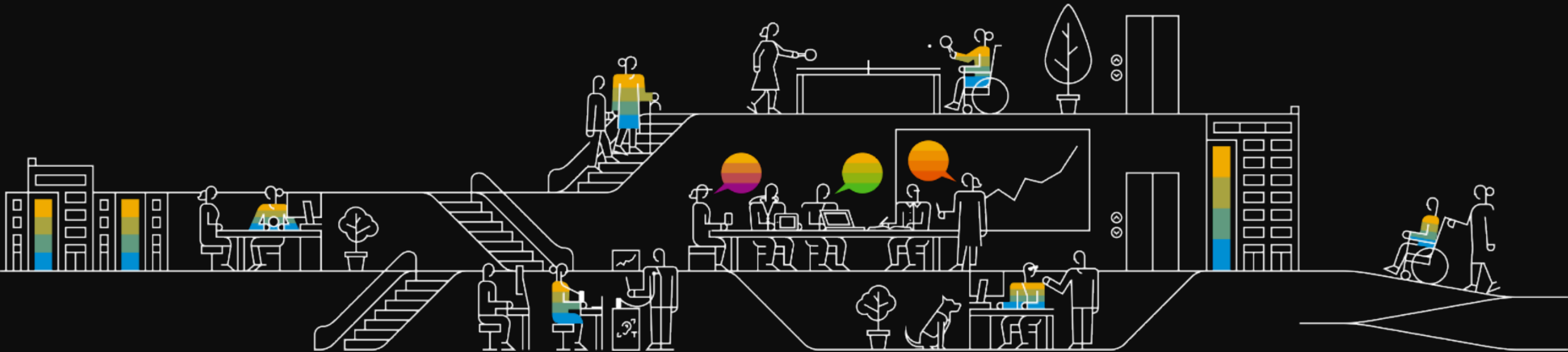


Pagos



MEXICO

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Agenda

- Requerimiento legal
- Funcionalidad en SAP
- Solución de eDocument
- Panorama del SAP Cloud Platform Integration



Complemento de Pagos

Requerimiento Legal

- De acuerdo con el Anexo 20, publicado en Diciembre 2016, todas las empresas en México, a partir del 1ro de Abril 2018, deben emitir CFDIs con Complemento de Pago”, para todos los pagos que reciban de sus clientes.
- Los Complementos de Pago deben incluir la referencia del documento que se está pagando.
- Estos documentos electrónicos deben tener el formato digital -XML- con la información obligatoria requerida y deben ser enviados al gobierno (SAT), siempre a través de un tercero (PAC) considerando el cumplimiento técnico, condiciones de emisión y tiempo máximo de entrega.
- Los documentos electrónicos deben ser firmados digitalmente. El tercero (PAC) los recibe, realiza una verificación y envía las notificaciones correspondientes (aprobación / rechazo) en línea.
- Los CFDI con complemento de pago deben ser enviados a los clientes, incluyendo la representación gráfica en PDF, considerando las especificaciones técnicas del gobierno (SAT).
- Los complementos de pago pueden ser enviados hasta el día 10, del siguiente mes del que fue recibido. Por ejemplo, si el pago se recibió en Abril, cualquier día, se tiene hasta el 1º de Mayo para entregar el complemento de pago correspondiente.

Funcionalidad en SAP

Para el Complemento de Pago, la solución tiene 2 opciones:

- **BASIC ENABLEMENT:**

Funcionalidad limitada al ERP, parecido a la funcionalidad de CFDI de Factura.

En este caso se van a guardar los datos en una estructura (no en IDocs como para el CFDI factura).

La funcionalidad estará limitada y será sin costo para los clientes.

- **FULL SOLUTION:**

Incluye el Basic Enablement + archivo XML para el PAC + herramientas para configurar comunicación con el PAC + recepción de respuesta del PAC (timbre fiscal) + .PDF.

Esta opción sí tendrá costo para el cliente ya que lo adicional al Basic Enablement, se hace en una nueva solución de SAP: eDocuments que requiere licenciamiento.

Basic Enablement

Para todos los países con soluciones en eDocuments, existen las opciones del Basic Enablement y la Full Solution.

El Basic Enablement se limita únicamente a tener disponible en la estructura del eDocument, el documento SAP que se requiere enviar electrónicamente.

Sin embargo, para Mexico se incluyeron dentro del Basic Enablement, además del encabezado y líneas de los documentos de pagos, los siguientes datos:

- Lugar de Emisión
- Datos del Emisor
- Datos del Receptor (excepto el uso del CFDI)

Basic Enablement

Lo que no se cubrirá en esta opción y se tendrá que obtener mediante una BAdI o definirse al momento de generar el archivo XML son los siguientes datos:

- Datos fijos de los nodos de Encabezado y Concepto
- Firma digital, Certificado y Número de certificado (PAC)
- Uso del CFDI (nodo de receptor)
- Clave de Forma de Pago y el Método de Pago (nodo de pagos)
- En el caso de Pagos Parciales, número de parcialidad, saldo anterior, monto pendiente.

Basic Enablement

Los pagos compensados son listados en el monitor:(transacción: EDOC_COCKPIT)

BAdI: EDOC_INTERFACE_CONNECTOR /SUBMIT_EDOCUMENT

The screenshot shows the 'EDocument Cockpit' interface. At the top, there's a header bar with the title 'EDocument Cockpit'. Below it, there's a toolbar with buttons: 'Submit' (highlighted with a red box and an arrow pointing to the BAdI name above), 'Status', 'Export File', 'Display', 'Customer...', 'Goto...', 'More...', and 'Help'. Below the toolbar, there's a section for 'Variant' set to 'Default Selection' and a 'Show Recent eDocuments' filter set to '30 Days'. On the left, there's a 'Result Overview' table. On the right, there's a main table titled 'Mexico ePayments'.

Status	Proc. Status Descr.	Error	eDocument Source Key	Source Description	CoCode	Type Description	Creation Date	Created on	Created By	Posting Date	Intf.	File
⚠	eDocument Created		MX0114000000562017	Accounting Document	MX01	Mexico ePayments	11.10.2017	02:29:43	MARCELLIN	09.09.2017		
✅	eDocument Cancelled		MX0114000000462017	Accounting Document	MX01	Mexico ePayments	09.10.2017	09:01:15	TVIR	31.08.2017		
⚠	eDocument Created		MX0114000000652017	Accounting Document	MX01	Mexico ePayments	16.10.2017	10:09:49	PARAEKATTIL	16.10.2017		
✅	Accepted by Tax Authorities		MX0114000000542017	Accounting Document	MX01	Mexico ePayments	24.09.2017	21:20:53	DASSOUM1	24.09.2017		📁
✅	Accepted by Tax Authorities		MX011400000052017	Accounting Document	MX01	Mexico ePayments	08.10.2017	17:26:38	TVIR	02.07.2017		📁
⚠	eDocument Created		MX0114000000552017	Accounting Document	MX01	Mexico ePayments	25.09.2017	17:33:54	DASSOUM1	25.09.2017		
⚠	eDocument Created		MX011400000082017	Accounting Document	MX01	Mexico ePayments	10.10.2017	14:24:56	TVIR	06.07.2017		

Full Solution

Por estándar, las comunicaciones directas con Pegaso y EDICOM, estarán disponibles.

Si se tiene un PAC diferente, se contará con una herramienta que permitirá ajustar la comunicación de acuerdo a las especificaciones del PAC.

Full Solution

Con “SUBMIT” se genera el XML que se envía al PAC

Con “DISPLAY” se puede ver el XML

```
<?xml version="1.0"?>
- <n0:CFDSubmitRequest
  xmlns:prx="urn:sap.com:proxy:ER9:/1SAI/TASCCB33F3F891F31D1A02B:753"
  xmlns:n0="http://www.sat.gob.mx/cfd/3" version=" " >
- <n0:Comprobante LugarExpedicion="12230" TipoDeComprobante="P" Total="0"
  Moneda="XXX" SubTotal="0" Fecha="2017-09-13T23:35:41Z"
  Folio="00000141" Serie="01" Version="3.3">
  <n0:Emisor Nombre="SAP Mexico " RegimenFiscal="606"
    Rfc="PRI981101785"/>
  <n0:Receptor Nombre="MX - Test Customer - 001" Rfc="FCA010724581"
    UsoCFDI="P01"/>
- <n0:Conceptos>
  <n0:Concepto Importe="0" ValorUnitario="0" Descripcion="Pago"
    ClaveUnidad="ACT" ClaveProdServ="84111506" Cantidad="1"/>
</n0:Conceptos>
- <n0:Complemento>
  <n0:Pagos Version="1.0">
    <n0:Pago Monto="15536.00 " MonedaP="MXN" FormaDePagoP="99"
      FechaPago="2017-09-11T12:00:00Z">
      <n0:DoctoRelacionado MetodoDePagoDR="PUE"
        MonedaDR="MXN" IdDocumento="28B6FC83-434E-4589-
          9F40-9493EC1A0939"/>
    </n0:Pago>
  </n0:Pagos>
</n0:Complemento>
</n0:Comprobante>
```

The screenshot shows the 'EDocument Cockpit' interface. At the top, there's a header bar with the title 'EDocument Cockpit'. Below it, there's a toolbar with buttons: 'Submit', 'Status', 'Export File', 'Display' (highlighted with a red box and an arrow pointing to the XML code), 'Customer...', 'Goto...', 'More...', and 'Help'. Below the toolbar, there's a section for 'Mexico ePayments' with a table showing document details.

Status	Proc.	Status Descr.	eDocument Source Key	Source Description	CoCode	Type Description	Creation Date	Created on	Created By	Posting Date	Intf.	File
Accepted		Accepted by Tax Authorities	MX0114000000742017	Accounting Document	MX01	Mexico ePayments	18.10.2017	09:03:56	TVIR	18.10.2017		

Below the table, there's a 'Result Overview' section with a table showing the number of documents for each variant.

Result Overview	No.
Mexico	1
• Mexico ePayments	1

Full Solution

EDocument Cockpit

Source Document: 1400000074


Variant: Default Selection

Show Recent eDocuments: ☐ Days

Result Overview

	No.
▼ Mexico	1
• Mexico ePayments	1

Mexico ePayments

Status	Proc. Status Descr.	eDocument Source Key	Source Description	CoCode	Type Description	Creation Date	Created on	Created By	Posting Date	Intf.	File
Accepted by Tax Authorities		MX0114000000742017	Accounting Document	MX01	Mexico ePayments	18.10.2017	09:03:56	TVIR	18.10.2017		

```
<?xml version="1.0"?>
<root> <CFD><ResponseAdmon> <TFD:TimbreFiscalDigital
  xsi:schemaLocation="http://www.sat.gob.mx/TimbreFiscalDigital
  http://www.sat.gob.mx/sitio_internet/cfd/timbrefiscaldigital/TimbreFiscalDigit
  Version="1.1" UUID="AAF12DD4-8143-4486-A1E0-3A3377734BC8"
  FechaTimbrado="2017-10-11T15:07:44" RfcProvCertif="PAC010101000"
  SelloCFD="gPhnMZSBH3iKTA4OZAQ4gM42t+XpAb/XM7L5zs11TFaQI1oSZAAVTMg
  NoCertificadoSAT="00000000000000000000"
  SelloSAT="AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=="/>
</CFD> <TFD UUID="AAF12DD4-8143-4486-A1E0-3A3377734BC8"
  FechaTimbrado="2017-10-11T15:07:44"
  noCertificadoSAT="00000000000000000000"
  selloSAT="AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
</ResponseAdmon></root>
```

Full Solution

Envío del Complemento de Pago al cliente:

EDocument Cockpit

Source Document

Variant

Show Recent eDocuments Days

Result Overview	No.
▼ Mexico	1
• Mexico ePayments	1

Submit Status Export File Display Customer... Goto... More... Help

Send to Customer




Mexico ePayments

Status	Proc. Status	Descr.	eDoc.Source Key	Source Description	CoCode	Type Description	Creation Date	Created on	Created By	Posting Date	Intf. File
	Accepted by Tax Authorities		MX0114000000742017	Accounting Document	MX01	Mexico ePayments	18.10.2017	09:03:56	TVIR	18.10.2017	


Full Solution

Cancelación del Pago:

EDocument Cockpit











Source Document

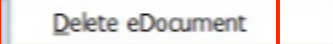
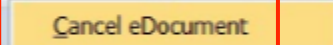
Variant 

Show Recent eDocuments ☐ Days



Result Overview	No.
▼ Mexico	1
• Mexico ePayments	1







Mexico ePayments

Status	Proc.	Status Descr.	eDoc.Source Key	Source Description	CoCode	Type Description	Creation Date	Created on	Created By	Posting Date	Intf.	File
		Accepted by Tax Authorities	MX0114000000742017	Accounting Document	MX01	Mexico ePayments	18.10.2017	09:03:56	TVIR	18.10.2017		

Full Solution

Tabla EDOMXPAYMENT:

Data Browser: Table EDOMXPAYMENT Select Entries37




Table: EDOMXPAYMENT
Displayed Fields 7 of 9Fixed Columns [2]List Width 0250

	MANDT	EDOC_GUID	DOC_NUM_PREFIX	DOC_NUM	UUID	TIMESTAMP	TAX_ID_OF_PAC
<input type="checkbox"/>	003	40F2E9AFBE791EE7ABE8189A1DEAC8CB					
<input type="checkbox"/>	003	40F2E9AFBE791EE7ACC92C11DB029C45					
<input type="checkbox"/>	003	40F2E9AFC5011ED7A3DCC78EF4271FBD					
<input type="checkbox"/>	003	40F2E9AFC5011ED7A3DCC78EF4271FBD					

Notas liberadas para el Basic Enablement

2526771 - eDocument Mexico - ePayment: Overview Note

2526782 - Pre-requisite note for 2511902

2511902 - eDocument Mexico - ePayment

2528188 - eDocument Mexico - ePayment

2535201 - eDocument Mexico: ePayments - Additional Information to the Basic Solution

Notas liberadas para el Full Solution

2526771 - eDocument Mexico - ePayment: Overview Note

2565791 - eDocument Mexico - ePayment: SAP S/4HANA Overview Note



eDocument Compliance

Customer Needs – Compliance with Electronic Documents



SAP eDocument Framework

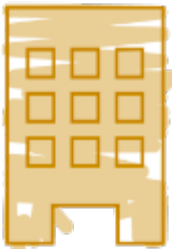
eDocument framework has been developed by Globalization Services

- to comply with local regulations mandating the use of electronic documents to be sent to business partners and/or legal authorities

Facilitates realization of different local requirements

- by leveraging their similarities
- ensuring high standards
- consistent user experience and lower operational cost

Taxpayer



Public Administration /
Tax Authorities



Key Pain Points

Solution

Total Cost of Operations

Multiple solutions to be implemented and supported
Multiple contract partners

One Solution
End-to-end approach

Usability

Multiple monitors, configuration and processes

Unified user experience
Reduced set of tools

Data Inconsistency

Adjustments done on 3rd party software not reflected in backend

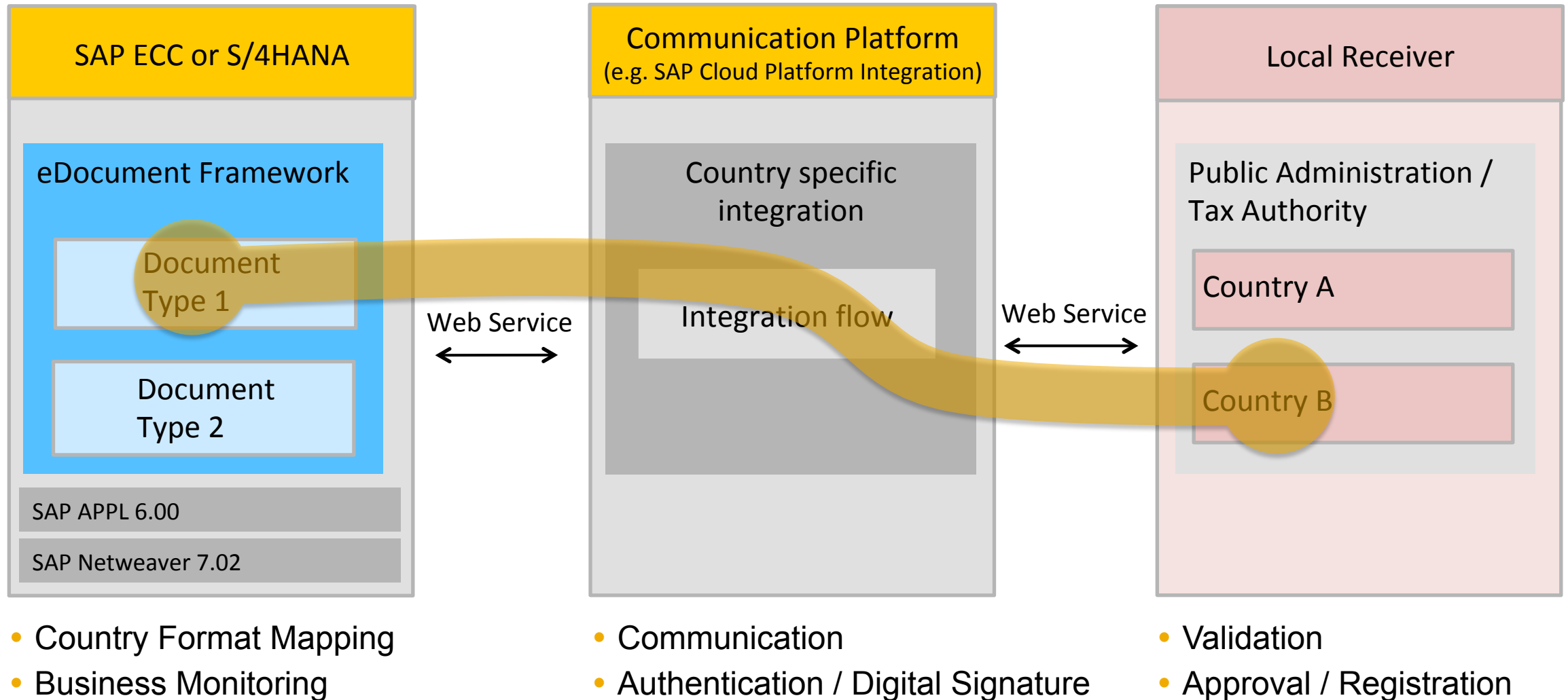
Solution integrated with the backend (ERP)

Ineffective Support

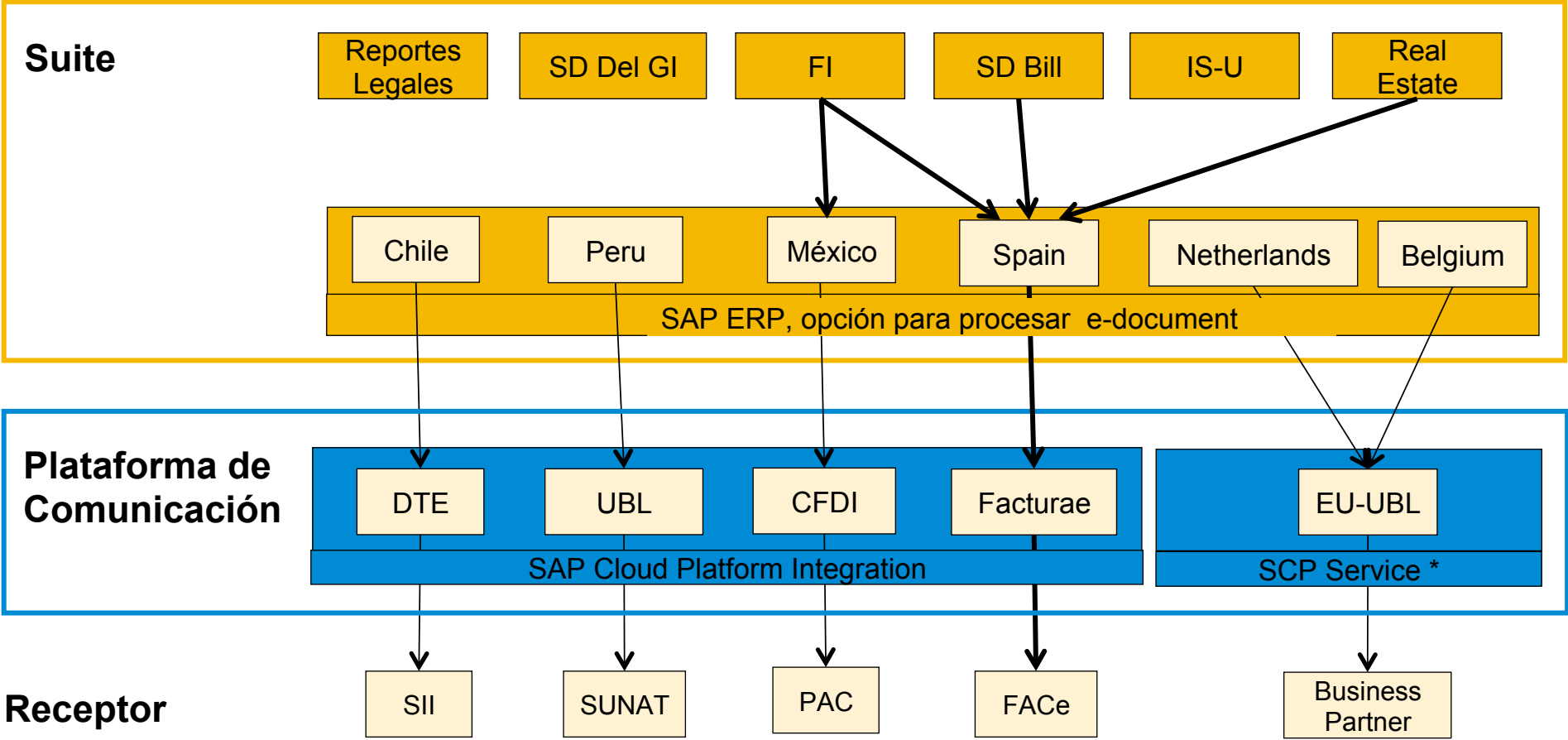
High effort for synchronization of legal changes
Multiple counterparts
Lack of process expertise from service provider

One Globalization Network
Professional processes and services

Solution Landscape – eDocument Scenarios



Solution Architecture

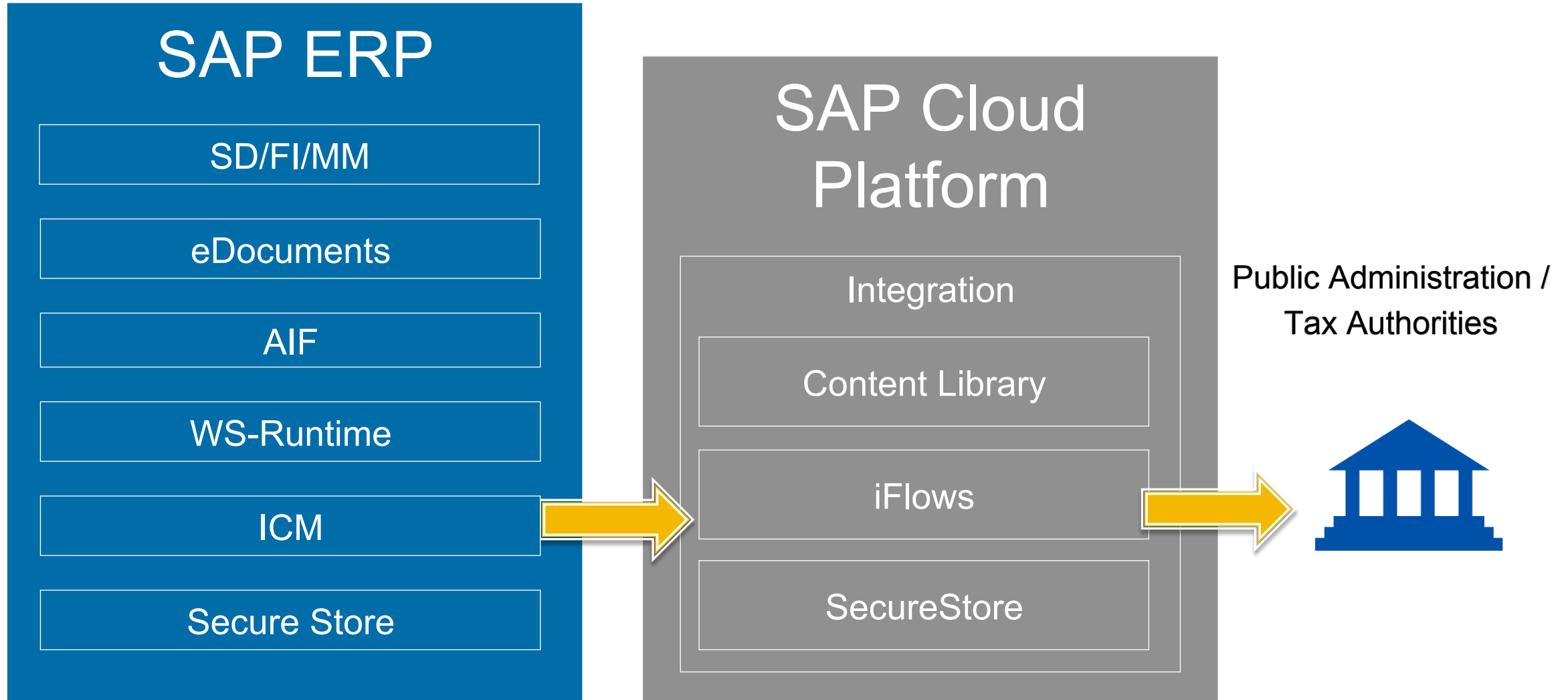


* Provider (SAP) managed

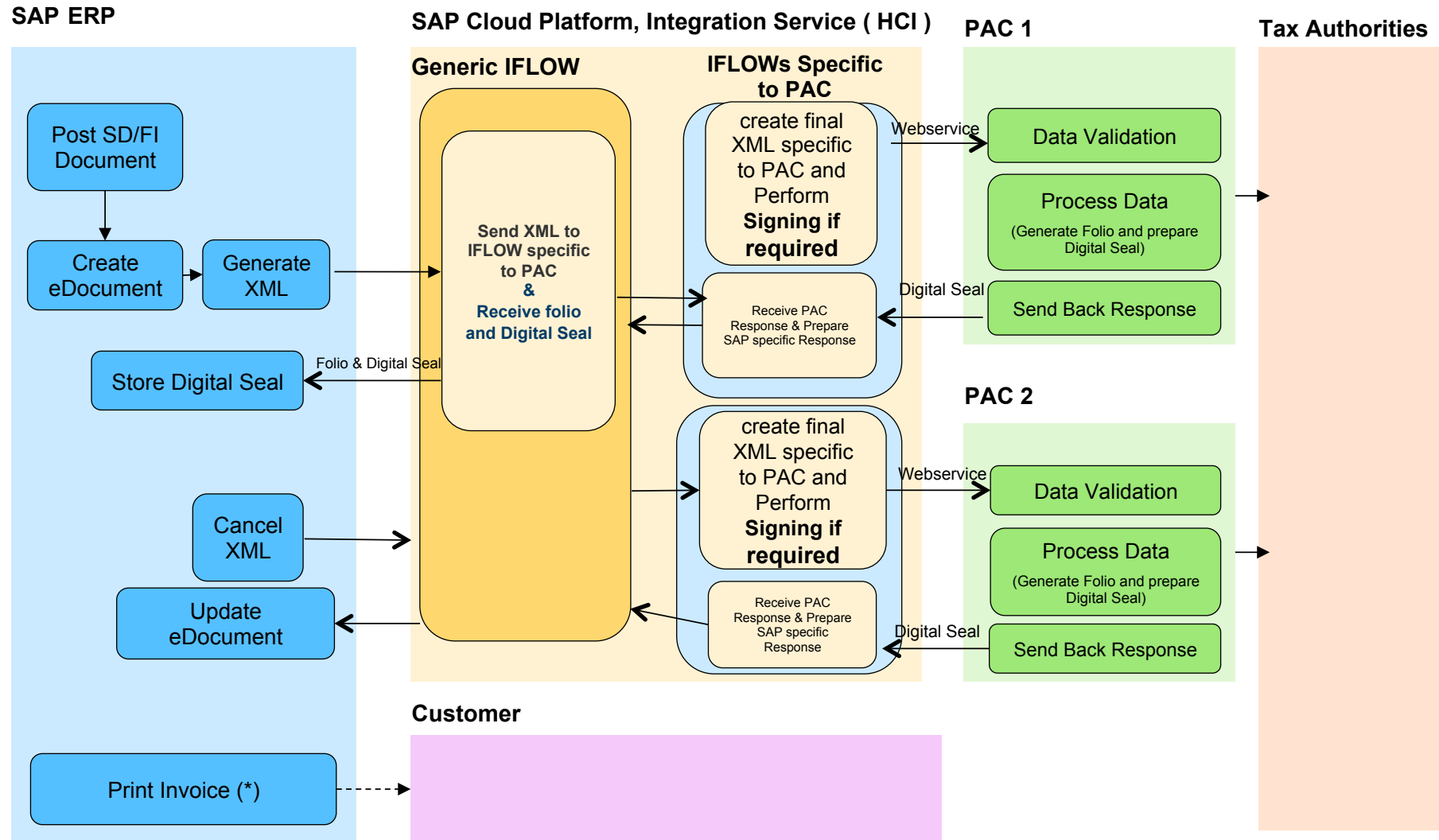


Solution Overview in SAP Cloud Platform Integration

Components

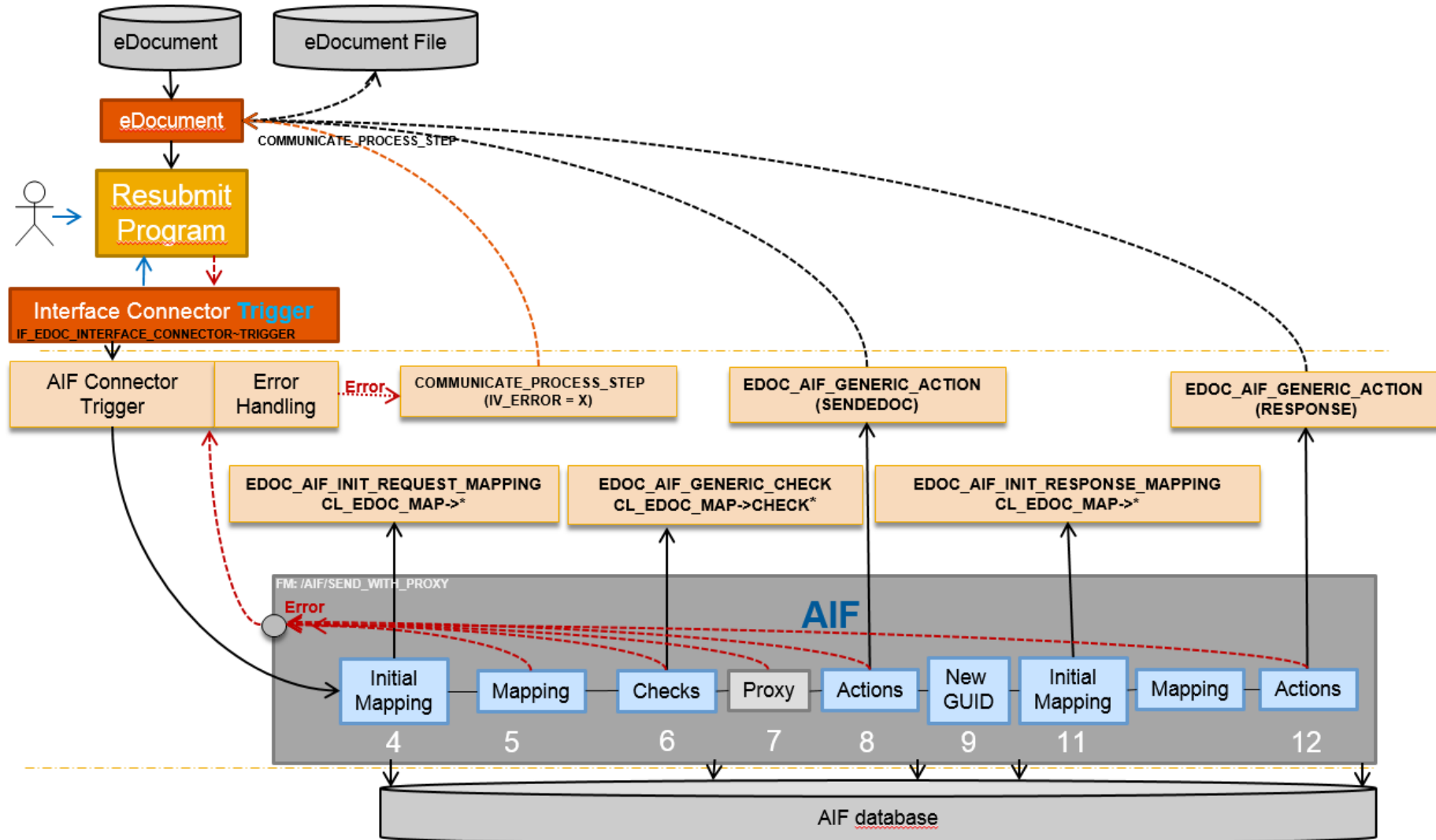


CFDI Invoice(SD & FI) – eDocument Full solution





(*) The adaptation of the printout is not in the scope of the solution

Interaction with AIF



SAP CP Integration Content Catalogue




 HANA Cloud Integration

INTEGRATION CONTENT

More than 60 pre-packaged and extensible integration flows ready for consumption.


[Read now](#)



16 Packages

▼ Name Ascending Order ▾

Banking Services from SAP 8.0




SAP

Version:8.0, S...

Published: 10 days ago

Electronic Invoicing for Peru




SAP

Version:1.0.0

Published: about 21 hours ago

Integration Add-On for SAP ERP HCM and SuccessFactors HCM Suite




SAP

Version:3.0

Published: 7 days ago

Rapid Data Migration to SAP Cloud for HR, Workforce Analytics (WFA)

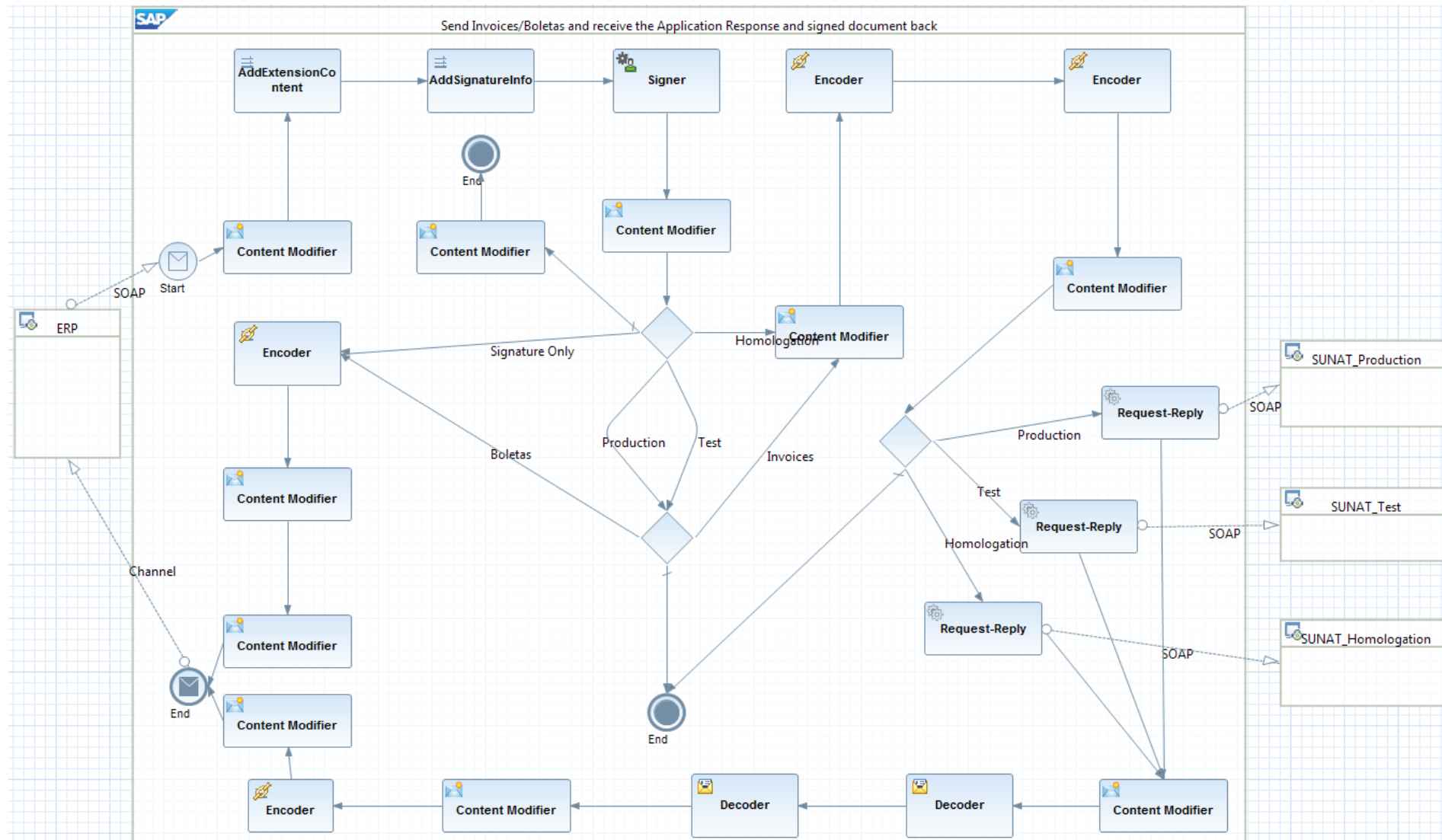


SAP

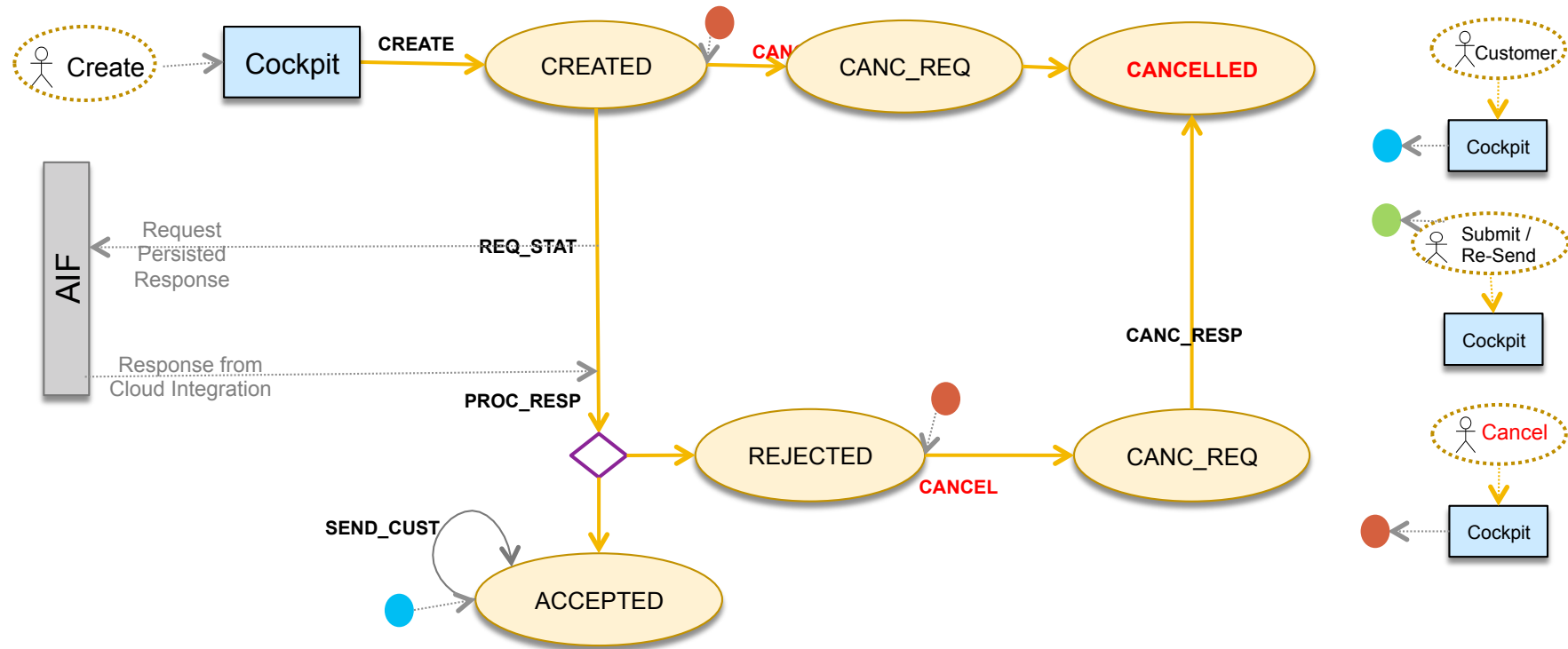
Version:1405

Published: 7 days ago

SAP CP Integration Flow Example (Peru Invoice Transmission)



Process MXINV: Mexico CFDI



Statuses:

CREA	: Bundle created
REQ_STAT	: Request Status of IDOC
REJECTED	: No invoices have been accepted or header semantically wrong
CANC_REQ	: Cancellation Requested
ACCEPTED	: Document has been accepted
CANCELLED	: Cancelled

Process steps:

CREATE	: Create Bundle
PROC_RESP	: Process Tax Agency Response
CANCEL	: Cancel
SEND_CUST	: Send to customer
CANC_RESP	: Cancellation Response

Installation Instructions

Install eDoc Framework (TCI)

- Upgrade to Latest SP (or note 2134248)
- Customize Business Add-In
- Configure eDoc Config for SAP ERP

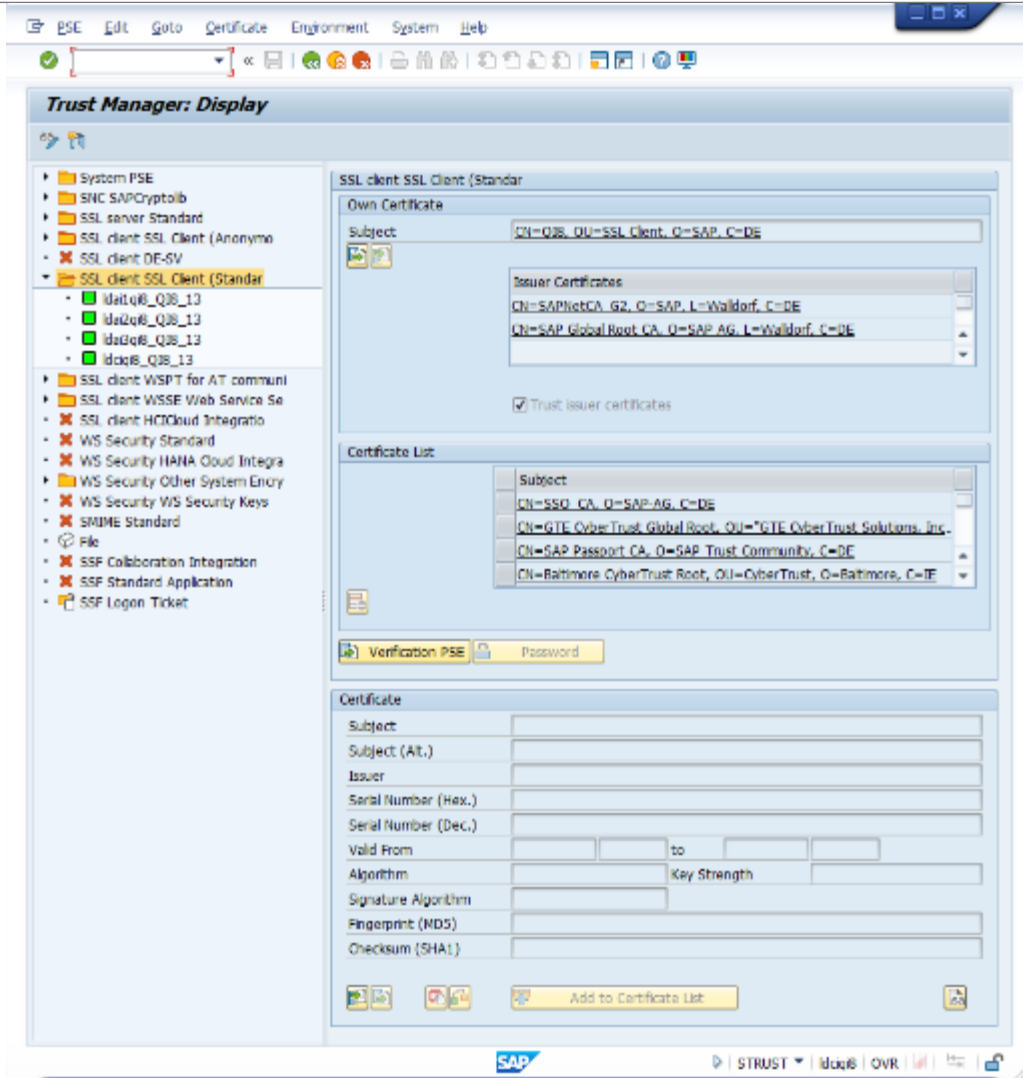
Install SAP ERP - option for eDoc Processing Add-On

- License
- Install AIF
- Configure eDoc considerations for AIF

Implement SAP CP Integration

- Subscribe
- Get Certificates
- Configure SAP ERP SSL
- Implement configuration Guide (available soon!)

SAP ERP Trust Manager (STRUST)



It is required to store in the SAP ERP the certificates:

SSL Communication from SAP ERP to SAP CP:

- Download end user and root certificates using Firefox
- upload to a Client SSL PSE.

iFlow Authentication:

- Generate your own certificate.
- Get it signed by a trusted CA (both SAP and customer)
- Upload to a Client SSL PSE and use it in SOAMANAGER

Detail of WS Runtime Configuration (SOAMANGER)

Web Service Configuration

Proxy and Firewall configurations

HTTPS and Secure Stor

Configuration: Consumer Proxy 'CO_ESSII_001_OUTGOING_INVOICE', Lo

Save Edit Ping Web Service

Consumer Security Messaging **Transport Settings** Message Attachments Identifiable

URL Access Path

☒ URL ☐ URL components

* URL:

Logon Language:

Proxy

Name of Proxy Host:

Port Number of Proxy Host:

User Name for Proxy Access:

Password of Proxy User:

Transport Binding

Make Local Call:

* Transport Binding Type:

Maximum Wait for WS Consumer:

Optimized XML Transfer:

Compress HTTP Message:

Compress Response:

Configuration: Consumer Proxy 'CO_ESSII_001_OUTGOING_INVOICE',

Save Edit Ping Web Service

Consumer Security Messaging Transport Settings Message Attachments Identifiable

Configuration of Consumer Settings without WSDL Document. LP=ESSII_PO

Authentication Level: Basic

Authentication Settings

☒ User ID / Password

☐ SAP Authentication Assertion Ticket

☐ X.509 SSL Client Certificate

User ID/Password

User Name:

Password:

Configuration: Consumer Proxy 'CO_ESSII_001_OUTGOING_INVOICE', Lo

Save Edit Ping Web Service

Consumer Security Messaging **Transport Settings** Message Attachments Identifiable

URL Access Path

☒ URL ☐ URL components

* URL:

Logon Language:

Proxy

Name of Proxy Host:

Port Number of Proxy Host:

User Name for Proxy Access:

Password of Proxy User:

Transport Binding

Make Local Call:

* Transport Binding Type:

Maximum Wait for WS Consumer:

Optimized XML Transfer:

Compress HTTP Message:

Compress Response:

Configuration: Consumer Proxy 'CO_ESSII_001_OUTGOING_INVOICE',

Save Edit Ping Web Service

Consumer Security Messaging Transport Settings Message Attachments Identifiable

Configuration of Consumer Settings without WSDL Document. LP=ESSII_PO

Authentication Level: Basic

Authentication Settings

☒ User ID / Password

☐ SAP Authentication Assertion Ticket

☐ X.509 SSL Client Certificate

User ID/Password

User Name:

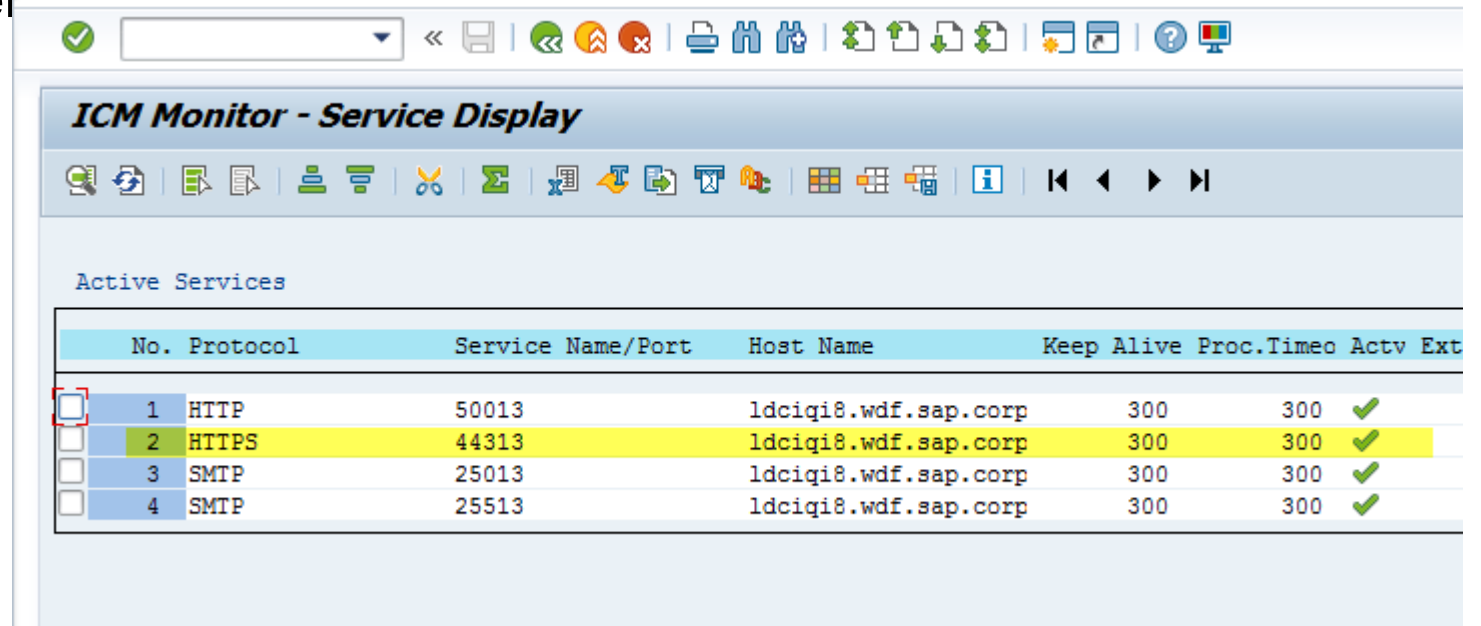
Password:

SAP Internet Communication Manager (SMICM)

This is the SAP ERP Web Server

HTTPS Service:

- It is required to access the datacenter
- Monitoring via Traces and Logs

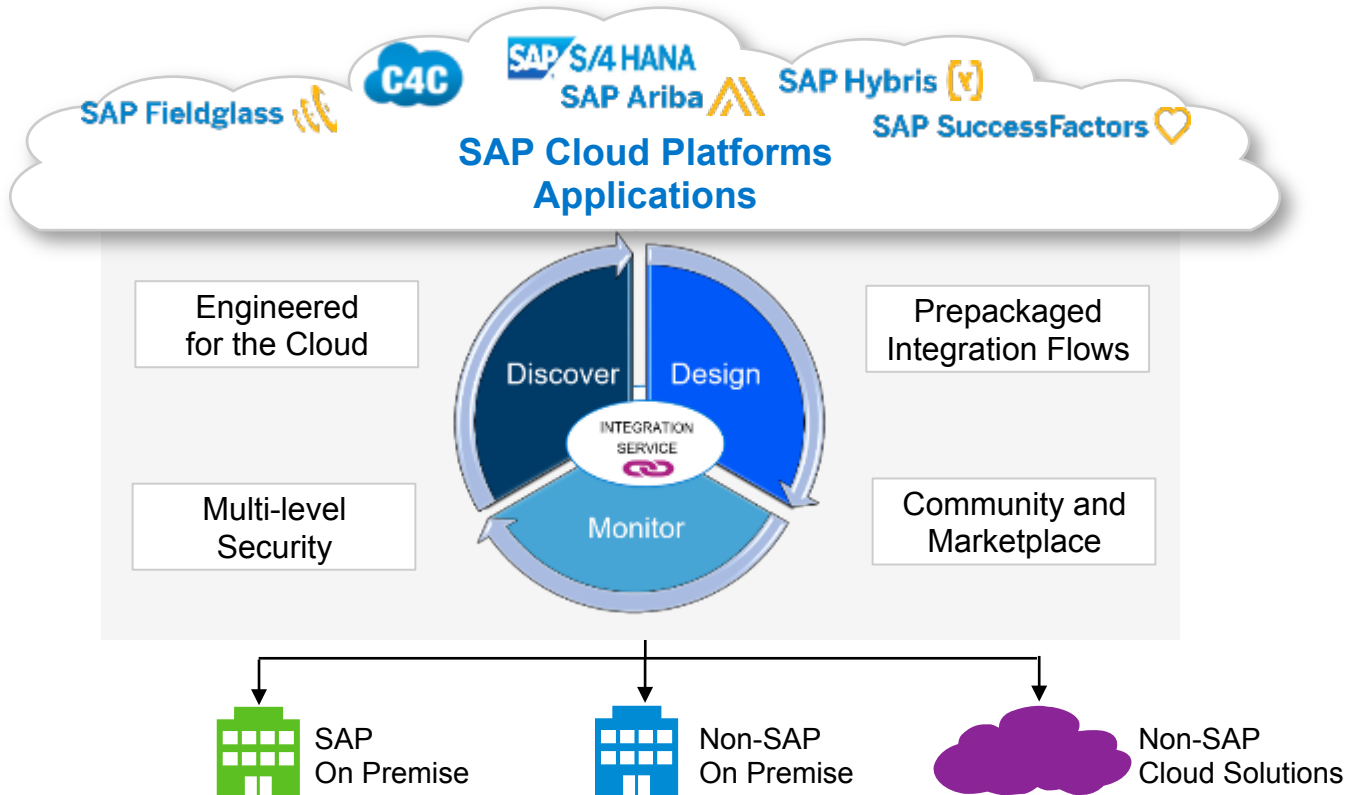


The screenshot shows the 'ICM Monitor - Service Display' window. It contains a table of active services. The table has columns for No., Protocol, Service Name/Port, Host Name, Keep Alive, Proc.Timeo, Actv, and Ext. The second row, representing the HTTPS service, is highlighted in yellow.

No.	Protocol	Service Name/Port	Host Name	Keep Alive	Proc.Timeo	Actv	Ext
1	HTTP	50013	ldciqi8.wdf.sap.corp	300	300	✓	
2	HTTPS	44313	ldciqi8.wdf.sap.corp	300	300	✓	
3	SMTP	25013	ldciqi8.wdf.sap.corp	300	300	✓	
4	SMTP	25513	ldciqi8.wdf.sap.corp	300	300	✓	

SAP CP Integration

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



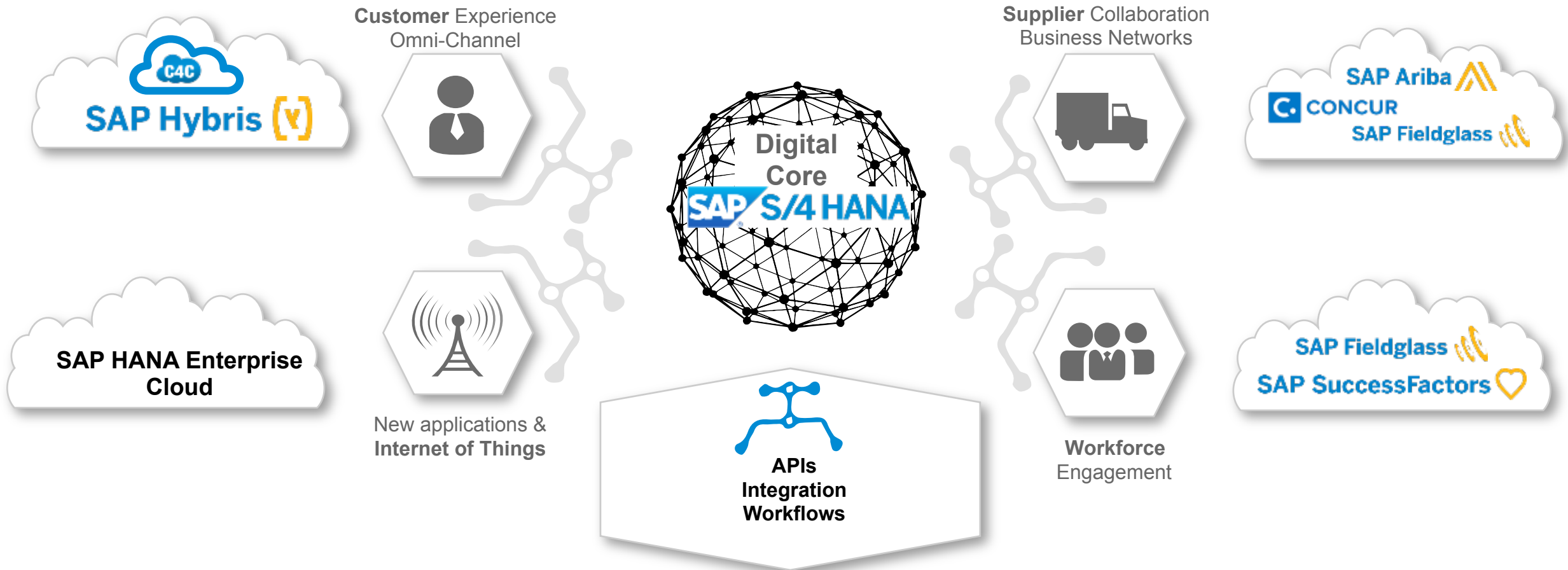
- Strategic service for cloud-to-cloud and cloud-to-on-premise
- Prepackaged integration content hub: “Discover, Configure, Manage”
- Multi tenancy, rolling software updates, horizontal scalability, subscription-based
- Strong focus on security including data isolation
- Complements SAP Process Orchestration
- Open to partners – projects, content, and connectivity adapters



“[...] The new standard integration model to integrate our [SAP’s] entire portfolio will be based on SAP CP Integrations [...] SAP CP and related integration services will become a mandatory component in your entire landscape if you don’t want to give up your biggest assets of integration.”

Bernd Leukert, Member of the Executive Board of SAP Products & Innovation, keynote from SAPPHIRE Now 2016, Orlando

Lead in The Digital Economy with SAP Platform Solutions. Hyper Connected. Real-Time. Smart. Integrated. Open.



SAP CP



Mobile



Data & Storage



Collaboration



IoT



Business



Dev & Ops



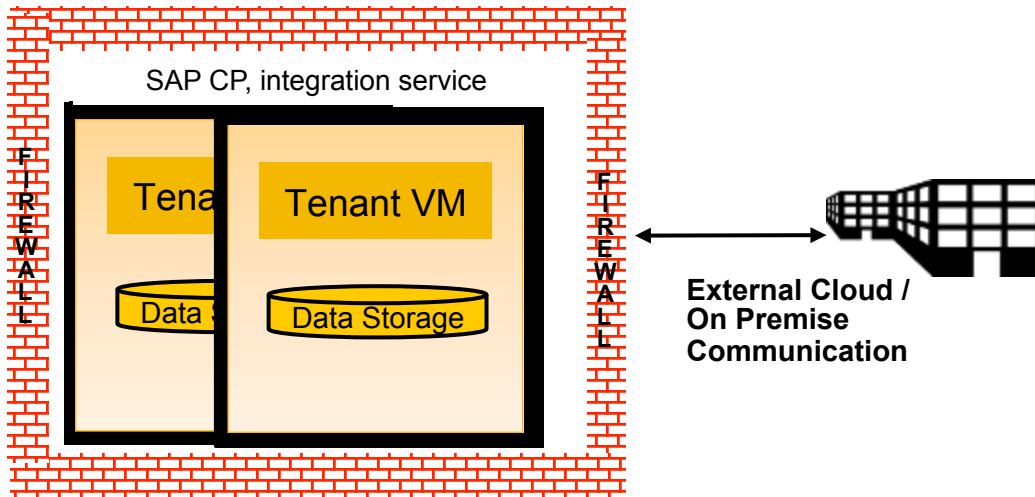
User Experience



Analytics

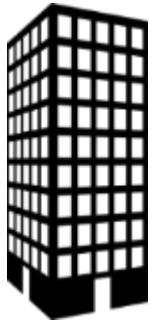
SAP CP Integration

Security



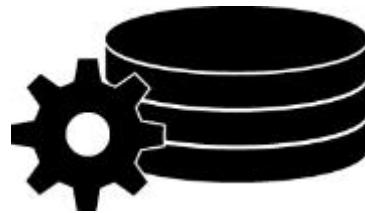
Secure ISO/IEC 27001 Certified Data Centers

- Hundreds of surveillance cameras with digital recording
- Fully monitored doors
- Tens of thousands of environmental sensors
- Security and facility support team onsite 24x7
- Biometric access to secured areas
- Multiple redundant internet connections from multiple carriers
- Redundant Data Storage in two Data Center locations



Secure Provisioning and Infrastructure

- Multi-tenancy
- Data Isolation
- Audit logs
- Roles based Access
- Data Privacy and Protection
- Data Storage and Backup



Secure Communication

- Transport level: HTTPS, SFTP, basic authentication
- Payload level: Encryption, decryption, signing, signature verification
- PKCS#7
- XML Digital Signature (signing)
- WS Security (encryption + signing)
- PGP (Encryption and Signing)
- Secure storage of key stores in data base
- Encrypted Data Persistency



SAP Cloud Platform Integration

Connectivity Protocols and Security

Connectivity Protocols

- HTTP (S)
- SOAP
- OData
- REST Client
- SFTP
- Email
- SAP SuccessFactors
 - SOAP
 - REST
 - ODATA
- IDoc
- SAP Ariba
- Facebook
- Twitter
- WS-RM**, XI**, AS2 **
- Adapter Development Kit



Security

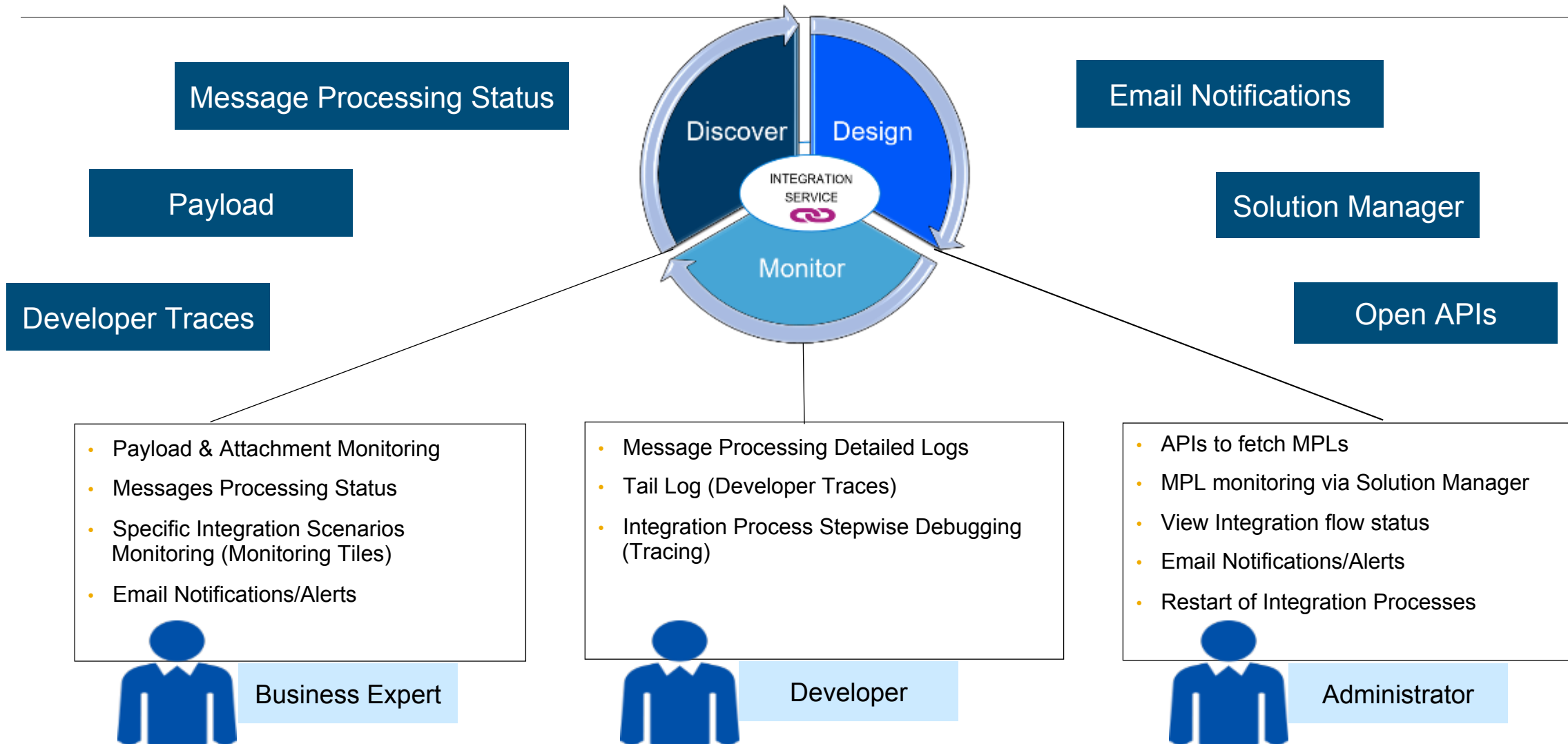
- Introduction to Security
- Transport level: HTTPS, SFTP, basic authentication, certificate based client authentication
- Payload level: Encryption, decryption, signing, signature verification
 - PKCS#7
 - XML Signature (signing)
 - WS Security (signing)
 - PGP
 - Message Digest
 - Encoding/Decoding
- Cloud Connector



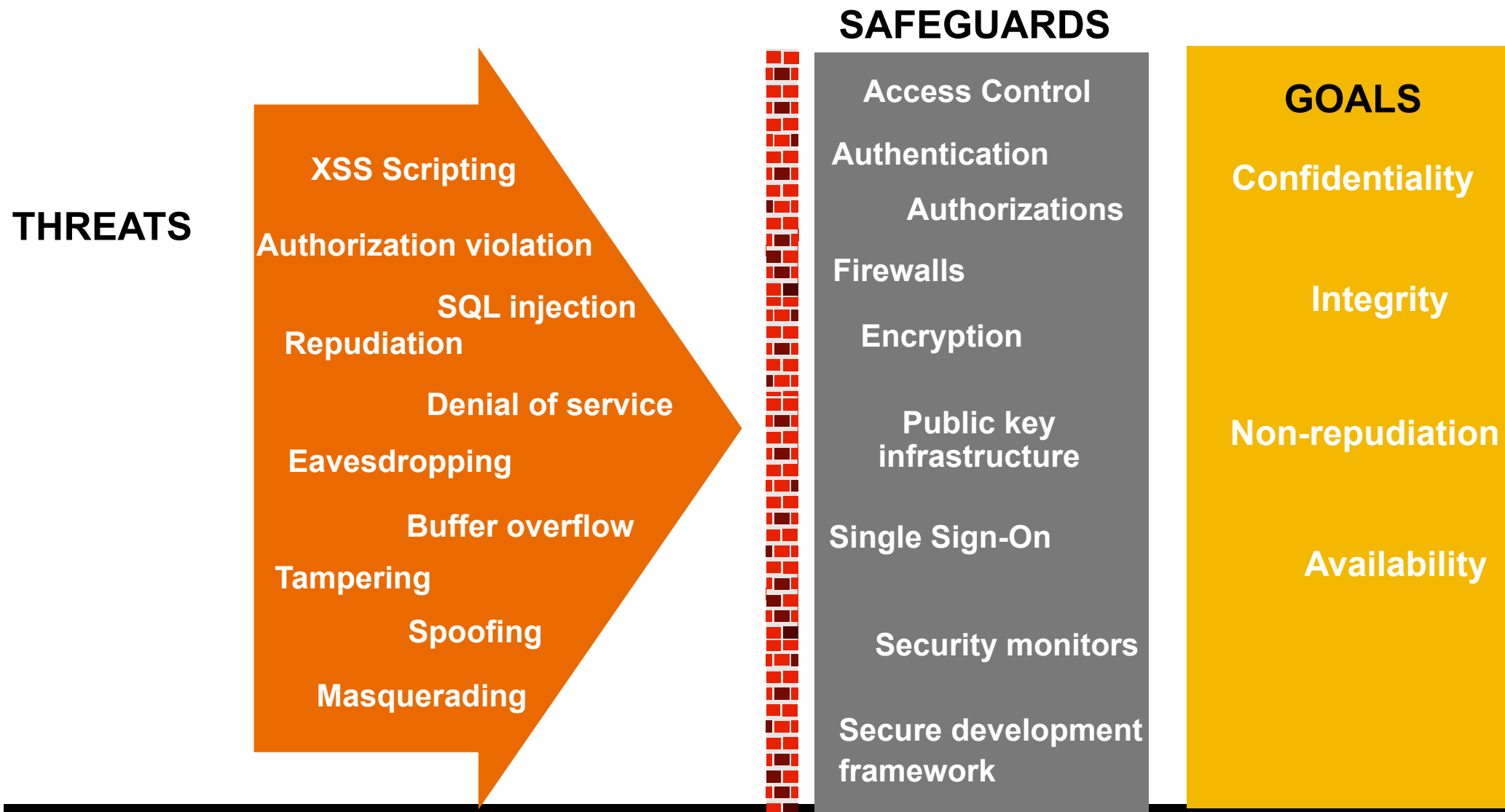
**Available with SAP FSN

*Roadmap . Subject to Change

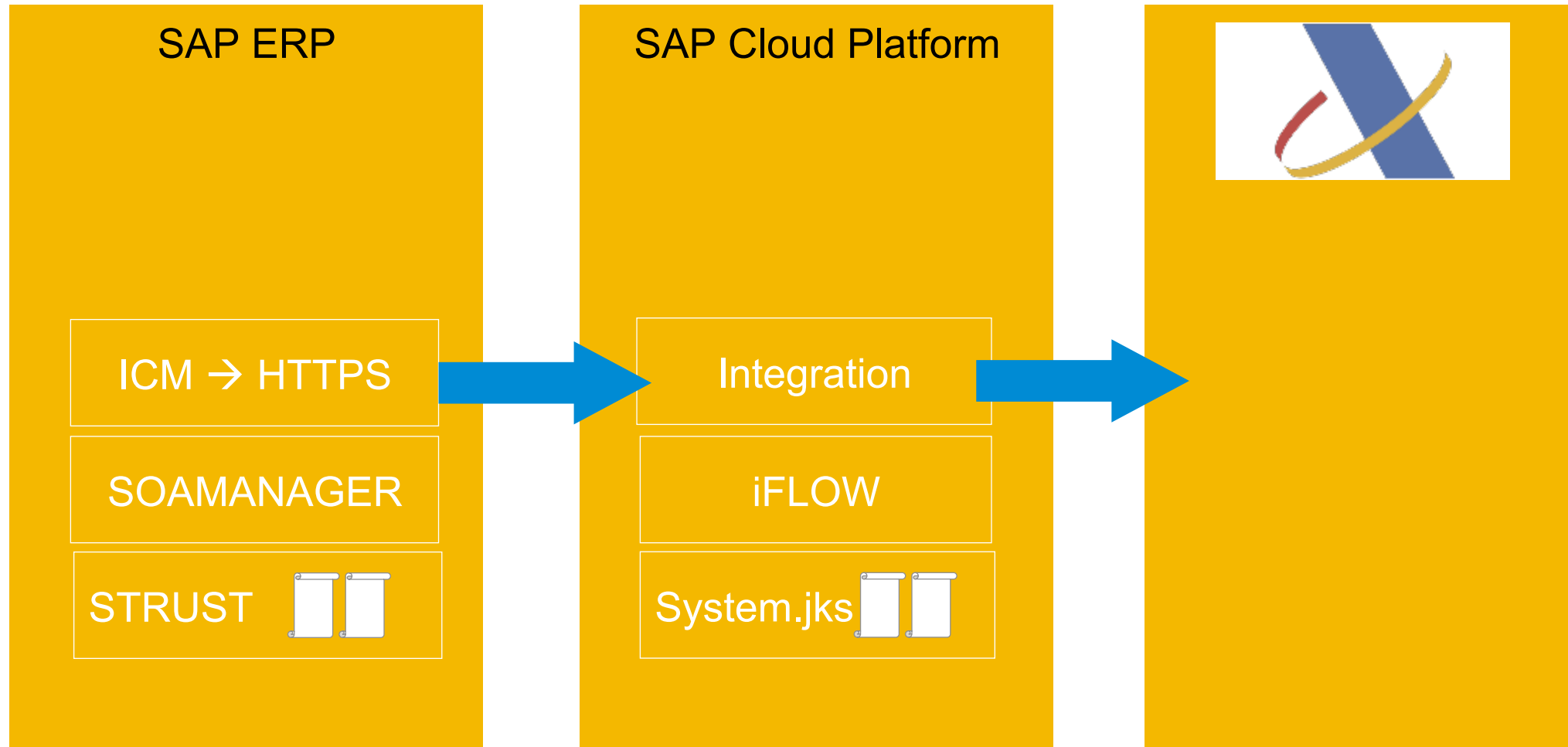
SAP CP Integration Monitoring



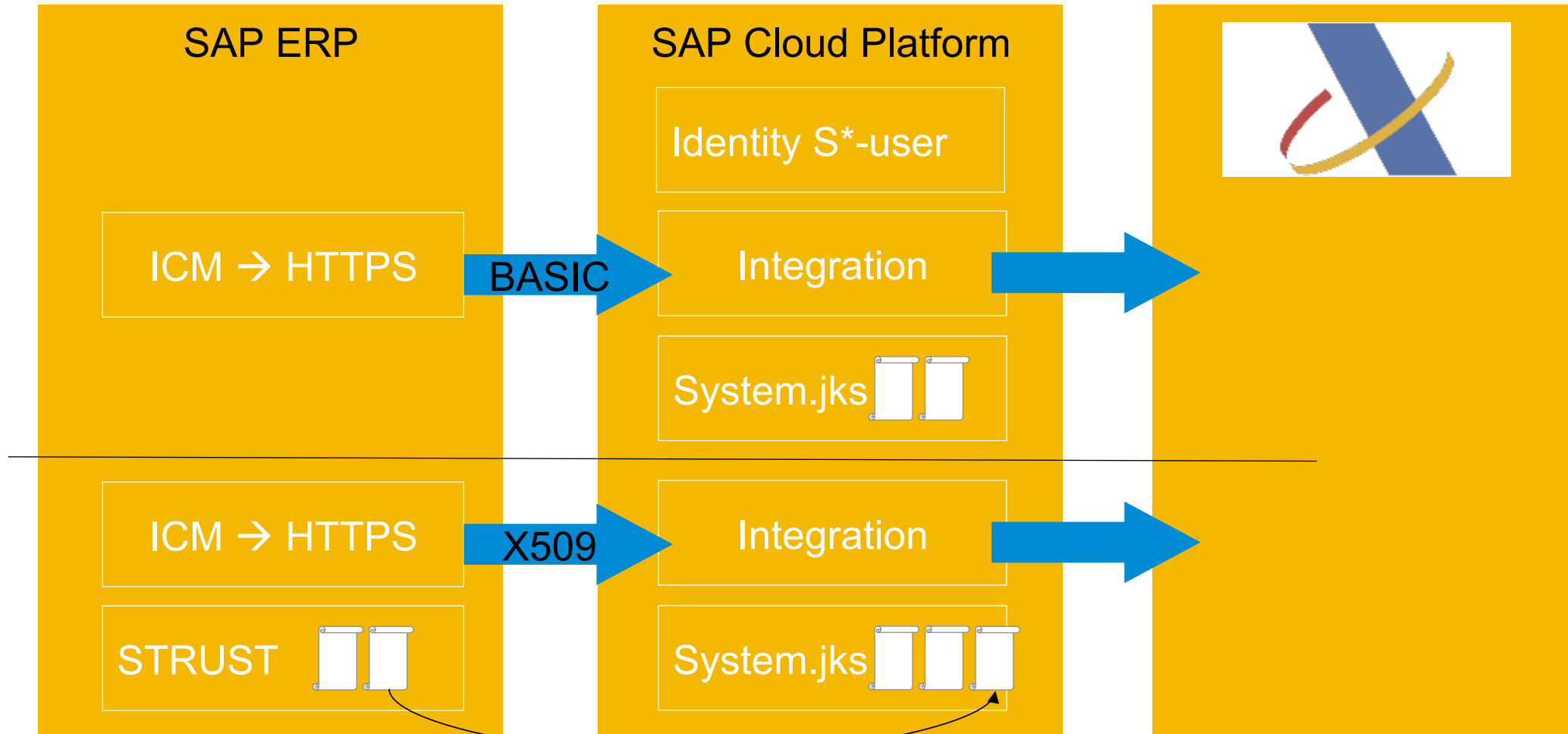
Basic Security Tenets: Where Security Experts Come From



Implementing Transport Level Security End to End



Implementing Authentication End to End : Basic and Cert Based



eDocument Cockpit Monitor

Provides generic monitoring for all eDocument based solutions.

The cockpit covers execution and monitoring.

The screenshot displays the SAP EDocument Cockpit Monitor interface. The top menu bar includes 'EDocument', 'Edit', 'Goto', 'System', and 'Help'. Below the menu is a toolbar with various icons for document management. The main area is titled 'Colombia eInvoice' and contains a table of eDocuments. The table has columns for Status, Proc. Status Descr., eDocument Source Key, Source Type, Src. Canc., CoCode, eDoc Type, Creation Date, Created on, Created By, Posting Date, Intf., and Fil. The table lists various eDocuments, including 'Document Created', 'Approved by Tax Authority', and 'eDocument Cancelled'. The left sidebar shows a 'Result Overview' with a tree structure of eDocuments categorized by country (Chile, Colombia, Czech Republic, Hungary, Italy, Peru, Spain). The 'Colombia eInvoice' category is selected, showing 31 documents. The bottom status bar displays 'SAP', 'EDOC_COCKPIT', 'Ida3q18', 'OVR', and other system information.

Status	Proc. Status Descr.	eDocument Source Key	Source Type	Src. Canc.	CoCode	eDoc Type	Creation Date	Created on	Created By	Posting Date	Intf.	Fil
Document Created		0090042823	SD_INVOICE		CO24	CO_INV	27.09.2016	01:31:08	BENITEZ	26.09.2016		
Document Created		0090042824	SD_INVOICE		CO24	CO_INV	27.09.2016	01:50:30	BENITEZ	26.09.2016		
Document Created		0090042825	SD_INVOICE		CO24	CO_INV	27.09.2016	01:51:52	BENITEZ	26.09.2016		
Document Created		0090042826	SD_INVOICE		CO24	CO_INV	27.09.2016	01:52:51	BENITEZ	26.09.2016		
Approved by Tax Authority		CO2412000000262016	FI_INVOICE		CO24	CO_INV	15.09.2016	18:15:33	BENITEZ	01.06.2016		
eDocument Cancelled		CO2412000000272016	FI_INVOICE		CO24	CO_INV	15.09.2016	21:04:23	BENITEZ	01.06.2016		
Document Created		CO2412000000282016	FI_INVOICE		CO24	CO_INV	15.09.2016	21:25:57	BENITEZ	01.06.2016		
Document Created		CO2412000000292016	FI_INVOICE		CO24	CO_INV	15.09.2016	21:29:46	BENITEZ	01.06.2016		
Approved by Tax Authority		CO2416000000082016	FI_INVOICE		CO24	CO_CRE	15.09.2016	21:38:02	BENITEZ	01.06.2016		
eDocument Cancelled		CO2416000000092016	FI_INVOICE		CO24	CO_CRE	15.09.2016	21:43:22	BENITEZ	01.06.2016		
Document Created		CO2412000000302016	FI_INVOICE		CO24	CO_INV	15.09.2016	21:47:11	BENITEZ	01.06.2016		
Approved by Tax Authority		CO2407000000052016	FI_INVOICE		CO24	CO_DEB	15.09.2016	21:48:18	BENITEZ	01.06.2016		
eDocument Cancelled		CO2407000000062016	FI_INVOICE		CO24	CO_DEB	15.09.2016	21:51:41	BENITEZ	01.06.2016		
Document Created		0090042786	SD_INVOICE		CO24	CO_INV	16.09.2016	11:30:13	LACKA	16.09.2016		
Document Created		0090042787	SD_INVOICE		CO24	CO_INV	16.09.2016	11:33:09	LACKA	16.09.2016		
Document Created		0090042788	SD_INVOICE		CO24	CO_INV	16.09.2016	11:34:52	LACKA	16.09.2016		
Document Created		0090042789	SD_INVOICE		CO24	CO_INV	16.09.2016	11:36:41	LACKA	16.09.2016		
Document Created		0090042790	SD_INVOICE		CO24	CO_INV	16.09.2016	12:29:40	LACKA	16.09.2016		
Document Created		0090042791	SD_INVOICE		CO24	CO_INV	16.09.2016	12:31:20	LACKA	16.09.2016		
Approved by Tax Authority		0090042792	SD_INVOICE		CO24	CO_INV	16.09.2016	12:45:36	LACKA	16.09.2016		
Document Created		0090042797	SD_INVOICE		CO24	CO_INV	16.09.2016	15:20:55	LACKA	16.09.2016		
Approved by Tax Authority		0090042812	SD_INVOICE		CO24	CO_INV	23.09.2016	01:16:43	BENITEZ	22.09.2016		

AIF Monitor

Provides access to technical interfaces monitoring.

- Message Monitoring
- Data Structure
- Errors
- Field level info

The screenshot displays the SAP AIF Monitor interface, titled "Error Handling (200)". The interface is divided into several sections:

- Top Bar:** Includes buttons for "Technical Mode", "Icon Help", "Restrict", and "Alert inbox".
- Data Messages:** A tree view on the left showing the hierarchy of messages. The selected message is "INVOICE/1 Invoice Transmission (1)", which is expanded to show "FA163ED4C2971ED497D752F0BD141903 (1)", "FI_INVOICE (1)", and "PE1048000002792014 (1)". The selected message is dated "1: 29.10.2014 10:41:01".
- Message List:** A table on the right showing the details of the selected message. It has columns for "Type", "Functions", "Hints", "Index", and "Message Text". The table contains two rows of error messages:

Type	Functions	Hints	Index	Message Text
✖			1	No description found for item 002
✖			1	No description found for item 003

- Data Structure:** A tree view on the left showing the structure of the selected message. The selected structure is "BSEG".
- BSEG:Accounting Document Segment:** A table on the right showing the details of the selected structure. It has columns for "Exce...", "LINE_Nr", "SAKNR", "HKONT", "KUNNR", "LIFNR", "FILKD", "X", "G", "HZUON", and "ZFBDT". The table contains four rows of data:

Exce...	LINE_Nr	SAKNR	HKONT	KUNNR	LIFNR	FILKD	X	G	HZUON	ZFBDT
✖	1: 1	1210000000	1210000000	736			X			28.10.2014
✔	1: 2		5910000000				X			
✔	1: 3		5910000000				X			
✔	1: 4		4011000000				X			

WS Runtime (SRT_TOOLS | SRT_UTIL)

Provides access to communication level data.

Supports tracing, call stack, etc...

Allows to see SAP Cloud Platform error messages directly.

Web Service Utilities: Error Log

Re-Select

Overview

Line	Date	Time	User	T100 Error ID	Counter	Long	Role	Adapter Ty...	Short Text	Error Category	Error Subcategory	Comp
6	02/02/2014	21:55:52	WANGJER	SRT_CORE122	3		Consumer	SYNCHRON	Virtual Interface Method >_crmost_prodWsRead:urn:sap-com:document:sap:soap:fun...	Server-System		BC-ES
5		21:55:51	WANGJER	SRT_CORE143	2		Provider	SYNCHRON	Virtual Interface Method >_crmost_pro001prodadvsea001dq:urn:sap-com:document:sap...	Server-System		BC-ES
4			WANGJER	SRT_CORE143	3		Provider	SYNCHRON	Virtual Interface Method >_crmost_prodWsRead:urn:sap-com:document:sap:soap:functi...	Server-System		BC-ES
3			WANGJER	SRT_CORE122	2		Consumer					
2		16:56:04	WANGJER	SRT_CORE143	1		Provider					
1			WANGJER	SRT_CORE122	1		Consumer					

Call Stack

St...	Event type	Event	Program
16	METHOD	HANDLE_RECEIVE_HTTP_RET_CODE	CL_SOAP_HTTP_TPBNDR_ROOT=====CP
15	METHOD	IF_SOAP_TRANSPORT_BINDING~RECEIVE	CL_SOAP_HTTP_TPBNDR_ROOT=====CP
14	METHOD	IF_SOAP_TRANSPORT_BINDING~RECEIVE	CL_SOAP11_HTTP_TPBNDR_ROOT=====CP
13	METHOD	EXEC_SYNC_PROCESSING	CL_SOAP_RUNTIME_CLIENT=====CP
12	METHOD	EXEC_PROCESSING	CL_SOAP_RUNTIME_CLIENT=====CP
11	METHOD	EXECUTE_PROCESSING	CL_SOAP_RUNTIME_ROOT=====CP
10	METHOD	EXECUTE_PROCESSING	CL_SOAP_RUNTIME_CLIENT=====CP
9	METHOD	IF_SOAP_APPLICATION_CS~EXECUTE_PROCESSING	CL_SOAP_APPLICATION_CLIENT=====CP
8	METHOD	WS_PROCESS_CALL	CL_WS_PROXY_RUNTIME_OUTBOUND=====CP
7	METHOD	WS_CALL_OUTBOUND	CL_WS_PROXY_RUNTIME_OUTBOUND=====CP
6	METHOD	IF_WS_PROXY_RUNTIME_OUTBOUND~EXECUTE	CL_WS_PROXY_RUNTIME_OUTBOUND=====CP
5	METHOD	EXECUTE	CL_PROXY_OUTBOUND_ADAPTER_WS=====CP
4	METHOD	IF_PROXY_FRAMEWORK_OUTBOUND~CALL_EXECUTE_OUT	CL_PROXY_OUTBOUND_ADAPTER=====CP
3	METHOD	IF_PROXY_CLIENT~EXECUTE	CL_PROXY_CLIENT=====CP
2	METHOD	CRMOST_PROD_WS_READ	ZZCO_PROD_WS=====CP
1	EVENT	START-OF-SELECTION	ZWEB

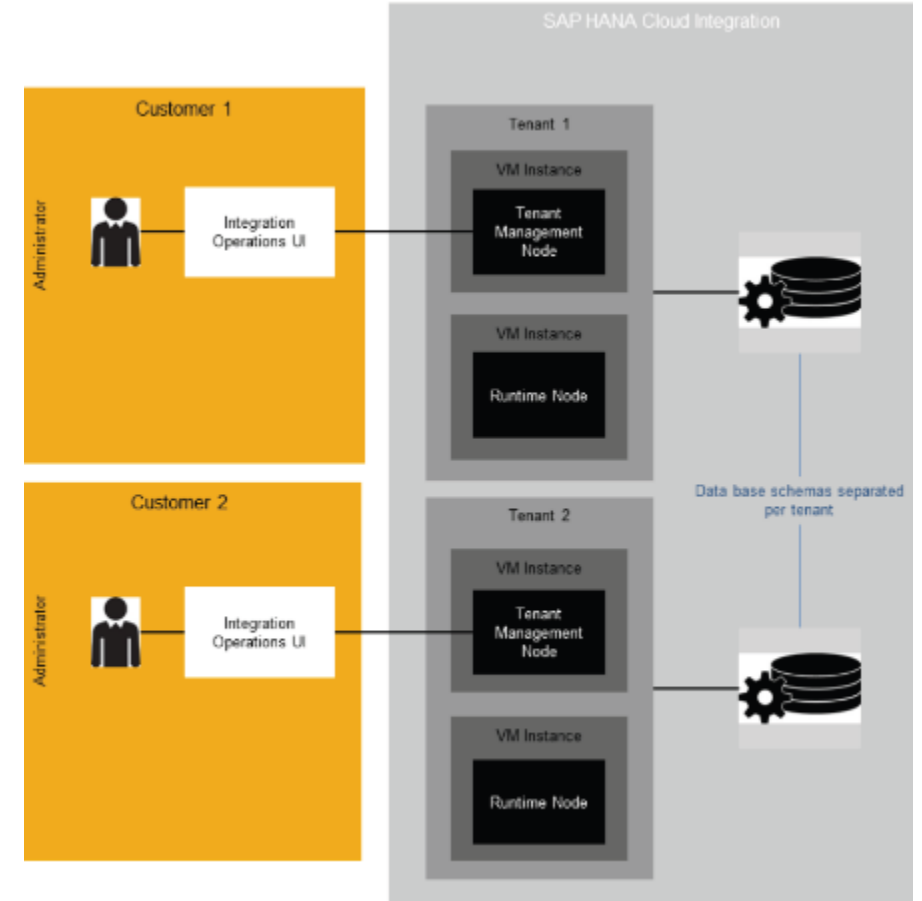
Error Context

Ex...	Name	Value
	ERROR_CONTEXT	
	ERROR_INFO	
	SOAP_FAULT	
	xml:env	http://www.w3.org/2003/05/soap-envelope
	env:Code	
	env:Value	env:Sender
	env:Reason	
	env:Text	Virtual Interface Method >_crmost_prodWsRead:urn:sap-com:document:sap:soap:functi...
	xml:lang	en

Original XML Call Stack Configuration HTML Error

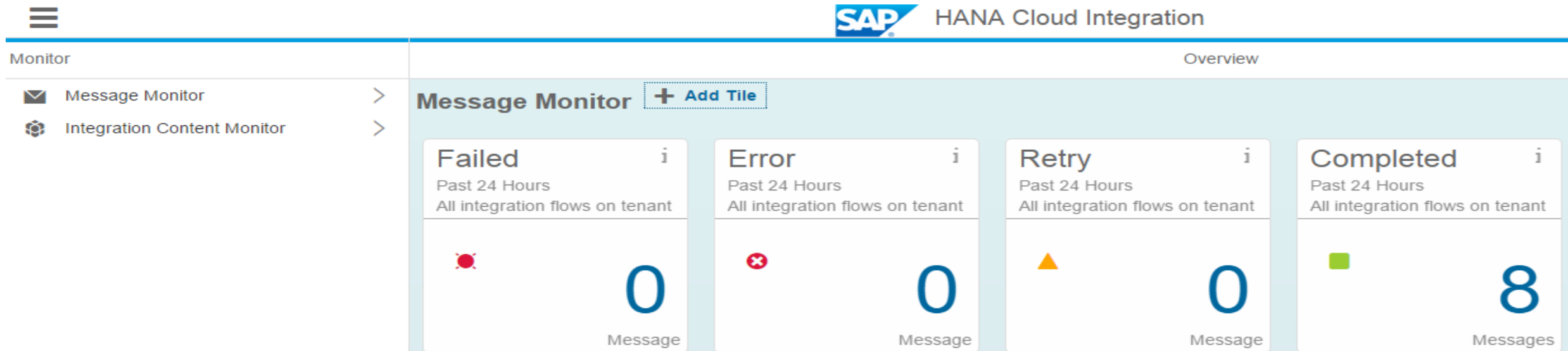
SAP CP Integration - Runtime Environment

- Composed of a cluster of virtual processes
- Message processing tasks for a tenant are performed within a dedicated Java Virtual Machine
- An SAP CP Integration cluster for a tenant (shortly referred to as tenant cluster) is composed of one (or more) tenant management nodes and one or more runtime nodes
- Tenant clusters of different participants (customers) are strictly separated from each other and are unable to interfere
- physical resources of the cloud platform are portioned per tenant
- The individual processes are also referred to as nodes of the cluster



SAP CP Integration - Overview

- Using a Web user interface you as an integration developer can check the status of messages and integration content artifacts for a tenant cluster.
- URL for Web-based Monitoring application will be as below
<https://<ServerName>/itspaces/#/shell/monitoring>
- The start page shows tiles with runtime information on one of the following runtime aspects:
 - Message Monitoring
 - Integration Content Monitor





Thank You