



A Customer's
Massive Database Migration Journey at Siemens
Wade Price SAP Solution Architect, Atos
Session ID: ASUG84594

About the Speakers

Wade Price

- SAP Solution Architect, Atos
- With Atos since 1998. SAP HANA SME for Atos NAM, Project Manager, SAP Functional Consultant. Passionate about leveraging technology to achieve real business value.
- At the risk of revealing my age - Oracle 5 & 6 DBA

Key Outcomes/Objectives

1. Benefit of a SAP partner on HANA migration
2. Technical roadblocks on the way to S/4
3. Best practice on migration planning

Agenda

- SAP Migration strategy and partner ecosystem
- The Siemens objective
- Atos Global Transformation Methodology (GTM)
- Technical Blueprint and Migration Strategy
- Takeaways and business benefits for Siemens
- Q&A

Siemens and Atos at a glance

Siemens (www.siemens.com) is a global powerhouse focusing on the areas of electrification, automation and digitalization with the HQ in Munich, Germany.

Siemens is one of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of systems for power generation and transmission as well as automation solutions.

Siemens operates in more than 200 countries with approx. 377.000 employees.

Atos (www.atos.net) is a global leader in digital transformation with 120,000 employees in 73 countries. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions through its Digital Transformation Factory.

With its cutting-edge technologies and industry knowledge, Atos supports the digital transformation of its clients across all business sectors.

The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games.

Atos is a global leading SAP partner

Managed, Full Stack, SAP HANA Cloud service

3 million+ SAP End-Users supported

40+ local SAP teams

13,000+ skilled SAP professionals

5,000+ SID's operated

Introduction of **new business models and value add services** in **>15 projects** with SAP SCP and IoT/Leonardo



>90% of our TOP 200 customers have started the SAP digital transformation journey



Cost savings and optimized business processes on **>30 projects** leveraging SAP cloud based solutions (Ariba, Hybris, SuccessFactors, ...)



SAP Partner for **33 years** & SAP VAR Partner, well recognized with yearly awards



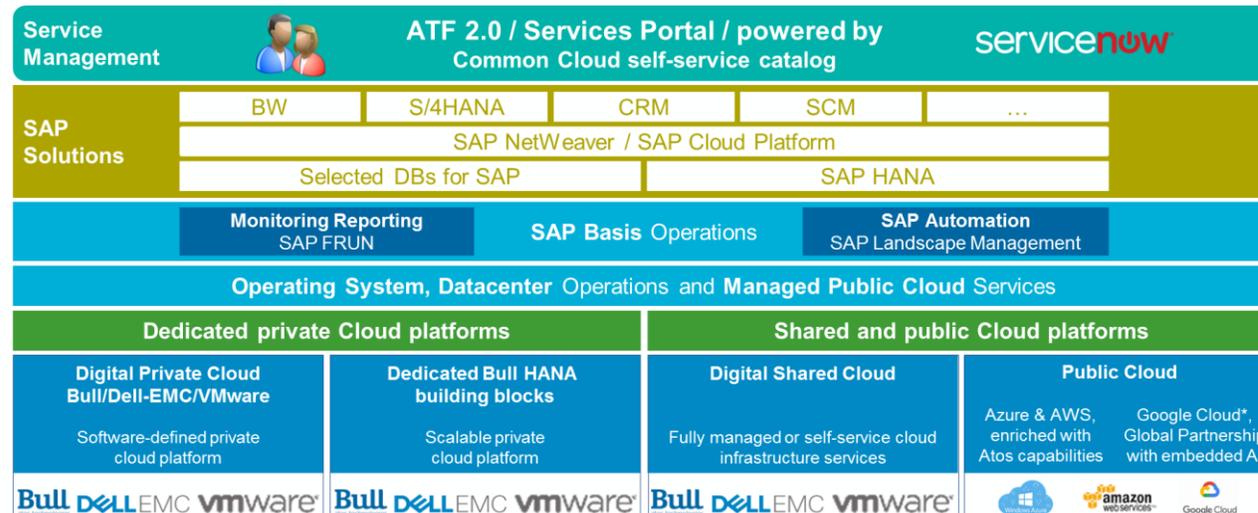
Global SAP-certified in Hosting, HANA Operations, Cloud Services and App Management

Global SAP-certified Infrastructure



Enhanced **operational efficiency** on **6,200+** SAP projects

50+ S/4HANA customers



SAP HANA@Siemens

Scope and objective

Project Scope

Migration and consolidation of more than 50 SAP landscapes to **latest** and **standardized SAP release** (e.g. **ERP ECC 6 EHP7/Unicode**) and **SAP HANA** for users in more than 50 countries.

The project covered **ERP, BW, SRM, HR** and **APO** processes.

Implementation Partner is Atos IT Solutions and Services GmbH.

PM@Siemens the Siemens standard project management methodology with standardized project plans and milestones for all projects was used integrating Atos Standard **MSP/PMP methodology**.

Project Objective

- **Reduction** of hardware and data center **operations costs** with cost effective state of the art infrastructure
- Be prepared for **future innovations** (e.g. S/4 HANA, Fiori) opening new business opportunities
- Huge **acceleration of transactions** and reports, **productivity increase** for users
- Basis to **replace former custom built solutions** by SAP standard (e.g. new SAP business functions in EHP7) and insert of **new SAP standard functionality** into existing processes

SAP HANA@Siemens Project

The HANA project

Atos Scope:

- ▶ 49 landscapes including 10 ultra complex landscapes
- ▶ In total **219 SID's**

Timeline

- ▶ All systems migrated within **18 month**

Highlights:

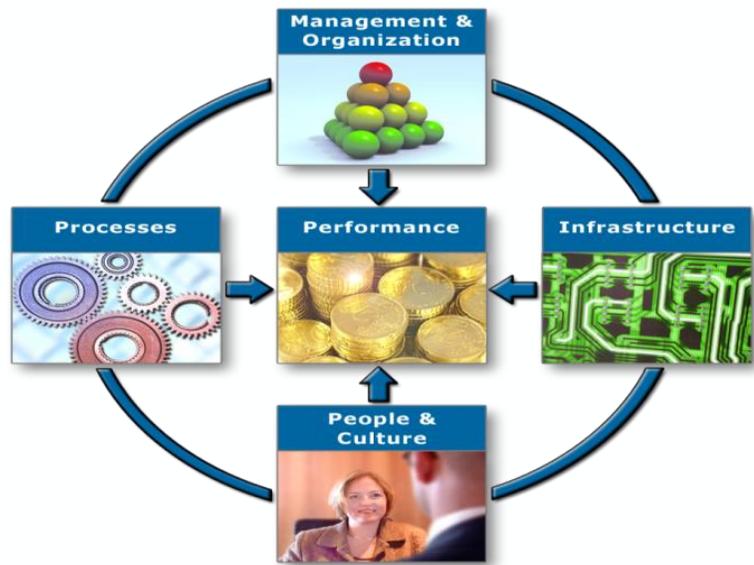
- ▶ **100% success rate**
- ▶ Majority of migration via DMO process
- ▶ In total **460TB HANA** memory
- ▶ HANA DB sizes **up to 8 TB**



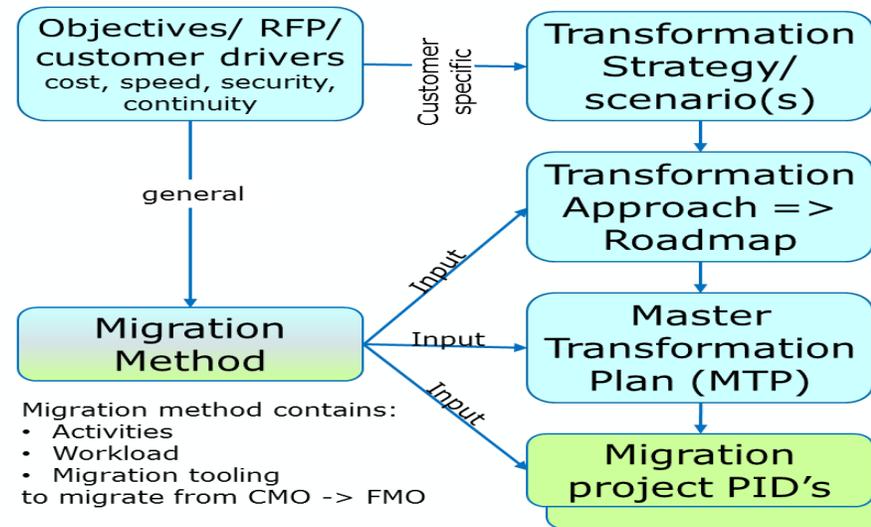
Atos Transition Vision and Methodology

Balancing across all dimensions

- Vision - Delivering a mature, credible and sustainable transition
 - A balanced change approach across all dimensions
 - Step-by-step implementation leading to an agile and robust service organization
 - Value infusion from the very beginning
- Methodology - Customized roadmap based on Global Outsourcing Transition Management Methodology
- Critical Success Factors – limited business downtime



Transition Story Board (TSB) = guide to create Master Transition Plan (MTP)



Bid Phase:

- Transformation strategy contains:
- One or more scenario's
 - Scenario = how to do the rollout (for IT, HR, Knowledge transfer), f.e. by country, by tower

- Approach = draft Roadmap, = customized standard roadmap
- Roadmap contains:
- Main activities
 - Milestones
 - Operational responsibilities

- MTP contains:
- activity descriptions
 - High Level planning (at program level)

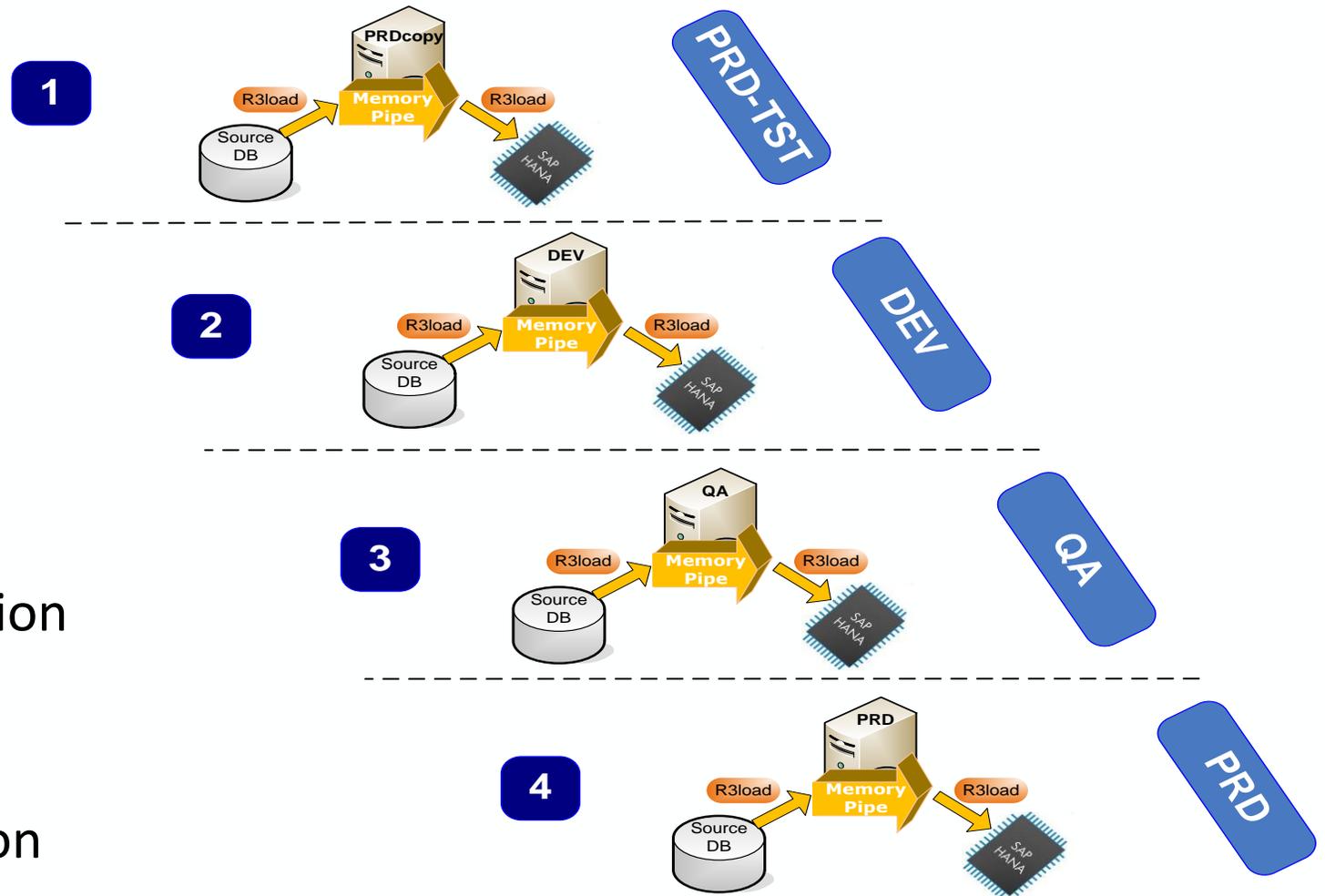
Transformation phase:

- Multiple Migration Project PID's which contain detailed:
- Approach
 - Planning
 - Costing

Migration Blueprint of a 3 system landscape

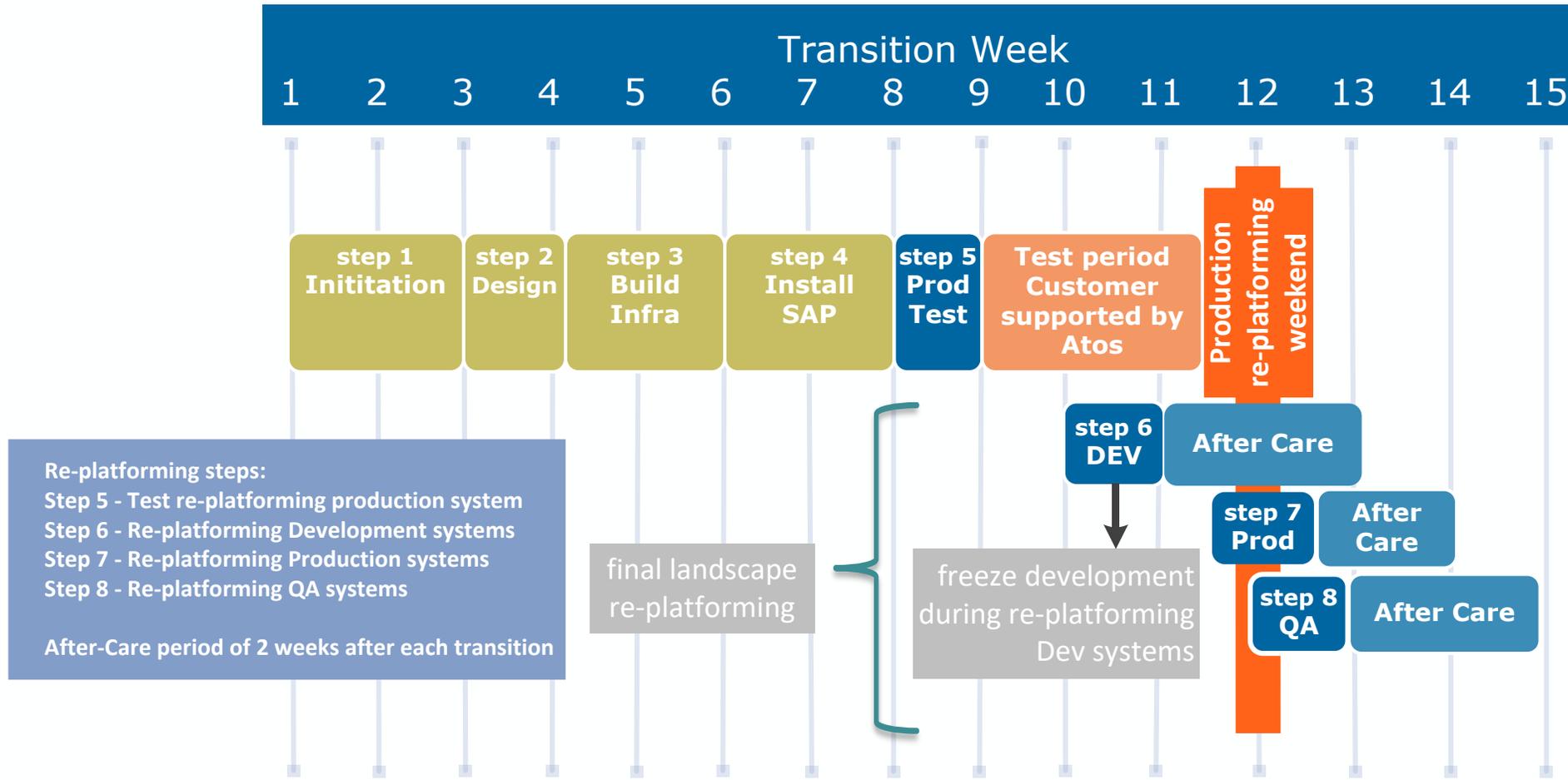
Atos Best Practice approach

- Migration Approach to SAP HANA for a complete Landscape consisting of Development, Quality and Production system
- PRD-TST is a sandbox or temporary system needed for migration downtime optimization
- Additional Systems may be required for e.g. dual maintenance, ABAP remediation



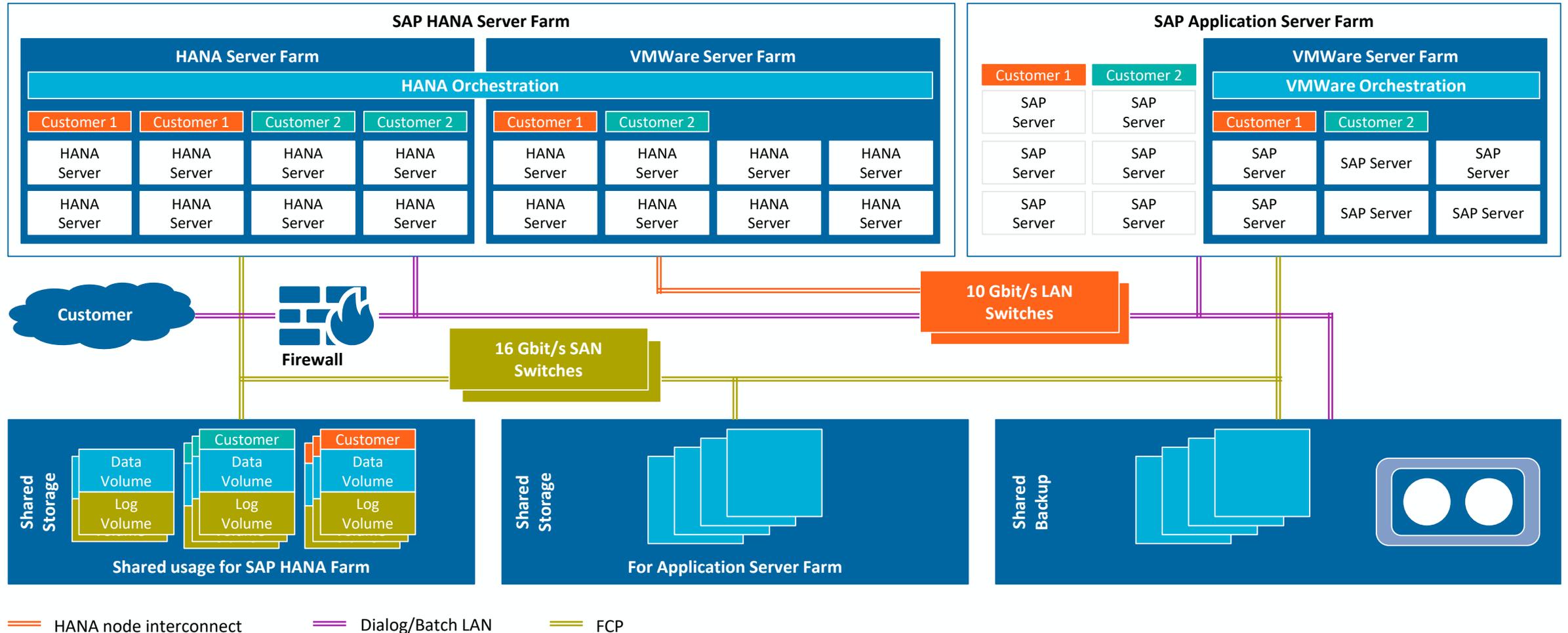
Timeline Blueprint of a 3 system landscape

Including customer testing



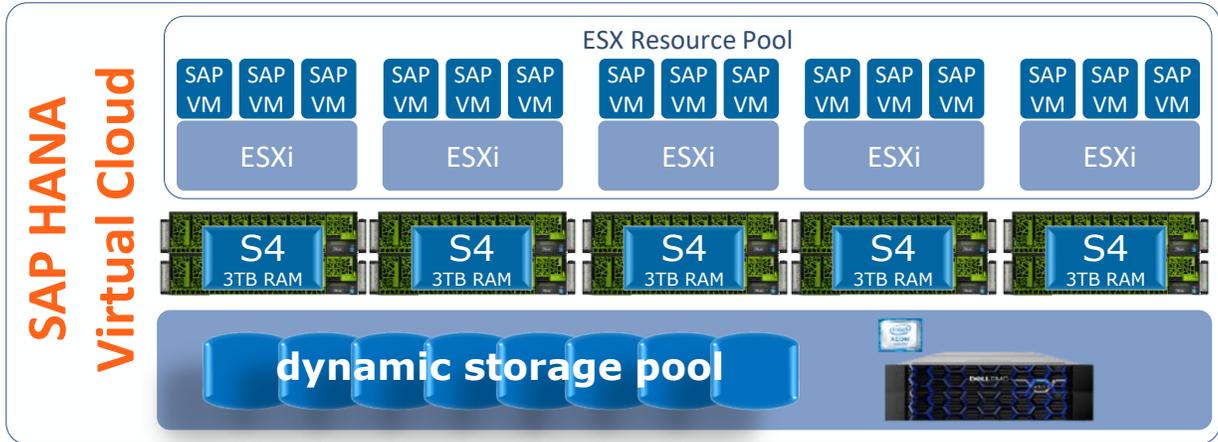
Atos HANA TDI

Enterprise Private Cloud Architecture



SAP HANA Infrastructure

scaling from small to enterprise

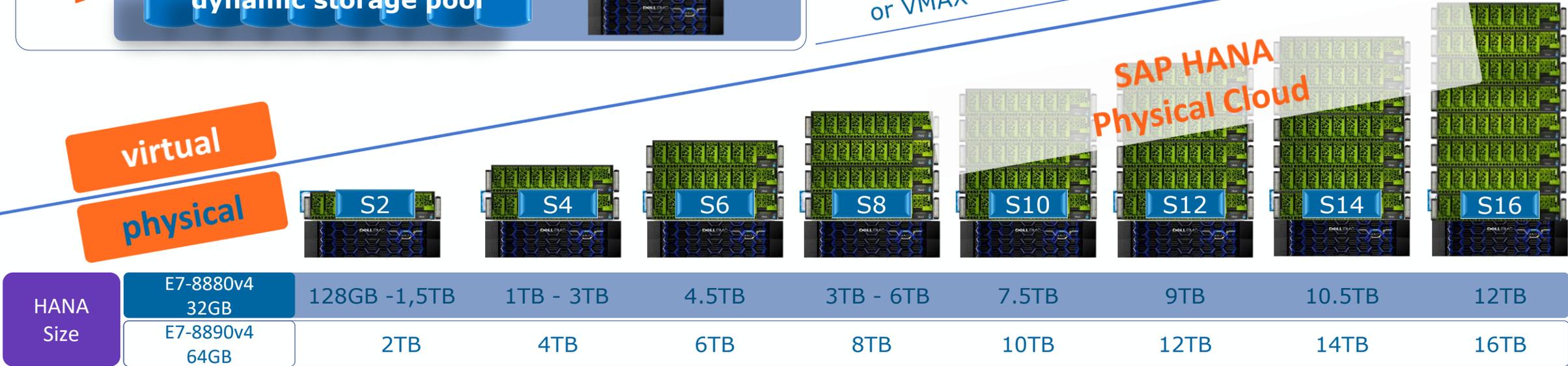


SAP HANA Size 128GB - 3TB

vSphere 6.0 / 6.5

5x bullion S4 compute nodes
E7-4850v4, 3 TB memory

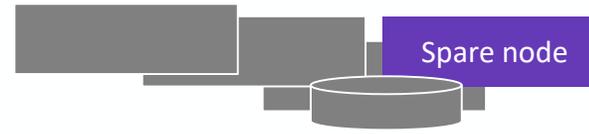
EMC Unity 'all flash'
or VMAX 'all flash'



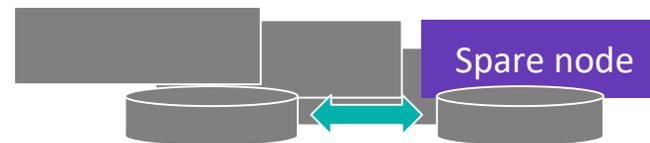
SAP HANA infrastructure

availability scenarios to avoid business transaction loss (RPO=0)

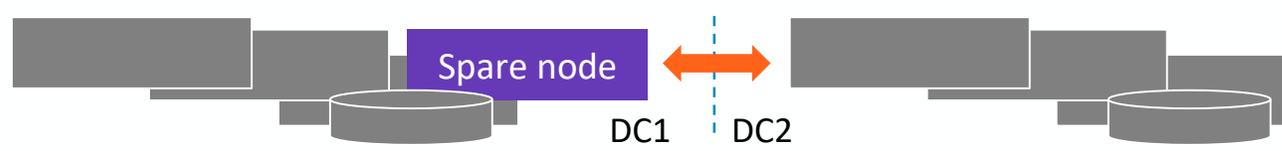
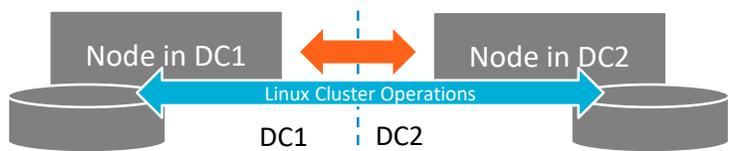
Standard Service Class



Premium Service Class

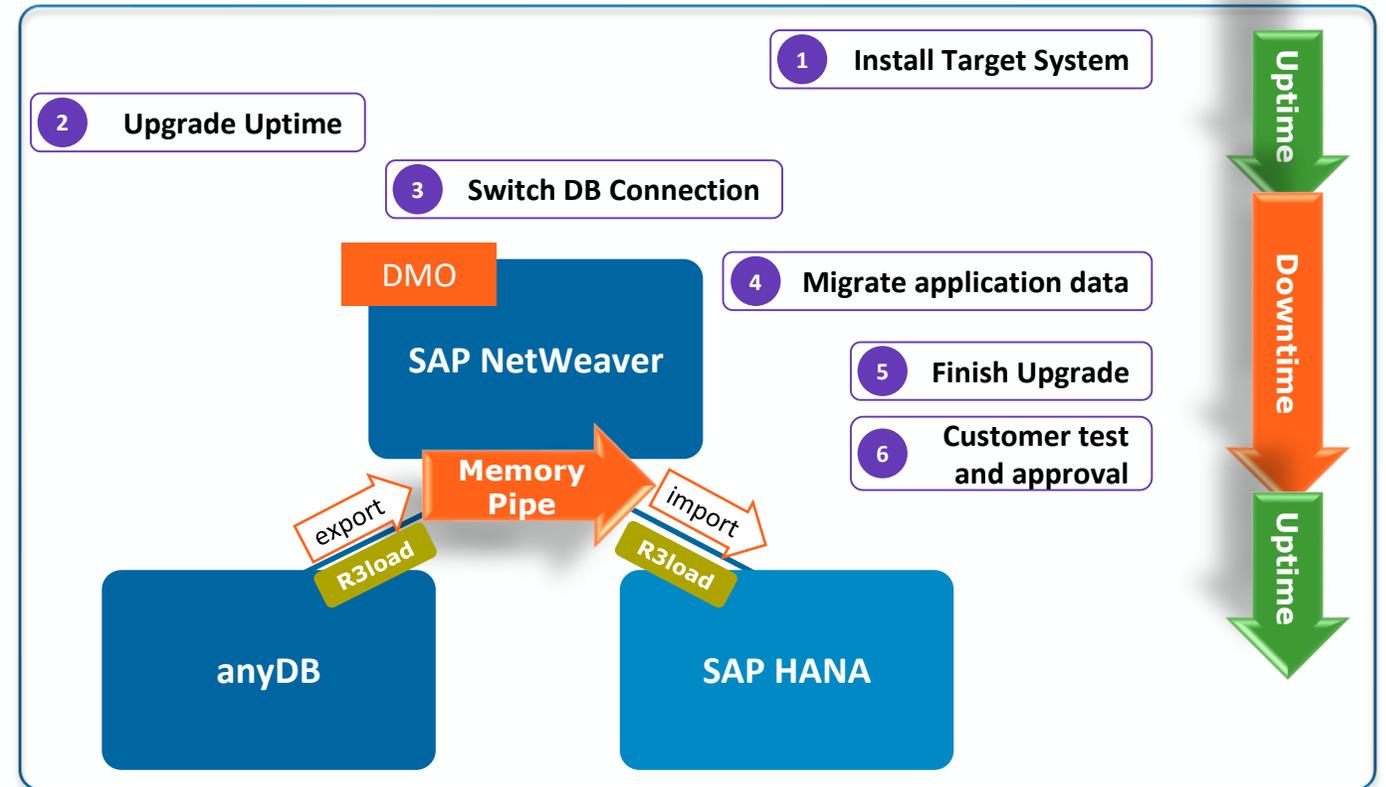
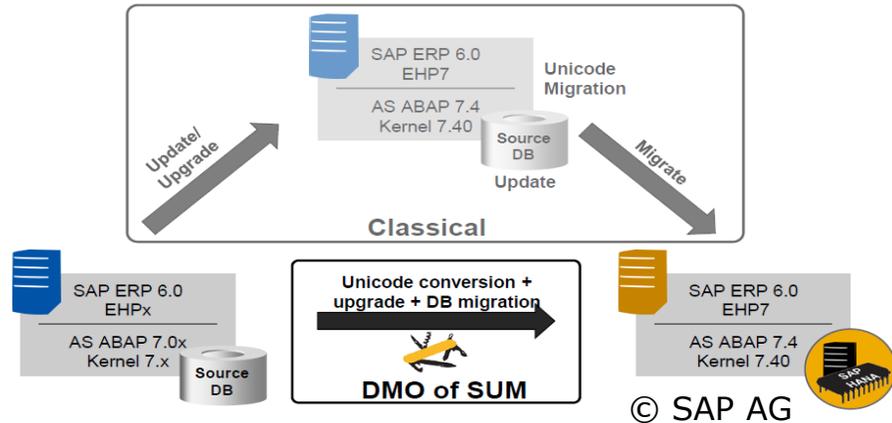


Premium DR Service Class



SAP Database migration

Comparison of standard migration options (DMO)

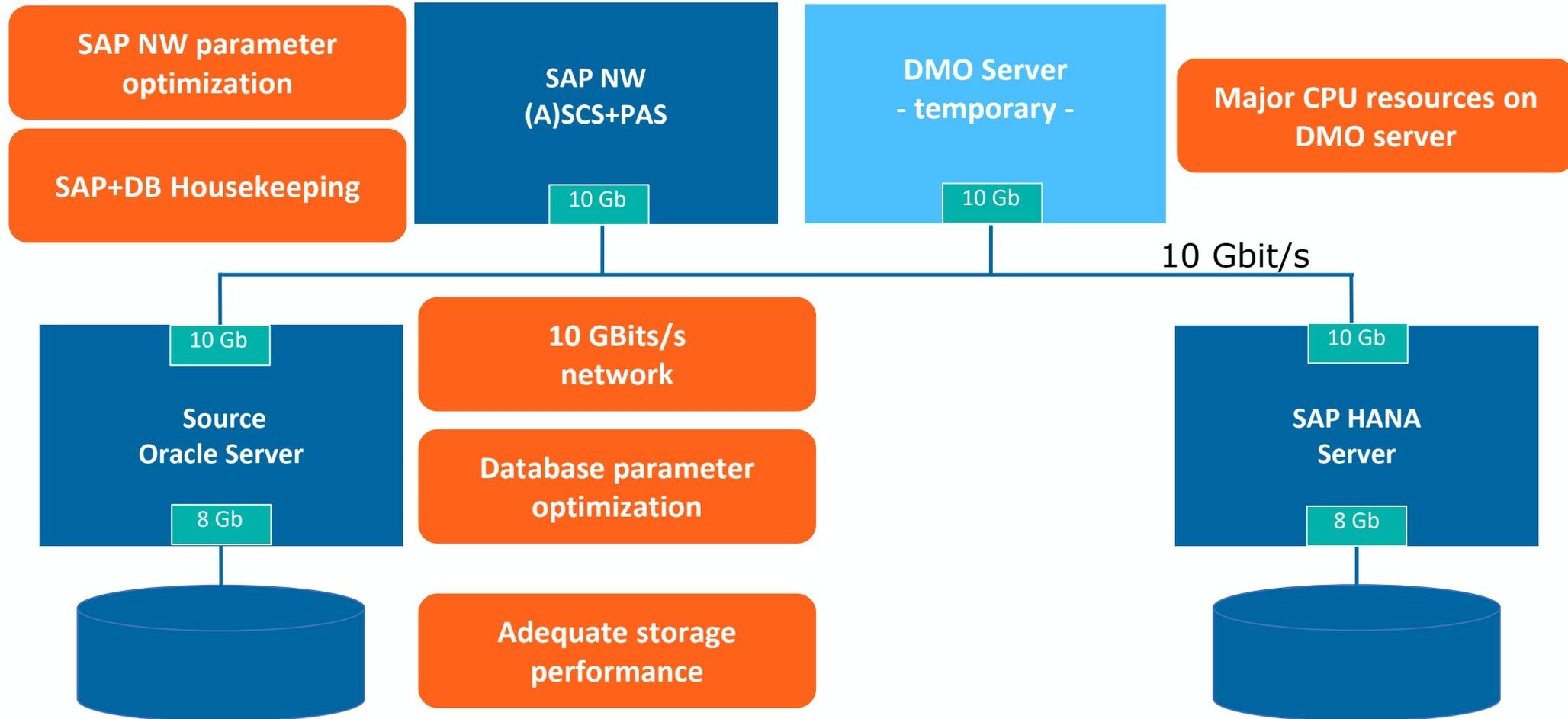


DMO of SUM as standard solution to migrate system to HANA database

- one “small” downtime needed
- Included in SAP Standard
- with low latency / high bandwidth connectivity needed best suited for In-DC migrations

SAP database migration with DMO

Takeaways for throughput optimization



SAP HANA@Siemens

Quality Approach and TCO

Quality Approach

- Strict Program Governance: Siemens CIO, Heads of IT Governance and Centers of Expertise for Divisions, Regions and Infrastructure were involved through regular steering committees once per month. Program organization wasn't changed during program timeline
- Provider created reference architecture for one system which was adapted to all other systems
- DMO as standard software was used for best practice delivery
- To ensure timely completion of code remediation an Atos program was developed and used for legacy ABAP-code to identify all potential select statements for sorting issues as early as possible.
- Siemens specific HANA trainings for key experts before project starts. Trainings have been organized

Rapid Time to Value and TCI/TCO

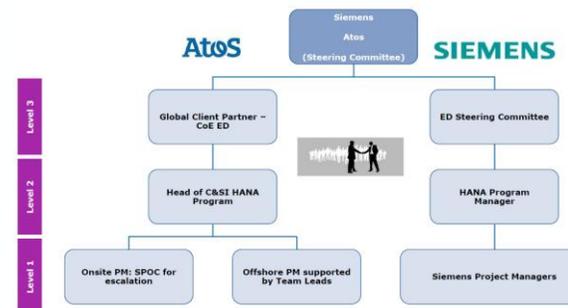
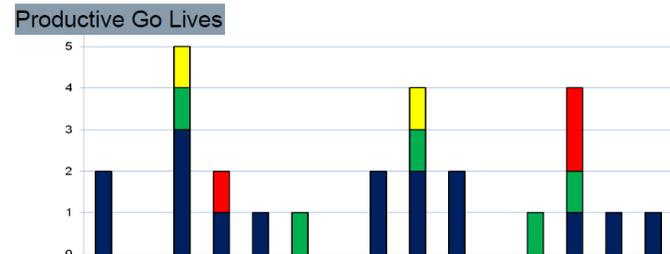
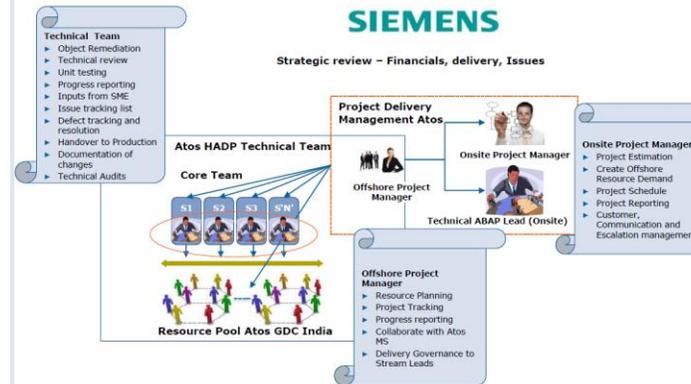
- More than 50 projects running in one program with same methodology in predefined timeframe
- Bundling for optimized infrastructure
- Bundling for cost effective ABAP remediation contracts
- Industrialized approach for system migration and code remediation saved time and costs
- Nearshoring of data center migrations helped to reduce costs at provider
- Cost avoidance by combining other data center changes with the SAP HANA program
- Consolidation of hosting locations to reduce operations costs

SAP HANA@Siemens

Challenges, Lessons learned and Key contributors

Key Challenges faced, Key lessons learned

- To run migration in one weekend (especially the larger systems)
 - **Several test migrations** of DMO and SNP took place with learning curve and improved migration times on each test migration
- Tight program schedule: More than 50 migrations in 18 months within midmonth time slots
 - Put enough migration resources into projects. Implement the rule of **not more than 5 migrations** in one weekend through synchronizing of project plans and rescheduling if necessary.
- Adherence to data privacy and ISEC rules and regulations in the Offshore approach
 - Involvement of legal and ISEC department



Key contributors to the success

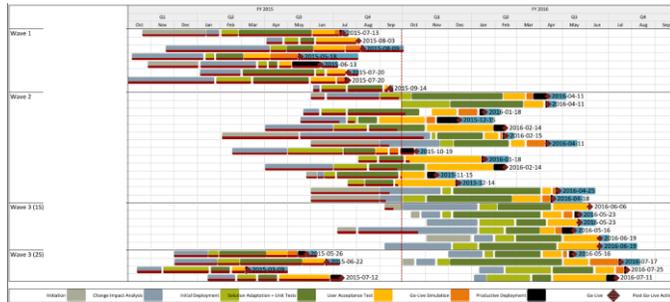
- Code remediation for 28 projects conducted with **successful industrialized Offshore approach**
- Bundling of more than 50 single projects to **one program** with central program organization and standardized industrialized approach including milestones and quality gates for all projects. Identify similar tasks for the whole program which were used as basis for a Request for Proposal process to external suppliers
- Strong management support** in conflict resolution and decision making

SAP HANA@Siemens

Summary

Project Details

- 18 month project duration
- >50 Go-lives



- appr. 100.000 Users were seamless migrated
- appr. 62.000 days of project effort

Business Objectives

- Reduction of hardware and data center operations costs with cost effective state of the art infrastructure
- Be prepared for future innovations (e.g. S/4 HANA, Fiori) opening new business opportunities.
- Huge acceleration of transactions and reports, productivity increase for users.
- Basis to replace former custom built solutions by SAP standard (e.g. new SAP business functions in EHP7) and insert of new SAP standard functionality into existing processes.

✓
achieved

✓
achieved

✓
achieved

✓
achieved

We deployed the largest HANA project in the world



SUCCESS IN ACTION

As part of a visionary move towards “Innovation Everywhere”, Atos is helping Siemens to deploy the **largest SAP HANA implementation in the world**, which will support over 100,000 Siemens personnel and will affect every business unit within the Group.

Joe Kaeser, President and CEO of Siemens AG, said:

“This partnership forms one of the largest strategic relationships ever between a global engineering company and a global IT provider”.

Want to know more about Atos
and SAP offerings?

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

Q&A

For questions after this session, contact us at martin.pfeil@atos.net and stefanie.wessely@atos.net .

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