ARIS RISK AND COMPLIANCE
UPGRADE GUIDE

VERSION 10.0 - SERVICE RELEASE 18
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Contents

1   Introduction

ARIS Risk and Compliance is a Web application. ARIS Risk and Compliance uses Java Servlets and Java Server Pages (JSP) which, in addition to a Java environment (JDK), require a Web, that is, Servlet container (Apache Tomcat) as runtime environment. The data is stored in a relational database system and is exchanged with the application via a JDBC interface. You can use ARIS Risk and Compliance with the **PostgreSQL** database for testing purposes or small environments (up to fifty concurrent users). You need the **Oracle** database system or **Microsoft® SQL Server** for full productive operation.

2 Upgrade to a new version of ARIS Risk and Compliance

From ARIS Risk and Compliance version 9.5, new versions can be updated with the update setup. To update an ARIS Risk and Compliance installation, the following steps must be performed manually. Before running the setup, the ARIS Risk and Compliance and ARIS document storage databases should be backed up. This description is valid for updates from version 9.x to 9.x and from version 10.0 to 10.x. But you cannot update version 9.x to version 10.0. In this case, a new installation of version 10.0 is necessary.

The data migration of ARIS Risk and Compliance can be done as described below. For the data migration of runnables like User Management or ARIS document storage, see the **ARIS Data Migration Guide**.

Warning
The migration cannot be undone.

- Data backup (Page 2)

- Run the update setup (Page 3)

- Data migration (Page 10)

  - Migrate data from ARIS document storage (Page 12)*

  - ARIS Risk and Compliance database migration (Page 14)

- **Import of modeled users into User Management** (**ARCM - Administration Guide**)

- **Connection to a directory service (LDAP)*** (**ARCM - Administration Guide**)

- **Configuration of event enabling in ARIS Risk and Compliance** (**ARCM - Administration Guide**)

The steps marked with ***** are optional depending on the previously used version and the range of functions used.

2.1   Data backup

Perform the recommended steps to back up the data. If you are using ARIS document storage for the first time, there is no need to back up the ARIS document storage data.

Procedure

1.   Stop the existing installation.

2.   Back up the data in your productive database. If you use Oracle, use **dataPump**.

3.   Back up the ARIS document storage CouchDBs.

   a.   To back up the ARIS Risk and Compliance CouchDB, copy the directory **<ARCM 4.x installation directory>\couchdb\var\lib\couchdb** to **<backup directory ARCM 4.x CouchDB>**.

   b.   To back up the Process Governance CouchDB, copy the directory **<APG installation directory>\ads\adsdata\couchdb** to **<backup directory APG CouchDB>**.

The data backup is complete.

2.2   Run the update setup

To install the new version, you no longer have to first uninstall the existing version. All settings configured in the setup during the initial installation are automatically transferred. The download folder containing all the created PDF and Excel reports is backed up.

The following parameters can be set in the setup and are automatically transferred during the update setup:

▪   Mail server configuration (ARIS Risk and Compliance and User Management)

▪   Event processing (event server, port and EventTypeStore)

▪   Database configuration

All other changes that you made in the ARIS Cloud Controller console since the setup are transferred as well.

Warning

The update setup also updates ARIS Risk and Compliance installations with customizing. If the customizing contains unsupported changes or additional files, the warning **Update/patch setup not supported** and a list containing the affected files are output in the log file. To ensure that all customized files are available, the customizing must be enhanced again. For detailed information, refer to the **ARCM – Installation Guide** chapter **Installation of a customer-specific version (Customizing)**.

2.3 Data migration (version 10.0 or newer)

From version 10.0 of ARIS Risk and Compliance, there is a new procedure for the data migration. Use the **back up tenant** and **restore tenant** ARIS Cloud Controller (ACC) commands to migrate all data of the runnables.

Use the **system** user to start the tenant backup. First, check whether the **system** user has the required functional privileges in your ARIS 10.0 tenants. By default, the system user has all required privileges. Check if these function privileges are assigned to the system user and assign missing privileges, if necessary:

- Analysis administrator
- ARCM administrator
- Collaboration administrator
- Document administrator
- Database administrator
- License administrator
- Process Governance administrator
- Server administrator
- Technical configuration administrator

2.3.1 Prepare database for data migration

If you use an Oracle or Microsoft® SQL database system, provide a second database for the current migration in parallel to the productive database schema. After data migration, the migrated data overwrites the productive database schema. Since the migration database schema is not deleted automatically after the migration, manually remove it. Then restore the tenant data to the new version (Page 8).

If you use a PostgreSQL database system, the migration database schema is automatically created, and removed after the migration.

2.3.1.1 Version 10.0.0 up to 10.0.11

The update to version 10.0.12 requires a database schema that is compliant to the old external service of type **DB_ARCM**. To do so, install the old migration schema. You find the relevant installation scripts in the ARIS installation of the currently installed version (10.0.0 - 10.0.11).

ORACLE DATABASE SYSTEM

Procedure

1. Create an Oracle migration schema if it does not already exist. For detailed information, refer to **ARCM - Installation Guide** of the currently installed version (10.0.0 - 10.0.11), chapter **Install an Oracle database schema**.

2. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).

3. Stop the ARIS Risk and Compliance component with **stop arcm_m**.

4. Execute the following command to configure the migration schema:

   reconfigure arcm_m arcm.config.migrationSystem="oracle"

   reconfigure arcm_m arcm.config.migrationDriver="oracle.jdbc.OracleDriver"

   reconfigure arcm_m arcm.config.migrationUrl="jdbc:oracle:thin:@<OracleServer>:1521:<SID>"

   reconfigure arcm_m arcm.config.migrationUser="<migrationSchemaUser>"

   reconfigure arcm_m arcm.config.migrationPwd="<migrationSchemaPassword>"

5. Start the ARIS Risk and Compliance component with **start arcm_m** again.

The database schema is created.

MS SQL SERVER DATABASE SYSTEM

Procedure

1. Create a MS SQL Server migration schema. For detailed information, refer to **ARCM - Installation Guide** of the currently installed version (10.0.0 - 10.0.11), chapter **Install a Microsoft® SQL Server database schema**.

2. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).

3. Stop the ARIS Risk and Compliance component with **stop arcm_m**.

4. Execute the following command to configure the migration schema:

   reconfigure arcm_m arcm.config.migrationSystem=" MSSQL"

   reconfigure arcm_m arcm.config.migrationDriver=" com.microsoft.sqlserver.jdbc.SQLServerDriver"

   reconfigure arcm_m arcm.config.migrationUrl=" jdbc:sqlserver://<SQLServer>:1433;Database=<databaseName>"

   reconfigure arcm_m arcm.config.migrationUser="<migrationSchemaUser>"

   reconfigure arcm_m arcm.config.migrationPwd="<migrationSchemaPassword>"

5. Start the ARIS Risk and Compliance component with **start arcm_m** again.

The database schema is created.

2.3.1.2 Version 10.0.12 and higher

If the existing installation of version 10.0.12 still addresses the old external service of type **DB_ARCM**, follow the instructions in Version 10.0.0 up to 10.0.11 (Page 4), to provide the old migration schema. If the ARIS external service of type **DB** is already used, follow the instructions in **ARCM - Installation Guide**, chapter **Add tenant schema of ARIS Risk and Compliance**, to provide the new migration schema.

2.3.2 Back up tenant of the old ARIS Risk and Compliance version

Back up the tenant data of the installed ARIS Risk and Compliance before you migrate the data to the new ARIS Risk and Compliance version.

Procedure

1. Open ARIS Cloud Controller.

   a. To open ARIS Cloud Controller in a Windows operating system, click **Start > ARIS Cloud Controller**. If you changed the agent user credentials, enter the password.

   b. To open ARIS Cloud Controller in a Linux operating system, run the **acc.sh** shell script instead. If **aris-acc-<number> deb** or **rpm** file (depending on the Linux operating system) is installed, ARIS Cloud Controller is available.

2. Make sure that all runnables are started. If any of them is not running, enter the command **startall** and wait until all runnables are in the status **STARTED**.

3. Back up the data with the command **backup tenant <tenantName> to <pathToStoreTheBackup username=system password=manager**. Example **backup tenant default to "C:/tenantBackup" username=system password=manager**.

The backup of the tenant data is performed.

2.3.3 Install new version of ARIS Risk and Compliance

Install the new version of ARIS Risk and Compliance. For detailed information, refer to the **ARCM - Installation Guide** chapter **Installation of ARIS Risk and Compliance**. You are recommended to install and configure ARIS Risk and Compliance on a second machine.

2.3.4   Restore tenant data to new version

After the installation of the new ARIS Risk and Compliance version, restore the tenant data.

Procedure

1. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).

2. Make sure that all runnables are started. If any of them is not running, enter the command **startall** and wait until all runnables are in the status **STARTED**.

3. Create all additional tenants before you restore them.

4. If you use an external database management system, create schemes and assign them to the tenants. For detailed information, see the **ARIS Server Installation** guide (Windows or Linux).

5. Restore the data using the command

    ```
    restore tenant <tenantName> from <pathToStoredTenantBackup>
    username=system password=manager.
    ```
    Example:

    ```
    restore tenant default from "C:/tenantBackup/Backup_Tenant_default.acb"
    username=system password=manager.
    ```

The tenant data is restored to the new version.

2.3.5   Switch to ARIS external service of type DB

From version 10.0.12, the connection to the external database management system (DBMS) is standardized for all ARIS products. After migration, ARIS Risk and Compliance still uses the old external service of type **DB_ARCM**. To simplify future updates and maintenance, it is recommended to switch to the central external service of type **DB**, which is used by all ARIS applications.

2.3.5.1   Recommended procedure for all DBMS

Provide the database schema on the shared ARIS database instance. The following steps are valid for all supported external database management systems (DBMS).

Procedure

1. Back up tenant of the old ARIS Risk and Compliance version (Page 7).
2. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).
3. Stop the ARIS Risk and Compliance component with **stop arcm_m**.
4. Create a new tenant schema on the shared ARIS database following the instructions in the **ARCM - Installation guide**, chapter **ARIS Risk and Compliance installation using an Oracle or a Microsoft® SQL Server database**.
5. Add the tenant schema to the ARIS external service of type **DB** by following the instructions in the **ARCM - Installation guide**, chapter **Add tenant schema of ARIS Risk and Compliance**.
6. Remove the tenant assignment from the old external service of type **DB_ARCM**:

   unassign tenant <tenant name> from service <serviceId>
   Example:

   ```
   unassign tenant default from service db-arcm0000000000
   ```
7. Start the ARIS Risk and Compliance component with **start arcm_m** again. The instance is now connected to the shared ARIS database instance.
8. Restore the data to the new schema following the instructions in **Restore tenant data** (Page 8).

   To restore the data only in ARIS Risk and Compliance, restrict the command by **for ARCM**:

   restore tenant <tenantName> for ARCM from <pathToStoredTenantBackup> username=system password=manager

ARIS Risk and Compliance now uses the database schema on the shared ARIS database instance. The old external service of type **DB_ARCM** and the corresponding database schema are no longer needed and can therefore be deleted.

2.3.5.2 Special case Oracle - schema on the same instance

In case the ARIS Risk and Compliance database schema is hosted on the same Oracle instance as the schema of other ARIS products, it is possible to reuse the existing ARIS Risk and Compliance database schema by updating the privileges of the corresponding database user. However, to ensure a consistent installation it is recommended to use the ARIS external service of type **DB** (Page 9).

Procedure

Execute the following SQL statement on the corresponding Oracle instance to assign the connection privilege to the relevant database user. Schema name and user name are identical for Oracle. The connection user is the database user that is configured in the ARIS external service of type **DB**.

```
ALTER USER <tenant user> GRANT CONNECT THROUGH <connection_user>
```
Example:

```
ALTER USER ARCM_DEFAULT_CUSTOM_SCHEMA GRANT CONNECT THROUGH ARIS10
```
The privileges of the database user are updated to authorize the connection by the connection user.

2.4 Data migration (version 9.x or older)

You must migrate your existing data in order to use it in a newer version of ARIS Risk and Compliance. This also applies when upgrading within a main release, for example, from version 9.7 to 9.8.

The data migration consists of two parts:

- Migration of ARIS document storage (relevant only when updating from version 4).
- Migration of the ARIS Risk and Compliance database. Databases from versions older than 3.1 SR4 are no longer supported. If you want to migrate an older version, contact the Software AG support team (Page 18).

To perform the migration, commands in the Windows prompt (CMD) and commands in the ARIS Cloud Controller (ACC) must be run. The running environment (CMD or ACC) appears before the respective command to be run. ARIS Cloud Controller (ACC) is available in the Windows Start menu once the installation procedure is complete (**Start > ARIS > Administration > ARIS Cloud Controller**). The Windows prompt is part of the operating system (**Start > Accessories > Command Prompt**).

2.4.1   Migrate data from ARIS document storage (version 9.x or older)

Migrate the data from ARIS document storage in order to use it in a newer ARIS Risk and Compliance version. If you are using ARIS document storage for the first time or are updating it based on a 9.x version, you do not need to perform the migration. If you are switching from version 4.x to the latest version, you must migrate the data from ARIS document storage. In the 4.x versions, there were separate installations of ARIS document storage for ARIS Server with a connection to Process Governance and ARIS Risk and Compliance. As of version 9, there is only one common ARIS document storage.

The next section describes the steps for merging and migrating the two document repositories.

Procedure

1. Stop the ARIS Risk and Compliance ACC runnable: **stop <arcm-runnable>**. All other runnables must be running.

2. Check the CouchDB content (**http://<your host>:19975/_utils/ -** basic authentication, login data of a user who has the **Document administrator** function privilege).

3. The CouchDB content now appears as follows:

Name	Size	Number of Documents	Update Seq
_replicator	4.1 KB	1	1
_users	4.1 KB	1	1
Showing 1-2 of 2 databases		← Previous Page | Rows per page: 10 ▼ | Next Page →	

4. Start the Windows prompt (CMD) and switch to the directory **<ARCM installation directory>\server\bin\work\work_adsadmin_m\tools\bin**.

    a. Start the ARIS Risk and Compliance CouchDB migration:

    ▪ CMD: **y-admintool.bat migrate -r arcm -s "<backup directory ARCM 4.x CouchDB>" -t "<ARCM installation directory>\server\bin\work\work_couchdb_m\data"**

    a. Start the Process Governance CouchDB migration:

    CMD: **y-admintool.bat migrate -s "<backup directory Governance CouchDB>" -t "<ARCM installation directory>\server\bin\work\work_couchdb_m\data"**

In the CouchDB overview, new databases should now be displayed with documents:

Name	Size	Number of Documents	Update Seq
_replicator	4.1 KB	1	1
_users	4.1 KB	1	1
links_default	4.1 KB	1	1
permanent_arcm_default	72.9 MB	312	622
temporary_arcm_default	8.1 KB	2	2
Showing 1-5 of 5 databases		← Previous Page	Rows per page: 10 ▼	Next Page →

5. Start the reindex process for the CouchDB:

   CMD: **y-admintool.bat -t default reindex -u <USER> -p <PASSWORD>**

   Replace **<USER>** and **<PASSWORD>** with the login data of a user who has the **Document administrator** function privilege.

6. After reindexing, the number of documents has increased:

Name	Size	Number of Documents	Update Seq
_replicator	4.1 KB	1	1
_users	4.1 KB	1	1
links_default	4.1 KB	1	1
permanent_arcm_default	72.9 MB	314	624
temporary_arcm_default	12.1 KB	4	4
Showing 1-5 of 5 databases		← Previous Page	Rows per page: 10 ▼	Next Page →

The migration of data from ARIS document storage is complete.

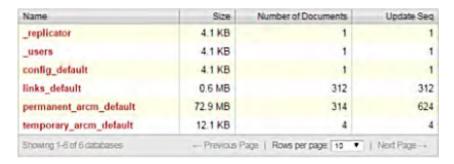## 2.4.2 ARIS Risk and Compliance database migration (version 9.x or older)

Migrate your existing database in order to use it in a newer version of ARIS Risk and Compliance.

Prerequisite

The **system** user has the **Document administrator** function privilege. The migration of the document link cannot be performed without this function privilege. If required, assign this function privilege before carrying out the migration and remove it again later.

Procedure

1. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).

2. Stop the ARIS Risk and Compliance component with **stop arcm_m**. All other runnables must be running.

3. Enter the command **reconfigure <arcm-runnable> dbms.autoStartMigration=true** to activate the data migration.

4. Use the **start <arcm-runnable>** command to start the data migration. Starting the runnable can take some time, depending on the data volume. The CouchDB content now appears as follows:

Name	Size	Number of Documents	Update Seq
_replicator	4.1 KB	1	1
_users	4.1 KB	1	1
config_default	4.1 KB	1	1
links_default	0.6 MB	312	312
permanent_arcm_default	72.9 MB	314	624
temporary_arcm_default	12.1 KB	4	4
Showing 1-6 of 6 databases	← Previous Page	Rows per page: 10 ▼	Next Page →

5. Enter the command **stop <arcm-runnable>** to deactivate the automatic migration.

6. Then enter **reconfigure <arcm-runnable> dbms.autoStartMigration=false**.

7. Use the **start <arcm-runnable>** command to start ARIS Risk and Compliance for productive operation.

The data migration is completed.

2.5 Migration of event enabling in ARIS Risk and Compliance

If event enabling is activated in ARIS Risk and Compliance, verify that the Universal Messaging server instance of the addressed Software AG installation is also updated to the related version. See the latest version of the webMethods Product Suite documentation **Upgrading Software AG Products**, especially the chapters **Prepare to Migrate Product Assets** and **Migrate Software AG Event Routing**.

The **Upgrading Software AG Products** guide is available at techcommunity.softwareag.com and empower.softwareag.com (https://empower.softwareag.com/).

If ARIS Risk and Compliance is not installed on the same host as the Software AG installation, follow the steps described in the **ARCM - Administration Guide** chapter **Configuration of event enabling in ARIS Risk and Compliance**.

2.6 Prepare system shutdown

Before you stop ARIS Risk and Compliance for updates or maintenance, we recommend preparing the system for shutdown.

Procedure

1. Open ARIS Cloud Controller (ACC) console (**Start > ARIS Cloud Controller**).

2. Enter the command **drain arcm_m** to make ARIS Risk and Compliance inaccessible to all users. Note that running server tasks are still completed, but tasks in the queue are no longer started.

3. Use the **list** command to check the **Extended state** of the ARIS Risk and Compliance runnable. As soon as all running server tasks are completed, ARIS Risk and Compliance is in **drained** state.

4. Stop the ARIS Risk and Compliance component with **stop arcm_m**.

The system is shut down.

Now perform the tasks that caused you to shut down the system. Start the ARIS Risk and Compliance component with **start arcm_m** again.

3 Glossary

In the glossary you will find explanations of basic technical terms.

GLOBAL UNIQUE IDENTIFIER (GUID)

Unique, cross-database identifier for ARIS elements.

JAVA DATABASE CONNECTIVITY (JDBC)

Interface facilitating communication between a Java application and a database.

MULTI-PURPOSE INTERNET MAIL EXTENSION MAPPING (MIME MAPPING)

Links a file name extension with the data file type, for example, text, audio, image.

ORACLE SERVICE ID (SID)

Unique identifier required by Oracle to identify the database instance.

SIMPLE MAIL TRANSFER PROTOCOL (SMTP)

Transfer protocol specifically designed for exchanging mails. It specifies, for example, how two mail systems interact and what control messages are used for this purpose.

4 Legal information

4.1 Documentation scope

The information provided describes the settings and features as they were at the time of publishing. Since documentation and software are subject to different production cycles, the description of settings and features may differ from actual settings and features. Information about discrepancies is provided in the Release Notes that accompany the product. Please read the Release Notes and take the information into account when installing, setting up, and using the product.

If you want to install technical and/or business system functions without using the consulting services provided by Software AG, you require extensive knowledge of the system to be installed, its intended purpose, the target systems, and their various dependencies. Due to the number of platforms and interdependent hardware and software configurations, we can describe only specific installations. It is not possible to document all settings and dependencies.

When you combine various technologies, please observe the manufacturers' instructions, particularly announcements concerning releases on their Internet pages. We cannot guarantee proper functioning and installation of approved third-party systems and do not support them. Always follow the instructions provided in the installation manuals of the relevant manufacturers. If you experience difficulties, please contact the relevant manufacturer.

If you need help installing third-party systems, contact your local Software AG sales organization. Please note that this type of manufacturer-specific or customer-specific customization is not covered by the standard Software AG software maintenance agreement and can be performed only on special request and agreement.

If a description refers to a specific ARIS product, the product is named. If this is not the case, names for ARIS products are used as follows:

Name	Includes
ARIS products	Refers to all products to which the license regulations of Software AG standard software apply.
ARIS Clients	Refers to all programs that access shared databases via ARIS Server, such as ARIS Architect or ARIS Designer.
ARIS Download clients	Refers to ARIS clients that can be accessed using a browser.

4.2　　Support

If you have any questions on specific installations that you cannot perform yourself, contact your local Software AG sales organization (https://empower.softwareag.com/Products/default.aspx). To get detailed information and support, use our websites.

If you have a valid support contract, you can contact **Global Support ARIS** at: **+800 ARISHELP**. If this number is not supported by your telephone provider, please refer to our Global Support Contact Directory.

ARIS COMMUNITY

Find information, expert articles, issue resolution, videos, and communication with other ARIS users. If you do not yet have an account, register at ARIS Community**.**

SOFTWARE AG EMPOWER PORTAL

You can find documentation on the Software AG Documentation website. The site requires credentials for Software AG's Product Support site **Empower**. If you do not yet have an account for **Empower**, send an e-mail to empower@softwareag.com (mailto:empower@softwareag.com) with your name, company, and company e-mail address and request an account.

If you have no account, you can use numerous links on the TECHcommunity website. For any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory and give us a call.

TECHCOMMUNITY

On the **TECHcommunity** website, you can find documentation and other technical information:

- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Access articles, code samples, demos, and tutorials.
- Find links to external websites that discuss open standards and web technology.
- Access product documentation, if you have **TECHcommunity** credentials. If you do not, you will need to register and specify **Documentation** as an area of interest.

EMPOWER (LOGIN REQUIRED)

If you have an account for **Empower**, use the following sites to find detailed information or get support:

- You can find product information on the Software AG Empower Product Support website.

- To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the Knowledge Center.

- Once you have an account, you can open Support Incidents online via the eService section of Empower.

- To submit feature/enhancement requests, get information about product availability, and download products, go to Products.

FURTHER INFORMATION AND TRAININGS

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