

Server Direct Print User's Manual

Overview

Describes the operating environment and system configuration of Server Direct Print.

Sample Program

Describes how to use the sample program and how to configure the system.

Request and Response

Describes the requests and responses of Server Direct Print.

Status Notification

Describes the Status Notification function.

Cautions

- No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation.
- The contents of this document are subject to change without notice. Please contact us for the latest information.
- While every precaution has been taken in the preparation of this document, Seiko Epson Corporation assumes no responsibility for errors or omissions.
- Neither is any liability assumed for damages resulting from the use of the information contained herein.
- Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.
- Seiko Epson Corporation shall not be liable against any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

Trademarks

Windows® and Internet Explorer® are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

XAMPP is a registered trademark of BitRock.



All other trademarks are the property of their respective owners and used for identification purpose only.

©Seiko Epson Corporation 2013–2023

For Safety

Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

	Provides information that must be observed to avoid damage to your equipment or a malfunction.
	Provides important information and useful tips.

Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc; or functional/precision devices etc, you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc, please make your own judgment on this product's suitability after a full evaluation.

About this Manual

Aim of the Manual

This manual provides the information necessary for developing and designing systems with the Server Direct Print and Status Notification function for TM printers with SDP (Server Direct Print) support.

Manual Content

The manual is made up of the following sections:

Chapter 1	Overview
Chapter 2	Sample Program
Chapter 3	Request and Response
Chapter 4	Status Notification

Contents

■ For Safety	3
Key to Symbols	3
■ Restriction of Use	3
■ About this Manual	4
Aim of the Manual	4
Manual Content	4
■ Contents	5

Overview..... 7

■ Overview of Server Direct Print	7
Printing Process	9
Response Data	10
■ Overview of Status Notification	11
■ Operating Environment	12
TM printers with SDP support	12
TM Printer	14
Customer Display	14
How to Access the Web server	14
Number of URLs accessible for Server Direct Print	15
Transmission Data Size	15
■ Package Contents	16
■ Support Materials	16
Manual	16
Utility	16
Download	17
■ Restriction	18

Sample Program..... 19

■ Overview	19
Hardware Configuration (For Ver.1.00 or Ver.2.00)	23
Hardware Configuration (For Version 3.00)	24
File Configuration	24
Printing Result	25
Program Flow	25
■ Environment Settings	26
Sample Program Configuration	28
TM printers with SDP support Settings	28
■ Execution of Sample Program	42

Request and Response43

■ Request (Print Request)	43
■ Response (Print request)	44
Format of the response message	45
Response When No Printing Is Performed	54
■ Request (Printing Result)	55
Format of the request message	55
Request Message	56
■ Response (Printing Result)	63
■ Digest Access Authentication	64
Digest Access Authentication Settings	64
■ Program Example	65

Status Notification.....66

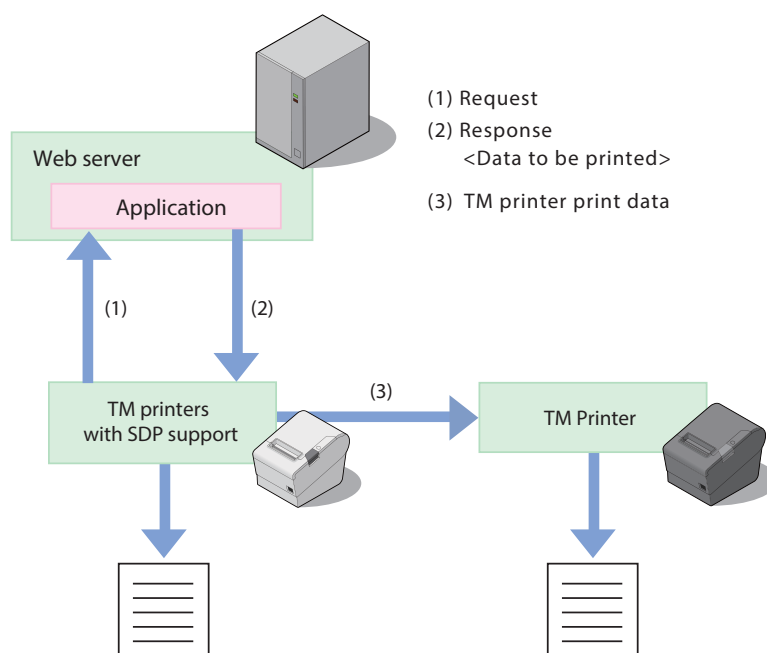
■ Overview	66
■ Overview of Status Notification Sample Program	67
TM Printers with SDP Support Settings	67
Execution of Sample Program	73
■ Status Type	74
■ Request and Response	77
Request	77
Response	80
Digest Access Authentication	80

Overview

This chapter describes the overview of Server Direct Print and Status Notification.

Overview of Server Direct Print

Server Direct Print function enables the TM printers with SDP (Server Direct Print) support to obtain the print data from the Web server and print the data. The Web server application performs printing by including print data in the response to a print request from the TM printers with SDP support.



A TM printer with SDP support periodically sends a print request ((1) in the figure above) to the Web server. The Web server application includes print data in the response ((2) in the figure above) to a print request from the TM printers with SDP support. (When no print data exists, the Web server returns an empty response.)

If print data for the TM printer is included in a response, the TM printers with SDP support controls the TM printer in order to do the printing ((3) in the figure above).

The print data can be printed in the ePOS-Print XML format.

Upon receipt of a response of print data including print layout from the Web server application, the TM printers with SDP support converts the ePOS-Print XML format into the print layout and prints it.

If the spooler is enabled in the TM printers with SDP support, print data can be saved in the spooler, which allows an operation in which the next print request can be processed regardless of the printer status. *

In a system consisting of multiple printers, if forwarding is set in the TM printers with SDP support, print data can be printed from another printer when it cannot be printed from the printer. *

It also allows you to control display of a Customer Display connected to the printer. *

You can use the Digest authentication ID to identify the requested printer.

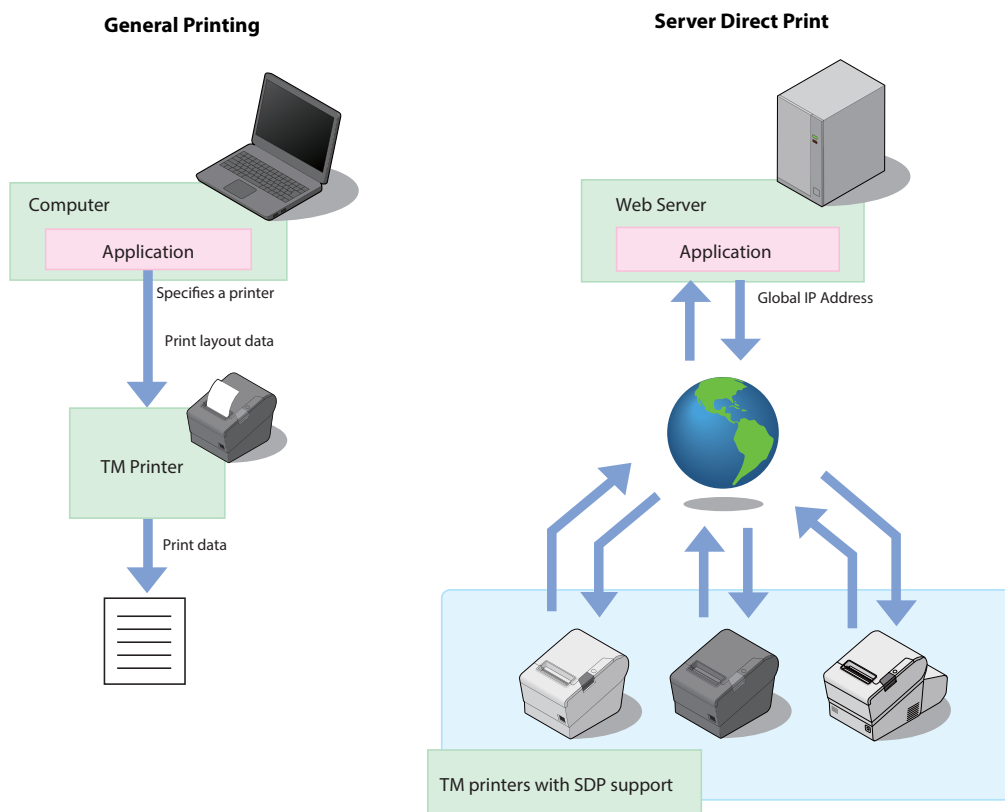
For TM printers with Name parameter support, you can identify the printers without using Digest authentication. *

*: For supported printers, refer to ["TM printers with SDP support" on page 12](#).

Difference from General Printing System

In general printing systems, the application sends a print instruction to the printer.

With Server Direct Print, the printer sends an Inquiry of print request to the Web application, and the Web application returns a response that has print data included in it.



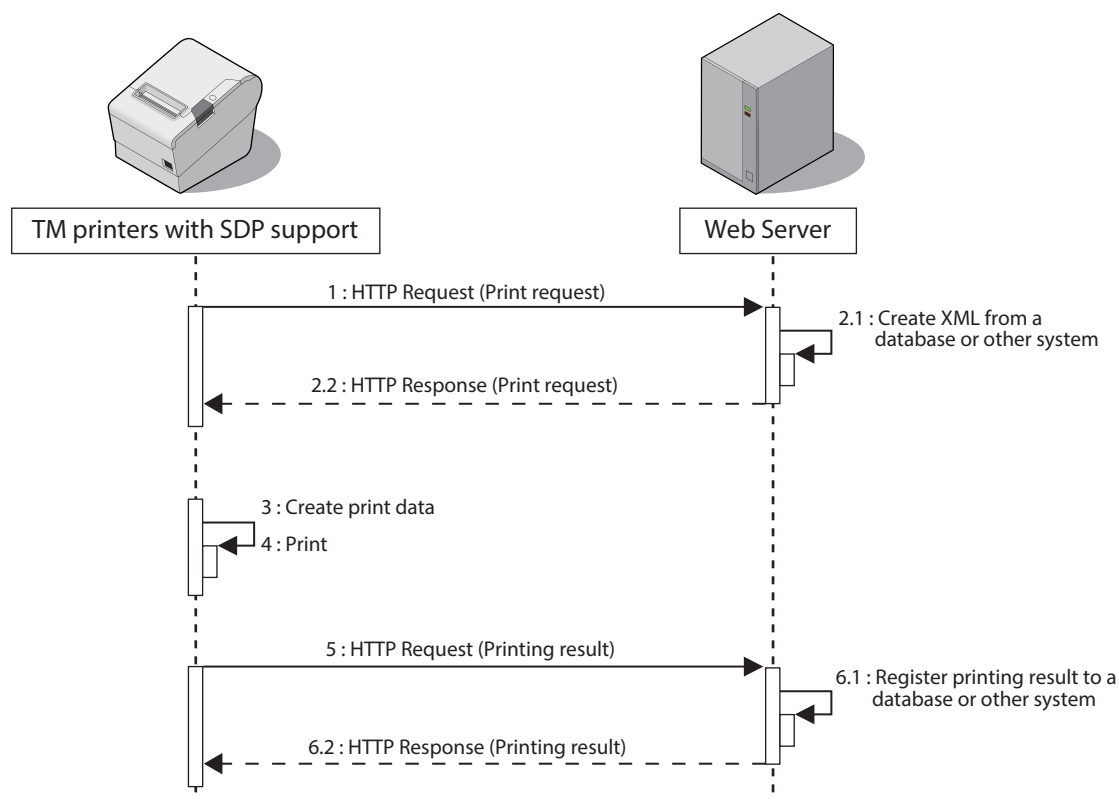
Printing Process

The flow of Server Direct Print (SDP) is as shown below.

- 1** TM printers with SDP support sends a request (print request) to the Web server. This request is sent periodically at the set timing.
- 2** When data to be printed exists, the Web server application creates an XML-format response containing the data to be printed, and returns it to the TM printers with SDP support.
When no data to be printed exists, an empty response is returned.
- 3** TM printers with SDP support prints the data to the specified printer.
- 4** TM printers with SDP support sends a printing result request (printing result). *
- 5** Upon receipt of the printing result, the application performs the required process. The Web server automatically responds with an empty response.

*: If the spooler is enabled in the TM printers with SDP support, a request (print result) is returned upon receipt of a response (print request).

The printing flow is as follows:



Response Data

When the Web server creates HTTP response (print request) data, the following points must be considered.

HTTP Response (Print request) version

Functions can be added by specifying the <PrintRequestInfo> tag version of the HTTP response (print request) supported by the printer.

These functions may be unavailable depending on the TM printers with SDP support model or version.

The syntax of the HTTP request (printing result) from a TM printer with SDP support is different depending on the <PrintRequestInfo> tag version.

There is no compatibility between versions. Check the printer before use.

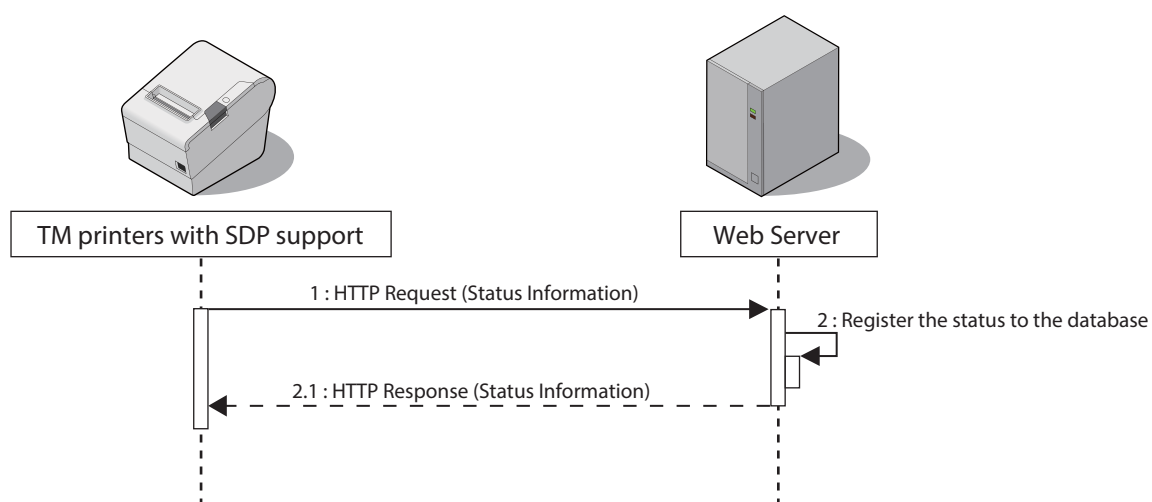
<PrintRequestInfo> Tag Version	TM printers with SDP support				Function	
	TM-i series	TM-DT series	TM-DT2 Series	TM-T88VI, TM-T88VI-iHUB, TM-T88VII, TM-H6000V, TM-m30II Series, TM-m30III Series, TM-m50, TM-m50II Series, TM-L100	Print job ID	ResponseFile Notification
<PrintRequestInfo Version="1.00"> *	Available	Available	Available	Available	Unavailable	Unavailable
<PrintRequestInfo Version="2.00">	TM-i firmware Ver.4.1 or later	TM-DT software Ver.3.0 or later	Available	Available	Available	Unavailable
<PrintRequestInfo Version="3.00">	Unavailable	Unavailable	Unavailable	Available	Available	Available

* When Version is not specified in <PrintRequestInfo> or there is an error in the statement, the version is assumed to be "1.00".

Overview of Status Notification

Status Notification is the function used to periodically notify the printer status to the Web server. The web server registers status from a TM printer with SDP support to database, then responds with an empty response to the TM printers with SDP support.

Operating the printer management application created by the user with the Web server enables grasp of the status of the printers installed in a shop from a remote place.



Operating Environment

TM printers with SDP support

The TM printers with SDP support that allow you to use Server Direct Print are listed below.

TM printers with SDP support		Function				Name Parameter	Status Notification	
		Server Direct Print	Spooler	TM Printer Control	Customer Display Control		Battery Status	Server Access Error Notification
TM-i series	TM-L90-i	TM-i firmware Ver.3.0 or later ^{*1}	TM-i firmware Ver.4.1 or later ^{*1}	Available	Unavailable	Unavailable	Unavailable	Unavailable
	TM-T20II-i	TM-i firmware Ver.4.3 or later ^{*1}	TM-i firmware Ver.4.3 or later ^{*1}					
	TM-T70-i TM-T82II-i TM-T83II-i TM-T88V-i	TM-i firmware Ver.3.0 or later ^{*1}	TM-i firmware Ver.4.1 or later ^{*1}					
	TM-U220-i	Available	Available					
TM-DT series	TM-H6000IV-DT TM-T70II-DT TM-T88V-DT	TM-DT software Ver.2.2 or later ^{*1}		Available	Unavailable	Unavailable	Unavailable	Unavailable
TM-DT2 series	TM-T70II-DT2 TM-T88VI-DT2	Available	Available	Available	Unavailable	Unavailable	Unavailable	Unavailable
TM-H6000V		Available	Available	Unavailable	Available	Available	Available	Available
TM-T88VI		Available	Available	Available	Available	Available	Available	Available
TM-T88VI-iHUB		Available	Available	Available	Available	Available	Available	Available
TM-T88VII		Available	Unavailable	Unavailable	Available	Available	Unavailable	Available
TM-m30II Series ^{*2} TM-m30III Series TM-m50 TM-m50II Series		Available	Unavailable	Unavailable	Available	Available	Available	Available
TM-L100		Available	Unavailable	Unavailable	Available	Available	Unavailable	Available

- *1 For details about how to check the version of Software, refer to the Technical Reference Guide for each printer.
- *2 To check whether Server Direct Print is supported, refer to the Technical Reference Guide for each printer.

TM-L100

If using "paper removal standby" in the enabled state, please use firmware Ver. 1.08 ESC/POS or later.



When paper removal standby is enabled, if you send multiple print jobs <printjobid> together or if you put multiple cut processes into a print job <printjobid>, please be sure to remove the paper before the timeout time passes. Failure to remove the paper will result in a timeout error, and the print data will be discarded.

TM Printer

TM printers that can be controlled via the TM printers with SDP support.

Available TM printers are different depending on the version of the software installed in the product. For details, refer to the Technical Reference Guide for each printer.

Customer Display

The following customer displays can be controlled by printers with customer display support.

The customer displays and functions that can be controlled vary depending on the printer.

For details, refer to the Technical Reference Guide for each printer.

- DM-D30
- DM-D70
- DM-D110
- DM-D210

How to Access the Web server

How to access	TM printers with SDP support		
	TM-i series	TM-DT series	TM-DT2 Series TM-H6000V TM-T88VI TM-T88VII TM-T88VI-iHUB TM-m30II Series TM-m30III Series TM-m50 TM-m50II Series TM-L100
Proxy server	TM-i firmware Ver.4.0 or later	TM-DT software Ver.3.0 or later	Available
Proxy authentication	TM-i firmware Ver.4.0 or later	TM-DT software Ver.3.0 or later	Available
Digest authentication	TM-i firmware Ver.4.0 or later	TM-DT software Ver.2.2 or later	Available
HTTPS communication	TM-i firmware Ver.4.0 or later	TM-DT software Ver.2.2 or later	Available
HTTPS communication with server authentication	TM-i firmware Ver.4.0 or later	TM-DT software Ver.3.0 or later	Available
TLS 1.2 support	TM-i firmware Ver.4.4 or later *	TM-DT software Ver.3.0 or later	Available

* SSL3.0 is not support.

Number of URLs accessible for Server Direct Print

TM printers with SDP support		Number of URLs accessible
Model	Version	
TM-i series	TM-i firmware Ver.4.0 or later	3
	TM-i firmware Ver.3.x or earlier	1
TM-DT series	TM-DT software Ver.3.0 or later	3
	TM-DT software Ver.2.6 or earlier	1
TM-H6000V		3
TM-DT2 Series		
TM-T88VI		
TM-T88VI-iHUB		
TM-T88VII		
TM-m30II Series, TM-m30III Series, TM-m50, TM-m50II Series		
TM-L100		

Transmission Data Size

Maximum size of data that can be transmitted at once are below.

- TM-i series, TM-DT series

These values depend on the TM-i firmware or TM-DT software version, and on the printing speed of the printer. For details regarding the printing speed of the printer, refer to the Technical Reference Guide for each TM printer.

TM-i series	TM-DT series	Printing speed	
Firmware version	TM-DT Software version	300 mm/s	200 mm/s
Ver.4.0 or earlier	Ver.2.5 or earlier	200 KB	133 KB
Ver.4.1	-	400 KB	267 KB
Ver.4.3 or later	Ver.3.0 or later	2 MB	

- TM-DT2 Series, TM-H6000V, TM-T88VI, TM-T88VI-iHUB, TM-T88VII, TM-m30II Series, TM-m30III Series, TM-m50, TM-m50II Series, and TM-L100
2 MB

Package Contents

The following items are contained in the Server Direct Print User's Manual package.

- Server Direct Print User's Manual (This Document)
- Sample Program

For details, refer to the ["File Configuration" on page 24](#).

Support Materials

The following documents and software are provided for system development of SDP. Please download these items.

Manual

- ePOS-Print XML User's Manual
- Technical Reference Guide for each printer

Utility

Used to register NV logo to the printer.

TM printers with SDP support	Utility	
• TM-H6000IV-DT	Utility specialized for each model	TM-H6000IV Utility
• TM-H6000V		TM-H6000V Utility
• TM-T20II-i		TM-T20II Utility
• TM-T70II-DT		TM-T70II Utility
• TM-T70II-DT2		TM-T70II-DT2 Utility *
• TM-T82II-i		TM-T82II Utility
• TM-T83II-i		TM-T83II Utility
• TM-T88V-DT, TM-T88V-i		TM-T88V Utility
• TM-T88VI, TM-T88VI-iHUB		TM-T88VI Utility *
• TM-T88VI-DT2		TM-T88VI-DT2 Utility *
• TM-T88VII		TM-T88VII Utility *
• TM-m30II Series		TM-m30II Utility *
• TM-m30III Series		TM-m30III Utility *
• TM-m50		TM-m50 Utility *
• TM-m50II Series		TM-m50II Utility *
• TM-L100		TM-L100 Utility *
• TM-L90-i, TM-T70-i, TM-U220-i	Logo registration utility (TMFLogo)	

* You can specify the Server Direct Print and the network.



For the utilities that can register logo data to a network printer controlled by a printer with SDP support, refer to the Technical Reference Guide for each printer.

Download

You can obtain software and manuals from one of the following URLs.

For customers in North America, go to the following web site:

<https://www.epson.com/support/>

For customers in other countries, go to the following web site:

<https://www.epson-biz.com/>

Restriction

- If power is restored the device or the cover is open during printing, printing may not occur properly.
- To turn the device power off and on, be sure to allow an interval of five seconds or more between power off and on.
- Use a switching hub to connect the device.
If no switching hubs are used, the device in online status is more likely to be judged as offline depending on the traffic condition.
- Use forced transmission mode of ePOS-Print XML to perform drawer open while the printer is offline.
For details, see the ePOS-Print XML User's Manual.
- When the specified timeout time has passed after printing starts, the printing is canceled, but the data recognized by the printer before print canceling process starts is printed.
- Messages that contain BOM are not supported.
- The only supported character encoding is UTF-8.

Sample Program

This chapter describes how to use the sample program for Server Direct Print.



- In this chapter, a system configuration using a Web server is explained as an example.
- In this chapter, the Web server is described as a Web server configured with Microsoft Internet Information Services (Since IIS). When using other environment, interpret the descriptions accordingly.

Overview

This sample program can be used to register orders on the screen to send print data by a request from the printer and then acquire print results to display on the screen.

There is a program available for each version of the <PrintRequestInfo> tag.

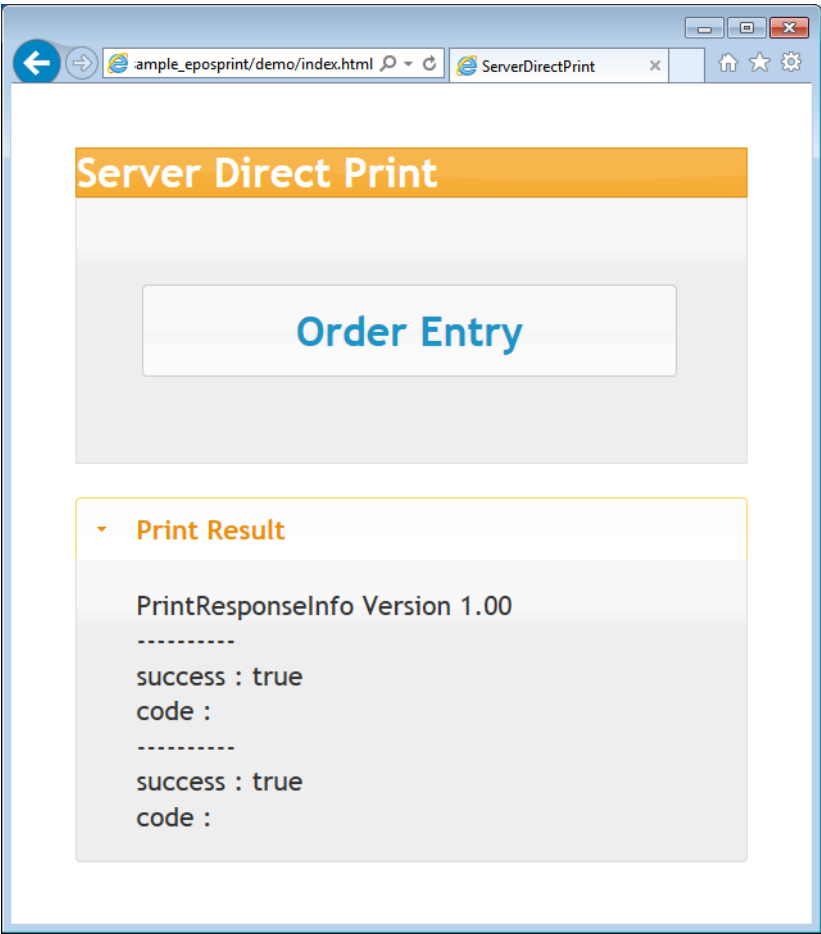
- Use the sample program screen to enter orders.
- The TM printers with SDP support uses the returned response data to print a delivery slip to the main unit and two pieces of cooking slip to the TM printer. The print results appear on the screen.
- TM printers with SDP support print the delivery slip and then send the data for the cooking slip to the connected TM printer. If the printer does not support TM printer control or a TM printer is not registered, the cooking slip is not printed.
- TM printers with SDP support send the print results to the Web server.
- The sample program displays the print results on the screen.

If the printer does not support TM printer control or a TM printer is not registered, the following is displayed.

For <PrintRequestInfo Version="2.00">

```
-----
devid : kitchen_printer
printjobid : ABC124
success : false
code : DeviceNotFound
```

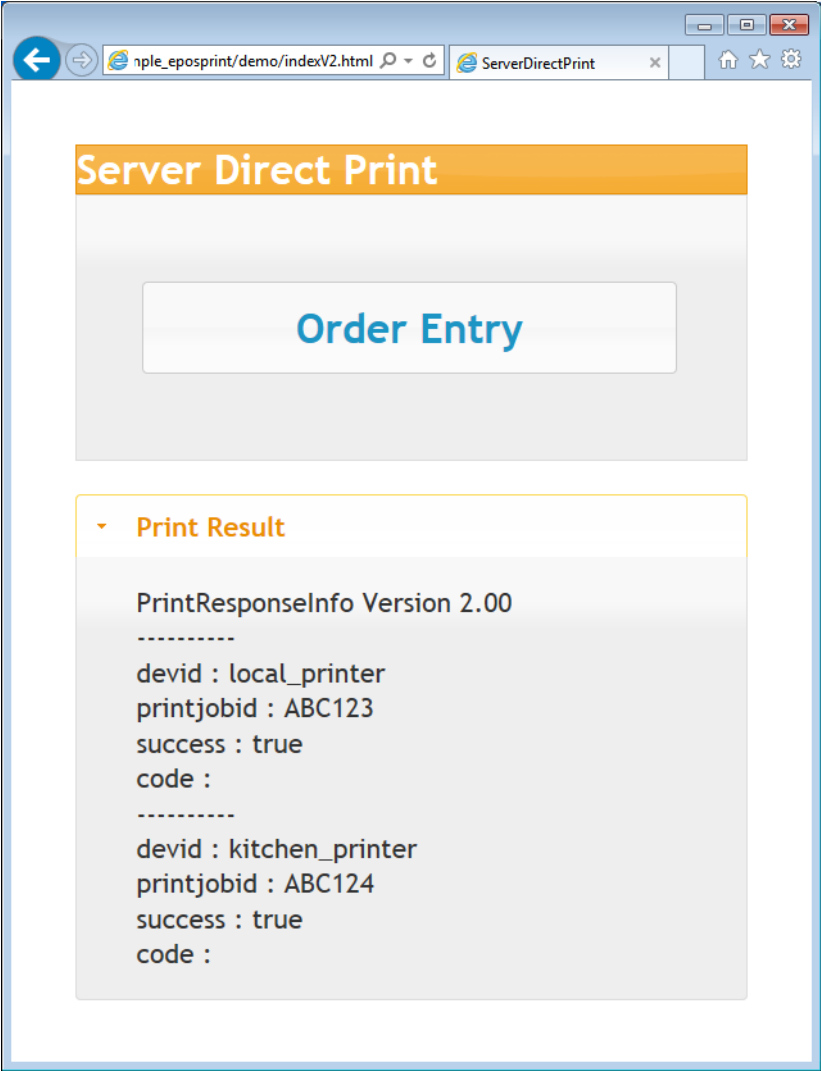
<PrintRequestInfo Version="1.00">



<PrintRequestInfo Version="2.00">



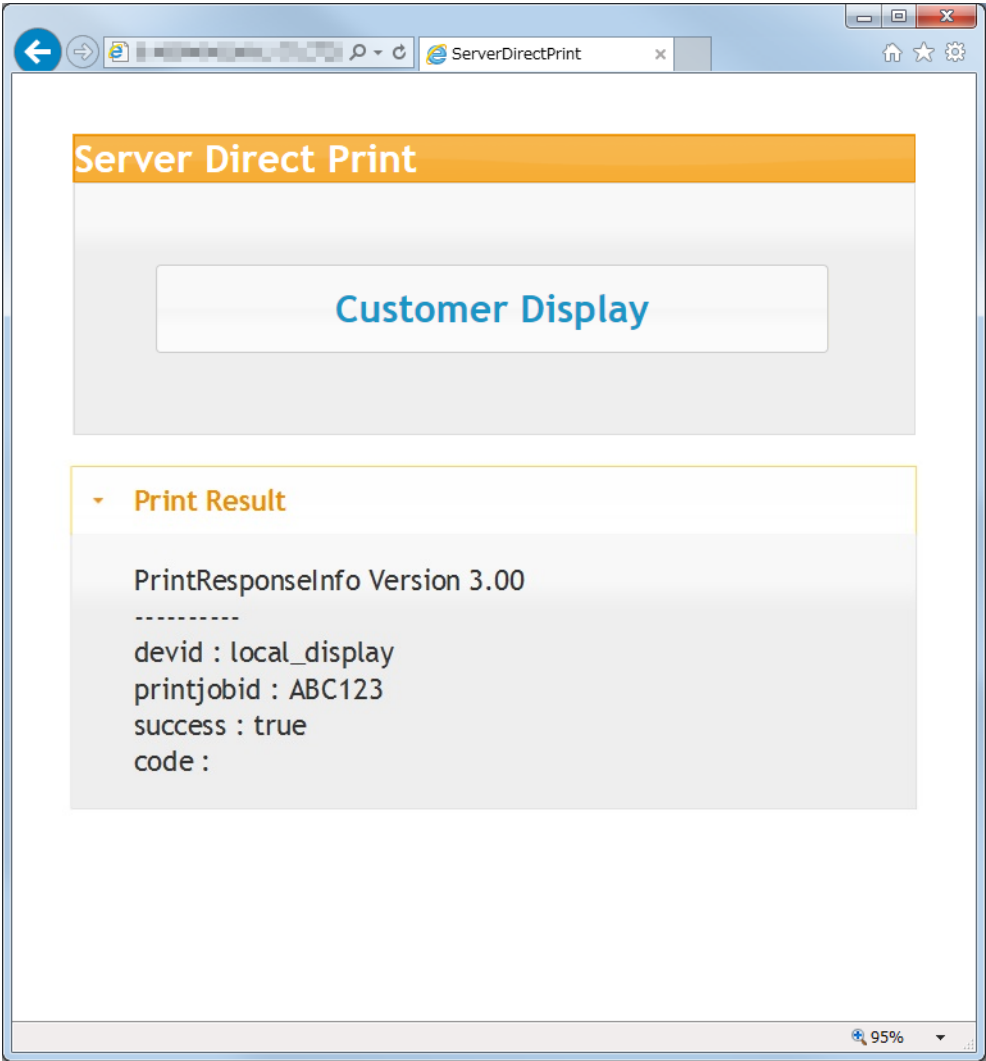
For supported printers, refer to ["HTTP Response \(Print request\) version" on page 10](#).



<PrintRequestInfo Version="3.00">

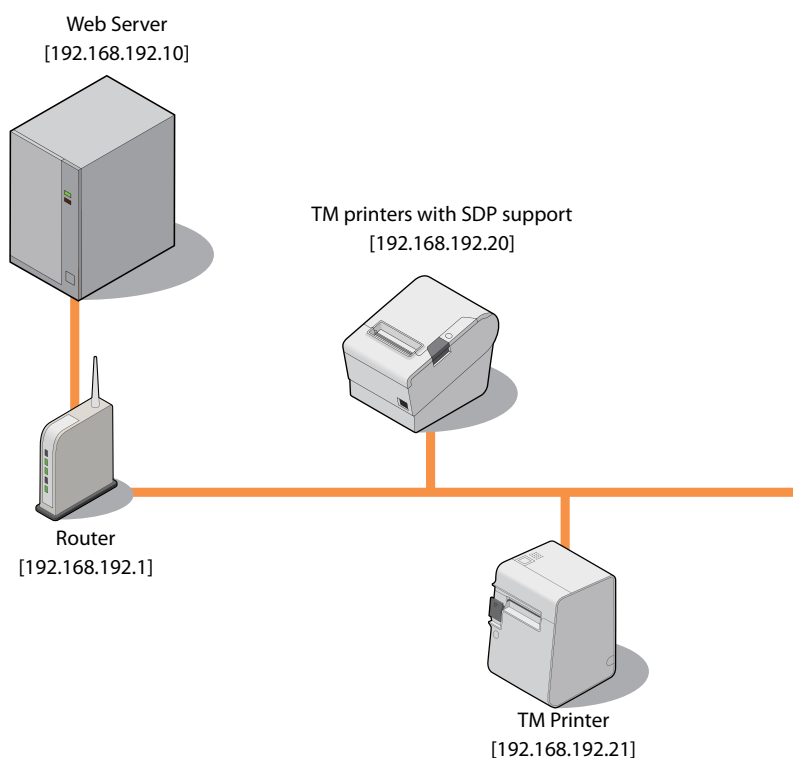


For supported printers, refer to ["HTTP Response \(Print request\) version" on page 10](#).



Hardware Configuration (For Ver.1.00 or Ver.2.00)

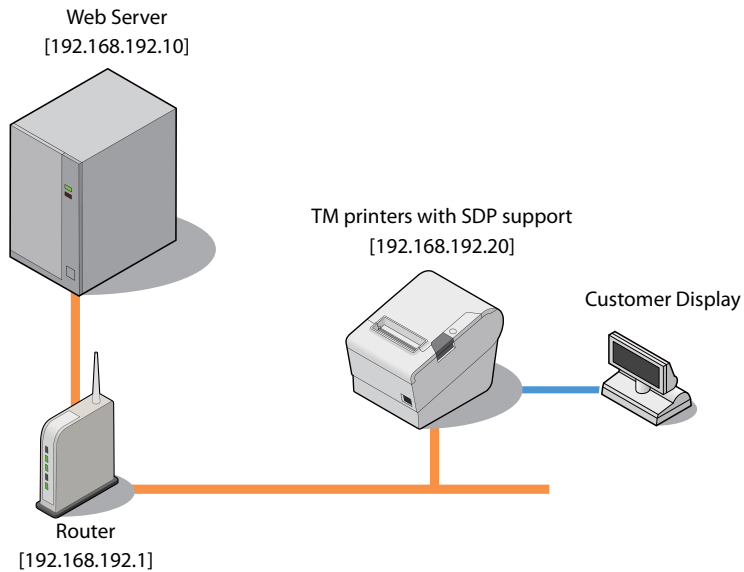
The system configuration of the sample program is as shown below.



- Web Server
(Its operation has already been checked using IIS and XAMPP.)
- Router
- TM printers with SDP support
- TM Printer (The program operates even without a TM printer.)

Hardware Configuration (For Version 3.00)

The system configuration of the sample program is as shown below.





- Web Server
(Its operation has already been checked using IIS and XAMPP.)
- Router
- TM printers with SDP support
- Customer Display

File Configuration

File Name		Description
Test_print.php		The server returns a response containing print data when the printer sends a request.
resultPrint.log		The printing result is retained in this file. The file is created after printing.
demo	index.html	Sends a print instruction and displays the printing result. (For <PrintRequestInfo Version="1.00">)
	sample.xml	The data of response message. (For <PrintRequestInfo Version="1.00">)
	indexV2.html	Sends a print instruction and displays the printing result. (For <PrintRequestInfo Version="2.00">)
	sampleV2.xml	The data of response message. (For <PrintRequestInfo Version="2.00">)
	indexV3.html	Sends a print instruction and displays the printing result. (For <PrintRequestInfo Version="3.00">)
	sampleV3.xml	The data of response message. (For <PrintRequestInfo Version="3.00">)

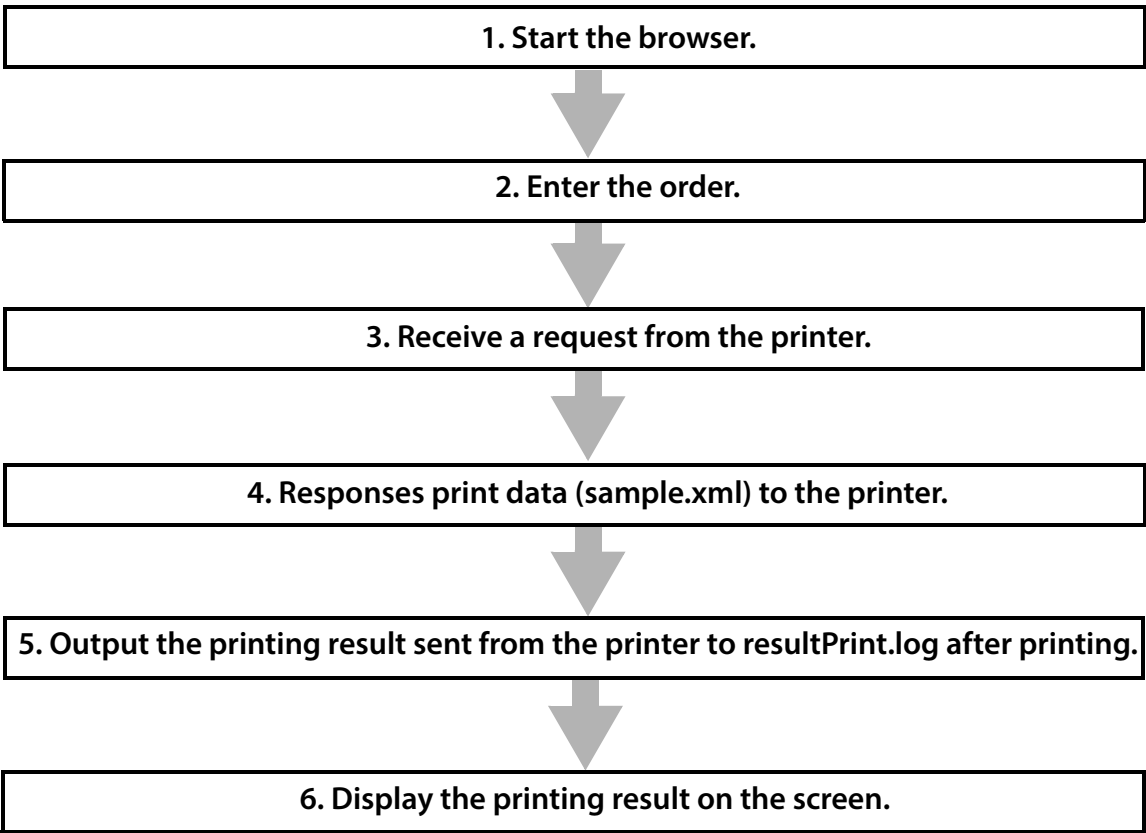
Printing Result

Cooking Slip	Delivery Slip
<div><div>2Alt Beer</div><div>Seat: A-3</div><div><div>Kitchen</div><div>【New Order】</div></div><div>00012013-03-19 13:53 15</div><div></div></div>	<div><div>DELIVERY TICKET</div><div><div>Order0001</div><div>TimeMar 19 201313:53:15</div><div>SeatA-3</div></div><div>Alt Beer</div><div><div>\$6.00</div><div>x 2</div><div>\$12.00</div></div><div>TOTAL</div><div>\$12.00</div><div></div></div>

2

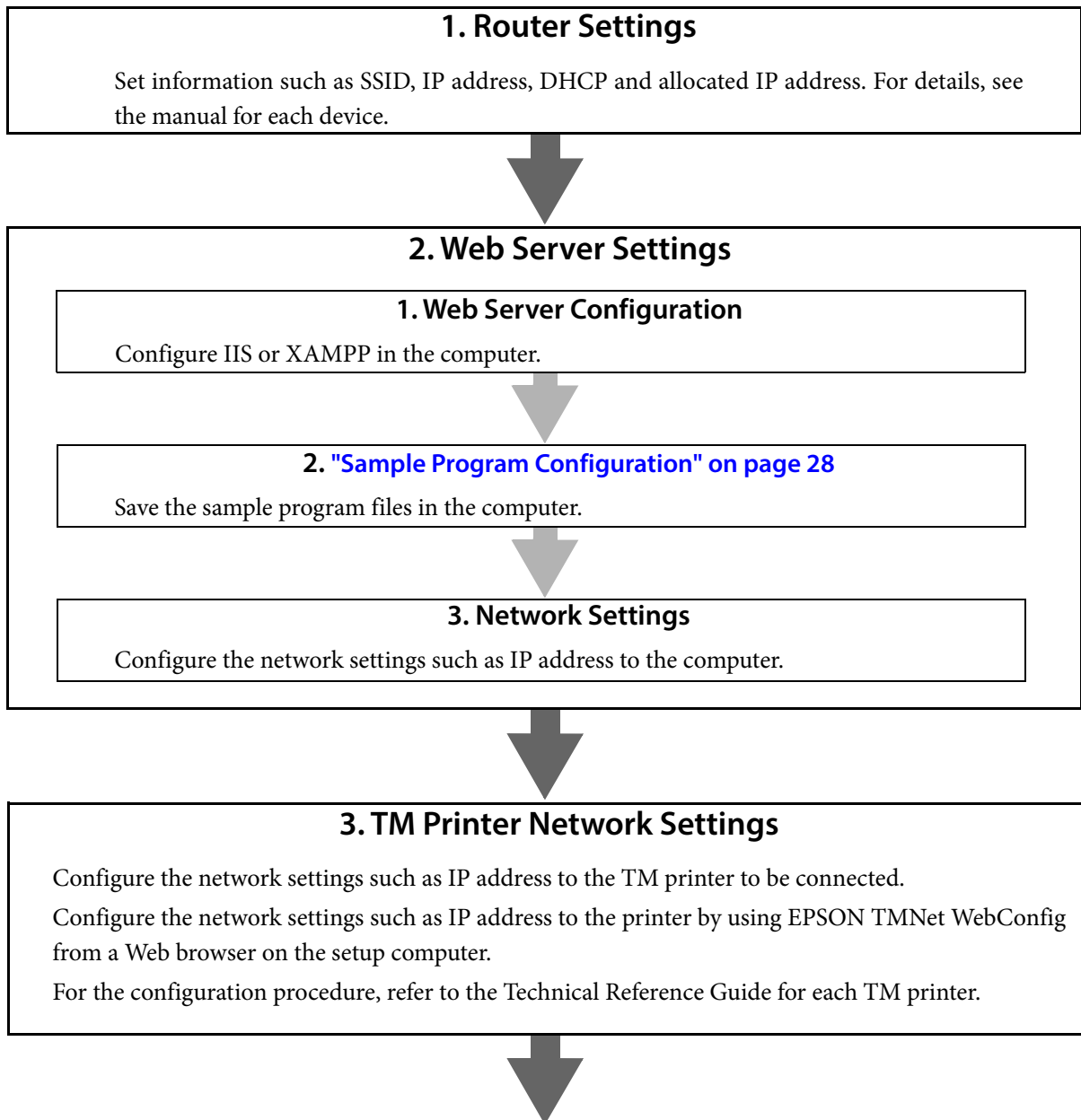
Program Flow

The flow from the initial display to the print completion of the sample program is as shown below.



Environment Settings

The environment setting flow of the sample program is as shown below.





4. TM printers with SDP support Settings

- TM-i series ([page 28](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Register the TM Printers (Device ID, IP Address)
- TM-DT series, TM-DT2 series ([page 31](#))
 - IP Address Setting
 - Initial OS Settings
 - Initializing the ePOS-Device
 - Service Startup Settings
 - Server Direct Print Setting
 - Register the TM Printers (Device ID, IP Address)
- TM-H6000V ([page 34](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Device ID
- TM-T88VI, TM-T88VI-iHUB ([page 36](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Register the TM Printers (Device ID, IP Address)
- TM-T88VII ([page 38](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Device ID Setting
- TM-m30II series, TM-m30III Series, TM-m50, TM-m50II Series ([page 41](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Enabling ePOS-Print
 - Server Direct Print Setting
 - Device ID Setting
- TM-L100 ([page 38](#))
 - IP Address Setting
 - Server Direct Print Setting
 - Device ID Setting

Sample Program Configuration

Save the sample program files to the Web server.

Save the files directly under the following folders:

Environment	Folder	Saved File
IIS	inetpub\wwwroot	Test_print.php
XAMPP	xampp\htdocs	demo\index.html \sample.xml (Expansion of epsonsampl_e_posprint.zip)



For details about how to create a zip file, refer to the Technical Reference Guide for each printer.

TM printers with SDP support Settings

2

See the following for the settings of each printer.

- TM-i series ([page 28](#))
- TM-DT series and TM-DT2 series ([page 31](#))
- TM-H6000V ([page 34](#))
- TM-T88VI and TM-T88VI-iHUB ([page 36](#))
- TM-T88VII ([page 38](#))
- TM-m30II series, TM-m30III Series, TM-m50, and TM-m50II Series ([page 41](#))
- TM-L100 ([page 38](#))

TM-i Series Settings

Configure the following settings to TM-i Series.

- IP Address Setting : Refer to the Technical Reference Guide for each printer.
- Server Direct Print Setting : [page 28](#)
- Register the TM Printers : [page 30](#)

Server Direct Print Settings

Configure the Server Direct Print settings by using EPSON TMNet WebConfig.

Use the following procedure for registration.

1 Start the Web browser on the setup computer and enter as follows:

For TM-i Firmware Ver.4.0 or later

http://<IP address of the TM-i series>/webconfig/

For TM-i Firmware Ver.3.x or earlier

http://<IP address of the TM-i series>/PrinterConfigurationPage/

2 EPSON TMNet WebConfig starts.

For TM-i Firmware Ver.4.0 or later, select [Web Service Settings] - [Direct Print].

For TM-i Firmware Ver.3.x or earlier, select [Configuration] - [Direct Print].

3 The “Server Direct Print Setting” screen appears.

Set the following items and click [Submit] / [Apply].

For TM-i Firmware Ver.4.0 or later

Item		Description
Server Direct Print		Select the [Enable].
ID		Set ID for the server-side program to identify TM-i series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password		Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
Server 1	URL	Specify the Test_print.php address of the Web server. Example: http://<IP address of Web server>/Test_print.php Click the [Access Test] to check if the address is accessible.
	Interval(s)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.
Server 2/ Server 3		Not required for the sample program.
Authenticate Server		Sets whether the server authentication is performed with the registered certificate when accessed through https.

For TM-i Firmware Ver.3.x or earlier

Item		Description
Server Direct Print		Select the [Enable].
ID		Set ID for the server-side program to identify TM-i series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password		Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL		Specify the Test_print.php address of the Web server. Example: http://<IP address of Web server>/Test_print.php Click the [Access Test] to check if the address is accessible.
Interval(s)		Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.

Registration of TM Printer

Register TM printers using EPSON TMNet WebConfig.

It is not necessary to configure settings because the printers are already registered for the TM-i Series (default value: Device ID = "local_printer"). Use the following procedure for registration.

1 Connect all TM printers to the network and power on.

2 EPSON TMNet WebConfig starts.

For TM-i Firmware Ver.4.0 or later, select [Web Service Settings] - [Direct Print].

For TM-i Firmware Ver.3.x or earlier, select [Configuration] - [Direct Print].

3 The "Printer" / "Device Settings" screen appears. Set the following items and click [Add] / [Submit].

Item	Description
Device ID	Set the ID for the controlled printer. (Any character string)
Model	Select the model for the controlled printer.
IP Address	Set the printer IP address for each device ID.
Retry Interval (ms)	Set the timeout retry interval. Specify "100".

4 The information of the registered device is displayed. Click [Test Print] to check if the registered printer operates properly.

TM-DT Series and TM-DT2 Series Settings

Configure the following settings to TM-DT Series, TM-DT2 Series.

- Initial OS Settings : Refer to the Technical Reference Guide for each printer.
- Initializing the ePOS-Device : Refer to the Technical Reference Guide for each printer.
- IP Address Settings : Refer to the Technical Reference Guide for each printer.
- Service Startup Settings : [page 31](#)
- Server Direct Print Settings : [page 32](#)
- Registration of TM Printer : [page 33](#)

Service startup settings

To make service startup settings, use EPSON TMNet WebConfig and the following procedure.

1 Start EPSON TMNet WebConfig from the shortcut on the desktop.

EPSON TMNet WebConfig starts.



If you are making settings from an external device, set the TM-DT series IP address in the address for the Web browser.

`http://<IP address of the printer>/webconfig/`

2 Select as [Settings]-[Web service settings]-[Startup settings].

3 The "Startup settings" screen appears.

Set the following according to the system you are using, and then click [Apply].

Item	Description	Setting
Device control	Enable this setting. If not enabled, the SDP function cannot be used.	On (Default)
Automatic update of web content	Sets whether to automatically update web content.	Off
Server direct print	Enable this setting. If not enabled, the SDP function cannot be used.	On
Status notification	Sets whether to send status notification when using the server direct print function.	On/Off

Server Direct Print Settings

Configure the Server Direct Print settings using EPSON TMNet WebConfig.

1 EPSON TMNet WebConfig starts.

If the TM-DT software version of the TM-DT2 Series and TM-DT Series is Ver.2.5 or later:

Select [Settings] - [Web service settings] - [Server access] - [Direct Print].

If the TM-DT software version of the TM-DT Series is Ver.2.2 or earlier:

Select [Settings]-[Web service settings]-[Direct print].

2 The "Server direct print" screen appears.

Set the following items and click [OK].

For TM-DT2 Series or TM-DT Software Ver. of the TM-DT Series is Ver.3.0 or later:

Item	Description
ID	Set ID for the server-side program to identify printer. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. Not required for the sample program.
Server1	Specify the Test_print.php address of the Web server. Example: http://<IP address of Web server>/Test_print.php Click the [Access Test] to check if the address is accessible.
Interval (sec.)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.
Server Authentication	When accessing by https, this sets whether or not server authentication is conducted based on a registered certificate.

For TM-DT Software Ver. of the TM-DT Series is Ver.2.6 or earlier:

Item	Description
ID	Set ID for the server-side program to identify printer. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. Not required for the sample program.
URL	Specify the Test_print.php address of the Web server. Example: http://<IP address of Web server>/Test_print.php Click the [Access Test] to check if the address is accessible.
Interval (sec.)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.

Registration of TM Printer

Register TM printers using EPSON TMNet WebConfig.

It is not necessary to configure settings because the printers are already registered for the TM-DT Series and the TM-DT2 Series (default value: Device ID = "local_printer"). Use the following procedure for registration.

- 1** Connect all TM printers to the network and power on.
- 2** EPSON TMNet WebConfig starts.
Select [Settings]-[Web service settings]-[Device Admin]-[Device registration]-[Printer].
- 3** The "Printer" screen appears.
Set the following items and click [Add].

Item	Description
Device ID	Set the ID for the controlled printer. (Any character string)
Model no.	Select the model for the controlled printer.
IP address	Set the printer IP address for each device ID.
Retry interval (ms)	Set the timeout retry interval. Specify "100".

- 4** The information of the registered device is displayed in "Registered printers".
Click [Test Print] to check if the registered printer operates properly.

TM-H6000V Settings

Configure the following settings to TM-H6000V.

- IP Address Settings : Refer to the Technical Reference Guide.
- Server Direct Print Settings : [page 34](#)
- DeviceID : [page 35](#)

Server Direct Print Settings

Configure the Server Direct Print settings using TM-H6000V Utility.

- 1 Starting the TM-H6000V Utility.
- 2 Click [TM-Intelligent] - [Server Access] - [Server Direct Print].
- 3 The Server Direct Print screen appears.
Set the following items.

Item	Description
Server Direct Print	Enable Server Direct Print.
Server 1	Enable Server 1.
URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
Update Interval	Set the request interval.
Server 2	Disable Server 2.
URL	-
Update Interval	-
Server 3	Disable Server 3.
URL	-
Update Interval	-
ID	This ID will be the user ID used for Digest authentication. Not required for the sample program.
Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL Encode	Specifies whether to enable or disable the URL encode.

Item		Description
	Identifier	This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. If not input, the printer's serial number is automatically specified. Not required for the sample program.
	Server Authentication	Specifies whether to enable or disable the server authentication. Register certificates in advance. Not required for the sample program.

4 Click the [Set]. The settings are reflected in the printer.

Registration of Device ID

Default setting: "local_printer"

Use the following procedure to change a Device ID.

- 1 **Starting the TM-H6000V Utility.**
Click the [TM-Intelligent] - [Device Administration] - [Printer Registration].
- 2 **The Printer Registration screen appears. If you click a printer in the Printer List, [Change] is enabled. Click the [Change].**
- 3 **The "Change" window is displayed. Set the Device ID. After setting, click [OK].**
- 4 **Confirm that the setting values on the Printer List have changed.**
- 5 **Click the [Set]. The settings are reflected in the printer.**

TM-T88VI and TM-T88VI-iHUB Settings

Configure the following settings to TM-T88VI and TM-T88VI-iHUB..

- IP Address Settings : Refer to the Technical Reference Guide.
- Server Direct Print Settings : [page 36](#)
- Registration of TM Printer : [page 37](#)
- Customer display Settings : Refer to the Technical Reference Guide.

Server Direct Print Settings



When EPSON TMNet WebConfig is used for configuration, enable the "ePOS-Print" function first and then enable the "Server Direct Print" function.

Configure the Server Direct Print settings using the utility specialized for each model.

- 1 Starting the utility specialized for each model.**
- 2 Click [TM-Intelligent] - [Server Access] - [Server Direct Print].**
- 3 The Server Direct Print screen appears.
Set the following items.**

Item	Description
Server Direct Print	Enable Server Direct Print.
Server 1	Enable Server 1.
URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
Update Interval	Set the request interval.
Server 2	Disable Server 2.
URL	-
Update Interval	-
Server 3	Disable Server 3.
URL	-
Update Interval	-
ID	This ID will be the user ID used for Digest authentication. Not required for the sample program.
Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL Encode	Specifies whether to enable or disable the URL encode.

Item		Description
	Identifier	This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. If not input, the printer's serial number is automatically specified. Not required for the sample program.
	Server Authentication	Specifies whether to enable or disable the server authentication. Register certificates in advance. Not required for the sample program.

4 Click the [Set]. The settings are reflected in the printer.

Registration of TM Printer

Register TM printers using the utility specialized for each model.

It is not necessary to configure settings because the printers are already registered for the TM printers with SDP support (default value: Device ID = "local_printer"). Use the following procedure for registration.

- 1 Connect all TM printers to the network and power on.
- 2 Starting the utility specialized for each model.
Click the [TM-Intelligent] - [Device Administration] - [Printer Registration].
- 3 The Printer Registration screen appears. Click [Add].
- 4 The "Add" window is displayed. Set the information of the printer to be registered.
After setting, click [OK].

Item	Description
Device ID	Sets the device ID of a printer to register. You can use half-width alphanumeric characters, underscoring, full stops and hyphens in the device ID. Enter between 1 to 30 characters.
Model	Selects the model of a printer to register.
IP Address	Sets the IP address of a printer to register.

- 5 Adds a printer to the List.
- 6 Confirm that the setting values on the Printer List have changed.
- 7 Click the [Set]. The settings are reflected in the printer.
- 8 Click [Test Print] to check if the registered printer operates properly.

TM-T88VII and TM-L100 Settings

With the initial settings, Server Direct Print cannot be used.

Before configuring the settings, enable ePOS-Print using the utility specialized for each model.



The TM-T88VII and the TM-L100 cannot control TM printers.

Configure the following settings.

- IP Address Settings : Refer to the Technical Reference Guide.
- Enabling ePOS-Print
- Server Direct Print Settings : [page 39](#)
- Device ID Settings : [page 40](#)
- Customer display Settings : Refer to the Technical Reference Guide.

Enabling ePOS-Print

Use the following procedure to configure the settings.

- 1** Starting the utility specialized for each model.
- 2** Click [TM-Intelligent] - [ePOS-Device] - [ePOS-Print].
- 3** Select [Enable ePOS-Print].
- 4** Click the [Set]. The settings are reflected in the printer.

Server Direct Print Settings



When EPSON TMNet WebConfig is used for configuration, enable the "ePOS-Print" function first and then enable the "Server Direct Print" function.

Configure the Server Direct Print settings using the utility specialized for each model.

- 1** Starting the utility specialized for each model.
- 2** Click [TM-Intelligent] - [Server Access] - [Server Direct Print].
- 3** The Server Direct Print screen appears.
Set the following items and click [Set].

Item	Description
Server Direct Print	Enable Server Direct Print.
Server 1	Enable Server 1.
URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
Update Interval	Set the request interval.
Server 2	Disable Server 2.
URL	-
Update Interval	-
Server 3	Disable Server 3.
URL	-
Update Interval	-
ID	This ID will be the user ID used for Digest authentication. Not required for the sample program.
Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL Encode	Specifies whether to enable or disable the URL encode.
Identifier	This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. If not input, the printer's serial number is automatically specified. Not required for the sample program.
Server Authentication	Specifies whether to enable or disable the server authentication. Register the certificate for server authentication in [Network] - [Network Security] - [CA Certificate]. For instructions regarding the certificate registration, refer to the utility specialized for each model User's Manual.

Changing the Device ID

For the device ID, "local_printer" is set in advance. Settings are not required for the sample program. If performing settings to match the system, perform settings using the following procedure.

- 1** Starting the utility specialized for each model.
Click the [TM-Intelligent] - [ePOS-Device] - [Printer].
- 2** The Printer Registration screen appears. Select the printer from the [Printer], and then click [Change].
- 3** The "Change" window is displayed. Set the device ID and then click [OK] to close the "Change" window.
- 4** Check that the device ID has been changed and then click [Set]. The settings are applied to the printer.

TM-m30II Series, TM-m30III Series, TM-m50, and TM-m50II Series Settings

With the initial settings, Server Direct Print cannot be used.

Before configuring the settings, enable ePOS-Print using the utility specialized for each model.

Configure the following settings.

- IP Address Settings : Refer to the Technical Reference Guide.
- Enabling ePOS-Print
- Server Direct Print Settings : [page 36](#) (Refer to the TM-T88VI Settings.)
- Device ID Setting : [page 37](#) (Refer to the TM-T88VI Settings.)
- Customer display Settings : Refer to the Technical Reference Guide.

Enabling ePOS-Print



When EPSON TMNet WebConfig is used for configuration, enable the "ePOS-Print" function first and then enable the "Server Direct Print" function.

Enable ePOS-Print using the utility specialized for each model. Use the following procedure to configure the settings.

- 1** Starting the utility specialized for each model.
- 2** Click [TM-Intelligent] - [ePOS-Print].
- 3** Select [Enable ePOS-Print].
- 4** Click the [Set]. The settings are reflected in the printer.

Execution of Sample Program

- 1** Confirm that the Server Direct Print function is enabled for TM printers with SDP support.
- 2** Open the sample program page from the Web browser.
Example: **`http://<IP address of Web server>/demo/index.html`**
- 3** Click [Order Entry].
- 4** In response to a request from the TM printers with SDP support, print data is sent and a slip is printed from the printer.
- 5** resultPrint.log is created from the printing result sent from the TM printers with SDP support and the printing result is displayed on the screen.

Request and Response

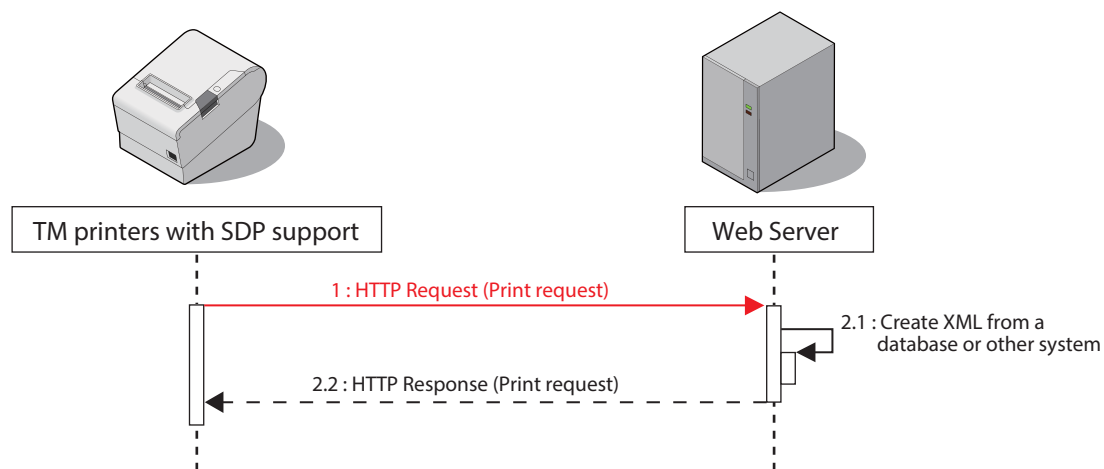
This chapter describes requests from the TM printers with SDP support and responses from the Web server.

User's application can start printing by returning a response containing print data to a HTTP POST request (print request) from the printer.

It can also check if printing is properly finished by analyzing a HTTP POST request (print request) from the printer.

Request (Print Request)

This section describes the request (print request) from the TM printers with SDP support.



A TM printer with SDP support periodically sends a HTTP POST request (print request) shown below.

The format of request message is URL-encoded form data (application/x-www-form-urlencoded).

Set the sending destination and sending interval according to "Server Direct Print Settings" ([page 28](#)).

If communication fails, it is attempted again after a specified interval.

Parameter	Value
ConnectionType	GetRequest
ID	The ID set with WebConfig
Name *	Input the identifier value specified by the utility specialized for each model. Input the Identifier value

* For supported printers, refer to "TM printers with SDP support" on [page 12](#).

```

POST /demo/Test_print.php HTTP/1.1
Host: 192.168.192.10
Content-Type: application/x-www-form-urlencoded
Content-Length: 29

ConnectionType=GetRequest&ID= *1
or
ConnectionType=GetRequest&ID=&Name= *2
  
```

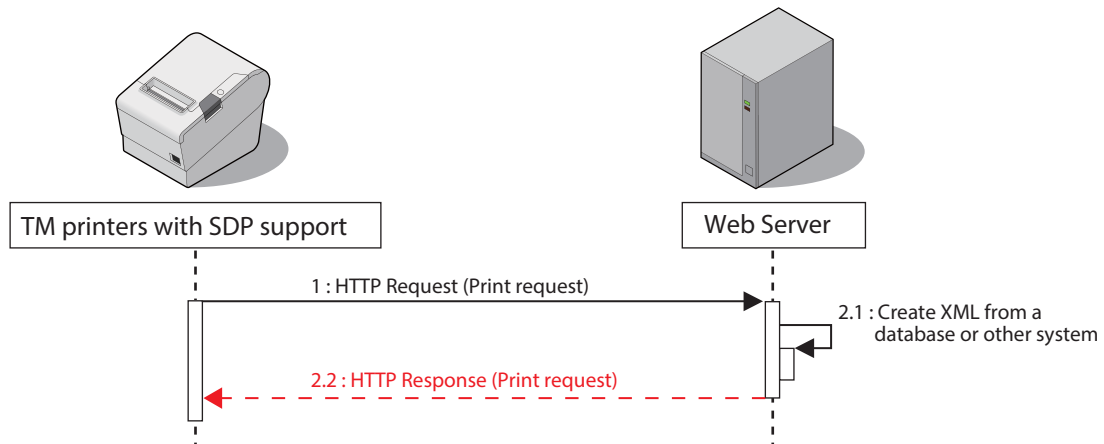
Header

*1 TM printers without Name parameter support

*2 TM printers with Name parameter support

Response (Print request)

This section describes the response (print request) containing the print data from the Web server.



Response data created in XML(text/xml) from the application is returned. The data also contains print data. When an invalid print request is received, the server retries a request (print request) after a specified interval.

Format of the response message

Basic Structure

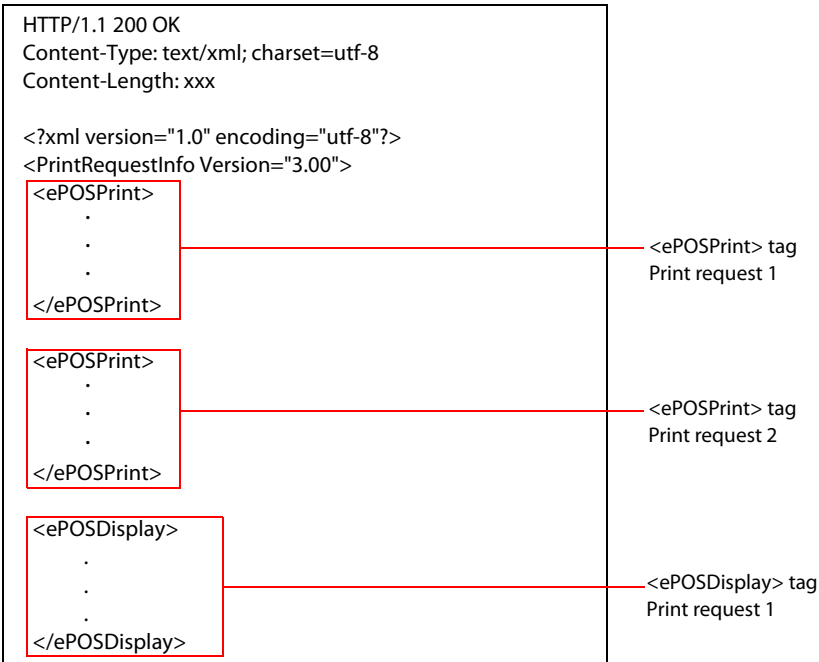
Create the `<ePOSPrint>` tag for each print request.

In order to print with a printer, create an `<ePOSPrint>` tag, and include the specified printing device and print data in the tag. Create an `<ePOSPrint>` tag for each device. You can also create multiple `<ePOSPrint>` tags for a single device.

Refer to ["Performing Drawer Open when a Printer is Offline" on page 46](#) for opening the drawer when the printer is offline.

In order to display a customer display, create an `<ePOSDisplay>` tag and include display data in the tag. `<ePOSDisplay>` can only be used for printers with customer display support.

The following is a sample configuration of `<PrintRequestInfo Version="3.00">`.



Performing Drawer Open when a Printer is Offline

In order to perform drawer open when the printer is offline, you need create an <ePOS-Print> tag separate from the print data and perform drawer open using forced transmission mode of ePOS-Print.

The following are sample syntaxes for performing drawer open when a printer is online and when offline.

The following is a sample configuration of <PrintRequestInfo Version="3.00">.

<pre> <ePOSPrint> <Parameter> <devid>local_printer</devid> <timeout>10000</timeout> <printjobid>ABC123_DrawerOpen_Online</printjobid> </Parameter> <PrintData> <epos-print xmlns="http://www.epson-pos.com/schemas /2011/03/epos-print"> <pulse drawer="drawer_1" time="pulse_100" /> </epos-print> </PrintData> </ePOSPrint> </pre>		<p><ePOSPrint> tag Perform drawer open when the printer is online</p>
<pre> <ePOSPrint> <Parameter> <devid>local_printer</devid> <timeout>10000</timeout> <printjobid>ABC123_DrawerOpen_Offline</printjobid> </Parameter> <PrintData> <epos-print xmlns="http://www.epson-pos.com/schemas /2011/03/epos-print" force="true"> <pulse drawer="drawer_1" time="pulse_100" /> </epos-print> </PrintData> </ePOSPrint> </pre>		<p><ePOSPrint> tag Perform drawer open when the printer is offline</p>

<PrintRequestInfo> Tag

Select the version according to the printer model, version of the installed firmware/software, and functions used. For differences in functions, refer to ["HTTP Response \(Print request\) version" on page 10](#).

A <PrintRequestInfo> tag is configured as shown below.

- <PrintRequestInfo Version="1.00">
- <PrintRequestInfo Version="2.00">
- <PrintRequestInfo Version="3.00">

If the <PrintRequestInfo> tag version is not specified, it is considered to be <PrintRequestInfo Version="1.00">.

<ePOSPrint> Tag

A print request to the printer is indicated in an <ePOSPrint> tag.

An <ePOSPrint> tag is configured of the following tags.

- <Parameter> tag: For details, see "[<Parameter> Tag](#)" on page 48.
- <PrintData> tag: For details, see "[<PrintData> Tag](#)" on page 48.

<ePOSDisplay> Tag



<ePOSDisplay> tags can only be used for printers with customer display support.

A display request to the customer display is indicated in an <ePOSDisplay> tag.

An <ePOSDisplay> tag is configured of the following tags.

- <Parameter> tag: For details, see "[<Parameter> Tag](#)" on page 48.
- <DisplayData> tag: For details, see "[<PrintData> Tag](#)" on page 48.

<Parameter> Tag

A <Parameter> tag contained in an <ePOSPrint> tag and <ePOSDisplay> tag is configured as shown below.

- <devid> tag: Printer to print
- <timeout> tag: Timeout time (in ms units)
- <printjobid> tag *: Specifies the print job ID
For the print job ID, you can use from 1 to 30 alphanumeric characters including underscores, hyphens, and periods.

* This cannot be specified in <PrintRequestInfo Version="1.00">.

The following is a sample configuration of <PrintRequestInfo Version="2.00">.

```
<Parameter>
  <devid>local_printer</devid>
  <timeout>10000</timeout>
  <printjobid>ABC123</printjobid>
</Parameter>
```

<PrintData> Tag

Describe print data. Even if the <PrintRequestInfo> version is different, the print data can be shared.

For details, see ePOS-Print XML User's Manual.

<DisplayData> Tag



<ePOSDisplay> tags can only be used for printers with customer display support.

Indicates control and display data of the customer display.

For details, see ePOS-Print XML User's Manual.

Print Data Example

<PrintRequestInfo Version="1.00">

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: xxx

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

  <ePOSPrint>
    <Parameter>
      <devid>local_printer</devid>
      <timeout>10000</timeout>
    </Parameter>
    <PrintData>
      <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
        <text lang="en" />
        <text smooth="true" />
        <text align="center" />
        <text font="font_b" />
        <text width="2" height="2" />
        <text reverse="false" ul="false" em="true" color="color_1" />
        <text>DELIVERY TICKET</text>
        <feed unit="12" />
        <text></text>
        <text align="left" />
        <text font="font_a" />
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Order 0001</text>
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Time Mar 19 2013 13:53:15</text>
        <text>Seat A-3</text>
        <text></text>
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Alt Beer</text>
        <text>$6.00 x 2</text>
        <text x="384" />
        <text>$12.00</text>
        <text></text>
        <text reverse="false" ul="false" em="true" />
        <text width="2" height="1" />
        <text>TOTAL</text>
        <text x="264" />
        <text>$12.00</text>
        <text reverse="false" ul="false" em="false" />
        <text width="1" height="1" />
        <feed unit="12" />
        <text align="center" />
        <barcode type="code39" hri="none" font="font_a" width="2" height="60">0001</barcode>
        <feed line="3" />
        <cut type="feed" />
      </epos-print>
    </PrintData>
  </ePOSPrint>

```

```
<ePOSPrint>
  <Parameter>
    <devid>local_printer</devid>
    <timeout>10000</timeout>
  </Parameter>
  <PrintData>
    <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
      <pulse drawer="drawer_1" time="pulse_100" />
    </epos-print>
  </PrintData>
</ePOSPrint>

<ePOSPrint>
  <Parameter>
    <devid>local_printer</devid>
    <timeout>10000</timeout>
  </Parameter>
  <PrintData>
    <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" force="true">
      <pulse drawer="drawer_1" time="pulse_100" />
    </epos-print>
  </PrintData>
</ePOSPrint>

</PrintRequestInfo>
```

<PrintRequestInfo Version="2.00">

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: xxx

<?xml version="1.0" encoding="utf-8" ?>
<PrintRequestInfo Version="2.00">

  <ePOSPrint>
    <Parameter>
      <devid>local_printer</devid>
      <timeout>10000</timeout>
      <printjobid>ABC123</printjobid>
    </Parameter>
    <PrintData>
      <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
        <text lang="en" />
        <text smooth="true" />
        <text align="center" />
        <text font="font_b" />
        <text width="2" height="2" />
        <text reverse="false" ul="false" em="true" color="color_1" />
        <text>DELIVERY TICKET</text>
        <feed unit="12" />
        <text></text>
        <text align="left" />
        <text font="font_a" />
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Order 0001</text>
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Time Mar 19 2013 13:53:15</text>
        <text>Seat A-3</text>
        <text></text>
        <text width="1" height="1" />
        <text reverse="false" ul="false" em="false" color="color_1" />
        <text>Alt Beer</text>
        <text>$6.00 x 2</text>
        <text x="384" />
        <text>$12.00</text>
        <text></text>
        <text reverse="false" ul="false" em="true" />
        <text width="2" height="1" />
        <text>TOTAL</text>
        <text x="264" />
        <text>$12.00</text>
        <text reverse="false" ul="false" em="false" />
        <text width="1" height="1" />
        <feed unit="12" />
        <text align="center" />
        <barcode type="code39" hri="none" font="font_a" width="2" height="60">0001</barcode>
        <feed line="3" />
        <cut type="feed" />
      </epos-print>
    </PrintData>
  </ePOSPrint>

```

```
<ePOSPrint>
  <Parameter>
    <devid>local_printer</devid>
    <timeout>10000</timeout>
    <printjobid>ABC123_DrawerOpen_Online</printjobid>
  </Parameter>
  <PrintData>
    <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
      <pulse drawer="drawer_1" time="pulse_100" />
    </epos-print>
  </PrintData>
</ePOSPrint>

<ePOSPrint>
  <Parameter>
    <devid>local_printer</devid>
    <timeout>10000</timeout>
    <printjobid>ABC123_DrawerOpen_Offline</printjobid>
  </Parameter>
  <PrintData>
    <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" force="true">
      <pulse drawer="drawer_1" time="pulse_100" />
    </epos-print>
  </PrintData>
</ePOSPrint>

</PrintRequestInfo>
```

<PrintRequestInfo Version="3.00">

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: xxx

<?xml version="1.0" encoding="utf-8"?>
<PrintRequestInfo Version="3.00">

  <ePOSPrint>
    <Parameter>
      <devid>local_printer</devid>
      <timeout>10000</timeout>
      <printjobid>ABC123</printjobid>
    </Parameter>
    <PrintData>
      <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
        <text lang="en"/>
        <text smooth="true"/>
        <text align="center"/>
        <text font="font_b"/>
        <text width="2" height="2"/>
        <text reverse="false" ul="false" em="true" color="color_1"/>
        <text>DELIVERY TICKET</text>
        <feed unit="12"/>
        <text></text>
        <text align="left"/>
        <text font="font_a"/>
        <text width="1" height="1"/>
        <text reverse="false" ul="false" em="false" color="color_1"/>
        <text>Order</text>
        <text width="1" height="1"/>
        <text reverse="false" ul="false" em="false" color="color_1"/>
        <text>Time</text>
        <text>Seat</text>
        <text></text>
        <text width="1" height="1"/>
        <text reverse="false" ul="false" em="false" color="color_1"/>
        <text>Alt Beer</text>
        <text></text>
        <text></text>
        <text></text>
        <text reverse="false" ul="false" em="true"/>
        <text width="2" height="1"/>
        <text>TOTAL</text>
        <text x="264"/>
        <text></text>
        <text reverse="false" ul="false" em="false"/>
        <text width="1" height="1"/>
        <feed unit="12"/>
        <text align="center"/>
        <barcode type="code39" hri="none" font="font_a" width="2" height="60">0001</barcode>
        <feed line="3"/>
        <cut type="feed"/>
      </epos-print>
    </PrintData>
  </ePOSPrint>

  <ePOSPrint>
    <Parameter>
      <devid>local_printer</devid>
      <timeout>10000</timeout>
      <printjobid>ABC123_DrawerOpen_Online</printjobid>
    </Parameter>
    <PrintData>
      <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print">
        <pulse drawer="drawer_1" time="pulse_100" />
      </epos-print>
    </PrintData>
  </ePOSPrint>

```

```

<ePOSPrint>
  <Parameter>
    <devid>local_printer</devid>
    <timeout>10000</timeout>
    <printjobid>ABC123_DrawerOpen_Offline</printjobid>
  </Parameter>
  <PrintData>
    <epos-print xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" force="true">
      <pulse drawer="drawer_1" time="pulse_100" />
    </epos-print>
  </PrintData>
</ePOSPrint>

<ePOSDisplay>
  <Parameter>
    <devid>local_display</devid>
    <timeout>10000</timeout>
    <printjobid>ABC456</printjobid>
  </Parameter>
  <DisplayData>
    <epos-display xmlns="http://www.epson-pos.com/schemas/2012/09/epos-display">
      <text>Thanks for using Server Direct Print!</text>
    </epos-display>
  </DisplayData>
</ePOSDisplay>

</PrintRequestInfo>

```

Response When No Printing Is Performed

When no printing is required, to notify no print data, the following response is returned for a HTTP request (print request) sent from the TM printers with SDP support.

See Test_print.php of the sample program.

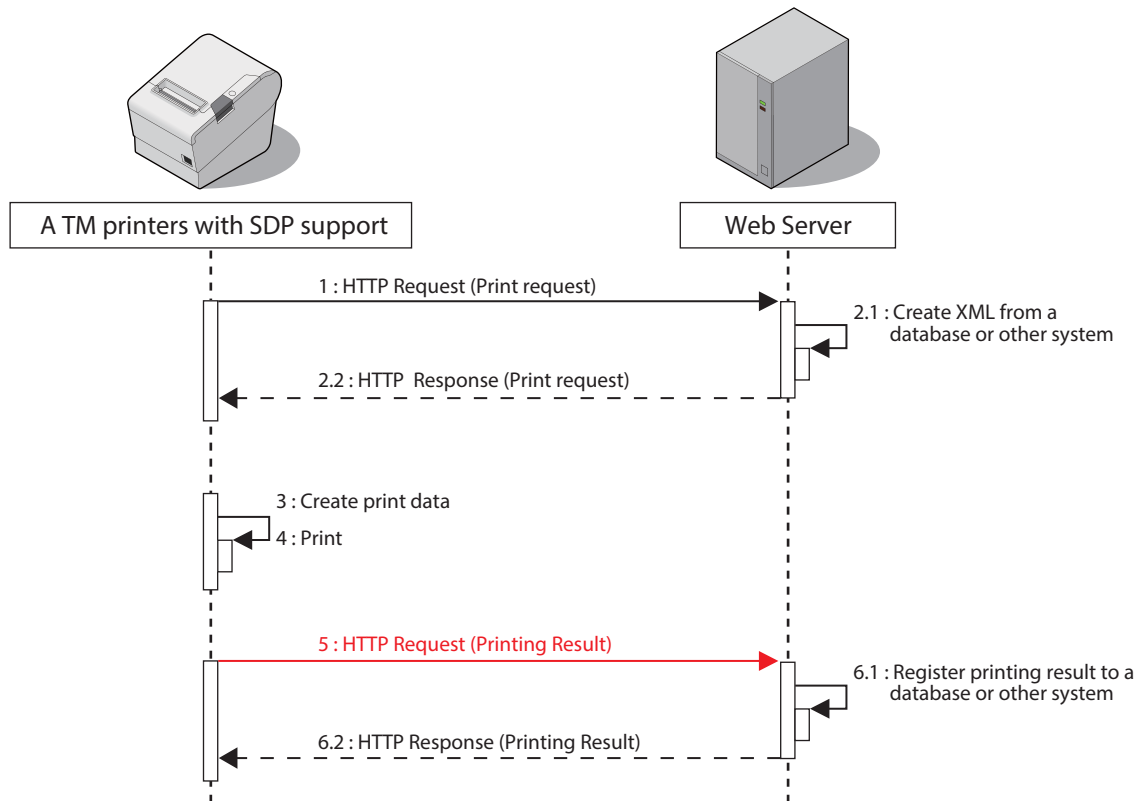
```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 0

```

Request (Printing Result)

A TM printer with SDP support sends a HTTP POST request (printing result) shown below after printing.



The application can check the printing result (if printing is properly finished) and the printer status by analyzing request data.

If communication fails, it is attempted again after a specified interval.

Format of the request message

Parameter	Value
ConnectionType	SetResponse
ID	The ID set with WebConfig
ResponseFile	Printing result
Name *	Input the identifier value specified by the utility specialized for each model. Input the Identifier value

* For supported printers, refer to ["TM printers with SDP support" on page 12](#).

```

POST /demo/Test_print.php HTTP/1.1
Host: 192.168.192.10
Content-Type: application/x-www-form-urlencoded
Content-Length: xxx

ConnectionType=SetResponse&ID=&ResponseFile=Printing Result *1
or
ConnectionType=SetResponse&ID=&Name=&ResponseFile=Printing Result *2
  
```

*1 TM printers without Name parameter support

*2 TM printers with Name parameter support

Request Message

The structure of a request (printing result) created by the TM printers SDP support are different depending on the `<PrintRequestInfo>` version contained in the response (print request) from the Web server.

`<PrintRequestInfo Version="1.00">`

In the `<PrintResponseInfo>` tag, the printing result is included in the `<response>` tag,

When no version for the `<PrintRequestInfo>` tag is specified, the same structure as with `<PrintRequestInfo Version="1.00">` is applied.

For the `<response>` tag, refer to [page 60](#).

If specifying multiple `<ePOSPrint>` tags with a response (print request), each corresponding print result is returned in the order specified by the responses (print requests).

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

```
<PrintResponseInfo Version="1.00">
```

```
#Success
```

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="true"
  code="" status="251854870" battery="0"/>
```

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="true"
  code="" status="251854870" battery="0"/>
```

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="false"
  code="EX_BADPORT" status="1" battery="0"/>
```

```
</PrintResponseInfo>
```

`<response>` tag: Print request

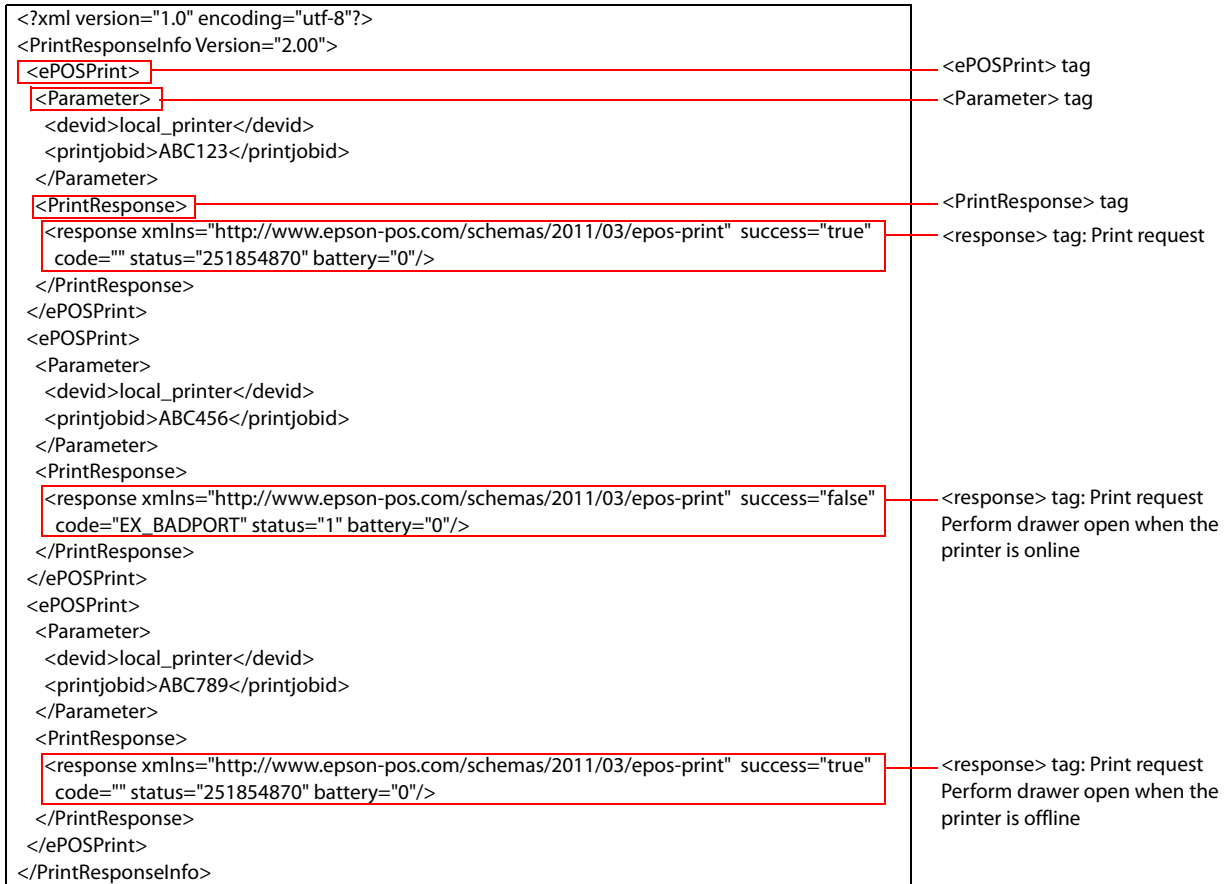
`<response>` tag: Print request
Perform drawer open when the
printer is online

`<response>` tag: Print request
Perform drawer open when the
printer is offline

<PrintRequestInfo Version="2.00">

Print results are returned for each print job ID. An <ePOSPrint> tag is created in a <PrintResponseInfo> tag. Configuration of an <ePOSPrint> tag is as shown below:

- <Parameter> tag
 - * <devid> tag: Device ID
 - * <printjobid> tag: Print job ID
- <PrintResponse> tag
 - * <response> tag: Refer to [page 60](#).



<PrintRequestInfo Version="3.00">

The printer confirms the data when it receives an HTTP response (print request).

The request (print request) varies depending on whether the response (print request) is valid or invalid.

- Response (print request) data is valid: Request is created as explained in this section.
- Response (print request) data is invalid: Refer to ["ResponseFile" on page 62](#).

<PrintResponseInfo Version="3.00"> tag

<PrintRequestInfo Version="3.00"> tag is as shown below.

- <ServerDirectPrint> tag: Returns whether response (print request) data is valid.
- <ePOSPrint> tag: Returns the print result.
- <ePOSDisplay> tag: Returns the result of the control command for the customer display.

<ServerDirectPrint> tag

<Response> tag parameters are as shown below.

- Success="true": Response (print request) data is valid.
- Success="false": Response (print request) data is invalid.
Refer to ["<response> tag" on page 60](#).

<ePOSPrint> tag

<ePOSPrint> tag is as shown below.

- <Parameter> tag
 - * <devid> tag: Device ID
 - * <printjobid> tag: Print job ID
- <PrintResponse> tag
 - * <response> tag: Refer to ["<response> tag" on page 60](#).

<ePOSDisplay> tag

<ePOSDisplay> tag is as shown below.

- <Parameter> tag
 - * <devid> tag: Device ID
 - * <printjobid> tag: Print job ID
- <DisplayResponse> tag
 - * <response> tag: Refer to ["<response> tag" on page 60](#).

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

```
<PrintResponseInfo Version="3.00">
```

<PrintResponseInfo> tag

```
<ServerDirectPrint>
```

```
<Response Success="true"/>
```

<Response> tag

```
</ServerDirectPrint>
```

```
<ePOSPrint>
```

<ePOSPrint> tag

```
<Parameter>
```

```
<devid>local_printer</devid>
```

```
<printjobid>ABC123</printjobid>
```

```
</Parameter>
```

```
<PrintResponse>
```

<PrintResponse> tag

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="true"
code="" status="251854870" battery="0"/>
```

<response> tag: Print request

```
</PrintResponse>
```

```
</ePOSPrint>
```

```
<ePOSPrint>
```

```
<Parameter>
```

```
<devid>local_printer</devid>
```

```
<printjobid>ABC456</printjobid>
```

```
</Parameter>
```

```
<PrintResponse>
```

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="false"
code="EX_BADPORT" status="1" battery="0"/>
```

<response> tag: Print request
Perform drawer open when the
printer is online

```
</PrintResponse>
```

```
</ePOSPrint>
```

```
<ePOSPrint>
```

```
<Parameter>
```

```
<devid>local_printer</devid>
```

```
<printjobid>ABC789</printjobid>
```

```
</Parameter>
```

```
<PrintResponse>
```

```
<response xmlns="http://www.epson-pos.com/schemas/2011/03/epos-print" success="true"
code="" status="251854870" battery="0"/>
```

<response> tag: Print request
Perform drawer open when the
printer is offline

```
</PrintResponse>
```

```
</ePOSPrint>
```

```
<ePOSDisplay>
```

```
<Parameter>
```

```
<devid>local_display</devid>
```

```
<printjobid>ABC456</printjobid>
```

```
</Parameter>
```

```
<DisplayResponse>
```

```
<response xmlns="http://www.epson-pos.com/schemas/2012/09/ epos-display"
success="false" code="EDSP_NOT_FOUND" status="0"/>
```

<response> tag: Customer
Display control request

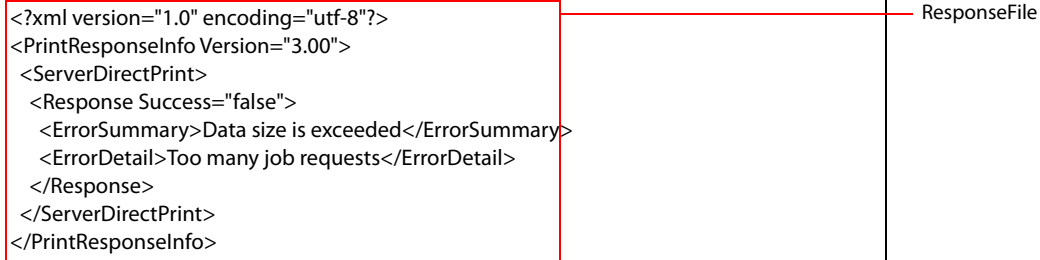
```
</DisplayResponse>
```

```
</PrintResponseInfo>
```

- When the HTTP response (print request) XML data has an error:
A ResponseFile is returned, which includes the printing result in the <Response> tag of the <ServerDirectPrint> tag.

For details, see "[PrintData Tag](#)" on page 48.

The ResponseFile does not contain the <ePOSPrint> tag or the <ePOSDisplay> tag,



```
<?xml version="1.0" encoding="utf-8"?>
<PrintResponseInfo Version="3.00">
  <ServerDirectPrint>
    <Response Success="false">
      <ErrorSummary>Data size is exceeded</ErrorSummary>
      <ErrorDetail>Too many job requests</ErrorDetail>
    </Response>
  </ServerDirectPrint>
</PrintResponseInfo>
```

<response> tag

Returns print result and customer display control result.

<response> tag parameters are as shown below.

- success: Returns print and customer display control results *.
If success = "false", the error code is indicated in the code attributes.

Value	Description
true	Printing and customer display control was successful.
false	Printing and customer display control failed.

- code: Refer to "[Error code](#)" on page 61.
- status: Refer to ePOS-Print XML User's Manual.
- battery: Refer to ePOS-Print XML User's Manual.

* Only returned if <ePOSDisplay> was specified.

Error code

This occurs when the device has a problem. The following table shows errors that can occur.

Code	Message	Cause
EPTR_AUTOMATIC	An automatically recoverable error occurred.	Continuous printing of high-density printing
EPTR_BATTERY_LOW	No remaining battery.	No battery
EPTR_COVER_OPEN	The device has a problem.	The cover is open.
EPTR_CUTTER	The device has a problem.	The cutter has a foreign matter.
EPTR_MECHANICAL	The device has a problem.	Mechanical error, etc.
EPTR_REC_EMPTY	There is no paper.	No paper
EPTR_UNRECOVERABLE	An unrecoverable error occurred.	Low voltage
EX_BADPORT	The port is invalid or the device is not connected. Forced transmission mode was executed while the printer was online. Printing cannot be performed because the printer is offline.	<ul style="list-style-type: none"> The registered information is invalid. The device power is off. The device is not connected. Other device control software exists on the system.
EX_TIMEOUT	Timeout occurred.	<ul style="list-style-type: none"> The process was not completed within a certain period of time. A large amount of data was sent with 1 method.
SchemaError	The message does not conform to the schema.	The request message is invalid.
DeviceNotFound	No device is found.	<ul style="list-style-type: none"> Inaccessible due to a problem in the operation status control in the output destination device. The device specified by the device name <devid> does not exist. Check the registration of the TM printer with SDP support.
PrintSystemError	An error occurred in the printing system.	Inaccessible due to a problem in the operation status in the TM printers with SDP support.
ERROR_WAIT_EJECT	The printer is waiting for paper to be removed.	Paper removal standby.

Error occurs in <PrintRequestInfo Version="2.00"> or later

Code	Cause
EX_SPOOLER	No buffer for the print queue
JobNotFound	The specified job ID does not exist
Printing	Printing in progress

ResponseFile

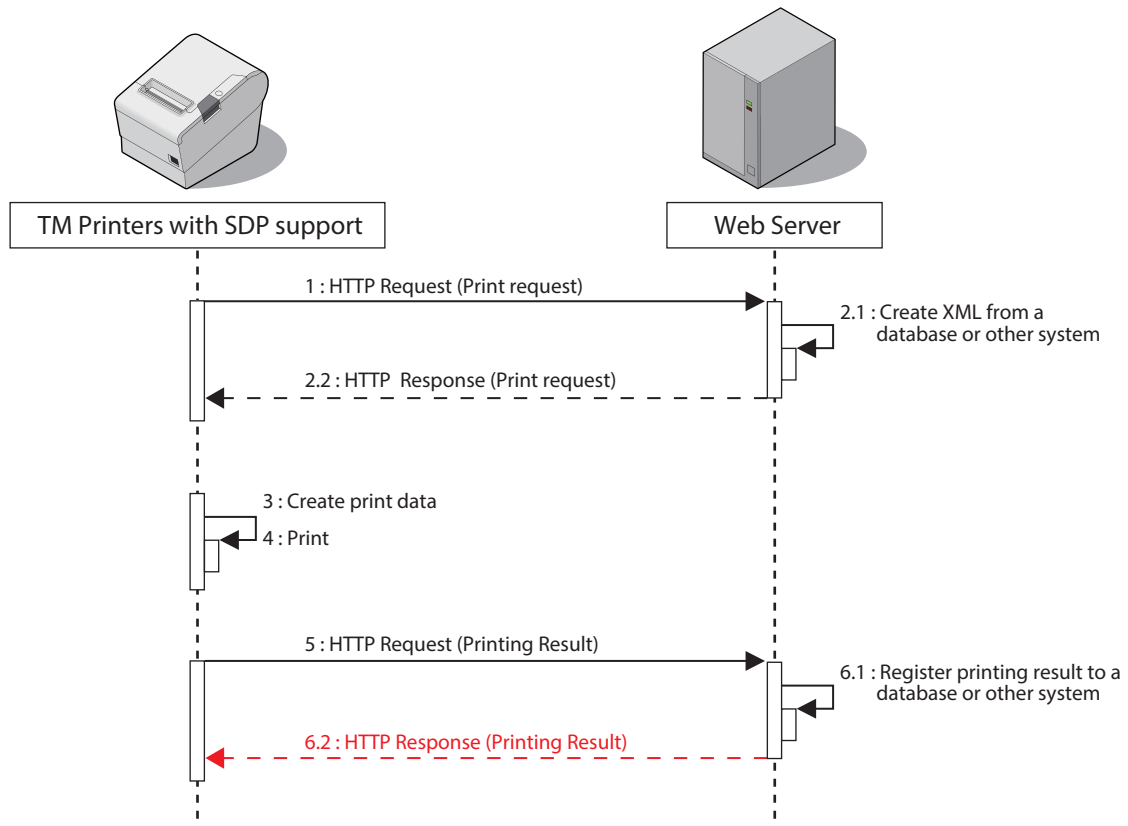
If the XML structure obtained from the server is incorrect, an error notification is sent to the server with SetResponse.

For supported printers, refer to ["TM printers with SDP support" on page 12.](#)

Error Description	Details of ResponseFile in SetResponse
The XML obtained with GetRequest exceeds 2MB.	<pre><?xml version="1.0" encoding="utf-8"?> <PrintResponseInfo Version="3.00"> <ServerDirectPrint> <Response Success="false"> <ErrorSummary>Data size is exceeded</ErrorSummary> <ErrorDetail>Too big print request</ErrorDetail> </Response> </ServerDirectPrint> </PrintResponseInfo></pre>
The XML obtained with GetRequest does not conform to the XML format. (The ErrorDetail tag in the right column is an example. The elements of the ErrorDetail tag differ depending on the parts that do not conform to the XML format.)	<pre><?xml version="1.0" encoding="utf-8"?> <PrintResponseInfo Version="3.00"> <ServerDirectPrint> <Response Success="false"> <ErrorSummary>Invalid XML format</ErrorSummary> <ErrorDetail>Entity: line 99: parser error : expected '>'> </ErrorDetail> </Response> </ServerDirectPrint> </PrintResponseInfo></pre>
The number of print data units in the XML obtained with GetRequest exceeds 5000.	<pre><?xml version="1.0" encoding="utf-8"?> <PrintResponseInfo Version="3.00"> <ServerDirectPrint> <Response Success="false"> <ErrorSummary>Data size is exceeded</ErrorSummary> <ErrorDetail>Too many job requests</ErrorDetail> </Response> </ServerDirectPrint> </PrintResponseInfo></pre>
The XML obtained with GetRequest contains the ePOS-Print/ePOS-Display data, but the ePOS-Print of the printer is disabled.	<pre><?xml version="1.0" encoding="utf-8"?> <PrintResponseInfo Version="3.00"> <ServerDirectPrint> <Response Success="false"> <ErrorSummary>Invalid printer settings</ErrorSummary> <ErrorDetail>ePOS-Print not activated</ErrorDetail> </Response> </ServerDirectPrint> </PrintResponseInfo></pre>

Response (Printing Result)

The Web server sends a response (print result) upon receipt of print result to the TM printers with SDP support.



The format of response message is XML(text/xml).

If communication failed, wait the specified interval then retry communication.

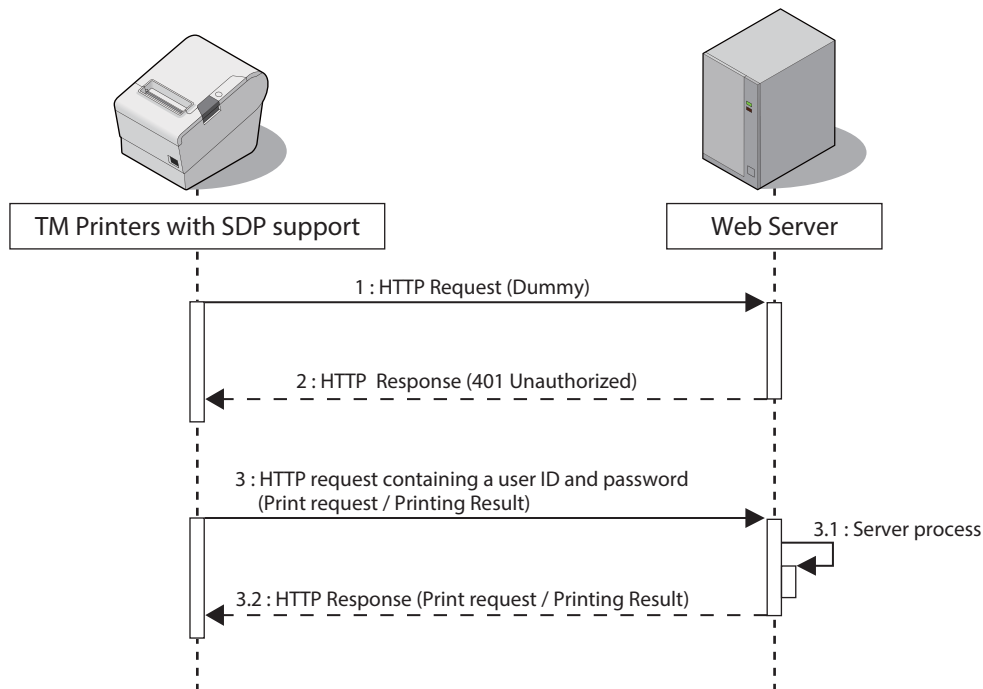
The Web server automatically returns the following response.

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 0
  
```

Digest Access Authentication

This section describes the flow and settings for carrying out Digest access authentication with the web server.



For Digest access authentication, the printer sends a dummy HTTP request before sending a print-related request to the server. The server returns a response with HTTP status code "401 Unauthorized". The printer sends a print-related request containing the user ID and password. The server carries out the Digest access authentication process. Once authenticated, the server continues to carry out the print-related process.

Digest Access Authentication Settings

Digest access authentication requires settings for the TM printers with SDP support and the server.

TM Printers with SDP Support

Set the user ID and password necessary for Digest authentication in the TM printers with SDP support.

For details, see ["TM printers with SDP support Settings" on page 28](#).

Web Server Settings

For detailed information on how to set Web server's Digest access authentication, see individual Web server documents, etc.

Program Example

See the following programming data (file name: Test_print.php)

```
<?php

header('Content-Type: text/xml; charset=UTF-8');

define("REQUEST_XML_PATH", "demo/request/sample.xml");
define("RESPONSE_XML_PATH", "demo/response/sample.xml");

if (isset($_POST["ConnectionType"])) {
    $http_request = $_POST["ConnectionType"];
}

if ($http_request == 'GetRequest') {
    # send print data

    # ID
    #
    #
    $shop_id = $_POST["ID"];

    # create print data
    if (file_exists(REQUEST_XML_PATH)) {
        # return print data
        $handle = fopen(REQUEST_XML_PATH, "r");
        fpassthru($handle);
        fclose($handle);

        # move file
        rename(REQUEST_XML_PATH, RESPONSE_XML_PATH);
    }
} else if ($http_request == 'SetResponse') {
    # get print result

    $xml = simplexml_load_string($_POST["ResponseFile"]);
    $version = $xml["Version"];

    if ($version == '1.00') {

        # save log
        $fhandle = @fopen("ResultPrint.log", "wt");
        fprintf($fhandle, "PrintResponseInfo Version %s\n", $version);
        foreach ($xml->response as $response) {
            fprintf($fhandle, "-----\nsuccess : %s\ncode : %s\n", $response['success'], $response['code']);
        }
        fclose($fhandle);

    } else if ($version == '2.00') {

        # save log
        $fhandle = @fopen("ResultPrint.log", "wt");
        fprintf($fhandle, "PrintResponseInfo Version %s\n", $version);
        foreach ($xml->ePOSPrint as $seposprint) {
            $devid = $seposprint->Parameter->devid;
            $printjobid = $seposprint->Parameter->printjobid;
            $response = $seposprint->PrintResponse->response;
            fprintf($fhandle, "-----\ndevid : %s\nprintjobid : %s\nsuccess : %s\ncode : %s\n", $devid, $printjobid,
                $response['success'], $response['code']);
        }
        fclose($fhandle);

    } else {
        # ignore other version
    }

} else {
    # ignore other connectionType than GetRequest and SetResponse.
}
?>
```

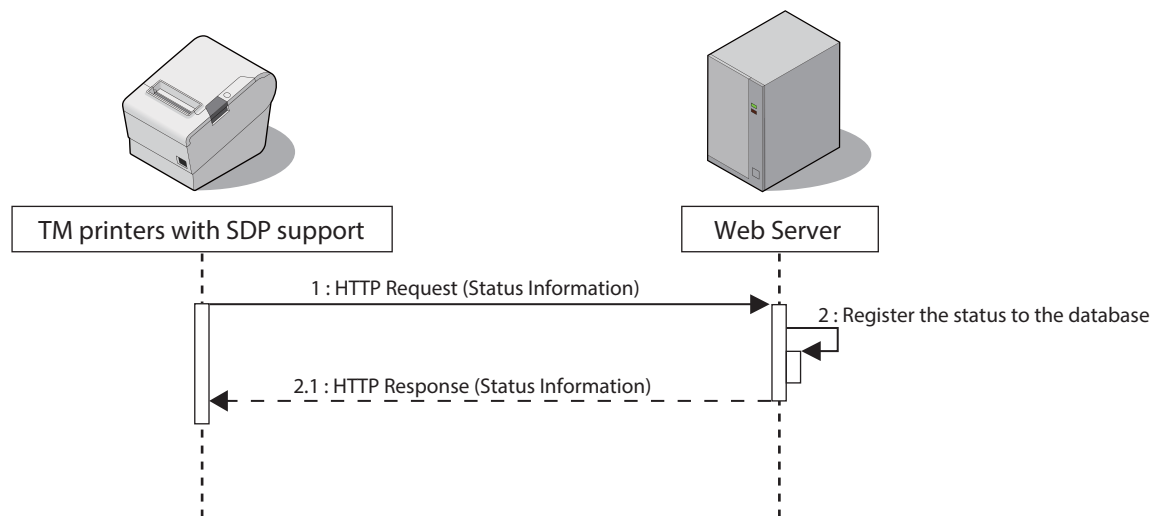
Status Notification

This chapter describes the Status Notification function.

Overview

Status Notification is used to periodically notify the TM printers with SDP support status to the Web server. The Web server automatically responds with an empty response.

Operating the printer management application created by the user with the Web server enables grasp of the status of the printers installed in a shop from a remote place.



Overview of Status Notification Sample Program

This program displays the status of the connected printer on the screen.

For the configuration such as Hardware Configuration ([page 23](#)) and Environment Settings ([page 26](#)), the same configuration is used as with the Server Direct Print.

File Configuration

File Name		Description
Test_status.php		Obtains and displays the result in response to a request from the printer.
resultPrint.log		The printing result is retained in this file. The file is created after printing.
demo	indexStatus.html	Displays the printer status.

TM Printers with SDP Support Settings

See the following for the settings of each printer.

- TM-i Series ([page 67](#))
- TM-DT Series and TM-DT2 Series ([page 69](#))
- TM-H6000V ([page 70](#))
- TM-T88VI, TM-T88VI-iHUB, TM-L100, TM-m30II Series and TM-m50 ([page 71](#))
- TM-T88VII, TM-m30III Series, and TM-m50II Series ([page 72](#))

TM-i Series Settings

Configure the Status Notification settings using EPSON TMNet WebConfig.

Use the following procedure for registration.

- 1 Connect the printer to the network and turn the power ON.**
- 2 Start the Web browser on the setup computer and enter as follows:**
 For TM-i Firmware Ver.4.0 or later
http://<IP address of the TM-i series>/webconfig/
 For TM-i Firmware Ver.3.x or earlier
http://<IP address of the TM-i series>/PrinterConfigurationPage/
- 3 EPSON TMNet WebConfig starts.**
 For TM-i Firmware Ver.4.0 or later, select [Web Service Settings] - [Status Notification].
 For TM-i Firmware Ver.3.x or earlier, select [Configuration] - [Status Notification].

4 The "Status Notification" / "Status Notification Settings" screen appears. Set the following items and click [Apply] / [Submit].

For TM-i Firmware Ver.4.0 or later

Item	Description
Status Notification	Select the [Enable].
ID	Set ID for the server-side program to identify TM-i series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL	Specify the Test_print.php address of the Web server. Example: http://<IP address of Web Server>/Test_status.php Click the [Access Test] to check if the address is accessible.
Interval(s)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.
Authenticate Server	Sets whether the server authentication is performed with the registered certificate when accessed through https.

For TM-i Firmware Ver.3.x or earlier

Item	Description
Status Notification	Select the [Enable].
ID	Set ID for the server-side program to identify TM-i series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
URL	Specify the Test_print.php address of the Web server. Example: http://<IP address of Web Server>/Test_status.php Click the [Access Test] to check if the address is accessible.
Interval(s)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.

TM-DT Series and TM-DT2 Series Settings

Configure the Status Notification settings using EPSON TMNet WebConfig.

1 Connect the TM-DT series to the network and turn the power ON.

2 Start EPSON TMNet WebConfig from the shortcut on the desktop.

EPSON TMNet WebConfig starts.



If you are making settings from an external device, set the TM-DT series IP address in the address for the Web browser. The default IP address for TM-DT series is 192.168.192.168.
http://<IP address of the TM-DT series>/webconfig/

3 EPSON TMNet WebConfig starts.

Select [Settings]-[Web service settings]-[Server access]-[Status notification].

4 The "Status Notification" screen appears.

Set the following items and click [Apply].

For TM-DT2 Series or TM-DT Software Ver. of the TM-DT Series is Ver.3.0 or later:

Item	Description
ID	Set ID for the server-side program to identify TM-DT series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. Not required for the sample program.
URL	Specifies the Web server URL and path to applications. Example: http://<IP address of Web Server>/Test_status.php Click the [Access Test] to check if the address is accessible.
Interval (sec)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.
Server Authentication	Sets whether or not to conduct server authentication based on the registered certificate when conducting access by https.

For TM-DT Software Ver. of the TM-DT Series is Ver.2.6 or earlier:

Item	Description
ID	Set ID for the server-side program to identify TM-DT series. This ID becomes the user ID used for Digest access authentication. The set value will also be passed as an ID parameter value for the form data posted to the server. Not required for the sample program.
Password	Set your password used for Digest access authentication. Not required for the sample program.
URL	Specifies the Web server URL and path to applications. Example: http://<IP address of Web Server>/Test_status.php Click the [Access Test] to check if the address is accessible.
Interval (sec)	Set the request interval. Request interval refers to the interval between the end of the previous communication and the start of the next communication.

TM-H6000V Settings

Configure the Status Notification settings using TM-H6000V Utility.

- 1** Starting the TM-H6000V Utility.
- 2** Click [TM-Intelligent] - [Server Access] - [Status Notification].
- 3** The Server Status Notification appears.
Set the following items and click [Set].

Item		Description
Status Notification		Specifies whether to enable or disable the status notification.
Notification Server	URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
	ID	Enter the ID. This ID will be the user ID used for Digest authentication.
	Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
Notification Interval		Specify the standby time between completion of status notification and issue of the next notification.
URL Encode		Specifies whether to enable or disable the URL encode.
Identifier		This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. Not required for the sample program.
Server Authentication		Specifies whether to enable or disable the server authentication. Register certificates in advance. Register the certificate for server authentication in [Network] - [Detailed Settings] - [Certificate]. For instructions regarding the certificate registration, refer to TM-H6000V Utility User's Manual.

TM-T88VI, TM-T88VI-iHUB, TM-L100, TM-m30II Series and TM-m50 Settings

Use the utility specialized for this model or Web Config to configure these settings.

In this section, we will use the utility specialized for this model to configure status notifications.

- 1** Starting the utility specialized for each model.
- 2** Click [TM-Intelligent] - [Server Access] - [Status Notification].
- 3** The Server Status Notification appears.
Set the following items and click [Set].

Item		Description
Status Notification		Specifies whether to enable or disable the status notification.
Notification Server	URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
	ID	Enter the ID. This ID will be the user ID used for Digest authentication.
	Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
Notification Interval		Specify the standby time between completion of status notification and issue of the next notification.
URL Encode		Specifies whether to enable or disable the URL encode.
Identifier		This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. Not required for the sample program.
Server Authentication		Specifies whether to enable or disable the server authentication. Register certificates in advance. Register the certificate for server authentication in [Network] - [Detailed Settings] - [Certificate]. For instructions regarding the certificate registration, refer to the utility specialized for each model User's Manual.

TM-T88VII, TM-m30III, and TM-m50II Series Settings

Use the utility specialized for this model or Web Config to configure these settings.

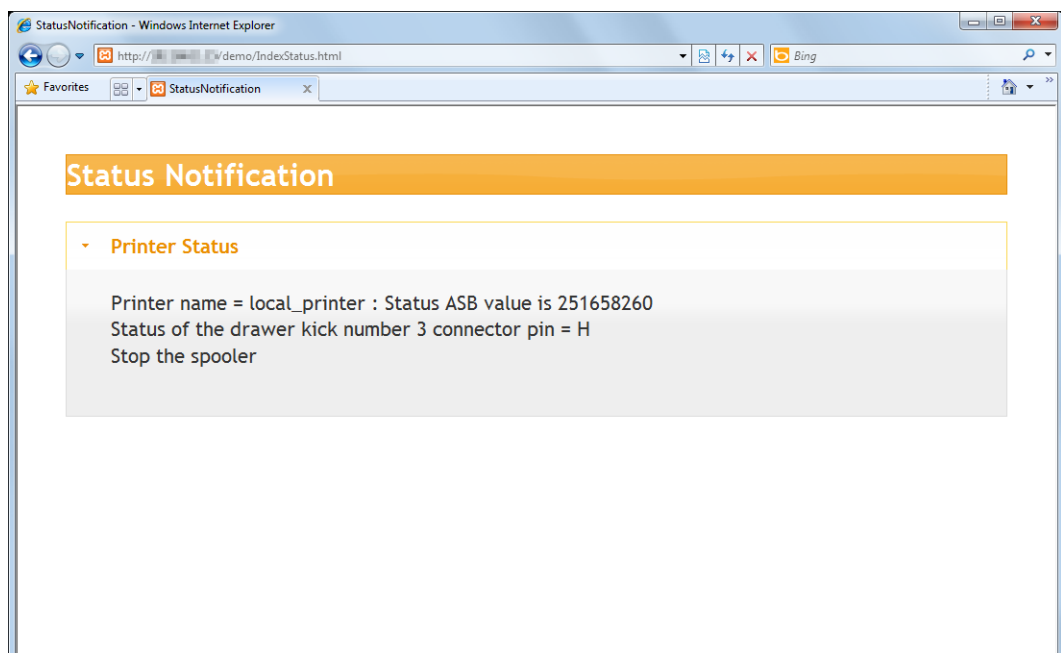
In this section, we will use the utility specialized for this model to configure status notifications.

- 1** Starting the utility specialized for each model.
- 2** Click [TM-Intelligent] - [Server Access] - [Status Notification].
- 3** The Server Status Notification appears.
Set the following items and click [Set].

Item		Description
Status Notification		Specifies whether to enable or disable the status notification.
Notification Server	URL	Specifies the Web server URL and the application path. Example: http://<IP address of Web server>/Test_print.php
	ID	Enter the ID. This ID will be the user ID used for Digest authentication.
	Password	Set your password used for Digest access authentication. The Digest access cannot be authenticated for user IDs without passwords. To authenticate the Digest access, configure a password that is not empty. Not required for the sample program.
Notification Interval		Specify the standby time between completion of status notification and issue of the next notification.
URL Encode		Specifies whether to enable or disable the URL encode.
Identifier		This value is the Name parameter value included in a POST request to the Web server. The Web server application can identify the printer by this value. Not required for the sample program.
Server Authentication		Specifies whether to enable or disable the server authentication. Register certificates in advance. Register the certificate for server authentication in [Network] - [Network Security] - [CA Certificate]. For instructions regarding the certificate registration, refer to the utility specialized for each model User's Manual.

Execution of Sample Program

- 1 Confirm that Status Notification of a TM printer with SDP support is set.
- 2 Open the sample program page from the Web browser.
Example: <http://<IP address of Web Server>/demo/indexStatus.html>
- 3 The “resultPrint.log” is created from the message from the TM printers SDP support and the result is displayed on the screen.



Status Type

The following types of ASB (AutoStatusBack) status can be obtained from the TM printers with SDP support.

Code	Description
0x00000004	Status of the drawer kick number 3 connector pin = "H" Offline due to a weak battery (supported model only)
0x00000008	Offline status
0x00000020	Cover is open
0x00000040	Paper feed switch is feeding paper
0x00000100	Waiting for online recovery
0x00000200	Paper feed switch is being pressed
0x00000400	Mechanical error occurred
0x00000800	Auto cutter error generated
0x00002000	Unrecoverable error generated
0x00004000	Auto recovery error generated
0x00020000	No paper in the roll paper near end detector
0x00080000	No paper in the roll paper end detector
0x01000000	Buzzer activated (supported model only) Waiting for label to be removed (supported model only)
0x04000000	No paper in label peeling sensor (supported model only)

Program Example

Refer to the programming below. (File name: Test_status.php)

```
<?php
header('Content-Type: text/xml; charset=UTF-8');
# Open the file to save status.
$fhhandle = @fopen("ResultStatus.log", "wt");

# Update the printer status.
if (isset($_POST["Status"])) {
    $status = $_POST["Status"];
}
$xml = simplexml_load_string($status);

foreach ($xml->printerstatus as $printerstatus) {
    $asb = hexdec($printerstatus['asbstatus']);
    $strmsg = "";
    if (($asb & 0x00000004) == 0x00000004)
    {
        $strmsg .= " Status of the drawer kick number 3 connector pin\n";
    }
    if (($asb & 0x00000008) == 0x00000008)
    {
        $strmsg .= " Offline status \n";
    }
    if (($asb & 0x00000020) == 0x00000020)
    {
        $strmsg .= " Cover is open \n";
    }
    if (($asb & 0x00000040) == 0x00000040)
    {
        $strmsg .= " During paper feeding by pressing paper feed switch \n";
    }
    if (($asb & 0x00000100) == 0x00000100)
    {
        $strmsg .= " Waiting for online recovery \n";
    }
    if (($asb & 0x00000200) == 0x00000200)
    {
        $strmsg .= " Paper feed switch is being pressed (ON) \n";
    }
    if (($asb & 0x00000400) == 0x00000400)
    {
        $strmsg .= " Mechanical error generated \n";
    }
    if (($asb & 0x00000800) == 0x00000800)
    {
        $strmsg .= " Auto cutter error generated \n";
    }
    if (($asb & 0x00002000) == 0x00002000)
    {
        $strmsg .= " Unrecoverable error generated \n";
    }
    if (($asb & 0x00004000) == 0x00004000)
    {
        $strmsg .= " Auto recovery error generated \n";
    }
    if (($asb & 0x00020000) == 0x00020000)
    {
        $strmsg .= " No paper in the roll paper near end detector \n";
    }
}
```

```

if (($asb & 0x00080000) == 0x00080000)
{
    $strmsg .= " No paper in the roll paper end detector \n";
}
if (($asb & 0x01000000) == 0x01000000)
{
    $strmsg .= " Buzzer activated (supported model only) \n";
}
if (($asb & 0x01000000) == 0x01000000)
{
    $strmsg .= " Waiting for label to be removed (supported model only) \n";
}
if (($asb & 0x04000000) == 0x04000000)
{
    $strmsg .= " No paper in label peeling sensor (supported model only) \n";
}

$result = fprintf($fhandle, "Printer name = %s : Status ASB value is %s \n", $printerstatus['devicename'],
    $asb);
$result = fprintf($fhandle, "%s\n", $strmsg);
if ($result) {
    # OK
} else {
    # N.G
}
}
fclose($fhandle);

?>

```

Request and Response

Request

The format of request message is URL-encoded form data (application/x-www-form-urlencoded).

Parameter	Value
ConnectionType	Status
ID	The ID set with WebConfig
ResponseFile	Status Information
Name*	Input the Identifier value

* For supported printers, refer to ["TM printers with SDP support" on page 12.](#)

```
POST /demo/Test_status.php HTTP/1.1
Host: 192.168.192.10
Content-Type: application/x-www-form-urlencoded
Content-Length: xxx

ConnectionType=SetStatus&ID=&Status=Status Information *1
or
ConnectionType=SetStatus&ID=&Name=&Status=Status Information *2
```

*1 TM printers without Name parameter support

*2 TM printers with Name parameter support

The status information configuration is as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<statusmonitor Version="1.00">
  <printerstatus devicename="kitchen_printer" asbstatus="0x00000001"/>
  <printerstatus devicename="kitchen_printer2" asbstatus="0x00000001"/>
  <printerstatus devicename="local_printer" asbstatus="0x0F00003C"/>
</statusmonitor>
```

Obtain the ASB status

Battery Status

A battery status notification is sent for the controlled mobile printer.

For supported printers, refer to ["TM printers with SDP support" on page 12.](#)

Code	Description
0x30XX	The AC adapter is connected
0x31XX	The AC adapter is not connected
0xFF36	Battery amount 6
0xFF35	Battery amount 5
0xFF34	Battery amount 4
0xFF33	Battery amount 3
0xFF32	Battery amount 2
0xFF31	Battery amount 1 (Near end)
0xFF30	Battery amount 0 (Real end)

The status information configuration is as follows:
 <printerstatus devicename="local_printer" asbstatus="0x0F00001C" battery="0x0000"/>

Server Access Error Notification

A notification can be sent for errors that occur when the server is accessed.

For supported printers, refer to ["TM printers with SDP support" on page 12.](#)

Code	Description
%Function%	
Server Direct Print	Server Direct Print
Web Contents Updater	Web Contents Updater
Network	Network
Status Notification	Status Notification
%Code%	
Service Start	Normal Operation
Server Connection error	An error occurred in the connection with the specified URL When %Function% = Web Contents Updater or %Function% = Network
Server Connection error Server1	An error occurred in the connection with the specified URL1 When %Function% = Server Direct Print
Server Connection error Server2	An error occurred in the connection with the specified URL2 When %Function% = Server Direct Print
Server Connection error Server3	An error occurred in the connection with the specified URL3 When %Function% = Server Direct Print
Unknown Device	Elements other than the wireless dongle have been installed When %Function% = Network
Wlan module lost	The wireless dongle has been removed When %Function% = Network
Server connection error	Could not connect to the time server When %Function% = Network
%Severity%	
blank character	Normal Operation
Warning	Printer in warning mode
Offline	Printer in offline mode
%Msg%	
Cannot connect server	An error occurred in the connection with the specified URL When %Function% = Web Contents Updater or %Function% = Network
Cannot connect server1 http:// ...	An error occurred in the connection with the specified URL1 When %Function% = Server Direct Print
Cannot connect server2 http:// ...	An error occurred in the connection with the specified URL2 When %Function% = Server Direct Print
Cannot connect server3 http:// ...	An error occurred in the connection with the specified URL3 When %Function% = Server Direct Print
Contents not found.	Could not access the specified URL When %Function% = Web Contents Updater
Failed to get HTTP Header.	Failed to get HTTP(S) header with the specified URL

Code	Description
No Last-Modified information in a header.	No Last-Modified information in a header.
Insufficient Disk Space to download.	Not enough ROM space to download the web contents
Failed to download contents.	Failed to download contents.
Insufficient Disk Space to extract.	Not enough ROM space to expand the web contents
Failed to extract a zip file.	Failed to expand the web contents
A suffix of actual URL is not ended with ".zip"	A suffix of actual URL is not ended with ".zip"
Authentication failed.	Failed to authenticate the server password
Proxy authentication failed.	Failed to authenticate the proxy password
Secret key for SSL certificate is not found.	Could not find ServerKey.key in the sslservercerts folder in the web contents
Certificate for SSL certificate is not found.	Could not find ServerCrt.crt in the sslservercerts folder in the web contents
MD5 hash value is invalid.	The MD5 value of the web contents and the MD5 file value did not match
Invalid server certificates.	Incorrect format of the server certificate in the ssltrustedcerts folder in the web contents
Server certificates has been expired.	The server certificate in the ssltrustedcerts folder in the web contents has expired
Failed to import SSL certificate.	Failed to import ServerCrt.crt in the sslservercerts folder in the web contents
Failed to import SSL private key.	Failed to import ServerKey.key in the sslservercerts folder in the web contents
Failed to import SSL chained certificate.	Failed to import ChainCrt.crt in the sslservercerts folder in the web contents
Invalid SSL certificate.	Incorrect combination of ServerKey.key and ServerCrt.crt in the sslservercerts folder in the web contents
WebApplication is running.	Unable to update the web contents because the PHP application is running on the printer
Unknown Device	Elements other than the wireless dongle have been installed When %Function%=Network
Wlan module lost	The wireless dongle has been removed When %Function%=Network
SNTP sync failed	Could not connect to the time server When %Function%=Network

```

<?xml version="1.0" encoding="utf-8"?>
<statusmonitor Version="1.10">
<printerstatus devicename="local_printer" asbstatus = "0x0F00001C" battery = "0x0000"/>
<servicestatus servicename="%Function%" code="%Code%" severity="%Severity%" message="%Msg%" />
</statusmonitor>

```

Response

The format of response message is XML(text/xml).

To indicate that the server received the status notification, the Web server returns a response as follows:

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 0
```

Digest Access Authentication

Digest access authentication can be used for the status notification.

See ["Digest Access Authentication" on page 64](#).