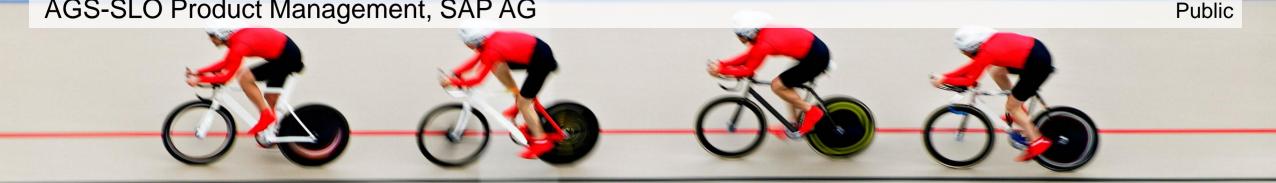
SAP Landscape Transformation Replication Server Overview Presentation

AGS-SLO Product Management, SAP AG





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Agenda

Overview

Basic Concept, Architecture & Main Features

Technical Prerequisites & Sizing

Summary & Outlook

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Overview



Product Name and Positioning within RTDP

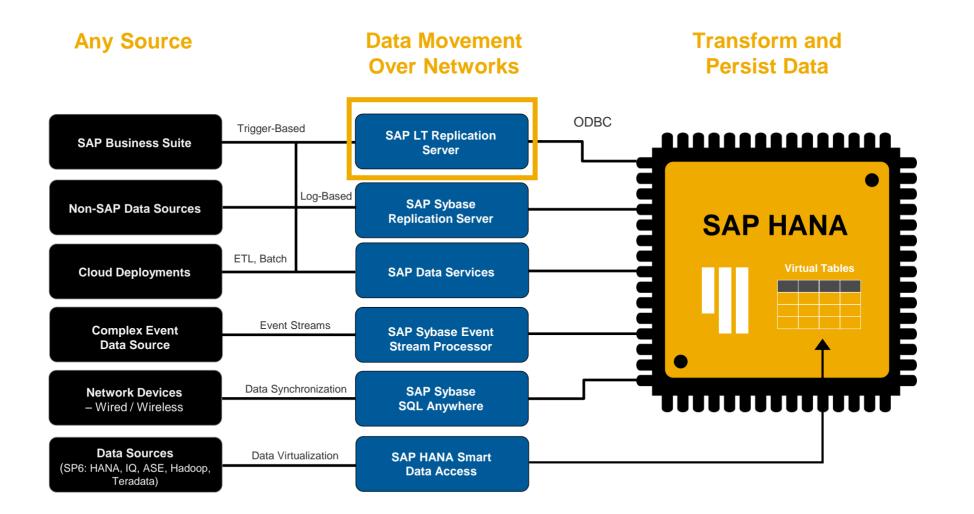
SAP Landscape Transformation Replication Server

SAP LT Replication Server (SLT) is positioned for real time (*trigger-based*) data replication from SAP and non-SAP sources (SAP supported databases only).

Mainly Recommended for real-time data replication business scenarios

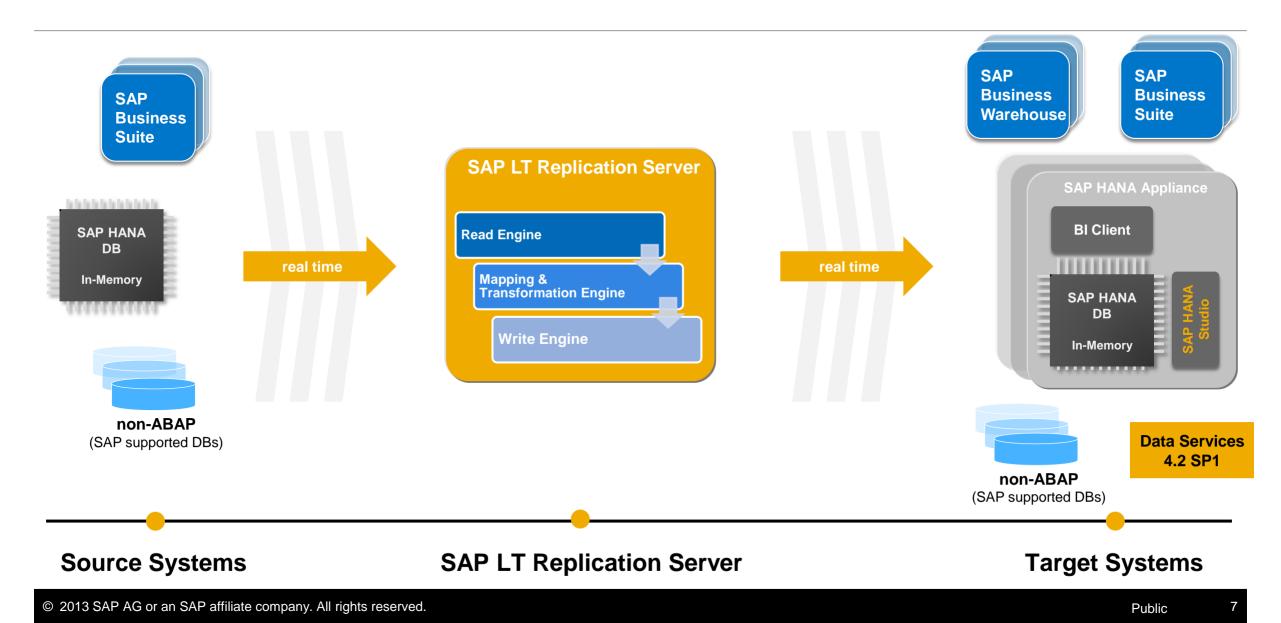
Comprehensive Data Provisioning

Real-time high volume data integration from any source



6

Enable Real-time Replication within your Entire Landscape



SAP Landscape Transformation Replication Server Leverages proven AGS SLO*) Technologies

- Status 31.7.2013: 261 customers use SAP LT Replication Server
- SLO* technologies have been used since more than 10 years in hundred of projects per year
- Key offerings foster SAP's Application Lifecycle Management concept
- SAP LT Replication Server leverages several SLO technologies



* System Landscape Optimization, SAP Active Global Support

Fast, scalable & reliable DB trigger-based change capturing capabilities Jear Zero Downtim Requirement **Dperate** Solution Design Manager Build & Test Deploy SAP Landscape Transformation TDMS Particle and part in a

SAP Application Lifecycle Management (ALM)

Comprehensive data transformation and filtering capabilities

Technical Enabler for Multiple Data Provisioning Use Cases

SAP LT Replication Server for SAP HANA Integrated into SAP HANA Studio (also used by SAP HANA RDS Solutions)

Key Achievements

- Majority of all productive HANA customers use SLT real-time replication
- Customer quotes and success stories available
- SLT is default replication engine for all HANA live (side-car) applications

Replication Engine for SAP HANA Application Accelerators

Key Achievements

- HANA RDS solutions for data mart scenarios include SLT content
- New HANA application accelerators leverage SLT
- Switch-Kernel based and HANA optimized functions use SLT

SAP LT Replication Server for SAP BW Real-time Data Acquisition for SAP BW

Key Achievements

- First customer is live using SLT for non-SAP replication into SAP BW
- Customers consider SLT as key asset for their SAP BW on HANA strategy
- Several functional enhancements included with DMIS_2011 SP05

Additional Scenarios (some on project basis available only)

Key Achievements

- ODQ introduced as generic data storage
- SLT replication used for migration to PMR 8.0
- High demand for SAP to SAP (but also non-SAP) replication
- SLT ready as heterogeneous fallback solution

Licensing Aspects

Replication Target is SAP HANA

SAP Landscape Transformation Replication Server is part of the software license model:

- HANA Enterprise edition
- HANA Insight, enterprise edition
- HANA real-time data edition
- HANA EDGE edition
- HANA Limited Runtime edition for Applications (LREA)
- HANA Limited Runtime edition for Applications and SAP BW (LREAB)

Replication Target is not SAP HANA

If the replication target system is not covered by a HANA-based license (i.e. in case of a SAP NetWeaver Business Warehouse system), the following license for using SAP Landscape Transformation Replication Server is required:

- SAP LT Basis (Material Number 7010685)
- SAP LT IT Consolidation (Material Number 7010688)
- SAP LT Value chain harmonization (Material Number 7010687)



Customer Statements

The most fascinating factor to adopt HANA was the functionality of HANA and SLT which enables real time collaboration.

Fujimoto, Sub-Director Information System Department (Press article "Nikkei Joho Strategy" Oct 5, 2013)

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We use data transformation services and SLT. And I think at this point, we've moved everything to SLT. SLT is driving all of the real-time [transfer of data] right into HANA. Quite frankly we didn't think we were able to do this and you guys really did a great job with the SLT product, because when I talk with my architect folks, they were thrilled with not only how it runs day by day, but also if something goes wrong, the recovery capabilities of SLT.



Asahi**KASFI**

Paul Fipps, CIO and Vice President, Business Services, The Charmer Sunbelt Group (Customer Insights, Walldorf 2012)

66 99

The shift to SLT really drove efficiencies in building up the data set by leveraging HANA to overcome some of the challenges of the ECC environment. We didn't have to spend the time it would typically take on architecting what that data model would look like. It's also enabled us to really free up and improve the cycle time of data availability for the business teams. So where in the past you might say that I need to take a segment of [tables] and I am pulling particular fields out of the database for performance reasons, we are now simply taking the entire table.

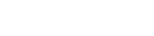
Justin Replogle, Dir. Business Intelligence, Honeywell (SAPPHIREnow, Orlando 2012)

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"To deal with the difficulties associated with transmitting data from older systems, we installed SAP LT Replication Server, which worked out well and solved our problems."

"With the SLT tool, we can take any table to SAP HANA and write a report. It will be quick and efficient. From what we've observed in the proof of concept thus far, these changes are real. If you estimate how much we have invested in SAP HANA or in old technology, there will be an undoubted advantage for SAP HANA. These investments will come back very quickly."

Rinat Gimranov, CIO of Surgutneftegas (insider PROFILES 7/2012)



Honeywell



Customer Success Summaries (extract)



Re-allocation & scheduling of available Inventory in realtime

0.5% Monthly revenue increase

Per a 1% increase in the fill rate



Use real-time information to operate its call centers with greater productivity, a higher first-call resolution rate, and a lower cost per transaction.

5% Cost Reduction

In total overall cost



Real-time decision-making and greater control of the supply chain for better inventory management

• 50% Decrease in inventory



 Snapshots of business profitability available in real time, and enhanced customer service and support

25% Monthly revenue increase

(estimated increase)



Drive profitable decision with real-time analysis for demand planning (sourcing) and sales negotiations (commercial margin)

- €500k Capital working capital reduction within a week



Real-time decisions regarding the company's long-term development, improving efficiency and lowering costs

• 35% Decrease in Transportation Costs

vodafone

Reduced IT team engagement time from one day to mere seconds, in financial closing

~\$645k in annual

labor cost savings



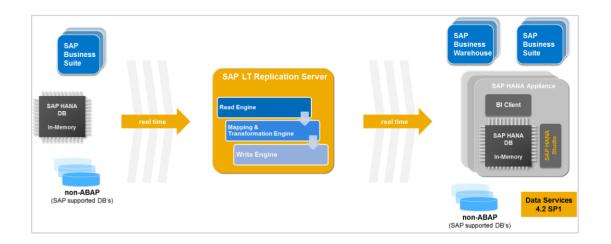
Help Brands Harness the Power of Word-Of-Mouth from social media

+ \$17M Revenue

Estimated increase revenue with new customers

SAP Landscape Transformation Replication Server Positioning and Benefits

SAP Landscape Transformation Replication Server (aka "SLT") is the best choice for all SAP HANA customers who need real-time or scheduled data replication from SAP and NON-SAP sources with the option to accomplish even complex data transformations on the fly.



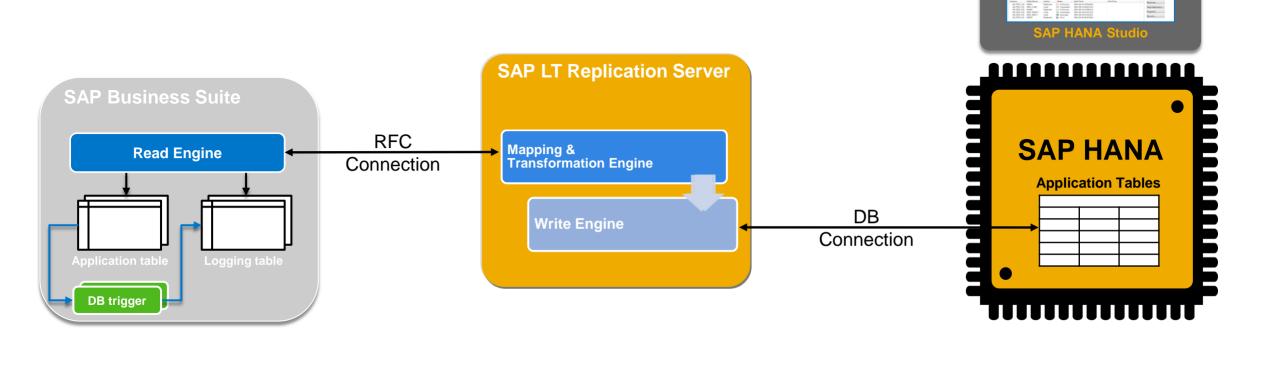
- Allows real-time (and scheduled) data replication
- Ability to migrate data into HANA format while replicating data in real-time
- "Unlimited" release coverage (from SAP R/3 4.6C onwards) sourcing data from ABAP based SAP applications
- Handling of cluster and pool tables
- Automatically non-Unicode to Unicode conversion during load/replication
- Table settings and transformation capabilities (e.g. data filtering, enrich table structure, anonymize data, etc.)
- Fully integrated with SAP HANA Studio (Data Provisioning and Data Modeler UI)
- Enhanced monitoring capabilities via SAP Solution Manager 7.1 SP5 onwards & mobile app SAP Replication Manager



Basic Concept, Architecture & Main Features



Architectural Concept 1/2 Replication from ABAP sources system



ABAP Source System

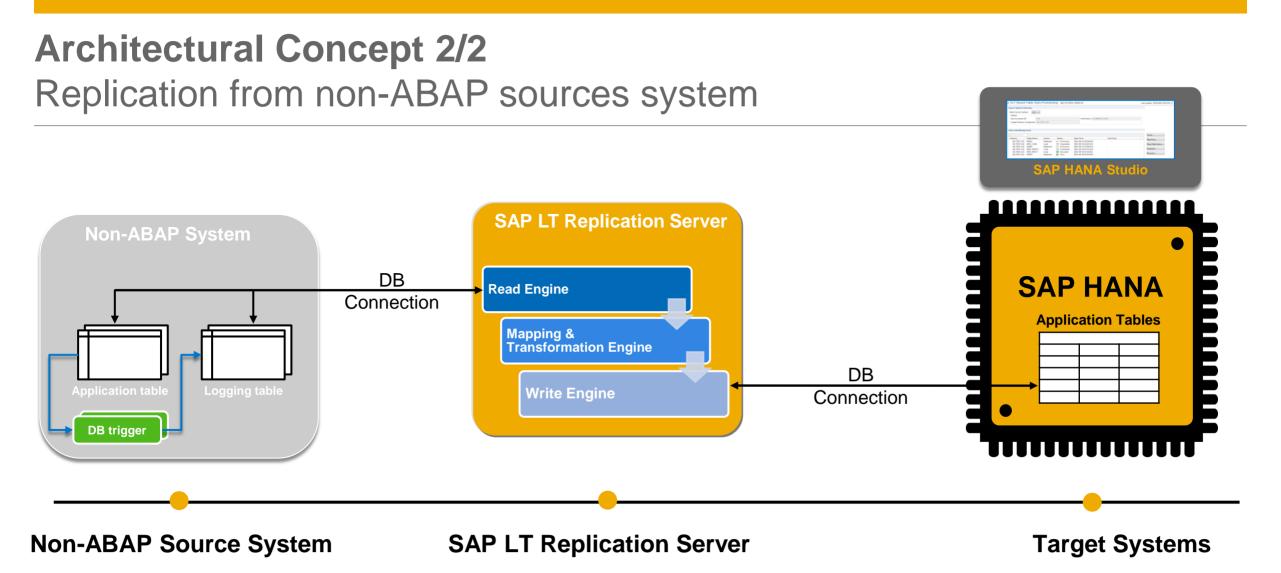
Efficient implementation of data replication via DB trigger based on change capturing concept

SAP LT Replication Server

Highly scalable and reliable replication process, including comprehensive data transformation capabilities on the fly

Target Systems

Fast data replication via DB connection, integration into SAP HANA Studio



SAP LT Replication Server transfers all metadata table definitions from the non-ABAP source system to the HANA system. From the HANA Studio perspective, non-SAP source replication works the same as for SAP sources. When a table replication is started, SAP LT Replication Server creates logging tables in the source system. The read engine is created in the SAP LT Replication Server. The connection the non-SAP source system is established as a database connection.

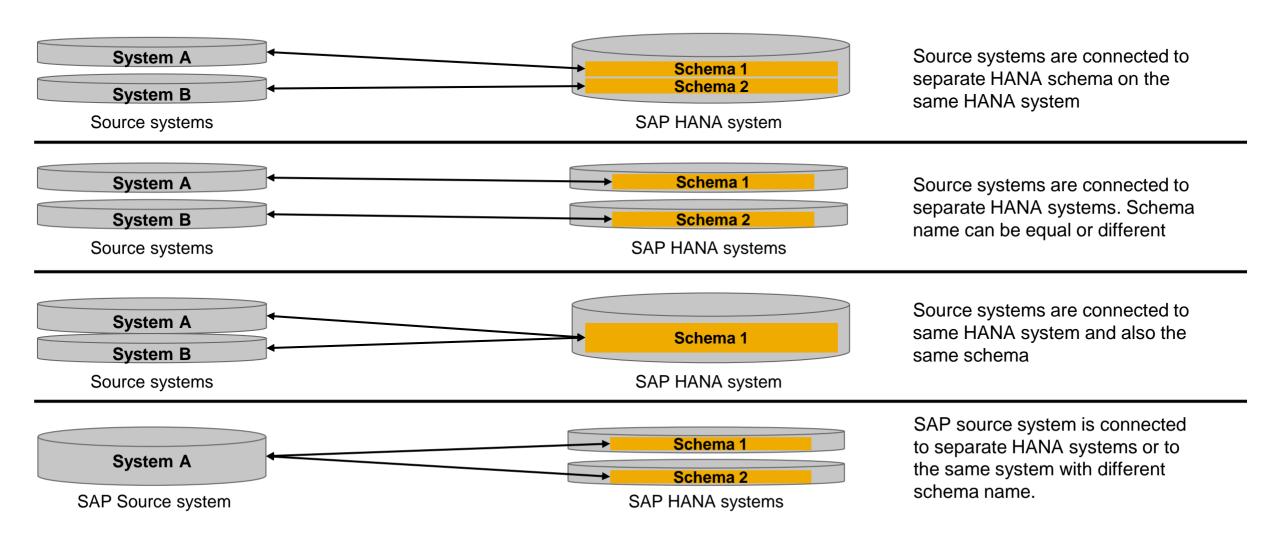
DB Supportability Matrix for Replication to SAP HANA

Technical availability SAP Sources Non SAP Sources (*) Database **MSFT SQL Server Enterprise Edition** OK OK **Oracle Enterprise Edition** OK OK IBM DB2 LUW/ UDB (DB6) OK OK **IBM DB/2 zSeries** OK OK IBM DB2 iSeries (former AS/400) OK Ok – for simple table structures **IBM** Informix OK OK OK OK SAP MaxDB OK OK Sybase ASE (with DB-Version 15.7.0.11) (with DB-Version 15.7.0.11) SAP HANA OK OK

For non-SAP source systems, the customer database license needs to cover a permanent database connection with 3rd party products like SAP LT Replication Server.

(*) Since a DB connection from LT replication server to a non-SAP system is required, the OS/DB restrictions of SAP NetWeaver 7.02 or higher apply (see at http://service.sap.com/pam)

Multi System Support



Setup, Execution & Monitoring of a Replication

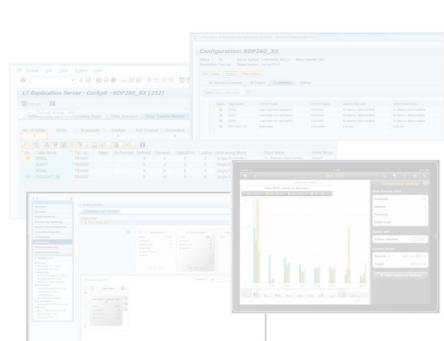
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SAP LT Replication Server

New guided procedure to create a configuration between source and target system.

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Start the replication for the relevant tables via SAP HANA Studio.



Setup Replication

Execute Replication

Setup Replication – Specify General Data

Execute transaction LTR in the SLT system to open the Configuration and Monitoring Dashboard

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In the first step, you define the configuration name and a description. The configuration name will be also used as the new schema name that will be created in the HANA system.

With DMIS 2011 SP5, a guided procedure helps to execute the creation process for a new configuration.

A configuration is required to setup a connection from a source to a target system.

Setup Replication

Execute Replication

Setup Replication – Specify Source / Target System

In the second step, you specify your source system. For an ABAP based system you connect via RFC connection, for a non-ABAP system you connection via a 2nd DB Connection (SLT supports only SAP supported DB's).

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For a replication from an ABAP based system you can specify if you would like to enable 1:N replication (Allow Multiple Usage) and to replicate from a single client only. In the third step, you specify all relevant information about the target system.

With DMIS SP2011 SP5, SLT allows replication to SAP HANA and SAP BW. Replication to ABAP based targets and SAPsupported DB are available project based.

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Setup Replication

Execute Replication

Setup Replication – Specify Transfer Settings

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In the fourth step, you specify the transfer settings.

There are two options for the initial load process - resource optimized or performance optimized.

The data class of the tablespace defines where SLT creates the logging tables on the source system. Administrators can use this option for better monitoring.

In the section *Job Options*, you can define the jobs that are allocated for this configuration at SAP LT Replication Server.

Setup Replication

Execute Replication

Setup Replication – Review and Create / Confirmation

In the fifth step you review all your settings and start the creation process of the configuration.

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The system displays a success message when the configuration has been created successfully.

Setup Replication

Execute Replication

Setup, Execution, and Monitoring of a Replication

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SAP LT Replication Server

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Start the replication for the relevant tables via SAP HANA Studio.

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Setup Replication

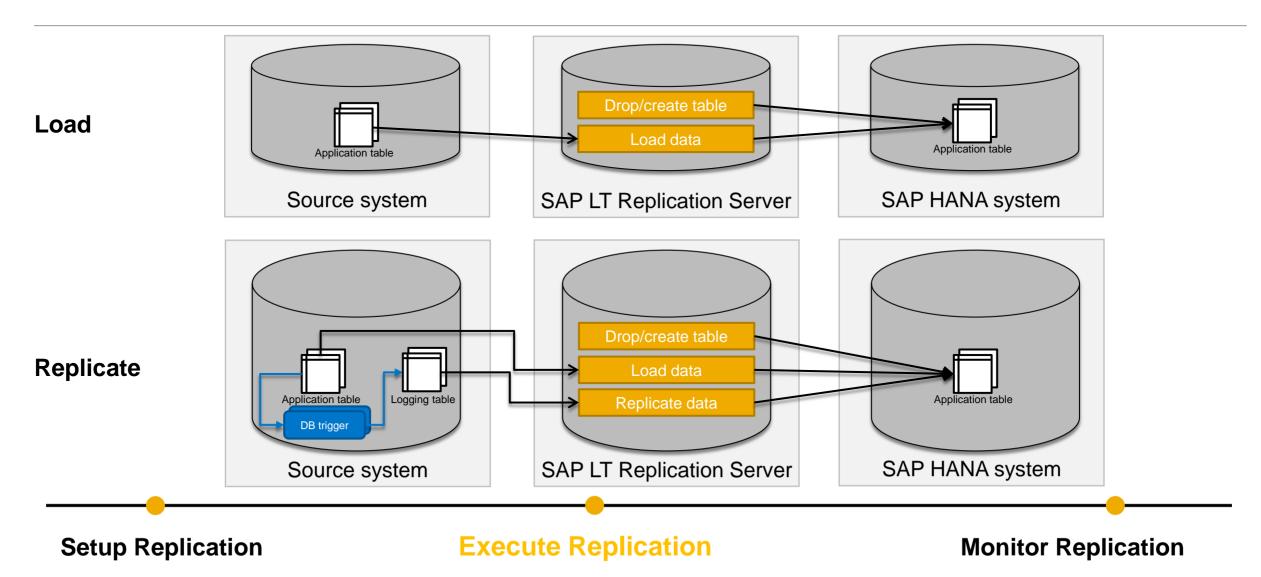
Execute Replication

Execute Replication

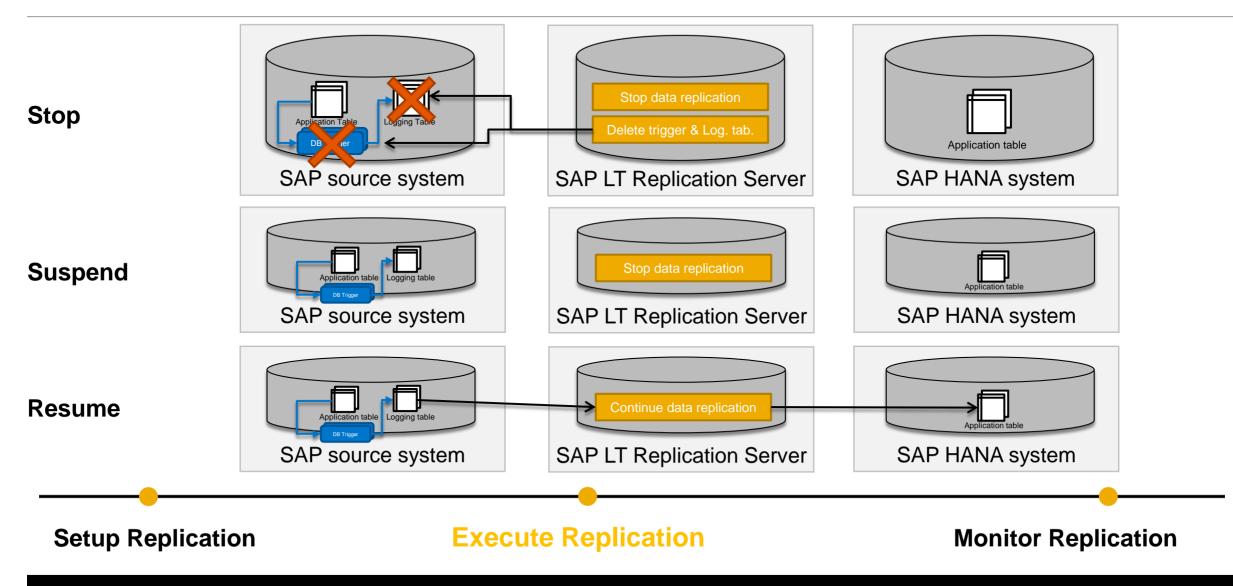
SAP LT Replication Server is integrated into the HANA Modeler. Enter Data Provisioning to start the replication.

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Welcome to Modeler			🖬 Quick La		-				1. Select source system
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Setup Re	eplication		and		rocess	before	002T are in acti /ou start your re	•	Monitor Replication

Execute Replication – Load / Replicate



Execute Replication – Stop / Suspend / Resume



Setup, Execution & Monitoring of a Replication

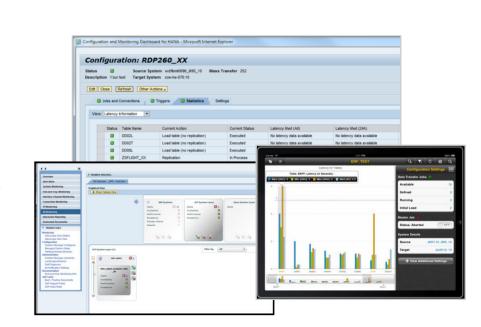
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Configuration Name RDP200_	IX Description Your text		
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Previous Create Configura	fion 🕨 Clese		
Review your settings and choose	create Configuration to create the configuration.		
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RFC Destination:	SLT_RFC_MIS	Data Class of Tablespace:	
Allow Multiple Usage:			
Read from Single Client:		Job Options	
		No. of Data Transfer Jobs:	001
Connection to Target System		No. of Initial Load Jobs: No. of Calculation Jobs:	000
Delabase System	RANA	No. of Calculation Jobs:	000
Administration User Name:	S.TUSIR	Replication Options	
Password		Real Time	
Host Name:	conte 076	Schedule by Interval	000
Instance Number:	10	Gchedule by Time	00 00 00

SAP LT Replication Server

New guided procedure to create a configuration between source and target system.

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Start the replication for the relevant tables via SAP HANA Studio.



Setup Replication

Execute Replication

Monitor Replication

Get an overview within the **HANA Modeler**

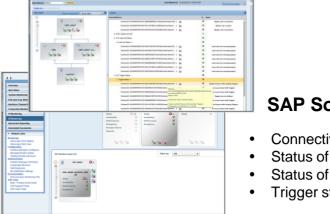
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Schema	Table Name	Action	Status	Start Time		Replicate
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RDP260_XX	DD08L	Replicate	In Process	2013-07-25 13:04:10.000000000		
RDP260_XX	ZSFLIGHT_XX	Replicate	In Process	2013-07-25 13:26:51.000000000		Suspend
						Resume

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St	atus	Table Name	Current Action	Current Status	Latency Med (All)	Latency Med (24h)	Latency Min (24h)
		DD02L	Replication	In Process	1.36 sec	1.36 sec	0.36 sec
		DD02T	Replication	In Process	1.29 sec	1.24 sec	0.99 sec
		DD08L	Replication	In Process	1.09 sec	1.02 sec	1.04 sec
		ZSFLIGHT_XX	Replication	In Process	0.89 sec	0.89 sec	0.04 sec

Latency, jobs, connection and triggers details are available at the Configuration and Monitoring Dashboard within SAP LT Replication Server.

SAP Replication Manager - Mobile Application for iPad/iPhone





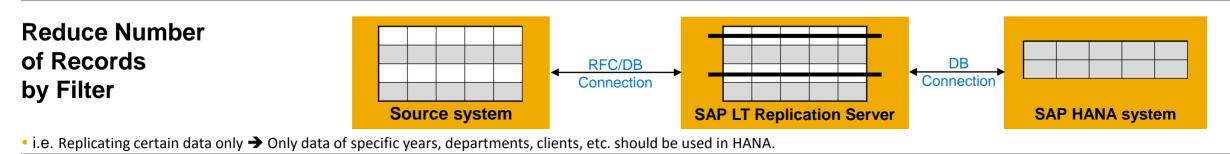
SAP Solution Manager 7.1 SP5

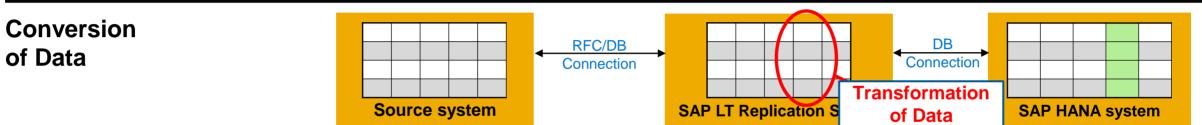
- Connectivity to source and target system
- Status of latency time last 24h replication
- Status of master and load jobs
- Trigger status

Setup Replication

Execute Replication

'SLT': Data and Structure Transformation Capabilities (1/3)





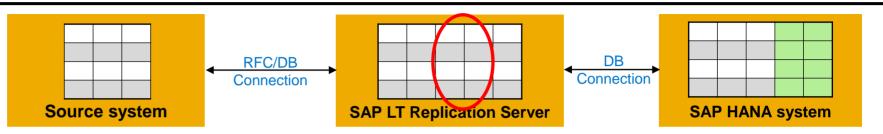
• i.e. To make certain fields anonymous → i.e. HR reporting

• i.e. To fill initial fields

• i.e. To convert units or currency, and recalculate amounts and values using coded rules

Adjustment of Target Table Structures

(i.e. extension/reduction/change of table structure and/or adjustment of technical table Setting



- i.e. Remove fields that are required in the HANA system
- i.e. additional fields are required (for example can be calculated/filled during load/replication)
- i.e. merging the same table (i.e. BSEG) from different systems (and create an additional field, for example a client field in order to avoid duplicate entries)

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'SLT': Data and Structure Transformation Capabilities (2/3)

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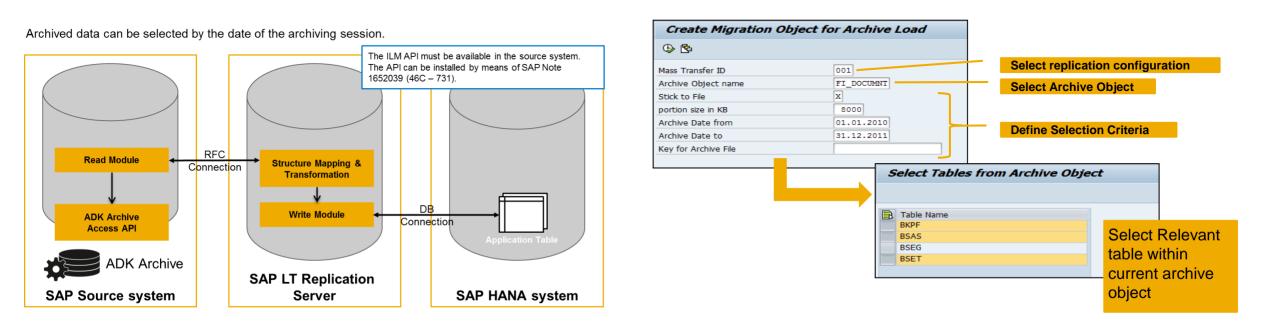
'SLT': Data and Structure Transformation Capabilities (3/3) UI to adjust target table structure and technical settings

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The transformation capabilities accessible by using transaction *IUUC_REPL_CONTENT* are described in the Guide 'Advanced Replication Settings' attached to

SAP Note <u>1733714</u>.

Load Data from SAP Archive Architecture and Key Building Blocks



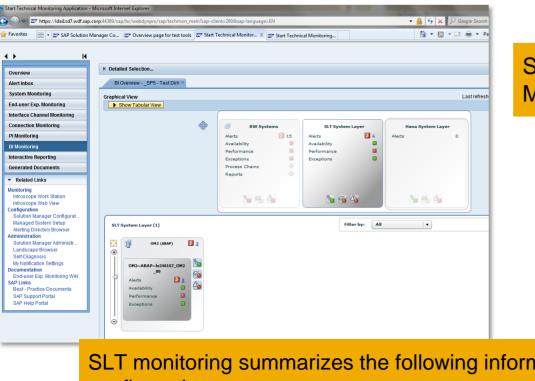
New with DMIS 2011 SP5: Exclude Archive Deletes from being replicated!

Deletions of a table record due to an archiving process can be excluded from being replicated by the SAP LT Replication Server to the connected target systems of a particular configuration.

- As a prerequisite the archive process needs to run on a dedicated, separate application server in the source system. No other data processing should take place on this server, then.
- To accomplish, that these archiving deletions are ignored by the data transfer process the *flag IGNO_ARCHIVE_DEL* in table *IUUC_REPL_CONFIG* has to be set before triggers are created.
- During the archive process the server on which the archiving is running has to be defined in table IUUC_RT_PARAMS: Field IU_PARAMETER = "ARCHSERVER", Field IU_VALUE = Name of Application Server.

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Monitoring with SAP Solution Manager 7.1 SP5 onwards



SLT monitoring summarizes the following information per configuration:

- Connectivity to source and target system
- Status of latency time last 24h replication
- Status of master and load jobs
- Trigger status

SLT related messages and alerts are now visible in SAP Solution Manager 7.1 SP5 onwards

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SAP Replication Manager – Mobile Application Benefits and Prerequisites

Monitor

Monitor the data replication process and system parameters.

Trigger execution of important data replication functions.

- Execution
- **Higher Flexibility**

Statistics View

Application can be run anytime and anywhere from a mobile device which is connected to the internet.

Provide an analytical perspective of real-time data replication in terms of latency.



Infrastructure Requirements

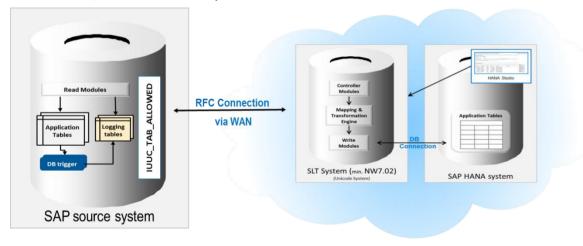
- SUP2.1
- Gateway (NW 7.02) (Minimal gateway)
- Backend
 - IW_BEP 200 (SP2.0)
 - DMIS_MOB SP01
 - DMIS_2010 SP07 / DMIS_2011 SP02
 - SAP LT Replication Server should be a NW 700 EHP2 or higher

SLT und SAP HANA 'in the Cloud'

Architecture and Integration of SLT into the Cloud Infrastructure

2 possible HANA Inbound Scenarios

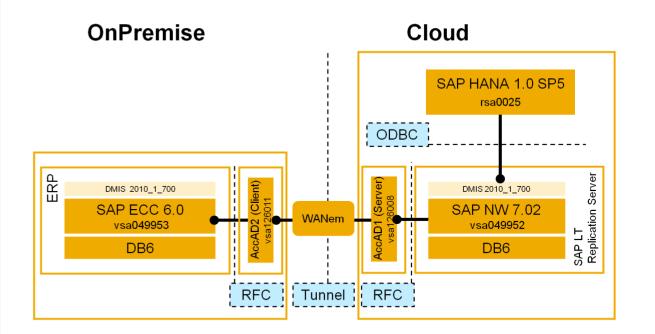
- SLT located on the on-premise source site (possible)
- SLT located besides the SAP HANA system in the Cloud (recommended)



Managed Access Control:

Via entries in table IUUC_TAB_ALLOWED in the SAP-based source systems you can control the access to table data. Only permitted data selections can be loaded/replicated into a cloud based target system.

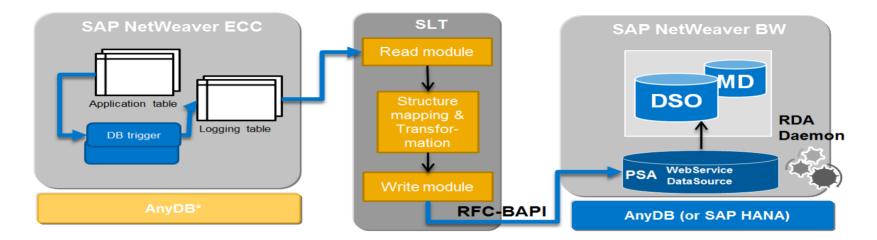
Tested @ SAP and live at SAP IT



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Real-time Data Replication into SAP BW (PSA) with SAP Landscape Transformation Replication Server

SAP LT Replication Server offers real-time data replication from ABAP-based and non-ABAP-based systems into SAP NW BW (7.0 onwards). The data is transferred into Web Service DataSources in the Persistent Staging Area in SAP NW BW and can be processed via SAP BW Real-time Data Acquisition (RDA) Daemon into DataStore Objects (DSO) or master data tables (MD).



Value Proposition

SAP LT Replication Server transfers data in real-time into SAP NW BW, reducing the amount of overnight data uploads into your BW systems. With SAP LT Replication Server you can perform delta updates on BW DataSources without delta mechanisms, for ABAP-based systems as well as non-ABAP based systems on all SAP supported DB versions (according to PAM).

Scope

Recommended for simple tables (no join or transformation logic included) and data sources (extractors) without delta mechanism and complex business logic. With SP5 not usable for Pool/Cluster tables (planned for next SPs).

Real-time Data Replication into SAP BW (PSA) Key Information Sources



Information Sources

SAP LT Replication Server: <u>http://scn.sap.com/community/replication-server</u> Service.sap.com/instguides -> SAP Components -> SAP LT Replication Server

Important SAP Note

1826585 – SAP LT Replication Server for SAP BW (PSA) DMIS 2011 SP4 1908836 – SAP LT Replication Server for SAP BW (PSA) DMIS 2011 SP5

Software Requirements

Source system	SLT System	SAP BW system
Installation (if SAP source system): Respective DMIS 2011 add-on	Installation: • Add-on DMIS 2011 1 700 (or	Installation: Respective DMIS 2011 add-on
 or DMIS_2010 version* Minimum DMIS_2011 SP level: SP02 SAP sources: SAP Basis 4.6C and higher non-SAP: all SAP supported DB versions (with respective SAP Kernel installed on LT Replication 	higher) • Minimum DMIS_2011 SP level: SP04	 Note 1808251 (BW specifics!) SAP BW 7.0: min. SP level SP17 SAP BW 7.01 and 7.40
Server)		 SAP BW 7.02 – 7.31: min. SP level SP01

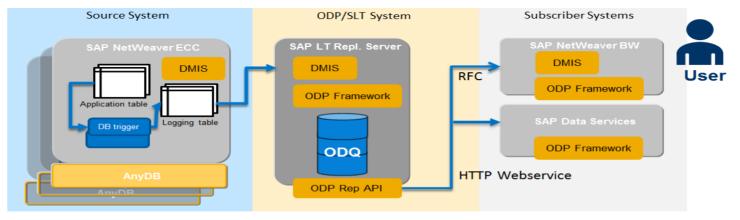
Contact: <u>Astrid.Tschense-Oesterle@sap.com</u> (PM)

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Operational Data Provisioning in Real-Time

with SAP Landscape Transformation Replication Server

SAP LT Replication Server acts as a provider for the **Operational Data Provisioning** Framework (ODP), enhancing this central data storage with real-time capabilities. The ODP framework supports extraction and replication scenarios for various target SAP applications - as subscribers they retrieve the data from the delta queue and continue processing the data.



Value Proposition

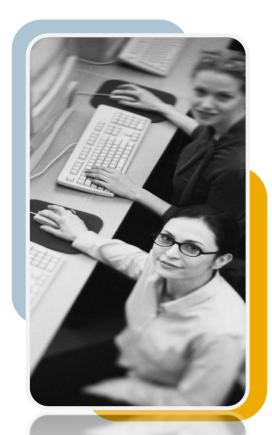
With the ODP/SAP LT Replication Server scenario replicated data is available in real-time in a "central place" and can be consumed by multiple subscribers over the ODP interface. The functionality is contained in the SAP Component **DMIS 2011 SP5**, available since 8/2013.

This is a strategic enhancement of the SAP LT Replication Server functionality to offer real-time data provisioning to all SAP solutions (currently used by SAP NW BW and SAP BO Data Services).

Scope

currently restricted to ABAP-based systems, only simple tables, and extractors without delta mechanism and complex business logic.

Operational Data Provisioning in Real-Time Key Information Sources



Information Sources

SAP LT Replication Server: <u>http://scn.sap.com/community/replication-server</u> Service.sap.com/instguides -> SAP Components -> SAP LT Replication Server

Important SAP Note

1914764 – Operational Data Provisioning with SAP LT Replication Server

Software Requirements

SAP Source system	ODP/SLT System	Subscriber system
 Installation: DMIS 2011 SP5 or DMIS 2011 SP3/SP4 + Note 1863476 DMIS 2010 SP8/SP9 + Note 1863476 All ABAP-based SAP Systems starting with R/3 4.6C, all supported OS/DB's platforms OS/DB restrictions of related SAP NetWeaver stack apply (see at http://service.sap.com/pam) 	Installation: • SAP_Basis: 730 SP10 or SP5 + Note 1817467 731 SP8 or SP3 + Note 1817467 740 SP4 or RTC + Note 1717467 • PI_Basis: 730 SP10 or SP8 + Note 1848320 731 SP9 or SP5 + Note 1848320 740 SP4 or SP2 + Note 1848320 • Add-on DMIS 2011 SP5	Installation: • PI_Basis: 730 SP10 or SP8 + Note 1848320 731 SP9 or SP5 + Note 1848320 740 SP4 or SP2 + Note 1848320 • Add-on DMIS 2011 SP5

Contact: <u>Astrid.Tschense-Oesterle@sap.com</u> (PM)



Technical Prerequisites & Sizing



SAP LT Replication Server – Software Release Strategy

With HANA SPS05 & SPS06, two versions of SAP LT Replication Server are released

- SAP LT Replication Server 1.0 (based on Software Component Version DMIS 2010)
- SAP LT Replication Server 2.0 (based on Software Component Version DMIS 2011)

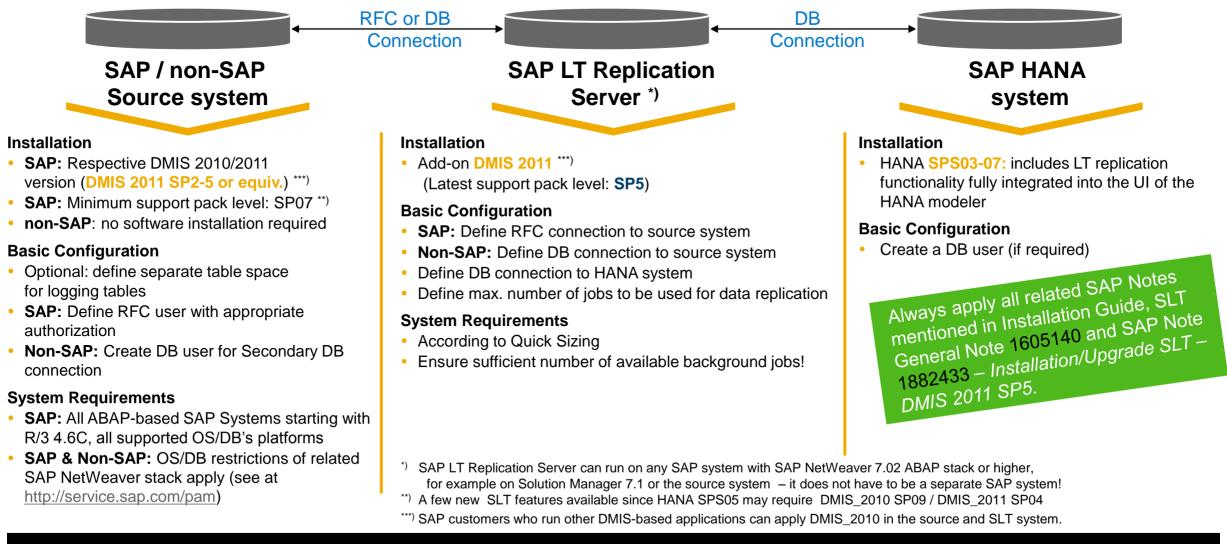
Technically both DMIS versions include the same coding level (no need for an upgrade)

- DMIS_2011 SP02 and DMIS_2010 SP07 (see also SAP Note <u>1709225</u>)
- DMIS_2011 SP03 and DMIS_2010 SP08 (see also SAP Note <u>1759156</u>)
- DMIS_2011 SP04 and DMIS_2010 SP09 (see also SAP Note <u>1824710</u>)
- DMIS_2011 SP5 (see also SAP Note <u>1882433</u>): No equivalent DMIS_2010 SP version in parallel!

Current status

- Since HANA SPS05, DMIS_2011 is released and recommended for all new installations (SAP LT Replication Server and SAP source systems).
- SAP customers who run other DMIS-based applications (that require DMIS_2010 in the SAP source system) can use DMIS_2010 in the source and/or SLT system. See also SAP Note <u>1691975</u>.
- For HANA customers using SLT with DMIS_2010 the switch ("technically" an upgrade) to DMIS_2011 will be a non-disruptive event.
- The future SP release cycles of DMIS 2011 and DMIS_2010 will be different!
 - DMIS_2011 SP5: No equivalent DMIS 2010 SP version in parallel !
 - Next DMIS 2010 SP10 planned to come in parallel to DMIS 2011 SP6 in Q1/2014
 - No further code-equal DMIS2010 after that ... only bug fixing

Technical Prerequisites and System Set-Up Information for SAP LT Replication Server (with SAP HANA 1.0 SPS05 or higher)



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SLT and HANA Compatibility Information

Source System	SLT	HANA DB/Studio
DMIS 2010 SP3/4	DMIS 2010 SP4	HANA 1.0 SPS2
DMIS 2010 SP3-9	DMIS 2010 SP5-9	HANA 1.0 SPS3-7
DMIS 2011 SP2-5	DMIS 2011 SP2-5	HANA 1.0 SPS3-7



Upgrade from DMIS 2010 to DMIS 2011

If you upgrade the SAP Replication Server system from DMIS 2010 to DMIS 2011, ensure that DMIS 2011 and all relevant support packages are installed in one installation queue. This is important as some additional table fields (e.g. partitioning command) were introduced on a certain DMIS 2010 SP level and will get lost if DMIS 2011 basis package and support packages are installed sequentially.

If you upgrade from DMIS 2010 to DMIS 2011 you have to upgrade to at least the corresponding support package level. The corresponding level for DMIS 2010 SP9 is DMIS 2011 SP4

	Technical availability	
Database	SAP Sources	Non SAP Sources (*)
MSFT SQL Server Enterprise Edition	ок	ОК
Oracle Enterprise Edition	ОК	ОК
IBM DB2 LUW/ UDB (DB6)	ОК	ОК
IBM DB/2 zSeries	ОК	ОК
IBM DB2 iSeries (former AS/400)	ОК	Project Solution on Request
IBM Informix	ОК	ОК
SAP MaxDB	ОК	ОК
Sybase ASE	OK (with DB-Version 15.7.0.11)	OK (with DB-Version 15.7.0.11)
SAP HANA	ОК	ОК

For non-SAP source systems, the customer database license needs to cover a permanent database connection with 3rd party products like SAP LT Replication Server.

(*) Since a DB connection from LT replication server to a non-SAP system is required, the OS/DB restrictions of SAP NetWeaver 7.02 or higher apply (see at http://service.sap.com/pam)

Quick Sizing with SAP SLT Sizing Guide

required Information / Input Parameters

- Numbers of configurations
- Numbers of tables per configuration
- Details about each table:
- Table type [transparent/cluster]
- Number of records [rowcount]
- Size of single record (<>1500 bytes/record)
- Numbers of columns (S: < 150, M: 151...250, L: > 250)
- Expected change rate [changes per hour]
- Complex data transformations required [y/n?]
- Max. tolerable initial load time [hours]
- Max tolerable replication latency [sec]



With these input parameters you can estimated the system requirements. You find all details in the official Sizing Guide.

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Summary and Outlook



SAP Landscape Transformation Replication Server - Benefits

- Allows real-time (and scheduled) data replication
- Ability to automatically migrate data into HANA format while replicating data in real-time
- "Unlimited" release coverage (from SAP R/3 4.6C onwards) sourcing data from ABAP based SAP applications
- Handling of all SAP Data Structures (i.e. cluster and pool and HR tables)
- Automatically non-Unicode to Unicode conversion during load/replication
- Data and structure transformation capabilities (e.g. data filtering, enrich/reduce target table structure, anonymize data, adjust technical table parameters, etc.)
- Fully integrated with SAP HANA Studio (Data Provisioning and Data Modeler UI)
- Enhanced monitoring capabilities via SAP Solution Manager 7.1 SP5 onwards & mobile app SAP Replication Manager

SAP Landscape Transformation Replication Server (aka "**SLT**") is the best choice for all SAP HANA customers who need real-time or scheduled data replication from SAP and NON-SAP sources with the option to accomplish even complex data transformations on the fly.

Summary: SAP LT Replication Server 2.0 SP5

- SAP LT Replication Server 2.0 (DMIS 2011) is the recommended Product Version!
- New, additional Scenario 'SAP LT Replication Server for Real-time Replication via Operational Data Provisioning' to connect SAP BW and Data Services Consumers
- Extensive UI Improvements for simplified Administration and Monitoring
 - in SAP LT Replication Server Cockpit (LTRC)
 - in 'Configuration & Monitoring Dashboard' (LTR)
- Essential new Functions:
 - Simplification of administrative tasks, HA Setup support, use of SLT within test landscapes, managing of SAP Data archiving during replication, etc.
- Integration into SAP HANA Studio's Data Modeller (SLT Configuration as Data Source)
- Extended Monitoring Functions via SAP Solution Manager 7.1 SP9 Integration

SAP LT Replication Server – Development Roadmap 2013 and beyond

Key Goals and Objectives

Development

Product

- Evolve core features namely for operations and non-SAP aspects
- Serve new scenarios using trigger-based changed data capturing capabilities
- Contribute to strategic SAP initiatives like RTDP, Suite on HANA or HANA Enterprise Cloud

xx/2013

HANA SPS07

Core Features & Improvements

- HCM specific table and data formats (HR cluster tables) covered
- LTR UI redesigned: guided procedure with build-in check for each step
- Feature enhancements for SAP BW
- Revised job handling optimizing HW consumption / load balancing and enabling automated restart of replication after restart of SLT system
- Major LTRC UI improvements: expert and trouble shooting functions
- Advanced handling of archive activities
- Extended authorization concept on configuration level

New Business Scenarios

 SLT technically enabled for ODP (Operational Delta Provider) scenarios using SAP sources

Core Features & Improvements

- Redesigned **non-SAP source handling** enabling for example **1:N data distribution**
- Flexible back-up and recovery concept
- Enhanced user experiences and monitoring capabilities
- SLT4BW: Expand SLT coverage for selected, simple structured hierarchical extractors

New Business Scenarios / Strategic Investments

- SLT fully released as ODP (Operational Delta Provider) for SAP BW 7.3 (onwards) and Data Service 4.2
- Heterogeneous fall back and data synchronization solution for Suite on HANA

Q1/2014

DMIS2011SP06 / DMIS2010 SP10

 Evolve and integrate SLT as part of SAP's RTDP strategy

Core Features & Improvements

- Transactional consistency
- Automated parallelization of replication process per table
- **Templates** to manage and reuse replication settings across tables and configurations

New Business Scenarios / Strategic Investments

 Supporting replication into selected other target DBs (today already possible as project solution)

xx/2014

DMIS2011SP07 or later

SAP to SAP replication

08/2013 DMIS2011SP05

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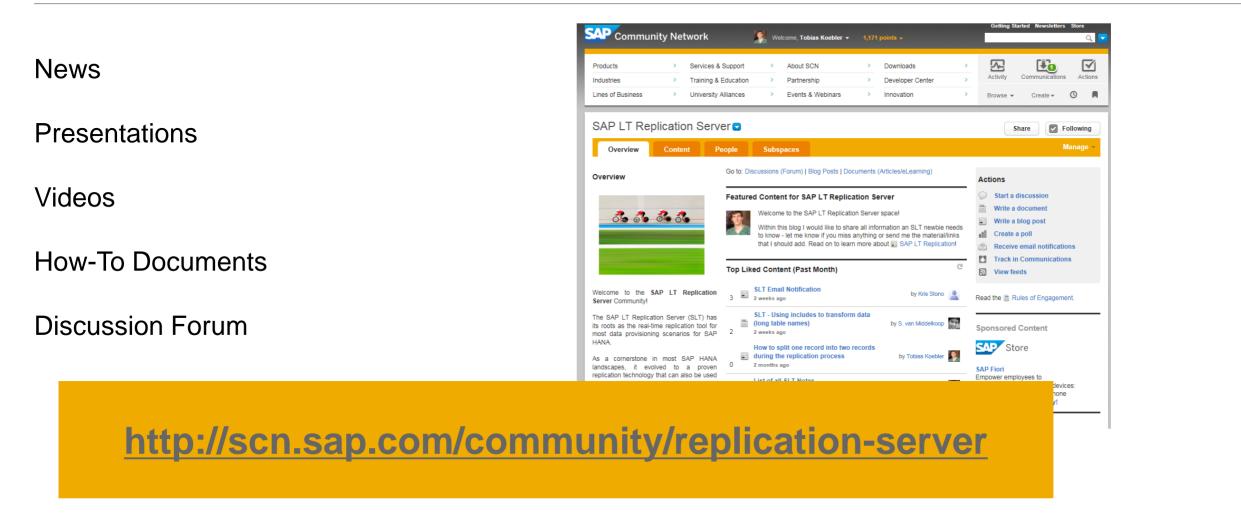
xx/2014

HANA SPS08

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Public

SCN Community for SAP LT Replication Server



Information Sources

For Customers and Partners

Web Sites

- SLT @ SAP Service Marketplace: http://service.sap.com/hana
- SLT @ SAP Help Portal: <u>http://help.sap.com/hana</u>
- SLT @ SCN: http://scn.sap.com/community/replication-server
- Some assets linked @ HANA Experience Page

SAP LT – important Documents and Links

- Neu <u>SLT Introduction Video</u>
- <u>SLT Overview Presentation</u>
- Installation Guide (new URL!)
- Security Guide (new URL!)
- Operations Guide (new URL!)
- How-To Guide "Advanced Replication Settings" (see SAP Note <u>1733714</u>)
- HANA & SLT Sizing; SLT Sizing Guide
- Important SLT Notes: see in SLT General Note <u>1605140</u>

Training

- HA350: SAP HANA Data Provisioning (New – available in Q3/2013!)
- HA200 SAP HANA Installation & Administration
- HA300 SAP HANA Implementation and Modeling
- Specific customized training on SLT available on demand



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