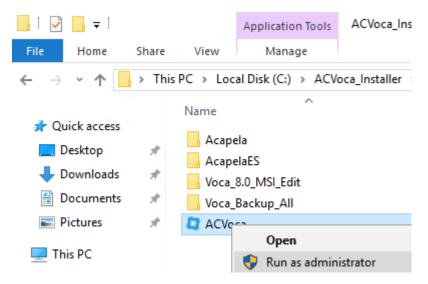
6. Restart the server.

#### > To install Voca:

1. The Windows Update service must be stopped and disabled during the Voca installation. It can be enabled once the Voca installation procedure has been completed.



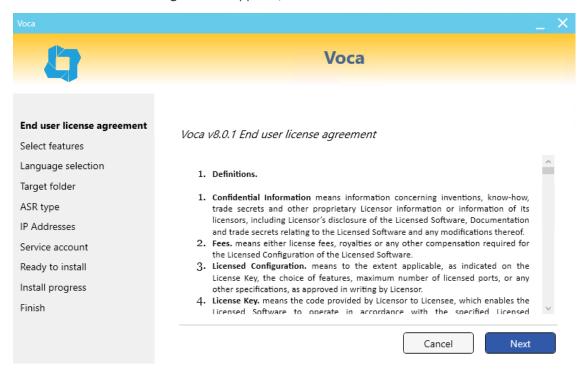
2. Right-click the ACVoca installation file, and then select Run as Administrator.



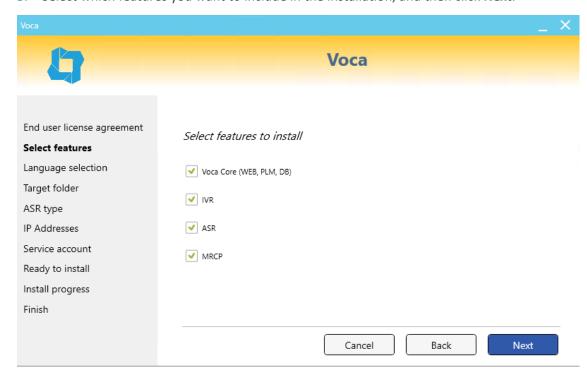
**3.** After launching the installer, the installer UI appears. You need to configure the installation process.



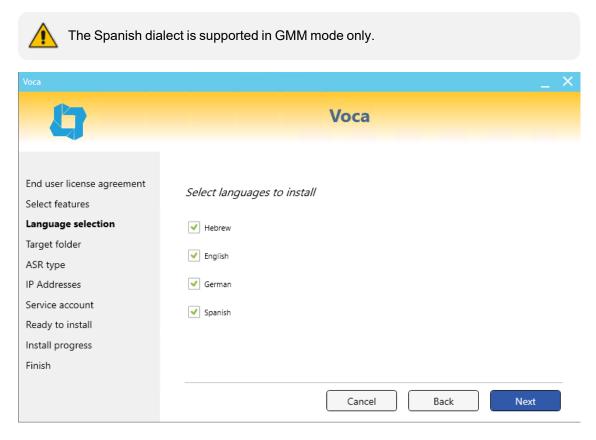
4. The End user license agreement appears; click Next.



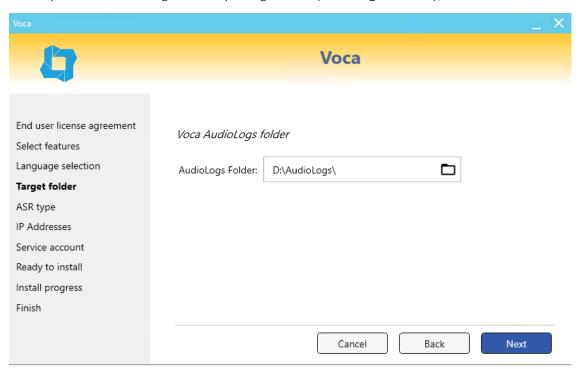
5. Select which features you want to include in the installation, and then click Next.



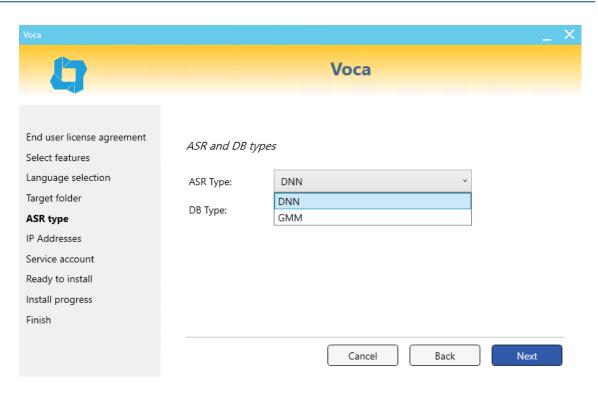
6. Select the languages you wish to install, and then click **Next**.



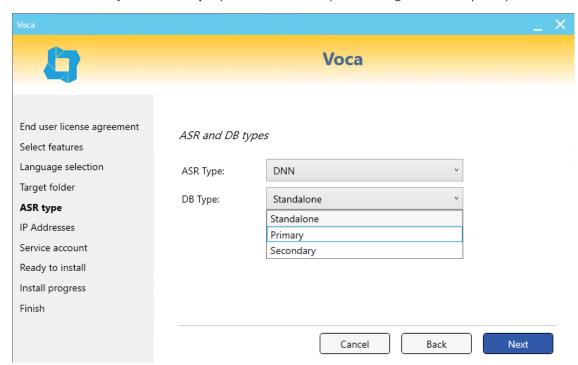
7. The AudioLogs directory window appears. The Voca system records and saves the speech request in an audio logs directory. Assign the **D:\AudioLogs** directory, and then click **Next**.



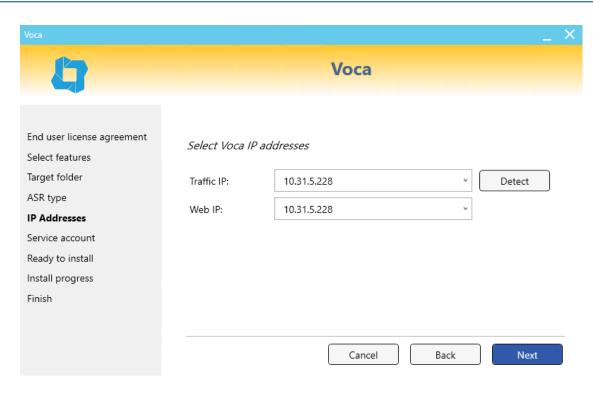
8. From the ASR drop-down list, select the ASR component. As noted above, the Spanish dialect is supported in GMM mode. Select your choice accordingly, and then click **Next**.



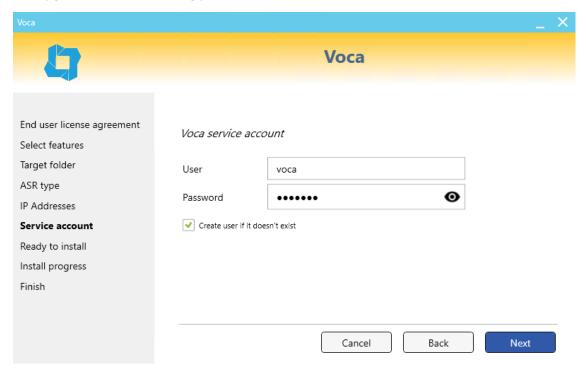
- 9. If Web Core was selected for installation, you need to select the type of DB:
  - Standalone
  - Primary
  - Secondary
- 10. Select Primary or Secondary if your installation is part of a High Availability setup.



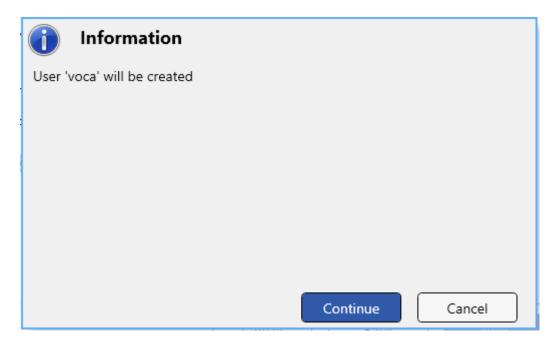
**11.** In the 'Traffic IP' field, enter the traffic IP used for SIP; in the 'Web IP' field, enter web IP used for admin management and the DB.



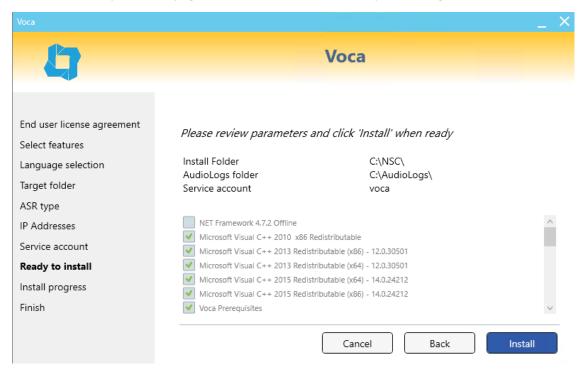
**12.** During the initial installation, enter a new password for the Voca User. In case of an upgrade, enter the existing password. Click **Next** to continue.



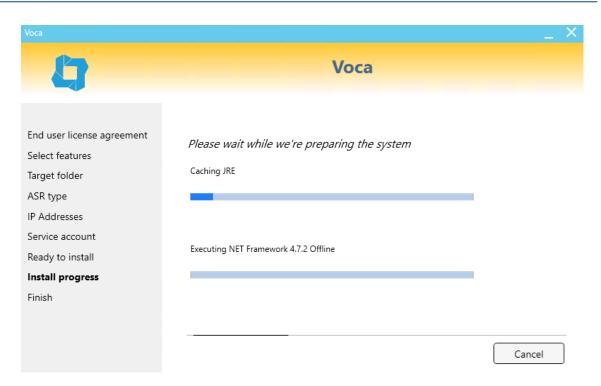
13. The Information page appears; click Continue.



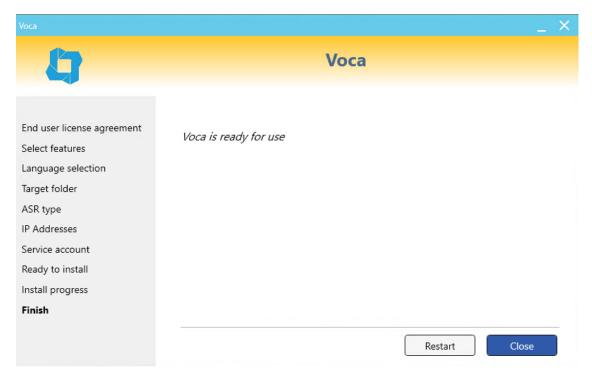
14. On the Ready to Install page, click Install. The installation process begins.



**15.** The installation progress bar appears.



**16.** When completed, the installer displays the following screen. Click **Restart** to restart the server.



17. Restart the server.



Changes will not take effect until you reboot the system.

# **Running Post-Installation**

The procedure below describes how to run the post-installation procedure when performing an upgrade.

- > To run the post-installation when performing an upgrade:
- 1. Recompile the grammars.
  - a. Recompile contacts and departments grammars.
  - b. Recompile the periphery's grammars.
    - i. Open the command line as an Administrator.
    - ii. Run the following commands:

>cd C:\NSC\NSC\_AA\<dialect>\Grammars\Compile\compile\_dnn\

>CompileGrammars HB.bat

Administrator: Command Prompt

Microsoft Windows [Version 10.0.14393] (c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd C:\NSC\NSC\_AA\EN-US\Grammars\Compile\compile\_dnn

C:\NSC\NSC\_AA\EN-US\Grammars\Compile\compile\_dnn>CompileGrammars\_HB.bat\_



Version 8.0.1 or later is released with Amazon Corretto Java engine Version 11.0.9.12.1. In case of available security patches for Version 11.x, the installed java engine can be updated.

2. Reconfigure Music-On-Hold if required.

# 4 Upgrading Voca

When upgrading Voca, refer to the upgrade notes in Installing Voca on page 17.

The following items should be addressed during system upgrade:

- System backup
- LDAP or CSV synchronization migration
- Installing new Voca licenses
- Grammar recompilation
- Setting up Music on Hold

# **Voca Versions that can be Upgraded**

The following Voca versions can be upgraded:

- Version 8.0.2
- Version 8.4.0

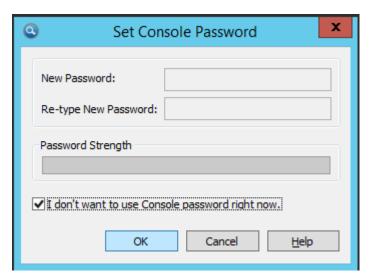
# 5 Configuring Enghouse Interactive Communication Portal (CP)

Enghouse Interactive (CP) is a third-party application responsible for SIP connectivity between a customer's PBX and the Voca speech recognition agent.

- **➤** To configure Enghouse Interactive's CP:
- 1. Launch the CP Console 10.3.



2. When prompted to set a password, select the 'I don't want to use...' check box, and then click **OK**.



3. When the configuration wizard starts, click Next.



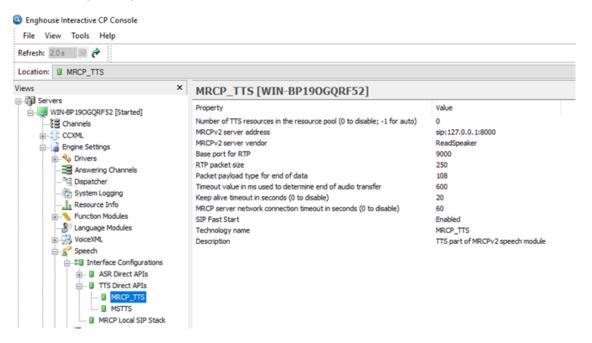
4. When prompted, enter the password AC123456.



5. Click **Finish** when the configuration completes.



**6.** Configure ReadSpeaker TTS support; on the right pane open MRCP\_TTS and assign the following settings:

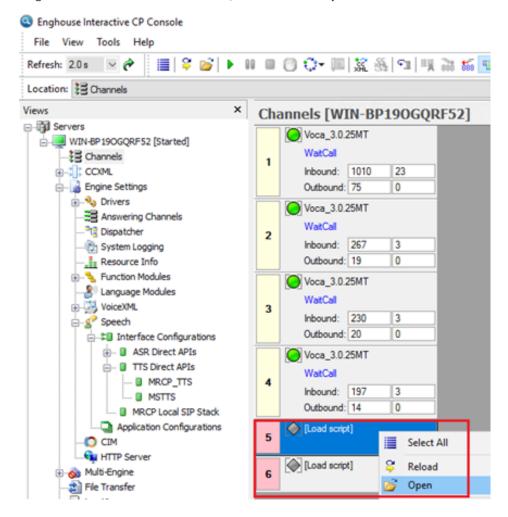


**7.** Configure the software channel; it should be applied for **Skill-based Routing Queue** feature support. Do the following:

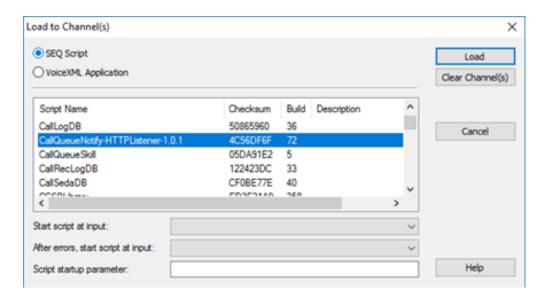


The software channel is limited by the Enghouse Control Panel license. Add the software channel when you send the license request.

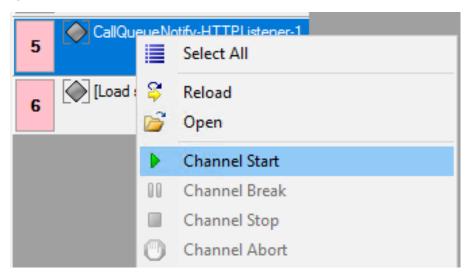
- a. Install the Enghouse Control Panel license with software license support (see <u>Installing</u> Enghouse Interactive License).
- **b.** Open the Enghouse Control Panel.
- c. Right-click on the software channel, and then click **Open**.



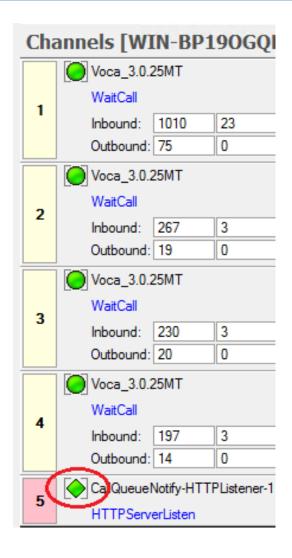
d. Select CallQueueNotify-HTTPListenner, and then click Load.



e. Right-click on the software channel, and then click Channel Start.



The software channel starts.



# 6 Installing Voca License

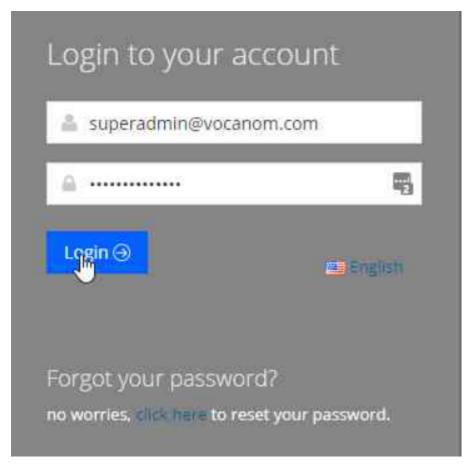
AudioCodes provides a license to use Voca. You can obtain a "finger print" file from the server that you want to install Voca on. This file is sent to AudioCodes so that a license file can be created and sent back to the customer.



- All licenses have virtual machine clone protection. If there is any change inthe Virtual MAC address, CPU characteristics or UUID, the license protection procedure is enabled and you will need to repeat the licensing process.
- After you upgrade to Version 8.0.1 or later, you need to issue and re-install the Voca new license. Enghouse and TTS software licenses are not affected by the upgrade.

#### To install the Voca License:

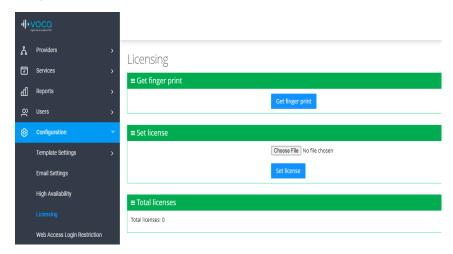
- 1. Log in to Voca by navigating to https://<IP Address> in your Chrome browser.
- 2. To get the Administrator credentials, please contact your AudioCodes representative.





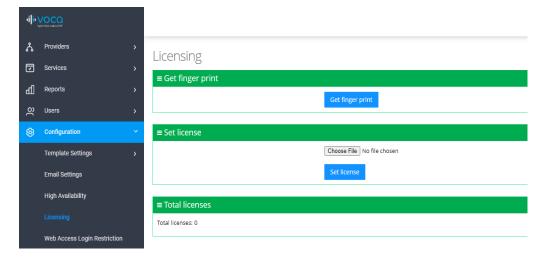
The default Administrator credentials should be modified after installation.

**3.** On the Licensing page (**Configuration** > **Licensing**), click **Get finger print**. A finger print file is created on your server.

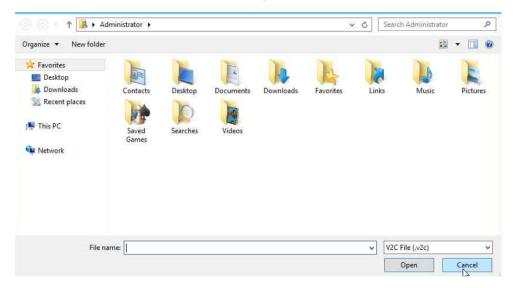


This is a sample finger print file:

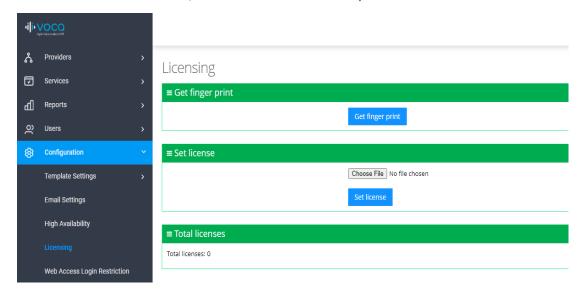
- 4. Send the finger print file to AudioCodes.
- 5. When you have received your License file from AudioCodes, copy it to your server.
- 6. Click Choose File to select your license.



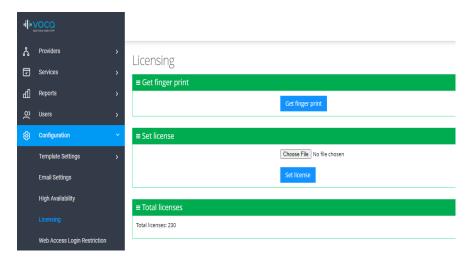
7. Select the license file name, and then click Open.



8. In the Set License window, click **Set license** to activate your Voca license.



**9.** After you have set the license, the total number of licenses should be displayed on the screen.



This is an example of what a license file looks like.

| c/ml version="1.0" encoding="utf-8"?><hasp\_info> <haspscope> <vendor id="94011"> <hasp id="182762873689409811"/>
</re>

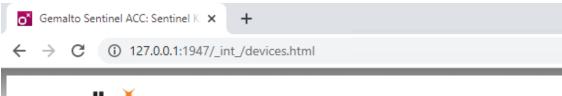
<vendor="1.0" encoding="utf-8"?><hasp\_info> <haspscope> <vendor="182762873689409811"/>

<vendor="182762873689409811"/>
 <vendor="182762873689409811"/>
 <pre



After you upgrade to Version 8.0.1 or later, you need to issue and re-install the new Voca license.

- To install the Voca License after upgrade:
- 1. Navigate to http://127.0.0.1:1947 on your Chrome browser.
- 2. Click Sentinel Keys.





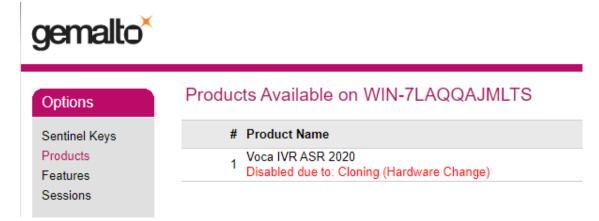


## Sentinel Keys Available on win-7laqqajmlts

| # Location | Vendor           | Key ID             |
|------------|------------------|--------------------|
| 1 Local    | 94011<br>(94011) | 499444128609102601 |

- 3. Send the **Key ID** number for the local server to AudioCodes.
- **4.** When you have received your License file from AudioCodes, copy it to your server and apply the Voca license using the Voca Web interface (License.htm).

➤ To install the Voca License after virtual machine cloning:



- 1. Clean the cloned license by removing the old V2C file.
  - a. Stop Sentinel LDK License Manager service.
  - b. Open C:\Program Files (x86)\Common Files\SafeNet Sentinel\Sentinel
     LDK\installed\94011 and remove all V2C files.
  - c. Start the Sentinel LDK License Manager service.
- 2. Repeat the license procedure (see <u>Installing the AC Voca License.htm</u>)

# 7 Installing Third-Party Licenses

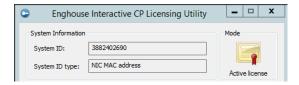
In addition to the previous section that explains how to install the Voca license, you must also install the Enghouse Interactive license and a relevant Text to Speech license. This section first describes how to install Enghouse Interactive licenses. Once you have completed this installation, you must then install and configure an appropriate Text to Speech license.

## **Installing Enghouse Interactive License**

You can install the Enghouse Interactive license. Once this has been installed, you must also install the Control Panel and CT Connect Media Gateway licenses.

#### > To install the Enghouse Interactive License:

- 1. Run the Envox License Utility application from *C:\Program Files (x86)\Enghouse Interactive\CP\CPLicensingUtility.exe.*
- 2. Verify your System ID number and send it to AudioCodes.



Enghouse Interactive has two licenses that you need to install:

- Control Panel License
- CT Connect Media Gateway License

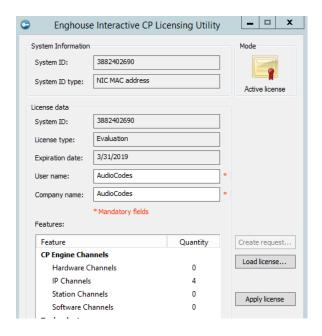
#### **Installing Control Panel License**



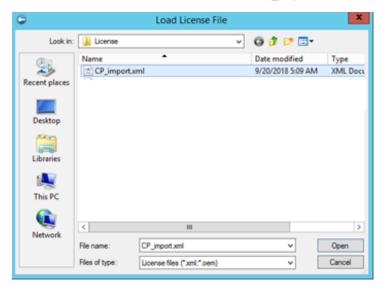
Once you have received your Control Panel license back from AudioCodes, see Installing Enghouse Interactive License above Paragraph Verify your System ID number and send it to AudioCodes. above, and continue with the following procedure.

#### > To install the Control Panel License:

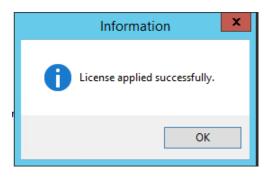
- Copy the licenses to C:\NSC\License\.
- **2.** Run the Envox License Utility application from *C:\Program Files (x86) \Enghouse Interactive\CP\CPLicensingUtility.exe*.
- **3.** On the Enghouse Interactive CP Licensing Utility screen, click **Load license**.



4. Browse to the license file location, and then select the CP\_import.XML license file.



- 5. Click Open.
- **6.** On the Enghouse Interactive System Information screen, click **Apply License**; a confirmation message box appears informing you that the license has been applied successfully.



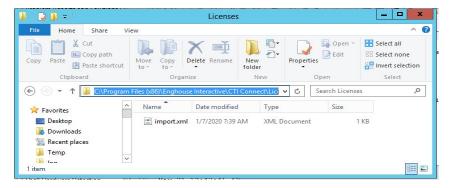
7. Click OK.

### **Installing CT Connect Media Gateway License**

Once you have received your CT Connect Media Gateway license back from AudioCodes (see <a href="Installing Enghouse Interactive License">Installing Enghouse Interactive License</a> ), verify your System ID number, and then send it to your AudioCodes representative. Continue with the following procedure.

#### To install the CT Connect Media Gateway License:

 Copy the Enghouse CT Connect Media Gateway License XML file to C:\Program Files (x86)\Enghouse Interactive\CTI Connect\Licenses.





The filename must be named import.xml.

2. Restart the server to complete the license installation.

## **Installing Text-to-Speech Engine**

The following describes how to install the Acapela Text to Speech engine.

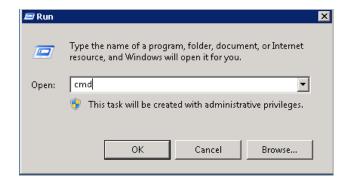
#### **Acapela non-Hebrew Text to Speech**



- This installation is only applicable for non-Hebrew text to speech.
- The license key is dependent on your server's MAC address.

#### To install the Acapela Text-to-Speech license:

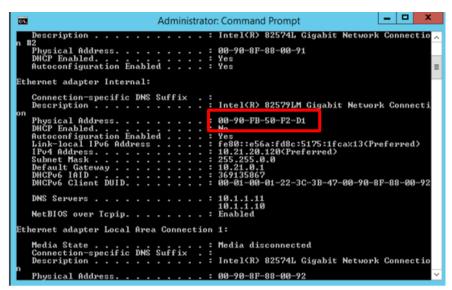
- Verify the server MAC address.
  - a. Enter "cmd" in the Run dialog box, and then click **OK**.



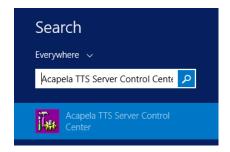
b. Enter "ipconfig/all".

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Administrator\ipconfig /all_
```

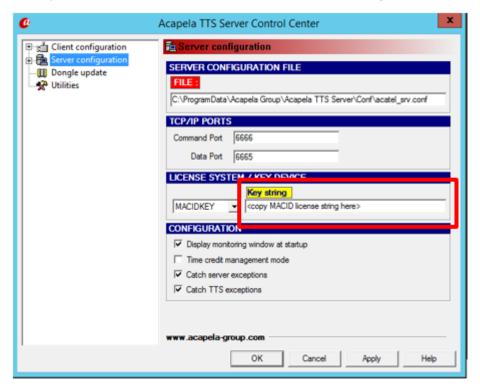
2. Find the Intel<R> 82579LM Gigabit Network Adapter, and then send the MAC address ("Physical Address") to AudioCodes.



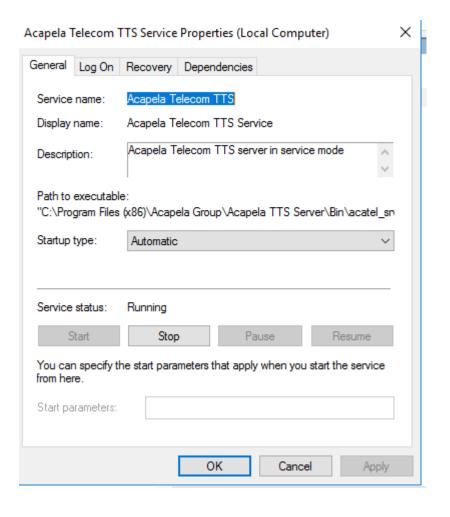
- 3. AudioCodes will send you the license key.
- **4.** Open the Windows Start menu, and then in the 'Search' field, enter "Acapela TTS Server Control Center".
- 5. Select it in the Search results.



6. On the Acapela TTS Server Control Center screen, click Server configuration.



- 7. Under the License System/Key Device group, select MACIDKEY.
- 8. Copy the received license key into the key string field.
- 9. Click Apply, and then OK.
- 10. Configure the Acapela Telecom TTS Service:
  - a. Open Administrative Tools > Services.
  - b. Open Acapela Telecom TTS Service Properties.
  - **c.** From the 'Startup type' drop-down list, select **Automatic**.
  - d. Click Start.
  - e. Click OK.



# 8 Configuring SBC Settings for Voca

This section describes how to configure the Voca, on the SBC side.

- Coder Settings
- Voca IP Profile Settings
  - Delayed Offer SDP settings
  - SIP UPDATE Support Settings
  - Remote re-INVITE Settings
- Terminate OPTIONS Request
- Alternate Routing Settings
- SIP Contact Header
- SBC IP-To-IP configuration
- Call Queue configuration

## **Coder Settings**

Voca only supports G.711U-law and G.711A-law coders.

These coders should be configured in the **Allowed Audio Coder Group** in the IP Profile of the Voca SIP entity on the SBC.

If the PBX system doesn't support **G.711U-law** and/or **G.711A-law** coders, i.e., the coders do not exist in the SDP offer of the incoming SIP message, the coders should be configured in **Extension Coders Group** in the IP Profile of the Voca SIP entity.

## **Voca IP Profile Settings**

Delete this text and replace it with your own content.

## **Delayed Offer SDP Settings**

Voca doesn't support incoming SIP messages without the SDP offer.

If an incoming SIP message doesn't have the SDP offer, the 'Remote Delayed Offer Support' field should be set as **Not Supported** in the IP Profile of the Voca SIP entity.



For the Remote Delayed Offer Support function, you need to assign extension coders in the IP Profile of the Voca SIP entity as discussed above.

#### **SIP UPDATE Support Settings**

This configuration applies if the route is direct to Voca and **not** to the Voca Cloud SBC.

Voca does not support incoming SIP UPDATE messages. In the IP Profiles of the Voca SIP entity, from the 'Remote Update Support' drop-down list, select **Not Supported**.

#### Remote re-INVITE Settings

This configuration applies if the route is direct to Voca and **not** to the Voca Cloud SBC.

Voca does not support incoming SIP UPDATE messages. In the IP Profiles of the Voca SIP entity, from the 'Remote re-INVITE' drop-down list, select **Not Supported**.

## **Terminating SIP OPTIONS Requests**

To terminate SIP OPTIONS messages at the SBC device (i.e., to handle them locally), create a routing rule with the following settings:

Source IP Group: ANY

Request Type: OPTIONS

Destination Type: Dest Address

**Destination Address:** Internal

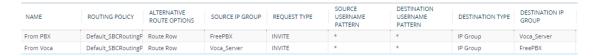
## **Alternative Routing Settings**

When Voca does not respond, or responds with a SIP error, create the alternative routing settings and redirect the call to customer's extension.

## **SBC IP-to-IP Configuration**

The following describes SBC configuration for routing calls to and from Voca:

Voca to One Node Routing Scenario: In this scenario, the system has only one Group ID node of the customer's side and one Voca server. You need to create two-way routing between the customer and Voca nodes.



## **Sending DNIS Instead of Caller Number During Advanced Transfer**

By default, Voca sends Caller CLI numbers during Advanced Transfer in from the header of the INVITE message. Sometimes, the remote customer's side does not accept this number (e.g., SIP trunk Twilio). The remote customer's side accepts any number that belongs to the SIP trunk DNIS pool.

#### **Typical Scenario**

- The call from customer's infrastructure arrives at the SBC.
- The SBC adds the <X-SendDNIS:1> SIP header.

- After recognition, Voca puts the caller on hold and starts the Advanced Transfer.
- Voca recognizes the header value and sends the DNIS number in the From Header of the INVITE message.



If the **<X-SendDNIS>** header does not exist or is empty, then Voca sends the Caller CLI number. If the **<X-SendDNIS>** header has any value, then Voca sends the DNIS number.

#### **Configuring the SBC**

The procedure below describes how to configure the SBC for this feature.

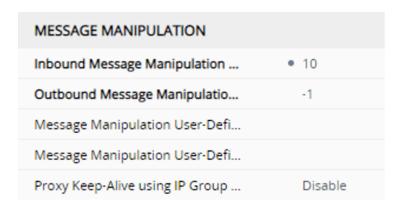
#### > To configure the SBC:

Add the <X-SendDNIS:1> Message Manipulation (Message Manipulation > Message)
header.

#### #10[Add SendDNIS Header]



2. In the Inbound Message Manipulation of the Twilio SIP IP Group, add the 'Manipulation Set ID'.



#### **Changing REFER with Replaces to Simple REFER Message**

By default, Voca sends 'REFER with Replaces' during Advanced Transfer. If customer's side doesn't support 'REFER with Replaces', you need to manipulate it to a simple REFER message.

#### **Configuring the SBC**

The procedure below describes how to configure the SBC for this feature.

#### ➤ To configure the SBC:

Create the Message Manipulation (Message Manipulation > Message Manipulation).

Header.Refer-To regex (.\*)(Replaces)(.\*)

Header.X-AC-Action 'use-config; refer-behavior=handle-locally'



2. Assign this manipulation set as an Inbound Message Manipulation Set in the Voca IP Group.

#### **SIP Contact Header**

When using attended transfer, Voca is using the Contact header to send the call back to the sender (SBC). Sometimes, the remote customer's side sends the Contact header with parameters that can interfere with the attended transfer. It is important that the Contact header contains only necessary information.

The following is an example of a Contact header arriving from Teams:

```
07:22:31.546 .... Incoming SIP Message from 52.114.76.76:25536 to SIPInterface #0 (Teams_Wan) TLS TO(#1059) SocketID(63884) .... [Time:30-03@07:22:07.945]

INVITE sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls SIP/2.0
FROM: <sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls SIP/2.0
FROM: <sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls.TIP/2.0
FROM: <sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls.TIP/2.0
FROM: <sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls.TIP/2.0
FROM: <sip:+9723376855@ebc-qateams.voca.audicodes.io:5061;user=phone;transport=tls.TIP/2.0
FROM: <sip:+97233768565@ebc-qateams.voca.audicodes.io>
FROM: <sip:+97233768569@ebc-qateams.voca.audicodes.io>
FROM: <sip:+97233768569.voca.audicodes.io>
FROM: <sip:+97233768569.voca.aud
```

The marked information needs to be removed to send the call back to the sender.

CONTACT: <sip:api-du-c-euwe.pstnhub.microsoft.com:443;x-i=02eb7942-64b8-40be-a784-5eada3b177bd;x-c=6dd9cd1c7413507db3a275ef61fc2f2f/d/8/c7e1cdce609145f78d28c4886b57e263>

This is how it should appear after the manipulation:

CONTACT: <sip:api-du-c-euwe.pstnhub.microsoft.com:443>

The following configuration is based on Port 443 (this port needs to be changed if the sender uses a different port).

#### **SBC Configuration**

The procedure below describes how to configure the SBC for this feature.

#### To configure the SBC:

1. Add the Message Manipulation (Message Manipulation > Message).



2. In the 'Inbound Message Manipulation Set' field of the SIP IP Group that the call is routed from, add the **Manipulation Set ID**.



## **Call Queue Configuration**

The procedure below describes how to configure Call Queues.

#### > To configure Call Queues:

- 1. Enable Music on Hold on the Enghouse Control Panel.
- 2. Configure the SBC to support call queues.
- 3. Create a dummy call to a '99999' number during the call queue procedure.
- 4. Terminate this dummy call on the SBC.

| SOURCE IP GROUP | REQUEST TYPE | SOURCE<br>USERNAME<br>PATTERN | DESTINATION<br>USERNAME<br>PATTERN | DESTINATION TYPE | DESTINATION IP<br>GROUP | DESTINATION SIP<br>INTERFACE | DESTINATION<br>ADDRESS |
|-----------------|--------------|-------------------------------|------------------------------------|------------------|-------------------------|------------------------------|------------------------|
| Voca_Server     | INVITE       | *                             | 99999                              | Dest Address     |                         |                              | internal               |

# 9 Installing Signed Certificates on the IIS

To configure Voca to work with HTTPS, you must first install a valid signed certificate.

Use the following procedures to install the certificate on the Internet Information Server (IIS).

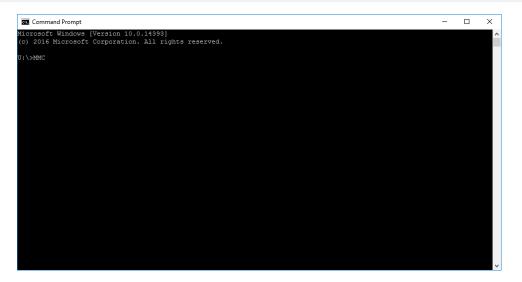
## **Managing Certificates in the MMC Snap-in**

You can manage certificates in the MMC Snap-in.

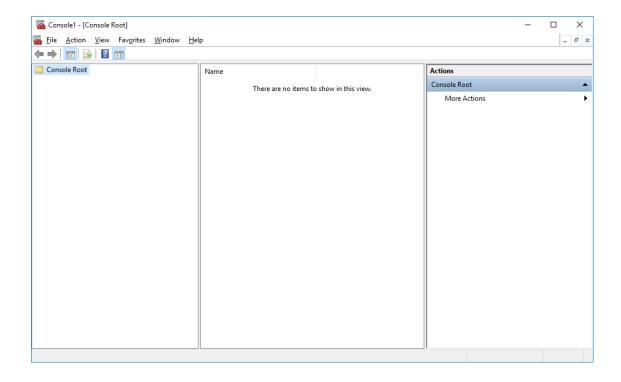
- ➤ To manage certificates in the MMC Snap-in:
- 1. Open the Command Prompt window.
- 2. Enter MMC and then press ENTER.



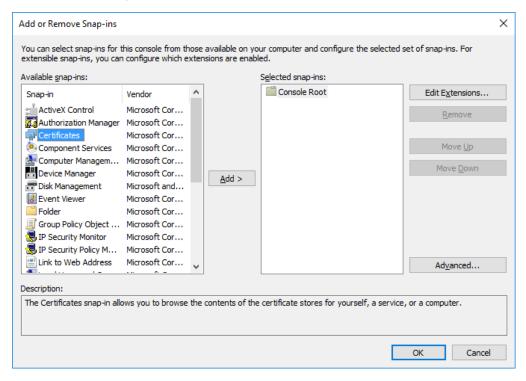
To view certificates in the local machine store, you must be set up as an Administrator.



3. On the Console Root, click File > Add/Remove Snap.

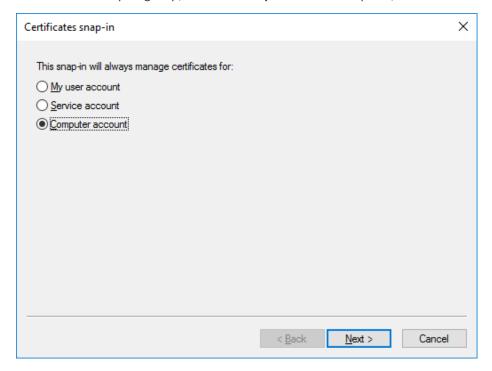


- 4. From the File menu, choose Add/Remove Snap In.
- 5. In the 'Available snap-ins', select **Certificates**.



6. Click Add > to add snap-ins.

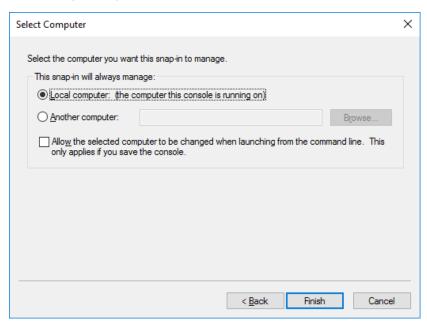
7. In the Certificates snap-in group, click the Computer Account option, and then click Next.





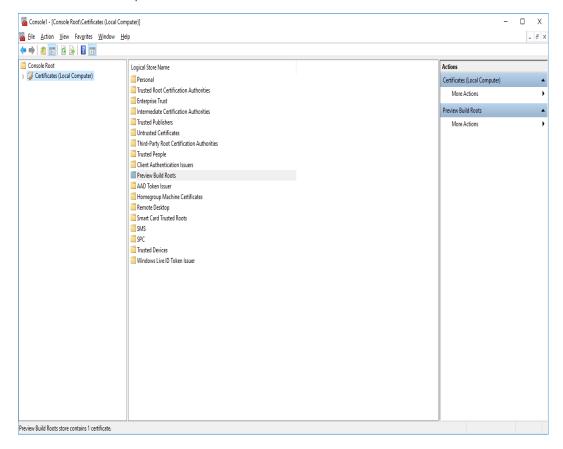
You can select either **My user account** or **Service account** options. If you are not an Administrator of the computer, you can manage certificates only for your user account.

8. Click the Local computer option.



- 9. In the Select Computer dialog box, click Finish.
- 10. In the Add/Remove Snap-in dialog box, click OK.

**11.** In the Console Root window, click **Certificates (Local Computer)** to view the certificate stores for the computer.



- 12. To view certificates for your account, repeat steps 3 to 6. In step 7, instead of selecting Computer account, click My User account and repeat steps 8 to 10 (Optional step).
- **13.** From the **File** menu, choose **Save** or **Save As**. Save the console file for later reuse (**Optional step**).

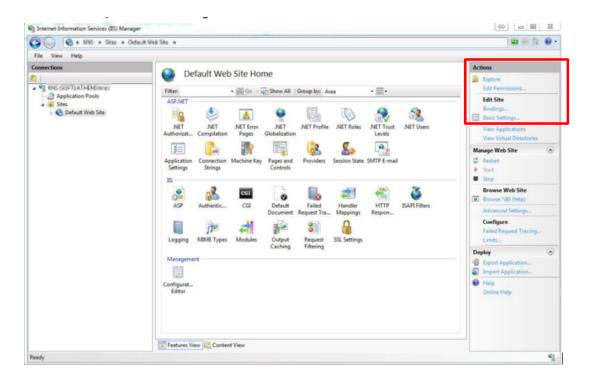
## **Adding a Certificate**

- 1. Navigate to Console Root > Certificates (Local Computer) > Personal > Certificates.
- 2. On right pane, select All Tasks > Import.
- 3. Follow the dialog to install the certificate.

## Selecting a Certificate in IIS Manager

You can select a certificate in the Internet Information Services (IIS) Manager.

- To select a certificate in IIS Manager:
- Open the IIS Manager.



- 2. Right-click the default site, and then choose Edit Site Bindings.
- 3. Select HTTPS binding (Port 443), and then click Edit.



4. From the 'SSL certificate' drop-down list, select the new certificate, and then click **OK**.

# 10 Enabling .NET Framework 3.5 on Windows

You can use Server Manager to enable .NET Framework 3.5. For more information, see Microsoft's guidelines here.

Before enabling .NET Framework 3.5, ensure that you have the following:

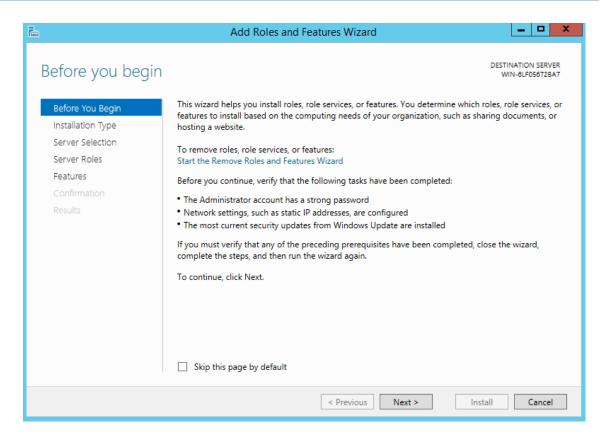
- Windows Server 2016
- Administrator user rights. The current user must be a member of the local Administrators group to add or remove Windows features.
- Target computers might need network access and rights to use either alternate sources or an Internet connection to use Windows Update.
- Installation media (only if you have no Internet connection to use Windows Update)

#### > To enable .NET Framework 3.5 on a Windows System:

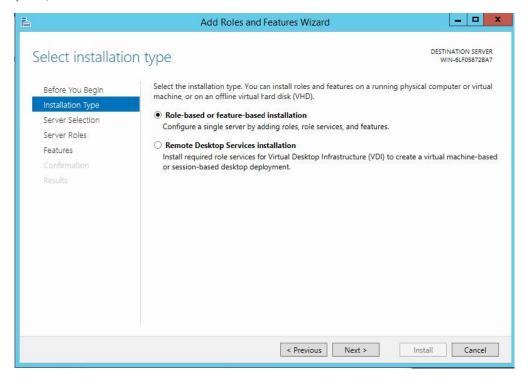
1. On the Server Manager page, click **Manage**, and then select **Add Roles and Features** to start the Add Roles and Features Wizard.



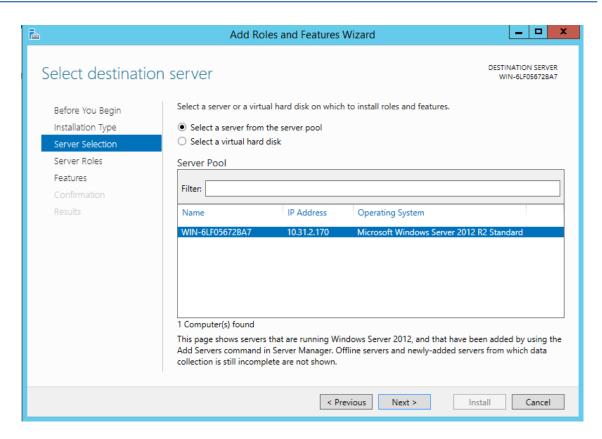
2. On the Before you Begin page, click Next.



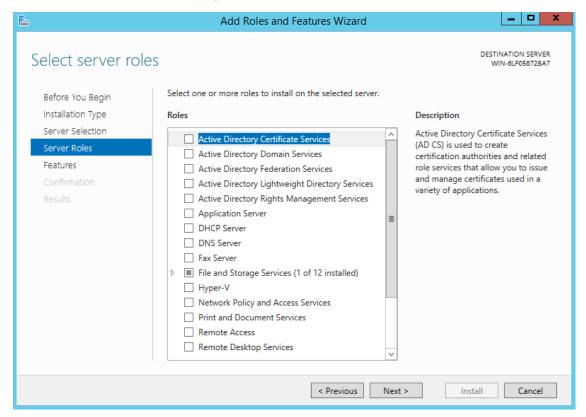
3. On the Select Installation Type page, click the Role-based or feature-based installation option, and then click Next.



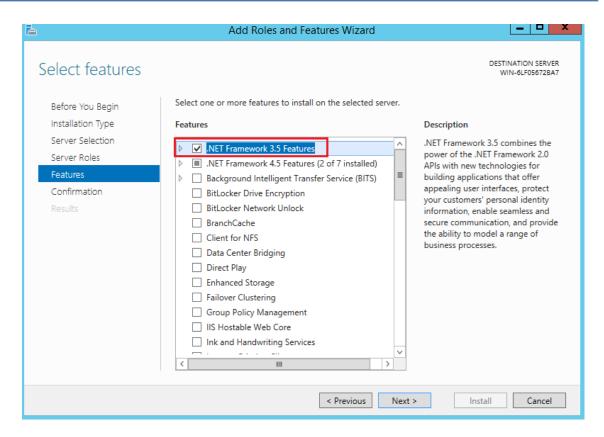
4. On the Selection Destination Server page, select the target server, and then click Next.



On the Select Server Roles page, click Next.



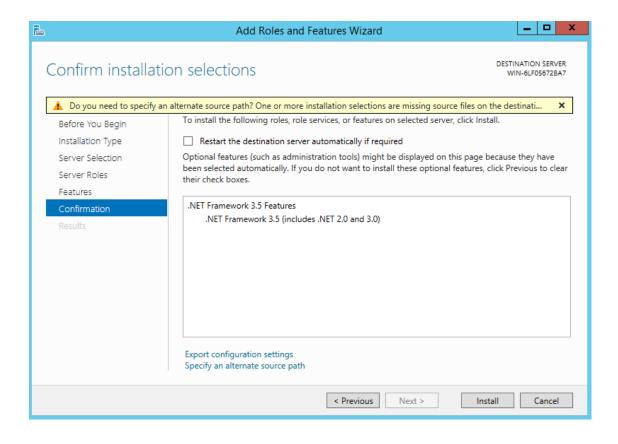
On the Select Features page, select the '.Net Framework 3.5 Features' check box, and then click Next.



7. On the Confirm Installation Selections page, click Install.



On the Confirm Installation Selections page, a warning is displayed asking *Do you need to specify an alternate source path?*. If the target computer does not have access to Windows Update, click the **Specify an alternate source path** link to specify the path to the \sources\sxs folder on the installation media and then click **OK**. After you have specified the alternate source, or if the target computer has access to Windows Update, click the **X** next to the warning, and then click **Install**.



# 11 Configuring WebRTC

WebRTC is an AudioCodes SBC feature and allows up to three concurrent WebRTC sessions, as part of the AudioCodes SBC license. For support of more sessions, contact your AudioCodes representative.

For more information, you can download the following:

- Mediant Software SBC User's Manual
- Adding Click-to-Call Widget to an Existing Web Page (video)

# 12 Upgrading from Voca 8.0.2 to 8.4.0 Enghouse CTIC (Media Gateway) Application

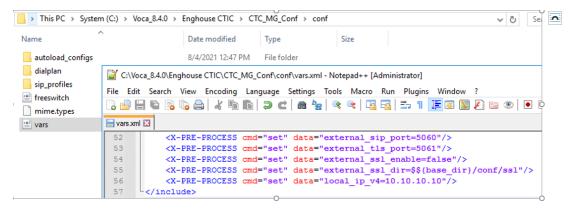
The Enghouse CTIC (Media Gateway) application is removed by the installer during the upgrade procedure from Voca 8.0.2 to 8.4.0.

The procedure below describes how to install and configure the Enghouse CTIC (Media Gateway) application.

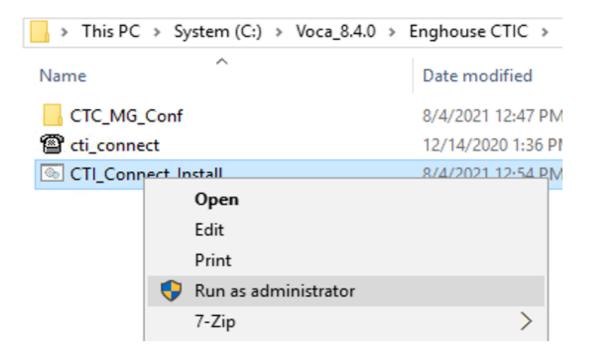


Backup the CTIC (Media Gateway) license before running the upgrade procedure. The license can be found in C:\Program Files (x86)\Enghouse Interactive\CTI Connect\Licenses.

- > To install and configure the Enghouse CTIC (Media Gateway) application:
- 1. Assign the IP address of the Voca server in the MG configuration file template. The C:\Voca\_8.4.0\Enghouse CTIC\CTC\_MG\_Conf\conf\vars.xml file is copied by the script in the MG directory after the installation procedure.



Right-click on the C:\Voca\_8.4.0\Enghouse CTIC\CTI\_Connect\_Install.bat file and then select Run as Administrator.



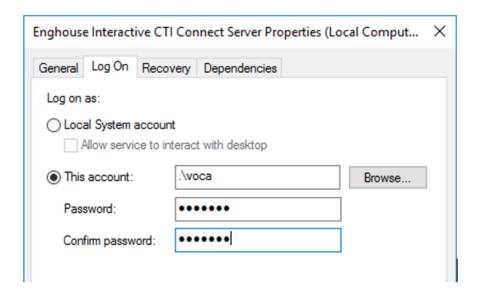
3. Wait for the installation to finish.

```
C:\Windows\System32\cmd.exe
.\CTC_MG_Conf\conf\dialplan\default\eicp_inbound.xml
.\CTC_MG_Conf\conf\dialplan\public\eicp.xml
.\CTC_MG_Conf\conf\sip_profiles\external.xml
.\CTC_MG_Conf\conf\sip_profiles\internal.xml
22 File(s) copied

Media Gateway installation procedure is successfully finished

Press any key to continue . . . _
```

- 4. Assign the Voca user credential to the following services:
  - Enghouse Interactive CTI Connect Server
  - Enghouse Interactive Media Gateway



- **5.** Copy the license file to C:\Program Files (x86)\Enghouse Interactive\CTI Connect\Licenses.
- **6.** Restart the server.

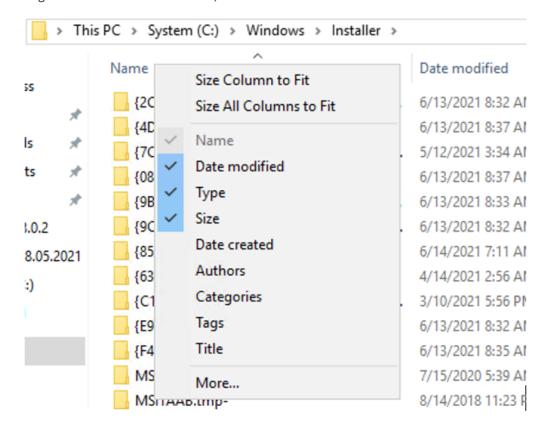
# 13 Upgrading from Voca 8.0.1 to 8.4.0

The upgrade procedure fails when you try to upgrade Voca 8.0.1 (primary or secondary) to 8.4.0 (primary or secondary).

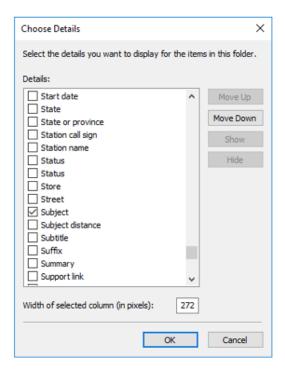
This does not occur when upgrading from Voca 8.0.1 (standalone) to 8.4.0 (standalone).

#### > To fix this upgrade problem:

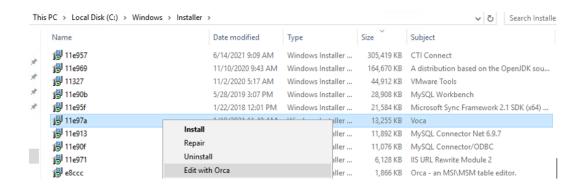
- 1. Unzip and install Orca MSI editor C:\Voca\_8.4.0\DLL Fix 8.0.2\.
- 2. Open C:\Windows\Installer\.
- 3. Right-click on the Name column, and then click More.



4. Select the 'Subject' check box, and then click **OK**.



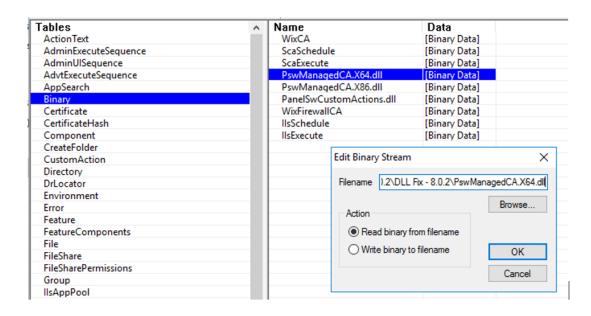
- 5. Arrange the files by size, and then find the file with the Voca subject name.
- 6. Right-click on this file, and then select **Edit with Orca**.



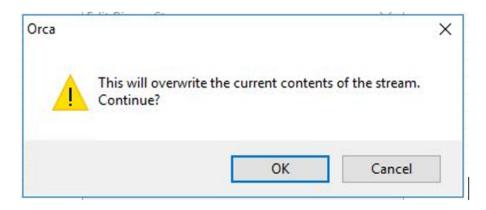


The filename may be different than the one on the screen.

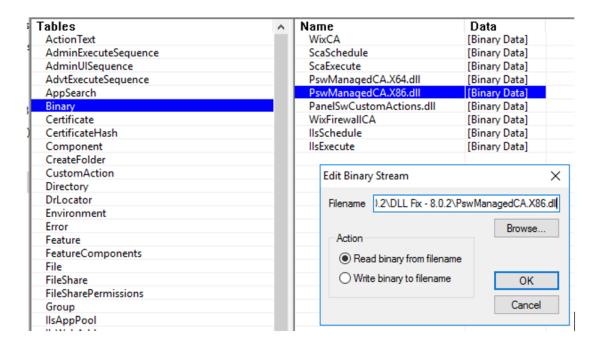
- 7. Find the Binary table.
- 8. Find PswManagedCA.X64.dll, and then double-click Binary Data.

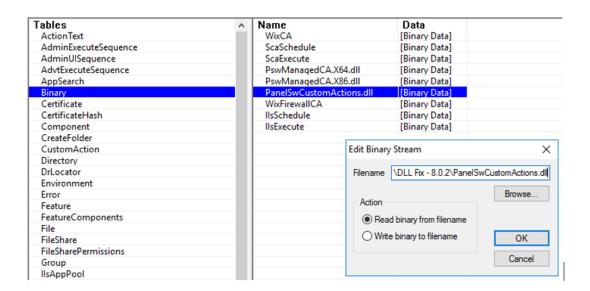


- 9. Select the Choose Read binary from filename option.
- 10. Browse to the C:\Voca\_8.4.0\DLL Fix 8.0.2/PswManagedCA.X64.dll, and then click OK.
- 11. Click **OK** to overwrite the contents of the stream.

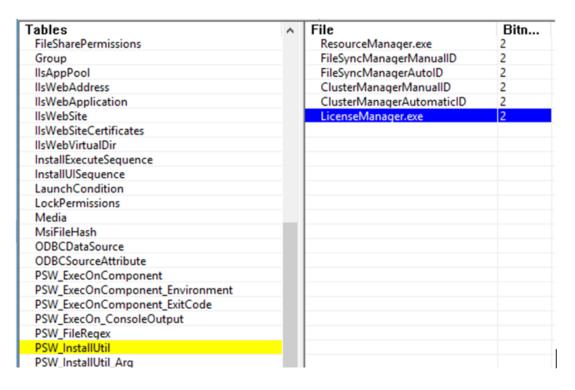


12. Do the same editing for PswManagedCA.X86.dll and PanelSwCustomActions.dll.

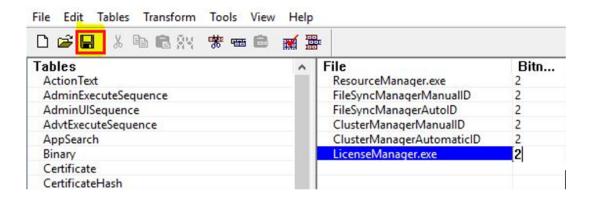




13. Find the PSW\_InstallUtil table, and then set 'Bitness' to "2" for all services.



14. Save and close the Orca editor.



**15.** Run the Voca Version 8.4.0 upgrade procedure.

## 14 Completing the Upgrade to Voca 10

Once you have upgraded to Voca Version 10, apply the following FastGGI settings of the IIS.

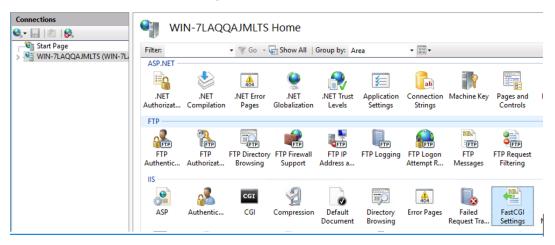


The following settings should only be applied after you have upgraded to Version 10.

The procedure below describes how to apply the FastCGI settings.

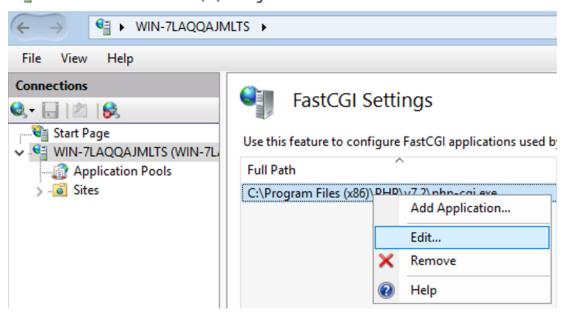
### To apply the FastCGI settings:

- 1. Open the Internet Information Services (IIS) Manager in Administrative Tools.
- 2. On the right-pane, click IIS Connections.
- 3. Double-click on FastGGI Settings.

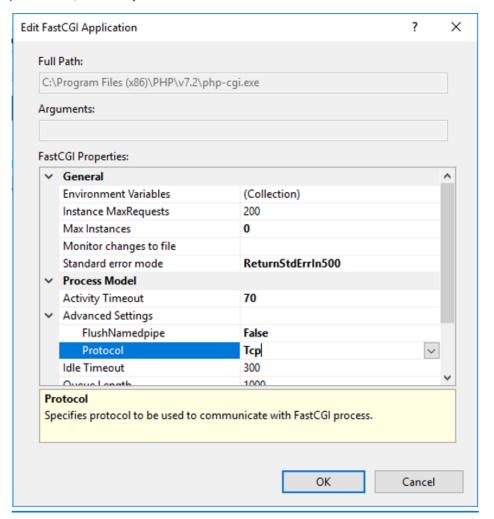


4. Right-click on PHP Full Path, and then from the drop-down menu, select **Edit**.





**5.** Click **Advanced Settings**, and then in the **FastCGI Properties** group, from the 'Protocol' field drop-down list, select **Tcp**.



- 6. Click OK.
- **7.** Close the IIS Manager, and then restart the server.

# 15 Enabling Music on Hold on Enghouse Control Panel

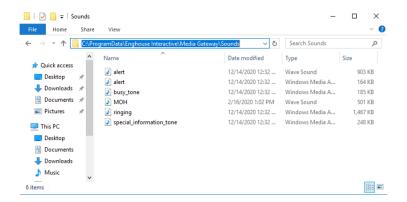
Music On Hold (MOH) is a feature that plays a recording of music when consultation transfers take place.

#### > To enable Music on Hold:

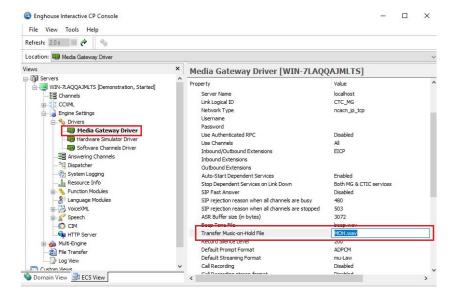
- 1. Verify the **Enghouse Communication Portal** version.
- 2. Open the Enghouse Control Panel.
- 3. Click Help, and then click About Enghouse Interactive CP Console. The following appears:



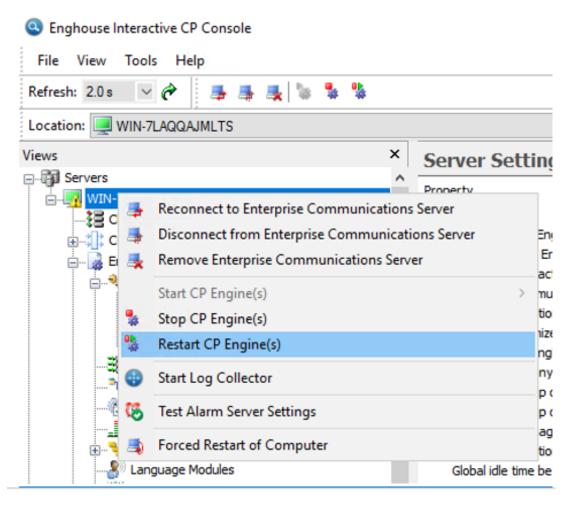
- **4.** From the Enghouse Communication Portal 10.4, copy the MOH.wav file to the *C:\ProgramData\Enghouse Interactive\Media Gateway\Sounds* folder.
- **5.** From the Enghouse Communication Portal 10.6, copy the MOH.wav file to the *C:\Program Files (x86)\Enghouse Interactive\CP\Data* folder.



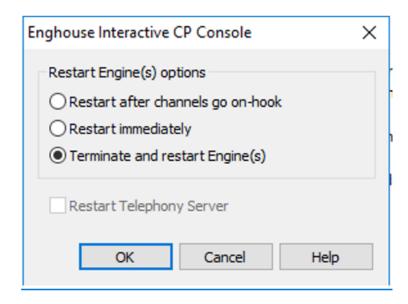
**6.** On the right-pane of the Enghouse Control Panel, open the **Media Gateway Driver** properties and then, in the 'Transfer Music-on-Hold' field, enter the filename.



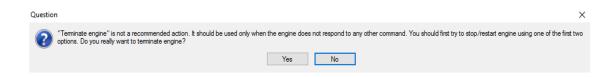
7. Right-click the server's name, and then click Restart CP Engine(s).



4. From the Restart Engine(s) options, select **Terminate and restart Engine(s)**, and then click **OK**.



**8.** In response to the following question, click **Yes**.



# 16 Configuring Voca High Availability

The procedure below describes how to configure Voca High Availability.

- > To configure Voca High Availability:
- 1. Stop PLM and Enghouse services.
- 2. Stop MySQL service on both servers.
- **3.** Copy *C:\NSC\MYSQLServer\data* from the Primary node to the Secondary node.
- **4.** On the Secondary node, remove the \data\auto.cnf file.
- **5.** Copy the following, and paste at the end of *C:\NSC\MYSQLServer\my.ini* on the Primary node.

```
server-id=1
log-bin=mysql-bin
relay-log=mysql-relay-log
auto-increment-increment=2
auto-increment-offset=1
binlog-do-db=seda
binlog-do-db=seda_logs
replicate-do-db=seda
replicate-do-db=seda_logs
replicate-ignore-table=seda.vn_cluster_node_parameters
binlog-format = MIXED
expire_logs_days = 30
sync_binlog = 1
max_binlog_size = 52428800
```

**6.** Copy the following and paste at the end of *C:\NSC\MYSQLServer\my.ini* on the Secondary node.

```
server-id=2
log-bin=mysql-bin
relay-log=mysql-relay-log
auto-increment-increment=2
auto-increment-offset=2
binlog-do-db=seda
binlog-do-db=seda_logs
replicate-do-db=seda
replicate-do-db=seda_logs
replicate-ignore-table=seda.vn_cluster_node_parameters
binlog-format = MIXED
```

```
expire_logs_days = 30
sync_binlog = 1
max binlog size = 52428800
```

- 7. Start MySQL service on both servers.
- 8. Open MySQL Workbench and connect as ROOT in both servers.
- **9.** Run the following on both servers:

```
create user 'replicator'@'%' identified by '1q2w3e$r';
grant replication slave on *.* to 'replicator'@'%' identified
by '1q2w3e$r';
GRANT REPLICATION CLIENT ON *.* to 'seda'@'localhost';
```

10. Run the following on the Primary server:

```
show master status;
use output value master_log_file and position in the next step
For example:
master_log_file='mysql-bin.000001'
master_log_pos=704
```

11. Run the following on the Secondary node:

```
stop slave;
```



Assign the IP address of the Primary node and output information in the next command:

```
change master to master_host='10.31.5.240',master_
user='replicator',master_password='1q2w3e$r',master_log_
file='mysql-bin.000001',master_log_pos=704;
show master status;
```

Use output value master\_log\_file and position in the next step

## For example:

```
master_log_file='mysql-bin.000001'
master_log_pos=704
```

12. Run the following on the Primary node:

```
stop slave;
```



Assign the IP address of the Secondary node and output information in the next command:

```
change master to master_host='10.31.5.245',master_
user='replicator',master_password='1q2w3e$r',master_log_
file='mysql-bin.000001',master_log_pos=704;
```

**13.** Run the following on both nodes:

```
start slave;
```

- 14. Start PLM and Enghouse services.
- **15.** Assign the following settings in the **seda.vn\_cluster\_nodes** table:

|             | id   | node_id | name   | host        | role      | ha   | fqdn            |
|-------------|------|---------|--------|-------------|-----------|------|-----------------|
|             | 21   | 1       | master | 10.31.5.251 | Primary   | 1    | WIN-OAJO0472JKH |
| <b>&gt;</b> | 23   | 2       | slave  | 10.31.5.253 | Secondary | 1    | WIN-ANCC6GHR5TJ |
|             | NULL | NULL    | NULL   | NULL        | NULL      | NULL | NULL            |

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## **International Headquarters**

1 Hayarden Street,

Airport City

Lod 7019900, Israel

Tel: +972-3-976-4000

Fax: +972-3-976-4040

#### AudioCodes Inc.

80 Kingsbridge Rd

Piscataway, NJ 08854, USA

Tel: +1-732-469-0880

Fax: +1-732-469-2298

**Contact us:** https://www.audiocodes.com/corporate/offices-worldwide

Website: https://www.audiocodes.com/

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