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SAS[®] Customer Link Analytics 5.6

Upgrade and Migration Guide

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SAS® Customer Link Analytics 5.6: Upgrade and Migration Guide

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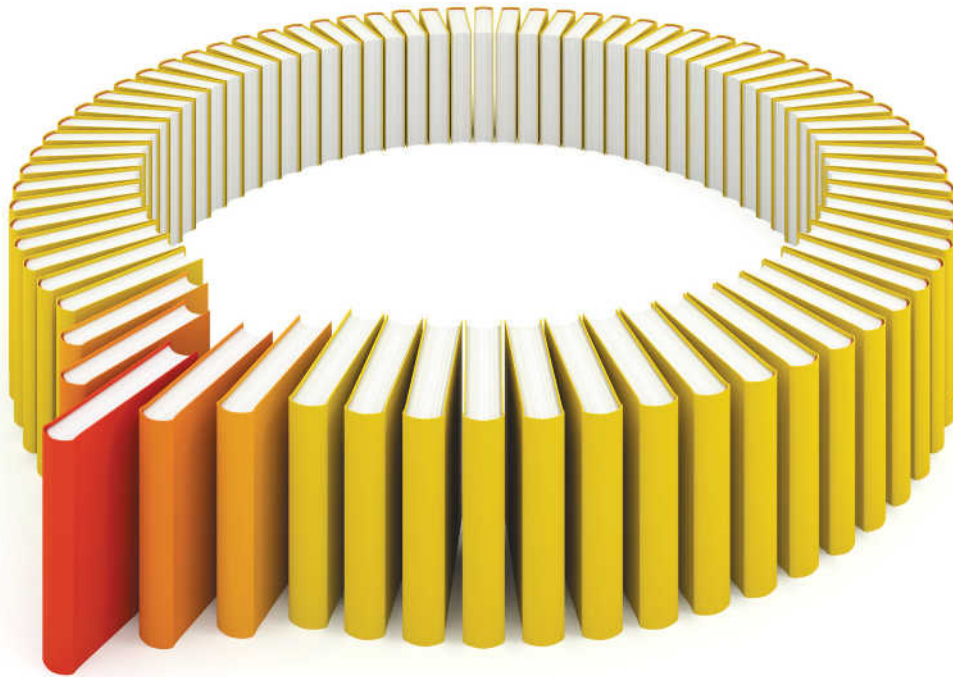
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Recommended Reading

When you read this document, you could refer to the following documents:

- *SAS Customer Link Analytics: Administrator's Guide*
- *SAS Customer Link Analytics: User's Guide*

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Part 1

Migration Guide

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Pre-Migration Tasks

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Migrating to SAS Customer Link Analytics 5.6

The migration guide explains how to migrate to SAS Customer Link Analytics 5.6 from a source system to a target system. The current machine on which the SAS Customer Link Analytics release is installed is called the *source machine*. Similarly, the machine on which you will install and configure the release that you are migrating to is called the *target machine*.

The instructions that are explained in this guide are applicable to either or both the scenarios that are listed here. Therefore, make sure that you perform the tasks that are applicable to your migration scenario.

Table 1.1 Migration Scenarios

Migration Scenario	Current Release on The Source Machine	Release That You Are Migrating To on The Target Machine
5.5 to 5.6 migration	5.5 (SAS 9.4)	5.6 (SAS 9.4)
5.6 to 5.6 migration	5.6 (SAS 9.4)	5.6 (SAS 9.4)

This section assumes that you are familiar with the SAS 9.4 installation and configuration processes.

The process of migrating to SAS Customer Link Analytics 5.6 involves the following steps:

- 1 Using the SAS Migration Utility, create a migration package of your current release on the source machine. For more information, see [“Create a Migration Package on the Source Machine”](#) on page 7.
- 2 Install SAS Customer Link Analytics 5.6 (using the migration package) on the target machine. For more information, see [“Install SAS Customer Link Analytics 5.6 on the Target Machine”](#) on page 7.

- 3 Import data. For more information, see “Migrating Data” on page 11.

Note: Any customizations that you have made to the SAS Customer Link Analytics configuration outside of the *<SAS configuration directory>* are not automatically migrated. You must manually make these customizations after migration. These customizations include any SAS code modifications, user-defined macros, custom scenarios, and database changes.

Prerequisites

Before you migrate to SAS Customer Link Analytics 5.6, complete the following tasks:

- Read *SAS Intelligence Platform: Installation and Configuration Guide*, which is available at the following location: <http://support.sas.com/documentation/cdl/en/biig/62611/PDF/default/biig.pdf>
- Review the <http://support.sas.com/documentation/installcenter/index.html> page.

This page has the most up-to-date installation and configuration documentation for SAS software. The documentation on this site is grouped by SAS release, installation, and configuration type.

- SAS Customer Link Analytics is installed through the SAS Deployment Wizard. For more information, see *SAS Customer Link Analytics: Administrator’s Guide*, which is available at the following location: <http://support.sas.com/documentation/solutions/clac/index.html>.
- Review the checklist that is generated with your plan file. This checklist lists the user accounts that you will need to create in your environment.
- You will need a plan file to install SAS Intelligence Platform and SAS Customer Link Analytics. Plan files can be obtained in the following ways:
 - Your SAS consultant can provide a plan file for your installation.
 - You can create a plan file using the planning tool, which is available at the following location: https://www3.sas.com/apps/cpi/admincenter_planning_login.jsp.
- From the target machine, if you are using a database other than SAS, verify that you can access that third-party database (available on the data server) by using the database client.
- For complete information about the migration steps, refer to the relevant topics in *SAS 9.4 Intelligence Platform: Migration Guide*. This guide is available at the following location: <http://support.sas.com/documentation/cdl/en/bimig/63853/PDF/default/bimig.pdf>.

Pre-Migration Steps

Complete the following steps before you run the SAS Migration Utility on the source machine:

- 1 Make sure that all the SAS services are running.
- 2 Edit the `smu.properties.template` file. For more information, see “Develop a Common SAS Migration Utility Properties File” in *SAS 9.4 Intelligence Platform: Migration Guide*.

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Create a Migration Package on the Source Machine

For more information about how to perform the steps that are listed here, see “Create the Migration Package” in *SAS 9.4 Intelligence Platform: Migration Guide*.

To create a migration package:

- 1 On the source machine, run the SAS Migration Utility.
- 2 Review the migration analysis report that is generated with the migration package.
- 3 Make sure that the analysis report does not contain any errors. If there are any, resolve these errors, and then proceed further.
- 4 Copy the migration package to the target machine.

Install SAS Customer Link Analytics 5.6 on the Target Machine

You install SAS Customer Link Analytics 5.6 on the target machine by using the migration package.

To install SAS Customer Link Analytics 5.6:

- 1 On the target machine, run the SAS Deployment Wizard.
- 2 On the Migration Information page of the wizard, specify the path to the migration package. This path is the location of the directory in which you have copied the migration package on the target machine.

For more information about how to install a product by using the migration package, see Chapter 4, “Installing SAS 9.4 and Migrating Your SAS Content” in *SAS 9.4 Intelligence Platform: Migration Guide*.

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Migrating the Metadata

Steps for Migrating Metadata for 5.5 to 5.6 Migration

To migrate the metadata:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**. A backup of all the pre-packaged libraries of SAS Customer Link Analytics 5.5 is displayed.

TIP Each 5.5 library has a suffix `_old` added to its name.

- 2 Select a library with suffix `_old` and perform the following steps:
 - a Right-click a table that is registered under the library and select **Properties**.
 - b On the **Physical Storage** tab, click **Library**. A list of available libraries is displayed. Select the corresponding library that does not have a suffix `_old`.
 - c Repeat steps 2 a and 2 b for all the other tables that are registered under the library.
- 3 Repeat step 2 and its substeps for the rest of the libraries that have a suffix `_old`.

- 4 After you have migrated all the table metadata to new the libraries, delete the libraries that have the suffix `_old`.
- 5 On the **Folders** tab, select **SAS Customer Link Analytics** ► **Products** ► **Cust Link Analytics 5.5**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 6 (Optional) After migrating to SAS Customer Link Analytics 5.6, you can reuse the customizations that you have made to the 5.5 stored processes. If you want to do so, perform the following steps:
 - a Take a backup of the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 5.6** folder.
 - b Move all the stored processes from the **Viral Effect Analysis** folder of the 5.5 release to the **Viral Effect Analysis** folder of the 5.6 release.
- 7 Delete the **Cust Link Analytics 5.5** folder.
- 8 Expand **User Manager** and confirm that a new role, **Cust Link Analytics: Business User** is created. This role enables users to perform the reporting tasks. Assign this role to the users who will be performing the reporting tasks in the migrated environment.

Mandatory Steps for Migrating Metadata

Perform these steps for both the scenarios, whether it is 5.5 to 5.6 migration or 5.6 to 5.6 migration.

- 1 In SAS Data Integration Studio, deploy the `sialoopjob` job for 5.5 to 5.6 migration. For 5.6 to 5.6 migration, you have to redeploy this job. For more information, see *SAS Customer Link Analytics 5.6: Administrator's Guide*.
- 2 (Optional) If you have changed the grid installation location in the target environment, perform the following steps in SAS Management Console:
 - a On the **Plug-ins** tab, select **Application Management** ► **Configuration Manager**.
 - b Right-click **Cust Link Analytics Svr Cfg** and select **Properties**.
 - c On the **Advanced** tab, modify the value of the `clasvrc.cla.grid.installloc` and `clasvrc.cla.lasr.installloc` properties. Make sure that the value points to the correct installation location of the SAS High-Performance Analytics grid and the SAS Customer Link Analytics LASR Analytic Server grid, respectively.

Set Up the Hadoop JAR and Configuration Path for 5.6 to 5.6 Migration

Perform this task if your scenario is 5.6 to 5.6 migration and the business data is stored in Hadoop.

Make sure that you define the `SAS_HADOOP_JAR_PATH` and `SAS_HADOOP_CONFIG_PATH` variables in the `appserver_autoexec_usermods.sas` file that is located on the target machine.

This file is available in the following location: `<SAS configuration directory>/Lev1/SASApp`. You can also define these paths as environment variables.

Migrating Data

Migrate SAS Tables

Scenario 1: Business Data Is Stored in SAS

Perform this task for either of the following scenarios, whether you are migrating from 5.5 to 5.6 or from 5.6 to 5.6 . However, make sure that the business data is stored in SAS tables.

If the business data is stored in SAS, then any one of the following scenarios is applicable in the source environment for the `sia_bdm_output`, `sia_bdm_intrmdt`, `sia_analytics_output`, and `sia_analytics_intrmdt` libraries.

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/XDR`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the migration is complete, the paths of these libraries point to 5.6 specific folders. For example, the path can be `<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_intrmdt`.

If you want to reuse the earlier paths that you had modified in the source environment, then remove the 5.6 specific paths and add the earlier paths. To do so, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to.

However, if you want to use the new paths that point to the 5.6 specific folders, then copy the content from the source folders to the target folders.

Note: Refer to the appropriate source folder depending on whether your migration scenario is 5.5 to 5.6 or 5.6 to 5.6.

Table 3.1 SAS Tables Migration for Business Data in SAS

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output	

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Perform this task for either of the scenarios, whether you are migrating from 5.5 to 5.6 or from 5.6 to 5.6. However, make sure that the business data is stored in a database other than SAS, such as Teradata or Hadoop.

Verify that the contents of the source folders listed in [Table 3.2](#) are available in the corresponding target folders. If not, then copy the contents to the target folders.

Note: Refer to the appropriate source folder depending on whether your migration scenario is 5.5 to 5.6 or 5.6 to 5.6.

Table 3.2 SAS Tables Migration for Business Data in Hadoop or Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt	
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output	

Migrate Sample and Scenario Data

Perform this task for either of the scenarios, whether you are migrating from 5.5 to 5.6 or from 5.6 to 5.6.

Verify that the contents of the following folders in the source environment are available in the corresponding folders in the target environment. If not, then copy the contents from the source folders to the respective target folders.

Note: Refer to the appropriate source folder depending on whether your migration scenario is 5.5 to 5.6 or 5.6 to 5.6.

Table 3.3 Sample and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/sample	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/sample
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/sample	
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/sample	

Migrate Database Tables

Migrate the database tables if both the conditions listed here are true:

- SAS Customer Link Analytics is deployed on a database other than SAS, such as Hadoop or Teradata.
- You have changed the database, schema, or server for the business data in the source environment.

Copy all the database tables that belong to libraries (listed in [Table 3.4](#)) from the earlier database, schema, or server to the new database, schema, or server.

Table 3.4 Database Migration

Database	Library
Teradata	sia_bdm_intmdt
Teradata	sia_bdm_output
Teradata	sia_analytics_inmdt
Teradata	sia_analytics_output
Hadoop	sia_bdm_hive

Migrate the SAS Enterprise Miner Project Workspace

Perform this task for either of the scenarios, whether it is 5.5 to 5.6 migration or 5.6 to 5.6 migration.

You might have created various SAS Rapid Predictive Modeler models for viral effect analysis. In this case, copy the source folders with the project workspaces to the appropriate target folder. Make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the target folder.

Compare the source folder structure that is created for the SAS Enterprise Miner project with the corresponding target folder structure. If both the structures are different, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the scenario_param table.
- 5 Filter the data based on the following conditions:
Column = *scenario_param_id* and **Value** = *sia_project_location*. This filter condition displays a list of all the SAS Enterprise Miner project workspaces that are created in the source environment.
- 6 For each value of *sia_project_location*, edit the value of the *scenario_param_userdefined_value* column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved.
- 7 Save the changes.

Validating the Migration

Verify the Properties of Software Components

To verify the software component properties:

- 1 On the **Plug-ins** tab of SAS Management Console, select **SAS Management Console** ► **Application Management** ► **Configuration Manager**.
- 2 Right-click **Cust Link Analytics Svr Cfg 5.6**, and then select **Properties**.
- 3 In the Properties dialog box, select the **Advanced** tab. On this tab, you can see a list of the properties and their values. If the value of any software component property has been changed after deployment on the source

machine, make sure that the corresponding change is also reflected on the target machine.

- 4 Check whether the values are correctly assigned.
- 5 Click **OK**.
- 6 Close SAS Management Console.

Verify the User Group and the Metadata User in SAS Management Console

Verify that all the operating system users who are configured in SAS Management Console have also been migrated to the metadata on the target environment. Also, verify that the roles and capabilities that are assigned to these users are retained in the target environment.

Part 2

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Upgrade Tasks

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Upgrading an Existing SAS Customer Link Analytics Deployment

Overview of Upgrade Scenarios

The upgrade guide explains the tasks involved in upgrading an existing deployment of SAS Customer Link Analytics 5.5.

The current release of your deployment indicates your preupgraded environment and the release to which you are upgrading indicates your upgraded environment.

Table 4.1 Upgrade Scenarios

Current Release at Your Site	Release To Which You Are Upgrading
5.5 (SAS 9.4) with SAS Visual Analytics Administration and Reporting	5.6 (SAS 9.4) with SAS Visual Analytics Administration and Reporting
5.5 (SAS 9.4) without SAS Visual Analytics Administration and Reporting	5.6 (SAS 9.4) with SAS Visual Analytics Administration and Reporting

Upgrade from SAS Customer Link Analytics 5.5 with SAS Visual Analytics Administration and Reporting

This upgrade scenario includes the following steps:

- 1 Select a depot and a plan that includes SAS Customer Link Analytics 5.6 and SAS Visual Analytics Administration and Reporting.
- 2 Upgrade to SAS Customer Link Analytics 5.6 with SAS Visual Analytics Administration and Reporting. For more information, see [“Upgrade to SAS Customer Link Analytics 5.6” on page 21](#).
- 3 Using the plan file that you selected in step 1, complete the installation and configuration for an add-on deployment of SAS Customer Link Analytics LASR Analytic Server.

Note: When you run the SAS Deployment Wizard, make sure that you select only the following options:

- **SAS Customer Link Analytics LASR Configuration**
- **SAS Customer Link Analytics Mid-Tier LASR Configuration**

Note: You can install SAS Customer Link Analytics LASR Analytic Server on a separate machine.

Upgrade from SAS Customer Link Analytics 5.5 without SAS Visual Analytics Administration and Reporting

This upgrade scenario includes the following steps:

- 1 Select a depot and a plan that includes SAS Customer Link Analytics 5.6 and SAS Visual Analytics Administration and Reporting.
- 2 Upgrade to SAS Customer Link Analytics 5.6. For more information, see [“Upgrade to SAS Customer Link Analytics 5.6” on page 21](#).
- 3 Using the plan file that you selected in step 1, complete the installation and configuration for an add-on deployment of SAS Visual Analytics Administration and Reporting and SAS Customer Link Analytics LASR Analytic Server.

Note: When you run the SAS Deployment Wizard, make sure that you select only the following options:

- **SAS Foundation**
- **VAAR Components**
- SAS Customer Link Analytics LASR components:
 - **SAS Customer Link Analytics LASR Configuration**
 - **SAS Customer Link Analytics Mid-Tier LASR Configuration**

Note: While you are upgrading to SAS Customer Link Analytics 5.6, consider the following recommendations:

- Make sure that **Customer Link Analytics LASR Mid-Tier** and **Visual Analytics Mid-Tier** reside on the same machine. However, **Customer Link Analytics LASR Server Configuration** can reside on another server.
- When you run the SAS Deployment Wizard, make sure that you select **SAS Information Retrieval Studio** and **SAS Interface to SAS Content** for installation and configuration. For more information, see *SAS Visual Analytics: Administrator's Guide*.

Upgrade to SAS Customer Link Analytics 5.6

To upgrade to SAS Customer Link Analytics 5.6:

- 1 Stop all the SAS services that are installed on the machine.

Terminate all active SAS sessions, daemons, spawners, and servers. It is important to stop the SAS servers in the reverse order that they were started. For more information, see “Overview of Server Operation” in Chapter 6, “Operating Your Servers,” of *SAS Intelligence Platform: System Administration Guide*. This guide is available at the following location: <http://support.sas.com/documentation/cdl/en/bisag/67481/PDF/default/bisag.pdf>.

- 2 Install and configure a software update.

For each machine in your deployment, start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot. If any product updates are required, the SAS Deployment Wizard operates in Update mode to install any product updates on that machine.

- 3 After the deployment is complete, in the SAS Deployment Wizard, click **Next**.
- 4 On the Select Configuration Directory/Level page of the SAS Deployment Wizard, select the configuration directories that you want to update, and then click **Start**. The SAS Deployment Manager opens to guide you through the configuration steps.
- 5 On the Specify Connection Information page of the SAS Deployment Manager, enter the user ID and password of an unrestricted administrative user. For example, you can enter the sasadm@saspw user ID.
- 6 Use the SAS Deployment Manager to update the configuration of your environment. The wizard pages appear depending on your deployment scenario.

Deploy SAS Customer Link Analytics LASR Analytic Server

Start the SAS Deployment Wizard. Complete the add-on deployment of SAS Customer Link Analytics LASR Analytic Server. On the wizard pages, select the appropriate products and components depending on the deployment topology of SAS Customer Link Analytics 5.6. For more information, see [“Upgrading an Existing SAS Customer Link Analytics Deployment”](#) on page 19.

Troubleshooting Tasks

Failure to Import the Loop Job

While upgrading to SAS Customer Link Analytics 5.6, the `sialoopjob.spk` file might not be imported successfully and you cannot proceed with the SAS Deployment Wizard. In this case, you have to import the loop job manually. To do so, perform the following steps:

- 1 Pause the SAS Metadata Server to offline status using SAS Management Console.
- 2 Start a `-nodms` SAS session using the `sas_u8` script to get a UTF-8 encoded session.
- 3 Run the following code:

```
Assign a libname fix '<path to MetadataServer/rposmgr>';  
data fix.idgroup;  
set fix.idgroup;  
if _N_ <= 2 then do;  
objectid='00030';  
reg_id=108;  
end;  
run;
```

- 4 Repeat steps 2 and 3 for the MetadataServer, MetadataRepositories, Foundation, and other repositories.
- 5 Use SAS Management Console to resume the server in Administration mode.
- 6 Resume the SAS Metadata Server to online status.
- 7 Return to the SAS Deployment Wizard, and click **Retry**.

Sample Reports Are Not Imported for a Multi-Machine Deployment

After upgrading to SAS Customer Link Analytics 5.6 for a multi-machine deployment in which the SAS Customer Link Analytics Server and the SAS Customer Link Analytics LASR Analytic Server are deployed on separate servers, the sample reporting templates might not be automatically imported. In this case, you have to import them manually.

To manually import the sample reporting templates:

- 1 On the **Folders** tab of SAS Management Console, select **Products** ▶ **SAS Customer Link Analytics** ▶ **Cust Link Analytics 5.6** ▶ **Jobs**.
- 2 Right-click **Jobs** and select **Import SAS Package**.
- 3 Select the `cla_sample_report.spk` file. This file is available in the location in which the SAS Customer Link Analytics 5.6 Server resides: `<SAS Home>/SASCustomerLinkAnalyticsMidtierLASRConfiguration/5.6/Config/Deployment/Packages`.
- 4 Click **Next**. A warning message appears. Click **Yes** again.
- 5 Click **Next** until you reach the last page of the wizard. The sample reporting templates will be imported.
- 6 Review the log to ensure that the reporting templates have been imported successfully.
- 7 Click **Finish**.

5

Post-Upgrade Tasks

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Selecting the Server Context

For the Job Execution Service

To select the server context for the job execution service:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Application Management** ► **Configuration Manager** ► **SAS Application Infrastructure** ► **Web Infra Platform Services 9.4**.
- 2 Right-click **JobExecutionService** and select **Properties**.
- 3 Select the **Settings** tab.
- 4 In **Configure Execution Queues from Available Server Contexts**, select the application server context from the **Available** list and move it to the **Selected** list.
- 5 Click **OK**.

For Customer Link Analytics LASR Library

To change the server context for the Customer Link Analytics LASR library:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**.
- 2 Right-click the **Customer Link Analytics LASR** library.
- 3 On the **Assign** tab, add the SAS application server context and the application server context for SAS Visual Analytics to the **Selected Servers** list.

Upgrade the Metadata

To upgrade the metadata:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**. A list of libraries that are packaged with SAS Customer Link Analytics 5.5 is displayed.
- 2 Make sure that the metadata of the tables registered against each of the libraries is required for running the SAS Customer Link Analytics 5.6 processes. If they are not required, then delete those tables.
- 3 On the **Folders** tab, select **SAS Customer Link Analytics** ► **Products** ► **Cust Link Analytics 5.5**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 4 (Optional) You can reuse the customizations that you made to the 5.5 stored processes. If you want to do so, first back up the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 5.6** folder. Then move all the stored processes from the 5.5 folder to the 5.6 folder.
- 5 Delete the **Cust Link Analytics 5.5** folder.
- 6 Expand **User Manager** and note that a new role, **Cust Link Analytics: Business User**, has been created. This role enables users to perform reporting tasks. Assign this role to the users who will be performing the reporting tasks in the migrated environment.
- 7 In SAS Data Integration Studio, deploy the sialoopjob job. For more information, see *SAS Customer Link Analytics 5.6: Administrator's Guide*.
- 8 If the grid installation location has changed in the upgraded environment, then perform the following steps in SAS Management Console:
 - a On the **Plug-ins** tab, select **Application Management** ► **Configuration Manager**.
 - b Right-click **Cust Link Analytics Svr Cfg** and select **Properties**.

- c On the **Advanced** tab, modify the values of the **clasvrc.cla.grid.installloc** and **clasvrc.cla.lasr.installloc** properties. Make sure that the values point to the correct installation location of the SAS High-Performance Analytics grid and the SAS Customer Link Analytics LASR Analytic Server grid.

Moving SAS Tables after the Upgrade

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the preupgraded environment for the `sia_bdm_output`, `sia_bdm_intmdt`, `sia_analytics_output`, and `sia_analytics_inmdt` libraries:

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/XDR`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the upgrade is complete, the paths of these libraries point to 5.6 specific folders. For example, the path can be `<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_intrmdt`.

If you want to reuse the earlier paths that you modified in the preupgraded environment, then remove the 5.6 specific paths and add the earlier paths. To do so, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to.

However, if you want to use the new paths that point to 5.6 specific folders, then copy the content from the source folders to the target folders.

Table 5.1 Moving SAS Tables for Business Data in SAS

Source Folder	Target Folder
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/SASCustomerLinkAnalytics5.5/projects/data/business_intrmdt</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_intrmdt</code>
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/CustLinkAnalytics5.5/projects/data/business_output</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_output</code>

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Perform this task if the business data is stored in a database other than SAS, such as Teradata or Hadoop.

Verify that the contents of the source folders listed in the following table are available in the corresponding folders of the upgraded environment. If not, then copy the contents to the target folders.

Table 5.2 Moving SAS Tables for Business Data in Hadoop or Teradata

Source Folders	Target Folders
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output

Move Sample and Scenario Data after the Upgrade

Verify that the contents of the following folders in the preupgraded environment are available in the corresponding folders of the upgraded environment. If not, then copy the contents from the source folders to the respective target folders.

Table 5.3 Moving Sample and Scenario Data

Source Folders	Target Folders
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/sample	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/sample
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data

Upgrade the SAS Enterprise Miner Project Workspace

In the preupgraded environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. In this case, if the location of the project workspaces changed after the upgrade, make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

Compare the folder structure that is created for the SAS Enterprise Miner project in the preupgraded environment with the corresponding target folder structure created in the upgraded environment. If both the structures are different, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the scenario_param table.
- 5 Filter the data for the following conditions:

Column = *scenario_param_id* and **Value** = *sia_project_location*. These filter conditions display a list of all the SAS Enterprise Miner project workspaces that are created in the preupgraded environment.

- 6 For each value of `sia_project_location`, edit the value of the `scenario_param_userdefined_value` column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved in the upgraded environment.
- 7 Save the changes.

Validating the Upgrade

Verify the Properties of the Software Components

To verify the software component properties:

- 1 On the **Plug-ins** tab of SAS Management Console, select **SAS Management Console** ► **Application Management** ► **Configuration Manager**.
- 2 Right-click **Cust Link Analytics Svr Cfg 5.6**, and then select **Properties**.
- 3 In the Properties dialog box, select the **Advanced** tab. On this tab, you can see a list of the properties and their values. If the value of any software component property has been changed before the upgrade, make sure that the corresponding change is also reflected after the upgrade.
- 4 Check whether the values are correctly assigned.
- 5 Click **OK**.
- 6 Close SAS Management Console.

Verify the User Group and the Metadata User in SAS Management Console

Verify that all the operating system users who are configured in SAS Management Console have also been migrated to the metadata in the updated environment. Also, verify that the roles and capabilities that are assigned to these users are retained in the upgraded environment.