
warp it AG

ASD IF development

Werner Magerl



warp it AG

- **Werner Magerl**
Dipl. Informatiker (FH)
warp it AG since 2000
Director of “Civil aviation and SAP projects”
SAP ERP senior consultant (SAP ERP (MM, SD, Logistic) and SAP PI)
ATA SPEC2000 / ASD S2000M specialist
- warp it AG

warp it Team

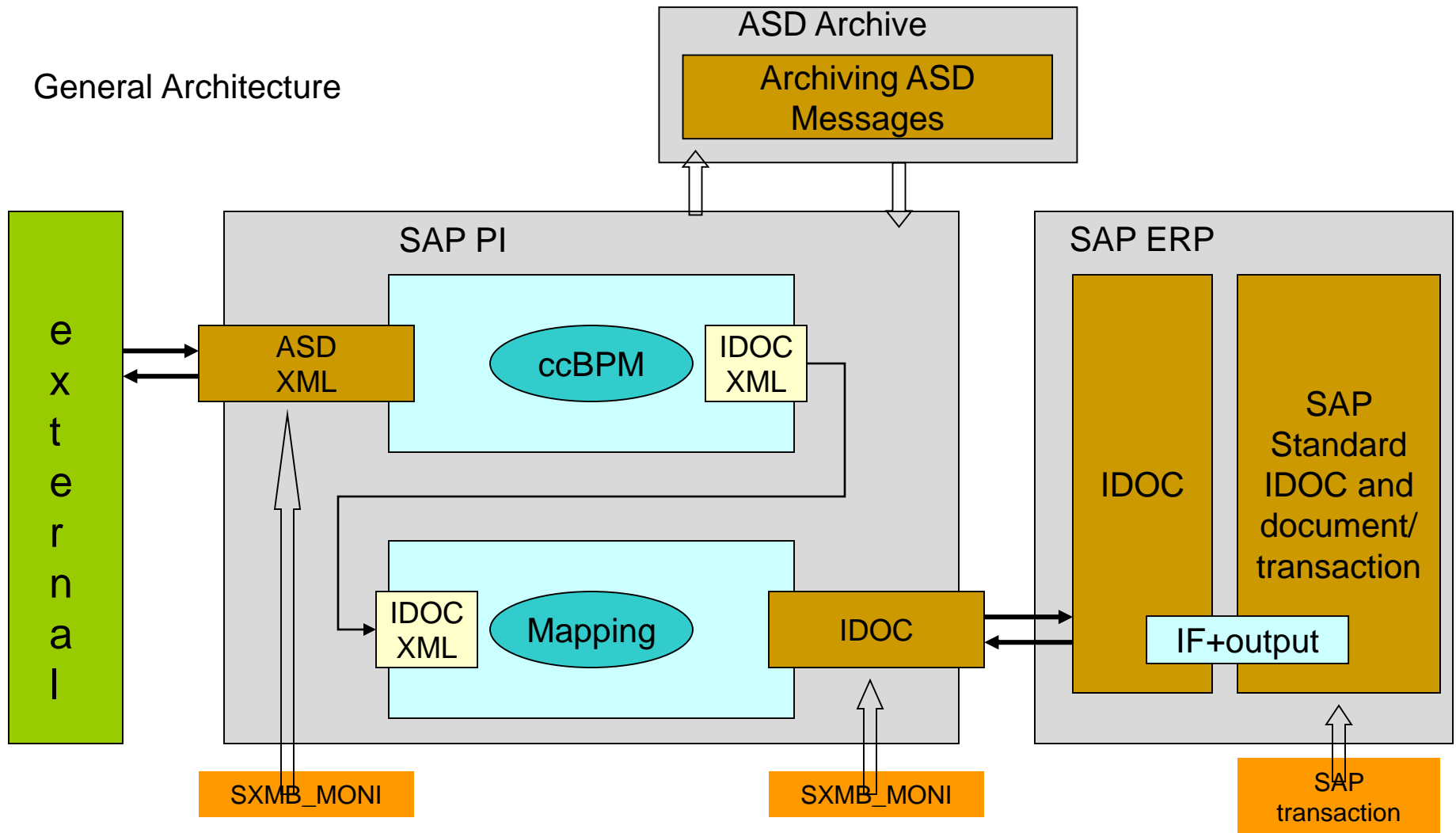
- All developers have been involved in similar projects
- All developers a specialists in specified area, but have good knowledge in all other required areas
- SAP ERP senior consultant
SD/MM knowledge,
Deep knowledge in SAP interfaces (development and customizing),
ABAP development, Workflow development
- SAP ERP senior consultant
Workflow specialist, ABAP development
SD/MM knowledge
- SAP PI senior consultant
PI development, ABAP development
SD/MM knowledge,

Overview

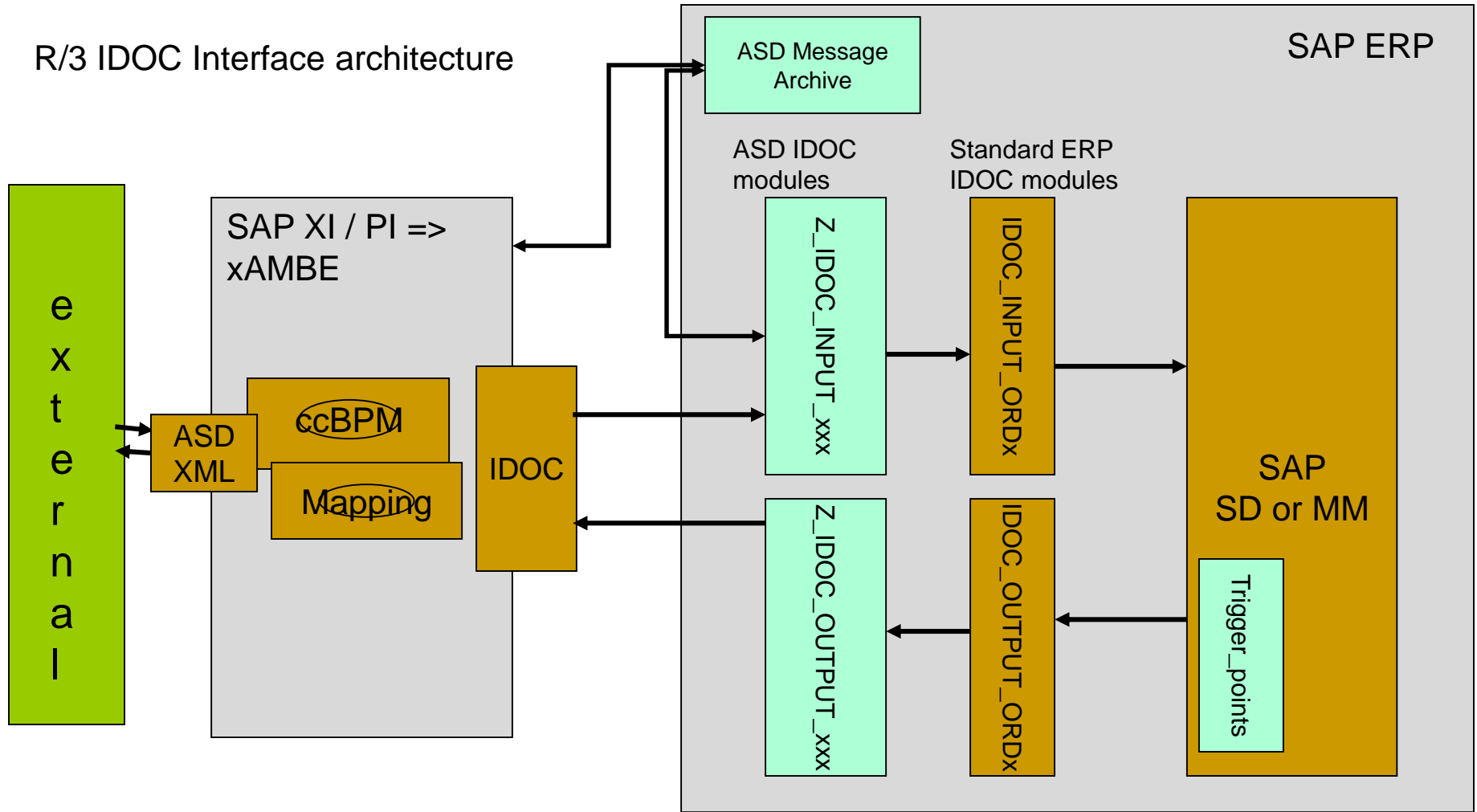
- Decision: SAP R/3 is master system for business process and master data
- Decision: SAP PI (7.11 or higher) as new ASD messaging interface
- Decision: ASD interfaces only required for SD

ASD Interface for SAP ERP

General Architecture



ASD interface – R/3 architecture

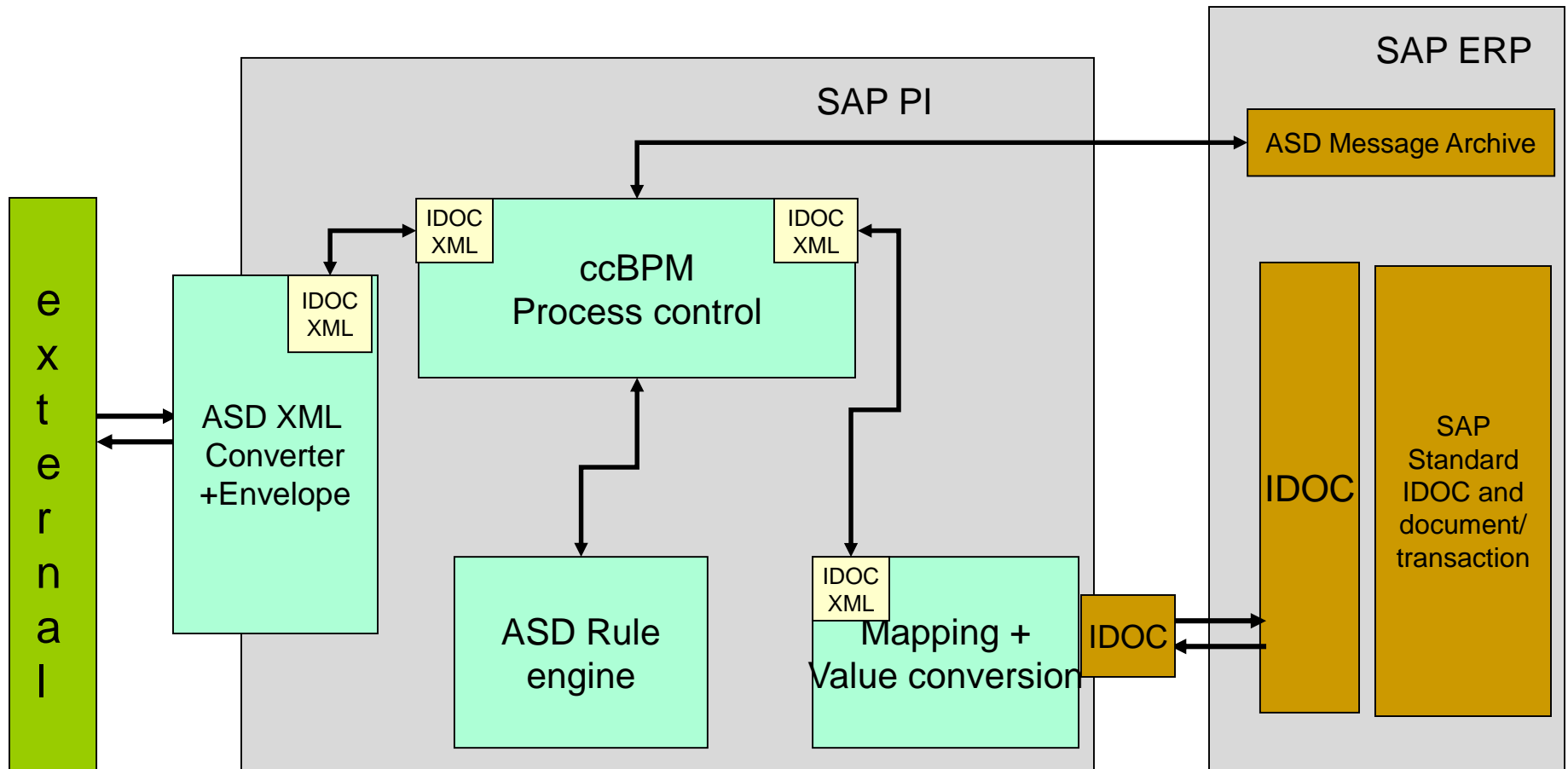


ASD Interface for SAP ERP

warp it proposal includes

- ASD messaging archive to cover SAP PI development
- IDOC development
new (???) message types, extensions (e.g. “SA1OAH” or “ORDERS”)
- New IDOC modules to cover ASD specific inbound IDOCs and call of SAP IDOC modules (or BAPIs)
- Enhancements of SAP IDOC modules and BAPIs for ASD specific requirements
- Enhancements in existing output control to trigger outbound
- New IDOC modules for outbound process to collect ASD specific data or using UserExits in SAP IDOC modules

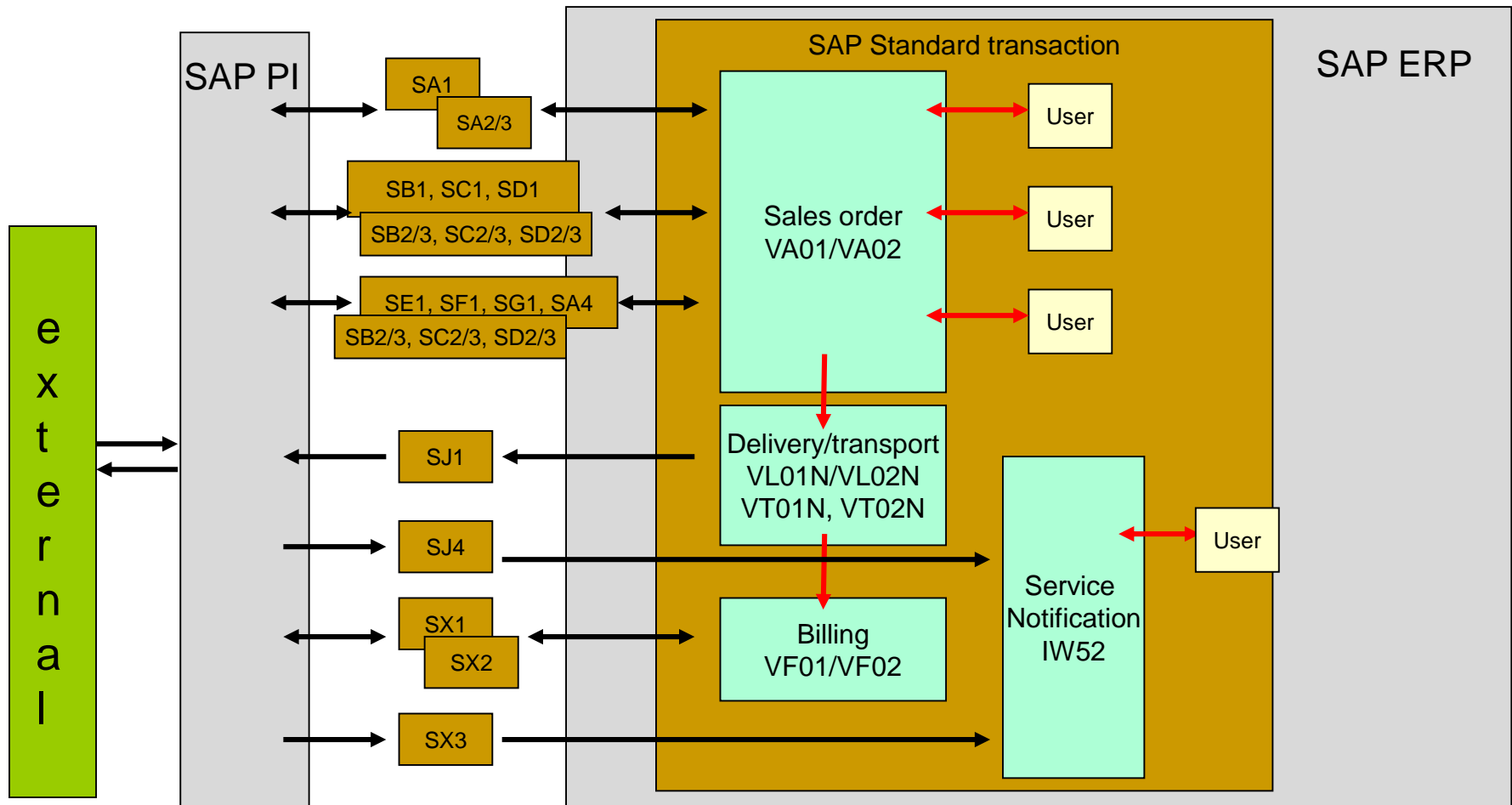
ASD Interface – SAP PI architecture



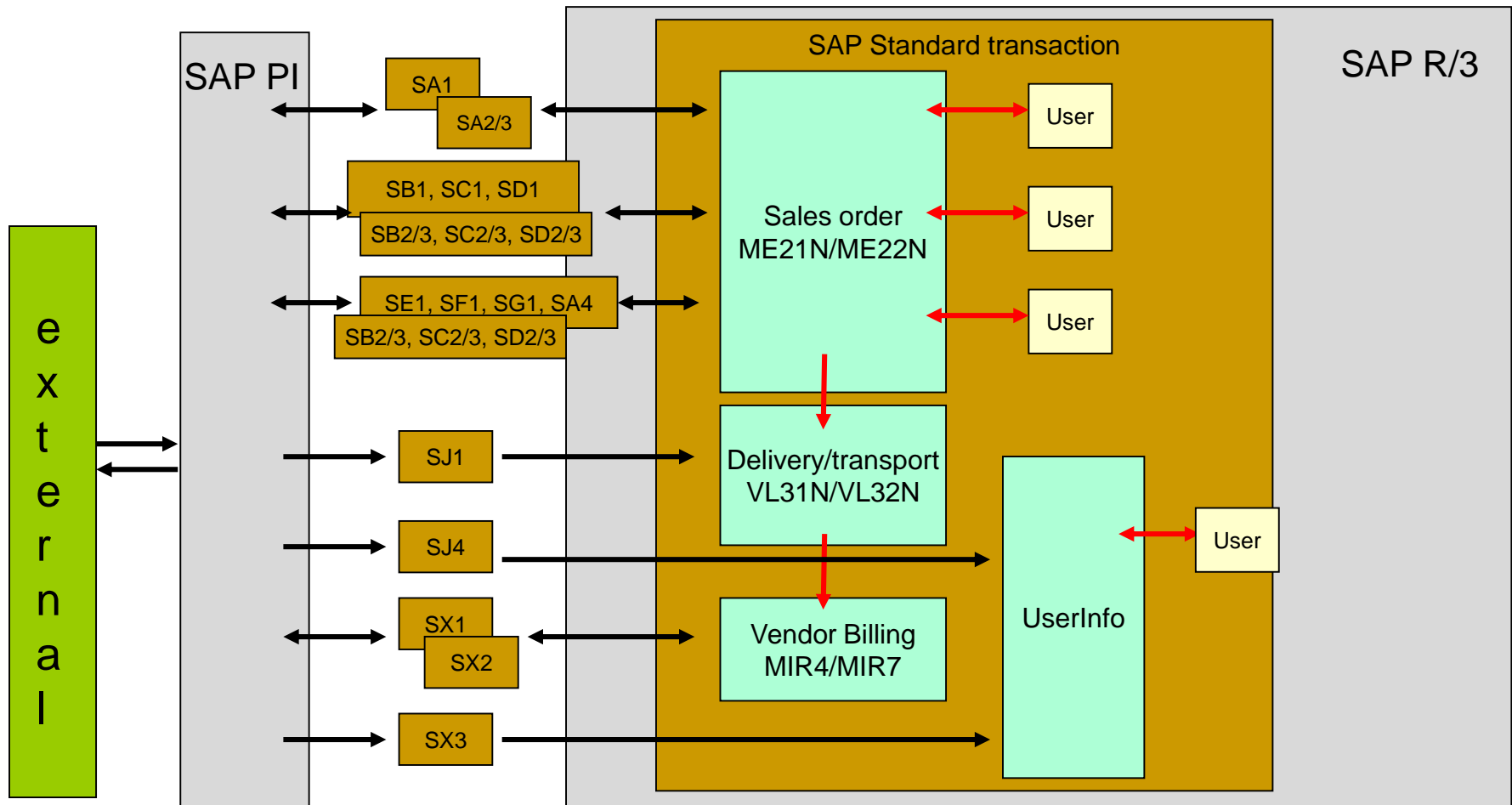
ASD Interface – SAP PI architecture

- ASD XML adapter to convert ASD format to XML format
- Process management (msg and sequence validation, ASD archive, ...)
- Mapping engine (mapping and conversion ASD to SAP format)
- ASD rule engine (ASD rules provided to warp it for translation)
external rule engine (buy or open source) or development
- Handling of routing information and data for U* segments
in new PARTNER PROFILE transaction in SAP EPR (or PI adapter
development)

ASD Interface – SAP ERP process SD



ASD Interface – SAP ERP process MM



ASD User Interface

- Message (IDOC) monitoring in standard SAP transactions or new ASD Archive
- Blocking information in sales order
- User Popup in VA02 for Acknowledge/Reject, Start Supplier changes, Process Customer changes
- ASD workflows for user support
- Service Notification for special processes

ASD User Interface

- Message (IDOC) monitoring in new ASD Archive (but also WE02, WE05,...)

System Help

ASD Message Monitor

Current Messages

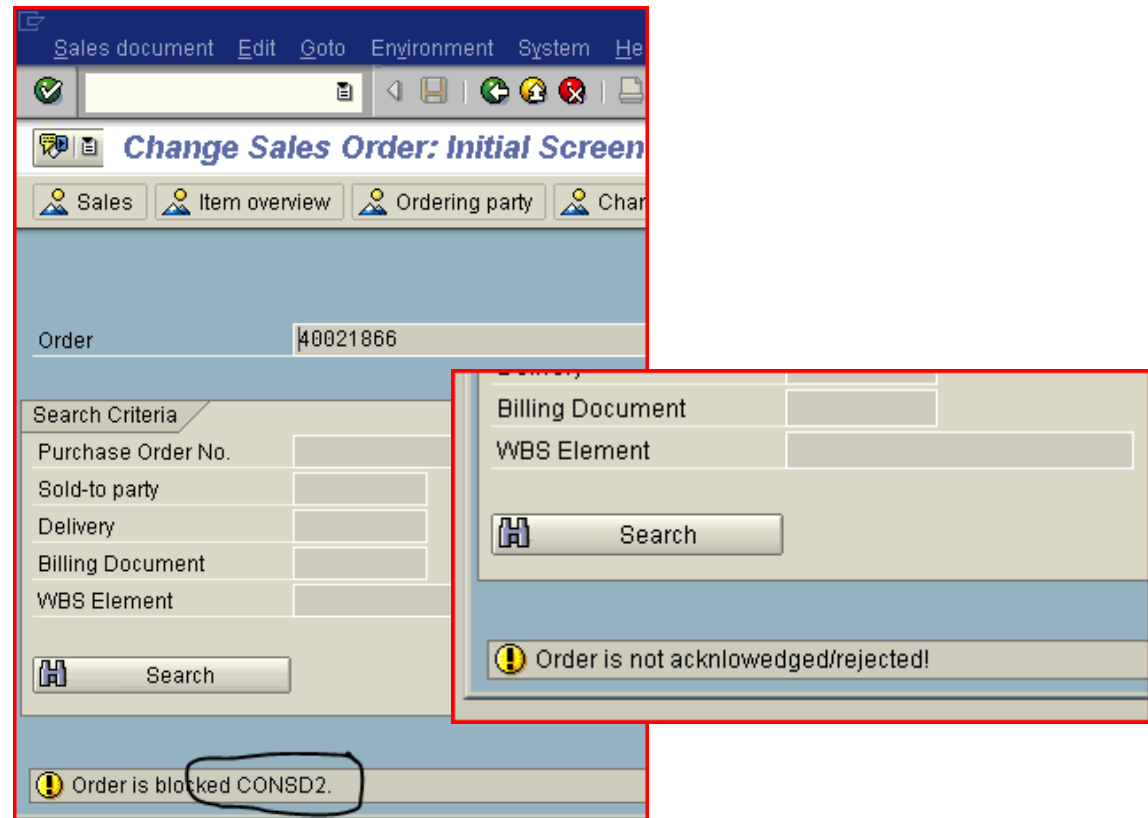
Custo...	Cust. PO No.	SET ...	SD Doc. No.	Edit	N...	MSG...	Contractor	Co...	Area	Order Status
	IPO-RK-QA-073				1			SA1	OA	
	IPO-RR-TT-001		40022742		1			SA1	OA	
	IPO-AM-EE-001				2			ERR		
	IPO-RK-QA-072		40022741		8			SX1	IV	
	IPO-RK-DD-003		40022739		6			SJ1	OD	
	IPO-RK-DD-002				2			ERR		
	IPO-RK-QA-071		40022738		7			SG1	OA	
	IPO-RK-QA-070		40022737		3			SJ1	OD	
	IPO-RK-QA-069		40022735		4			SJ1	OD	
	IPO-RK-QA-068		40022734		3			SJ1	OD	

ASD Message Sequence

Disp...	Area	Co...	Key of A...	Msg. Ref. No.	R...	IDoc No.	IDoc creati...	Status	del.	Timestamp
	IV	SX1		00000001359079	5	1359079	20111109	OK		2011.11.09 15:32:19
	IV	SX1		00000001359071	5	1359071	20111109	OK	✓	2011.11.09 14:40:29
	IV	SX1		00000001359058	5	1359058	20111109	OK	✓	2011.11.09 13:40:36
	OD	SJ1		00000001359015	4	1359015	20111108	OK		2011.11.08 14:15:22
	OA	SA4		00000001359012	3	1359012	20111108	OK		2011.11.08 13:48:31
	OD	SJ1		00000001359008	2	1359008	20111108	OK		2011.11.08 13:45:22
	OA	SA2		00000001359006	1	1359006	20111108	OK		2011.11.08 13:41:03
	OA	SA1		32836158	1	1359005	20111108	OK		2011.11.08 13:37:26

ASD User Interface

- Blocking information in sales order



ASD User Interface

- User Popup in VA02 for Acknowledge/Reject, Start Supplier changes, Process Customer changes and SAC

General header data

Description

Req. del

☐ Comp

Delivery ☐ Accept order/change ☐ Reject order/change

Billing bi ☒ Save without message

Total am

Payment ☒ ☐

Please do not forget to maintain the text remarks.
(select line and use TEXT button)

	POSNR	MATNR	C	SAC	SAC	SAC
	10	JJ115232				
	20	JJ115232				
	30	JJ115232				

Sales Document 40022751

QTY changes

☐ SE1 Qty increase ☒ SA4 executive change

☐ SF1 Qty decrease ☐ SG1 non executive change

☐ Changes are not ASD relevant

Enter -> save changes without sending msg

Cancel -> go back to order

☒ ☐

ASD User Interface

- Workflow control for inbound messages
 - Individual user determination
 - User work list
 - Overview of relevant data

The screenshot displays the ASD User Interface, titled "Business Workplace of Werner Magerl". The interface includes a menu bar (Workplace, Edit, Goto, Folder, Environment, Settings, System, Help) and a toolbar with various icons. Below the menu bar, there are buttons for "New message", "Find folder", "Find document", "Appointment calendar", and "Distribution lists".

The main workspace is divided into two panes. The left pane shows a tree view of the "Workplace: Werner Magerl" structure, including "Inbox", "Unread Documents 1", "Documents 1", and "Workflow 323". Under "Workflow 323", there is a sub-section "Grouped according to task" containing a list of tasks. The task "ASD - incoming customer order" is highlighted with a yellow background and circled in black.

The right pane displays a table titled "ASD - incoming customer order". The table has columns for "E...", "Title", "Status", and "Crea". The table contains 15 rows of data, each representing an incoming customer order.

E...	Title	Status	Crea
	Incoming SA1, Customer [redacted], Order 40022279		07.0
	Incoming SA1, Customer [redacted], Order 40022278		07.0
	Incoming SA1, Customer [redacted], Order 40022276		06.0
	Incoming SA1, Customer [redacted], Order 40022275		06.0
	Incoming SA1, Customer [redacted], Order 40022274		06.0
	Incoming SA1, Customer [redacted], Order 40022273		06.0
	Incoming SA1, Customer [redacted], Order 40022272		06.0
	Incoming SA1, Customer [redacted], Order 40022267		01.0
	Incoming SA1, Customer [redacted], Order 40022266		01.0
	Incoming SA1, Customer [redacted], Order 40022256		29.0
	Incoming SA1, Customer [redacted], Order 40022251		29.0

ASD User Interface







- Message cockpit
 - Overview of relevant message data and sales order data
 - Dynamic links to required functionality
 - Static links to specific functionality

IDoc number	Date	Time	Direction	Partner	Status	Descr.	Value	Sales Order
0000000001351361	06.07.2011	16:37:45	2	KU/A6/D8300	62	IDoc passed to application		
HEADER ***** ** IDOC VALUES ***** ** ORDER VALUES *****								
SALESORDER							0040021866	
ORIGINATOR							DEPS_RAF1	
MOI							T1	
ORU							ORNWM06070028	
IPO							IPOWM06070028	
1 **POSITION								
1	PNR+MFR						DEPS_RAF1	
1	NSN						4920997498076	
1	SHIP_TO							DEPSF4569A
2	DATE						20.12.2018	10.12.2011
2	QTY						1.000	5.000
1 **POSITION								
1	PNR+MFR						P-104:D0272	
1	NSN						4920997498076	
1	PTY						A01	
2	DATE						20.12.2020	
2	QTY						1.000	

ASD User Interface

- Service Notification for special processes

The screenshot displays the ASD User Interface for a Service Notification. The window title is "Service notification" and the menu bar includes "Edit", "Goto", "Extras", "Environment", "System", and "Help". The toolbar contains various icons for file operations and navigation. The main title bar reads "Display Service Notification: ASD-Notification". Below this, there are tabs for "Status" and "Organization...". The form fields are as follows:

Notification	300000126	ZW	SJ4 0080027505	<input type="checkbox"/>
Status	OSNO 			
 ASD_Problem ASD_Reaction				
Contact Person   				
Reported by		Date	18.10.2011	14:03:23
PO number	ORU-AM-FR-007	18.10.2011	Sales Doc.	
Subject				
Description	SJ4 0080027505			
Subject Long Text				

Workshop

- START OF WORKSHOP (xx.xx.2015)

Milestone plan

- Design phase
 - Mapping sheets (ASD msg <-> SAP ERP documents)
 - Final Transaction design (Popup, SAC, Remarks,...)
 - Final Workflow design
 - Blocking
- Development phase
 - ASD message archive
 - PI development: Single mappings
 - PI development: BPM general process flow (message dependent)
 - PI development: specific BPM process steps (message independent)
 - ERP development
- Test/Documentation
 - Test in DEV environment
 - Documentation for implementation

Next steps

- Start project ☺

Support from warp it

- warp it wants to support customer during UAT/integration test phase
- warp it wants to support customer during go-live
- warp it wants to support customer after go-live

Contact

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