Agenda

Transport Options for SAP HANA
When Should SAP HANA Transport for ABAP be Used?
How Does it Work?
Which Tools are Involved?
If You Already Know SAP HANA Transport Container
From SAP HANA Transport Container to SAP HANA Transport for ABAP
Transport Options for SAP HANA
Transport Options for SAP HANA Repository Content

<table>
<thead>
<tr>
<th>Use case: SAP HANA Content</th>
<th>Source</th>
<th>Target</th>
<th>Transport Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>...in a stand-alone setup</td>
<td><img src="source1.png" alt="Source" /></td>
<td><img src="target1.png" alt="Target" /></td>
<td>SAP HANA Application Lifecycle Management</td>
</tr>
<tr>
<td><img src="abap.png" alt="ABAP" /></td>
<td><img src="saphana.png" alt="SAP HANA" /></td>
<td></td>
<td>• SAP HANA stand-alone transport management</td>
</tr>
<tr>
<td><img src="saphana.png" alt="SAP HANA" /></td>
<td><img src="abap.png" alt="ABAP" /></td>
<td></td>
<td>• No need for ABAP-footprint</td>
</tr>
<tr>
<td><img src="saphana.png" alt="SAP HANA" /></td>
<td><img src="abap.png" alt="ABAP" /></td>
<td></td>
<td>• Lightweight and easy-to-use transport tool</td>
</tr>
</tbody>
</table>

| ...on a dedicated system with ABAP background | ![Source](source2.png) | ![Target](target2.png) | Enhanced CTS (CTS+) |
| ![SAP HANA](saphana.png) | ![ABAP](abap.png) | | • Transported as any other non-ABAP content |
| ![SAP HANA](saphana.png) | ![ABAP](abap.png) | | • Integrated in existing CTS mechanisms |
| ![SAP HANA](saphana.png) | ![ABAP](abap.png) | | • Integrated in SAP process tools (ChaRM, QGM) |

| ...exclusively used by ABAP (ABAP for SAP HANA) | ![Source](source3.png) | ![Target](target3.png) | Change and Transport System (CTS) |
| ![ABAP](abap.png) | ![SAP HANA](saphana.png) | | • SAP HANA Transport for ABAP (HTA) if CDS or AMDP do not support your object types |
| ![ABAP](abap.png) | ![SAP HANA](saphana.png) | | • SAP HANA Transport Container (HTC) |
| ![ABAP](abap.png) | ![SAP HANA](saphana.png) | | • Integrated in SAP process tools (ChaRM, QGM) |
When Should SAP HANA Transport for ABAP be Used
When should SAP HANA Transport for ABAP be used?

When SAP HANA Transport for ABAP can be used:

- SAP HANA Transport for ABAP is first delivered with **SAP NetWeaver 7.40 SP 11**

- Whenever your ABAP system runs on SAP HANA as primary DB
  - you need to create SAP HANA repository objects as CDS and AMDP are not an option (either because the required object types or some properties are not supported)
How Does it Work?
How SAP HANA Repository Objects are added to a Transport Request

To Do:
- Create your packages
- Develop your objects
- Decide what to synchronize
- Manage your Transport Request
How SAP HANA Repository Objects are Imported

To Do:
- Import your Transport Request
Which Tools are Involved?
Which tools are involved?

SAP HANA Studio or SAP HANA Web-based Development Workbench – for development

Transaction SCTS_HTA (in ABAP) – for synchronization

Transaction SE09 – for releasing tasks and transport requests

Transaction STMS – for executing the import

(or Tools like Change Request Management or QGM to manage your project / transport process)
Which tools are involved?

The sequence

Develop your application ─► Select objects / packages to be transported ─► Manage your transports

SAP HANA Studio

or

SAP HANA Web-based Development Workbench

Transaction SCTS_HTA

Transaction SE09 on source and STMS on target system
Tools in Detail
SAP HANA Studio or SAP HANA Web-based Development Workbench

Develop your application
Save and Activate
Nothing special to be done for SAP HANA
Transport for ABAP
Tools in Detail
Transaction SCTS_HTA

Open transaction SCTS_HTA

Enter your package (case sensitive!)
Include sub-packages if needed

Select what you would like to synchronize
New / changed objects are selected by default
Differences are marked in blue
You will be asked for an ABAP package (when first synchronizing an SAP HANA package) and a transport request
Tools in Detail
Transactions SE09 and STMS

In Transaction SE09
- Release tasks
- Release transport requests
- Check export logs if needed

In Transaction STMS
- Select the import queue
- Import transport requests
- Check import logs if needed
If You Already Know HTC
If you already know HTC

**HTC**
- Still exists
- Severe bugs will be fixed
- New development is invested in SAP HANA Transport for ABAP

### Differences between SAP HANA Transport Container and SAP HANA Transport for ABAP

<table>
<thead>
<tr>
<th></th>
<th>SAP HANA Transport Container</th>
<th>SAP HANA Transport for ABAP</th>
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</thead>
<tbody>
<tr>
<td><strong>Granularity of Transport</strong></td>
<td>Complete delivery unit (DU)</td>
<td>Individual objects and / or packages</td>
</tr>
<tr>
<td><strong>Add to Transport Request</strong></td>
<td>In ADT when creating or updating the HTC</td>
<td>In SAP GUI when synchronizing (Transaction SCTS_HTA)</td>
</tr>
<tr>
<td></td>
<td>(take snapshot and save)</td>
<td></td>
</tr>
<tr>
<td><strong>Import of several transport requests</strong></td>
<td>The deployment of delivery units of the transport requests in a queue takes place separately for each transport.</td>
<td>All SAP HANA objects of all transport requests in a queue are deployed at once, leading to improved error logging, see slide 18</td>
</tr>
<tr>
<td><strong>Packages and DUs</strong></td>
<td>Packages need to be assigned to DU</td>
<td>No DU needed</td>
</tr>
<tr>
<td><strong>Activation</strong></td>
<td>If configured in SNHI_DUP_PREWORK</td>
<td>SAP Netweaver 740 SP11: always, from SP12: whenever possible, see slide 19</td>
</tr>
</tbody>
</table>
# Comparison of deployment behavior of several transport requests in one queue

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<th>SAP HANA Transport Container</th>
<th>SAP HANA Transport for ABAP</th>
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<tbody>
<tr>
<td><strong>Deployment to SAP HANA</strong></td>
<td>One deployment per transport request</td>
<td>One deployment per import queue</td>
</tr>
<tr>
<td><strong>Error logging</strong></td>
<td>Error logging on transport request level. But log might be related to newer content of the DU. Potentially misleading error messages due to activation sequence issues</td>
<td>Error logging on transport request level with hint to the request of which the object’s version was imported. Error message only for objects which really could not be activated</td>
</tr>
<tr>
<td><strong>Run time</strong></td>
<td>Several deployments (potentially of the same object) per queue</td>
<td>One merged deployment per queue. Potentially reduced overall run time of deployment</td>
</tr>
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</table>
New activation behavior in HTA as of SAP NetWeaver 7.40 SP12

SAP HANA packages are automatically imported to the SAP HANA repository and activated if the following conditions are fulfilled:

- The corresponding ABAP package is not switched off in the ABAP switch framework and
- The deploy mode of the SAP HANA package in the HTA repository is either set to
  - “A” (“always”) which is the default setting and leads to the same behavior as in SAP NW 7.40 SP11 or
  - “P” (“pre-conditions”) and the pre-conditional work is done according to table CTS_HOT_PREWORK

More information, especially about deploy mode P can be found in the SAP help portal
From HTC to SAP HANA Transport for ABAP
From HTC to SAP HANA Transport for ABAP

How to migrate the transport method from HTC to SAP HANA Transport for ABAP

Follow these steps:

1. Identify all packages that were previously transported via HTC (as part of the DU)
2. Use transaction SCTS_HTA to synchronize these packages and the contained objects and add them to a transport request
3. Delete the HTC (for this DU) in ABAP in Eclipse and make this deletion part of the same transport request as the packages

After that, do not transport (this DU) via HTC any more
Further Information

Documentation for SAP HANA Transport for ABAP:

Blog about SAP HANA Transport Container:
http://scn.sap.com/docs/DQC-43035

Blog about CTS+ and SAP HANA Transport for ABAP:
http://scn.sap.com/community/it-management/alm/software-logistics/blog/2015/06/11/cts-or-hta

Information about SAP HANA Application Lifecycle Management:
http://scn.sap.com/docs/DQC-8576 (area “SAP HANA”)
http://scn.sap.com/docs/DQC-46119
What’s new

SAP NetWeaver 7.40 SP11: SAP HANA transport for ABAP (HTA) available

SAP NetWeaver 7.40 SP12: configurable activation behavior
Thank you

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