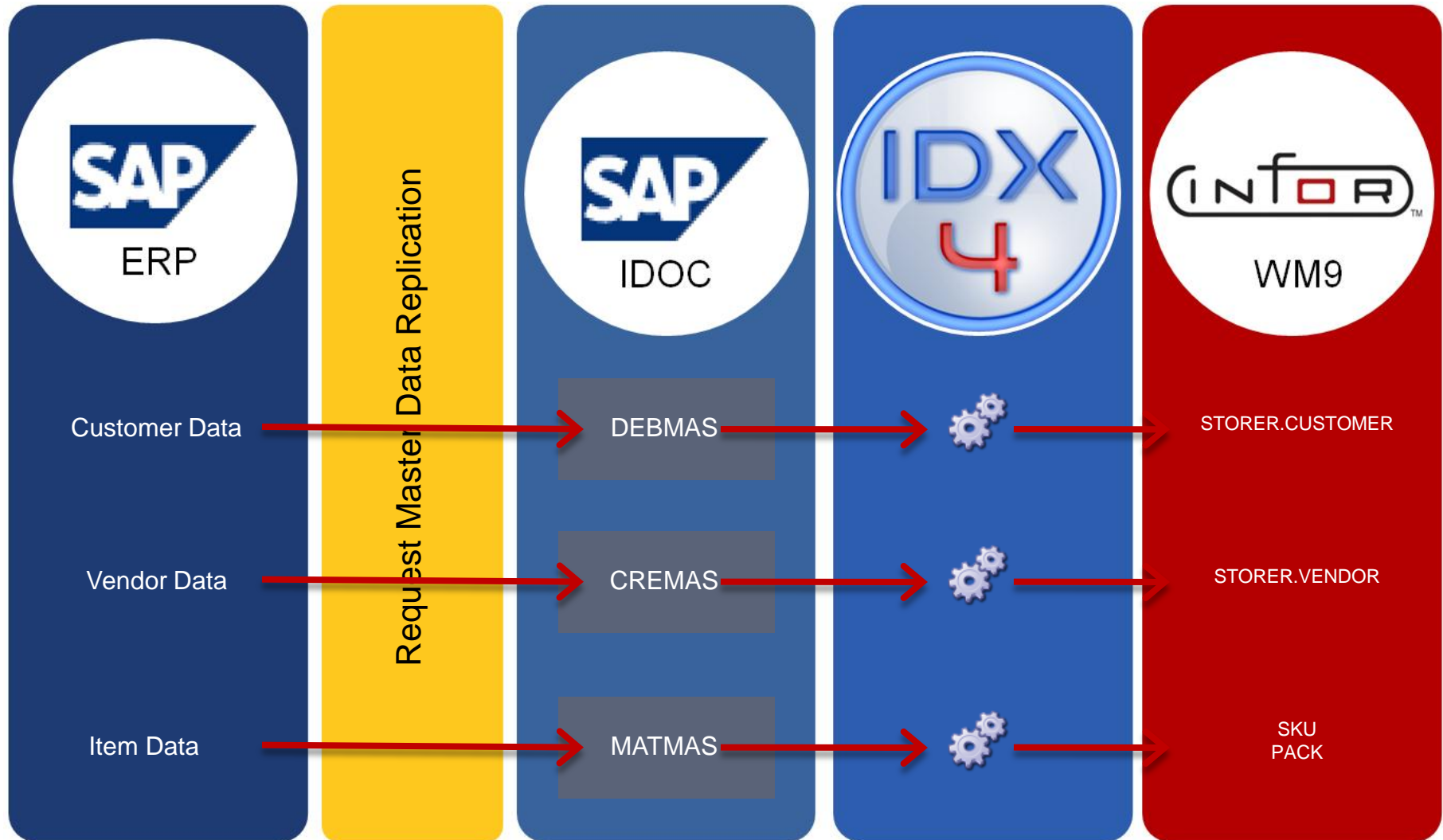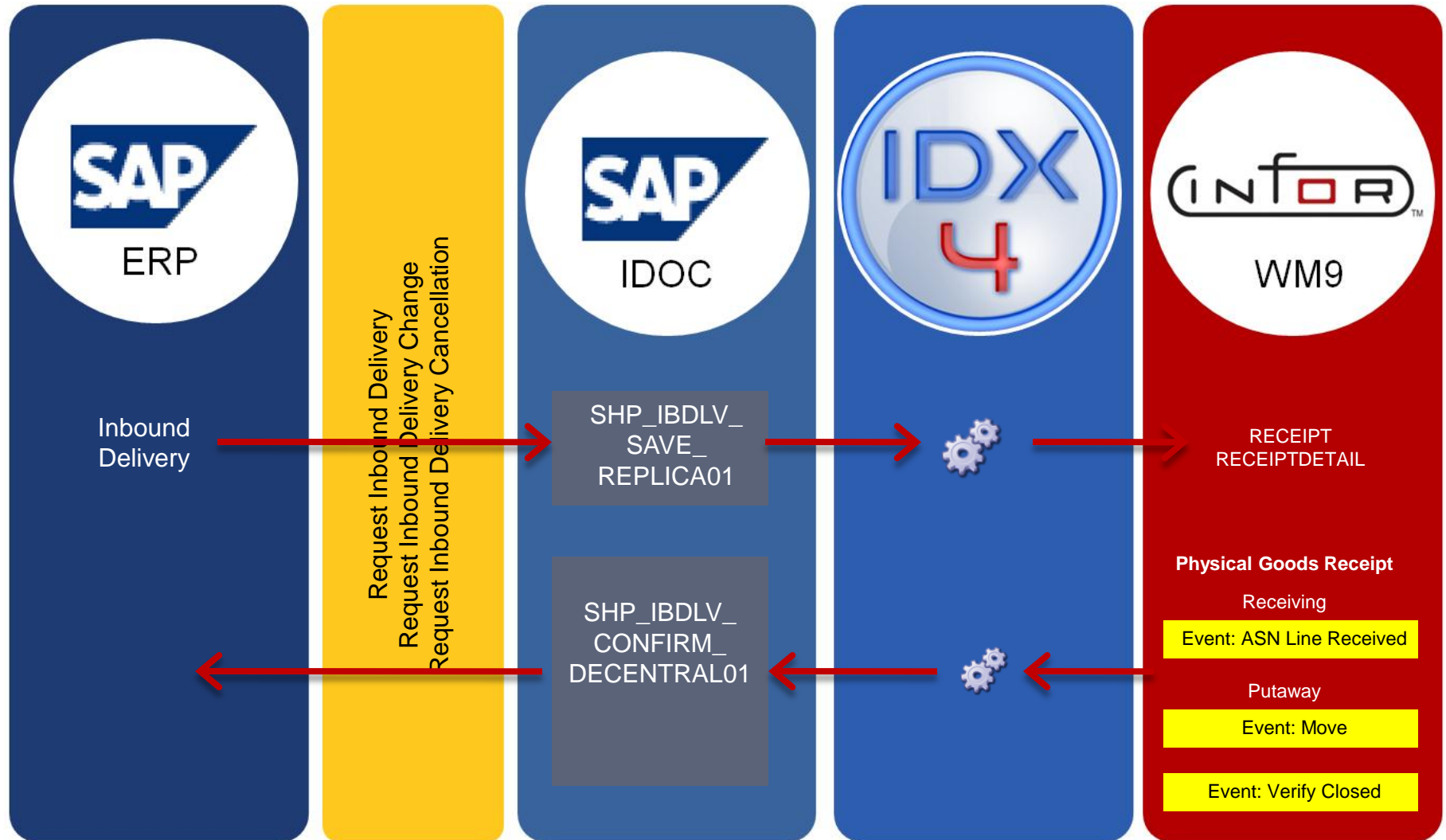- SAP Integration with External WMS (WM9) using IDX4
  - Case 1 – Master Data Replication
  - Case 2 – Inbound Delivery Processing
  - Case 3 – Outbound Delivery Processing
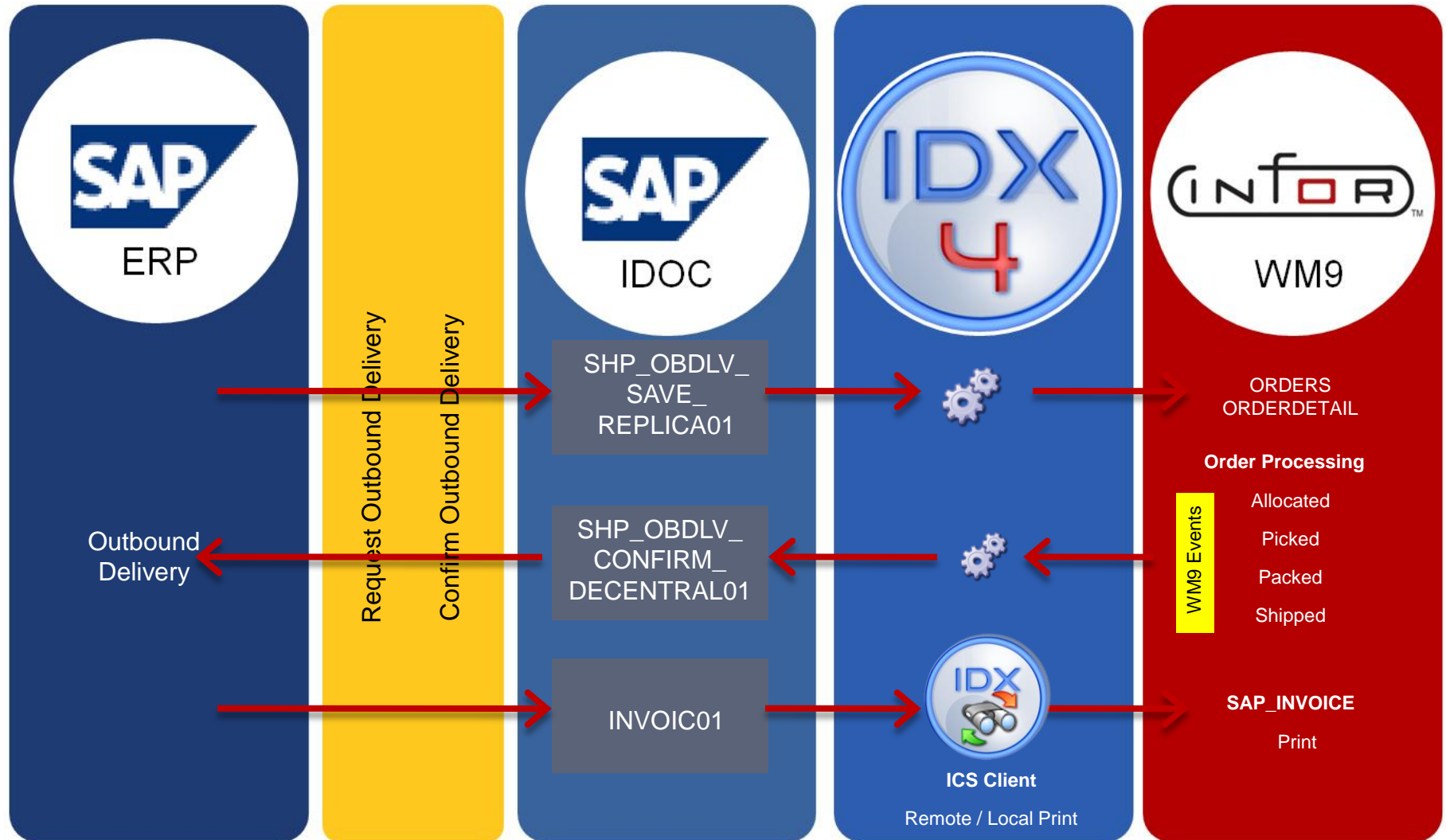 - Case 4 – Goods Movement Processing for Stock Category Transfers
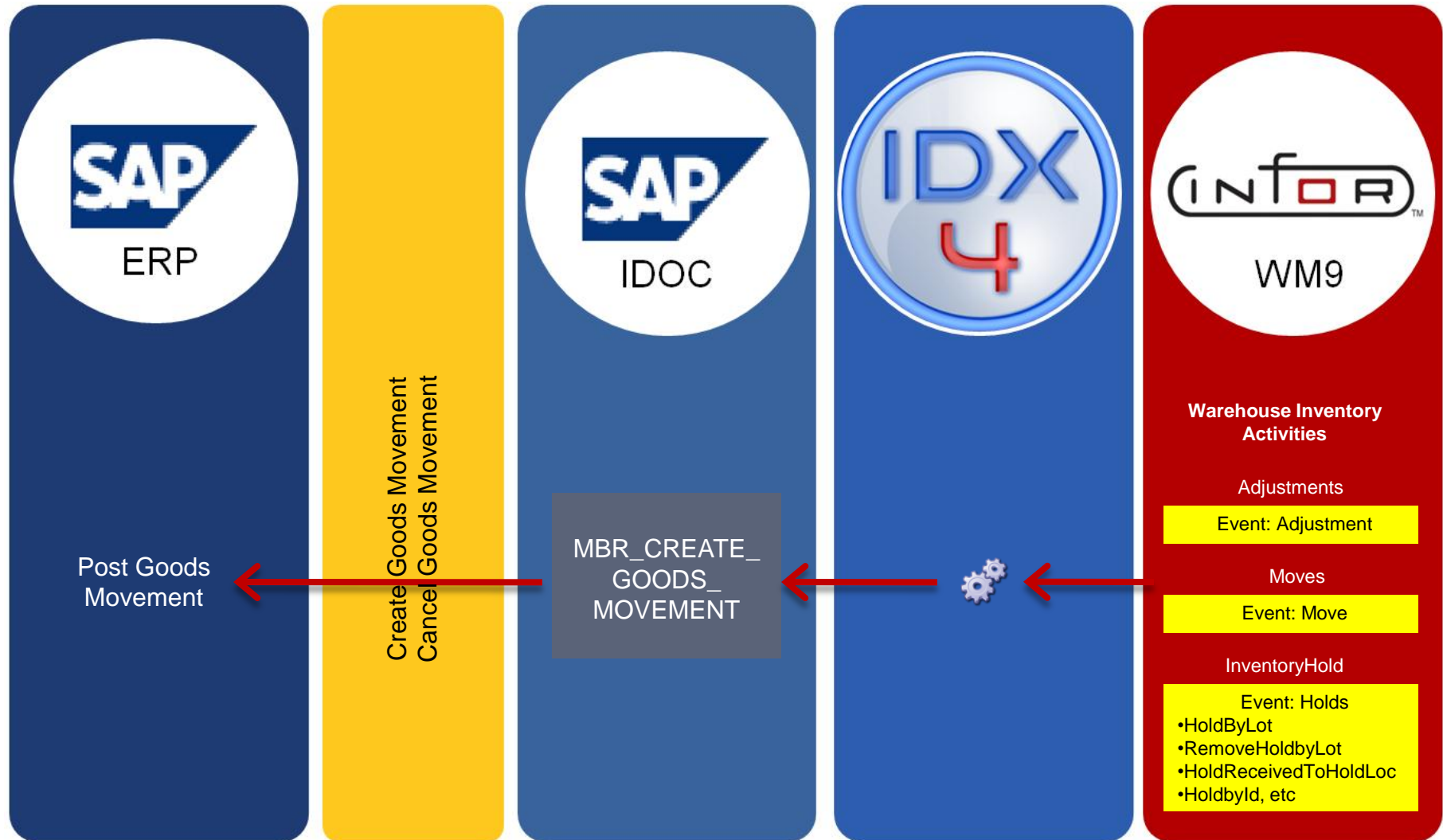
Use Case 1: Master Data Replication

Request Master Data Replication

SAP ERP		SAP IDOC	IDX 4	INFOR WM9
Customer Data	→	DEBMAS	→	STORER.CUSTOMER
Vendor Data	→	CREMAS	→	STORER.VENDOR
Item Data	→	MATMAS	→	SKU PACK

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Use Case 2: Inbound Delivery Processing

SAP ERP

Inbound Delivery

Request Inbound Delivery
Request Inbound Delivery Change
Request Inbound Delivery Cancellation

SAP IDOC

SHP_IBDLV_
SAVE_
REPLICA01

SHP_IBDLV_
CONFIRM_
DECENTRAL01

IDX 4

INFOR WM9

RECEIPT
RECEIPTDETAIL

Physical Goods Receipt

Receiving

Event: ASN Line Received

Putaway

Event: Move

Event: Verify Closed

Use Case 3: Outbound Delivery Processing

SAP ERP

SAP IDOC

IDX 4

INFOR WM9

Request Outbound Delivery

Confirm Outbound Delivery

SHP_OBDLV_SAVE_REPLICA01

ORDERS
ORDERDETAIL

Order Processing

Allocated

Picked

Packed

Shipped

WM9 Events

Outbound Delivery

SHP_OBDLV_CONFIRM_DECENTRAL01

INVOIC01

ICS Client

Remote / Local Print

SAP_INVOICE

Print

INTELLICYBER

Use Case 4: Goods Movement Processing
for Stock Category Transfers

SAP ERP

Post Goods Movement

Create Goods Movement
Cancel Goods Movement

SAP IDOC

MBR_CREATE_ GOODS_ MOVEMENT

IDX 4

INFOR WM9

Warehouse Inventory Activities

Adjustments

Event: Adjustment

Moves

Event: Move

InventoryHold

Event: Holds
•HoldByLot
•RemoveHoldbyLot
•HoldReceivedToHoldLoc
•HoldbyId, etc

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- This solution is by far the most common and simplest method for interfacing SAP
  - Use IDX Adaptor to define IDOCS and WMS mapping
  - Define interface rules (i.e. Lookups, resolutions, etc)

- SAP R3 to Infor WM 4000/9
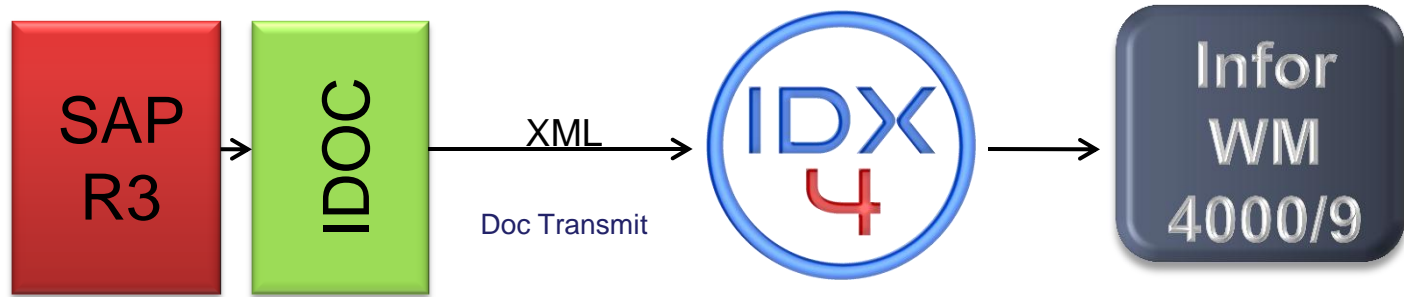
- Infor WM 4000/9 to SAP R3
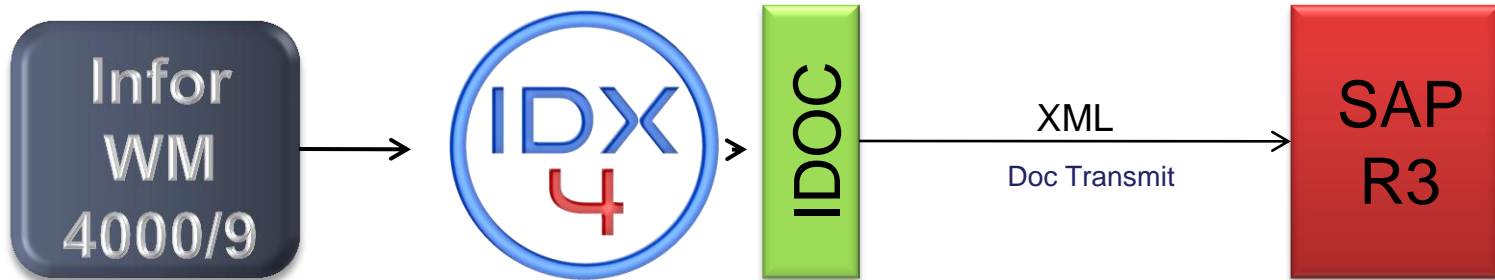
- ## RFC Adaptor

- ## IDOCS

  - Automated metadata connection and mapping

  - Brings down each IDOC level properties (e.g. description, release version, etc)

  - Control Segments and Data Segments can be automatically created

IDX4 Support for SAP – Example Process
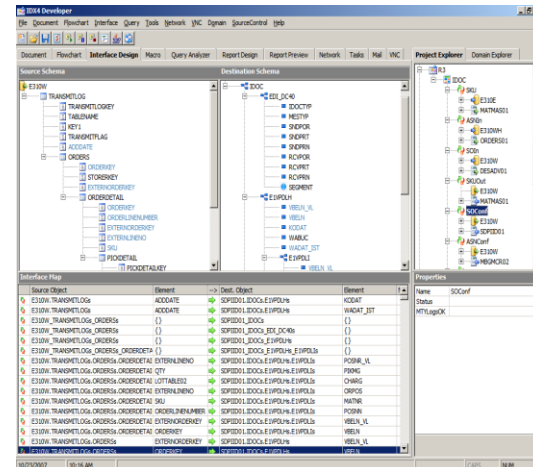
Connect to SAP R3 System

Extract Available IDOCS

Display IDOCS segment and hierarchy

INTELLICYBER

IDX4 Support for SAP – Example Process
Use IDOCS into any interface configuration

IDX4 Support for SAP – Example Process

Interface creates IDOC

SPIID012007101151453.XML - Notepad

File Edit Format View Help

```xml
<?xml version="1.0" standalone="no"?>
<SDPIID01>
        <IDOC BEGIN="1">
                <EDI_DC40 SEGMENT="1">
                        <IDOCTYP>SDPIID01</IDOCTYP>
                        <MESTYP>SDPICK</MESTYP>
                        <SNDPOR>WMS</SNDPOR>
                        <SNDPRT>LS</SNDPRT>
                        <SNDPRN>WMS</SNDPRN>
                        <RCVPOR>SAPZDA</RCVPOR>
                        <RCVPRT>LS</RCVPRT>
                        <RCVPRN>PHDPROD</RCVPRN>
                </EDI_DC40>
                <E1VPDLH SEGMENT="1">
                        <VBELN_VL>0082155539</VBELN_VL>
                        <VBELN>0000000012</VBELN>
                        <KODAT>20071009</KODAT>
                        <WABUC>X</WABUC>
                        <WADAT_IST>20071009</WADAT_IST>
                        <E1VPDLI SEGMENT="1">
                                <VBELN_VL>0082155539</VBELN_VL>
                                <POSNR_VL>000010</POSNR_VL>
                                <VBELN>0000000012</VBELN>
                                <POSNN>00001</POSNN>
                                <PIKMG>3</PIKMG>
                                <MEINS>EA</MEINS>
                                <CHARG>BATCH2</CHARG>
                                <MATNR>000000000000067002</MATNR>
                                <ORPOS>000010</ORPOS>
                        </E1VPDLI>
                </E1VPDLH>
        </IDOC>
</SDPIID01>
```
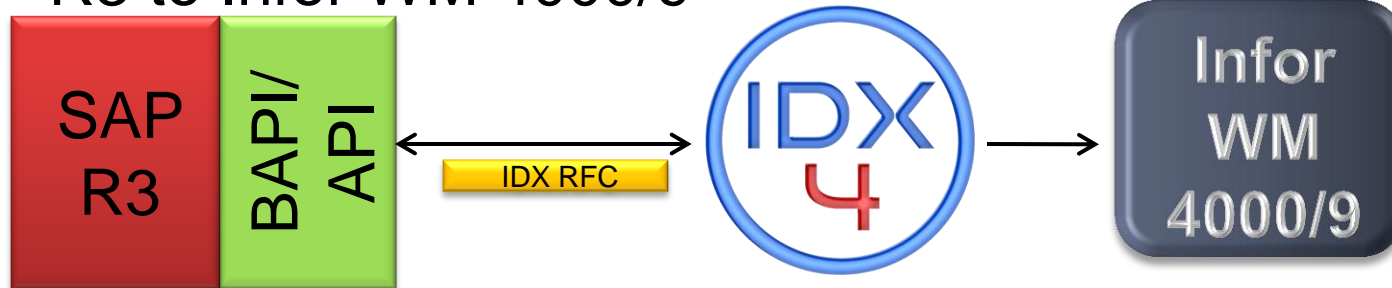
SAP integration – RFC approach

- This solution is used when companies…
  - Want real time movement of data
    - Want to reduce latency
    - Have systems more closely synchronised
- IDX SAP adaptor mechanism, connects to internal SAP API's and BAPI's
- SAP R3 to Infor WM 4000/9

- Infor WM 4000/9 to SAP R3