

汽车行业EDI实施案例

知行软件
rssbus | connect™



星宇股份
XINGYU CO., LTD.

常州星宇车灯股份有限公司

星宇车灯 照亮世界



知行RSSBus EDI平台已协助星宇车灯成功对接**BMW、上汽大众、PLASTIC OMNIUM、广汽丰田及VDL等**，与MAGNA、GM等EDI连接事宜还在陆续筹划中。





星宇股份
XINGYU CO., LTD.

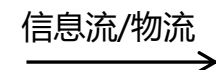
星宇车灯&BMW



星宇股份
XINGYU CO., LTD.

一、项目概览

预测/订单/发货/开票



主要业务流程

- 预测管理
- 订单管理
- 发运管理
- 发票管理

2 EDI实施需求

定制开发，快速部署



EDI连接

- 传输协议：OFTP2.0 via Internet
- 报文标准：UN/EDIFACT

EDI报文开发

业务代码	业务含义	业务报文	传输方向	备注
DELFOR	Delivery Schedule Message	物料需求计划（长期）	星宇接收	项目一期&二期
DELJIT	Delivery Just In Time Message	及时供货计划（短期）	星宇接收	项目二期
DESADV	Dispatch Advice Message	发货通知	星宇发送	项目一期&二期
INVOIC	Invoice Message	发票	星宇发送	项目二期

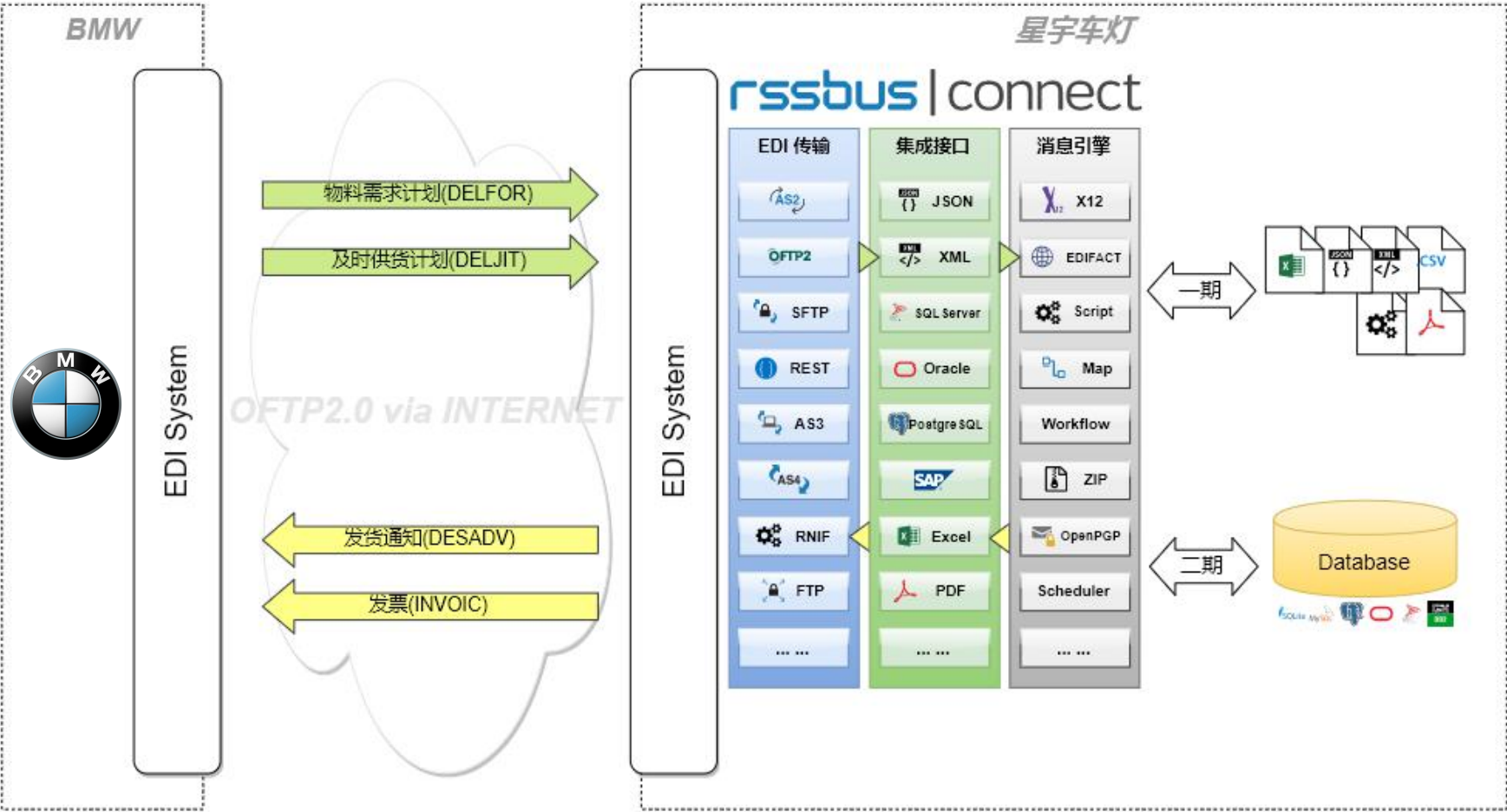
注：Shipping Order、Delivery Note及ediDoc不属于EDI标准报文开发范畴。

业务系统集成

- 实施方案：Excel方案、ERP方案

3 EDI解决方案概览

定制开发，快速部署





二、项目一期：Excel方案

1 EDI系统功能实现-EDI连接

支持AS2, AS4, OFTP, SFTP及FTP等任一国际标准传输协议



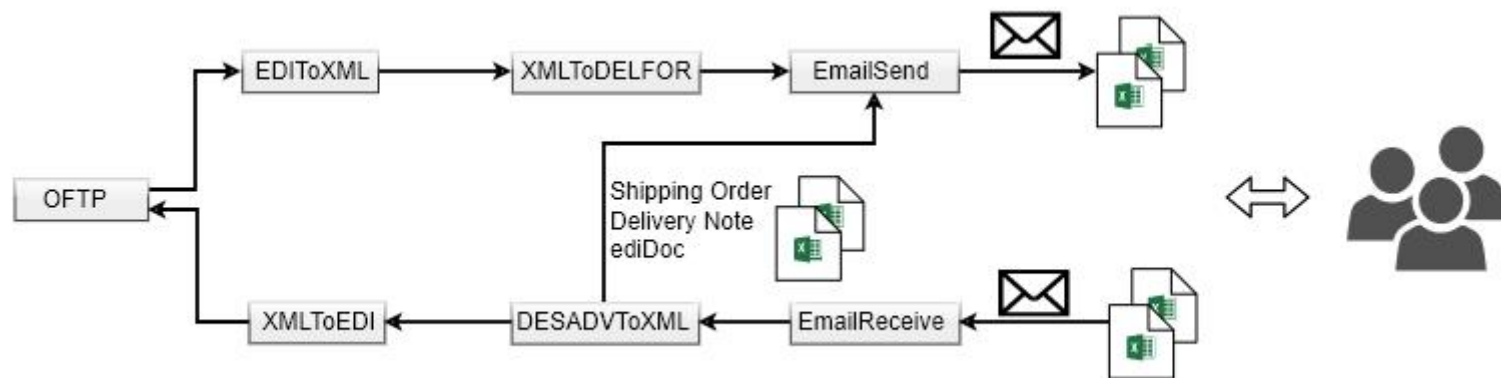
搭建EDI平台主要包括建立EDI连接以及定制开发两部分工作，关于ED连接部分，需要具备：

- 支持OFTP2.0传输协议且通过ODETTE认证的EDI系统，推荐RSSBus EDI系统
- 用于部署EDI系统的服务器（本地&云端）
- 持续且稳定的网络连接，可通过防火墙/代理服务器与公网中外部系统通信
- 双方的OFTP2.0配置信息，包含：
 - ✓ Odette Identifier/SSID Code (SSID标识)
 - ✓ SSID Password (SSID密码)
 - ✓ Version (OFTP协议版本)
 - ✓ Remote Host (远程主机地址)
 - ✓ Port (接收数据端口)
 - ✓ Certificate (私钥&公钥证书)



2 EDI系统功能实现-业务报文开发

支持ANSI/X12, UN/EDIFACT, VDA, EANCOM, ROSETTA及SAP IDOC等任一国际标准报文规范



接收&解析

- OFTP Port: 接收BMW发送的EDIFACT标准报文，转发至EDIToXML Port;
- EDIToXML Port: 将标准EDIFACT报文转换为系统默认的标准XML格式，转发至XMLToDELFOR Port;
- XMLToDELFOR Port: 将系统默认的标准XML格式文件转换为Excel格式，转发至EmailSend Port;
- EmailSend Port: 将以上解析得到的Excel格式文件作为附件，通过邮件方式发送给星宇多个业务及IT人员。

生成&发送

- EmailReceive Port: 业务人员将Excel格式的业务文件作为附件通过邮件方式发送至EDI系统;
- DESADVTtoXML Port: 将以上收到的Excel格式文件转换为系统默认的标准XML格式，转发至XMLToEDI Port;
- XMLToEDI Port: 将系统默认的标准XML格式文件转换为EDIFACT标准报文，转发至OFTP Port;
- OFTP Port: 将标准报文发送至BMW EDI系统。

2.1 标准报文开发-解析DELFOR

UN/EDIFACT标准报文DELFOR——>EDI系统，定制开发——>Excel格式DELFOR文件



```
UNA:+.? '
UNB+UNOC:3+BMW+10+18275910+170705:0603+000000007'
UNH+1+DELFOR:D:04A:UN:GAVB10'
BGH+241:1:6:AMV+000000007+9'
DTM+137:20170623:102'
DTM+2'
NAD+BY+BMW-AG:192'
NAD+SE+18275910:192+CHANGZHOU XINGYU AUTOMOT.:LIGHTING SYSTEMS CO., LTD+NO. 182 QINLING RD.,+CHANGZHOU+213022+CN'
GEI+3+37'
NAD+ST+13216510:192+BMW MANUFACTURING CO., LLC+LC01 - SMALL PARTS W/SE+1400 HIGHWAY 101 SOUTH+GREER+29651+US'
LOC+11+13216510:192'
LIN+1+7442267-02:IN'
PIA+1+6929762-01:SA'
IMD+1+11:272:ASSY RH REAR LAMP PART 3 W/O REAR F'
RFF+ON:3116302'
RFF+AAAN:2'
DTM+171:20170623:102'
RFF+AIFF:1'
DTM+171:20170623:102'
CTA+SC+556:Katharina Baum'
COM+864-989-4032:TE'
QTY+70:0'
QTY+71:1669'
SCC+24'
QTY+113:1'
DTM+2:20170914:102'
QTY+113:43'
DTM+2:20170925:102'
QTY+113:2'
DTM+2:20171116:102'
QTY+113:11'
DTM+2:20171204:102'
QTY+113:11'
DTM+2:20171218:102'
QTY+113:6'
DTM+2:20171223:102'
QTY+113:10'
DTM+2:20180106:102'
QTY+113:2'
DTM+2:20180113:102'
QTY+113:1'
DTM+2:20180129:102'
QTY+113:1'
DTM+2:20180205:102'
QTY+113:24'
DTM+2:20180226:102'
QTY+113:7'
DTM+2:20180402:102'
QTY+113:15'
DTM+2:20180507:102'
QTY+113:3'
DTM+2:20180625:102'
QTY+113:340'
DTM+2:20180718:102'
QTY+113:1191'
DTM+2:20180818:102'
QTY+113:1'
DTM+2:20180901:102'
UNT+57:1'
UNZ+1+000000007'
```

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BMW - Delivery Schedule Notice.

Doc No:	000000012	FreeText:		
Doc Name:	ANY			
Issue Date:	20170628			
Function Code:	9-Original			
BUYER ID:	BMW-AG	Street/Street-add:		
Name/Name-add:		City:		
State:		Country:		
Posatl Code:		Street/Street-add:	NO. 182 QINLING RD.,	
SELLER ID:	18275910	City:	CHANGZHOU	
Name/Name-add:	CHANGZHOU XINGYU AUTOMOT.	State:		
Posatl Code:	213022	Country:	CN	
Shio - From ID:		Street/Street-add:		
Name/Name-add:		City:		
State:		Country:		
Posatl Code:				

Schedule Tree Code:	ST	No:	13216510	Street/Street-add:	1400 HIGHWAY 101 SOUTH
Shio-TO:		Name/Name-add:	BMW MANUFACTURING CO., LLC	City:	GREER
LOCATION/WARE/CONSUMPTION:		Posatl Code:	29651	State:	US
		Location No:	13216510	Country:	
		Location Name:		Location FreeText:	
		Warehouse No:			
		Warehouse Name:			
		Consumption No:			
		Consumption Name:			

Line Item 1	Delivery Schedule No:	20170625	Pre-Delivery No:	20170625	PO No:	3116296
	Delivery Schedule Date:	20170625	Pre-Delivery Date:	20170625	PO Date:	
	Part No:	7442267-04	General FreeText:		LineItem FreeText:	
	Drawing Revision:	6929762-01				
	Desc Code:	11				
	Item Desc/Add: V-Running	ASSY LH REFLECTOR RR WITH REAR POG				

Purchasing Contact:	Contact ID:	556	TE:	864-989-4032
	Contact Name:	Katharina Baum	FX:	
			E-Mail:	

Transport Information:	Transo State:				
	Transport Mode:				
Delivery balance Qty:	Backorder OTY:	:			

Cumul Qty Details:	Cumul Qty Received:	0:	Cumul Qty Ordered:	1660:
	Cumul Received Since:		Cumul Ordered Since:	

Despatched & Received Qty:	Received QTY:	Receipt Date:	Advice No:	Advice Date:	Sequential No:		
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Scheduling Details							
Status:	To be Delivered Qty:	Urgent Delivery Qty:	Delivery Date Req.	Shipment Date Req.	Earliest-Delivery Date:	Latest-Delivery Date:	Start-Authorisation period
24	1:	:	20170914				End-Authorisation period
	43:	:	20170925				
	2:	:	20171116				
	41:	:	20171204				
	0:	:	20171218				
	0:	:	20171223				
	0:	:	20180106				
	0:	:	20180113				
	1:	:	20180129				
	1:	:	20180205				
	24:	:	20180226				
	7:	:	20180402				
	5:	:	20180507				
	3:	:	20180625				
	340:	:	20180718				
	1191:	:	20180818				
	1:	:	20180901				

▲ UN/EDIFACT标准报文DELFOR

▲ 经由EDI系统解析得到的Excel格式的DELFOR文件

Excel格式DESADV文件——>EDI系统，定制开发——>UN/EDIFACT标准报文DESADV



▲经由EDI系统转换得到的UN/EDIFACT标准报文DESADV

2.3 非标准报文开发-Excel示例文件

EDI系统根据发货通知数据生成的Excel格式文件：Shipping Order、Delivery Note及ediDoc



1) Supplier CHANGZHOU XINGYU AUTOMOTIVE LIGHTING SYSTEMS CO., LTD NO. 182 QINLING RD., 213022, CHANGZHOU, CHINA.		2) Supplier No. [REDACTED]		3) Shipping order no. 20171103	
5) Loading point		6) Date 02.11.2017		7) Relation no.	
8) ASN No. 20171103		9) Forwarder		10) Forwarder no. [REDACTED]	
11) Recipient BMW [REDACTED] [REDACTED] Germany.		12) Buyer no. BMW AG		13) Bordero no.	
14) Unloading point BMW 75		15) Supplier comment		16) Arrival Date 03.11.2017	
17) Arrival Time 00:00		18) Delivery Note No		19) Amount	
20) Packaging type		21) SF		22) Content	
23) Tare kg		24) Gross W weight kg		25) Sum [REDACTED]	
26) Capacity cdm/loading meter		27) Summations		28)	
29) Hazardous material classification		30) Hazardous material description: see attachment if available		31) Freight terms	
32) Value of goods		33) Transport insurance from forwarder to cover with		34) Sender C. O.D.	
35) Attachments		36) Order number		37) Account assignment	
38) Vehicle ID [REDACTED]		39) Truck-Code		40) Mode of Shipment [REDACTED]	
41) Cost calculation sheet		42) Notice of receipt: Despatch received completely and correctly.		43) Confirmation of takeover: The dispatch described above is taken over completely and in proper condition.	
44) Contents Euro-Pal. Euro-Box-Pal.		45) Exchanged Euro-Pal. Euro-Box-Pal.		46) for consignee	
(02) Supplier No. [REDACTED]		(08) ASN No. [REDACTED]		(10) Forwarder no. [REDACTED]	
(13) Bordero no. [REDACTED]					

Delivery Note

Delivery Note		Delivery Note Number: 00000023	
Delivery Note Date: 04.04.2017		Supplier Code / -Name : [REDACTED] CHANGZHOU XINGYU AUTOMOTIVE LIGHTING SYSTEMS CO., LTD	
Dispatcher Address (Supplier): NO. 182 QINLING RD., CHANGZHOU CN		Expedited Courier Service: [REDACTED]	
Delivery Address: BMW [REDACTED] [REDACTED] Germany		Contact Person (Supplier): [REDACTED]	
Purchase Order Number (BMW): [REDACTED]			
Pos.	BMW Part Name/Description.	BMW Material Number. (Part number +	Net Weight. (KG)
Quantity. (pcs)	Package.	Despatch Quantity. (pcs)	Ident-number (Interne Kennzeichnung)*
001	[REDACTED]	[REDACTED]	[REDACTED]
Total			
Size			

Signature

Date

ediDoc

DPUR - WARENREGLITSCHEN		SENDUNGS-NR.: [REDACTED]		21.04.17 - 00:00	
LIEFERANT-VERK: CHANGZHOU XINGYU AUTOMOTIVE LIGHTING SYSTEMS CO., LTD		EMPAENGER-VERK KUNDE: 060		ABLADESTELLE: 6107B	
-NR: [REDACTED]		-NUMMER: 060		LAGERORT: [REDACTED]	
CHANGZHOU XINGYU AUTOMOTIVE LIGHTING SYSTEMS CO., LTD		BMW AG, V. 6.1 Tor 1		VERBANDSSTELLE: [REDACTED]	
NO. 182 QINLING RD., 213022, CHANGZHOU, CHINA		[REDACTED] Germany		FRACHTFUEHRER: [REDACTED]	
				-NUMMER: 30558910	
				SEND -GEWICHT BR (kg): 51.48	
LS-NR	SACHNUMMER	KUNDE	WICHTIGKEIT	V/C	BEZEICHNUNG DER LIEFERUNG
-DATUM	DETERANT	NUMMER KUNDE	ZUSATZLICHE LIEFERANT		
-POS	PACKMITTEL	-MENGE	-NUMMER KUNDE	FUELLMENGE	-NUMMER LIEFERANT
00000010	[REDACTED]	40	EA	S/	[REDACTED]
21.04.17	VP: [REDACTED]		X	64	
001	TEXT: [REDACTED]				
	Engineering Change Level: 03				
00000020	[REDACTED]	40	EA	S/	[REDACTED]
21.04.17	VP: [REDACTED]		X	64	
001	TEXT: [REDACTED]				
	Engineering Change Level: 03				
00000030	7491347-02	50	EA	S/	[REDACTED]
21.04.17	VP: [REDACTED]		X	64	
001	TEXT: [REDACTED]				
	Engineering Change Level: 02				
Design Status: KAT.				Use key: S	
***** E N D *****					

Shipping Order

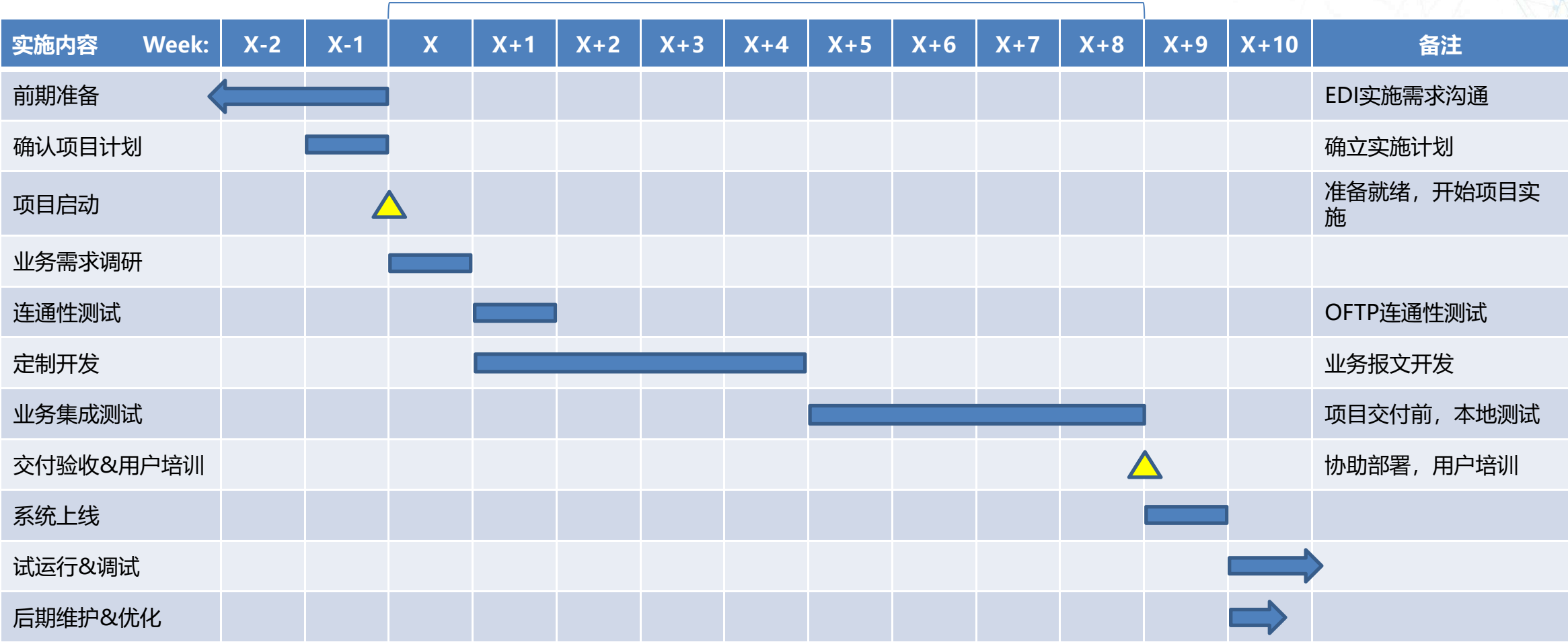
VER:	MENGENPRUEFUNG:	QUANTITYPRUEFUNG:

3 项目进度概览

准备/计划/交付/上线



从项目启动至上线约8周时间





三、项目二期：ERP方案

1 EDI系统功能实现-EDI连接

定制开发，快速部署



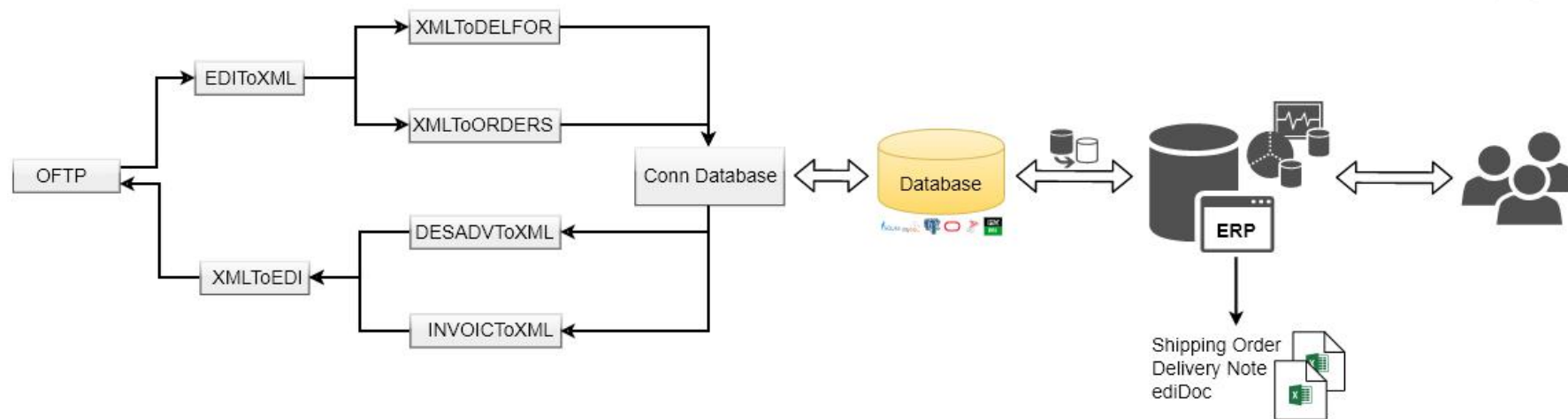
搭建EDI平台主要包括建立EDI连接以及定制开发两部分工作，关于ED连接部分，需要具备：

- 支持OFTP2.0传输协议且通过ODETTE认证的EDI系统，推荐RSSBus EDI系统
- 用于部署EDI系统的服务器（本地&云端）
- 持续且稳定的网络连接，可通过防火墙/代理服务器与公网中外部系统通信
- 双方的OFTP2.0配置信息，包含：
 - ✓ Odette Identifier/SSID Code (SSID标识)
 - ✓ SSID Password (SSID密码)
 - ✓ Version (OFTP协议版本)
 - ✓ Remote Host (远程主机地址)
 - ✓ Port (接收数据端口)
 - ✓ Certificate (私钥&公钥证书)



2 EDI系统功能实现-业务报文开发

支持ANSI/X12, UN/EDIFACT, VDA, EANCOM, ROSETTA及SAP IDOC等任一国际标准报文规范



接收&解析

- OFTP Port: 接收BMW发送的EDIFACT标准报文，转发至EDIToXML Port;
- EDIToXML Port: 将标准EDIFACT报文转换为系统默认的标准XML格式，根据业务报文类型分发至XMLToDELFOR Port或XMLToDELJIT Port;
- XMLToDELFOR/XMLToDELJIT Port: 将以上收到的系统默认的标准XML文件转换为Database Port可以识别的XML文件，转发至ConnDatabase Port;
- ConnDatabase Port: 连接中间数据库，将以上收到的业务数据插入中间数据库表中，待ERP做进一步处理。

生成&发送

- ConnDatabase Port: 连接中间数据库，获取ERP插入到中间数据库表中的业务数据，生成Database Port默认的XML文件，转发至DESADVTtoXML Port;
- DESADVTtoXML/INVOICTtoXML Port: 将以上收到的Database Port默认的XML文件转换为系统默认的标准XML格式，转发至XMLToEDI Port;
- XMLToEDI Port: 将系统默认的标准XML格式文件转换为EDIFACT标准报文，转发至OFTP Port;
- OFTP Port: 将标准报文发送至BMW EDI系统。

UN/EDIFACT标准报文DELFOR——>EDI系统，定制开发——>Database Port可识别的XML格式DELFOR文件

```

<dbo_bmw_delfor>
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<docissuante>20140905</docissuante>
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<docno>00000008</docno>
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<doctxt2>Legal Notice2</doctxt2>
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<doctxt6>Legal Notice6</doctxt6>
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<handletime>2017-07-04T14:17:13</handletime>
<sename>EXAMPLE GMBH</sename>
<senameadd>HEADQUARTER</senameadd>
<seno>12345610</seno>
<dbo_bmw_delfor_process>
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<itemdescadd>Pv itemdescadd</itemdescadd>
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<dbo_bmw_delfor_despatch>
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</dbo_bmw_delfor_process>
</dbo_bmw_delfor>

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▲通过定制化开发后，经由EDI系统解析得到的Database可识别的XML格式DELFOR文件

Database Port可识别的XML格式DESADV文件——>EDI系统，定制开发——>UN/EDIFACT标准报文DESADV



```

UNB+1:~
UNB+UNOC:3+BMW10+18275910+170705:0603+000000007'
UNH+1+DELFOR:D:04A:UN:GAV810'
RGM+241:~6:ANY+000000007+9'
DTM+137:20170623:102'
DTM+2'
NAD+BY+BMW-AG:92'
NAD+SE+18275910:92++CHANGZHOU XINGYU AUTOMOT.:LIGHTING SYSTEMS CO., LTD+NO. 182 QINLING RD.,+CHANGZHOU++213022+CN'
GE+3+37'
NAD+ST+13216510:92++BMW MANUFACTURING CO., LLC:LC01 - SMALL PARTS WHSE+1400 HIGHWAY 101 SOUTH+GREER++29651+US'
LOC+11+13216510:92'
LIN++7442270-02:IN'
PIA+1+6929762-01:SA'
IMD+F+11:~272:ASSY RH REAR LAMP PART 3 W/O REAR F'
RFF+ON:3116302'
RFF+AN:2'
DTM+171:20170623:102'
RFF+AI:F:1'
DTM+171:20170623:102'
CTA+SC+556:Katharina Baum'
COM+864-989-4032:TE'
QTY+70:0'
QTY+71:1669'
SCC+24'
QTY+113:1'
DTM+2:20170914:102'
QTY+113:43'
DTM+2:20170925:102'
QTY+113:2'
DTM+2:20171116:102'
QTY+113:11'
DTM+2:20171204:102'
QTY+113:11'
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DTM+2:20180507:102'
QTY+113:3'
DTM+2:20180625:102'
QTY+113:340'
DTM+2:20180718:102'
QTY+113:1191'
DTM+2:20180818:102'
QTY+113:1'
DTM+2:20180901:102'
UNT+57+1'
UNT+1+000000007'

```

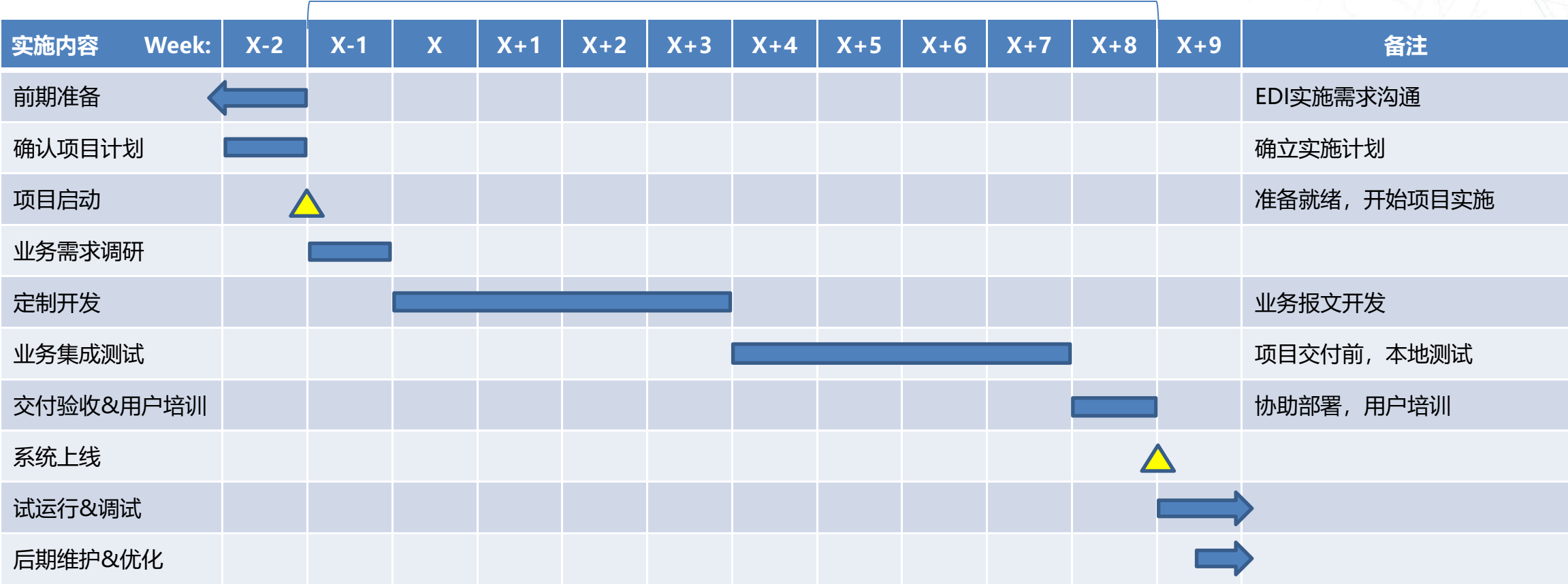
▲通过定制化开发后，经由EDI系统解析得到的Excel格式的DELFOR文件

3 项目进度概览

准备/计划/交付/上线



从项目启动至上线约8周时间



联系我们

快速部署属于您的EDI解决方案

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