Installation Guide **INTERNAL**

Document Version: 1.0 – 2020-09-30

SAP Landscape Transformation Replication Server

SAP Landscape Transformation Replication Server 2.0 / 3.0
SAP Landscape Transformation Replication Server for SAP S/4HANA 1.0

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Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, `F2` or `ENTER`.

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Document History

Version	Date	Change
1.0	2020-09-30	Initial version

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Table of Contents

1 Getting Started 5
1.1 About this Document 5
1.2 Related Information 6
1.2.1 Important SAP Notes 6
1.2.2 SAP LT Replication Server Guides 6

2 Introduction 7
2.1 Product Versions and Supported Use Cases 8
2.1.1 SAP Landscape Transformation Replication Server for SAP S/4HANA 1.0 8
2.1.2 SAP Landscape Transformation Replication Server 3.0 9
2.1.3 SAP Landscape Transformation Replication Server 2.0 10
2.1.4 SAP LT Replication Server as part of SAP S/4HANA 1610 - 1909 11
2.2 Installation Options 12
2.3 Location of the SAP LT Replication Server System 13
2.4 Compatibility Regarding SP Levels 14
2.5 Special considerations for non-ABAP source and non-ABAP target systems 14

3 Installation 15
3.1 Obtaining the Required Software 15
3.2 Installation 15

4 Post Installation Activities 16
4.1 User Creation and Connection Setup 16

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1 Getting Started

1.1 About this Document

This guide details the installation and configuration of SAP Landscape Transformation Replication Server (SAP LT Replication Server) to facilitate the trigger-based replication of data for the following releases:

- SAP Landscape Transformation Replication Server 2.0
- SAP Landscape Transformation Replication Server 3.0
- SAP Landscape Transformation Replication Server for SAP S/4HANA 1.0

This guide is intended for system administrators and consultants performing an initial installation of SAP LT Replication Server.

This guide will take you through the required steps to:

- Decide on a suitable installation type based on the existing system landscape.
- Install SAP Landscape Transformation Replication Server.
- Connect to a source / target system to facilitate the replication of data by using an RFC or database connection.

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1.2 Related Information

1.2.1 Important SAP Notes

SAP Note 1605140 is the central starting point for detailed information about SAP Landscape Transformation Replication Server. It references other SAP Notes that provide, for example, detailed information about uses cases, information about the different installation options and where to find corrections.

Make sure that you check the up-to-date version of SAP Note 1605140 and all relevant SAP Notes for your use case, which you can find on SAP Support Portal at http://support.sap.com/notes.

1.2.2 SAP LT Replication Server Guides

For the latest SAP Landscape Transformation Replication Server guides (for example Security, Installation, Sizing, and others), see http://help.sap.com/sapslt.

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2 Introduction

SAP Landscape Transformation Replication Server is a replication technology that provides data from ABAP and non-ABAP systems to ABAP and non-ABAP systems.

The following systems may be used in the landscape:

- ABAP-Based SAP Source System

  In the source system database changes are tracked by using database triggers. Information about the changes is recorded in the logging tables. Read modules (located on the ABAP source system) transfer the data from the source system to the SAP LT Replication Server by reading the relevant data from the application tables. SLT specific coding needs to be available on the source system (see following chapters for available options).
- Non-ABAP-Based Source System

  In the source system database changes are tracked by using database triggers. Information about the changes is recorded in the logging tables. Read modules (located on the SLT system) transfer the data from the source system to the SAP LT Replication Server by reading the relevant data from the application tables.
- SAP Landscape Transformation Replication Server System

  An SAP system that facilitates the replication of data from one or more source systems to one or more target systems. The relevant information to create the connection between the source system, the SAP LT Replication Server system, and the target system is specified within the SAP LT Replication Server as a *Configuration*.
- ABAP-Based SAP Target System

  The target system to which the data is transferred. The data is written in the target using a write module (located on the ABAP target system). SLT specific coding needs to be available on the target system (see following chapters for available options)
- Non-ABAP-Based Target System

  The target system to which the data is transferred either by means of a database connection or using respective APIs of the target system. The most common non-ABAP based target is the SAP HANA database. The data is written in the target using a write module (located in the SAP LT Replication Server system).

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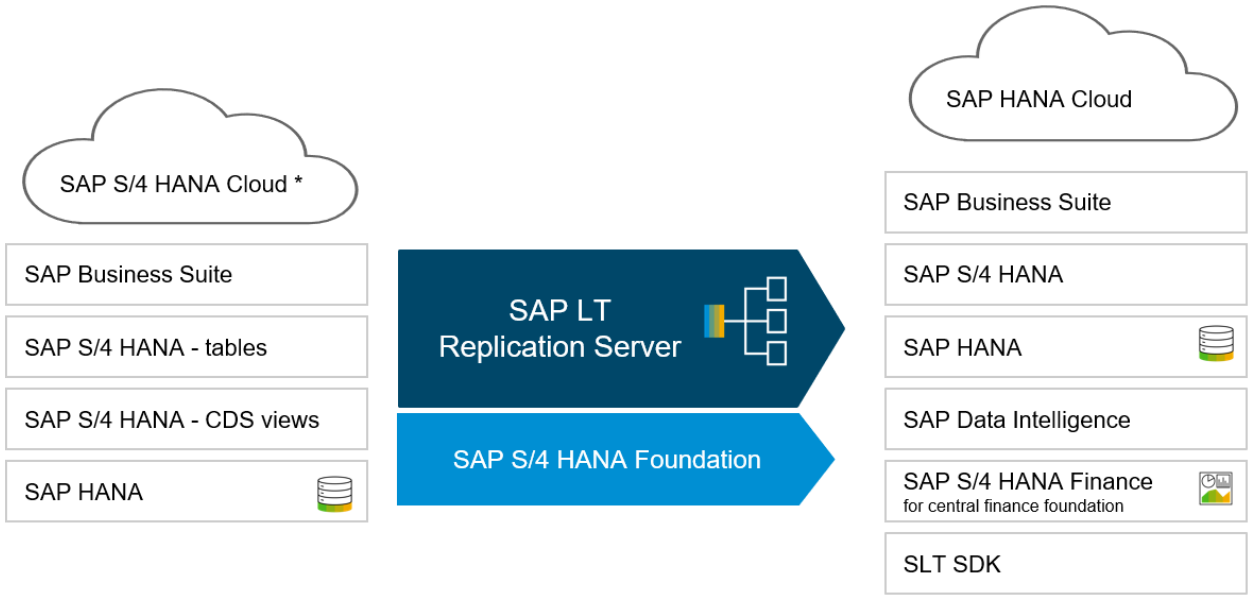
2.1 Product Versions and Supported Use Cases

2.1.1 SAP Landscape Transformation Replication Server for SAP S/4HANA 1.0

The latest version of SAP Landscape Transformation Replication Server. It combines the latest SAP Landscape Transformation Replication Server functionality with the latest SAP Basis version for the best support of all uses cases involving SAP systems and databases. There are two options for using this version of SAP Landscape Transformation Replication Server (see also chapter *Installation Options*):

- As a standalone system based on SAP S/4HANA Foundation 2020 (or higher) together with the DMIS 2020 addon.
- Embedded in SAP S/4HANA 2020 (or higher).

The use cases covered by this product version are outlined in the graphic below. This graphic only shows the SAP S/4HANA Foundation variation of the installation, as this is the recommended installation option. Nevertheless, the supported use cases are identical.



* For dedicated integration scenarios only (for example for central finance subsidiary integration, tax declaration framework integration)

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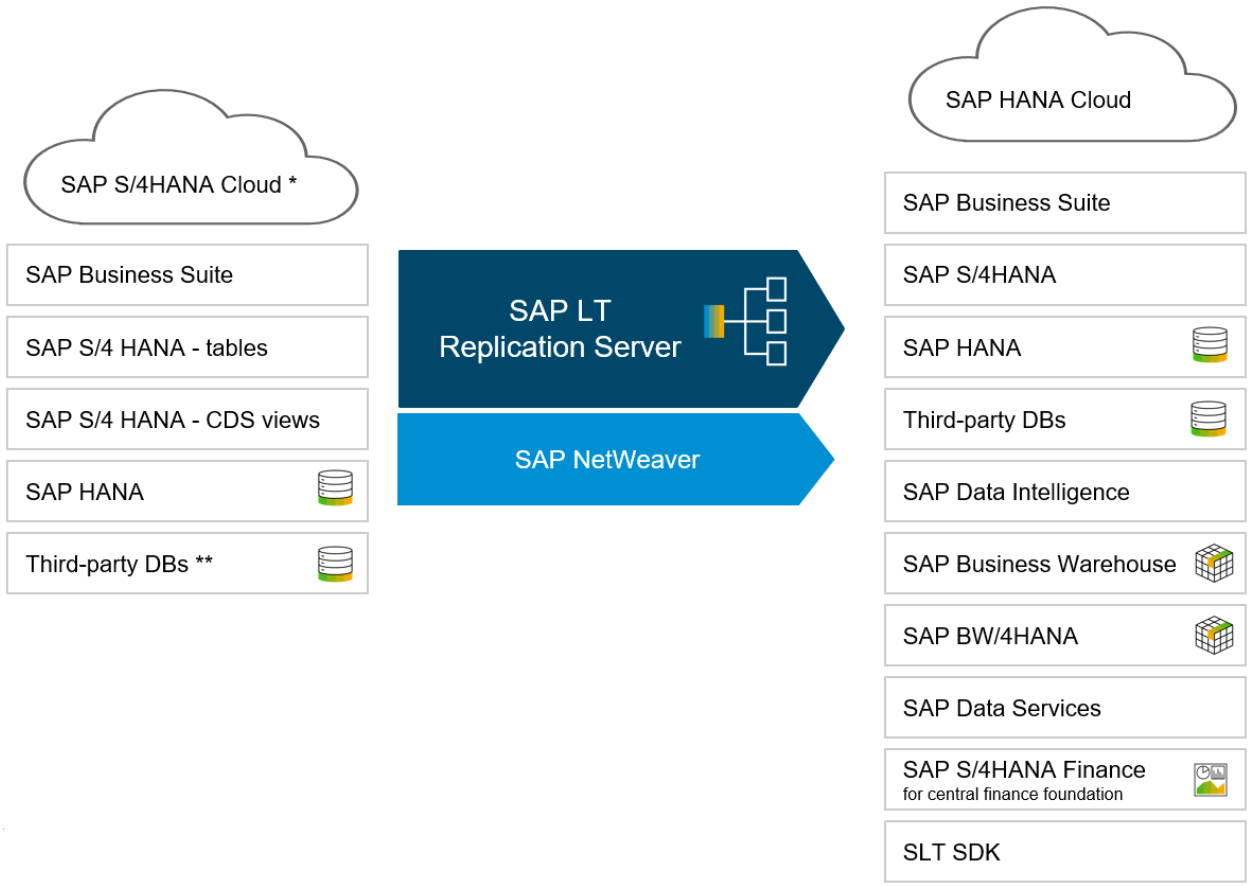
2.1.2 SAP Landscape Transformation Replication Server 3.0

This version of SAP Landscape Transformation Replication Server still provides the latest functionality (the same as SAP Landscape Transformation Replication Server for SAP S/4HANA). However, there are two differences:

- The Basis version is based on SAP NetWeaver 7.52 and fixed to this version. Hence, if there is new functionality in the basis layer, the SAP Landscape Transformation Replication Server system based on this installation will not be able to make use of it. The most prominent example for such a case is the support of new data types. For example, the data type DECFLOAT34 was introduced with a newer basis version (7.54) - this means that tables using this data type cannot be replicated with this version of SAP Landscape Transformation Replication Server.
- As the basis is SAP NetWeaver, it is possible to connect to supported 3rd party databases.

The use cases covered by this product version are outlined in the following graphic:



*For dedicated integration scenarios only (for example central finance subsidiary integration, tax declaration framework integration)

** For restrictions, refer to SAP Note 1768805

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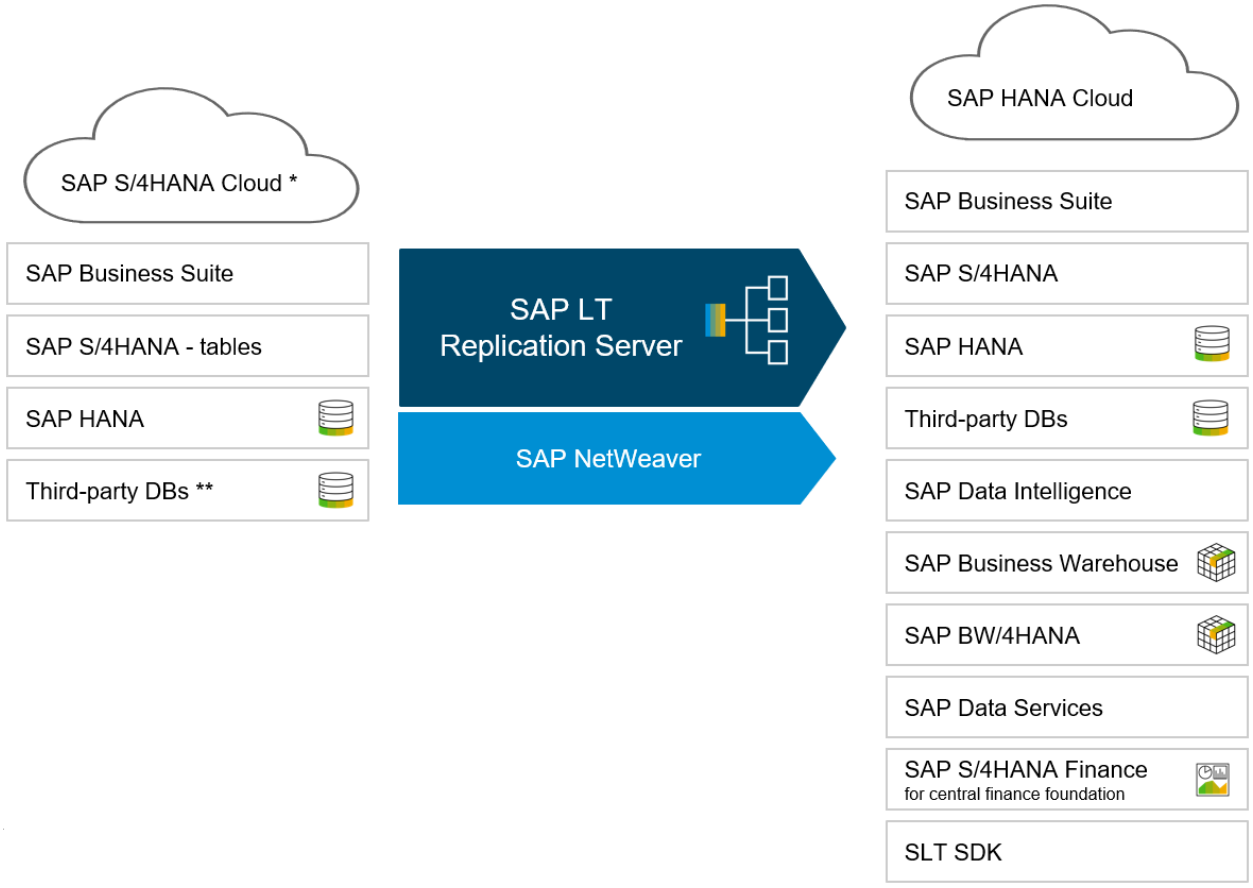
2.1.3 SAP Landscape Transformation Replication Server 2.0

This version of SAP Landscape Transformation Replication Server is the predecessor of SAP Landscape Transformation Replication Server 3.0. The versions have been identical with regard to features until DMIS 2011 SP17 (DMIS 2018 SP02). Since then, new functionality is no longer introduced for SAP LT Replication Server 2.0. For example, SAP Landscape Transformation Replication Server using DMIS 2011 is not able to transfer CDS views from an SAP S/4HANA source system.



*For dedicated integration scenarios only (for example central finance subsidiary integration, tax declaration framework integration)

** For restrictions, refer to SAP Note 1768805

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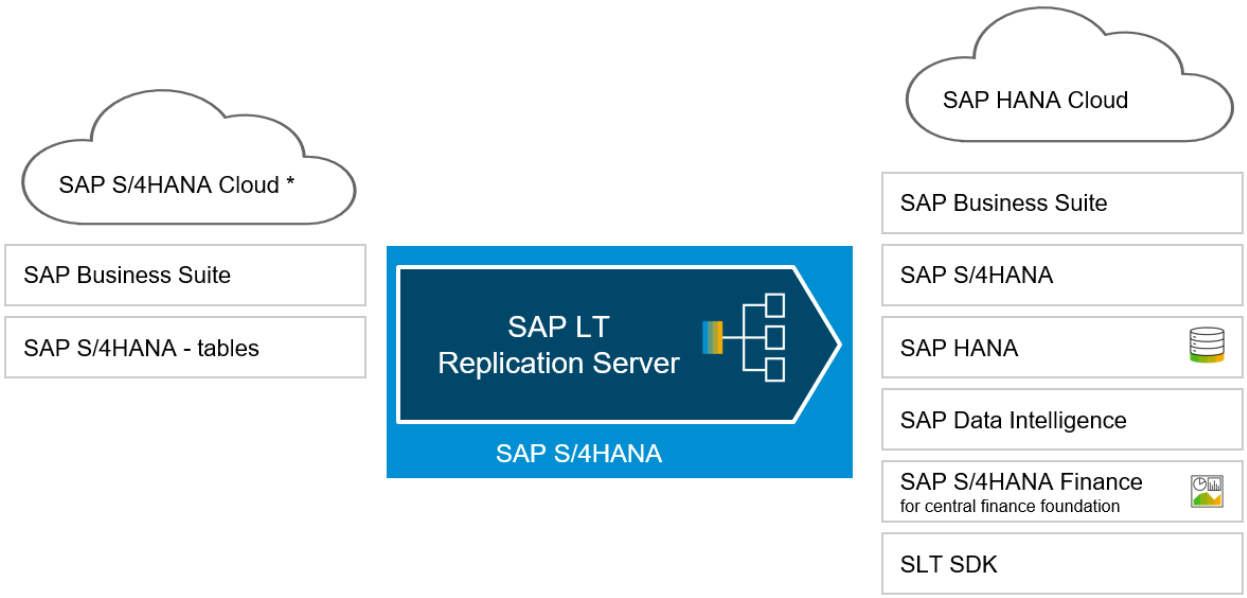
2.1.4 SAP LT Replication Server as part of SAP S/4HANA 1610 - 1909

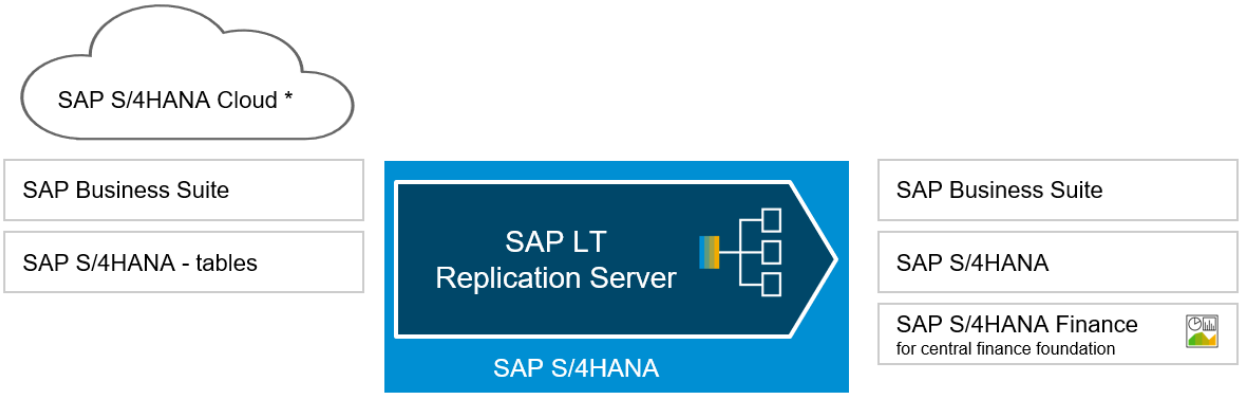
For SAP S/4HANA, it was possible to use certain scenarios as part of the SAP S/4HANA system. In general, using this option to run SAP Landscape Transformation Replication Server is not recommended.

The following scenarios are supported on SAP S/4HANA 1909.



*For dedicated integration scenarios only (for example central finance subsidiary integration, tax declaration framework integration)

The following scenarios are supported for SAP S/4HANA 1610 - 1809.



*For dedicated integration scenarios only (for example central finance subsidiary integration, tax declaration framework integration)

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2.2 Installation Options

SAP LT Replication Server can be installed using the following options:

Product Name	Supported Basis Version	Addon Name	SAP Note
SAP LT Replication Server for SAP S/4HANA 1.0	S4 Foundation >= 105	DMIS 2020	2954022
SAP LT Replication Server for SAP S/4HANA 1.0	S4 Core >= 105 (SAP S/4HANA 2020)	(already included)	N/A
SAP LT Replication Server 3.0	NetWeaver = 7.52 S4 Foundation >= 102 <= 104	DMIS 2018	2669326
SAP LT Replication Server 2.0	When used as SAP LT Replication Server system: • NetWeaver >=7.02 <= 7.52 • S4 Foundation >= 102 <= 104 When used as source / target system: • NetWeaver >= 6.20 <= 7.52 • S4 Foundation >= 102 <=104	DMIS 2011	1577441
SAP LT Replication Server as part of SAP S/4HANA 1610 - 1909	S4 Core >= 101 (SAP S/4HANA 1610) <= 104 (SAP S/4HANA 1909)	(already included)	N/A

Note

For a 4.6C SAP source system, you can connect the system to an SAP LT Replication Server by using addon DMIS 2010 in the source system. SAP systems lower than 4.6C are not supported.

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2.3 Location of the SAP LT Replication Server System

Before beginning the installation, it is important to understand the various system landscape options:

- We recommend installing SAP LT Replication Server as a separate system.
- For ABAP-based SAP source systems, SAP LT Replication Server can also be used within the source system.
- For ABAP-based SAP target systems, SAP LT Replication Server can also be used within the target system

Installing the SAP LT Replication Server as a separate system is recommended for the following reasons:

- It allows a clear separation of concerns - the SAP Landscape Transformation Replication Server system will only replicate data and all system resources are dedicated to this.
- It allows a different set of users to be the single users to have access to the system (security aspects).
- It allows independent planning of upgrade cycles or other maintenance activities on the SAP Landscape Transformation Replication Server system.
- It helps to keep an overview of the system landscape if multiple source systems are connected to one or more target systems.

Installing (and using) the SAP LT Replication Server in the source or target system is only recommended:

- If there are so little replication use cases, that an additional system is too expensive (for example a single replication to an SAP HANA Cloud instance)
- If the use case is to only replicate data into SAP Central Finance and SAP Landscape Transformation Replication Server is used as part of the target S/4HANA system

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2.4 Compatibility Regarding SP Levels

If SAP LT Replication Server is installed in a separate system, we recommend installing the same support package level on all systems, the source / target system, and the SAP Landscape Transformation Replication Server system. As it might not always be possible to install the new support package in all involved systems at the same time, several combinations are supported. If latest support package is not installed in all systems, some functionality might not be available.

The table below outlines an example for the compatibility between the different SP levels of the source system, the SAP LT Replication Server system (here on DMIS 2018 SP04), and the target system. For detailed information, refer to the individual release information SAP Notes which are listed in SAP Note 2675613.

In the table below, you can replace source / target with any of the supported databases (see SAP Note 1605140). In this case - as there is no ABAP stack - the DMIS SP or SAP S/4HANA version requirement for the source / target does not exist.

ABAP Source System	SAP LT Replication Server	Target System
DMIS 2010 SP10 DMIS 2011 SP16-19 DMIS 2018 SP01-04 SAP S/4HANA 1809 FPS01 and higher SAP S/4HANA 1909 any version SAP S/4HANA 2020 initial version	DMIS 2018 SP04	DMIS 2011 SP16-19 DMIS 2018 SP01-04 SAP S/4HANA 1809 FPS01 and higher SAP S/4HANA 1909 any version SAP S/4HANA 2020 initial version

2.5 Special considerations for non-ABAP source and non-ABAP target systems

If the SAP LT Replication Server system has multiple application servers, ensure that they all have the appropriate DBSL for the relevant source / target system database.

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3 Installation

3.1 Obtaining the Required Software

Access the SAP Software Download Center https:// support.sap.com/swdc and download your required versions and support packages from the following path:

- SAP LT Replication Server for SAP S/4HANA 1.0 (DMIS 2020)
  - Installations and Upgrades → A - Z Index → L → SAP LTRS FOR SAP S/4HANA → SAP LTRS FOR SAP S/4HANA 1.0
- SAP LT Replication Server for SAP S/4HANA 1.0 (S4CORE)
  - Installations and Upgrades → A - Z Index → S → SAP S/4HANA
- SAP LT Replication Server 3.0 (DMIS 2018)
  - Installations and Upgrades → A - Z Index → L → SAP LT Replication Server → SAP LT Replication Server 3.0
- SAP LT Replication Server 2.0 (DMIS 2011)
  - Installations and Upgrades → A - Z Index → L → SAP LT Replication Server → SAP LT Replication Server 2.0

3.2 Installation

Use the SAP Add-On Installation Tool (SAINT) to install the DMIS addon or follow the usual installation activities to install SAP S/4HANA.

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4 Post Installation Activities

4.1 User Creation and Connection Setup

To replicate data using SAP LT Replication Server, you need:

- An SAP LT Replication Server administration user that has the authorizations of role SAP_IUUC_REPL_ADMIN in the SAP LT Replication Server system.
- A technical user in the ABAP-based source / target system you want to connect to that has the authorizations of role SAP_IUUC_REPL_REMOTE.
- A working RFC connection to each ABAP-based source / target system that makes use of the user having the authorizations of role SAP_IUUC_REPL_REMOTE.
- A database user that has the authorizations as described in the respective SAP Note for the non-ABAP based source / target (refer to SAP Notes 1768805 and 2737003).
- A working database connection making use of the user having the needed authorizations.

For information about RFC user creation, refer to the RFC/ICF Security Guide.

> **Note**
>
> For more details about the roles and authorization concept of SAP LT Replication Server, see the Security Guide for SAP LT Replication Server.

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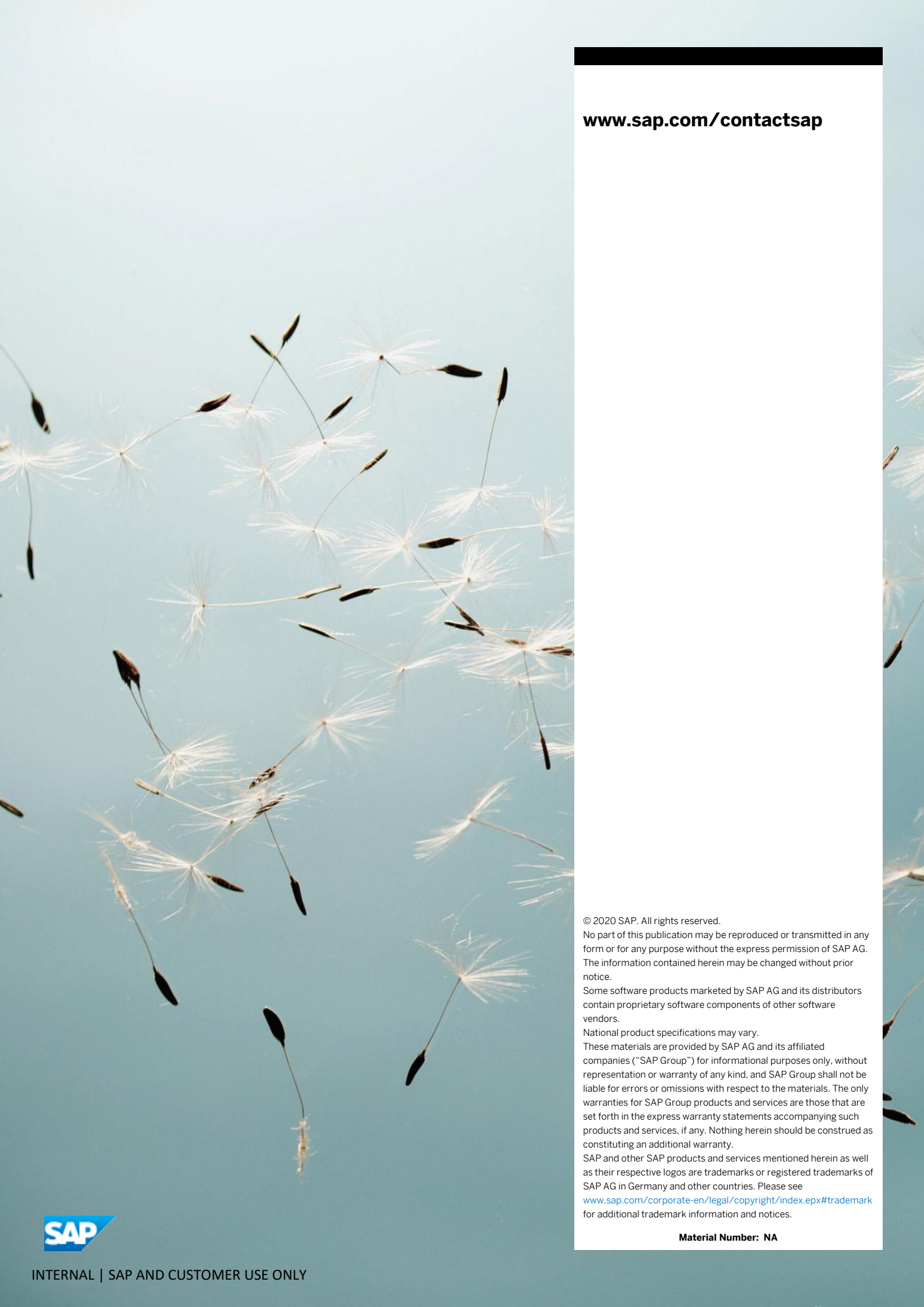

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