

NEW SAP Master Data Strategy

SAP One Domain Model, SAP Master Data Integration

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THE BEST RUN



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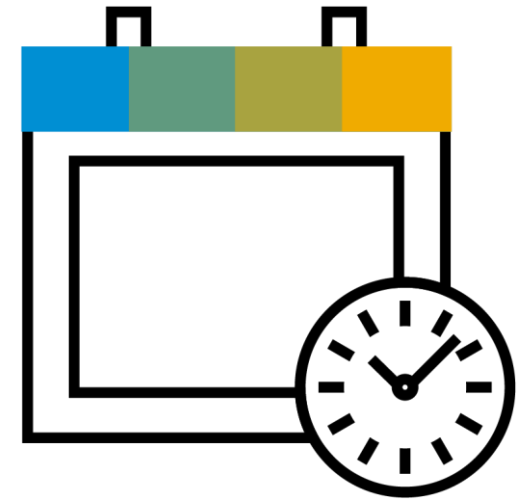
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Agenda

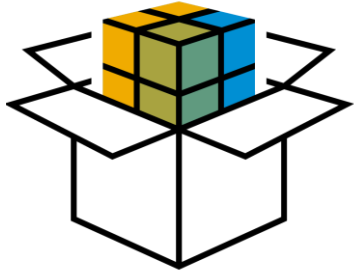
- Intelligent Enterprise
- One Domain Model
- Master Data Integration Service



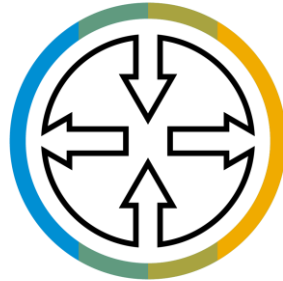
Intelligent Enterprise

Integrations for SAP's Intelligent Suite and Beyond

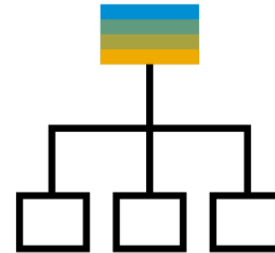
What SAP Customers are asking for...



deep out-of-the-box
integration



flexibility to integrate
non-SAP components



compatible data models
(esp. master data)



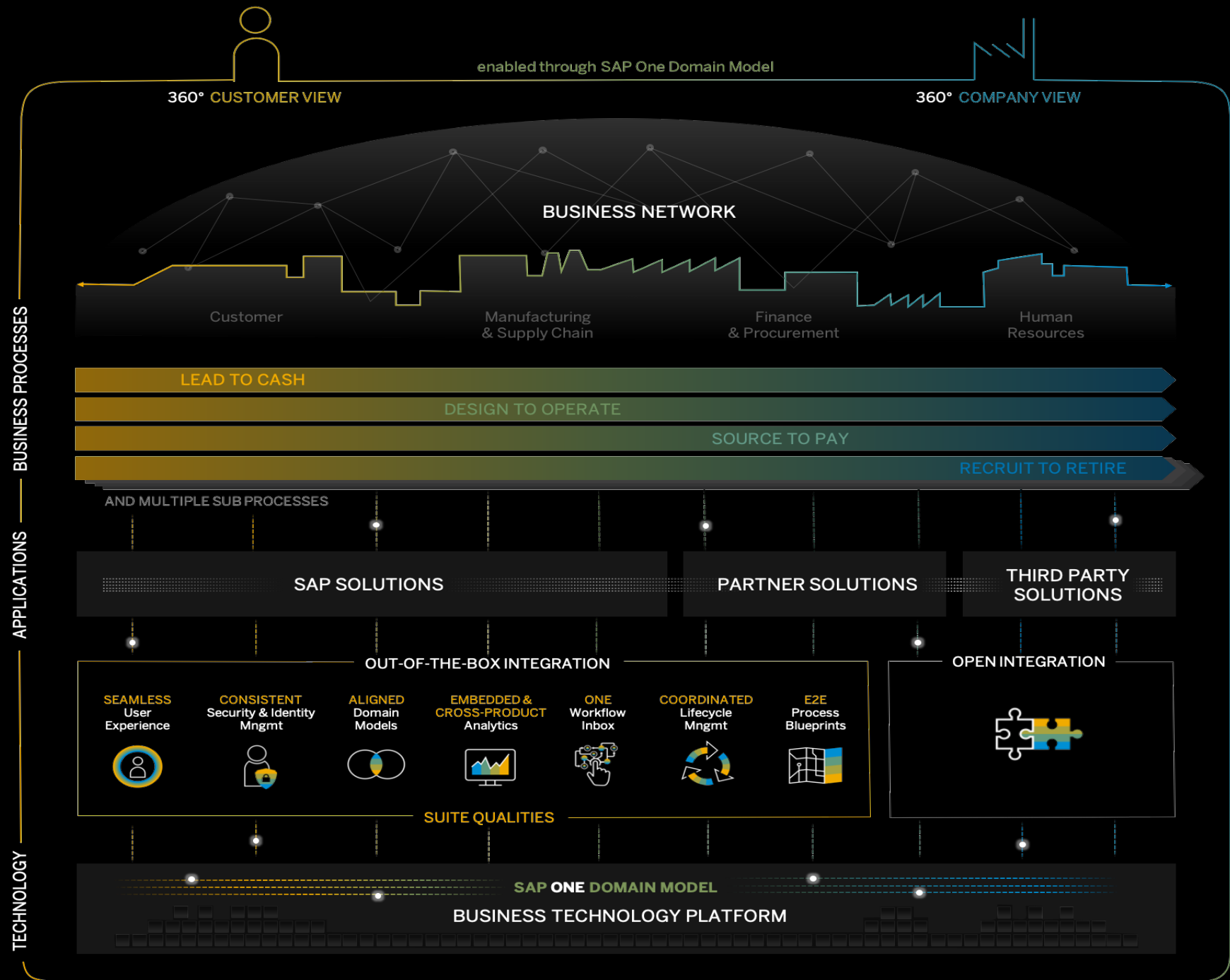
Easy extensibility
concepts

Intelligent Enterprise

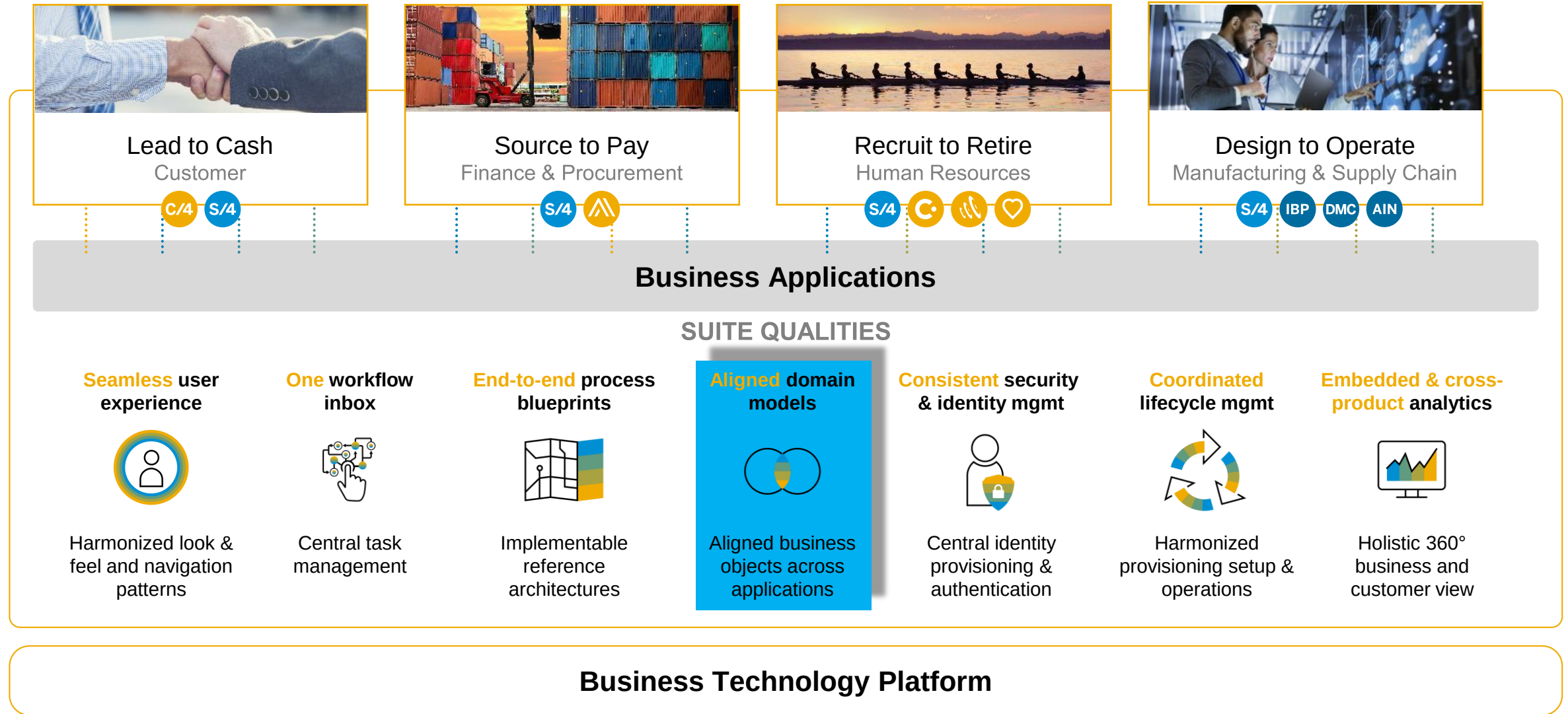
End-to-End Process Integration
Across SAP's Intelligent Suite,
Partner- and Third-Party
Solutions

References

- [SAP's Integration Plan](#)



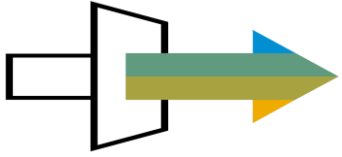
SAP's Integrated Intelligent Suite



SAP One Domain Model

A long-exposure photograph of a night sky featuring numerous star trails and the Milky Way galaxy. The bottom of the image shows the dark silhouettes of evergreen trees against a faint horizon glow.

What is SAP One Domain Model and why needed?



Defines the language applications use to consistently communicate with each other



To lower integration efforts due to aligned objects used across products and for extension

SAP One Domain Model provides **a central integration point to exchange capability**

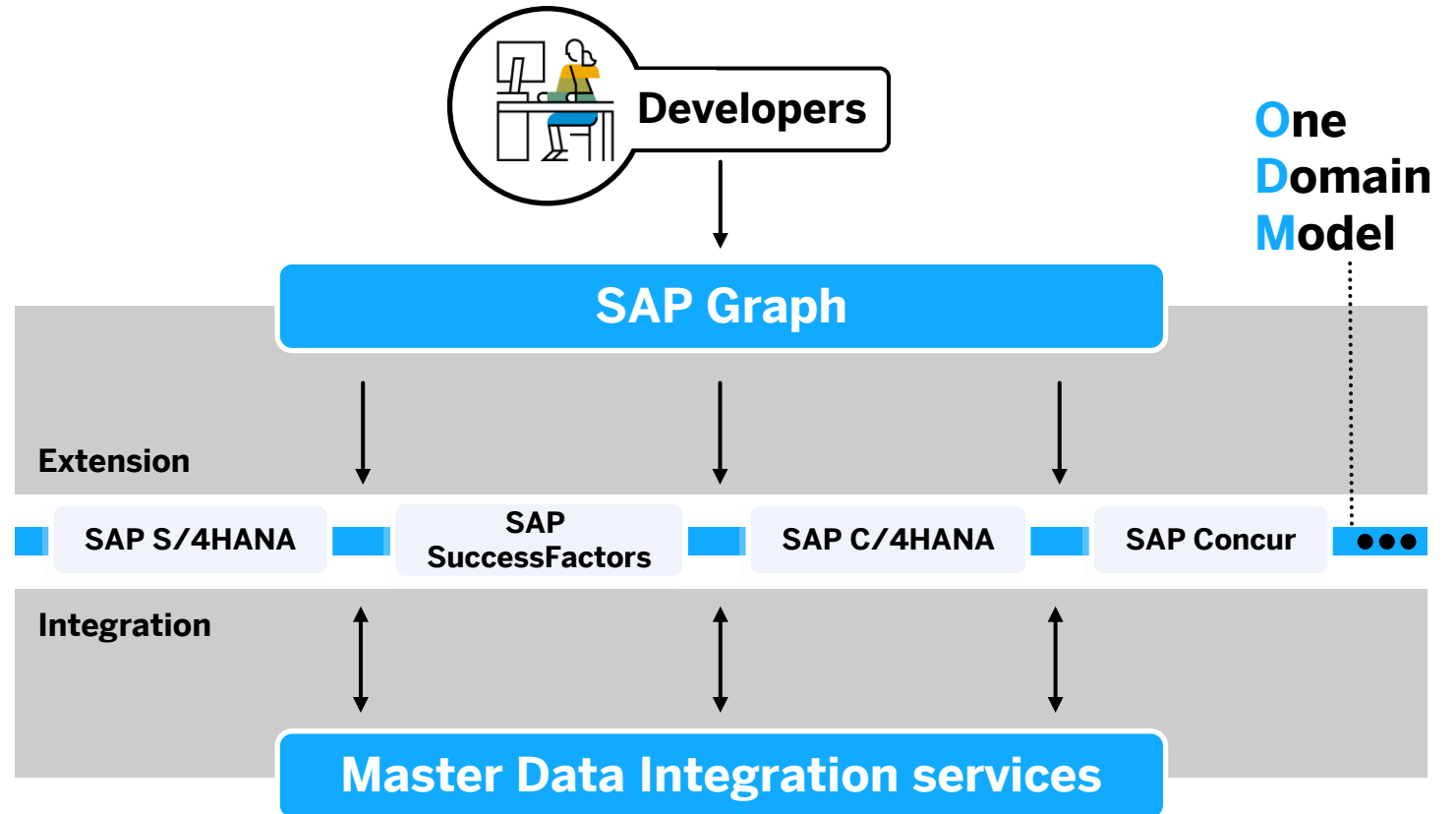
- on all SAP's Applications on Intelligent Enterprise Suite
- for all SAP Applications to offer a mapping to the central one domain model
- as lingua franca for exchanging data – lower integration efforts due to aligned objects used accross SAP Products and extensions
- by using Master Data Integration and Master Data Governance
- to view and decide on Business Processes for an out of the box integration
- to create powerful enterprise API's and events

What can ODM today?

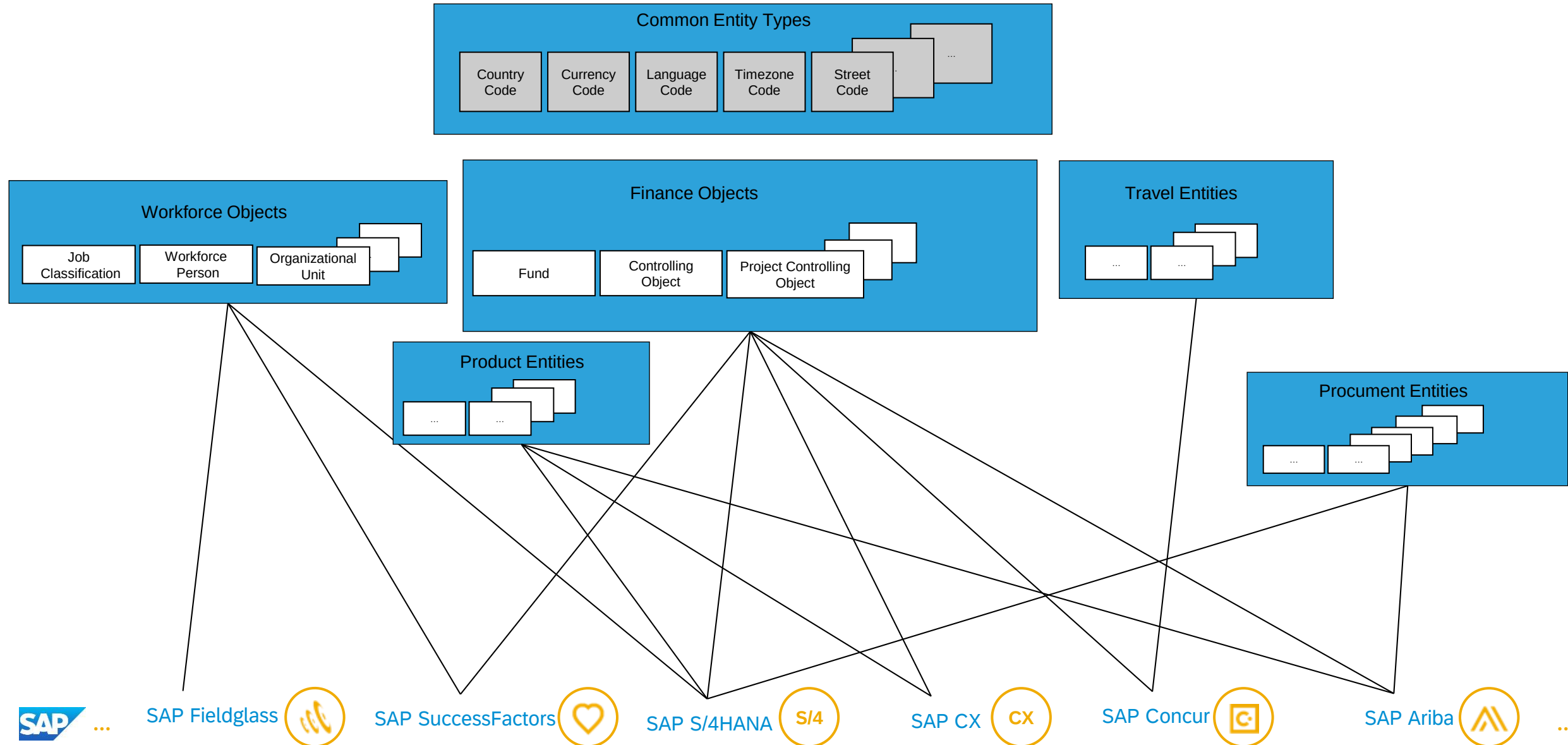
- Out of the box integration of the master data objects along E2E processes across SAP solutions with **SAP Cloud Platform Master Data Integration**
- Standardized consumption of master data objects through **3rd party / partner applications** with SAP Cloud Integration **(CI)**
- Support following business processes
 - Design to Operate
 - Lead to Cash
 - Source to Pay
 - Recruit to Retire
- Documentation of APIs available for extensions

How it all comes together

- **SAP Graph** as unified API layer exposing ODM to developers
- **SAP ONE Domain Model (ODM)** as compatibility layer
- **SAP Cloud Platform Master Data Integration service (MDI)** as data replication engine speaking ODM and serving integration



Shared objects via ODM



SAP One Domain Model

Help

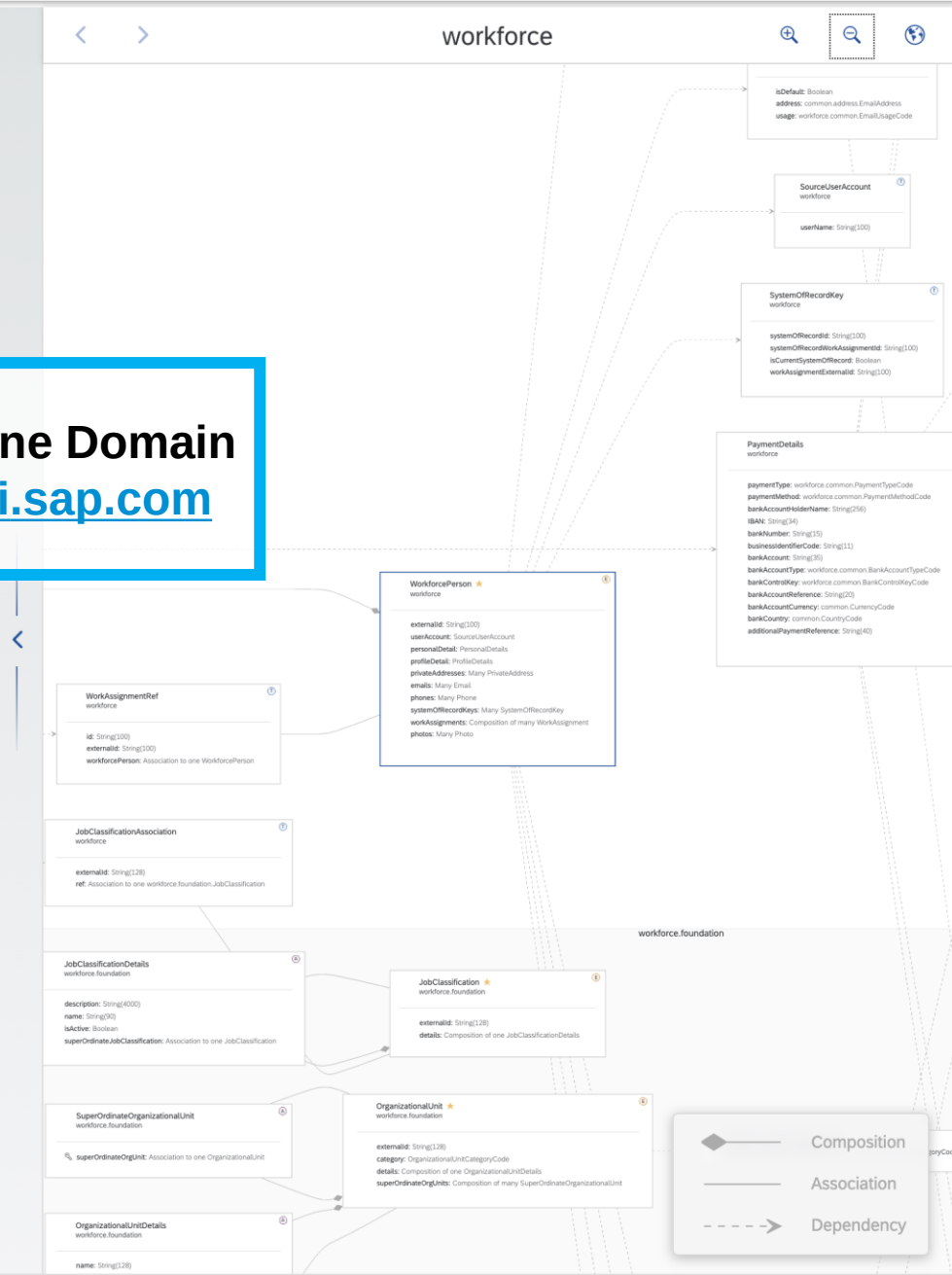
workfor

workforce

> common

WorkforcePerson

Discover the SAP One Domain Model at <https://api.sap.com>



WorkforcePerson

sap.odm.workforce

Release Quality : Released

Attributes

Name	Type	Description	
externalId	String(100)	External ID of a workforce person. Note that in SAP S/4HANA the allowed length is CHAR60 (SAP HCM had only 20) and only EC allows case sensitive.	
userAccount	SourceUserAccount	Information about a workforce persons user account in the source system.	→
personalDetail	PersonalDetails	Basic personal information about a workforce person.	→
profileDetail	ProfileDetails	Profile details about a person.	→
privateAddresses	Many PrivateAddress	Private addresses of a workforce person containing validity periods.	→
emails	Many Email	Email addresses of a workforce person.	→
phones	Many Phone	Phone numbers of a workforce person.	→
systemOfRecordKeys	Many SystemOfRecordKey	IDs or work assignments related to this workforce person within given systems of record.	→
workAssignments	Composition of many WorkAssignment	Each work assignment represents a specific work relationship to a company or legal entity.	→

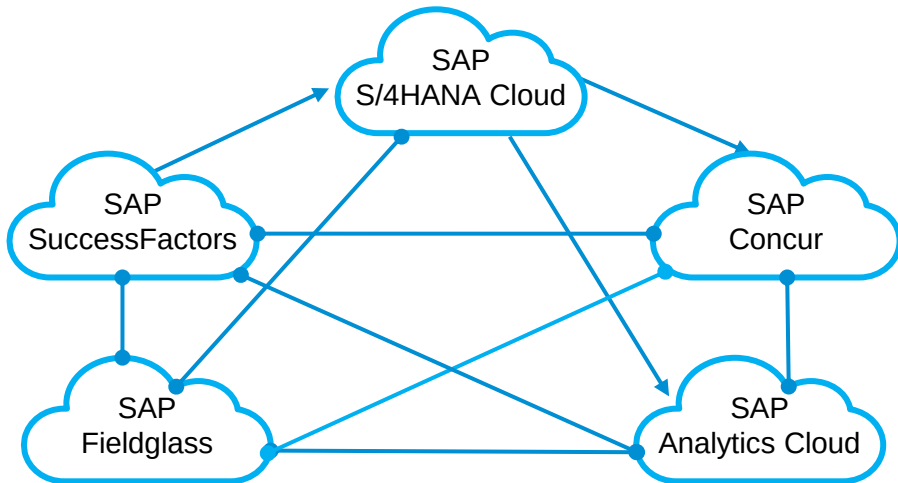
A long-exposure photograph of a night sky featuring numerous star trails and the Milky Way galaxy. The foreground shows the dark silhouettes of evergreen trees against a faint twilight glow.

SAP Master Data Integration

Features & Architecture

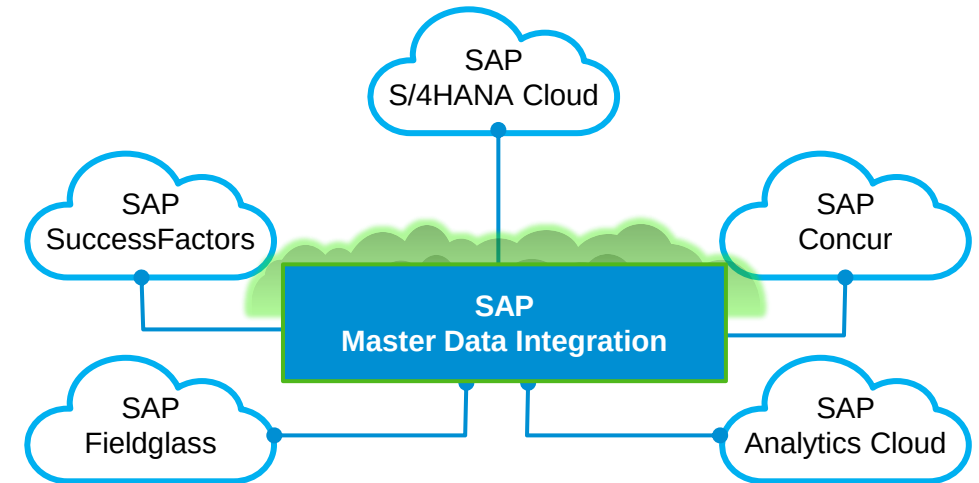
Central Master Data Integration Service Across all SAP Business Applications

1:1 integration



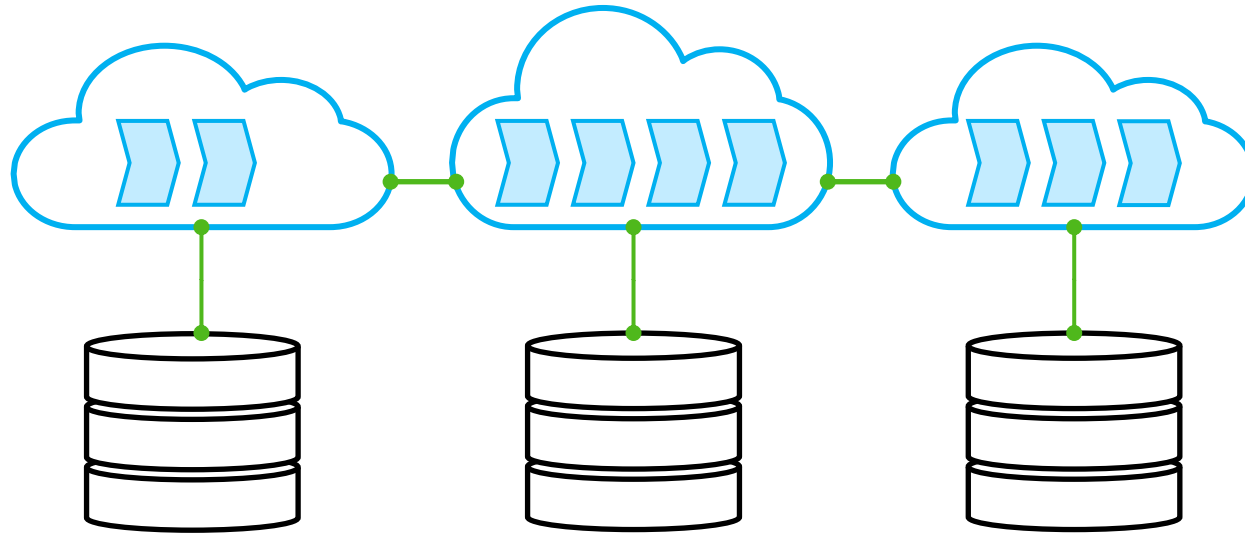
- Point to point; hard to synchronize; high maintenance
- Expensive; integration effort required for every implementation
- Inconsistent

1:many integration

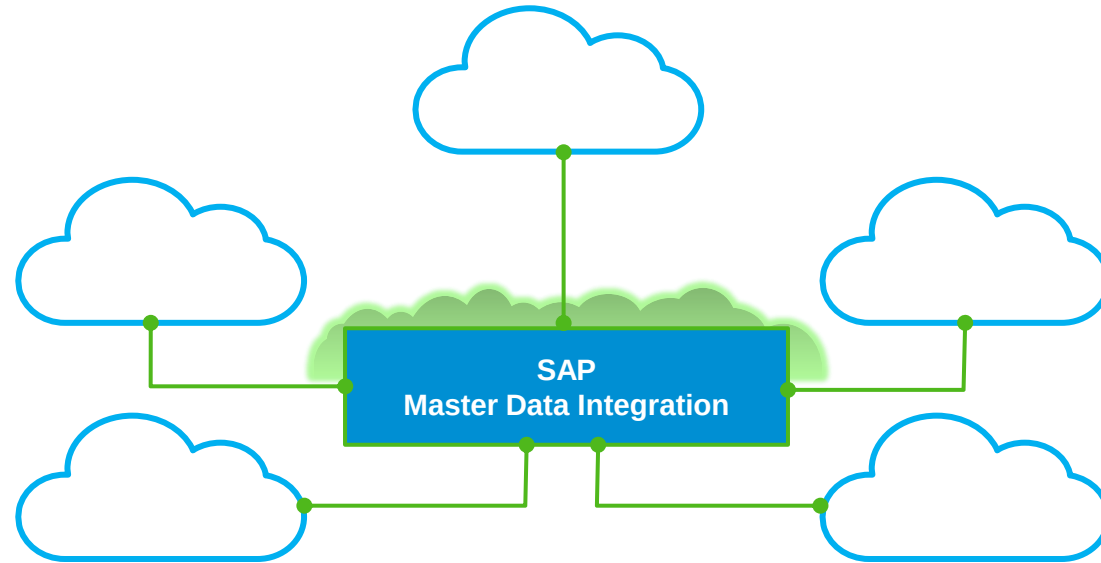


- Faster: Efficient centralized distribution
- Cheaper: Standardized, out-of-the-box, reusable
- Better: Consistent, scalable, compliant: purpose-driven master data replication

Master data in the Intelligent Enterprise



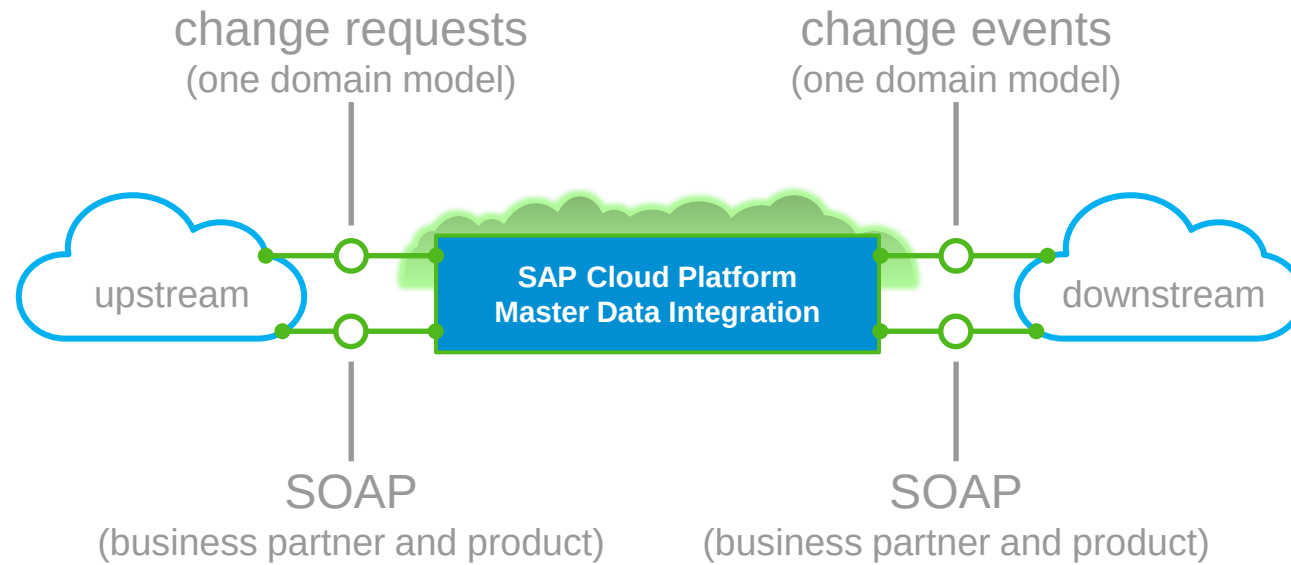
Ensuring a consistent view on the master data with SAP Master Data Integration



Scenario: What if master data changes?



Scenario: What if master data changes?



Scenario: What if master data changes?



- **What if events arrive out of order?**

→ We guarantee that events for the same entity instance arrive in the correct order.

- **What if two upstream systems write the same instance?**

→ We attach a version ID to every entity instance for [optimistic locking].

Scenario: What if a consumer is offline?



- Which change events has a consumer seen?

→ We encode this in a delta token created by Master Data Integration and stored by the consumer.

- How long can a consumer stay offline?

→ After a month we have to delete outdated events.

Scenario: What if a consumer joins?



- **Is a consumer new in the landscape?**

→ We trigger the initial load if the delta token is empty.

- **Will the consumer get the whole history?**

→ We only send one event per entity instance with the most recent data in the initial load.

- **What if the data changes during the initial load?**

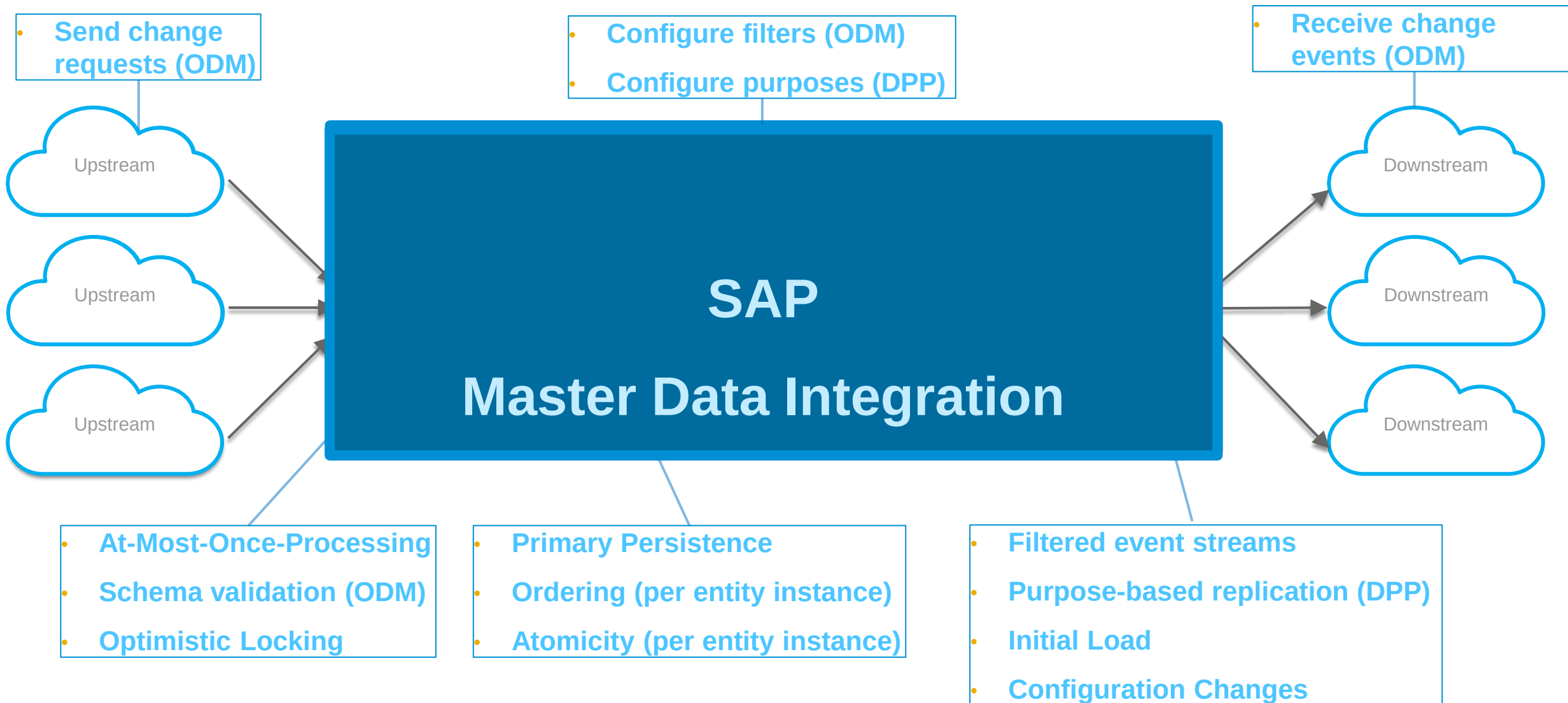
→ We send corresponding change events after the initial load is finished.

Scenario: What if there are filters?



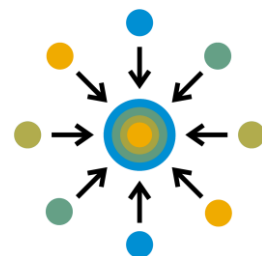
- **What if individual fields should be filtered out?**
→ Filters can also modify the change event.
- **What if a change moves an instance out of the filter?**
→ We send a special “excluded” change event.
- **What if a change moves an instance into the filter?**
→ We send a special “included” change event.

Master Data Integration Architecture

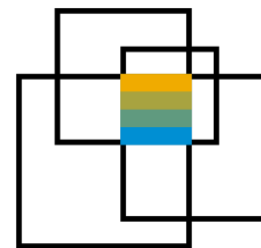


MDI: Guiding Principles

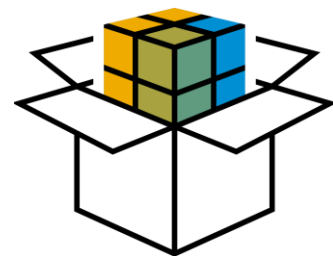
Central
Integration Point



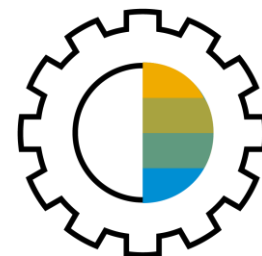
ODM as **common language** for
exchanging data



Provided **out of the box** integrations
by SAP Cloud application

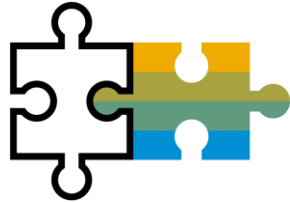


CPI for integrating **third party** applications



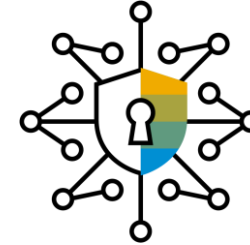
MDI: Features

Extensibility



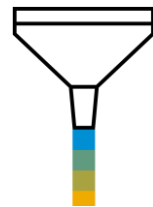
Ensure customizability
by offering customer
extensibility of ODM models

Optimistic locking



Keep data quality high by
preventing dirty writes

Filtering



Enable customers to configure
which data is replicated to
which applications

Data Protection and Privacy



Support data transfer in compliance
with Data Protection
and Privacy regulations

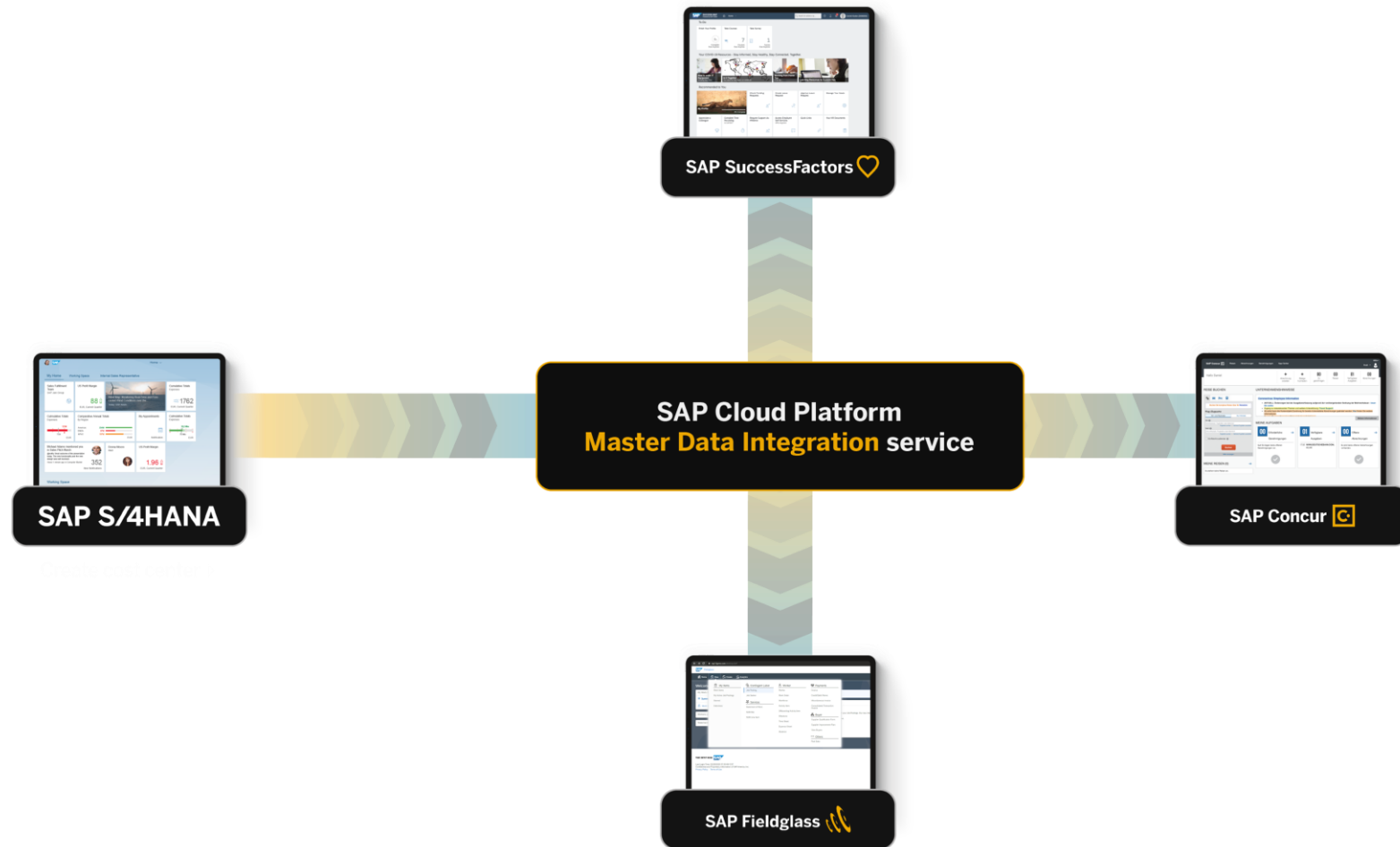
SAP Master Data Orchestration

The Configuration Component in MDI



MDO Capabilities

- Manage Distribution Model
- Manage Business Object Type
- Configure Monitoring
- Display Distribution Status
- Locate Object
- Monitor Master Data Orchestration



DEMO

Thank you.

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