Oracle® DIVAdirector

Installation Guide

Release 5.4.1

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Oracle DIVAdirector Installation Guide, Release 5.4.1

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Glossary

Preface

This document provides a basic understanding of system functionality and detailed instructions for installing Oracle DIVAdirector 5.4.1.

Audience

This document guides System Administrators through initial Oracle DIVAdirector system installation and configuration.

Documentation Accessibility

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Access to Oracle Support

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Related Documents

For more information, see the Oracle DIVAdirector documentation set for this release located at `https://docs.oracle.com/en/storage/#csm`.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Introduction

This chapter introduces you to DIVAdirector 5.4, and includes the following information:

- Overview
- Preparing for Installation

Overview

Oracle DIVAdirector is a Graphical User Interface (GUI) for Oracle DIVArchive 7.4 and later systems. Through the web interface you can locate and work with videos remotely from any computer on your network. Administrators monitor and maintain the system and user accounts with minimal effort from anywhere you have access to your network.

You access DIVAdirector through a web browser using the HTTPS protocol. Some of the advantages of a web based interface include:

- No GUI software installation required.
- A browser-based GUI can be accessed from anywhere on the network.
- No client application configuration is necessary.
- No client updates are required.

Using DIVAdirector you can:

- Search for video clips by file name, date, category, and format.
- Define metadata fields that support search.
- Use advanced search operations to hone searches for specific criteria. For example, you can search for video clips of farm animals in the United States, but not in Nebraska or Kansas.
- Review located clips using the built-in media player.
- Extract selected frames, add them to a list of related clips, forward them to editing applications, or arrange them for distribution.

> **Note:** DIVAdirector 5.4 and later is licensed per user, not per concurrent user. You identify the maximum concurrent users (between 1 and 100) on the **Admin**, **System**, **Defaults** screen.

Preparing for Installation

Before the Oracle Delivery and Installation Team arrives at your site you must complete installation and configuration of your system hardware. You must assign IP addresses and storage locations, open ports in the firewall, complete network cabling, and so on. When the team arrives they will review the configuration specifications before starting the installation to ensure all necessary components are in place and accessible.

Installed hardware must meet or exceed the list of recommended minimum hardware specifications provided to you. The server host hardware must have Microsoft Server 2008 R2, or Windows 2012 R2 installed. See DIVAdirector Prerequisites and Minimum System Configuration for information on required software and hardware.

You configure the server host computer for operation within your network and restrict access to the server with a unique, secure password. Install Microsoft IIS (Internet Information Server) 7 for Windows 2008 R2 Server, or IIS 8 for Windows 2012 R2 Server, on the server host computer, and confirm operation and network connectivity.

You can find Microsoft IIS installation instructions in the following locations:

IIS 7 (Windows 2008 R2 Server)
https://docs.microsoft.com/en-us/iis/install/installing-iis-7/installing-iis-7-and-above-on-windows-server-2008-or-windows-server-2008-r2

IIS 8 (Windows 2012 R2 Server)
https://docs.microsoft.com/en-us/iis/get-started/whats-new-in-iis-8/installing-iis-8-on-windows-server-2012

Any third party applications must be licensed and installed (for example, Vantage). You must configure all DIVArchive configuration parameters set up including IP addresses, port configurations for storage devices, video servers, Avid Interplay (if in use), Microsoft Cluster Manager (if in use), and so on. The team needs this information for reference during DIVAdirector installation.

You must have at least one fully operational client computer available for testing during and after installation. Client computers must have Microsoft Windows 7 Professional or Ultimate (either 32-bit or 64-bit) with Service Pack 1, or Mac OS 10.6 (Snow Leopard) or later operating system installed, and one of the following supported web browsers (visit My Oracle Support to check for updated browsers and restrictions):

- Internet Explorer 11 or later
- Chrome 45 or later
- Firefox 38 or later
- Safari 8.0 or later

> **Note:** Playback of WMV files are only supported in Internet Explorer with the Silverlight plug-in installed.

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Oracle DIVAdirector Software

This chapter discusses the software in general, identifies prerequisites for installation, and includes the following information:

- DIVAdirector Prerequisites
- DIVAdirector 5.4 and 5.41 New and Enhanced Features and Functionality

DIVAdirector Prerequisites

The server can connect to Oracle DIVArchive 7.4, or later, through the Oracle DIVA Enterprise Connect software. You will install PostgreSQL database, DIVAdirector, and the following components:

- Oracle DIVAdirector Web Server 5.4.1
- Oracle DIVAdirector TaskManager
- Oracle DIVAdirector API
- PostgreSQL 9.6.6

> **Caution:** Ensure that the computer name is set before running DIVAdirector installer. The computer name cannot be changed after DIVAdirector is installed because it invalidates the rights and permissions of the IIS user account.

Ensure that the computer's drives and network connections are correctly configured. Storage locations must have appropriate access rights, and network devices must have log in credentials configured to connect automatically.

Ensure the computer's Administrator account has a secure password.

If you are performing an upgrade, you can upgrade to DIVAdirector 5.4.1 directly from DIVAdirector 5.2 or later. The upgrade is not compatible with DIVAdirector releases before release 5.2. Earlier releases of DIVAdirector have additional steps required before they are eligible to upgrade with this installer. *Contact Oracle Support for details on the necessary steps to upgrade from earlier releases*.

DIVAdirector 5.4 and 5.41 New and Enhanced Features and Functionality

See the *Oracle DIVAdirector Release Notes* for a list of enhancements and new features.

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System Installation

This chapter discusses DIVAdirector 5.4 installation and deployment, and includes the following information:

- Planning System Deployment
- Minimum System Configuration
- New System Installation
- Optional Manual Adjustments
    - Relocating DIVAdirector Database Files
    - Using Network Attached Storage (NAS) for the Proxy File Storage Folder
- Upgrading DIVAdirector 5.2 (and later) to DIVAdirector 5.4
- PostgreSQL SSPI Pass-Through Authentication Setup

Planning System Deployment

DIVAdirector consists of four main components installed on the same host and interacting with each other:

- DIVAdirector Web Server (IIS)
- DIVAdirector Database - PostgreSQL DB Engine running as a service
- Oracle DIVAdirector TaskManager running as a service
- Oracle DIVAdirector API running as a service

Oracle highly recommends installing DIVAdirector on a host different from the DIVArchive system to improve the performance of both systems. They may be installed together on the same computer if it is a standalone system.

Minimum System Configuration

The minimum system specifications for deploying DIVAdirector are as follows (see the *Oracle DIVArchive Supported Environments Guide* in the *Oracle DIVArchive Core documentation* library for more information):

Quad Core Processor
2 GHz or higher

Memory
8 GB or higher (16 GB or higher is recommended)

Network

(1) GbE Ethernet connection

System Drive

Hardware mirrored (RAID 1) 100 GB, or higher, using SATA, SAS, or equivalent drives.

Proxy and Database Storage

Hardware RAID 5 (four drives - three plus one redundant) using SATA, SAS, or equivalent drives. The drive capacity depends on the size of the system.

Modem

Required for dial-in support if a VPN connection is not available.

Power

Recommended redundant hot-swap power supplies.

New System Installation

Use the following procedure to install DIVAdirector 5.4 on a new system:

> **Caution:** Ensure that the computer name is set before running DIVAdirector installer. The computer name cannot be changed after DIVAdirector is installed because it invalidates the rights and permissions of the IIS user account.

1. Confirm that the Windows Update Service and Remote Registry Service are enabled before installation. You can disable them after the installation completes. These services are required to allow a component within the installer called the *Windows Desktop Experience* to be installed.

2. Double-click the DIVAdirector installer to begin installation.

   You will see an *Installation Prerequisites Warning* dialog box displayed.

3. Click **OK** to continue.

4. A notification dialog box is displayed if a previous version of DIVAdirector 5 is installed.

   Click **Yes** to uninstall the previous version, or click **No** to leave the previous version in place.

5. Click **Install** to proceed.

   The installer first checks if the *Windows Desktop Experience* or *Windows Media Player* are installed. If not, it will install the appropriate program. This will require a restart of the computer to continue the installation

   The installer program will continue after checking (and possibly restarting) the computer.

6. If performing a fresh install, select **Install DIVAdirector 5.4.1** as *Type of Install* (this is the default selection), and click **Next**.

   The drop-down list contains the various installation type options available. If upgrading from DIVAdirector 5.2 or DIVAdirector 5.3, choose the appropriate option in the list for the type of installation being performed. The available installation types are as follows:

Install DIVAdirector 5.4.x

This selection performs a new DIVAdirector installation when no previous DIVAdirector release has been installed.

Upgrade DD5.2 to DD5.4.x

This selection upgrades DIVAdirector from release 5.2.x to DIVAdirector 5.4.

Upgrade DD5.3 to DD5.4.x

This selection upgrades DIVAdirector from release 5.3.x to DIVAdirector 5.4.

> **Caution:** In the next steps, do not specify a path pointing to a network mapped drive if you intend to use a network share. Only **UNC (Uniform Naming Convention)** paths can be specified for the proxies folder. The reason is that drive mapping is performed for the interactive user session only. This drive mapping does not exist in the DIVAdirector Web Server service session. Although this dialog accepts a network proxy path, the corresponding changes must be performed to the DIVAdirector Web Server service user account manually.

7. Specify the *Database Folder Pathname* (this folder must be empty), and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

8. Specify the *Database Backup Folder* for database backup and restore, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

9. Specify the source location in the *Local Archive* field, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

10. Specify the destination location in the *Local Restore* field, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

11. Specify the location in the *QC Reports Folder* field, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

12. Specify the *Transcode Service api url*, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

13. Specify the Oracle DIVA Enterprise Connect address, port, client ID, and API key, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

14. Specify the DIVAdirector host name, IP address, and port, and then click **Next**. *This page is not available if upgrading from an earlier version of DIVAdirector 5.4.*

15. Specify the *Username* and *Password* for a local user account that will run the DIVAdirector Web application.

    A complex password is necessary. If you are using either a SAN, or NAS, for proxy storage, then it is better to run IIS as a domain account.

16. Click **Install** to continue.

17. When the installation is complete you will be prompted to restart. Click **OK** to continue.

18. Choose *Reboot Now* and click **Finish**.

19. After the computer has restarted, login as *Administrator* and locate the Internet Information Services Manager using the Windows **Start** menu.

20. After the IIS Manager loads, click the computer name of the computer where you are installing DIVAdirector, then click **Sites**, and then click **DIVAdirector 5**.

21. Verify that the DIVAdirector 5 website is running by confirming that the **Start** button on the right side of the screen is disabled (grayed out), indicating that the site is operational.

Optional Manual Adjustments

This section describes instructions for adapting the system if it is getting short on disk space.

Relocating DIVAdirector Database Files

You can migrate database files to another storage system after installation if necessary. Use the following procedure to migrate the DIVAdirector database to another location:

1. Stop IIS and all DIVAdirector services. Use the Windows TaskManager to verify that there are no DIVAdirector processes running.

2. Locate the PostgreSQL service in the Windows Services Administration window. The PostgreSQL service name has the format `postgres-{platform}-{version}` - `PostgreSQL Server {version}`. For example `postgres-x64-9.6 - PostgreSQL Server 9.6`.

3. Stop the Postgres service. Using the Windows TaskManager, verify that there are no Postgres processes running.

4. Modify the PostgreSQL Service registry settings as follows:

    1. Open the Windows Registry Editor and navigate to `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services`.

    2. Underneath this key is a key for the Postgres service. It will have the same name as the service identified in Step 2 - navigate to this key.

    3. Double-click the *ImagePath* value and find the `-D path` setting. Change the path to the new location. If the path contains spaces, enclose the path entry within quotations.

    4. Save the modified setting.

5. Modify the DIVAdirector database location registry setting as follows:

    1. Open the Windows Registry Editor and navigate to the appropriate registry key as follows:

        32-bit Systems
        `HKEY_LOCAL_MACHINE\SOFTWARE\Front Porch Digital Inc.\DIVAdirector\DB`

        64-bit Systems
        `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Front Porch Digital Inc.\DIVAdirector\DB`

    2. Modify the registry value `PostgresDB` to the new database directory location.

6. Close the Windows Services Administration window (if it is still open), and then reopen it.

7. Restart the PostgreSQL service.

8. Restart the DIVAdirector Server service.

Using Network Attached Storage (NAS) for the Proxy File Storage Folder

The Proxy File Storage Folder may become very large. You can place it on internal Server Storage or on an external (larger) NAS (Network Attached Storage) array. You must add new Proxy Storage Location pointing to a Shared Network Folder. *See the Oracle DIVAdirector Administrator's Guide for directions on adding a new Proxy Storage Location*.

The Network Path must be specified in the following UNC format:

```
\\host_name\share_name\subfolder\...\subfolder
```

The Microsoft Windows Local System account is restricted from accessing network resources. Therefore, you must use a dedicated user account instead. You must grant access rights to read the Proxy folder on the NAS to the same account. You must configure the Proxy folder to allow the user account running the IIS application pool and the Oracle DIVAdirector TaskManager to write to the Proxy folder.

You must grant this account read and write permissions for accessing the Proxy folder on the NAS, and the user account running the DIVAdirector Web Server service must be a member of the *Administrators* group because typically this service must have access to the `Program Files` folder. You must also add the account to the *IIS_IUSRS* group to run the IIS application pool.

Using a path with a mapped drive letter (for example `K:\Proxies`) is not supported because this path will be used by the DIVAdirector Web Server for opening proxy files upon user requests. The Web Server that runs as a service is not aware of mapped network drives because these are associated with an interactive user session.

> **Note:** DIVAdirector Proxy storage can also be on a SAN. However, some SANs do not have drivers that are fully compatible with IIS and cannot be used for this purpose. *See the Oracle DIVAdirector Administrator's Guide for step by step account configuration procedures*.

Upgrading DIVAdirector 5.2 (and later) to DIVAdirector 5.4

If you are upgrading an existing DIVAdirector 4 system, it must be running one of the operating systems specified in DIVAdirector Prerequisites. *Contacting Oracle support for assistance in properly upgrading DIVAdirector is highly recommended*.

Use the following procedure to upgrade from DIVAdirector 5.2 (and later) to DIVAdirector 5.4:

1. Perform a full database backup to a known location before starting any upgrade process.

2. Run the installer, and click **Install** to continue.

3. The installer first checks if any prerequisites need to be installed. If one of the prerequisites is not found, it will install the appropriate application. This will require a restart of the computer to continue the installation.

4. After the computer has been restarted, select the **Upgrade DD5.2 to DD5.4.x**, or **Upgrade DD5.2 to DD5.4.x Server** option as the *Type of Install* using the drop-down list, and then click **Next**.

5. From this point forward, follow the same procedure as installing DIVAdirector onto a new system (see New System Installation).

PostgreSQL SSPI Pass-Through Authentication Setup

You can set up *PostgreSQL SSPI Pass-Through Authentication* after DIVAdirector is upgraded if you are using the same domain user account to run all DIVAdirector services, the IIS application pool, and PostgreSQL. This configuration removes the need to have plain text user names and passwords in the connection strings, providing improved security.

Follow the instructions at https://wiki.postgresql.org/wiki/Configuring_for_single_sign-on_using_SSPI_on_Windows to enable SSPI for PostgreSQL.

After you complete the instructions, you must update the configuration files for each of the following DIVAdirector services. You must modify the configuration files in the following default locations:

Oracle DIVAdirector Web Service

```
C:\Program Files(x86)\DIVAdirector 5\www\Web.config
```

Oracle DIVAdirector TaskManager

```
C:\Program Files (x86)\Divadirector
5\TaskManager\Oracle.DIVAdirector.TaskManager.exe.config
```

Oracle DIVAdirector API

```
C:\Program Files (x86)\Divadirector 5\Api\Oracle.DIVAdirector.Api.exe.config
```

Oracle DIVAdirector Annotation Import Service

```
C:\Program Files (x86)\Divadirector
5\Tools\DDServices\DIVADirectorServices.exe.config
```

In each of the services the key will be the same:

```
<connectionStrings>
   <add name="DIVAdirectorContext"
connectionString="Server=localhost;Database=DIVAdirector;User
Id=postgres;Password=MANAGER;" providerName="Npgsql"
    />
</connectionStrings>
```

You must modify the connection string parameter as follows:

```
connectionString="Server=localhost;Database=DIVAdirector;Integrated
Security=true;Include Realm=true;"
```

4

DIVA Services

- Windows Services
- DIVAdirector API Service
- Transcode Service

Windows Services

The DIVAdirector installer installs two additional Windows Services with the DIVAdirector Web application. You can configure both of the services in the Windows Services console, or through the following command line parameters:

install
This command installs the service.

uninstall
This command uninstalls the service.

start
This command starts the service.

stop
This command stops the service.

TaskManager

The TaskManager Service is responsible for handling any long running background tasks required by DIVAdirector. The binaries for this service are installed in the `TaskManager` subdirectory, located under the DIVAdirector installation directory (for example, `C:\Program Files (x86)\DIVAdirector 5\TaskManager`). This service is visible in the Windows Services console with the name `Oracle.DIVAdirector.TaskManager`.

The TaskManager performs the following functions:

- House Keeping tasks to clean up the Postgres database
- House Keeping tasks to clean up log files older that the configured maintenance values
- Responsible for object synchronization with DIVArchive Manager

Configuring TaskManager

The `Oracle.DIVAdirector.TaskManager` service configuration file, `Oracle.DIVAdirector.TaskManager.exe.config`, is located in the `C:\Program Files (x86)\DIVAdirector 5\TaskManager\` folder.

Several settings require configuration in the `<appSettings>` section as follows:

1. DIVA Enterprise Connect API Endpoint Configuration

   AppName
   This parameter is the name of the application to be registered in the WS API interface. Specifically, this is the value of the `appName` parameter passed to the `registerClient` method. This is required before interfacing with the WS API.

   ```
   <add key="AppName" value="DIVAdirector" />
   ```

   ProcessId
   This parameter identifies the process ID number used for registering the client application. Specifically, the value of the `processID` parameter passed to the `registerClient` method. This is required before interfacing with the WS API.

   ```
   <add key="ProcessId" value="1234" />
   ```

   LocationName
   This parameter identifies the physical location where the computer running the client is located. Specifically, the value of the `locName` parameter passed to the `registerClient` method. This is required before interfacing with the WS API.

   ```
   <add key="LocationName" value="location_name" />
   ```

   DIVArchiveApiUrl
   This parameter identifies the WS API REST endpoint.

   ```
   <add key="DIVArchiveApiUrl" value="
   https://DIVA-VM-105:9444/diva/service/rest/2.2/DIVArchiveWS_REST" />
   ```

   ClientId
   This parameter is the client id (`username`) generated by the Key Generator script during the DWS installation.

   ```
   <add key="ClientId" value="e3af4c10-e7ca-4143-970a-46bc0264a46f" />
   ```

   ApiKey
   This parameter is the API key (`password`) generated by the Key Generator script during the DWS installation.

   ```
   <add key="ApiKey" value="kAkWTK3ObnEOmHheJAKP" />
   ```

   DWSVersion
   This parameter is the version of the API service that DIVAdirector is targeting.

   ```
   <add key="DWSVersion" value="2.2"/>
   ```

2. Task and Task Interval Configuration

   The following tasks are configured in the `<ScheduledTasks>` section and run by the Windows Service. This feature was identified as *HouseKeeper* in DIVAdirector 5.2. You cannot disable any of these tasks without losing functionality. However, you can tune an interval timer with the `IntervalInSeconds` parameter to achieve better performance.

HouseKeeperTask

This task automates system maintenance operations required by DIVAdirector, including both file system cleanup (removing old log files, purging system directories such as `local archive`, `local proxy`, and so on), and database maintenance tasks.

DIVArchiveSyncTask

This task is responsible for synchronizing objects with DIVArchive.

UpdateRequestsStatusTask

This task monitors and updates the state and progress of a DIVArchive request.

OnRequestCompleteTask

This task is responsible for creating proxies in DIVAdirector by sending requests to the transcoding service when a DIVArchive request completes.

ProxyGenerationTask

This task is responsible for handling the automatic queuing of proxy generation tasks.

ProxiesMigrationTask

This task is responsible for handling the automatic migration of legacy proxies to newer formats.

CreateProxyOnJobCompleteTask

This task is responsible for creating proxies in DIVAdirector for queued transcoding jobs that are not associated with a DIVArchive request.

LegacyStorageMigrationTask

This task is responsible for reorganizing proxy storage locations after an upgrade to release 5.4 from earlier versions. Users will be unable to log in to DIVAdirector until the migration is complete.

DIVAdirector API Service

The DIVAdirector API Service is a web service responsible for authentication, authorization, and file upload requests for the *Local Archive* process. This service currently only handles a subset of the application's responsibilities. The binaries for this service are installed in the `Api` subdirectory located under the DIVAdirector installation directory (for example, `C:\Program Files (x86)\DIVAdirector 5\Api`). This service is visible in the Windows Services console with the name `Oracle.DIVAdirector.Api`.

Configuring the API Service

The `Oracle.DIVAdirector.Api` Service configuration file, `Oracle.DIVAdirector.Api.exe.config`, is located in the `C:\Program Files (x86)\DIVAdirector 5\Api\` folder.

The configurable settings are located in the `<appSettings>` section as follows:

> **Note:**   These settings are set by the installer during the installation process, so they should not have to be changed under normal circumstances

BaseUrl

This parameter is the endpoint exposed by the web service. This value is the value entered for the `DIVAdirector api url` during the installation process. Oracle does not advise altering this value after installation without assistance. If this value is changed, the `DIVAdirectorApiBaseUrl` key in the DIVAdirector `web.config` file will also need to be changed to match the `BaseUrl` value. If the port number changes, you must bind the TLS certificate to the updated port using the `netsh` command.

AccessTokenExpirationInMinutes

This parameter is the amount of time (in minutes) that an authentication token will be valid. This value determines the maximum amount of time allowed before another token must be issued.

Transcode Service

In the following section, the term *Transcode Service* refers to the Oracle service DIVAdirector uses to connect to multiple transcoder implementations. The term *transcoder implementation* refers to the specific transcoder configured for DIVAdirector use (for example, Vantage and other external transcoders).

Starting with Oracle DIVAdirector 5.3, a new Transcode Service was introduced. This service contained two main components. Both are Windows services that can be viewed and configured with the Windows Service management console. The first service called `Oracle.Transcode.Api.Owin`, is a RESTful API for submitting and viewing requests, and viewing currently configured transcoder information (name, release, and so on). The second service called `Oracle.Transcode.TaskManager`, is a service that handles any long running background tasks. For example, updating status and progress for active transcoding jobs.

Install the Transcode Service first. After installation, configure DIVAdirector to point to the installed Transcode Service. You can then use the DIVAdirector *Admin Interface* to configure the Transcode Service settings.

- Installing the Transcode Service
- Modifying the API Service Configuration File
- Configuring the Transcode Service
- Folder Permissions
- Database Settings
- API Endpoints

Installing the Transcode Service

1. Run the installer application. *Oracle recommends that you install the Transcode Service on the same server as DIVAdirector*.

2. Set the credentials for the two services: `Oracle.Transcode.Api.Owin` and `Oracle.Transcode.TaskManager`.

3. Open the Windows Service Management console and confirm that the two Windows services (`Oracle.Transcode.Api.Owin` and `Oracle.Transcode.TaskManager`) are installed and operational.

Modifying the API Service Configuration File

> **IMPORTANT:** Skip this section if the Transcode Service is installed on the same server as DIVAdirector.

If the Transcode Service is installed on a different server than DIVAdirector, modify the API Service configuration file:

1. Locate the configuration file for the API service in the installation directory:
   ```
   C:\Program Files (x86)\Oracle Corporation\Oracle Transcoder Service\
   Oracle.Transcode.Api.Owin.exe.config
   ```

2. Modify the `BaseUrl` key to the IP address (or host name) and port number (if required) of the server where you are installing the Transcode Service.

   For example:

   ```
   <appSettings>
       <add key="BaseUrl" value="http://192.168.11.1:9876/" />
   </appSettings
   ```

Configuring the Transcode Service

- Configure the Endpoint
- Configure Staging Locations
- Configure Transcoder Implementations

Configure the Endpoint

After installing the transcode server, you must update DIVAdirector to use the endpoint of the installed service. Use the *DIVAdirector Admin Interface*:

1. Navigate to **Admin > System > Service Settings > Transcode Service**, and then select the **Service Configuration** node.

2. Update the **Url** value with the endpoint of the transcode service.

   For default installations with the Transcode Service installed on the same DIVAdirector server, this value will be:
   ```
   <a target="_blank" href="http://127.0.0.1:9876/api/">
   http://127.0.0.1:9876/api/</a>
   ```

3. Click **Update**.

4. Check the status and version in the Transcode Service Status panel. The status should be set to "Running" and a version number should be visible.

5. If the status is "Down", verify the endpoint "Url" value is correct and matches the endpoint of the transcode service.

Configure Staging Locations

After configuring the transcode service endpoint correctly, a "Locations" panel displays. Use this panel to configure the temporary staging used by the transcode service to store transcoded files before they are moved to the DIVAdirector proxy storage location.

To add a new location:

1. Click the **Add** button.

2. Enter a location name.

   An alphanumeric string for identifying this location in other workflows.

3. Enter a path.

   A UNC path is recommended, but you can use a mapped drive letter if the drive letter is mapped to the same location for the DIVAdirector Task Manger service and the transcoder implementation.

4. If you are configuring multiple locations, you can select **Is Default** to designate the location as the default.

5. Click **Insert** to add the location.

6. Give read and write access to the DIVAdirector Task Manager service and any transcoder implementations for the location (see "Folder Permissions" on page 4-7 for more information).

Configure Transcoder Implementations

1. Configure the transcode service endpoint and staging locations before performing the following.

2. Navigate to **Admin > System > Service Settings > Transcode Service**, and then click the **Transcoders** panel.

   For new installations, there are three initial transcoder implementations preconfigured: Vantage 1, FFmpeg (Metadata only), and FFmpeg full workflows. The following sections describe the default implementations to expedite setup for installation.

Vantage 1 Default Implementation

This is a default implementation for integrating with a Vantage server via the web SDK.

1. The Name and Type will be pre-defined, and the Port will be set to the default Vantage sdk port of 8676. For default Vantage installations, you do not need to change these values.

2. Set the IP address of the server hosting the Vantage transcoder.

3. Within the "Presets" panel, check the preset InternalIds on the Vantage server to see if there are matching workflows. Ensure that the ID for the workflow in Vantage Workflow Designer matches the preset InternalId.

4. If a corresponding workflow for a preset does not exist on the Vantage server, import the sample workflows:

   a. Copy all workflows in the samples directory
      (C:\Program Files(x86)\Oracle Corporation\TranscodeService\SampleWo
      rkflows\TranscoderSetupFiles\Vantage) to the Vantage server.

   b. Open the Vantage Workflow Designer.

   c. Click **File**, and then select **Import Workflows**.

   d. Select the sample workflows copied in step 1.

   e. Switch to the **Workflow Design** tab for each workflow and ensure there are no errors.

   f. Activate each workflow.

g. After the workflows have been imported, double check that the imported workflow id matches the corresponding preset InternalId.

h. Verify **Enabled?** is checked, and then click **Save**.

FFmpeg (Metadata Only) Implementation

This default implementation is provided for using a command-line transcoder, like FFmpeg, for metadata extraction tasks in split workflow scenarios. One example would be a Vantage server without an Analysis license. You would use this workflow for extracting the required metadata that would otherwise be obtained using the Analyze and Identify actions.

1. In the "Presets" panel, there will be one "metadata only" preset. Ensure the executable specified in the "exe path" exists on server.

Default installations will use the path: `C:\Program Files (x86)\Oracle Corporation\TranscodeService\Plugins\ffprobe.exe`, but you will need to manually place this executable in the specified directory.

2. Select the **Enabled?** checkbox in the top "Transcoder Settings" panel to enabled the implementation.

3. Click **Save**.

FFmeg (full) Workflows Implementation

This default implementation is provided for using a command-line transcoder, like FFmpeg, as a standalone transcoder for generating all the required artifacts for any DIVAdirector proxy generation workflows. This implementation uses a Powershell script to call the FFmpeg executable and create the video file, thumbnail images, and metadata values.

1. Ensure the scripts specified in the "exe args" fields exist on disk. The Default installation installs two scripts:

```
C:\Program Files (x86)\Oracle Corporation\TranscodeService\SampleWorkf
lows\TranscoderSetupFiles\Custom\ffmpeg_proxy.ps1
```

```
C:\Program Files (x86)\Oracle Corporation\TranscodeService\SampleWorkf
lows\TranscoderSetupFiles\Custom\ffmpeg_shotlist_thumbnails.ps1
```

2. Open each script and ensure the executables specified for ffmpegPath and ffprobePath exist on disk. For default installations, this will be:

```
C:\Program Files (x86)\Oracle Corporation\TranscodeService\Plugins\ffm
peg.exe
```

```
C:\Program Files (x86)\Oracle Corporation\TranscodeService\Plugins\ffp
robe.exe
```

If these do not exist, manually place these files on the disk.

3. Select the **Enabled?** checkbox to enabled the implementation.

Folder Permissions

The transcode service does not move source files before sending requests to the transcoder implementation. Therefore, the source files must be in a location accessible by the transcoder implementation. The transcoder implementation requires read access to the configured proxy storage locations to extract thumbnail images from proxy files. However, the Transcode Service itself does not need read access to the source location.

Similarly, the Transcode Service does not transfer any files after transcoding is complete. Therefore, the transcoder implementation requires write access to the configured output location. The DIVAdirector TaskManager process must have read and write access to the same configured output location.

Database Settings

> **Caution:**   Oracle highly recommends performing these modifications with the assistance of an Oracle Support Technician.

There are several configuration settings stored in a local database that you can configure through the DIVAdirector Web Interface (see Configuring the Transcode Service for more details). Although it is not recommended, it is also possible to modify these data settings directly with SQL scripts.

Presets
The `Presets` table stores a named mapping to a transcoder implementation's internal workflow identifier. For Vantage, the *InternalId* is the workflow identifier.

Locations
The **Locations** table stores a set of predefined output storage locations. The Transcode Service will only accept jobs with a valid storage location. If no location is specified in the transcode request, the service will attempt to find a location using *IsDefault* (if set to `true`) and use that location. Log files will indicate that no location was specified, and the default value used.

The *Path* column stores the path associated with the location. This value will form the base output path for the transcoded job. The remainder of the path will be formed by the Job ID returned from the Transcode Service. For example if the location path is `\\10.0.0.0\output` and a Job ID `6449d0db-2377-4e3d-a969-be09a742a63d` is returned from the Transcode Service, then the final output path for the transcoded file will be `\\10.0.0.0\output\6449d0db-2377-4e3d-a969-be09a742a63d`.

API Endpoints

You configure the two REST main endpoints by modifying the database entries:

/api/transcoder
This parameter is used for viewing currently configured transcoder information.

/api/jobs/jobId
This parameter is used for viewing job progress and submitting new jobs.

Example #1
To create a new transcode job the request is as follows:

```
HTTP POST to /api/jobs {
"inputFilePath": " \\rootPath\InputFileMXF", "output":{
"presetName": "Default Video Proxy", "parameters": [
{
"name": "GenerateKeyFrames", "value": "True" }, {
"name": "KeyframeWidth", "value": "128" }, .... ] } }
```

The `CheckStatusOnStartup` parameter is a Boolean flag indicating a required preset that must be checked during service startup. A warning will be logged if `CheckStatusOnStartup` is set to `true` and the preset is not found. The service will attempt to activate the preset if `CheckStatusOnStartup` is `true` and the preset is found, but not active. The transcode log files will have entries for this check and attempted activation.

The response to the request is as follows:

```
201 Created Headers: .... Location:
http://localhost:9876/api/jobs/794660fe-2c37-491c-b7a9-7fe27f2c6346.... Body: {
"jobId": "794660fe-2c37-491c-b7a9-7fe27f2c6346", "internalId":
"57d0a08b-fa5f-4ff7-8177-c1d2d4adf92a", "inputFilePath":
"\\rootPath\InputFileMXF", "outputFilePath": null, "status": 8, "createdDate":
"2015-08-13T10:26:06.5553211-06:00", "createdBy": null, "updatedDate":
"2015-08-13T10:26:06.5553211-06:00", "updatedBy": null, "progress": 0, "metadata":
null, "output": { "id": 11, "presetName": "Default Video Proxy", "location": {
"id": 1, "name": "Default Location", "path":
"\\10.80.106.91\c$\Users\Administrator\Desktop\output\Dev", "isDefault": true },
"parameters": [
{
"id": 40, "name": "GenerateKeyFrames", "type": null, "value": "True" }, {
"id": 43, "name": "KeyframeWidth", "type": null, "value": "128" }, {
"id": 45, "name": "OutputFileName", "type": null, "value": "AA004001" } ] } }
```

Example #2

To get all jobs summaries the request is as follows:

```
HTTP GET TO /api/jobs
```

The response to the request is as follows:

```
[
  {
"jobId": "2ebbd1e9-b404-4909-944e-8d48c0a4b370", "internalId":
"57d0a08b-fa5f-4ff7-8177-c1d2d4adf92a", "inputFilePath":
"C:\Users\Administrator\Desktop\watch\AA004001.MXF", "outputFilePath":
"\\10.80.106.91\c$\Users\Administrator\Desktop\output\Dev\2ebbd1e9-b404-4909-944e-
8d48c0a4b370\AA004001.mp4",
"status": 6, "createdDate": "2015-08-13T10:26:06.557", "createdBy": null,
"updatedDate": "2015-08-13T10:26:26.067", "updatedBy": "TaskManager", "progress":
100 }, {
"jobId": "25970df1-7f60-4f65-8ee9-49b83b908364", "internalId":
"44c54311-da47-443f-b7e2-21c56c247e0e", "inputFilePath":
"C:\Users\Administrator\Desktop\watch\AA004001.MXF", "outputFilePath":
"\\10.80.106.91\c$\Users\Administrator\Desktop\output\Dev\25970df1-7f60-4f65-8ee9-
49b83b908364\AA004001.mp4",
"status": 6, "createdDate": "2015-08-13T10:19:26.28", "createdBy": null,
"updatedDate": "2015-08-13T10:19:50.687", "updatedBy": "TaskManager", "progress":
100 }]
```

Example #3

To get job details the request is as follows:

```
HTTP GET to /api/jobs/794660fe-2c37-491c-b7a9-7fe27f2c6346
```

The response to the request is as follows:

```
{
"jobId": "794660fe-2c37-491c-b7a9-7fe27f2c6346", "internalId":
"57d0a08b-fa5f-4ff7-8177-c1d2d4adf92a", "inputFilePath":
"C:\Users\Administrator\Desktop\watch\AA004001.MXF", "outputFilePath":
"\\10.80.106.91\c$\Users\Administrator\Desktop\output\Dev\2ebbd1e9-b404-4909-944e-
8d48c0a4b370\AA004001.mp4",
"status": 6, "createdDate": "2015-08-13T10:26:06.557", "createdBy": null,
"updatedDate": "2015-08-13T10:26:26.067", "updatedBy": "TaskManager", "progress":
100, "metadata": "[{\"Key\":\"Container Format\",\"Value\":\"Material Exchange
Format (OP-1a)\"},{\"Key\":\"Content
Duration\",\"Value\":\"00:00:08:04@25\"},{\"Key\":\"Video
Framerate\",\"Value\":\"25\"},{\"Key\":\"Header
Timecode\",\"Value\":\"01:06:18:15@25\"},{\"Key\":\"OutputFileFullPath\",\"Value\"
:\"\\\\10.80.106.91\\c$\\Users\\Administrator\\Desktop\\output\\Dev\\2ebbd1e9-b404
-4909-944e-8d48c0a4b370\\AA004001.mp4\"}]",
"output": { "id": 11, "location": {
"id": 1, "name": "Default Location", "path":
"\\10.80.106.91\c$\Users\Administrator\Desktop\output\Dev", "isDefault": true },
"presetName": "Default Video Proxy", "parameters": [
{
"id": 40, "name": "GenerateKeyFrames", "type": null, "value": "True" }, {
"id": 43, "name": "KeyframeWidth", "type": null, "value": "128" }, {
"id": 45, "name": "OutputFileName", "type": null, "value": "AA004001" } ] } }
```

5

ShuttlePro V2 or ShuttleXpress Control Pad Installation and Configuration

To set up and configure ShuttlePro V2 or ShuttleXpress Control Pads, run the installer supplied with the software by the manufacturer and navigate through the installation using the default selections. When complete, copy the Shuttle configuration file as follows:

For Mac OSX:

Copy `C:\Program Files (x86)\DIVAdirector 5\Support\etc\Pref file - Mac\com.contourdesign.shuttle.prefs` to `~/Library/Preferences/`.

For Microsoft Windows 7:

Copy `C:\Program Files (x86)\DIVAdirector 5\Support\etc\Pref file - Windows\CDIshuttle.pref` to `C:\Program Data\Contour Design`.

> **Note:** Windows requires privileges to show hidden files in the Folder Settings to see the `Application Data` or `Program Data` paths.

After the setup is complete, you must set focus to the player (click once in the player area) before the Shuttle Control can be used.

Glossary

Proxy

In DIVAdirector, proxy refers to a lower resolution version of the asset that is archived in Oracle DIVArchive.

UNC (Uniform Naming Convention)

The Uniform Naming Convention specifies a common syntax to describe the location of a network resource, such as a shared file, directory, or printer. The UNC syntax for Windows systems has the generic form `\\ComputerName\SharedFolder\Resource`.