

SAP Dual-Stack Strategy & Dual-Stack Split Tool

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SAP's approach for better managing System Landscape

- Provide best practice setups
- Reduce complexity of landscape planning
- Unveil landscape behavior of products

Transparency

Automation

- Ease landscape modeling
- Automate software logistic processes by applying clear rules
- Offer tool support for changing certain landscape layouts

Standardization

- Balance scope of different deployment options
- Ensure predictable landscape behavior
- Offer setups by selectable landscape pattern

Landscape Governance

prepares

enables

Landscape Management

Impact on Dual-Stack Setups

- Provide best practice setups

- Reduce complexity of landscape planning
- Unveil landscape behavior of products

Transparency

Clear SAP Guidance to avoid usage of Dual-Stack deployments where possible

Automation

- Ease landscape modeling
- Automate software logistic processes by applying clear rules
- Offer tool support for changing certain landscape layouts

enables

prepares

Limitations for Dual-Stack installation options

Standardization

- Balance scope of different deployment options
- Ensure predictable landscape behavior
- Offer setups by selectable landscape pattern

Tool to split Dual-Stack systems into separated stacks

Dual-Stack Vs Single-Stack Systems

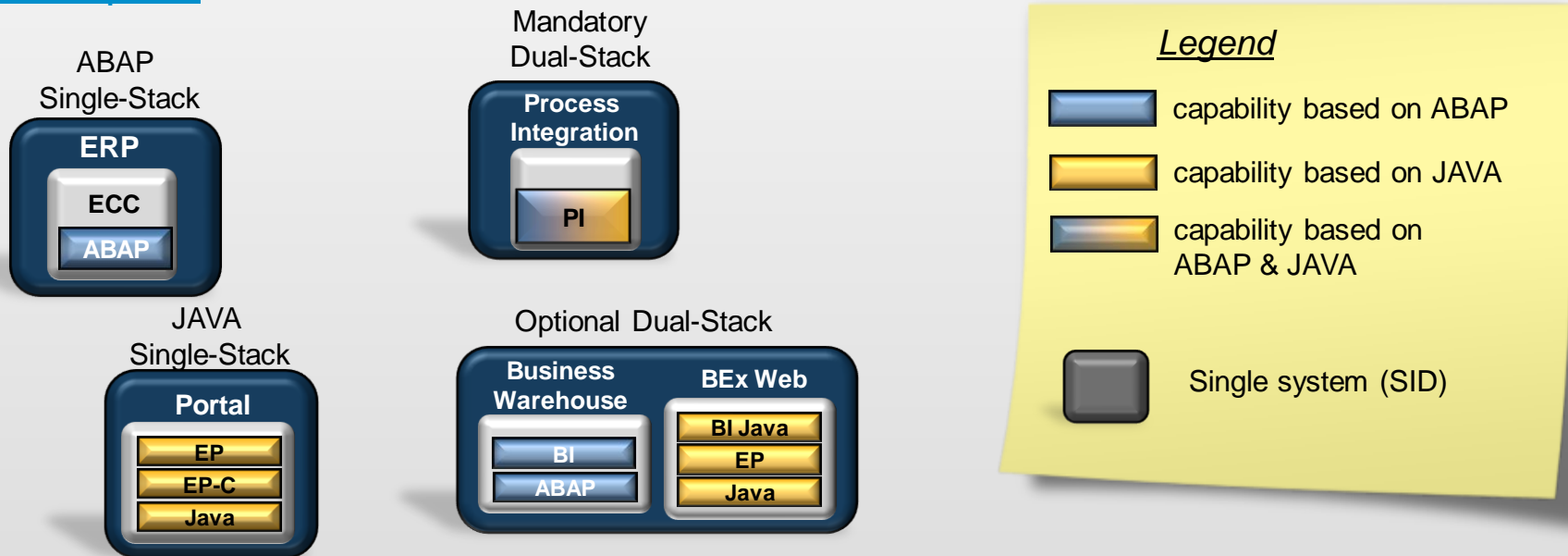
Definition for Dual-Stack:

SAP system that contains installations of both Application Server ABAP and Application Server Java

A dual-stack system has the following characteristics:

- Common SID for all application servers and the database
- Common startup framework
- Common database (with different schemas for ABAP and Java)

Examples:



Dual-Stack Vs Single-Stack – Appraisal

Transparency

Aspect	Bundled System	Separate Systems
Setup and Configuration Effort	+	-
Administration / SW Maintenance Effort	+	-
Backup and Recovery Effort	+	-
Sizing	0	0
Monitoring	-	0
Security	-	0
Flexibility	-	+
Scalability	-	+
Availability	-	+

Conclusion

- Advantages for the Dual-Stack in some areas of life-cycle management, such as installation + configuration effort (one-time activities!)
- Benefits for database administration could also be achieved by MCOD
- In some other areas tools & procedures have to be provided on landscape level like central monitoring, change management or user management
- Altogether, only some goals reached on expense of other areas, such as flexibility or scalability

Consequence of Recommendation



SAP is going to provide clear recommendations for customers how to deploy different SAP NetWeaver capabilities in a solution landscape

- Based on SAP's product strategy, considering experiences from existing customer landscape layouts
- Example of Enterprise Data Warehousing mentioned before:
 - SAP's general recommendation to deploy BI and BEx Web capabilities as provided by SAP NetWeaver usage types BI and BI Java is to install two separate systems rather than installing one dual-stack system. Therefore, default installation option for BI as offered by SAP installer is to install BI ABAP and BI Java on separate systems

Latest version of installation already reflects this recommendation

- Installation of SAP NetWeaver 7.0 Enhancement Package 1 (EHP1) offers the following options for SAP systems:
 - Dual-Stack installation options for SAP NetWeaver PI and SAP Solution Manager only
 - Single-Stack installation options for AS ABAP systems
 - Single-Stack installation options for AS Java systems

📁	SAP NetWeaver 7.0 including Enhancement Package 1	
▶	📁 SAP Process Integration	→ Dual-Stack
▶	📁 SAP Mobile Infrastructure	→ Dual-Stack
▶	📁 SAP Application Server ABAP	→ ABAP only
▶	📁 SAP Application Server Java	→ Java only

Nevertheless, existing BI dual-stack installations will still be supported

- SAP Note 1181025 describes how to install a BI dual-stack system to stick to an existing landscape layout

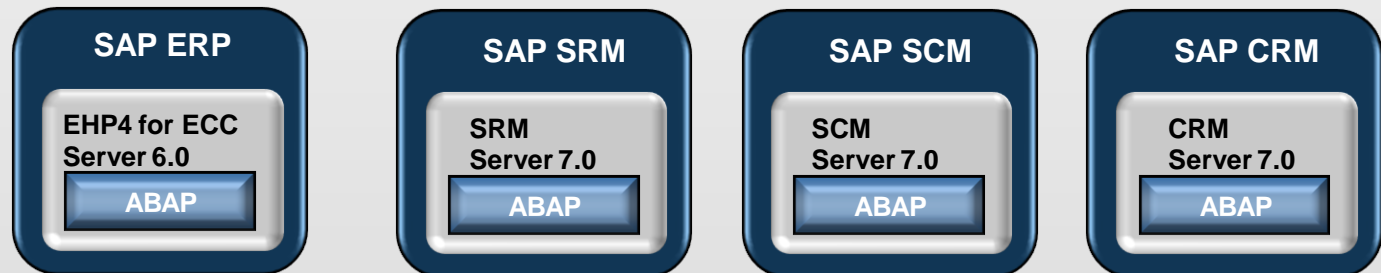
As of SAP Business Suite 7, you can no longer install Dual-Stack Application Systems (ABAP + Java).

If you want to use both SAP Business Suite ABAP and Java Components in your system landscape, you have to proceed as follows:

1. Install a separate ABAP-based SAP Business Suite system.
2. Install the required Java components in a separate Java-based SAP system.
3. Configure the connection of the Java-based SAP system to the ABAP-based SAP Business Suite back-end system

The SAP Business Suite 7 comprises:

EHP4 for SAP ERP 6.0, SAP CRM 7.0, SAP SCM 7.0, SAP PLM 7.0, SAP SRM 7.0



Changing Landscape Layout

Automation

Status Quo

- Existing optional Dual-Stack systems still supported as an exception. SAP wants to support customers to get aligned with the recommended landscape setups
- SAP is planning to offer a procedure for changing the landscape layout for certain use cases

Supported use-case for the pilot in the first phase

- Split an SAP NetWeaver 7.0 system based on the following usage types:
- BW including AS ABAP
- BW Java including EP, EP-Core, AS Java
- (Planned next scenario would be the split of dual-stack SAP ECC/Portal systems)

Split procedure provides three main features

- Separation of the Java stack of the Dual-Stack source system as an additional new SAP system
- Post-configuration of the separated BW Java system to the BW (ABAP) system
- Deletion of the Java stack within the source system

Availability

- Pre-shipment phase started end of Q4/2010
- General Availability planned for end of September 2011

Solution Capabilities and Scope

Technical Split by SAPinst with two options

- **Option (a): Keep DB (MCOD) use case**
 - Installation of an additional SAP system based on usage types BW Java, EP, EP-Core and AS Java without additional database
 - Reusing the existing database via MCOD
- **Option (b): Move Java DB (non-MCOD) use case**
 - Installation of an additional SAP system based on usage types BW Java, EP, EP-Core and AS Java with separate databases
 - System copy of the Java database persistency into the new database

Automated post-configuration by CTC tasks

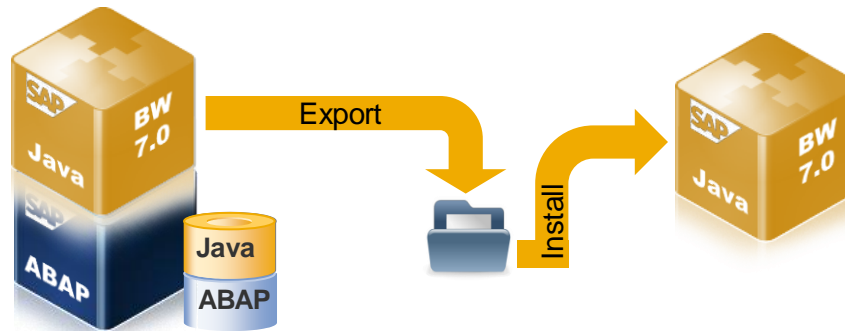
- Re-configure technical connectivity in source and target systems (ABAP to Java and vice versa)

Deleting Java Stack in Source System

- For option a): deleting the Java-related SAP system information within the source system
- For option b): deleting the Java-related SAP system information and the Java database persistency within the source system

Dual-Stack Split

Process Flow **Keep DB** (High-Level Overview)



Step 1

Export Source System

- Export source Java system
File System: SDM, Kernel
- Disable Java instance on the source system.

Step 2

Install Target Java System

- Install target Java system
- Rename Java DB Schema
- Reconfigure UME

Step 3

Reconfigure System Connectivity

- Reconfigure SLD
- Reconfigure BW

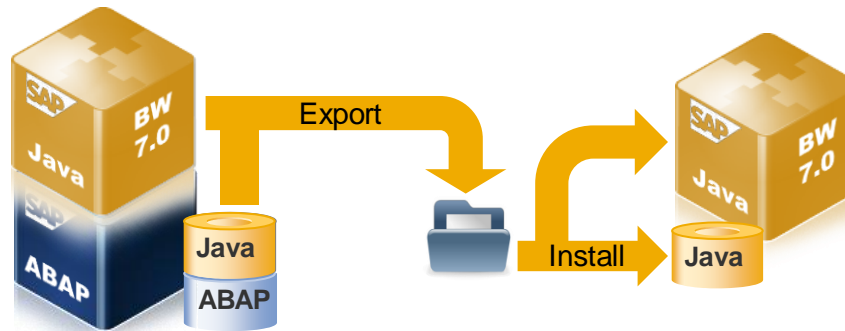
Step 4

Remove Java Add-In from Dual-Stack System

- Remove SCS Instance
- Adjust profile parameter
- Restart instance service
- Cleanup of J2EE directory

Dual-Stack Split

Process Flow **Move DB** (High-Level Overview)



Step 1

Export Source System

- Export source Java system
File System: SDM,
Kernel
DB: Java Schema
- Disable Java instance on the source system.

Step 2

Install Target Java System

- Install target Java system
- Reconfigure UME

Step 3

Reconfigure System Connectivity

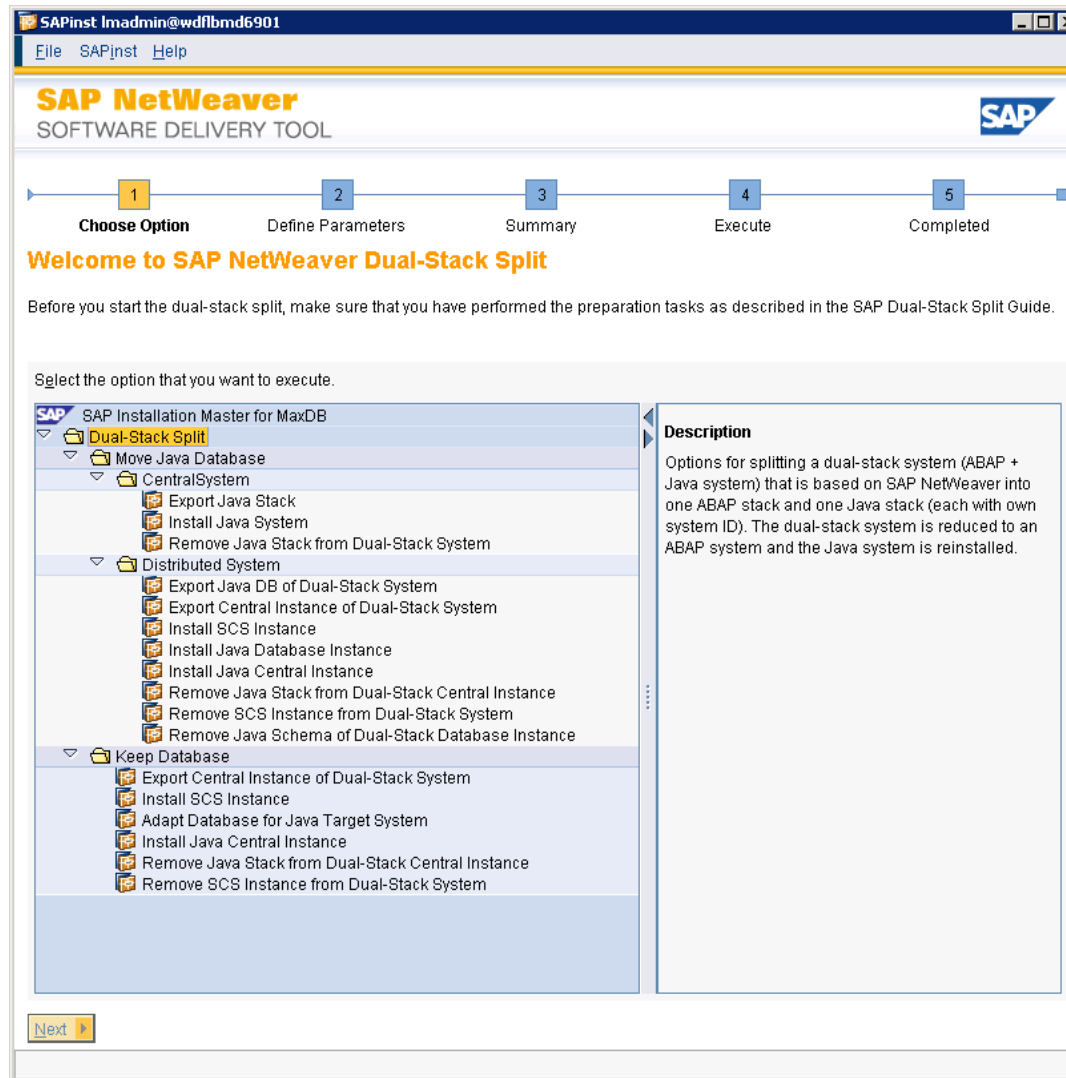
- Reconfigure SLD
- Reconfigure BW

Step 4

Remove Java Add-In from Dual-Stack System

- Remove SCS Instance
- Adjust profile parameter
- Restart instance service
- Cleanup of J2EE directory
- Drop Java schema

Dual-Stack Split Tool





Vielen Dank!

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