

#### **Disclaimer**

This presentation outlines our general product direction and should not be relied on in making a purchase decision. This presentation is not subject to your license agreement or any other agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or to develop or release any functionality mentioned in this presentation. This presentation and SAP's strategy and possible future developments are subject to change and may be changed by SAP at any time for any reason without notice. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP intentionally or grossly negligent.

## Agenda

SAP HANA Cloud Integration – Overview

SAP HANA Cloud Integration – Deep Dive

- Web User Interface
- Eclipse User Interface for Integration Developers

SAP HANA Cloud Integration – Roadmap

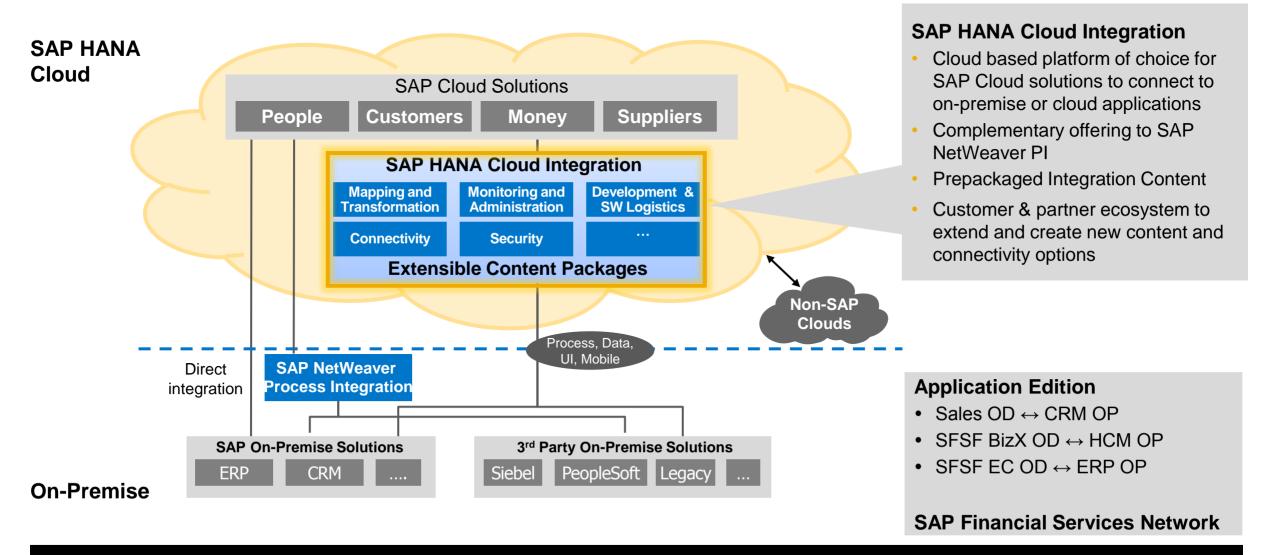


# SAP HANA Cloud Integration – Overview



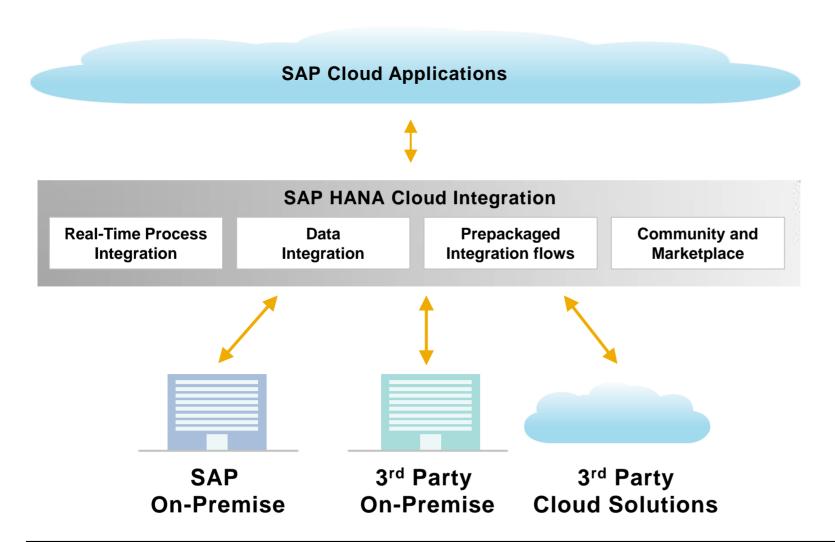
## **SAP HANA Cloud Integration**

Lowers cost, increases speed, and enhances simplicity for our customers



## **SAP HANA Cloud Integration Technology**

Build, Deploy, and Monitor



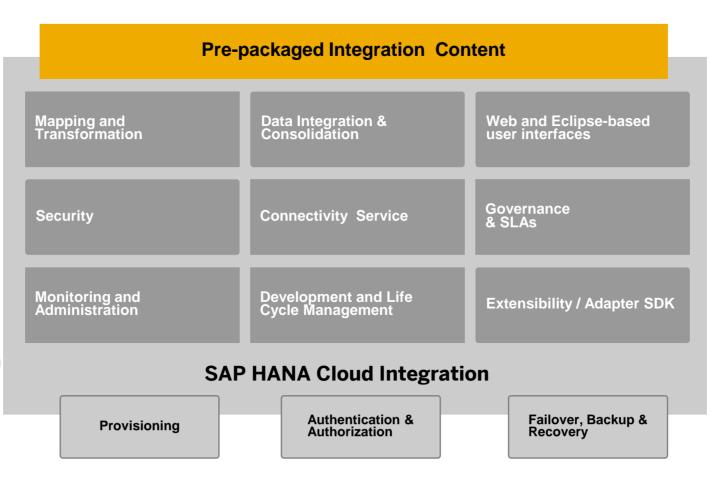
- Cloud-based technology
- Real-time, bi-directional process integration
- Data integration
- Graphical flows & mappings
- Centralized monitoring and administration
- Pre-built adapters
- Community marketplace (future)
- Compatible with SAP NetWeaver PI content (e.g. mappings) and SAP Data Services (planned)
- Lower cost of change over time

## **SAP HANA Cloud Integration Technology (HCI)**

## Capabilities and Content

#### **Capabilities**

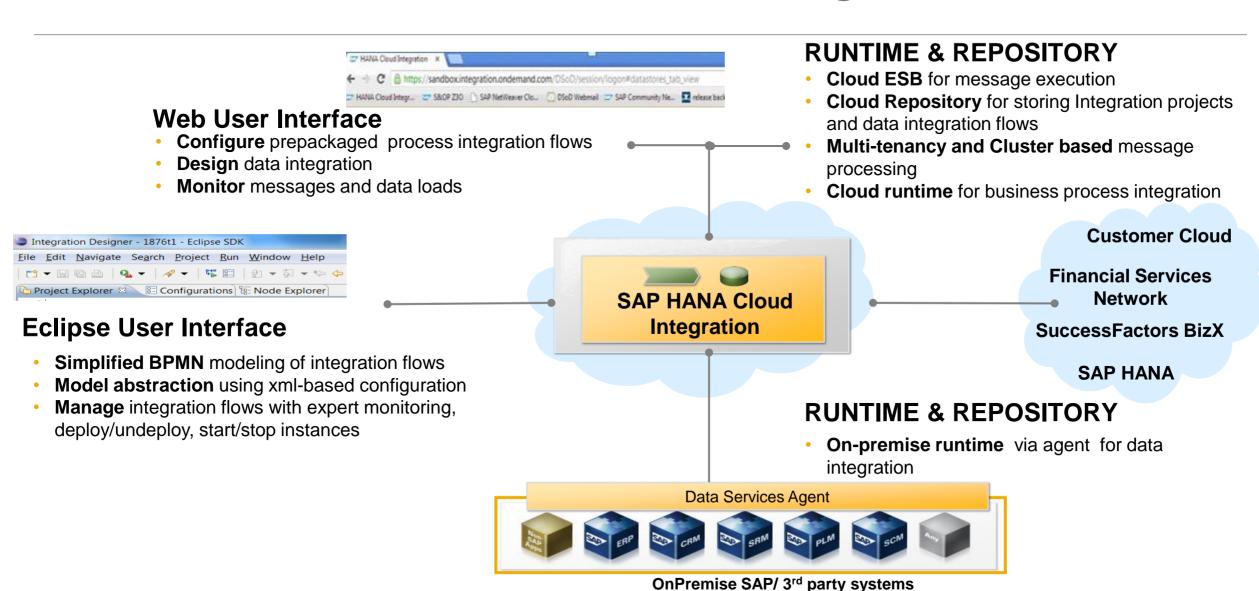
- Core runtime for processing, transformation and routing of messages
- Out-of-the-box connectivity support (SOAP, IDOC, SuccessFactors, HANA, sFTP, etc)
- Web User Interface for configuration of data integration and integration flows
- Web User Interface for design of new data flows with roles for designer, operators, administrators
- Eclipse based design time for new process integration flows



#### Content

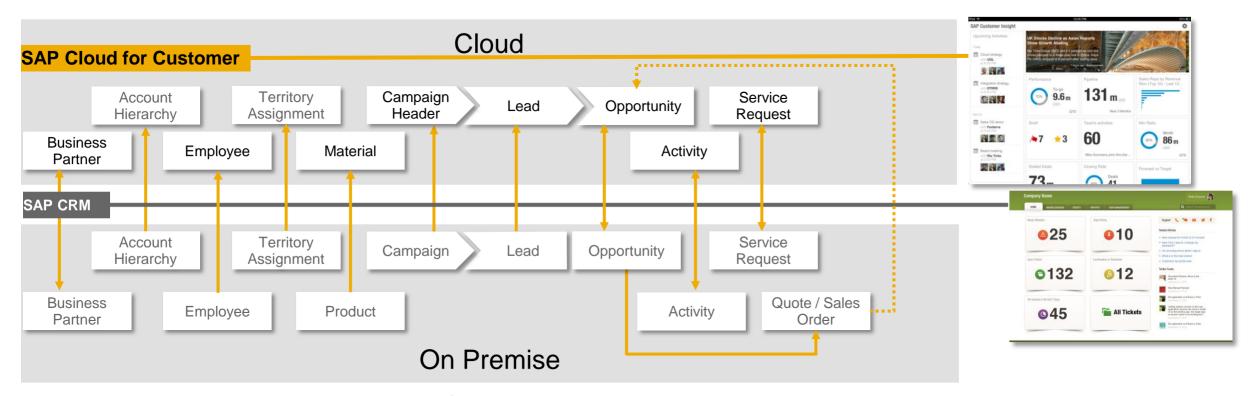
- Pre-packaged integration content includes mappings, API and adapter configuration, connectivity
- Integration mappings portable from PI on premise
- Flexible framework to extend and customize for your specific needs

## **Technical Overview of SAP HANA Cloud Integration**



### Scenario: SAP Cloud for Customer with SAP CRM

#### Lead-to-Cash



- Real-time integration of master data (accounts, prospects, competitors, contacts, account hierarchy, territory assignment, products, employees, campaign headers)
- Real-time integration of transactional data (leads, opportunities, activities, service requests)

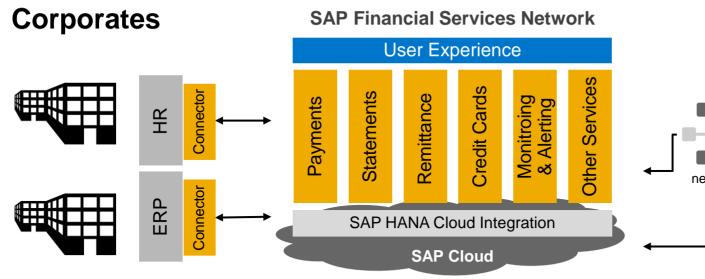
## **SAP Financial Services Network (FSN)**

## Solution based on SAP HANA Cloud Integration

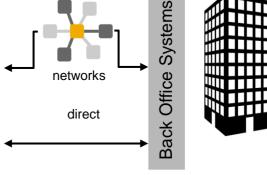
- Rapid on-boarding
- SINGLE integration point to entire network
- Offer more value-added services

- ZERO footprint at Bank and Corporate
- Run and operated by SAP
- Better funds visibility and cash forecasting

Rapid Scale



#### **Financial Institutions**



Cost and efficiency advantages for corporates

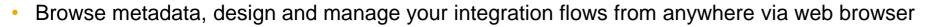
Revenue growth and cost advantages for banks

## Scenario: Sales and Operations Planning Integration

Data Integration for HANA based applications in the cloud

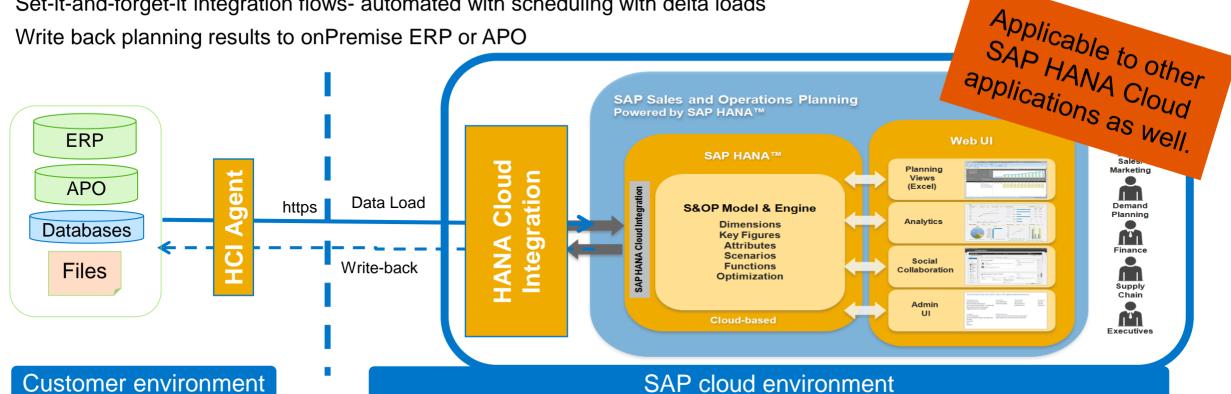
#### SAP Sales & Operations Planning is a HANA based application in the cloud that enables organizations to profitably align supply and demand in real-time

Securely pipe massive data from SAP ERP and APO + heterogeneous on premise sources to S&OP on HANA



Set-it-and-forget-it integration flows- automated with scheduling with delta loads

Write back planning results to onPremise ERP or APO



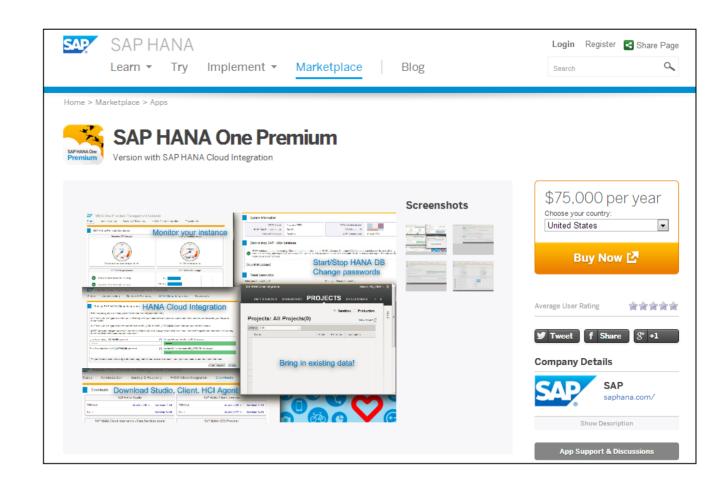
### Scenario: SAP HANA One Premium Edition

## Data Integration for HANA on public clouds

## Instant access to a HANA system in the cloud – available on SAP HANA marketplace now!

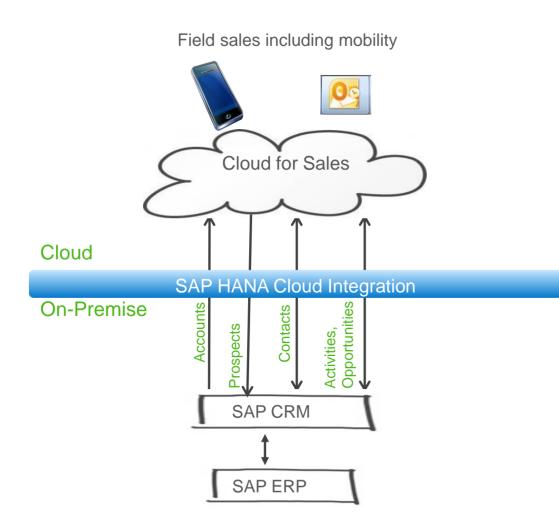
http://www.saphana.com/docs/DOC-3621

- Includes subscription to the Data Services component of SAP HANA Cloud Integration.
- Includes Enterprise Support
- Users can directly integrate data from SAP back-ends and heterogeneous sources



## **HCI** customer example

## Industrial Manufacturer Operating in 39 Countries



#### **Business Goals**

- Give visibility to sales reps with 360 view of customers
- Simplify searching for transactions and pricing information
- Centralize all the information in one system with quick links to marketing information and external information
- Dashboard for sales analytics reports
- Require sales to enter visit reports and call activities in the system to enhance customer 360 view
- Provide mobile access

#### **Integration Specifics**

- · All master data owned on premise.
- Added two custom fields: Activities and Accounts
- All integration through SAP HANA Cloud Integration

#### **Current Status**

- Phase 1 is Live. Occasional issues do crop up in business logic (Mappings, IDOCs, etc) – Learning as we go

## **HCI Customer Examples**

#### **Customer Example**

#### **Business Goals**

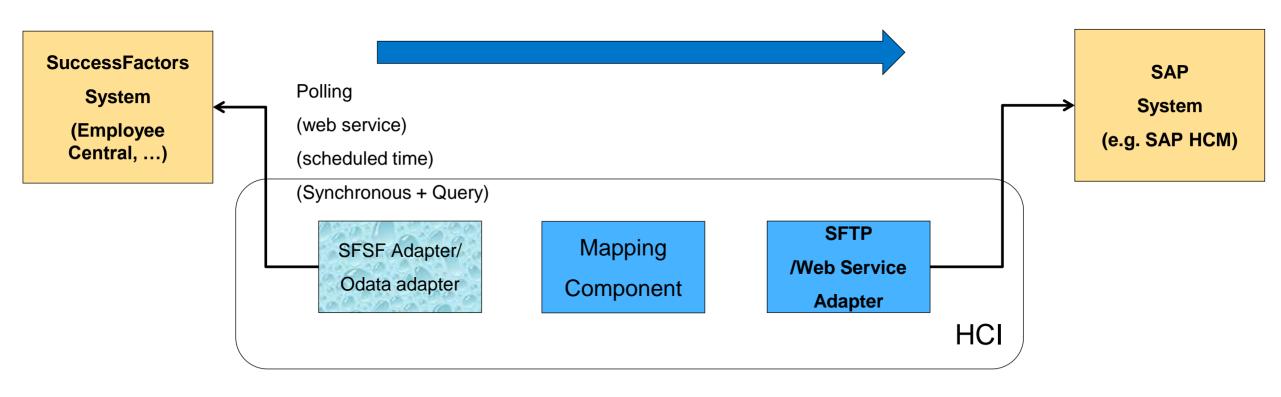
- Opportunity Management Identifying, qualifying and converting opportunities that lead to repeatable, sustainable revenue for the company, while maximizing customers' lifetime value
- Improve long term yield
- Provide an easy to use automation tool took provides meaningful information aimed at enhancing productivity

#### **Project Status**

- Tenants provisioned for the customer.
- COD configuration complete
- Planned go live in Sep

## **SAP HANA Cloud Integration**

Demo – Integration of Success Factors Application





# SAP HANA Cloud Integration – Deep Dive



## **SAP HANA Cloud Integration**

### **Key Personas**

#### **SAP**

#### SAP Application Content developer

- Define standard integration scenarios
- Create standard integration content

#### **SAP Cloud Managed Services**

- Create tenants, start nodes
- Deploy right configuration bundle and certificates to corresponding node
- Drive software updates, message monitoring
- React on alerts on SPC (Service Provider Cockpit)

## **Customer (SAP Professional Services, System Integrator)**

#### **Application Configuration**

 Configure applications and connectivity such as SAP Cloud for Sales, SAP ERP/CRM/HCM, SuccessFactors BizX

#### Integration Designer

- Configure existing integration flows using WebUI
- Support customer extension scenarios, e. g. build mappings
- Build new data integration flows and new process integration flows

#### Administration / Monitoring

- Monitor process integration messages and data integration flows
- Secure On Premise Security certificates from providers
- Upload, download of communication information (WSDLs, certificates, SFTP directory name, public key)
- Install on premise data services agent for data integration

## **Implement Integration Scenario**

## Integrating Cloud Applications made easy

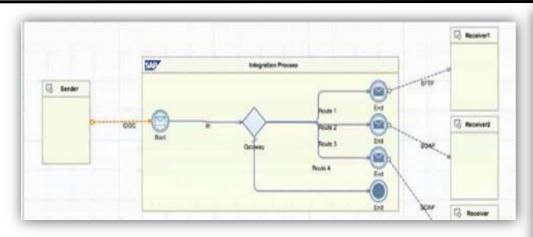


Integration Designer

Discover and adjust prepackaged integration content

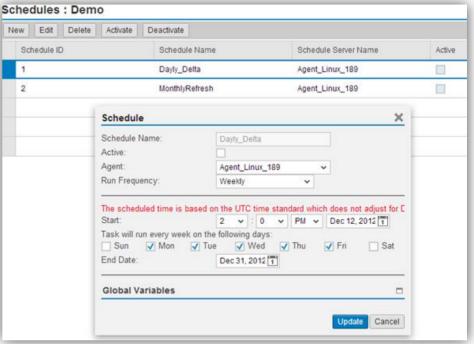
Configure process integration and data integration flows

Schedule data integration flows



Accelerated implementation through

- Prepackaged integration content from SAP and partners
- Graphical tools for design & configuration
- Model driven approach for configuring integration and data flows
- Role based and guided user interface for scheduling data synchronization



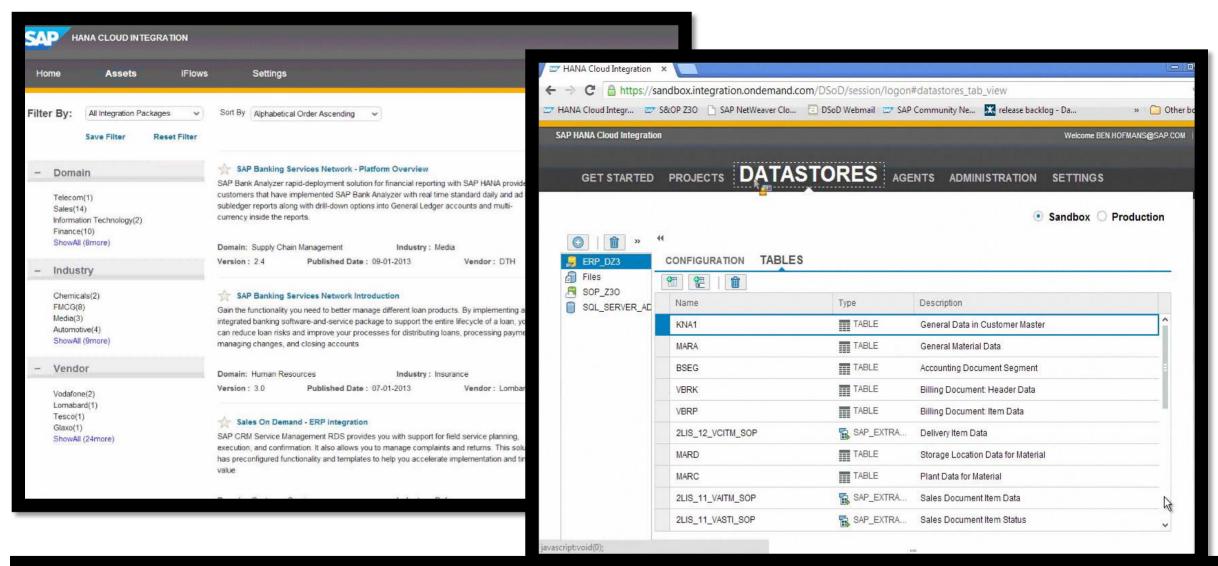


# SAP HANA Cloud Integration – Web User Interface



## **Web User Interface Integration Content**

## Explore Integration Flows and Configure Data Integration



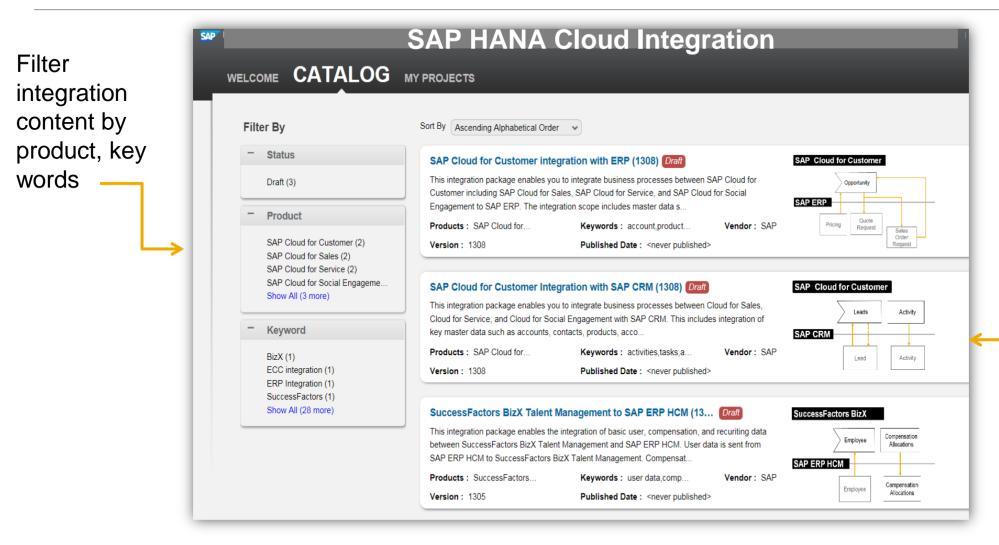
## Web User Interface (WebUI)

## Features and Capabilities

- Single access point to configure process integration flows and data integration flows
- Integration content catalog to easily find and configure prepackaged integration content provided by SAP and partners
  - Example: Discover prepackaged integration content for integrating accounts and contacts between SAP Cloud for Sales and SAP CRM
  - Example: Discover prepackaged integration content for integration employee and compensation between SuccessFactors BizX and SAP ERP HCM.
  - Access documentation, descriptions, and other artifacts on the prepackaged integration content
- Access your projects with integration process flows and mappings. Configure end points, upload certificates, deploy.
- Design data integration flows including data stores, mapping, scheduling, and monitoring.

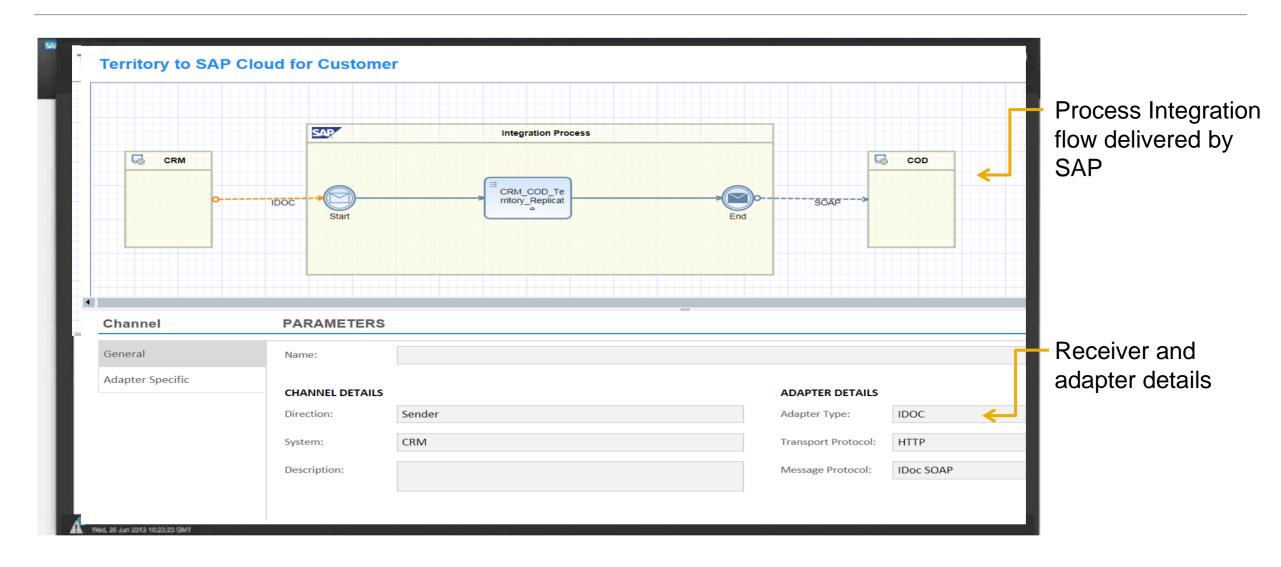
## **Web UI: Integration Content Catalog**

View Prepackaged Content Delivered by SAP and Partners



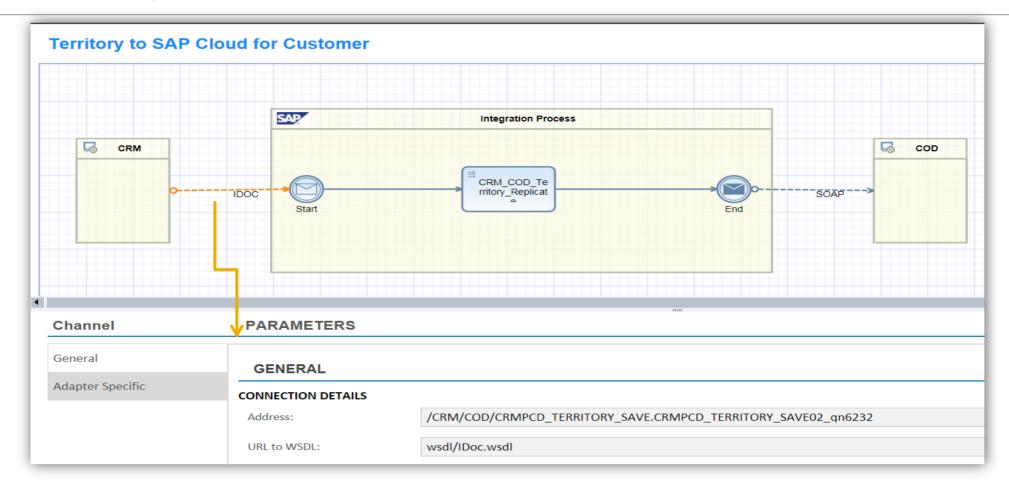
Each integration package contains multiple integration flows, documentation, implementation details on the package

## Web UI: Details of Process Integration Flow



## Web UI: Adjust Process Integration Flow Endpoints

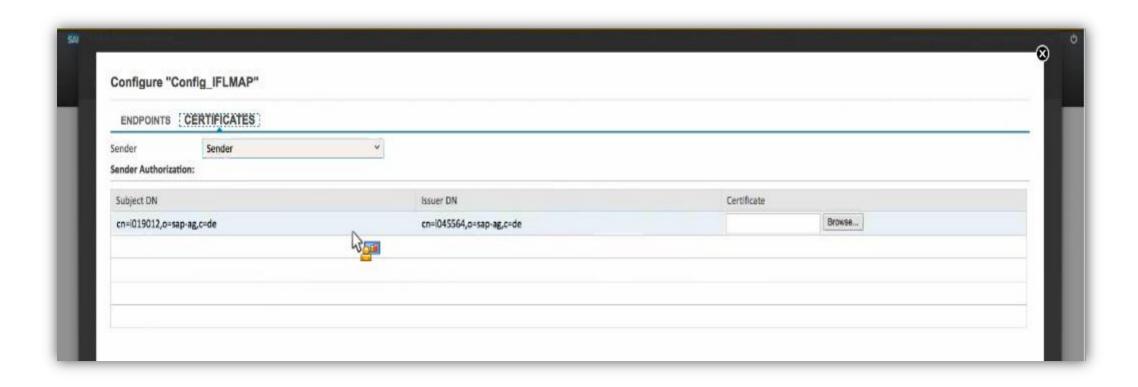
Configure the end points



In this example the sender is the on premise SAP CRM application. The receiver is Cloud for Sales business partner function.

## Web UI: Upload Certificates for Process Integration Flow

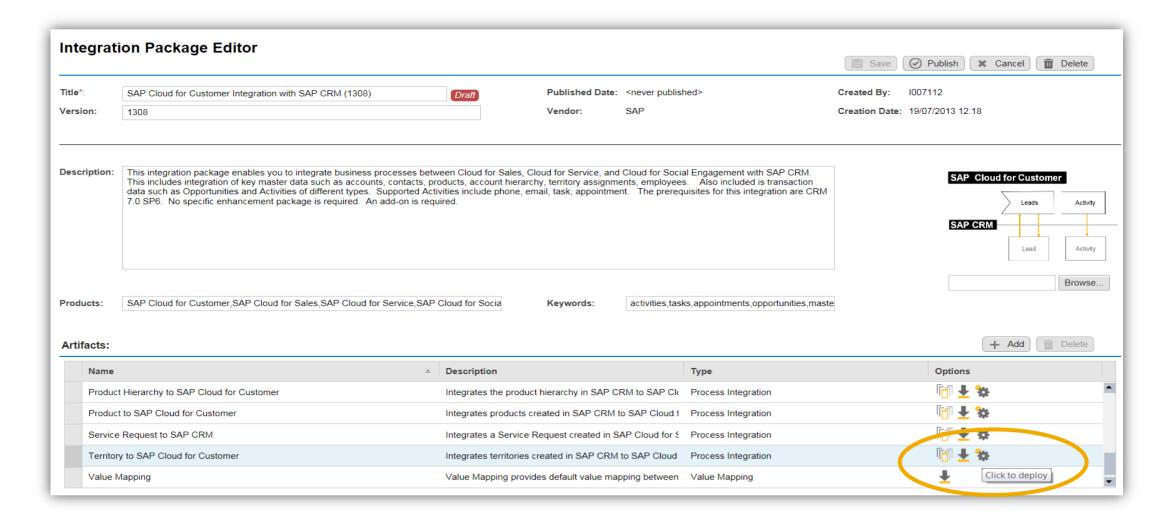
Upload the security certificates



This is the trusted certificate for the sender application. The sender application uploads the trusted certificate for HCI.

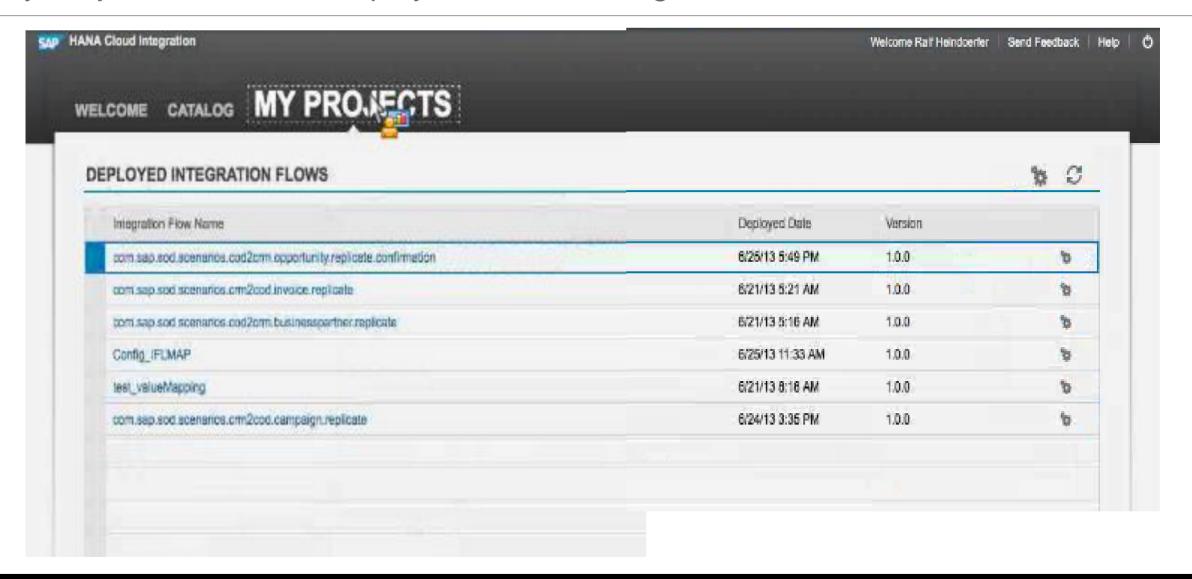
## Web UI: Deploy

## Deploy your prepackaged process integration flow



## Web UI: Access Your Deployed Process Integration Flows

My Projects to View All Deployed Process Integration Flows



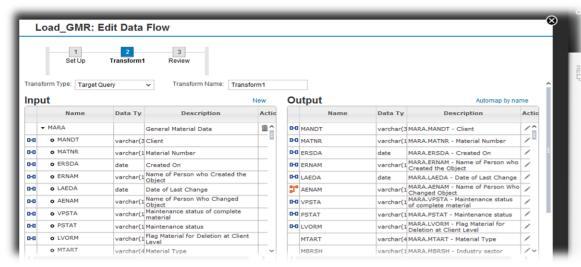
#### Web User Interface

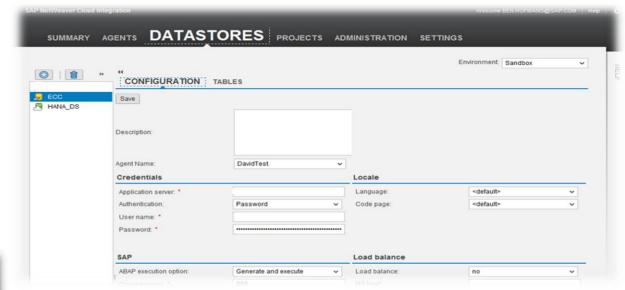
## Summary of Process Integration Capabilities

- Use the Catalog to view all prepackaged integration flows
- Use My Projects to view deployed integration flows. This includes prepackaged and custom integration flows.
- From the Web UI you can:
  - Configure the sender and receiver.
  - Upload the certificates.
  - Deploy.
  - Download the integration flow to Eclipse for enhancements.
  - View and update all deployed Integration Flows.

## Web based Environment for Design and Configuration of Data Integration

- Role-based wizard driven solution for designing ETL jobs, scheduling and executing these jobs
- Faster mapping design through automap functionality
- Allows on-premise metadata browsing
- No need for installing an on premise client
- Using latest UI technology (HTML5)
- Easy to use suitable for business users, too





**Editor for configuration (connectivity)** 

**Mapping editor** 

## **SAP HANA Cloud Integration Agent for Data Integration Flows**

## The key to successful deployment

#### Lightweight installation inside the customer's firewall

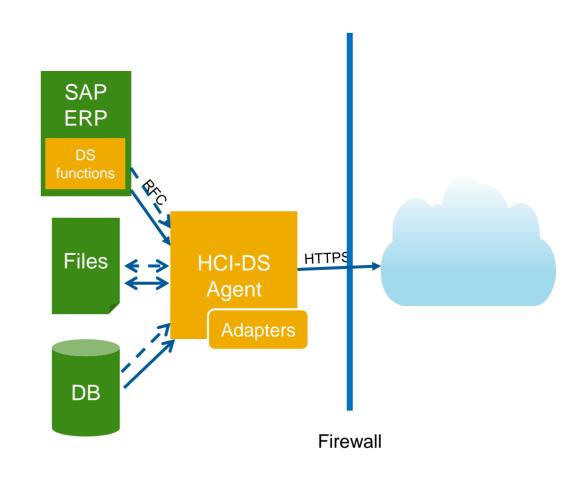
- Less then 100MB to download
- Installation is one screen, less than ten minutes
- Runs on Windows or Linux

#### Securely transfers data from on-premise to cloud

- Communicates with SAP apps through RFC (encryptable via SNC)
- Data sent over the cloud via HTTPS
- Data are streamed from source to target and never persisted

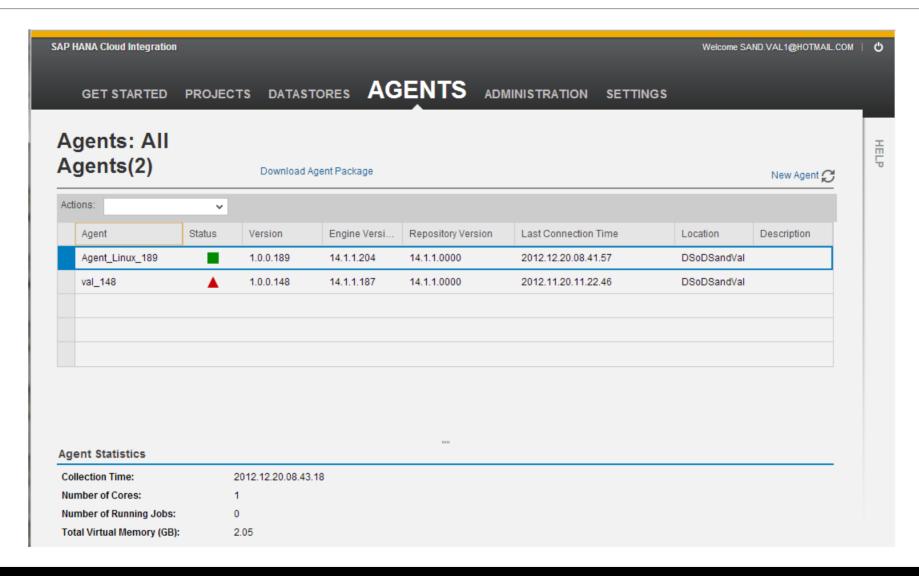
#### **Operates without firewall exceptions**

- Communication is always from the agent to the cloud
- No need for VPN, reverse proxy, or other firewall exceptions
- Agent uses long polling: places request to server and waits for response when a task is ready to execute



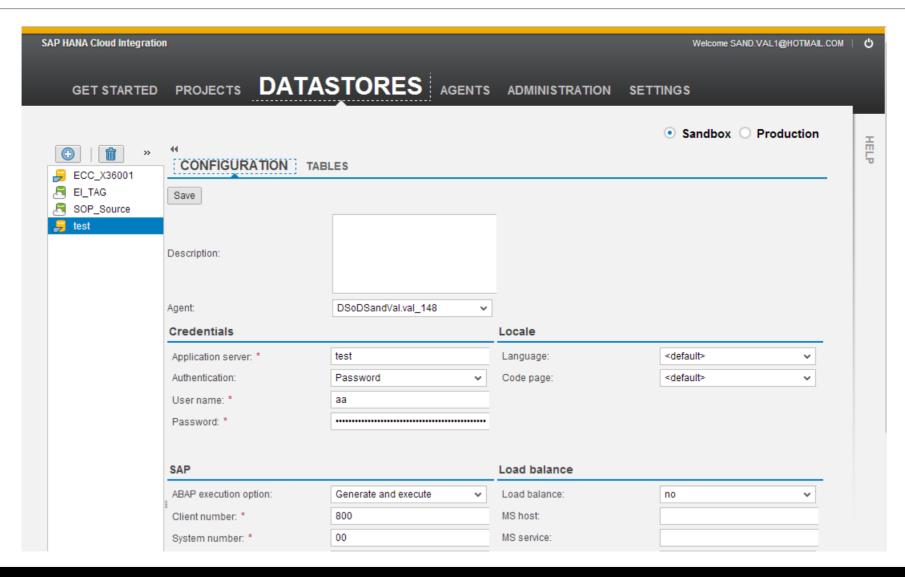
## Web UI: Configure and Monitor OnPremise Agents

Ensure data integration agent is running



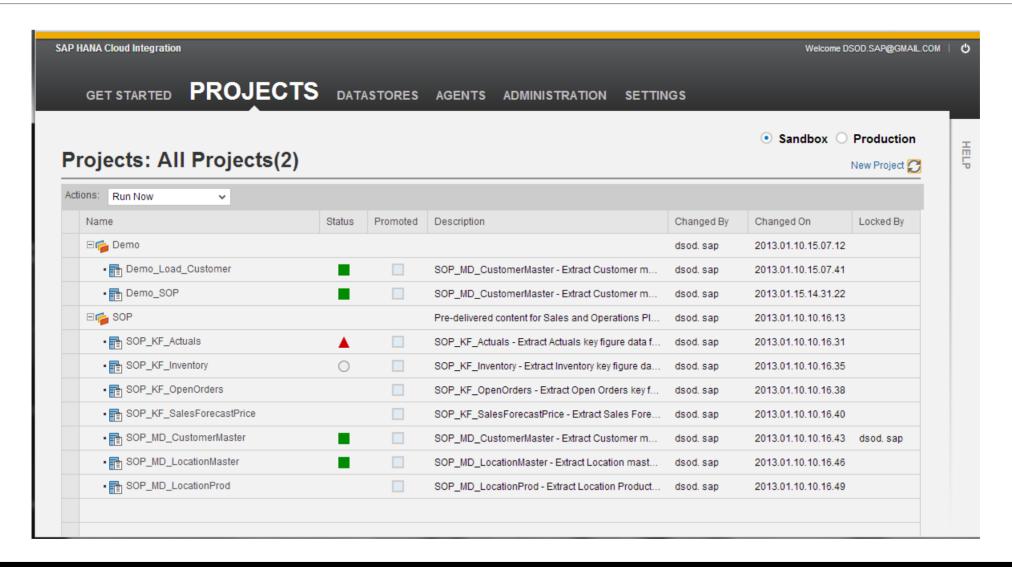
## **Web UI: Configure Datastores**

Configure connectivity to source and target applications



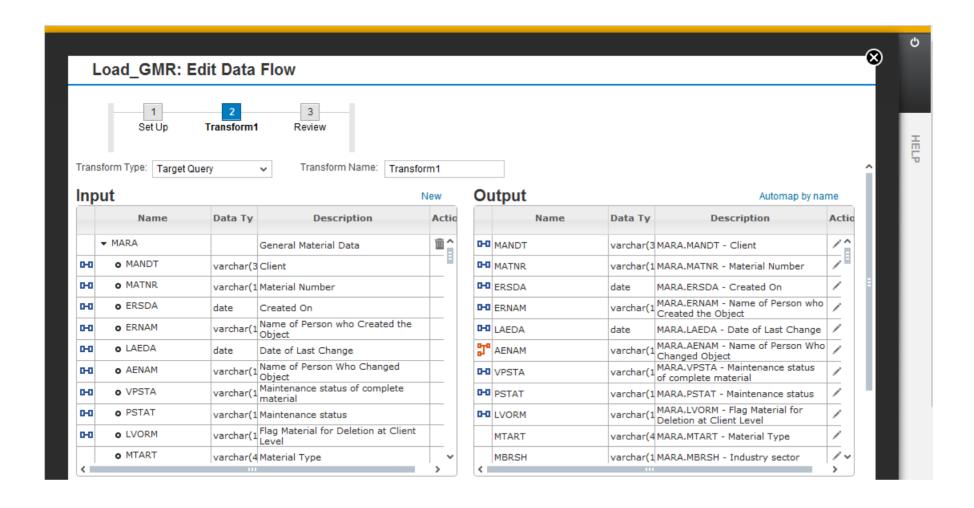
## Web UI: Projects and tasks

Create the integration project and data integration tasks



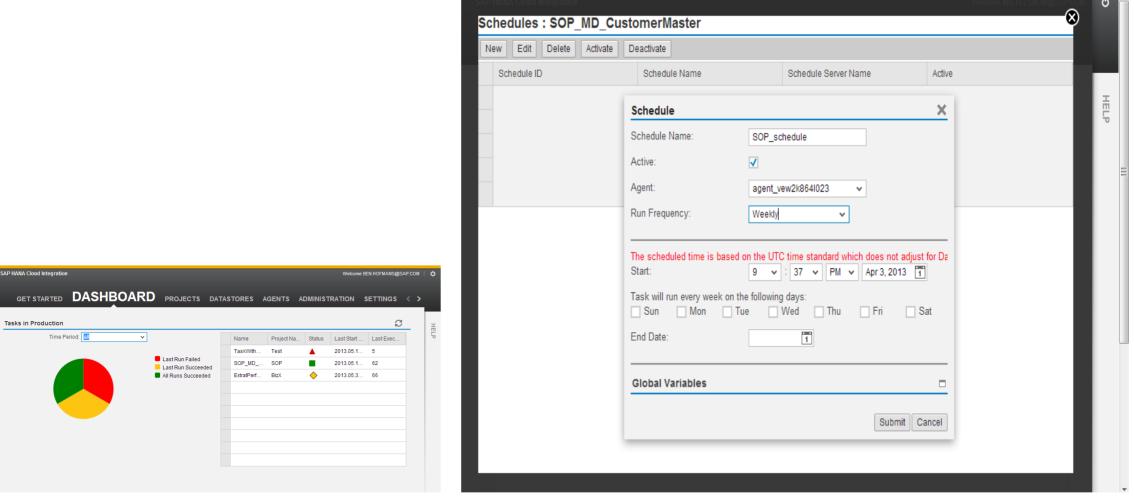
## Web UI: Data Integration Data Flow and Mapping

Map the source to target fields (drag and drop)



## Web UI: Scheduler for data integration

Schedule and monitor the data integration job



**Operator Dashboard** 

#### Web User Interface

## Summary of Data Integration Capabilities

- Install, configure, and monitor the On-Premise Agents.
- Design the Data Integration Flow, including connectivity to data sources, creating the task and the mapping.
- Schedule and monitor the data integration Data Integration Flow.



# SAP HANA Cloud Integration – Eclipse User Interface for Integration Developers



#### When to use the Eclipse UI for Process Integration Flows

Configuration of the prepackaged process integration content can be done using the Web UI.

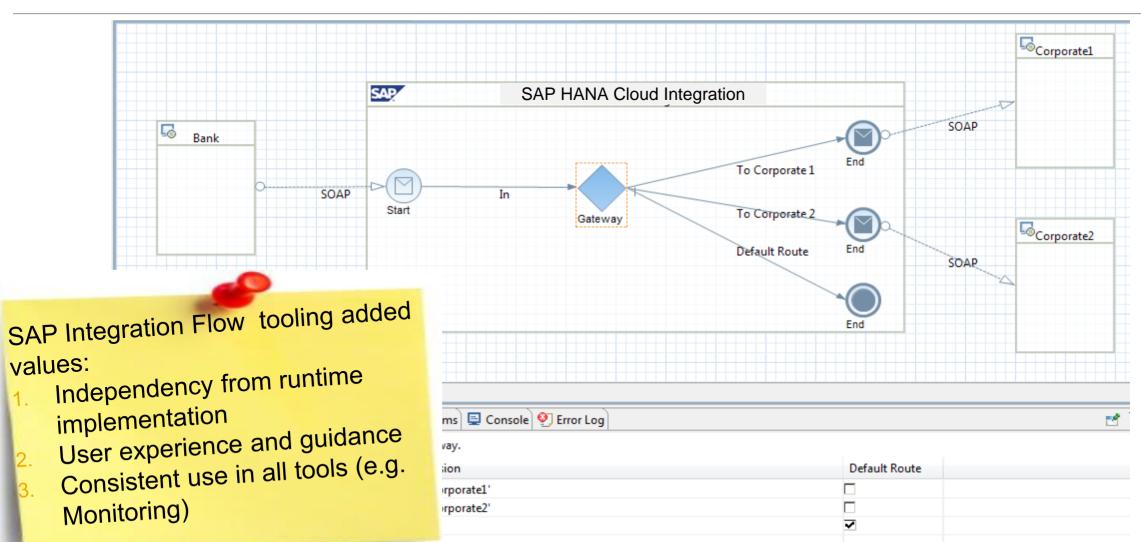
Any changes to the standard process integration flow content require the Eclipse UI.

#### The Eclipse UI for process integration flows should be used when:

- You need to change the mapping
- You have added extension fields to existing content
- You need to create your own process integration flow
- You want to check the messages and monitor the process integration flows

#### **Eclipse UI: Tooling for Integration Developer**

Eclipse based Process Integration Flow Modeling



#### **Eclipse UI: Integration Flow Configuration based on Enterprise**

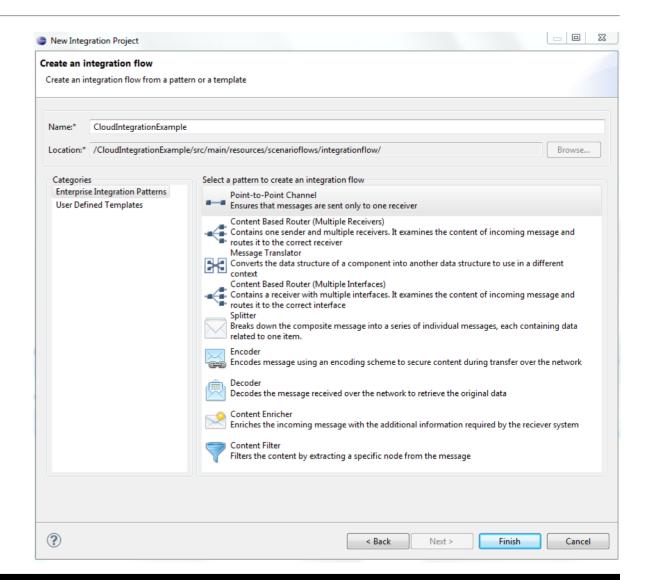
Integration Patterns / Integration Developer

## **Integration Flow Configuration based on Enterprise Integration Patterns, such as**

- Point-to-Point
- Content based routing (multiple receivers)
- Content based routing (multiple interfaces)
- Message translator
- More patterns added over time

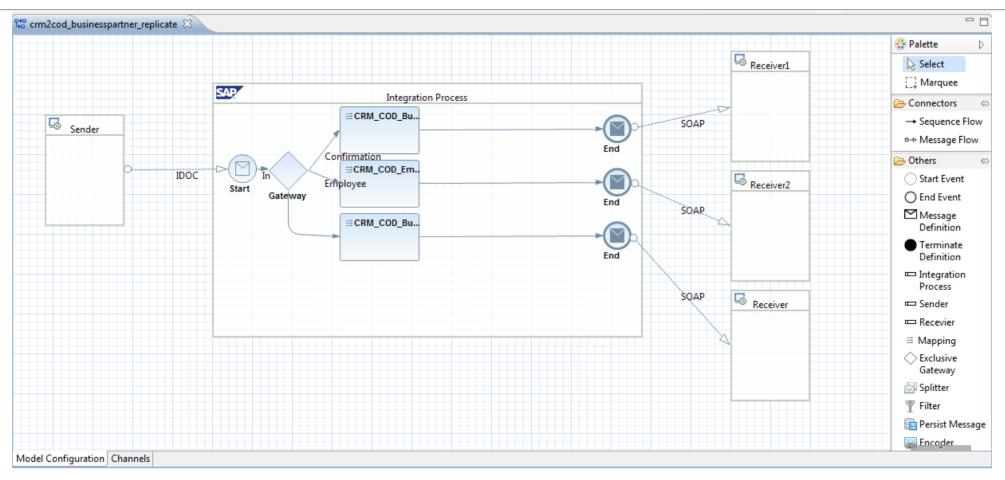
## Flexible combination of Enterprise Integration Patterns supported

Continuous enhancements and support of further Enterprise Integration Patterns planned for the near future



#### Eclipse UI: SAP Customer OnDemand – SAP CRM Integration Flows

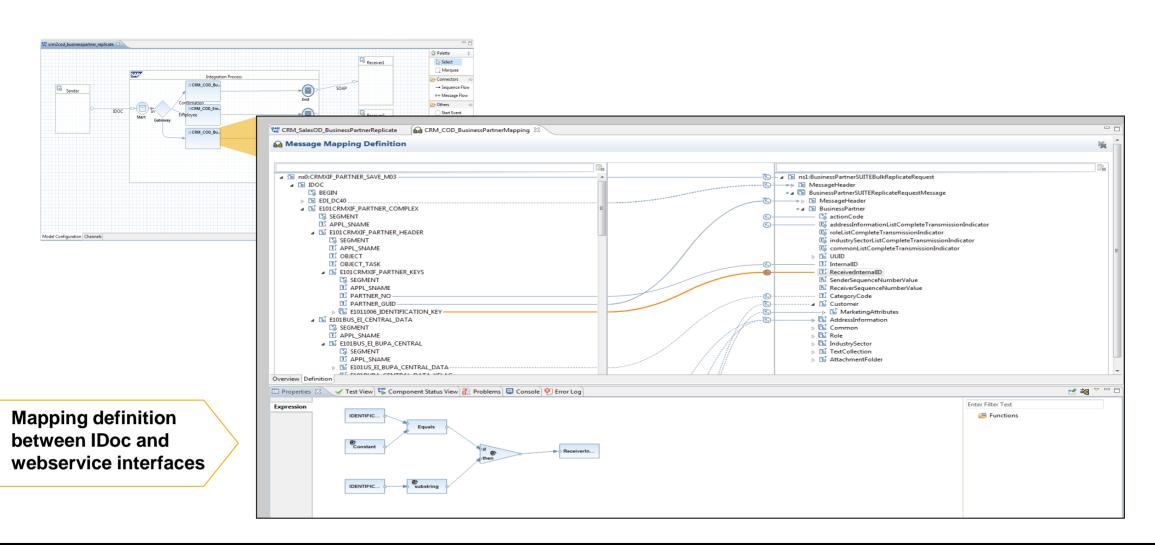
Example of prebuilt integration flow and routing for "Business Partner" object



SAP prepackaged integrations have prebuilt logic scenario definition, and mappings. Without access to this prepackaged integration customers will have to design, build, test, and maintain all these scenarios by themselves.

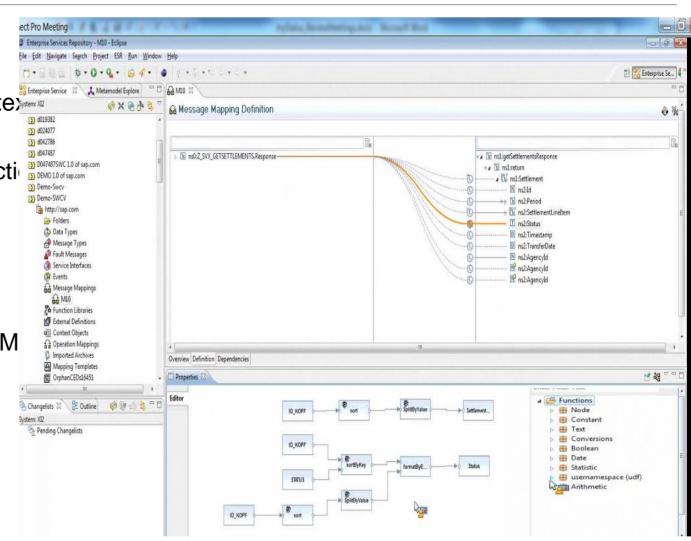
#### **Eclipse UI: Mappings**

Example of prebuilt mapping and transformation for "Business Partner" object



#### **Eclipse UI: Mapping, Transformation & Enrichment**

- Graphical mapping editor
- Broad set of generic mapping functions (e.g. for texture)
- Simple mapping through drag & drop
- Reuse of assets like mapping templates and function
- High performance mapping runtime
- Technical Connectivity
  - SFTP (secure File Transfer)
  - SOAP (Web Services based on SOAP)
  - WS-RM (Web Services based on WS Reliable M
  - Plain HTTP(S)
- Application Connectivity with SAP
  - IDoc over HTTP(S)
  - IDoc over xml
  - SucessFactors





# SAP HANA Cloud Integration – Roadmap



#### **SAP HANA Cloud Integration Roadmap**

Available today with select apps; evolving to an advanced cloud integration service



- Customer Cloud, Travel Cloud, Financials Cloud
- Sales and Ops Planning
- Financial Services Network
- SuccessFactors BizX (Platform, Compensation, Performance & Goals, Recruiting Execution)
- Business ByDesign
- SuccessFactors Workforce Analytics<sup>2</sup>
- HANA One Premium Edition

#### Q4 2013 (Planned)

- Value Apps on FSN
- Success Factors Employee Central
- Ariba Buyer Side Integration
- Smart Ops
- SAP Lumira Cloud (Likely move to Q1)

#### Q1 2013 and beyond (Planned)

- HANA Enterprise Cloud
- SuccessFactors Learning, Succession & Dev. etc.
- Additional Ariba Solutions

- Eclipse & Web based UIs for design, monitoring<sup>1</sup>
- Reliable and secure connectivity
- IDOC XML/WS/SFTP connectivity
- Mapping and transformation
- Optimized read and write for HANA
- Data consolidation from multiple OP sources
- Native connectivity to 3<sup>rd</sup> party databases
- PKCS7, PGP encryption, XML digital signatures, WS Security for signing
- Pre-packaged integration flows catalog

- SFSF application adapter (Compound APIs)
- Odata connectivity
- Merge and Split patterns
- Data validation services
- Customer alerts for iflow operations
- Invoke HCI iflows from other applications
- Version management ( could move to Q1)
- Enhanced lifecycle management of partner content?
- Additional Data Centers supported

- Open SDK for partners
- Marketplace for partner content
- Community for customer content
- Disaster Recover across data centers
- Enhanced support for a variety of integration patterns for Cloud applications
- Multi-source, multi-target iflows
- Data Quality Management with push-downs to HANA
- Additional connectivity options

#### PLANNED INNOVATIONS

1 All capabilities may not be available for every application

2 Limited availability, not GA

This is the current state of planning and may be changed by SAP at any time.

#### **SAP HANA Cloud Integration**

#### Links for further information

#### SAP HANA Cloud Integration

- Documentation on SAP Help Portal: <a href="http://help.sap.com/cloudintegration">http://help.sap.com/cloudintegration</a>
- SCN: <a href="http://scn.sap.com/docs/DOC-40396">http://scn.sap.com/docs/DOC-40396</a>
- Ramp-up Knowledge Transfer (RKT): <a href="https://websmp104.sap-ag.de/~form/sapnet?\_SHORTKEY=01100035870000758527">https://websmp104.sap-ag.de/~form/sapnet?\_SHORTKEY=01100035870000758527</a>&

#### SAP Financial Services Network

- Documentation on SAP Help Portal:
  - SAP FSN: <a href="http://help.sap.com/sapfsn">http://help.sap.com/sapfsn</a>
  - SAP FSN Connector: <a href="http://help.sap.com/fsnagent">http://help.sap.com/fsnagent</a>
- SCN: <a href="http://scn.sap.com/docs/DOC-40696">http://scn.sap.com/docs/DOC-40696</a>
- Ramp-up Knowledge Transfer (RKT): <a href="https://websmp103.sap-ag.de/~form/sapnet?\_SHORTKEY=01100035870000759375">https://websmp103.sap-ag.de/~form/sapnet?\_SHORTKEY=01100035870000759375</a>

#### **Further Information**

#### **SAP Public Web**

scn.sap.com www.sap.com

#### **SAP Education and Certification Opportunities**

www.sap.com/education

#### Watch SAP TechEd Online

www.sapteched.com/online

#### SAP TechEd Virtual Hands-on Workshops and SAP TechEd Online

Continue your SAP TechEd education after the event!

#### **SAP TechEd Virtual Hands-on Workshops**

- Access hands-on workshops post-event
- Available January March 2014
- Complementary with your SAP TechEd registration

#### http://saptechedhandson.sap.com/



#### **SAP TechEd Online**

- Access replays of keynotes, Demo Jam, SAP TechEd LIVE interviews, select lecture sessions, and more!
- View content only available online

#### http://sapteched.com/online





# **Feedback**

Please complete your session evaluation for POP104.

Thanks for attending this SAP TechEd session.



#### © 2013 SAP AG or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Please see <a href="http://www.sap.com/corporate-en/legal/copyright/index.epx#trademark">http://www.sap.com/corporate-en/legal/copyright/index.epx#trademark</a> for additional trademark information and notices.