



SAP S/4HANA

Deployment Recommendations for SAP Master Data Governance (MDG) (related to SAP MDG on ERP and SAP MDG on S/4HANA)

SAP Master Data Governance, Product Management, SAP

Public

Agenda

Introduction

- Methodology & Scope of Landscape Recommendations

Basic Landscape Setups

- Recommendations for SAP Master Data Governance (based on current releases SAP MDG 9.2 / SAP MDG on S/4HANA 2023)
- **Valid for scenarios excluding Federated Master Data Governance**

Introduction

Methodology & Scope of Landscape Recommendations

System Landscapes at Customers

Designing the Optimal Landscape Layout

Customer

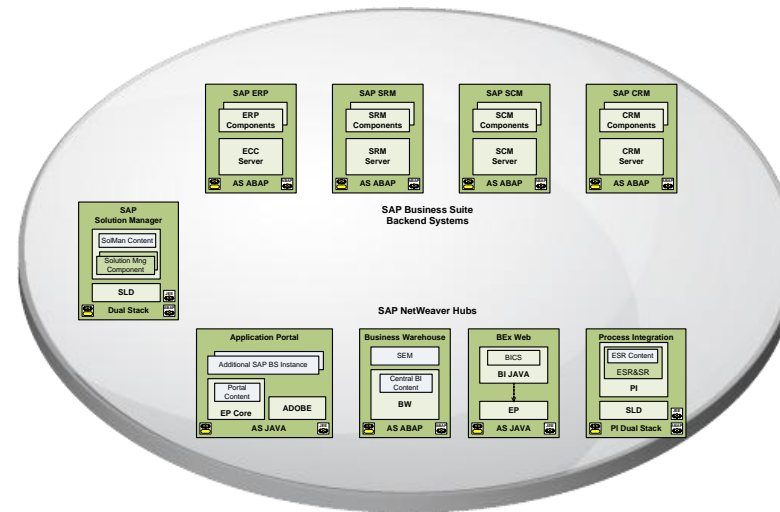
SAP



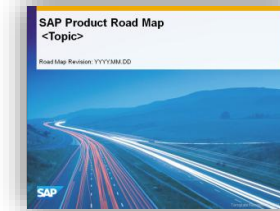
Business Aspects



IT Aspects



Solution Landscape of Customer



Product Roadmaps



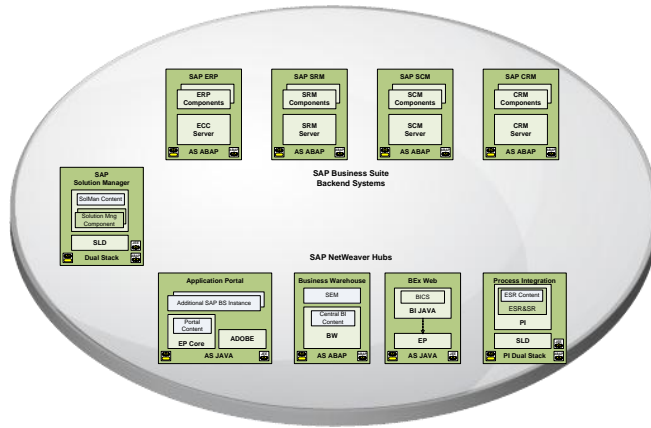
Deployment Recommendations for SAP Products



Technical Documentation (Planning, Installation & Configuration Guides, etc.)

Deployment Recommendations for SAP Products

Guiding Principles



Solution Landscape
of Customer



High-Level Guidance
for optimized
Landscape Layouts

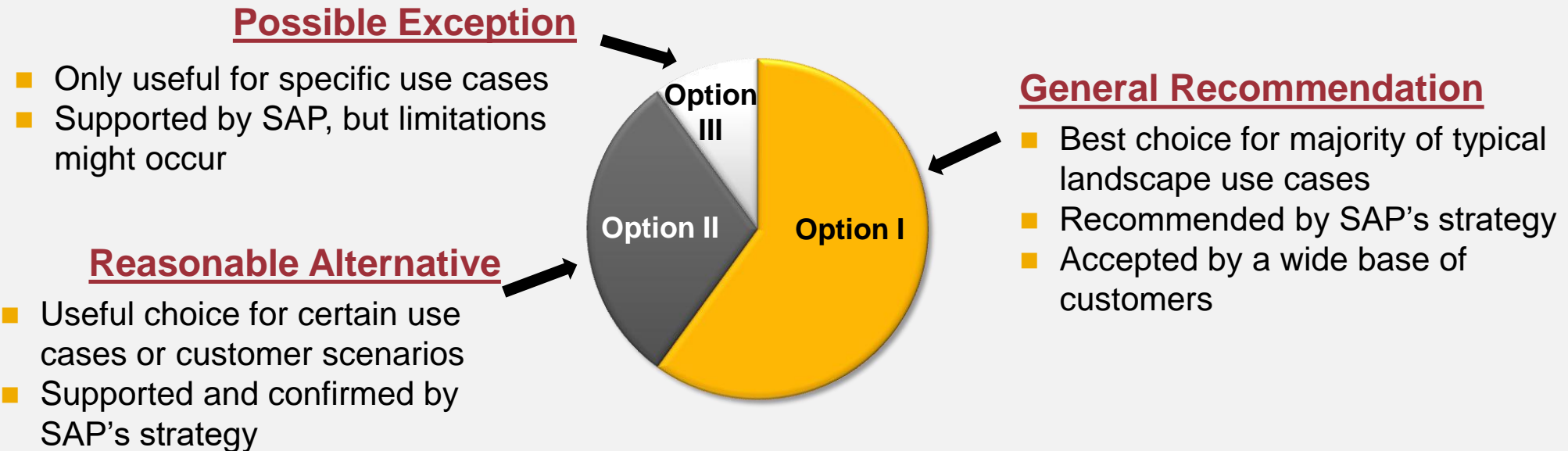


Deployment Recommendations
for SAP Products

- Allow **flexibility** by offering different deployment options (not one-size-fits-all)
- Provide **guidance** by rating different options
- Ease **decisions** by listing pros & cons
- Simplify **consumption** of information by using a common methodology
- Increase **reliability** by considering SAP product strategy, achieved landscape qualities and cross-product alignment

Ease Landscape Planning By Stronger Guidance Used Methodology

Clear recommendations by categorization of deployment options



Goal



- Outlining main important aspects
- Optimal trade-off between flexibility and simplicity
- Applied to main building blocks of SAP products

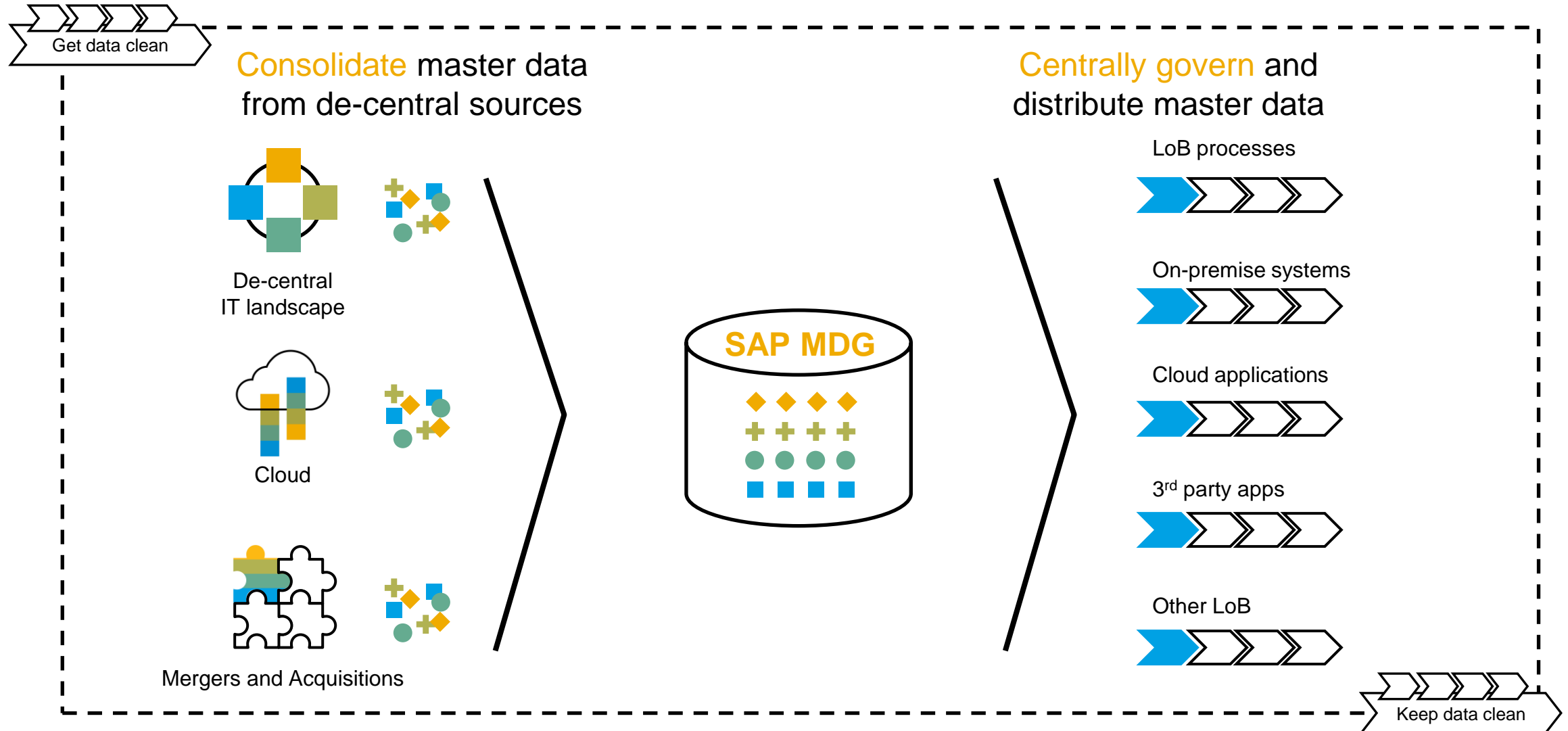
Consider



- Alternative deployment options typically have different pros & cons
- Customer individual assessment is **not** compensated

SAP Master Data Governance

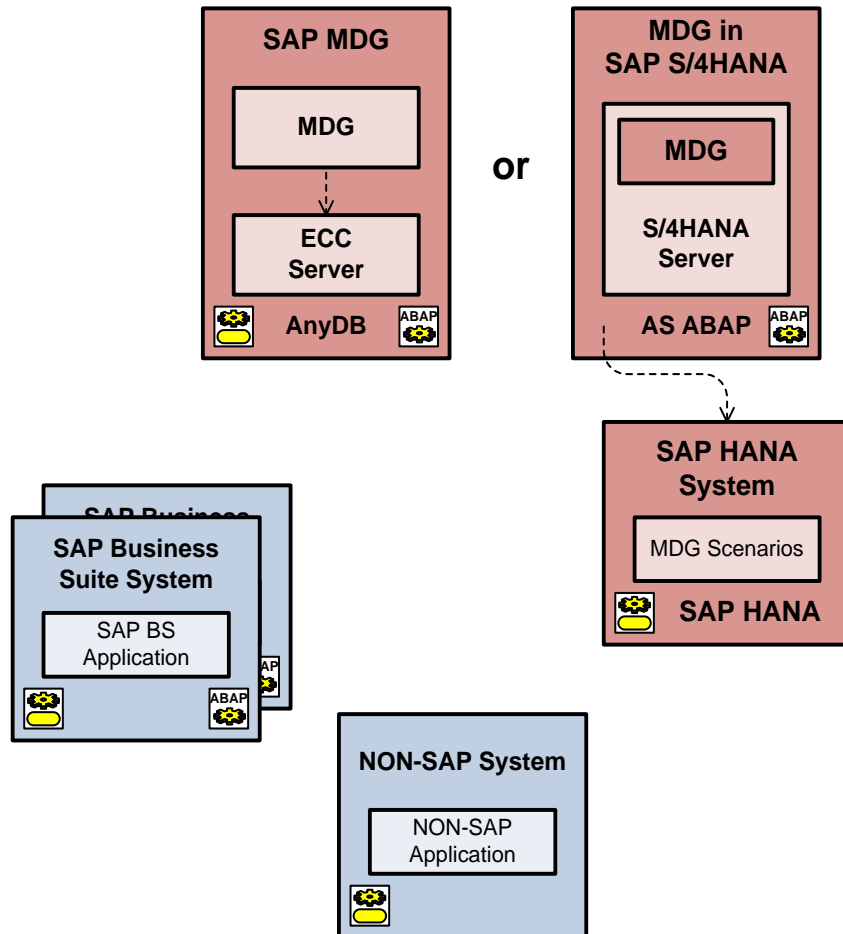
Tackling the master data challenge with consolidation and central governance



Scope of Landscape Recommendations

Building Blocks in System Landscapes for SAP Master Data Governance

Example:

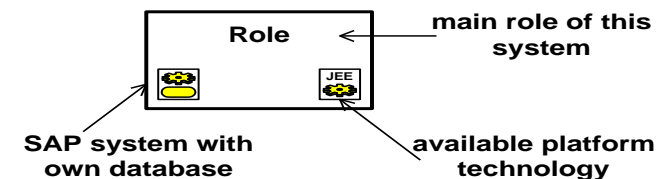


Considered main usage scenarios

- SAP MDG is deployed as master data hub
- SAP MDG is co-deployed with SAP ERP or S/4HANA
- SAP MDG uses SAP HANA for search & matching

Considered main building blocks

- SAP MDG (based on SAP ERP or SAP S/4HANA)
- SAP SLT
- SAP HANA
- SAP Business Suite as example for master data client
- Non SAP application as example for master data client



Overview Landscape Scenarios

Landscape Scenario I:

Distributed System Landscape with only local SAP ERP / S/4HANA systems

- Customer landscape contains different local SAP ERP / S/4HANA or NON-SAP application systems
- No central SAP ERP / S/4HANA system in place
- Governance processes for master data are going to be implemented

Landscape Scenario II:

Distributed System Landscape with existing central SAP ERP / S/4HANA system

- Customer landscape contains a single SAP ERP / S/4HANA system only (simple system landscape)
- Or customer landscape contains a dedicated central SAP ERP / S/4HANA system serving central processes against local SAP ERP / S/4HANA systems, other SAP Business Suite systems or NON-SAP application systems
- Governance processes for master data are going to be implemented

Basic Landscape Setups

Recommendations for SAP Master Data Governance

Landscape Scenario I

Landscape Scenario I:

Distributed System Landscape with only local SAP ERP / S/4HANA systems

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Landscape Scenario II:

Distributed System Landscape with existing central SAP ERP / S/4HANA system

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- Or customer landscape contains a dedicated central SAP ERP / S/4HANA system serving central processes against local SAP ERP / S/4HANA systems, other SAP Business Suite systems or NON-SAP application systems
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Deployment of SAP Master Data Governance

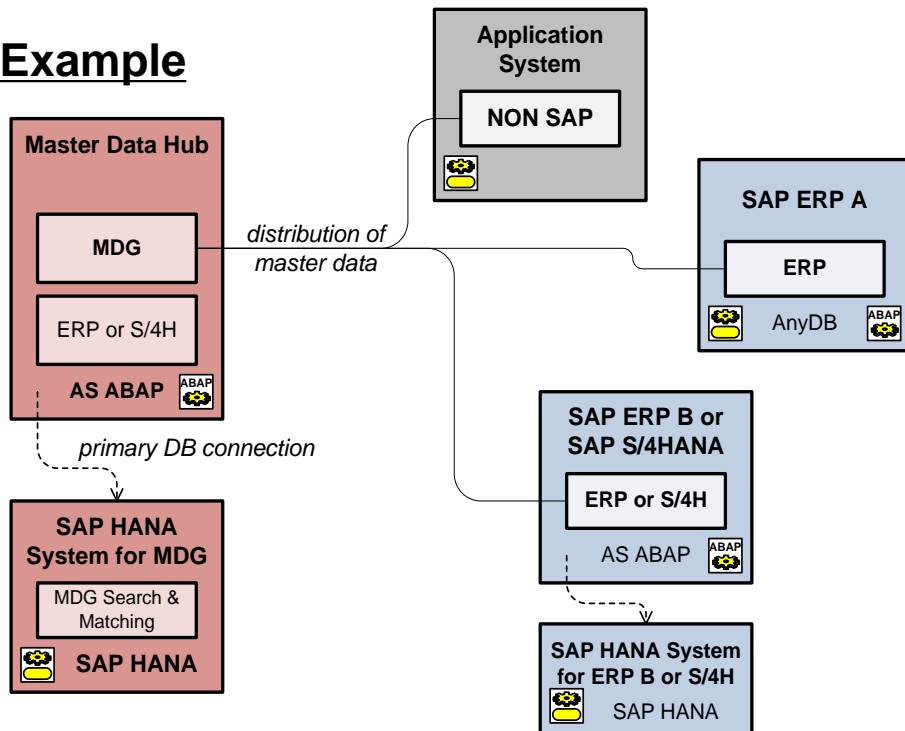
Master data hub based on SAP HANA

General Recommendation

- Deploy SAP MDG as separate master data hub on SAP HANA
- No operational usage of embedded SAP ERP / S/4HANA
- Use SAP HANA as primary DB and for search, standardization & matching



Example



Benefits

- Independent speed of innovation for new SAP MDG capabilities
- Clear system of record
- Easy setup of / migration to SAP MDG running on SAP HANA since existing SAP ERP / S/4HANA landscape is not touched
- No additional SAP HANA for search
- No additional index server for address validation & duplicate check
- No SLT replication of data compared to deployment with SAP HANA as sidecar

Considerations

- Additional MDG system required
- Consider reusing SAP HANA according to white list (see SAP Note [1826100](#))

Deployment of SAP Master Data Governance

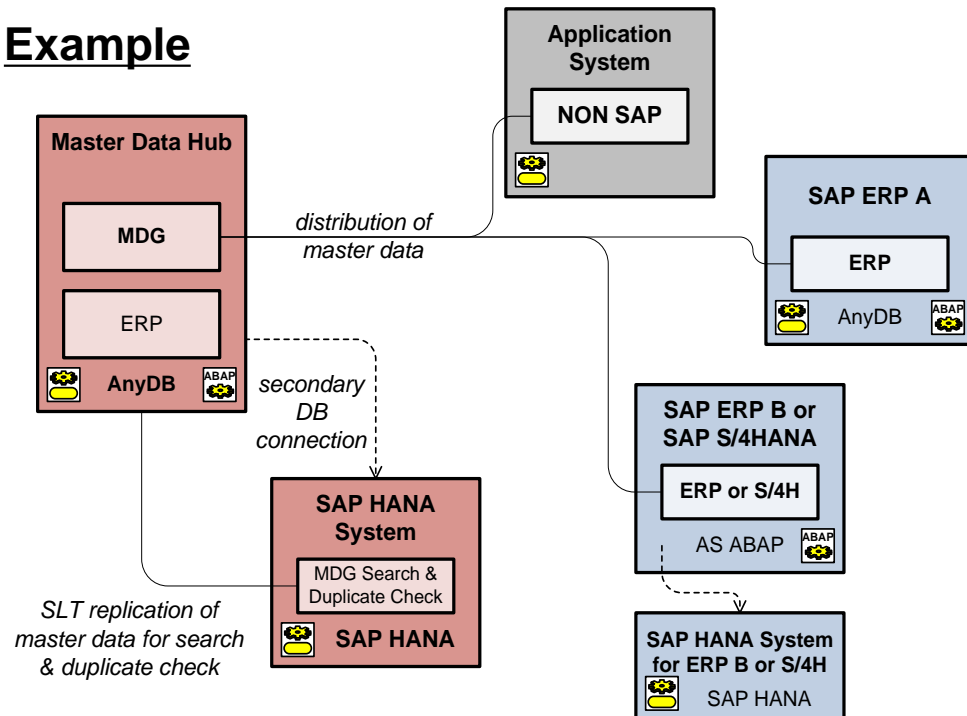
Master data hub based on any DB with optional use of SAP HANA

Reasonable Alternative

- Deploy SAP MDG as separate master data hub on any DB
- No operational usage of embedded SAP ERP
- Connected to SAP HANA with SAP SLT for search & duplicate check



Example



Benefits

- Independent speed of innovation for new SAP MDG capabilities
- Clear system of record
- Easily extended with SAP HANA as sidecar

Considerations

- Additional MDG system required
- Consider reusing SAP HANA according to white list (see [SAP Note 1826100](#))
- Optional usage of other search providers such as SAP Enterprise Search (Embedded Search) or SAP Business Objects Data Services is also supported
- No usage of HANA in SAP MDG, consolidation (Optional usage of SAP Business Objects Data Services is also supported for standardization & matching.)

Deployment of SAP Master Data Governance

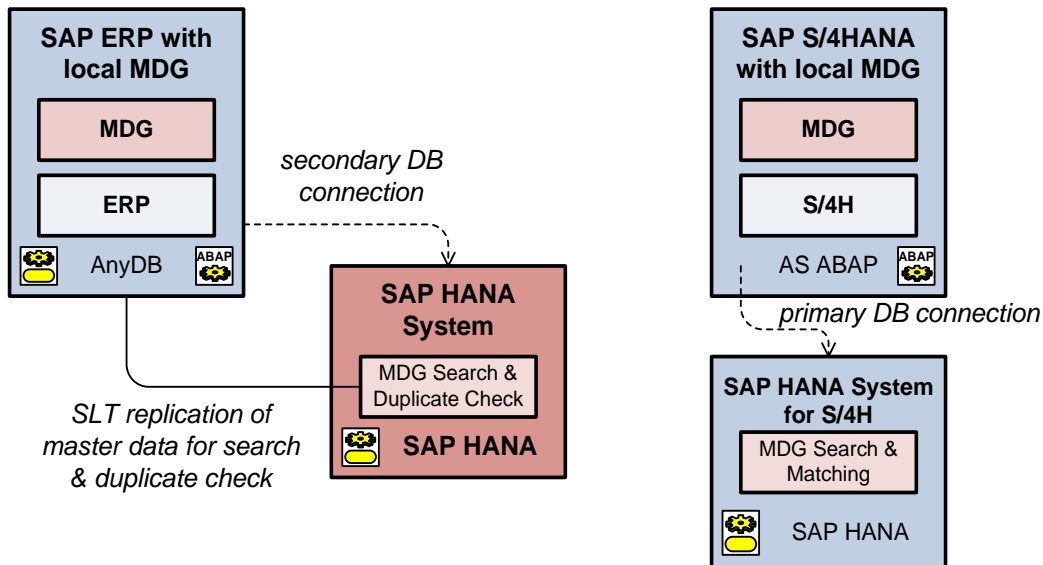
Co-deployed with local SAP ERP / S/4HANA systems and locally used

Possible Exception

- Co-Deploy SAP MDG with SAP ERP on any DB or SAP HANA or co-deploy with S/4HANA
- SAP ERP / S/4HANA is also operationally used
- SAP MDG is locally used in every SAP ERP / S/4HANA system to govern only local master data or each of these systems governs different kind of master data within the complete system landscape



Example



Benefits

- No separate systems for SAP MDG
- No replication of master data to SAP ERP / S/4HANA
- Easily extended with SAP HANA as sidecar for SAP ERP

Considerations

- No central but distributed governance of master data; might be useful as a preliminary step for later change to a central MDG hub
- Risk: no integration between domains
- No global duplicate detection / duplicate prevention possible
- SAP HANA usage for MDG depends on existing SAP HANA deployment of individual SAP ERP / S/4HANA systems

Deployment of SAP Master Data Governance

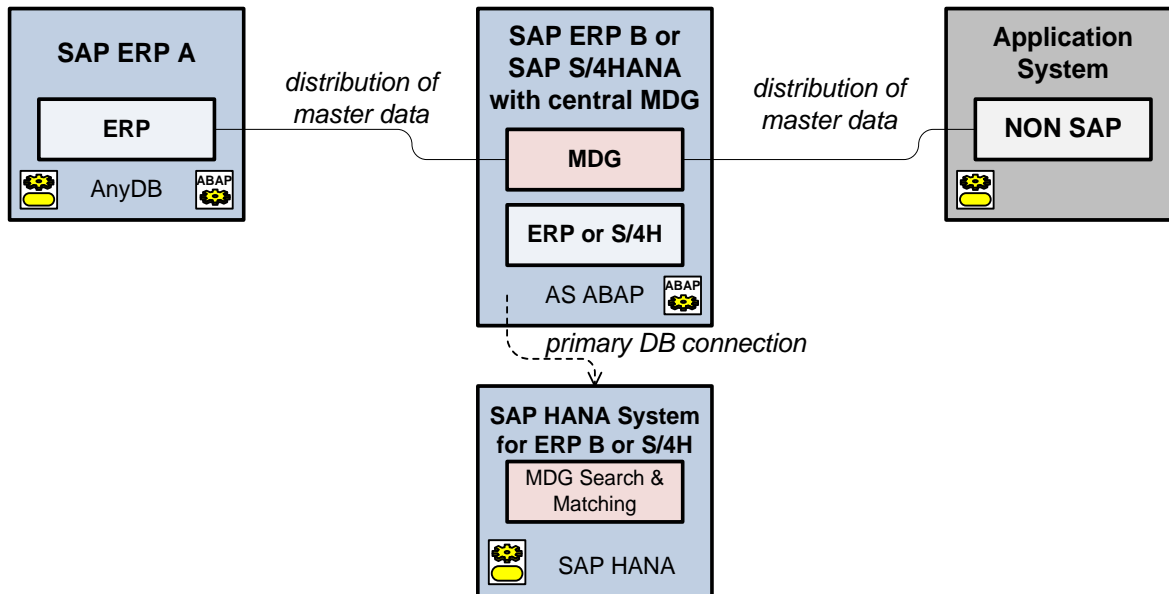
Co-deployed with one local SAP ERP / S/4HANA system and centrally used

Possible Exception

- Co-Deploy SAP MDG with SAP ERP on any DB or SAP HANA or co-deploy with S/4HANA
- SAP ERP / S/4HANA is also operationally used
- SAP MDG is centrally used, but co-deployed with a local SAP ERP / S/4HANA system



Example



Benefits

- No separate system for SAP MDG

Considerations

- It may be difficult to choose the local SAP ERP / S/4HANA system that shall serve the SAP MDG Add-On
- So far locally used SAP ERP / S/4HANA becomes central usage for other SAP ERP / S/4HANA systems (→ relevant master data and customizing need to be loaded)
- SAP HANA usage for SAP MDG depends on existing SAP HANA deployment of individual SAP ERP / S/4HANA systems

Deployment of SAP Master Data Governance

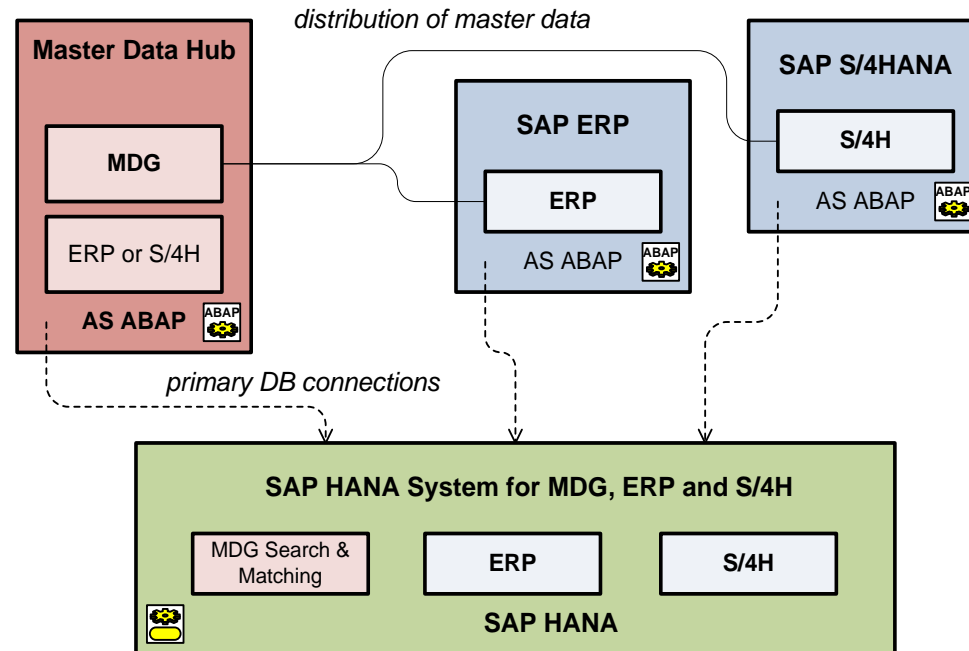
Master data hub and SAP ERP / S/4HANA deployed on same SAP HANA DB

Not Supported Today

- Deploy SAP MDG as separate master data hub on SAP HANA
- No operational usage of embedded SAP ERP / S/4HANA
- Use SAP HANA as primary DB and for search & duplicate check
- Governed SAP ERP / S/4HANA systems using same SAP HANA DB as primary DB

Not
Supported

Example



Implications

- Today co-deployment of two or more SAP ERP / S/4HANA systems on the same SAP HANA DB not supported
- Applications supporting co-deployments with SAP Business Suite on same SAP HANA DB are listed in SAP Note [1826100](#)

Considerations

- With SAP HANA SPS9 the new feature MDC (multi tenant DB container) has been introduced. This feature allows running SAP MDG and SAP ERP / S/4HANA in separate DB tenants of the same HANA server. Refer also to note [1774566](#)

Deployment of SAP Master Data Governance

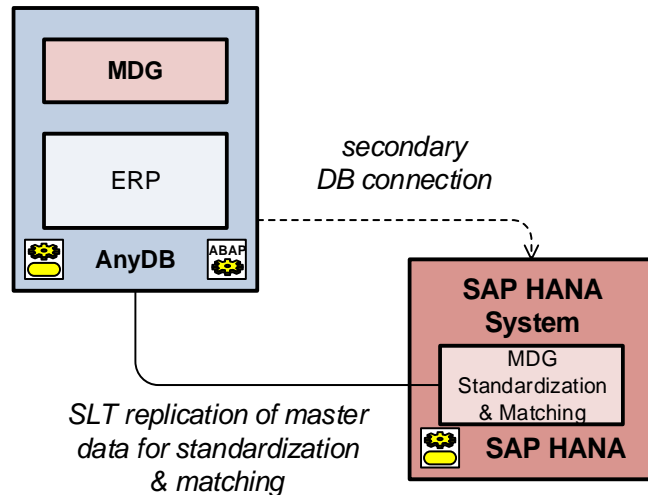
SAP MDG on any DB with optional use of SAP HANA for consolidation

Not Supported Today

- Deploy SAP MDG on any DB
- Connected to SAP HANA with SAP SLT for standardization & matching

**Not
Supported**

Example



Considerations

- Optional usage of SAP Business Objects Data Services is supported for standardization & matching

Landscape Scenario II

Landscape Scenario I:

Distributed System Landscape with only local SAP ERP / S/4HANA systems

- Customer landscape contains different local SAP ERP / S/4HANA or NON-SAP application systems
- No central SAP ERP / S/4HANA system in place
- Governance processes for master data are going to be implemented

Landscape Scenario II:

Distributed System Landscape with existing central SAP ERP / S/4HANA system

- Customer landscape contains a single SAP ERP / S/4HANA system only (simple system landscape)
- Or customer landscape contains a dedicated central SAP ERP / S/4HANA system serving central processes against local SAP ERP / S/4HANA systems, other SAP Business Suite systems or NON-SAP application systems
- Governance processes for master data are going to be implemented

Deployment of SAP Master Data Governance

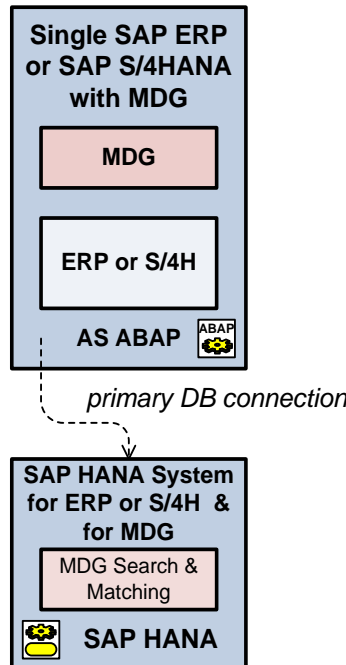
Co-deployed with SAP ERP / S/4HANA in single system based on SAP HANA

General Recommendation

- Co-Deploy SAP MDG with SAP ERP / S/4HANA within single SAP ERP / S/4HANA landscape
- SAP ERP / S/4HANA is operationally used
- Based on SAP HANA as primary DB for SAP MDG and SAP ERP / S/4HANA



Example



Benefits

- No additional system for SAP MDG
- UI continuity for maintenance of global and local attributes
- Process continuity (no latency for replication)

Considerations

- SAP MDG controls master data of single SAP ERP / S/4HANA application only

Deployment of SAP Master Data Governance

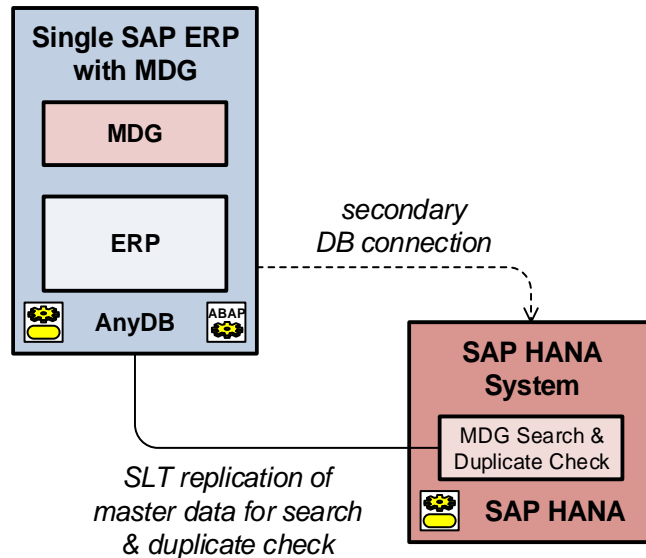
Co-deployment with SAP ERP for single SAP ERP landscape based on any DB

Reasonable Alternative

- Co-Deploy SAP MDG with SAP ERP within single SAP ERP landscape
- SAP ERP is operationally used
- Based on any DB (optional usage of SAP HANA as sidecar)



Example



Benefits

- No additional system for SAP MDG
- UI continuity for maintenance of global and local attributes
- Process continuity (no latency for replication)
- Easily extended with SAP HANA as sidecar

Considerations

- SAP MDG controls master data of single SAP ERP application
- No usage of HANA in SAP MDG, consolidation (Optional usage of SAP Business Objects Data Services is also supported for standardization & matching.)

Deployment of SAP Master Data Governance

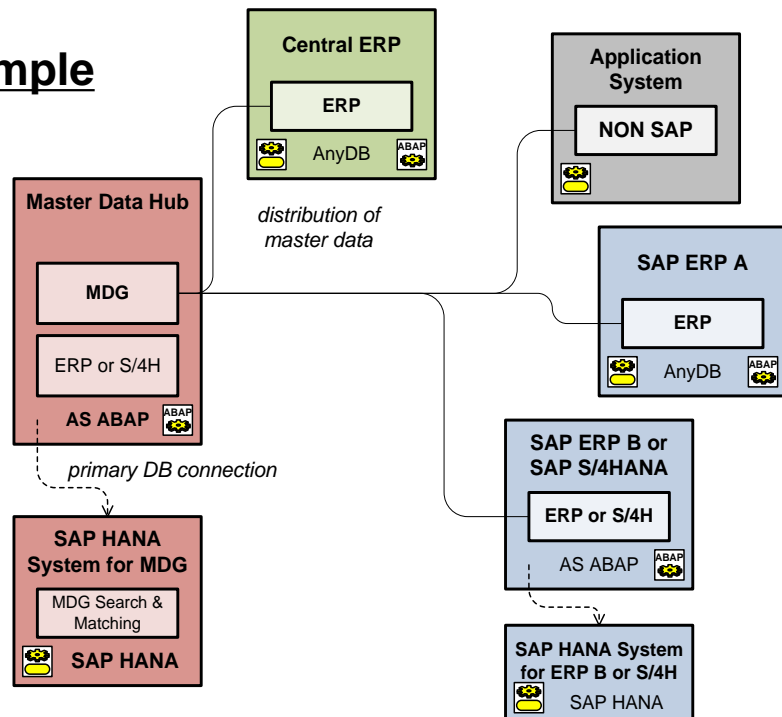
Master data hub based on SAP HANA, separately deployed from central system

General Recommendation

- Deploy SAP MDG as separate master data hub, additionally deployed to central SAP ERP / S/4HANA within multiple SAP ERP / S/4HANA landscape, based on SAP HANA
- No operational usage of embedded SAP ERP / S/4HANA
- Use SAP HANA as primary DB and for search, standardization & matching



Example



Benefits

- Independent speed of innovation
- Clear system of record
- Easy setup of / migration to SAP MDG running on SAP HANA since existing SAP ERP / S/4HANA landscape is not touched
- No SLT replication of data compared to deployment with SAP HANA as sidecar

Considerations

- Additional MDG system required
- Higher administration effort

Deployment of SAP Master Data Governance

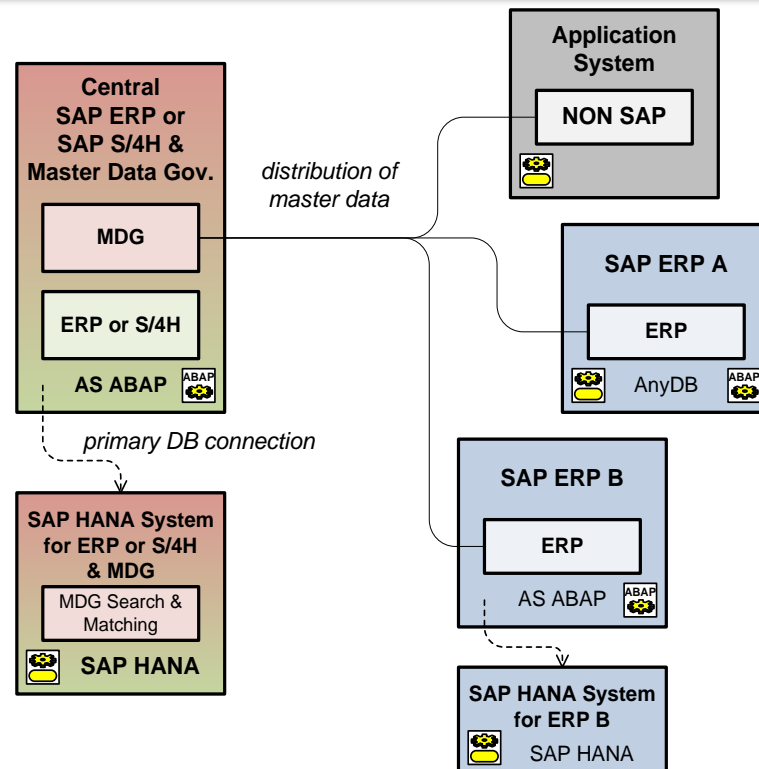
Master Data hub co-deployed with central SAP ERP / S/4HANA on SAP HANA

Reasonable Alternative

- Co-Deploy SAP MDG with central SAP ERP / S/4HANA on SAP HANA
- SAP ERP / S/4HANA is also operationally used as central system
- Use SAP HANA as primary DB and for search, standardization & matching



Example



Benefits

- No additional system for SAP MDG
- No additional SAP HANA for search & matching
- No replication of master data to central SAP ERP / S/4HANA
- No SLT replication of data compared to deployment with SAP HANA as sidecar

Considerations

- Existing central SAP ERP system needs to be migrated to SAP HANA

Deployment of SAP Master Data Governance

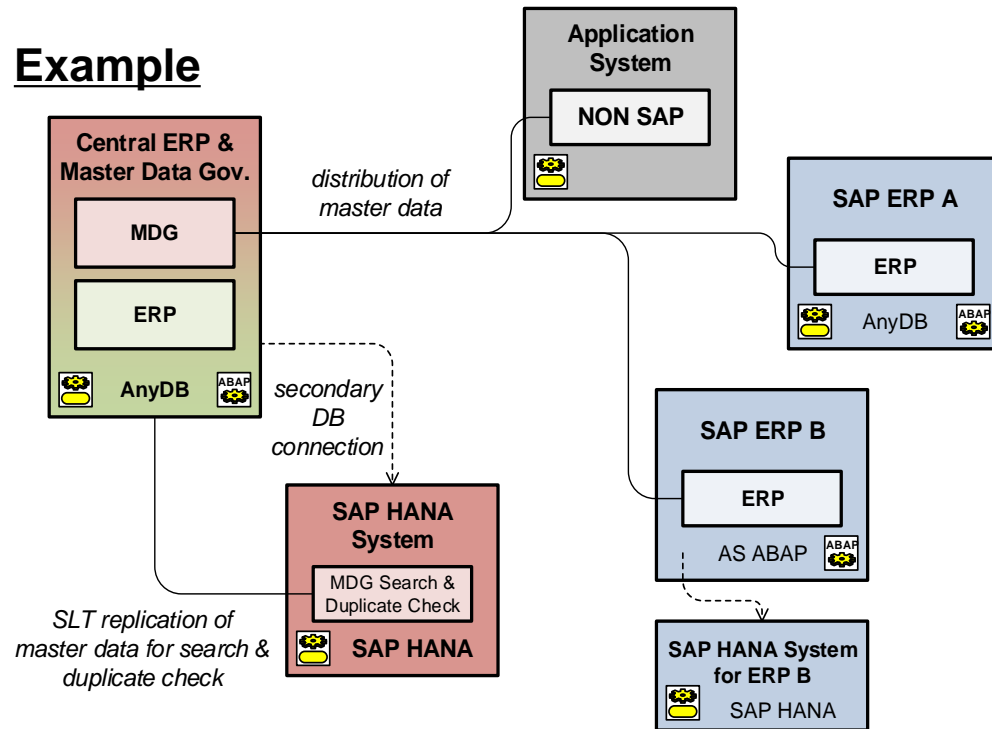
Master Data hub co-deployed with central SAP ERP on any DB

Possible Exception

- Co-Deploy SAP MDG with SAP ERP on any DB
- SAP ERP is also operationally used as central system
- Connected to SAP HANA with SAP SLT for search & duplicate check



Example



Benefits

- No additional systems for SAP MDG
- No replication of master data to central SAP ERP
- Easily extended with SAP HANA as sidecar

Considerations

- Additional SAP HANA system might be required
- Consider reusing SAP HANA according to white list
- Optional usage of other search providers such as SAP Enterprise Search (Embedded Search) or SAP Business Objects Data Services is also supported
- No usage of HANA in MDG, consolidation (Optional usage of SAP Business Objects Data Services is also supported for standardization & matching.)

Additional Considerations

Recommendations for SAP Master Data Governance

Additional Considerations for MDG hub co-deployed with ERP

A co-deployment of MDG with an operational ERP system is not possible

- In a client where time dependency is required for the Business Partner in ERP
- If “SRM One Server” is also deployed
- If customizing cannot be harmonized in relevant areas (e.g. material valuation)

A co-deployment of MDG with an operational ERP system is restricted

- If co-deployed with certain industry solutions (refer to notes [1690202](#) and [2392135](#)) or add-ons
- By the effort and feasibility to harmonize and enhance customizing / master data / authorizations / customer extensions (especially if other systems will be connected to the MDG system) between the MDG applications and the operational ERP system

Additional Considerations for MDG hub co-deployed with ERP

Additional benefits of the co-deployment of MDG with an operational ERP system

- UI continuity: all local attributes can be maintained in the MDG user interfaces because all checks required for the local attributes (may depend on transactional data) are available in the ERP system
- Process continuity: no latency for data replication, no cross-system monitoring
- No system integration between MDG hub and ERP required → no costs for implementation and monitoring of replication interfaces
- No additional integration effort with respect to specific external services such as translation management

Additional Considerations for separate MDG hub

Additional benefits of separate MDG hub

- Allows fresh start with cleansed data
- Less alignment on system maintenance cycles and faster innovation cycles possible
- No impact of MDG on system load in operational ERP (and vice versa)
- Higher flexibility / additional options when it comes to harmonization or mapping of customizing
- The ERP system is kept free of non-ERP data (data that is required to serve non-ERP or non-SAP systems)
- More flexibility for master data lifecycle management
 - Active area of MDG hub is additional staging (might for example be useful for introduction of new products)
 - Master data may be archived in operational systems and is kept in MDG hub

Additional Considerations for separate MDG hub

Drawbacks of separate MDG hub

- Additional hardware and maintenance costs
- Initial load of master data, ongoing additional replication of master data to operational ERP
- Initial load and synchronization of customizing
- Meta data is sometimes maintained multiple times or at least at different places

Additional Considerations for DB

SAP MDG 9.2 provides applications for central governance and for consolidation & mass processing.

MDG, central governance works best ...

- with SAP HANA as primary DB. Using a different primary DB leads to minor restrictions. Most of them can be compensated with the additional usage of SAP HANA as a sidecar for search & duplicate check.

MDG, consolidation & mass processing works best ...

- with SAP HANA as primary DB. Not using SAP HANA leads to major restrictions, in especially when looking at performance. Using SAP HANA as sidecar is not supported. Customers who are interested in MDG, consolidation but do not want a separate SAP HANA system for MDG should consider the MDC feature of SAP HANA SPS9 (see note [1774566](#)).

Additional Considerations for Standardization & Matching

Concerning standardization & matching (for BP / Address data) the following options exist:

1. In case SAP MDG runs on SAP HANA as primary DB use SAP HANA Smart Data Quality (SDQ) with primary connection to SAP HANA. Benefit: Simplified setup and maximum performance.
2. In case SAP MDG runs on any DB use SAP Data Services.

Refer to note [2535239](#) for additional information on supported scenarios of SAP DQM.

Note: SAP HANA SDQ is not supported when HANA is used as a sidecar with secondary DB connection.

Additional Considerations for S/4HANA (On Premise)

Starting with S/4HANA OP 1511, SAP MDG is part of SAP S/4HANA: SAP Master Data Governance on S/4HANA.

Customers can use SAP MDG as add-on for SAP ERP or as part of SAP S/4HANA. This is independent of the decision to use a separate master data hub or to co-deploy MDG with the operational S/4HANA processes.

- SAP S/4HANA Master Data Governance 1511 includes capabilities of SAP MDG 8.0 (see also RIN [2214181](#)).
- SAP S/4HANA Master Data Governance 1610 includes capabilities of SAP MDG 9.0 (see also RIN [2349002](#)).
- SAP S/4HANA Master Data Governance 1709 provides new capabilities which are partly down-ported to SAP MDG 9.1 (see also RIN [2495849](#)).
- SAP S/4HANA Master Data Governance 1809 provides new capabilities which are partly down-ported to SAP MDG 9.2 (see also RIN [2668153](#)).
- SAP S/4HANA Master Data Governance 1909 provides new capabilities which are partly down-ported to SAP MDG 9.2 (see also RIN [2817330](#)).
- SAP S/4HANA Master Data Governance 2020 provides new capabilities which are partly down-ported to SAP MDG 9.2 (see also RIN [2882157](#)).
- SAP S/4HANA Master Data Governance 2021 provides new capabilities which are partly down-ported to SAP MDG 9.2 (see also RIN [3088373](#)).
- SAP S/4HANA Master Data Governance 2022 provides new capabilities which are partly down-ported to SAP MDG 9.2 (see also RIN [3251553](#)).

Additional Considerations for S/4HANA OP

The general recommendation is to use SAP Master Data Governance on SAP S/4HANA.

Benefits

- Innovations are available earlier as part of S/4HANA.
- Not all innovations will be available on SAP ERP. With Data Quality Management (rule catalog, rule implementation, plus analytics and remediation) there is already a functional gap, and this will increase further over time.

Thank you.

Contact information:

SAP Master Data Governance, Product Management

