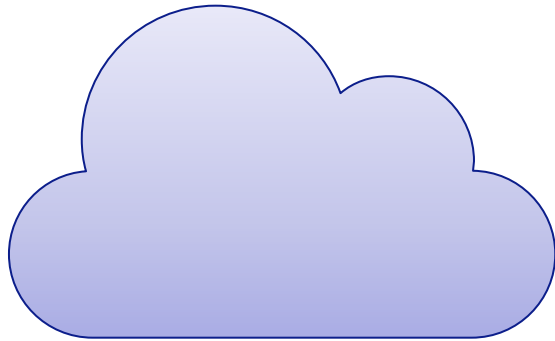


# POS PRINTER FOR CLOUD COMPUTING AND MOBILE

ENGINEERED  
FOR RETAIL

**EPSON®**  
EXCEED YOUR VISION



**CLOUD COMPUTING**



**MOBILITY**





OFF LINE  
NOT SUPPORTED

NO API

NO EVENT







ETHERNET/WIFI

WEB SERVER

FINO A 60 MB PER WEB APP

PHP & SQLITE








Fedddback of printing

## DRIVER LESS



MODEL	WEB SERVICE	DATA BASE	SCRIPT SERVER
	Fiscal ePOS-print	SQLITE	PHP
	ePOS-PRINT	SQLITE	PHP
	ePOS-print ePOS-device	QUALSIASI	PHP/PERL





# FALCON Vs EAGLE

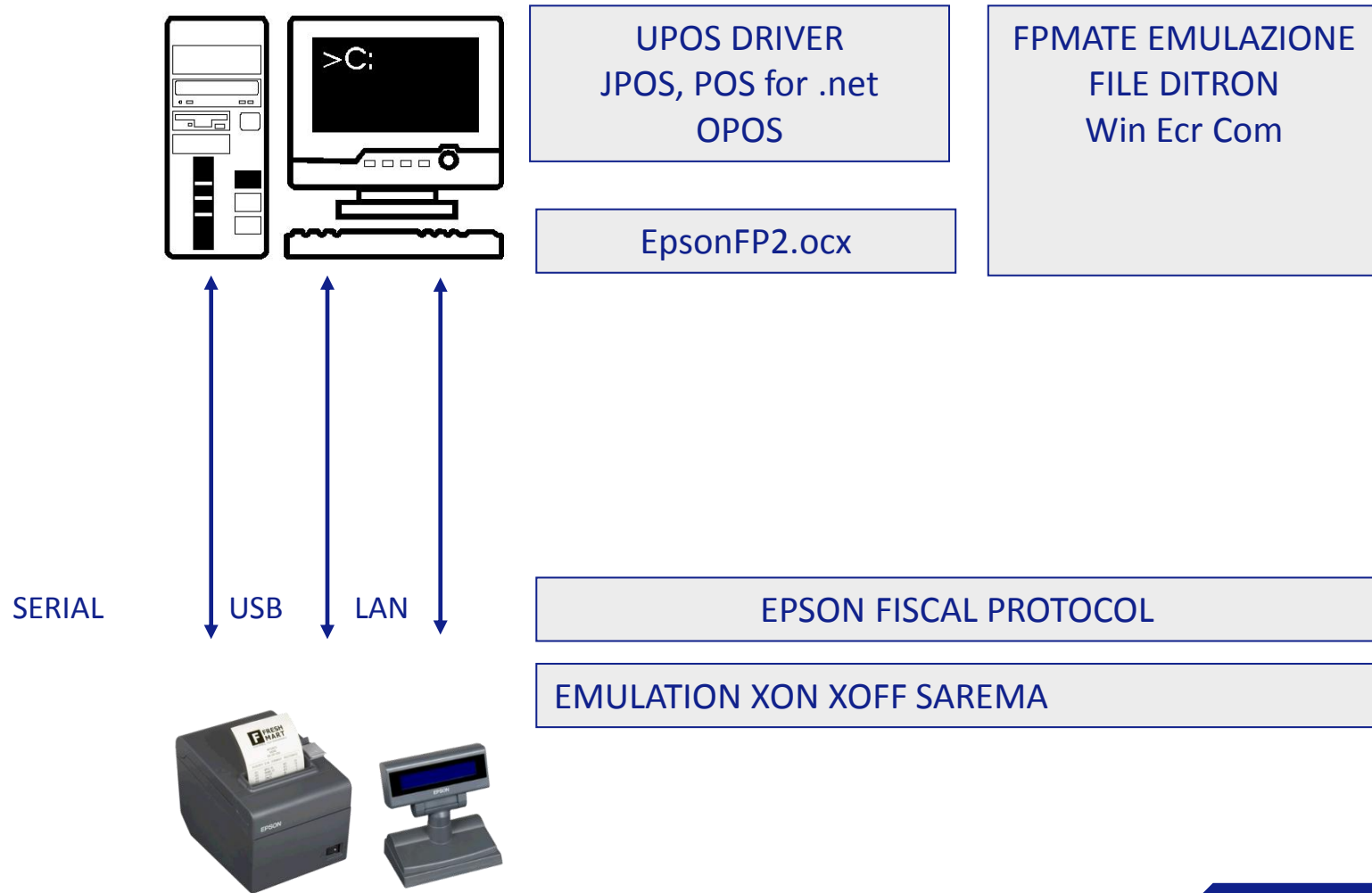
## Falcon=old FP – newFP

	FP81	FP81II		FP90II	FP90III
Print Speed	100 mm/sec (versione 58) 150 mm/sec (versione 80)	150 mm/sec		170 mm/sec	260 mm/sec
Paper roll diameter	80mm	80mm		100 mm	80mm
Paper width	58 o 80	58/60 o 80		58/60/80	58/60/80
Printing resolution	180 dpi	203 dpi		180 dpi	203 dpi
Coloumns	40	46		40	46
Life cutter	1 mln cut	1,5 mln cut		2 mln cut	2 mln cut
Life print head	100 Km	100 Km		100 Km	100 Km
Interface	SER/USB	SER/USB Eth from 2013		SER/USB	SER/USB/ETH
Interface perhiperal	PS2/Ser	USB/Ser		PS2/Ser	USB/Ser
Battery	6 months	12 months		6 months	12 months

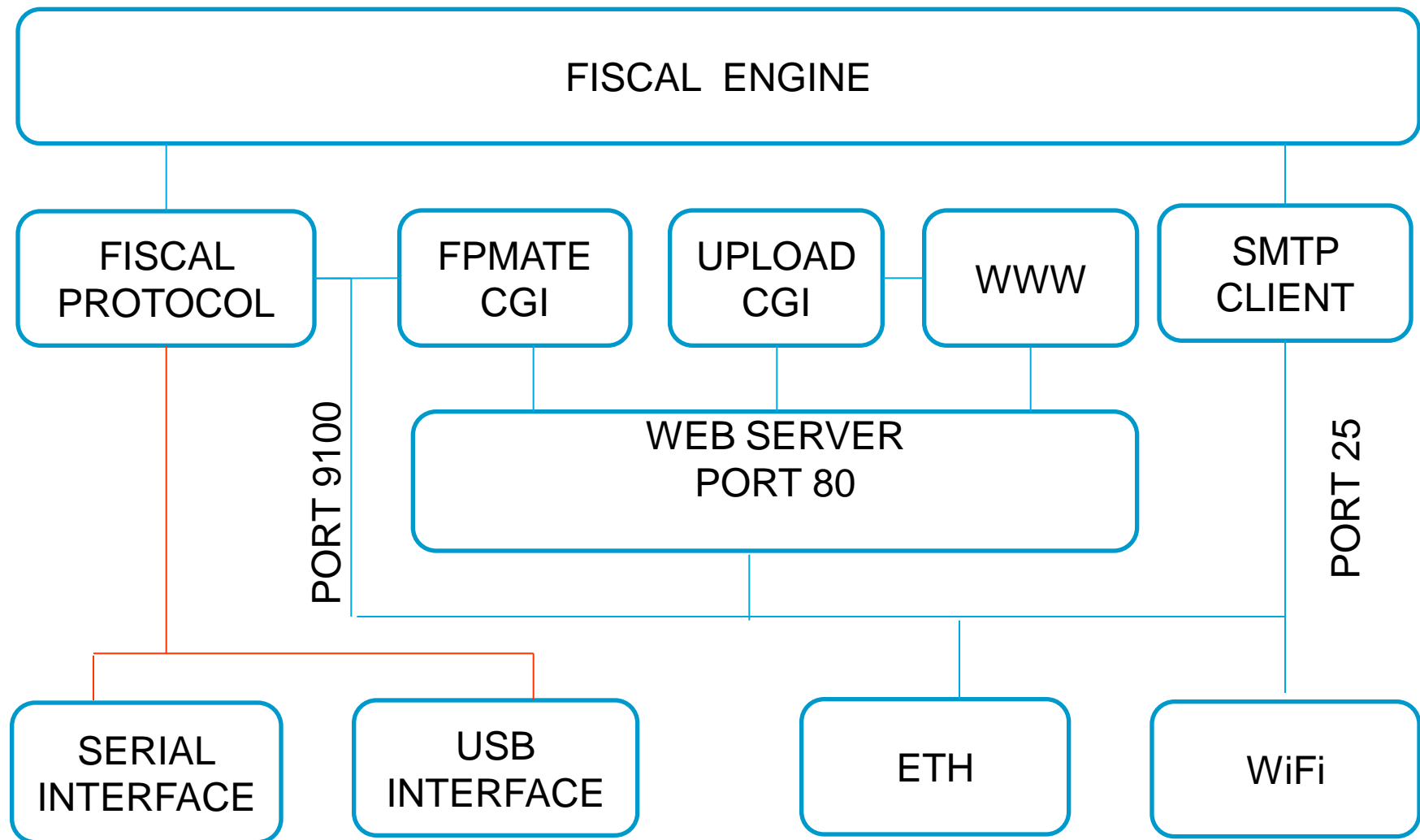
# FALCON Vs EAGLE

	FP81	FP81II		FP90II	FP90III
CLIENT SMTP email	NO	SI (versione ETH)		NO	SI
WEB SERVER	NO	SI (versione ETH)		NO	SI
WEB SERVICE	NO	SI (versione ETH)		NO	SI
www	NO	NO		NO	SI
XML	NO	SI (versione ETH)		NO	SI
WiFi	NO	SI		NO	SI
BUZZER	NO	SI		NO	SI
QR CODE	NO	SI		NO	SI
SAVING PAPER	NO	SI		NO	SI
Numer of Zreport	3656/2300(s)	3000/2300(s)		3656	3656
DGFE/EJ	SD 1 GB	SD 4 GB		SD 1GB	SD 4 GB

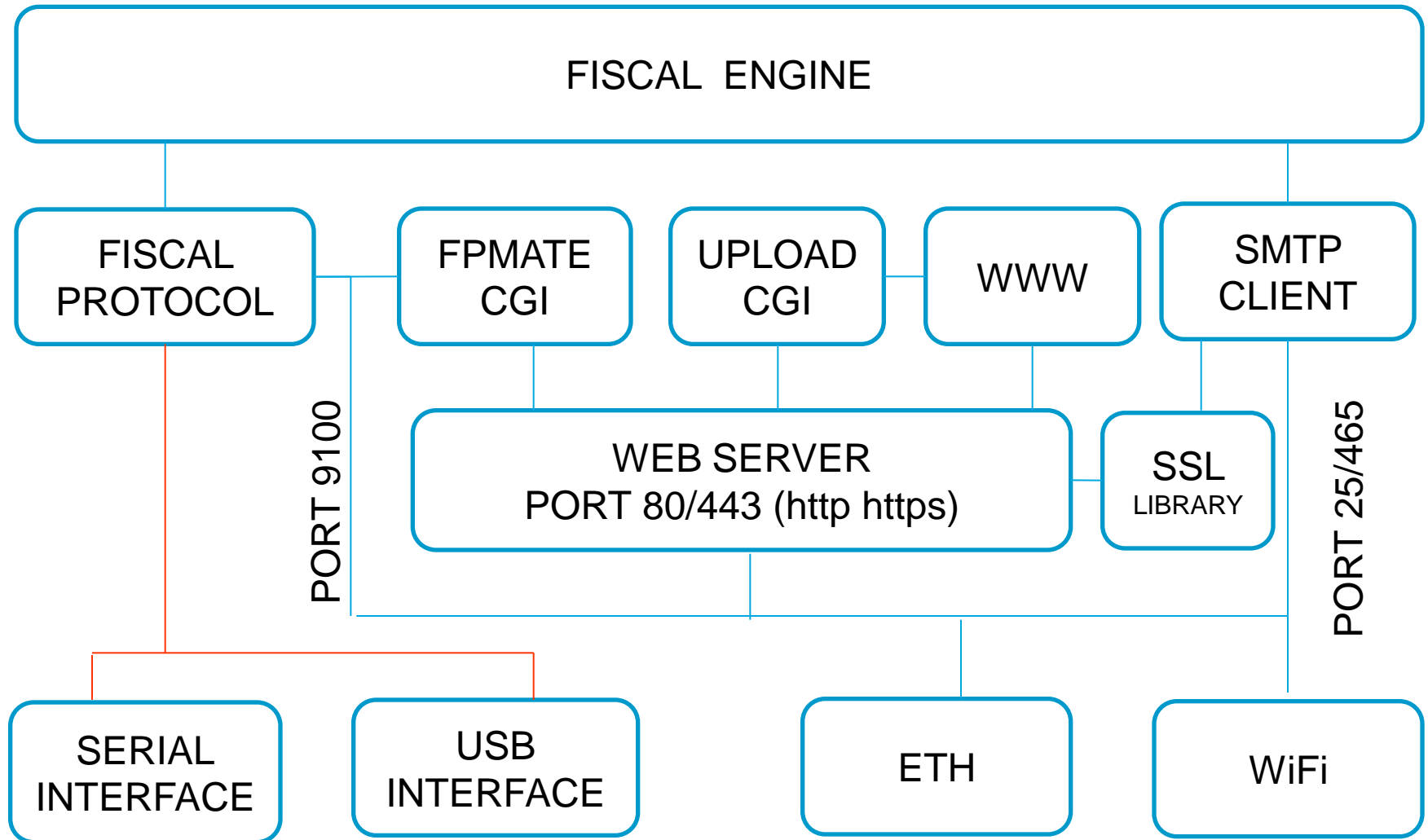
# FP COMMUNICATION PROTOCOL



# SOFTWARE ARCHITECTURE

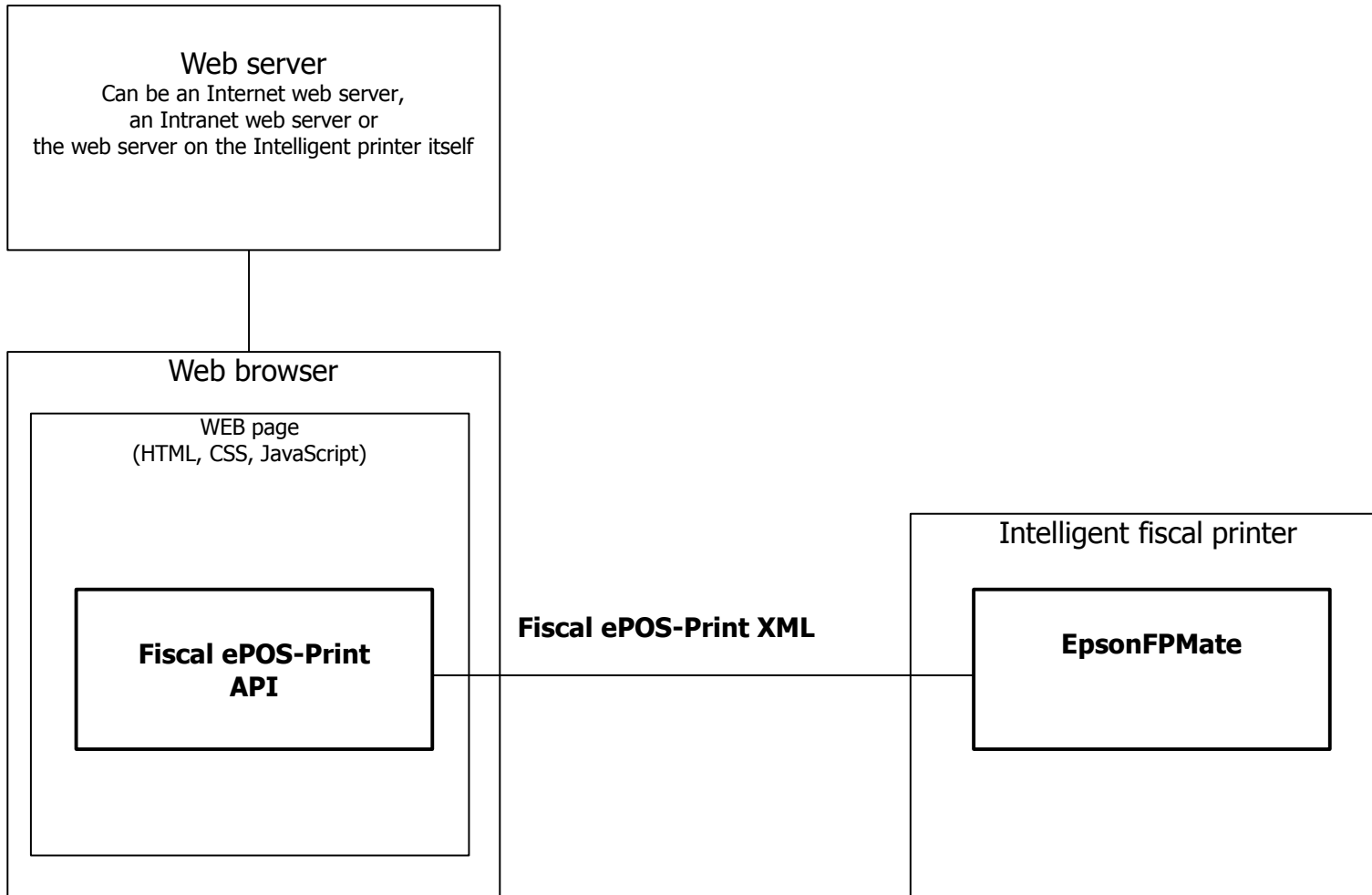


# SOFTWARE ARCHITECTURE





# WEB APPLICATION



XML COMMAND IN SOAP PROTOCOL

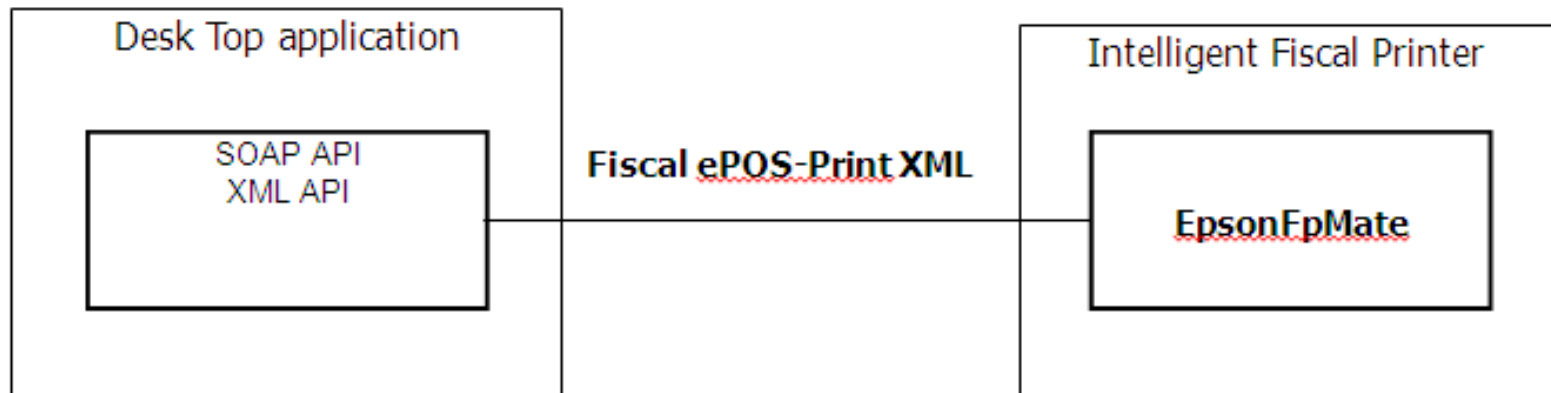
---

# DESK TOP APPLICATION

---

Cross domain supported

- Desk top application



# BROWSER



Internet Explorer 9.0~



Firefox 3.6



Safari 5.0~



Google Chrome 7.0~



Android  
Standard Browser 2.2~

---

# CROSS-ORIGIN RESOURCE SHARING

---

## Cross-Origin Resource Sharing

The HTTP headers that allow XMLHttpRequest cross-domain communication are returned for a response by the HTTP OPTIONS method. The three types of HTTP headers, Access-Control-Allow-Origin, Access-Control-Allow-Methods, and Access-Control-Allow-Headers, are returned.

[Example]

HTTP/1.1 200 OK

Access-Control-Allow-Origin: \*

Access-Control-Allow-Methods: HEAD, GET, POST, OPTIONS

Access-Control-Allow-Headers:

Content-Type, Content-Length, If-Modified-Since, SOAPAction

# SOAP

---

A SOAP message is sent for a request by the HTTP POST method.  
A single document to be printed is specified in the SOAP body.

[Example]

POST /cgi-bin/fpmate.cgi?devid=local\_printer&timeout=10000 HTTP/1.1

Content-Type: text/xml; charset=utf-8

Content-Length: xxxx

If-Modified-Since: Thu, 01 Jan 1970 00:00:00 GMT

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
```

```
  <s:Body>
```

```
    <printerCommand>
```

```
      <queryPrinterStatus operator="1" />
```

```
    </printerCommand>
```

```
  </s:Body>
```

```
</s:Envelope>
```

---

# REQUEST

---

A SOAP message is returned for a response by the HTTP POST method. The SOAP body contains a response document.

The response has the HTTP header Access-Control-Allow-Origin, which allows cross-domain communication.

[Example]

HTTP/1.1 200 OK

Access-Control-Allow-Origin: \*

Content-Type: text/xml; charset=utf-8

Content-Length: xxxx

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
```

```
  <s:Body>
```

```
    <response success="true" code="" status="xxxxx" />
```

```
  </s:Body>
```

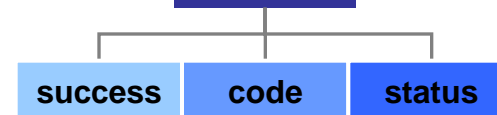
```
</s:Envelope>
```

# ANSWER

## onreceive property

onreceive property receives “response”, which includes three properties: success, code and status

epos.onreceive = function (response)



## success

true or 1	Print ends normally
false or 0	Print ends in fail

## code

'EPTR_AUTOMATICAL'	Recoverable error
'EPTR_CUTTER'	Auto cutter error
'EPTR_MECHANICAL'	Mechanical error
'EPTR_REC_EMPTY'	Paper end
'EPTR_UNRECOVERABLE'	Unrecoverable error
'SchemaError'	Schematic error
'DeviceNotFound'	The printer (Device ID) cannot be found
'PrintSystemError'	Print system error
'EX_BADPORT'	Communication port error
'EX_TIMEOUT'	Timeout error

# ANSWER: STATUS

## status

Example status="251658262"

ASB_NO_RESPONSE	No response from TM printer
ASB_PRINT_SUCCESS	Print completed normally
ASB_DRAWER_KICK	Drawer kick connector #3pin="H"
ASB_OFF_LINE	Offline
ASB_COVER_OPEN	Cover gets open
ASB_PAPER_FEED	Paper feeding
ASB_WAIT_ON_LINE	Waiting for online
ASB_PANEL_SWITCH	Panel switch is being pushed
ASB_MECHANICAL_ERR	Mechanical error
ASB_AUTOCUTTER_ERR	Auto cutter error
ASB_UNRECOVER_ERR	Unrecoverable error
ASB_AUTORECOVER_ERR	Automatic recoverable error
ASB_RECEIPT_NEAR_END	Paper gets near end
ASB_RECEIPT_END	Paper gets end
ASB_BUZZER	Buzzer
ASB_SPOOLER_IS_STOPPED	Spooler is stopped



---

## ANSWER: STATUS

---

0x00000001 No response from the TM printer  
0x00000002 Printing is successfully completed  
0x00000004 Status of the 3rd pin of the drawer kick-out connector = "H"  
0x00000008 Offline  
0x00000020 The cover is open  
0x00000040 Paper is being fed by a paper feed switch operation  
0x00000100 Waiting to be brought back online  
0x00000200 The paper feed switch is being pressed (ON)  
0x00000400 A mechanical error occurred  
0x00000800 An autocutter error occurred  
0x00002000 An unrecoverable error occurred  
0x00004000 An automatically recoverable error occurred  
0x00020000 No paper in roll paper near end sensor  
0x00080000 No paper in roll paper end sensor  
0x01000000 A buzzer is on (only for applicable devices)  
0x80000000 The spooler has stopped

---

## ANSWER (Additional info)

---

Response contains the following structure:

```
<response success="true" code="" status="2">
```

```
  <addInfo>
```

```
    <elementList>lastCommand,printerStatus</elementList>
```

```
    <lastCommand>YY</lastCommand>
```

```
    <printerStatus>XXXXXX</printerStatus>
```

```
  </addInfo>
```

```
</response>
```

---

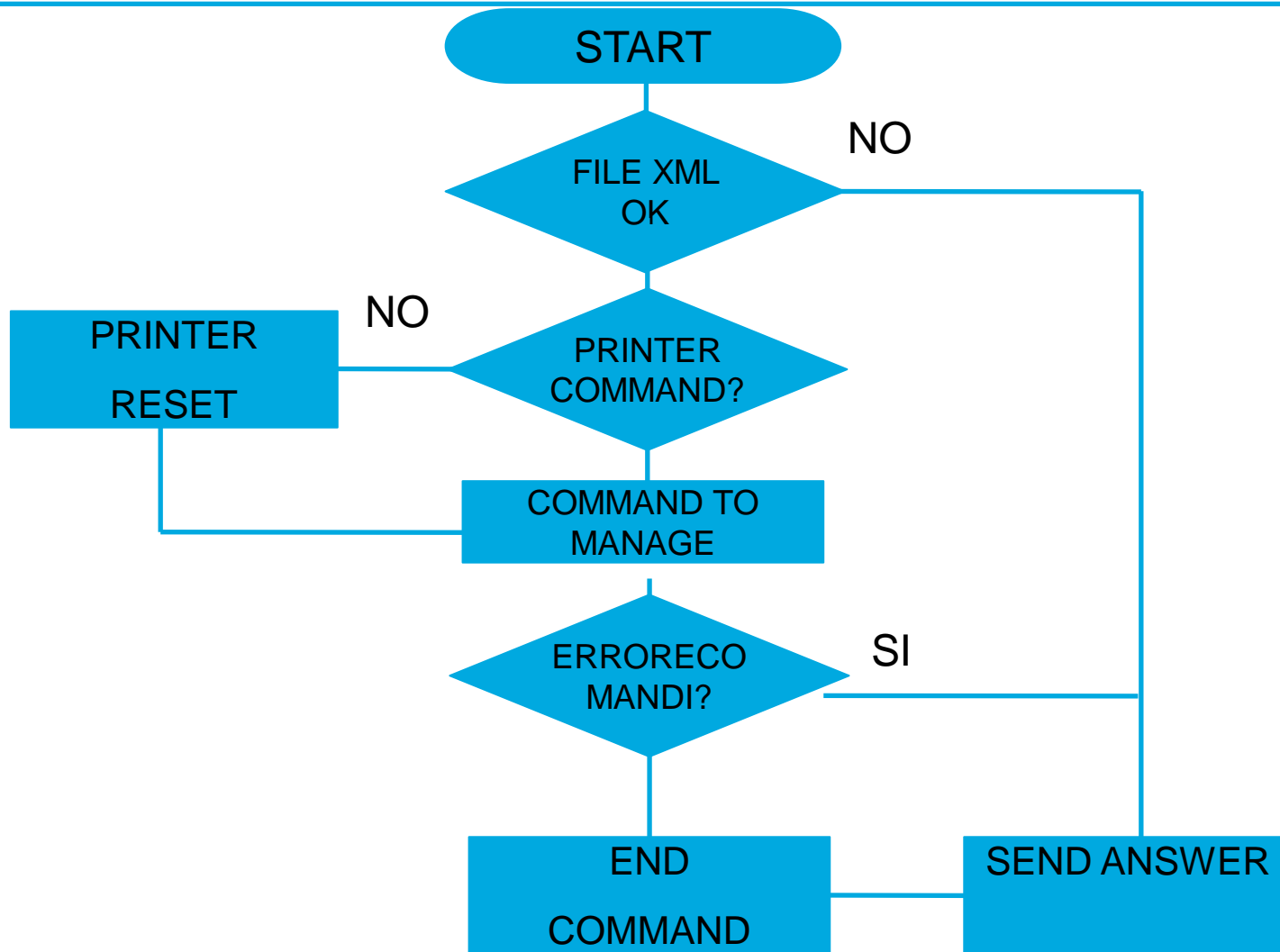
## DYNAMIC ADDITIONAL INFO

---

```
var add_info_text = "";
    if (tag_names_array.length > 0) {
        add_info_text = "Additional Information<br>";

        for (var i = 0; i < tag_names_array.length; i++) {
            add_info_text = add_info_text + tag_names_array[i] + " = ";
            add_info_text = add_info_text + add_info[tag_names_array[i]] + "<br>";
        }
    }
```

# FPMATE SERVICE



## TYPE OF XML COMMAND

Root Element Tag Name	Description
printerFiscalReceipt	Fiscal receipt
printerFiscalReport	Daily closure (X and Z reports)
printerNonFiscal	Non-fiscal receipt
printerFiscalDocument	Fiscal documents (invoices)
printerCommand	Command (e.g. printer status)
epos-print	Print to non-fiscal printer (see related documentation)
fpMateConfiguration	Configure or read secondary devices table

# STRUCTURE FILE COMMAND (1)

Fiscal Receipt	Non-fiscal Receipt	Report	Command	Fiscal Document
printerFiscalReceipt	printerNonFiscal	printerFiscalReport	printerCommand	printerFiscalDocument
openDrawer				
directIO				
clearText				
displayText				
beginFiscalReceipt	beginNonFiscal	printXReport	queryContent	beginFiscalDocument
printRecItem	printNormal	printZReport	queryPrinterStatus	printFiscalDocumentLine
printRecItemVoid	printGraphicCoupon	printXZReport	beginTraining	printFiscalDocAmount
printRecItemAdjustment	printBarCode		endTraining	endFiscalDocument
printRecItemAdjustmentVoid	endNonFiscal		resetPrinter	
printRecMessage			printRecCash	
printRecRefund				
printRecRefundVoid				
printRecSubtotal				
printRecSubtotalAdjustment				
printRecSubtotalAdjustVoid				
printRecTotal				
printRecVoid				
printGraphicCoupon				
printBarCode				
endFiscalReceipt				
printDuplicateReceipt				

## STRUCTURE FILE COMMAND(2)

Configuration	ePOS-Print (TM printer)	Response
fpMateConfiguration	epos-print	response
addDevice	text	addInfo
readDevices	feed	
	Refer to epos document for complete command set	
	barcode	
	cut	

# FISCAL RECEIPT

## <printerFiscalReceipt>

```
<beginFiscalReceipt operator = "" />
```

```
<printRecItem operator="1" description="A" quantity="" unitPrice="" department="1" justification="1" />
```

```
<printRecTotal operator="1" description="A" payment="" paymentType="0" index="1" justification="1" />
```

```
<endFiscalReceipt operator = "" />
```

## </printerFiscalReceipt>

## <addInfo>

```
<elementList>lastCommand,printerStatus,fiscalReceiptNumber,fiscalReceiptAmount</elementList>
```

```
<lastCommand>YY</lastCommand>
```

```
<printerStatus>XXXXXX</printerStatus>
```

```
<fiscalReceiptNumber=X</fiscalReceiptNumber>
```

```
<fiscalReceiptAmount=XXXXXX</fiscalReceiptAmount>
```

## </addInfo>



# NO FISCAL RECEIPT

```
<printerNonFiscal>  
  <beginNonFiscal operator = "" />  
  <printNormal operator="1" font="1" data="aaaaa" />  
  <endNonFiscal operator = "" />  
</printerNonFiscal>
```

```
<addInfo>  
  <elementList>lastCommand,printerStatus</elementList>  
  <lastCommand>YY</lastCommand>  
  <printerStatus>XXXXXX</printerStatus>  
</addInfo>
```

# FISCAL DOCUMENT

```
<printerFiscalDocument>
```

```
  <beginFiscalDocument -----/>
```

```
  -----
```

```
    Either <endFiscalDocument /> or <endFiscalReceipt />
```

```
</printerFiscalDocument>
```

```
<addInfo>
```

```
  <elementList>lastCommand,printerStatus</elementList>
```

```
  <lastCommand>YY</lastCommand>
```

```
  <printerStatus>XXXXXX</printerStatus>
```

```
</addInfo>
```

# REPORT

```
<printerFiscalReport>  
  <printZReport operator = "" />  
</printerFiscalReport>
```

```
<addInfo>  
  <elementList>lastCommand,printerStatus,zRepNumber,dailyAmount</elementList>  
  <lastCommand>YY</lastCommand>  
  <printerStatus>XXXXXX</printerStatus>  
  <zRepNumber=Xx</zRepNumber>  
  <dailyAmount=XXXXXX</dailyAmount>  
</addInfo>
```

# PRINTER COMMAND

```
<printerCommand>  
  <queryPrinterStatus operator = "" />  
</printerCommand>
```

```
<addInfo>  
  <elementList>lastCommand,printerStatus</elementList>  
  <lastCommand>YY</lastCommand>  
  <printerStatus>XXXXXX</printerStatus>  
</addInfo>
```

# FPMATE CONFIGURATION

```
<fpMateConfiguration>
```

```
  <addDevice deviceId="Cucina" ipAddress="192.168.1.44" deviceType="non-fiscal" model="TM-T70" retry="10000" />
```

```
</fpMateConfiguration>
```

```
<addInfo>
```

```
  <elementList>lastCommand,printerStatus</elementList>
```

```
  <lastCommand>YY</lastCommand>
```

```
  <printerStatus>XXXXXX</printerStatus>
```

```
</addInfo>
```

# GRAZIE

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