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PRODUCT  
GUIDE

# MiContact Center Enterprise

## Open Application Server – Installation Instructions

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## INTRODUCTION

This document describes how to perform complete and custom installations of Open Application Server (OAS) software. Steps for removing OAS software are also provided in this document.

The things described in this document are:

- The basics of system installation.
- What you need to know before you install.
- How to perform a Complete installation of a new system.
- How to perform a Complete installation on a system with an existing configuration.
- How to perform a Custom installation.
- Upgrading from OAS 9.4 to OAS 9.5.
- Installation of Stand Alone Components.
- How to remove OAS.

## BASICS OF SYSTEM INSTALLATION

OAS comprises features that can be installed on one or more servers. The features are described in Table 1 OAS Features.

**Table 1: OAS Features**

FEATURE	DESCRIPTION	CAN BE INSTALLED ON
Basic Services	Backbone of the OAS system.	OAS host system only
Network Resource Manager	Needed to run the Network Resource Manager.	One server only
Call Control	Needed to run a call control server on a server.	One server only
Media Server	Needed to run a media server on a server.	Multiple PCs
OAS Management Tools	A user interface needed to configure and manage an OAS system.	Multiple PCs
OAS Software Development Kit	Installs the libraries and header files needed by developers to write applications that interact with OAS.	Multiple PCs

All features (except the OAS Software Development Kit) are needed for OAS to function properly. The features can be installed on one server or distributed among multiple servers. Distributing among multiple servers can, in some cases, enhance performance.

OAS can be installed as a complete or a custom installation.

### **Complete installation**

All OAS features are installed on one server.

### **Custom installation**

Enables installation of any combination of features on a server.

## BEFORE INSTALLATION

Before installation of OAS, the following is essential:

1. Knowing which feature(s) you want to install on each server in the system.
2. You need to have Local Administrator privileges.
3. You need to have Domain Administrator privileges, if you want the installation program to create OAS Administrator and Client Groups. Otherwise, you must ensure that the Windows Global groups for the OAS Administrator and OAS Client accounts have already been created by the Domain Administrator in the same Domain as the OAS Server, and that the required user accounts have been added to these groups.
4. Make sure that the Enterprise License Manager (ELM) Server or Client has been installed if you are performing a **Complete** installation or installing the **Basic Services** feature. For more information on the ELM installation see the *OAS Licensing Guide*.



**Note:** OAS cannot be installed if ELM (client or server) is not installed on the host machine.

5. Knowing the location of the SQL Server and have SQL administrative credentials if you are performing a **Complete** installation or installing the **Basic Services** feature. Also, make sure that the SQL Client Utilities software is installed on the server you use to install OAS. If you do not want to install the PDC database, you can choose so when prompted.
6. Know the location of the old configuration files and old prompt files if you are upgrading from an older OAS release.
7. Have the following on hand:
  - MiCC Enterprise Media Kit
  - License Keys for Call Control and IP Media ports
  - Text To Speech (TTS), and Automatic Speech Recognition (ASR) packages (optional)

## COMPLETE INSTALLATION

It is possible to select to perform a complete installation on a new system, or on a system that is using existing configuration.



**Note:** If you are upgrading OAS from an earlier version, follow the steps in section Upgrading below.

### ON A NEW SYSTEM

To perform a new (and complete) installation of OAS:

1. Close all applications and remove any disk from the DVD drive, if so equipped
2. Unzip the MiCC Enterprise media kit zip file to a temp location on the server and navigate to the OASInstallation and click **Install** followed by **Install OAS Server**. In the next screen, select **OAS** and click **Next**. A wizard guiding you through the installation launches.
3. Click **Next**.  
The **Setup Type** dialog appears.
4. Tick **Open Application Server** and click **Next**.  
The **License Agreement** dialog appears.
5. Read the agreement, select **I accept the terms of the license agreement**, and click **Next**.  
The Customer Information dialog appears.
6. Enter your name in the **User Name** field and your company name in the **Organization** field, and then click **Next**.

The **Type of Installation** dialog appears.



**Note:** MX-ONE IP will install a H.323 based media Server. MX-ONE SIP is recommended.

7. Select the desired type of installation, and click **Next**.  
The Choose **Destination Location** dialog appears.
8. Click **Change** if you wish to install the OAS software in a location other than the default location.  
Click **Next**.  
The **Setup Type** dialog appears.
9. Select **Complete**, and click **Next**.



**Notes:**

- If Enterprise License Manager is not found on the server, an error message will appear and the installation will be aborted.
- If any other required software is missing, a message is displayed asking to check that all required software have been installed.

The **Restore Prompts Files** dialog appears.

10. Select **No saved prompt files**, and then click **Next**.  
The **Configuration Repository Files** Folder dialog appears.

11. Decide where to install the configuration repository folders:
  - a. Click **Change** to install the repository files and repository backup files to a location other than the default locations. Navigate to the desired directories, and click **OK**. Configuration data for OAS is stored in the repository directory. Each time the configuration data is changed, a backup of the old data is stored in the backup directory.
  - b. Enter a number in the **Configuration backup** count field to indicate the number of backups that will be made until the oldest one is discarded, and then click **Next**. The **OCS Restore/Upgrade** dialog appears.
12. Select **No Old Files**, and click **Next**.  
The **Multi Tenanted Feature Installation** dialog appears.
13. Select **Tenanted OAS Installation** or **Non-Tenanted OAS Installation** based on requirement, and click **Next**.  
The **Root Container Folder** dialog appears.
14. Click **Next**.  
The **Required Languages** dialog appears.

**Notes:**

- For Non-Tenanted installation the User Prompt path will be disabled.
- If System Prompt folder is already a share point, a dialog asking if you like to use the same appears. Click **Yes** to overwrite the existing directory and proceed.
- If User Prompt folder is already a share point, a dialog asking if you would like to use the same appears. Click **Yes** to overwrite the existing directory and proceed.

15. Select at least one language, and click **Next**.  
The **Trace File Location** dialog appears.
16. Files can be saved at a default location, or at another location:
  - a. Click **Next** to store the trace files in the default location.
  - b. Click **Change** to store the trace files in a location other than the default location, and navigate to the desired directory.
17. Enter a prefix name (or use the provided default name) in the **Trace file prefix** field and click **Next**.  
The **OAS Global Group Configuration** dialog appears.



**Note:** The prefix name will be added to the beginning of all trace files. The trace files show the various steps of system operation. These files can be read with the **OASLOGMONITOR.EXE** utility found in the **...Mite\OAS\Bin** folder of the OAS system.

18. Enter your **OAS Administrator** and **Client global user group** names (up to 20 characters).




**Note:** If you have Domain Administrator privileges, these groups will be created if they do not already exist. If you do not have these privileges, you must make sure that OAS Client and Admin groups are added to the domain as global groups.

19. Enter the name of an existing user account in the **Client User Name** field.

This user name will be added to the Client Group and can be used by client applications to connect to OAS services. If you do not have Domain Administrator privileges, you will receive a reminder to enter a name at a later time. Or leave this entry blank if no check on this are to be performed.

20. Click **Next**.  
The **SQL Server Host Location** dialog appears.

21. Make the desired selection:
    - Select **Install databases** to install the Performance database, and select the name of the SQL Server host from the **Computer Name** drop-down list. If the computer name is not available in the drop-down list, enter it manually in the space provided.
    - If you do not want to install the Performance database, select **Do not Install databases**.
  22. Click **Next**.  
If you have selected the Install databases in the previous step, the **SQL Server Logon Information** dialog appears.
  23. Enter a SQL Server Administrator User ID in the **Admin User ID** field, and the password in the **Admin Password** field, and then select the SQL instance from the **SQL Instance** drop-down list. If the instance name does not appear in the drop-down list, enter it manually.
  24. Click **Next**.  
The **SQL Server Initial Data and Log Sizes** appears.
  25. To store the database files in a location other than the default location, click **Change**, and navigate to the desired directory, and then click **OK**.
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- Note:** If the SQL database has been installed on a drive letter that does not exist on the OAS server, a mapped drive has to be created with the same drive letter mapping to any of the local drive or folder in the OAS server.
26. To set the size of the OAS PDC database to be calculated automatically based on a predefined formula, select **Based On Formula**, and then enter values in the **Number of Months** and **Number of Measurements** fields (if different than the default values provided). The values in these two fields will be used in the formula to calculate the size of the database.
- OR**
- To define the size of the OAS database, select **Direct Value**, and then enter values (in MB) in each of the four fields: **PDC Data Size**, **PPM Data Size**, **PDC log Size**, and **PPM Log Size**. Typically, one measurement running for one month will require 350 KB.- 27. Click **Next**.  
The **Ready to Install the Program** dialog appears.
- 28. Click **Install**  
The **Setup Status** dialog appears.
- 29. When OAS has been installed, you need to restart the computer to use the program.

## ON A SYSTEM WITH EXISTING OAS CONFIGURATION

The steps in the installation wizard are the same as when installing on a new system, but there are some differences in what should be selected, and what is needed prior to running the installation application.

Do the following:

30. Shutdown all running OAS client applications (OAS Configuration Tool, MiCC Enterprise application, and/or Script Manager).

31. Backup older versions of OAS data and migrate the voice prompts to a format compatible with OAS 9.4 or 9.5.



**Note:** To retain configuration of an older version, the configuration and prompt files must be backed up while performing uninstallation.

32. Unzip the MiCC Enterprise media kit zip file to a temp location on the server and navigate to the OASInstallation and click **Install** followed by **Install OAS Server**. In the next screen, select **OAS** and click **Next**. A wizard guiding you through the installation launches.

33. The installation wizard launches.



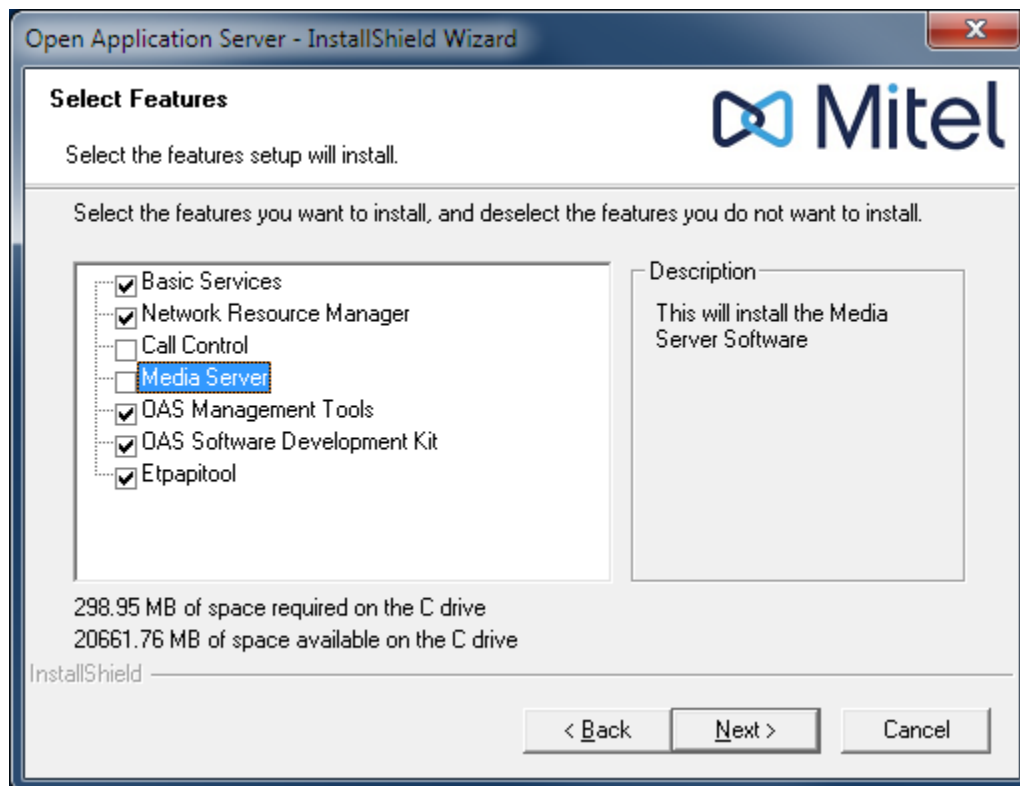
**Note:**

- In the **Restore Prompts Files** dialog you can select to restore prompts that were saved from a previous installation. Click **Change** if you wish to select a different folder than the one shown for the backed up prompts.
- If `root_container` has not been removed from the system, the new installation will find it and use it. The new installation will not delete already installed language files from this folder. Because of this all languages will be visible even if selecting only one or some of the languages during installation.
- In the **OCS Restore/Upgrade** dialog select one of the following:
  - **Upgrade backed up files from OAS 9.4**
  - OR
  - **Restore backed up files from OAS 9.5** if you wish to restore from an earlier build or service pack of OAS 9.5. Click **Change** to point out the folder containing the backed up files.
- The system is automatically configured as it was in the previous version. If the server name is different than the one in the previous configuration, the Host Names of the services being installed will be changed to the name of the current server. Upgrading can also be done manually after installation using the `OCSUpgrade` program that will be installed, see document OAS Software Configuration for details.

## CUSTOM INSTALLATION

The following steps describe how to perform a custom installation of OAS. Custom installations allow you to choose which features to install.

34. Repeat steps 1 through 9 in 4.1 On a New System.  
The **Setup Type** dialog appears.
35. Select **Custom**, and click **Next**.  
The **Custom Setup** dialog appears.



36. Tick the features that you want to install, and click **Next**. Depending on the features you select, some or all of the dialogs in the above section will appear. Please see 4 Complete Installation for instructions on any dialog not described in this section.
  - *Basic Services* should only be installed on one server (the *OAS Host*), and at least one ELM Client should be installed where these Basic Services are running. To simplify configuration of the system, you can install OAS Management Tools on each server in the system.
  - If selecting only Media Server, a dialog prompting you to enter Domain name, User name and Password will appear. These are needed to start Mitel Daemon on the server, and must therefore be assigned with *Logon as a service right* on the local machine (that is, the media server).



**Note:** The disk space required for each feature is shown below the feature description. The disk space that is shown when the feature is selected is not the total disk space, but the disk space needed for the selected feature to be installed.

- c. If Basic Services feature was not selected, but Media Server together with other features, or only Media Server is selected, then the **Logon Information** dialog appears.

Enter the domain name, the user name (that is, the user who had logged on to the Media Server machine with administrative privilege), and the password. When you click **Next**, the OAS Basic Services Location dialog appears, see **b**.

- d. If you did not select to install Basic Services, at some point the OAS Basic Services Location dialog appears.

Enter the name of the server on which Basic Services is installed (the OAS Host) in the **OAS Basic Services Location** field, and then click **Next**. The **Ready to Install the Program** dialog appears.

**37. Click Install.**

The progress of the installation will be displayed.

**38. When installation is complete, the InstallShield Wizard Completion dialog appears.**

**39. Click Yes to shut down and restart your system.**



**Note:** You will not be prompted to restart the system if you select to install only OAS Management Tools or the OAS SDK features.

## UPGRADING

In this section, the following is described:

- Upgrading OAS versions older than 9.4 to 9.5
- Upgrading OAS 9.4 to 9.5
- Upgrading of a Stand Alone Media Server.

OAS 9.5 supports the following upgrades from OAS 9.4:

- Complete upgrade from OAS 9.4.
- Stand alone NRM/Call Control/Management Tool/SDK feature upgrade.

## UPGRADING OAS VERSION PRIOR TO OAS 9.4 TO 9.5

Older versions of OAS must be upgraded in steps to release 9.4 prior to upgrading to OAS 9.5:

Upgrade from OAS 8.3.x to OAS 9.4:

- a) Upgrade OAS 8.3 to 9.0 directly
- b) Upgrade OAS 9.0 to 9.1 directly
- c) Upgrade OAS 9.1 to 9.2 directly
- d) Upgrade OAS 9.2 to 9.3 directly
- e) Upgrade OAS 9.3 to 9.4 directly

## OAS 9.4 TO OAS 9.5

To upgrade an OAS 9.4 installation to an OAS 9.5 installation, do the following:

40. Unzip the MiCC Enterprise media kit zip file to a temp location on the server and navigate to the OASInstallation and click Install followed by Install OAS Server. In the next screen, select OAS and click Next. A wizard guiding you through the installation launches. A wizard guiding you through the installation launches.
41. Click **Next**.  
The **OAS Setup Type** dialog appears.
42. Select **Open Application Server**, and click **Next**.  
The **Type of Installation** dialog appears.
43. Select the desired type of installation, and click **Next**.  
The **Multi Tenanted Feature Installation** dialog appears.
44. Select **Tenanted OAS Installation** or **Non-Tenanted OAS Installation** based on requirement, and click **Next**.  
The **Root Container Folder** dialog appears.
45. Click **Next**.  
The **Required Languages** dialog appears.

**Notes:**

- For Non-Tenanted installation the User Prompt path will be disabled.
- If System Prompt folder is already a share point, a dialog asking if you like to use the same appears. Click **Yes** to overwrite the existing directory and proceed.
- If User Prompt folder is already a share point, a dialog asking if you would like to use the same appears. Click **Yes** to overwrite the existing directory and proceed.

46. Select at least one language, and click **Next**.   
The **SQL Server Host** dialog appears.
47. Make the desired selection:
  - Select **Install databases** to install the Performance database, and select the name of the SQL Server host from the **Computer Name** drop-down list. If the computer name is not available in the drop-down list, enter it manually in the space provided.
  - If you do not want to install the Performance database, select **Do not Install databases**.
48. Click **Next**.  
If you have selected the Install databases in the previous step, the **SQL Server Logon Information** dialog appears.
49. Enter a SQL Server Administrator User ID in the **Admin User ID** field, and the password in the **Admin Password** field, and then select the SQL instance from the **SQL Instance** drop-down list. If the instance name does not appear in the drop-down list, enter it manually.
50. Click **Next**.  
The **SQL Server Initial Data and Log Sizes** appears.
51. To store the database files in a location other than the default location, click **Change**, and navigate to the desired directory, and then click **OK**.



**Note:** If the SQL database has been installed on a drive letter that does not exist on the OAS server, a mapped drive has to be created with the same drive letter mapping to any of the

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local drive or folder in the OAS server.

52. To set the size of the OAS PDC database to be calculated automatically based on a predefined formula, select **Based On Formula**, and then enter values in the **Number of Months** and **Number of Measurements** fields (if different than the default values provided). The values in these two fields will be used in the formula to calculate the size of the database.

**OR**

To define the size of the OAS database, select **Direct Value**, and then enter values (in MB) in each of the four fields: **PDC Data Size**, **PPM Data Size**, **PDC log Size**, and **PPM Log Size**. Typically, one measurement running for one month will require 350 KB.

53. Click **Next**.  
The **Ready to Install the Program** dialog appears.
54. Click **Install**  
The **Setup Status** dialog appears.
55. When OAS has been upgraded, you need to restart the computer to use the program.

## CONFIGURATION DETAILS

### PORT CONFIGURATION AND WINDOWS FIREWALL

If OAS is installed on Windows Server with Windows Firewall active, the IP Media Server ports (TCP and UDP) and the Application Link/X-LINK port needs to be added to the exception tab in Windows Firewall. For an overview of MiCC Enterprise and OAS port numbers, refer to the document MiCC Enterprise Port Numbers, 18/1551-LXA 119 54.

For further configuration details of OAS refer to the document Software Configuration, 1/1543-FAS 104 55.

## REMOVAL OF OAS



**Note:** Before removing OAS from your system, shut down all OAS client applications (OAS Configuration Tool, MiCC Enterprise applications and Script Manager services to ensure complete removal.

To remove OAS, do the following:

56. From the Control Panel, select **Programs and Features** and select Open Application Server and then click on Uninstall/Change.



**Note:**

- Removing OAS does not include remove of the Enterprise License Manager installation. Removal of Enterprise License Manager can be performed through the **Control Panel**, from **Programs and Features**.
- Removing OAS removes all OAS files. If any files (for example, prompts or

configuration files) are to be retained, they must be saved before or during the removal of OAS. To get data backup options during removal of OAS use the **Mitel Open Application Server** program group or click **Change** from the Control Panel, Add or Remove Programs option. Clicking **Remove** from within the Control Panel Add or Remove Programs option does not give data backup options. Refer to document OAS Data Backup and Restore for details.

**57. Select Remove, and then Next.**

The **Save Current OAS Configuration Files** dialog appears.

- Select **Save files** to save the current OAS configuration files for installation at a later time. Click **Change** to navigate to the directory where the files should be stored, and click **OK**

OR

- Select **Do not save files**.

**58. Click Next.**

The **Save Prompt Files** dialog box appears.

- Select **Save files** to save recorded files, and click **Change** to navigate to the directory where the files should be stored and click **OK**
- OR: Select **Do not save files**.

**59. Click Next.**

The **Remove the program** dialog appears.

**60. Click Remove.**

The **Removing Open Application Server** dialog appears.

**61. When removal process is finished, a dialog saying Uninstall Complete appears.**

**62. When installation is complete, click Finish to close the wizard, and restart the computer.**



**Note:** The removal program will only remove files created by the OAS installation and OAS applications. If you have created any files other than the ones installed under the initial installation directory, you may need to remove these files manually.

