Real-Time Data Replication with
SAP Landscape Transformation Replication Server
Development News DMIS 2011 SP7

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Agenda

- Overview, Positioning & Statistics
- Empowering more SAP Products
- Development News DMIS 2011 SP7
  - new Features
  - Improvements & Enhancements
- Overview Product Roadmap
- Information Sources
Overview
SAP Landscape Transformation Replication Server

Product description

SAP LT Replication Server (aka ‘SLT’) is a standard software to move data in real-time between different systems within the same network, wide area networks, or into the cloud to have the information at the right place at the right point of time.

The software helps to feed analytical systems with up-to-date business information from the productive system landscape, support the acceleration of large volume transactions executed in SAP HANA, enables real-time reporting and minimizes transfer volume for SAP BW and enables the synchronization between different systems.

**Replication**
- Real-time or scheduled
- Delta capturing to minimize transfer volume

**Transformation**
- Filtering by using selective criteria
- Adjustment of tables
- Conversion of data, e.g. to make sensitive data anonymous

**Installation & operation**
- Deeply integrated within SAP landscapes to reuse existing installation and monitoring capabilities
- Monitoring with SAP Solution Manager 7.1 SP5 onwards
SAP Landscape Transformation Replication Server
Technical Enabler for Multiple Data Provisioning Use Cases

SAP LT Replication Server is used to load and replicate data in scheduled or real-time mode from an ABAP or non-ABAP based source system into SAP HANA, SAP Data Services, SAP BW or any other ABAP based system.

- SAP LT Replication Server for SAP HANA:
  - Integrated with SAP HANA Studio (also used by HANA RDS Solutions)
  - Replication Engine for SAP HANA Application Accelerators / HPA’s

- More SAP LT Replication Server Scenarios:
  - Real-time Data Acquisition for SAP BW and Data Service
  - ABAP-to-ABAP Replication
  - Replication to non-ABAP targets

Supported Databases
- MSFT SQL Server Enterprise Edition
- Oracle Enterprise Edition
- IBM DB2 LUW/ UDB (DB6)
- IBM DB/2 zSeries
- IBM DB2 iSeries (former AS/400)
- IBM Informix
- SAP MaxDB
- Sybase ASE
- SAP HANA

Source Systems | SAP LT Replication Server | Target Systems
--- | --- | ---

SAP LT Replication Server is embedded as middleware in your landscape and can be deployed without disrupting your existing operations. You use the software to feed several target systems with real-time information depending on your business scenarios and requirements.
SAP Landscape Transformation Replication Server
Architectural Concept: Replication from ABAP and non-ABAP source systems

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, or via RFC into SAP BW or SAP Business Suite systems
SAP HANA Scenarios
Real-time high volume data integration from any source

Any Source
- SAP Business Suite
- Non-SAP Data Sources
- Cloud Deployments
- Complex Event Data Source
- Network Devices – Wired / Wireless
- Data Sources (HANA, IQ, ASE, Hadoop, Teradata)

Data Movement Over Networks
- Trigger-Based: SAP LT Replication Server
- Log-Based: SAP Sybase Replication Server
- ETL, Batch: SAP Data Services
- Event Streams: SAP Sybase Event Stream Processor
- Data Synchronization: SAP Sybase SQL Anywhere
- Data Virtualization: SAP HANA Smart Data Access

Transform and Persist Data
- ODBC

Virtual Tables

SAP HANA

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## SAP Landscape Transformation Replication Server
### Benchmark Figures

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Installed Base</strong></td>
<td>2874 customer landscapes running with SAP LT Replication Server DMIS 2011</td>
</tr>
<tr>
<td><strong>Highest Initial Load</strong></td>
<td>26 billion records table (89 hours)</td>
</tr>
<tr>
<td><strong>Most Replicated Tables</strong></td>
<td>12.000 tables in one landscape, 500 tables in one configuration</td>
</tr>
<tr>
<td><strong>Most connected SAP Systems</strong></td>
<td>70 connected SAP systems on one SAP LT Replication Server</td>
</tr>
<tr>
<td><strong>Most connected non-SAP Systems</strong></td>
<td>40 connected non-SAP systems on one SAP LT Replication Server</td>
</tr>
<tr>
<td><strong>Highest Change Rate</strong></td>
<td>&gt; 20 Mio records per hour per table</td>
</tr>
</tbody>
</table>
Key enabler for more SAP products
SLT Scenarios for SAP Business Warehouse – Overview of PSA and ODP

**Scenario**

SAP LT Replication Server offers 2 scenarios for replicating data into SAP BW. For SAP BW 7.00 onwards, data can be transferred into the PSA layer of BW into WebService DataSources and then processed into the InfoProviders.

With Support Package SP8 of BW 7.30, the Operational Data Provisioning Infrastructure can be used with SLT, where the data from the source systems is stored and SAP BW is registered as a consumer.

**Value Proposition**

Using SAP LT Replication Server to transfer data in real-time into SAP NW BW reduces 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).

If you use operational data provisioning, you can load the data directly into the InfoProviders (bypassing the PSA layer) by using a DTP (Data Transfer Process) (as of SAP BW 7.30 SP8). The ODP infrastructure (with delta queues) takes over important services such as monitoring data requests.
BW 7.4 – Real-time Data Warehousing Aspects
BW 7.4, SP5/SP6 on HANA

Enhanced Business Flexibility by providing “the logical EDW”
Real-time Data Access
- Direct Data Access across different source systems
- Direct Meta Data Access during design time for field based modeling

Lightweight Evolution options into staging scenarios for the EDW layer
- BW enhancements for Operational Data Provisioning (ODP) and Operational Delta Queue (ODQ)
- Real-time Staging Scenarios
  - Reduced latency
  - RDA Real-time Data Acquisition improved by change notification
  - Real-time Replication into BW via SLT
  - Recovery in case of DSO load issues can be achieved on data packet level
  - Monitoring the PSA replaced by monitoring the ODQ (TA ODQMON)
  - Recovery for more than latest delta load

Diagram:
- HANA tables, views
- HANA Schemas
- External Sources
- Open Operational DataStore Layer
- BW Virtual Datamart Layer
- Architectured Datamart Layer
- EDW Layer
- Transformations
- Agile Datamarts BW Workspaces
- BW Queries, ODATA, MDX, SQL
SAP HANA as platform for High Performance Applications (HPAs)

**HTML5**
- Mobile
- Desktop

**JavaScript**
- OData

**CSS**

ABAP as Controller

**High Performance Application (HPA)**
- SAP NetWeaver AS ABAP 7.4

Logic in HANA

- HPA Content: Tables, Views, Procedures, Search Models
- SAP HANA

- SAP LT Replication Server
- SAP Systems
- SAP Data Services
- Non-SAP Systems

1:1 Replication

**SAP Fraud Management, powered by SAP HANA**
Detect, investigate & prevent fraud inside & outside your company

**SAP Liquidity Risk Management, powered by SAP HANA**
Analyze your Liquidity including simulations and stress testing

**SAP Customer Engagement Intelligence, powered by SAP HANA**
Sell more and spend less, with real time insight and personalized engagement
High Performance Applications (HPA), powered by SAP HANA
Shipment related Documentation for Partner & Customers

General Links

- Solution Explorer (HPAs == Capabilities): https://rapid.sap.com/se/executive

Customer Engagement Intelligence (CEI) 1.1

- Documentation incl. New Features (Release Notes) & Installation Guides
  http://help.sap.com/cei
- Product Availability Matrix (PAM) incl. Browser/OS Support, Software Download
  https://service.sap.com/sap/support/pam?hash=s%3DCustomer%2520Enga%26o%3Dmost_viewed%257Cdesc%26st%3D%26rpp%3D26page%3D1%26pvn%3D7820010900006828%26pt%3Dg%257C
- Sizing Guide (currently for CEI 1.0 / update to CEI 1.1 in progress)
  https://websmp204.sap-ag.de/~sapidb/011000358700000373142013E/Sizing_CEI_SP01_final.pdf
- System Landscape Recommendation: https://scn.sap.com/docs/DOC-52495
- Solution Explorer:

Assurance and Compliance Management (ACS) 1.1

- Documentation incl. New Features (Release Notes) & Installation Guides
- Product Availability Matrix (PAM) incl. Browser/OS Support, Software Download & Installation/Upgrade/Config Guide
  Software Download
  https://service.sap.com/sap/support/pam?hash=s%3DSAP%2520FRAUD%2520MANAGEMENT%25201.1%26o%3Dmost_viewed%257Cdesc%26st%3D%26rpp%3D26page%3D1%26pvn%3D67820010900006915%26pt%3Dg%257C
Finance and Controlling Accelerator
Overview

SAP Finance and Controlling Accelerator

- Accelerated Profitability Analysis (CO-PA)
- Accelerated enhanced CO line item reporting (CO-OM-CCA)
- In Memory based CO Partner Object Reporting (CO-OM-OPA)
- Accelerated overhead and accrual calculation
- Active Availability Control Monitor for investment

Rapid deployment of accelerated finance and controlling with SAP ERP and SAP HANA

Service

Financial Accounting Accelerator

- Reporting in Profit-Center Accounting (EC-PCA)
- Reporting in Asset Accounting (FI-AA)
- Reporting in New General Ledger Accounting (FI-GL)
- Reporting in Special Ledger (FI-SL)
- Direct BI access to SAP ERP / SAP HANA data via data sources

Controlling Accelerator

- Accelerated Material Ledger Reporting
- Material Ledger Period End Closing
- Direct BI access to SAP ERP / SAP HANA data via virtual Info Provider

Material Ledger Accelerator

- Product Cost Controlling Reports (CO-PC-OBJ)
- Responsibility Reporting

Production Cost Analysis Accelerator
CO-PA Accelerator
What Customers Say

Colgate Palmolive
Perform analysis at unparalleled speed with SAP CO-PA Accelerator - going live in just eight weeks

Michael Crowe, Vice President Global Information Technology

Provimi
Optimize profits with SAP CO-PA Accelerator – going live in just three weeks

Jean Charles Valette, Group Controller

BASF
Accelerate response times dramatically and improve data reliability to optimize business

Andrew Pike, CIO Information Services

For more information, please visit our SAP HANA website: http://www.sap.com/hana/reviews/index.epx
Accessing the HANA Database from ABAP via Open SQL

It can be accessed with a select statement like the conventional DB:

```
SELECT count(*) FROM zha_flight INTO l_count2
WHERE carrid IN carrid
AND connid IN connid
AND fldate IN fldate
AND deptime IN deptime
```

The variable `dbcon` determines that the select will use the HANA DB.

With the Replication of only a few Tables to HANA and a Minimum of Program Changes ERP-processes can be speed up by SAP HANA.
Architectural Concept

ABAP Program

DB Table

ERP-System

Accelerated read

Real-Time replication with SAP LT Replication Server

HANA-Views (optional)

Copy of DB Table

HANA-System

write

read

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SAP HANA Live architecture
The “HANA Sidecar”

*real-time replication, using SAP Landscape Transformation Replication Server (SLT) technology
• **Robust Bridge** to Financials powered by SAP HANA
  – Use SAP Accounting powered by HANA as a central system, leave all other sender systems untouched
  – First use it for reporting only
  – Next move more and more financials transactions to SAP Accounting powered by HANA

• **Central Finance as the better Financial Data Warehouse**

• **Financial Consolidation** based on the Central Finance Instance

• “always trues” from the past
  – Simplify system landscape
  – Reduce TCO
  – Harmonize master data „on the fly“
  – …
Development News
- DMIS 2011 SP7
Overview: New Features in DMIS 2011 SP7

- Replication Setting Templates Maintenance added to LTRS UI
- Error Protocol per table
- LTRS: Assigning View - Demo
- ODP: Parallel processing of one table by multiple subscribers
- End2End Real-time Scenario: Demo with SLT/ODP and BW 7.40 SP7
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- Overview: Corrections and Enhancements with DMIS 2011 SP7
Advanced Replication Settings (Transaction LTRS)

Templates

It can be a time-consuming task to specify settings for multiple tables in a configuration, or to specify settings for multiple configurations. To save time, you can specify certain advanced replication settings in a template, and assign the template to a configuration.

During the replication process, the system then applies these settings to the replicated data.

You can assign a template to multiple configurations, and also assign multiple templates to a single configuration.
Advanced Replication Settings (Transaction LTRS)
Template Maintenance

A template consists of one or more components. A component contains a set of settings based on a specific pattern (that specifies the scope of the settings). If you need to specify additional settings that are based on different patterns, you can create additional components.
Advanced Replication Settings (Transaction LTRS)
Template Maintenance

You can specify certain settings that are part of the advanced replication settings *Table Settings* and *Rule Assignments*:

- General Table Settings
- Table Structure Deviations
- Rule Assignments
A pattern specifies the scope of the settings. You create patterns to apply your settings to specific tables, fields, and data types. For example, you can specify a pattern to cover all tables that have the prefix D*. All the settings that you specify for the template component are then applied to these tables.

If you do not create a pattern for a component, the system implements exactly the settings you specify under General Settings, Table Deviations, and Rule Assignments.
Advanced Replication Settings (Transaction LTRS)
Replication Setting Templates Maintenance
SAP LT Replication Server Cockpit (Transaction LTRC)
Application Log Integration

With DMIS 2011 SP7 a 'Show Error Log' button is integrated into the Table Overview and Data Transfer Monitor tab page in the SAP LT Replication Server Cockpit.

You can select a particular table and display the related error messages by using the Show Error Log button.
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Replication of Views – Architecture with Projection View

Creating a Projection View with a subset of fields of a table means filtering on the source system. Only the data in the fields which are selected for the view are transferred with SLT into the target system. The table in the target system has then the same name as in the source but only contains the subset of fields.
Replication of Views – Architecture with Database View

Source System
If you join fields of different tables into one view, one table (A) is the leading table and fields from other tables can be added. In the SLT system, the table deviation has to be built as a transformation of table A. The table keeps the name as in the source system but is enlarged with the additional fields.

SAP LT Replication Server
Read view C
Create table deviation of table A with 2 fields of B, load/replicate from view C

Target Systems
Table A

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Creating a Projection View

In the ABAP Workbench of the source system, create a Projection View to select relevant fields from the table you want to replicate. This functionality helps to filter data on the source system side and streamline the data transfer.
Creating a Projection View: Assign the View to the Table

In the SLT system you have to assign the new view to the table. Add the table under Table Settings and assign the view in the Processing Settings of the table. You may assign the view for both initial load and replication.

You can add a deviating table name, meaning that the table is created with this new name in the target system. This helps to show that a table is modified.
Change Reading Type for Views: 5

Add the table under Performance Options and change the Reading Type to 5 (INDX CLUSTER with FULL TABLE SCAN).
Creating a Projection View: Result of Initial Load in LTRC and HANA

In the target system the table is created with the deviated table name and contains only the data of the fields selected in the view.

Source System | SAP LT Replication Server | SAP HANA

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Creating a Database View with the ABAP Workbench

With a Database View you can join fields of tables to a leading table. Create a new view in the ABAP Workbench and join the leading table with the dependent table on the Join Conditions tab. Define which fields should be filled in the target. After the activation of the view you can display the table content and check the functionality of the view.
Creating a Database View: Change Table Settings of Leading Table

The table structure of the leading table has to be adapted according to the created view. This is done in the SLT system in the Advanced Replication Settings (LTRS). You can define a deviating table name which makes clear in the target system that the table is modified.

Add the view name for initial load and replication.
Creating a DB View: Change Reading Type for leading Table

For Views, the reading type has to be set to 5 in the Performance Options of the leading table.

Source System: SAP LT Replication Server

SAP HANA
Replication of the DB View: Structure of the View in HANA

In the Replication Server Cockpit the leading table ZSFLIGHT_01 is added for replication. The effect is that the table is created in HANA with deviating table name and the enlarged structure we have defined in the view.

<table>
<thead>
<tr>
<th>Name</th>
<th>SQL Data Type</th>
<th>Dl</th>
<th>Column Store Data Type</th>
<th>Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANET</td>
<td>NVARCHAR</td>
<td>3</td>
<td>STRING</td>
<td>X(1)</td>
</tr>
<tr>
<td>CARRID</td>
<td>NVARCHAR</td>
<td>3</td>
<td>STRING</td>
<td>X(2)</td>
</tr>
<tr>
<td>CONNID</td>
<td>NVARCHAR</td>
<td>4</td>
<td>STRING</td>
<td>X(3)</td>
</tr>
<tr>
<td>FLDATE</td>
<td>NVARCHAR</td>
<td>8</td>
<td>STRING</td>
<td>X(4)</td>
</tr>
<tr>
<td>PRICE</td>
<td>DECIMAL</td>
<td>15,2</td>
<td>FIXED</td>
<td></td>
</tr>
<tr>
<td>CURRENCY</td>
<td>NVARCHAR</td>
<td>5</td>
<td>STRING</td>
<td></td>
</tr>
<tr>
<td>PLANEID</td>
<td>NVARCHAR</td>
<td>10</td>
<td>STRING</td>
<td></td>
</tr>
<tr>
<td>SEATSPAX</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEATSCOC</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAYMENTS</td>
<td>DECIMAL</td>
<td>17,2</td>
<td>FIXED</td>
<td></td>
</tr>
<tr>
<td>SEATSPAX</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEATSCOC</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
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<tr>
<td>SEATSPAX</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEATSCOC</td>
<td>INTEGER</td>
<td>INT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARRNAME</td>
<td>NVARCHAR</td>
<td>20</td>
<td>STRING</td>
<td></td>
</tr>
</tbody>
</table>

Source System  SAP LT Replication Server  SAP HANA
Use View Template to define the Target Table Structure

If you create a view and choose it as template for the table you want to replicate, you can change the field names and only create the fields you want to fill in the target. Again we have entered a deviating table name.
Overview: New Features in DMIS 2011 SP7

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Roadmap of SAP BW Subscription at ODP/SLT with real-time DTP

1. Create Connection to source system
2. Create a Configuration for a source system and SLT as target system with defined ODP context
3. Create a logical system of type ODP and map with ODP context
4. Create DataSource, DSO, Transformation and DTP
5. Start DTP
6. Monitor data transfer in ODQMON
SAP LT Replication Server
Authority Concept in SLT/ODP Scenario

SAP Source system

SLT Admin
SAP_IUUC_REPL_ADMIN

RFC USER
SAP_IUUC_REPL_REMOTE

SLT Replication Server

RFC Connection

SLT Display
SAP_IUUC_REPL_DISPLAY

ODQ

RFC USER
SAP_IUUC_REPL_ADMIN_BW_ODQ

RFC Connection

logical System

RFCA

RFC USER
profile S_BI-WHICRF
S_BI-WX_RFCA

BW Modeler
S_RS_RDEMO

subscriber system

RDA callback
Create a Configuration for the ODP Scenario with SAP BW

In the Configuration Wizard (TA LTR -> new), create a new configuration for the ODP scenario. Enter the RFC connection to the source system and select „Allow Multiple Usage“ to allow that the source system is used in more than one configuration.

Select the RFC Destination for the Source System
The Target System is the SLT system itself, so the RFC Destination can be „NONE“ (or an RFC connection pointing to the same system)

The Scenario is „ODP replication scenario“
The Queue Alias (6 digits) is the unique ID specifying the ODP Context.
Configuration for the ODP Scenario with SAP BW – check BAdi

Activate the ODP-specific BAdi in TA LTRC:

On the Expert Functions tab in the LT Replication Server Cockpit, check if the ODQ BAdi „ODQ_ENH_SLT_REPLICATION“ is activated. If not, use the Activate function.
Creating the ODP source system in BW consists of the following steps:

1. Create the logical system in the structure **Source Systems -> ODP-SLT Queue** (free choice of name, the ODP context is identifier)

2. Create an RFC connection to the SLT system

3. Specify the ODP Context and enter the BW background user for Real-time data acquisition (with profiles S_BI-WHM_RFC and S_BI-WX_RFCA)
Creation of the ODP DataSource

Create a DataSource that you want to replicate from the source system, click through the Proposal and Fields tabs and activate the DataSource.
Create a DataStore Object (DSO)

In the InfoProvider structure, open the Context Menu and select Create DataStore Object. Enter a name (3-8 digits) and select „Based on Fields“. Then define the template Object, which is the DataSource you have created previously. Activate the DSO.
Create and Activate the Transformation

On the DSO in the structure, open the Context Menu and select „Create Transformation“. As Source of Transformation, enter the DataSource. As a default, the transformation is set to 1:1. Activate the transformation. (You will receive a warning for the 0recordmode which can be ignored.)
Create the Realtime DTP

In the Context Menu of the Transformation, select “Create Data Transfer Process”. Choose the DTP Type “DTP for Real-Time Data Acquisition” and fill the Source of DTP with the DataSource details.
In transaction RSRDA, open the DataSource structure and open the Context Menu on the DTP. Choose Generate Repair Process Chain, then choose Execute Repair Process Chain (in this step some necessary objects are created). Switch to the Log View and wait for the Process Chain to be processed (1-2 min.). Then you can go back to the DTP and start the Load Process.
Real-Time DTP is running

With Start Load Process the real-time DTP starts running, and the data is transferred into the DSO, where you display it with the Context Menu Display Data.
ODQ Monitoring in ODP/SLT System

The Delta Queue Monitor (TA ODQMON) integrates the display and request management views for the ODP/SLT scenario.

Drill-down over Queue and Subscriber to Requests and (data) Units

This table is loaded with a compression rate of 85.1%.
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Integration with Solution Manager’s CDC Tool
Repair Data Inconsistencies with CDC Result

The Cross-Database Comparison (CDC) application comes with SAP Solution Manager and can compare the data consistency between source and target systems. After a comparison run took place, SLT can consume a potential occurring list of inconsistencies and resolve them.

Actions taken by SAP LT Replication Server in case any inconsistencies have been identified:

- Objects exist in the source system, but not in the target system: SAP LT Replication Server inserts the missing rows in the target system.
- Objects exist in the target system but not in the source system: SAP LT Replication Server removes the rows from the target system.
- Objects exist in both systems, but there are differences with regard to data: SAP LT Replication Server adjusts the values in the target system so that they are consistent with the values in the sender system.
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Overview: Corrections/Enhancements with DMIS 2011 SP7

• 'Suspend' and 'Resume' function for Initial Load mode
• Configurable automatic restart of tables in case trigger is dropped on the source system (e.g. due to complex changes)
• Expert Function to enhance target structure (via table deviation) without reloading the table
• Internal Name of Logging Table name changed to generic name (S_LOGTAB) to allow reuse of logging table related rules
• Housekeeping (improved error messages, optimized cleanup of locks and obsolete entries in control tables)
• Operation Delta Provisioning Option:
  • Proper handling of Cluster Deletes
  • Support automatic adjustment in case of source structure changes
• Replication Logging:
  • Authority to display logged data can be controlled per table
  • Adjustment of Replication logging settings on configuration and table level via LTRS UI
    • General Settings - To activate logging and to set recording interval in days for all tables
    • Table-specific Settings – To control logging & recording interval in days for individual tables
• Advanced Replication Settings (LTRS):
  • Index creation on HANA can be controlled individually
  • Specific Triggers can be switched off
Replication Logging:
Replicated records can be logged on the SLT system to repeat the replication for a certain time in case the target system needs to be recovered and replicated records are lost.

Replication logging can be switched on for all tables of a complete configuration via the checkbox ‘Activate Replication Logging’ at the time when the configuration is created.

The SLT Application Operation Guide describes:
• If you need to activate replication logging for an existing configuration, or if you want to deactivate replication logging, you need to adjust some entries in the SAP LT Replication Server configuration tables.
• You can also activate or deactivate replication logging for specific tables if required.
• By default, the data retention period is 3 days, you can change this either generally per configuration or individually per table.
SAP LT Replication Server Cockpit (Transaction LTRC)
Replication Logging – easy Configuration with DMIS 2011 SP7

1. Configuration and Monitoring Dashboard (Transaction LTR)

2. LT Replication Server – Configuration Overview (Advanced Replication Settings; Transaction LTRS)

3. Define first the general setting which will apply to all tables of a configuration unless you specify table individual settings

4. LT Replication Server: Display Replication Logging (215)
SAP LT Replication Server Cockpit (Transaction LTRC)

Replication Logging

Authority to display logged data can be controlled per table.
Advanced Replication Settings (Transaction LTRS)

Table Settings: Specific Triggers can be switched off

Specific Triggers can be switched off
A secondary index is an index created in addition to the primary index of a table. An entry in an index can refer to several records that have the same values for the index fields. A unique index does not permit these multiple entries. The index fields of a unique index thus have a key function, that is, they already uniquely identify each record of the table. This ensures that there are no duplicate records in the table fields contained in the index. In contrast, a non-unique index allows duplicate records in the table fields contained in the index.

You can choose one of the following options:
- Create unique index in target system
- Create non-unique index in target system
- Create non-unique index and unique index and in target system
- Do not create secondary index in target system
Product Roadmap
SAP Landscape Transformation Replication Server
Product road map overview - key themes and capabilities

Strategic developments
- Replication from ABAP to ABAP systems (covering the complete SAP Business Suite)
- Data provisioning for SAP BW 7.3 or higher & SAP Data Services 4.2
- Evolved & integrated solution as part of SAP’s data management strategy

New features
- 1:N replication for non-ABAP source systems
- Replication logging feature for backup and recovery
- Support of views as source objects
- Filtering option for records in source system

Continuous improvements
- Enhanced monitoring capabilities
- Simplified administration
- Support of replication to non-ABAP systems (today already available as project solution)

Strategic developments
- Transactional consistency for complex objects
- Open interface to feed analytical non-ABAP target systems from ABAP source systems

New features
- Templates to manage and reuse settings across tables, configurations, and systems
- Automated parallelization for replication with manual configuration possible + concept ready
- Integrated consistency check with automated repair mode (CDC integration)
- SAP BW scenario:
  - Alternative for extracting data for certain complex objects
  - Preview mode for test runs

Continuous improvements
- Automated adaption of replication after operational events like NZDT, OS/DB migration or system refresh

Strategic developments
- Object-based replication
- Enhanced troubleshooting framework with self-repair functionality
- Alternative for extracting data for almost all complex objects to enable real-time replication and to reduce the transfer volume for SAP BW
- Simulation and debugging engine for transformation rules
- Manage execution, monitoring, or troubleshooting on mobile devices
- Heterogeneous fallback and data synchronization solution for Suite on SAP HANA
- Optimized delta recording for SAP HANA as a source database

TODAY
(Release 2.0 SP6) & (Release 2.0 SP7)

Planned Innovations

Future Direction
Information Sources
Information Sources
For Customers and Partners

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

SAP LT – important Documents and Links
- New SLT – Introduction Video
- SLT – Overview Presentation
- Installation Guide
- Security Guide
- Operations Guide
- How-To Guide „Advanced Replication Settings“ (see SAP Note 1733714)
- HANA & SLT Sizing; SLT Sizing Guide
- Important SLT Notes: see in SLT General Note 1605140

Training
- HA350: SAP HANA – Data Provisioning
- HA200 SAP HANA - Installation & Administration
- HA300 SAP HANA Implementation and Modeling
- Specific customized training on SLT available on demand
Official Product Roadmap available!
End of February the new SAP LT Replication Server roadmap was published on server marketplace.
Have a look here: Roadmap

Events & Webinars

Official Documents
- Installation Guide
- Security Guide
- Application Operations Guide
- Advanced Replication Settings
- Mobile App Administration Guide
- Running Guide

Important Notes
- Central Note: SLT
- Central Note: non-SAP Sources
- List of all relevant notes

SLT @ SCN: http://scn.sap.com/community/replication-server

Overview How To documents

SAP LT Replication Server
This blog will give an overview on all available How To documents:

Setup:
- How to replicate from ABAP to ABAP
- Step by step procedure for Data replication from Non-ABAP source system to SAP HANA using SAP LT
- Realtime Replication with SLT into Data Store Objects in SAP BW 7.4
- How to setup a N1 replication
- How to Replicate Data to Your App in the Cloud

Operation:
- How to start Data Provisioning without using the Data Provisioning UI
- How to enable parallel replication
- How to restrict the tables that are allowed for replication
- SLT Email Notification

Transformation Rules:
- How to adjust a target table during replication
- How To... Load and Convert SAP Long Text into HANA using SLT
- How to avoid a deletion/insertion of a record
- How to split one record into two records during the replication process

Filing:
- How To filter on the initial load & parallelize replication

Target table adjustments:
- How to specify a partitioning command
- How SLT is mapping data types
- How to adjust a target table during replication

Performance:
- How to improve the initial load

Maintenance:
- How to load data from archives into HANA DS
- System copy/refresh scenario comprising SLT replication to HANA

Unanswered Questions
- Add fields to replicated table in BPA
- Geographical data
- Re: Multiple Schema Creation with One Source system via SLT
- Table in replication is in error state
- Replication of tables in a dedicated namespace

Popular Tags
- Data conversion: hana, slt; replicated
- nonprovisioning replication: replication:server
- HANA_to_hana
- SAP_LT_replication_server
- SLT subsection: transformations

Missions
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- Content tagged with replication:server, replication:slt
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- sap:ec: bdoc
- 1 year ago in SAP CPE: Model Data &
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- How to start the replication of...
Thank You!

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