

# KX-Series PBX TAPI Service Provider

## **Installation Manual**

Revision: 4.2 June 2013

## Introduction

## About TSP

Panasonic's TAPI Service Provider (TSP) for KX-TDA/TDE/NCP/NS Series PBX is a driver that provides you with a TAPI Interface.

Version 3.1.0.7 or later supports KX-TDE/NCP series PBX.

Version 3.3.0.0 or later is required to use C# SDK.

Version 4.0.0.0 or later supports KX-NS1000 Ver.1.

Version 4.2.0.0 or later supports KX-NS1000 Ver.2.3

## About this manual

This manual describes installation and setting of Panasonic TSP.

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## NOTES

Description related USB in this manual is applied to KX-TDA series PBX only.

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## 1. Before Installing

## 1.1. System Requirement

## **Required Operating System**

- Microsoft<sup>®</sup> Windows Server<sup>®</sup> 2012 (64-bit) (Server core installation is NOT supported)
- Microsoft Windows Server 2008 (both 32-bit and 64-bit)
- Microsoft Windows Server 2003 (both 32-bit and 64-bit)
   Microsoft Windows Server 2003 (both 32-bit and 64-bit)
- Microsoft Windows<sup>8</sup> 8 (both 32-bit and 64-bit) (Metro UI is NOT supported)
- Microsoft Windows 7 (both 32-bit and 64-bit)
- Microsoft Windows Vista<sup>®</sup> (32-bit only)
- Microsoft Windows XP (32-bit only)

## Note

- Panasonic TSP version 4.1 or later supports Windows Server 2012 and Windows 8.
- For the Remote TSP provided by Microsoft environments, the Panasonic TSP are not supported.

#### Minimum PC Hardware Requirements

- Windows has to work on the PC
- Hardware Requirements of the application that you use with Panasonic TSP.
- When you use USB connection, USB Interface is needed.
   Note : USB connection is not supported on 64-bit Windows.
- When you use LAN connection, LAN Interface is needed.
- HDD 400 Mb free disk space Note : Additional HDD space may be required in case logging of Panasonic TSP is enabled.

## NOTE

The total minimum free disk space you need is the Panasonic TSP minimum plus disk space which the application requires as minimum.

## 1.2. PBX Settings

## Supported PBX Types

- Supported PBX Types are KX-TDA30/50/100/200/600, KX-TDE100/200/600, KX-NCP500/1000 and KX-NS1000.
- Panasonic TSP uses USB or TCP/IP for connecting to the Panasonic PBX.

## **USB Setting**

- In order to use the USB connection with KX-TDA PBX, USB drivers (Version 2.0.0.7 or later) for KX-TDA PBX must be installed on the computer.
- And when you use two or more USB connections, you need to assign unique USB serial number for each KX-TDA PBX by TDA Maintenance Console. For more details about installation of the TDA PBX USB driver, please consult related installation manual.

## **TCP/IP Setting**

- Before installation, please make sure you know the IP address of the PBX and its CTI port. By default the CTI port is 33333.
- When you use TDA series PBX, you need following LAN interface card on the PBX.

PBX	LAN Interface card
KX-TDA100/200/600	CTI Link Card
KX-TDA30/50	IP Gateway Card

- When you use KX-NS1000, activation key (KX-NSF101) is required to use CTI interface.
- When you use CTI enhance features, you may need **SD Memory Card** or **activation key** for software upgrade depending on your application.

PBX	Required SD Card or Activation Key
KX-TDA30	KX-TDA3920
KX-TDA50	KX-TDA5920
KX-TDA100/200	KX-TDA0920
KX-TDA600	KX-TDA6920
KX-TDE100/200	KX-NCS4910,
KX-TDE600	KX-NCS4950
KX-NCP500/1000	KX-NCS3910
KX-NS1000	N/A

## **1.3. Windows Firewall Settings**

Configure the following Firewall setting for only Windows Vista.

When you install Panasonic TSP into Windows Vista and use LAN to connect to the PBX, you may need to configure Windows Firewall as follows.

1. Open "Windows Firewall Settings" dialog from Control Panel, and select "Exceptions" tab.

rogram or port excep	tion to allow comm	nicate through Wir unications through		
Vindows Firewall is cur	raathu usiga cattig	na far tha aublic a	atuark la cation	
What are the risks of u			etwork location.	
o enable an exception	n, select its check b	oox:		
Program or port				
BITS Peercaching				
CMSServerImpl M	odule			
Connect to a Net	vork Projector			=
Core Networking				
Distributed Transa	ction Coordinator			-
File and Printer Sh	aring			
iSCSI Service				
Media Center Exte	enders			
Network Discover	y			
Dep pbxsimgui.exe				
Performance Logs	and Alerts			
Remote Administr	ation			
Romoto Accistone	-			
Add program	Add port	Properties	Delete	
	ridd p <u>o</u> renn		<u>P</u> erete	

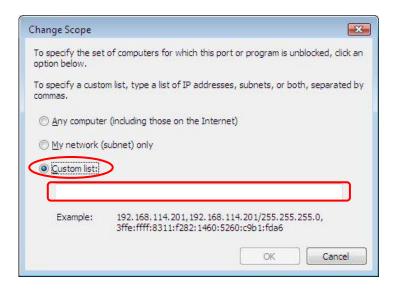
2. Click "Add port..." button. Then type as follows.

Name : Panasonic TSP

Port number: 33333 (If you change the default port number, type the number you changed)

Add a Port		X
	nd protocol, consult the do	n Windows Firewall. To find the cumentation for the program or
<u>N</u> ame:	[]	
Port number:		
Protocol:	ICP	
What are the ri	sks of opening a port?	
Change scope		OK Cancel

3. Click "Change scope..." button, and click "Custom list:". Then type IP address of the PBX.



- 4. Click OK to close "Change Scope" dialog.
- 5. Click OK to close "Add a Port" dialog.
- 6. Click OK to close "Windows Firewall Settings" dialog.

## 2. Installing TSP

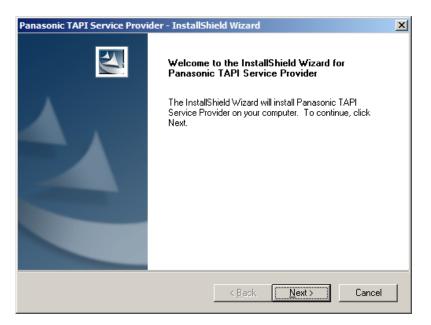
## 2.1. Installing Panasonic TSP

To install or uninstall the software, you must be logged in as a user with Administrator privilege. When other version of Panasonic TSP is already installed in your PC, please refer to section 2.3.

## How to Install TSP

Double-click the setup file according to your operating system. When you use a 32-bit operating system, select the file "panasonic\_tsp\_instx86\_4xxx.exe". When you use a 64-bit operating system, select the file "panasonic\_tsp\_instx64\_4xxx.exe". And click "Next" to continue installation. Click "Cancel" to abort.

("xxx" will be different number depending on time when TSP is released)



You will then be shown the License Agreement. After reading the agreement, click the "I accept the terms of the license agreement" option to accept its terms and click "Next" to continue the installation. If you do not accept its terms, click "Cancel"...
 If you want to print out the agreement, click "Print".

Please read the foll	owing license agreement	carefully.		
END-USER LICEN Definition:	ISE AGREEMENT			4
Licensed Software Permitted Number	e TAPI Service Provider One			
Server Use	Acceptable			
Selvel O26	Acceptable			
This is a legal Agre (hereinafter called this Agreement is r	ement between you and "The Company") for use equired to use the Licens	of the Licensed So ed Software. Plea	oftware. Your ac	ceptance of this
This is a legal Agre (hereinafter called this Agreement is r I accept the ter	ement between you and "The Company") for use	of the Licensed So ed Software, Plea ent	oftware. Your ac	ceptance of
This is a legal Agre (hereinafter called this Agreement is r I accept the ter	ement between you and "The Company") for use equired to use the Licens ms of the license agreem	of the Licensed So ed Software, Plea ent	oftware. Your ac	ceptance of this

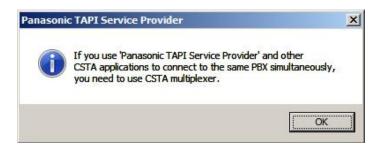
**3.** Click "**Install**" to start installation. Click "**Cancel**" to abort installation. Click "**Back**" to go back to previous step.

Panasonic TAPI Service Provider - InstallShield Wizard	×
Ready to Install the Program	and the second second
The wizard is ready to begin installation.	
Click Install to begin the installation.	
If you want to review or change any of your installation settings, cli the wizard.	ick Back. Click Cancel to exit
InstaliShield -	
< Back	Install Cancel

**4.** If KX-TDA USB driver is not installed in your computer, a dialog showing "USB Driver is not installed" may appear. Press "**OK**" to continue.

Note : USB connection is not supported on 64-bit Windows.

**5.** The following message will appear in order to note that Panasonic TSP and a CSTA application cannot be used in parallel without CSTA multiplexer. Press "**OK**" to continue.



**6.** By default one TSP instance will be installed and registered with TAPI.

After the registration is completed, following dialog will prompt you to configure parameters. Pressing "**OK**" will update settings you have just changed. Pressing "**Cancel**" will leave default configuration (Link setting is empty).

🏠 Panasonic TSP 0000 (	Configuration	×
Setting Categories	Link Settings O USB Connection O LAN Connection Address Port 33333	
	Check Location Abort Check	
	OK Cancel	

When you use LAN connection, select "LAN Connection" and set IP address and TCP port of the PBX. See **3.1.1** for more detail.

When USB connection is used, select "USB Connection". See **3.1.2** for more detail.

**7.** After entering the IP address and TCP port of PBX, click "**Check Location**" to verify the connection to the PBX.

Panasonic TSP 0000 Co	nfiguration	×
Setting Categories Link Parameters TSP Log Settings Uersion Info Other Parameters	Link Settings USB Connection LAN Connection Address Port 33333	
	Check Location Abort Check	
	OK Cancel	

When the connection is successful, the following dialog containing system information gathered from PBX will appear. System information gathered from PBX may help you identify the PBX that you will use. When the connection is successful, the GRAY lamp to the left of "**Check Location**" button will turn to GREEN.

To abort "Check Location'	', click	"Abort	Check"	button.
---------------------------	----------	--------	--------	---------

Panasonic TSP 0000 Con	figuration				
etting Categories 	Link Settings O USB Connect O LAN Connect		192 . 16 33333	8.0.	101
			۲		Location Check
	Cti Version Region Code Sub Domain Name Software Version System Time Stamp	6.000 00 401.00152 DecTime:	2011 1 1 0 0 0	000	
			C	ж	Cancel

When the connection to the PBX was not successful, a message dialog will appear.

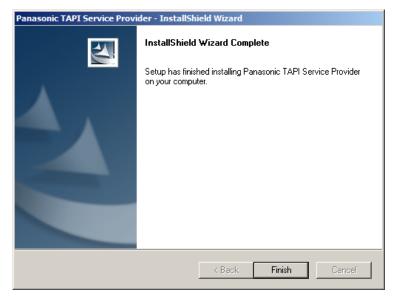


Then the GRAY lamp to the left of "Check Location" button will turn to RED lamp.

Link Settings     USB Connection     LAN Connection	<b>_</b>
Address	192 . 168 . 0 . 101
Port	33333
	Check Location

In this case, please make sure IP address and TCP port of PBX is correct and check network connection.

8. Click "Finish" to complete the installation.



9. Install program prompt user to reboot PC: Press "Yes" to reboot PC.



## Notes:

During installation a default folder is created under <Program Files>\Panasonic\KX-TDA TSP. This folder contains a copy of End User License Agreement.

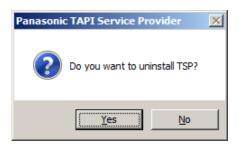
## 2.2. Uninstalling Panasonic TSP

## How to Uninstall TSP

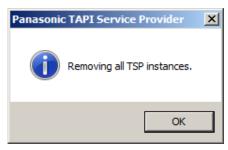
1. To do that, go to Control Panel, Programs and Features, select Panasonic TSP and click "Change/Remove" or "Uninstall/Change".

🖥 Programs and Features					
O → T · Control Panel + A	All Control Panel Items 🝷 Programs and Featu	res 👻 🐓	Search Programs and Features		
Eile Edit View Tools Help					
Control Panel Home	Uninstall or change a program				
View installed updates	To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.				
😵 Turn Windows features on or off	Organize 🔻 Uninstall		≡ ▼ 🔞		
	Name Panasonic TAPI Service Provider	Publisher     Panasonic System Networks C	▼         I ▼         ▼         Size         ▼         Version           C 9/6/2011         12.1 MB         4.0.0.2		
		r anasonie system networks e			
	•				
	Panasonic System Netwo	rks Co., Ltd. Product version: 4.0.0.2 Size: 12.1 MB			

2. Click "Yes" to uninstall, or "No" to abort.



**3.** Click "**OK**" to continue.



**4.** When you set Panasonic TSP to generate log, the following dialog is displayed. If you want to remove specified log files, check each check box and press "**OK**".

Panasonic TAPI Service Provider	×
If you want to remove TSP log files, please check each check box Instance 0000 log file:	1
C:\Program Files\Panasonic\KX-TDA TSP\Logs0000	
Instance 0001 log file:	]
C:\Program Files\Panasonic\KX-TDA TSP\Logs0001	
Instance 0002 log file:	]
C:\Program Files\Panasonic\KX-TDA TSP\Logs0002	
Instance 0003 log file:	
C:\Program Files\Panasonic\KX-TDA TSP\Logs0003	]
Instance 0004 log file:	
C:\Program Files\Panasonic\KX-TDA TSP\Logs0004	]
Instance 0005 log file:	
C:\Program Files\Panasonic\KX-TDA TSP\Logs0005	ļ
Instance 0006 log file:     CAR-and Control Contro Control Control Control Control Contro	
C:\Program Files\Panasonic\KX-TDA TSP\Logs0006	]
Instance 0007 log file: C:\Program Files\Panasonic\KX-TDA TSP\Logs0007	
	]

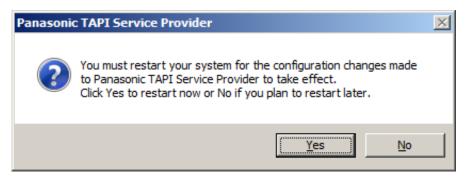
**5.** User is prompted to close any application that may use Panasonic TSP. Press "**OK**" to continue.



6. Click "Finish" to complete uninstalling.

Panasonic TAPI Service Provider - InstallShield Wizard				
	Maintenance Complete InstallShield Wizard has finished performing maintenance operations on Panasonic TAPI Service Provider.			
	< <u>B</u> ack <b>Finish</b> Cancel			

7. User is prompted to restart computer. Press "Yes" to restart.



## 2.3. Overwrite Installing Panasonic TSP

## **IMPORTANT**

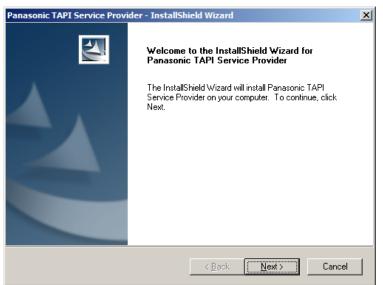
Overwrite installation by older version on new version is NOT possible. If you want to use an older version, uninstall current version first. Also overwrite installation from v3.3 or older is also NOT possible. If you want to update the Panasonic TSP v3.3 or older one, uninstall the current version first.

## How to overwrite TSP

- 1. Double click a setup file of Panasonic TSP which you want to install newly on the PC that other version of TSP is already installed on.
- 2. Click "Yes" to continue the overwrite installation or "No" to abort.



3. Click "Next" to continue the overwrite installation or "Cancel" to abort.



4. Click "Install" to start installation. Click "Cancel" to abort. Click "Back" to go back to previous step.

Panasonic TAPI Service Provider - InstallShield Wizard	×
Ready to Install the Program The wizard is ready to begin installation.	22
Click Install to begin the installation.	
If you want to review or change any of your installation settings, click Back. Click C the wizard.	Cancel to exit
InstallShield	
< Back Install	Cancel

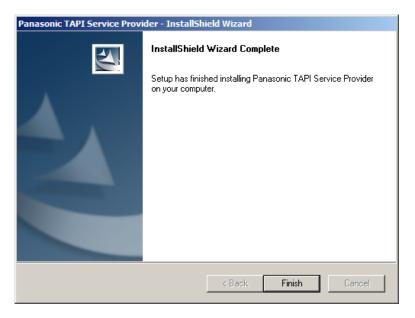
The following dialog is displayed. Previous configuration is taken over. Please refer to section 2 for the configuration. When you do not need to change the configuration, press "OK".

panasonic TSP 0000 Co	nfiguration	X
Setting Categories Link Parameters TSP Log Settings Lim Version Info Cother Parameters	Link Settings USB Connection LAN Connection Address 192.168.0.101 Port 33333	
	Check Location Abort Check	
	OK Cancel	

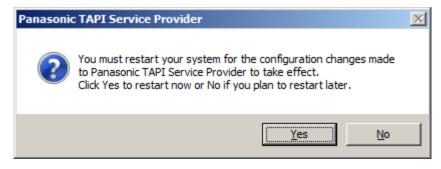
6. If you had used multiple Panasonic TSP instances, the following dialog is displayed. Previous configuration is taken over. Please refer to section 3.5 for the configuration. When you do not need to change the configuration, press "Apply Settings".

		Close
Instance Name	Configuration	Enable/Disable
→Panasonic KX-TDA TSP 0000	IPAddress = '192.168.0.101', IPPort = '33333'	Enable
→Panasonic KX-TDA TSP 0001	IPAddress = '192.168.0.21', IPPort = '33333'	Enable
→Panasonic KX-TDA TSP 0002	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic KX-TDA TSP 0003	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic KX-TDA TSP 0004	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic KX-TDA TSP 0005	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic KX-TDA TSP 0006	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic KX-TDA TSP 0007	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
ote: You may double click on instanc u may double click on "Enable/Disa		

7. Click "Finish" to complete the installation.



8. Install program prompts user to reboot PC. Press "Yes" to reboot PC.



## 3. TSP Settings

To change TSP settings, Open "**Phone and Modem Options**" from Control Panel, and select "**Advanced**" tab.

Then select "Panasonic TSP 0000" and click "Configure" button.

## 3.1. Link Parameters

The "*Link parameters*" configures how Panasonic TSP will establish communication with the PBX.

banasonic TSP 0000 Con	figuration	×
Setting Categories Setting Categories Clink Parameters STSP Log Settings Version Info Other Parameters	figuration Link Settings USB Connection LAN Connection Address 192.168.0.101 Port 33333 Check Location Abort Check	×
	OKCancel	

## 3.1.1 LAN Connection

When Panasonic TSP uses LAN to communicate with the PBX, select "LAN Connection" and enter "Address" and "Port".

"Address" is the IP address of the PBX in dot format, and "Port" is the TCP port which the PBX is listening to. .

PBX	LAN Interface Card
KX-NS1000	Mother board
KX-NCP500/1000	IPCMPR Card
KX-TDE100/200/600	IPCMPR Card
KX-TDA100/200/600	CTI Link Card
KX-TDA30/50	IP Gateway Card

Example of setting an IP address:

E.g.: Address=10.64.130.250 Port=33333

Link Settings     O USB Connection     IAN Connection	•
Address	192 . 168 . 0 . 101
Port	33333
	Check Location

## 3.1.2 USB Connection

When Panasonic TSP uses USB to communicate with the PBX, select "USB Connection".

Link Settings	ĸ	<-TDA	100/20	)0_1	 •	
O LAN Connection						
Addre	ss					
Port		333	33			

#### Remark:

- 1) PBX software version 2.0 or later is required to use multi PBXs connection.
- 2) USB driver Version 2.0.0.2 or later is required to use multi PBX connection.
- 3) When you use two PBXs by USB connection, you need to assign unique USB serial number for each PBX by TDA Maintenance Console.
- (e.g. When USB Serial Number is "1", USB connection name will be "KX-TDA100/200\_1". When USB Serial Number is "2", USB connection name will be "KX-TDA100/200\_2".)

For KX-TDA series PBX, USB serial number setting menu on the Maintenance Console is on "2.System - 9.System Option - Option6 - CTI Multi PBX Control "(see following picture).

💭 KX-TDA30 Maintenance C	onsole – [2. System	- 9. System Options]				
File(E) Connect(C) Tool(E) Utility(U) View(V) Window(W) Help(H)						
8 🖬 💼 🍼 8 遭 🚉 🖊						
System Menu X	2.9 System Options					
1.Configuration						
2.System	ок@ С	ancel(C) Apply(A)				
🚯 1.Date & Time / Daylight Saving			Option 6 (CTI)			
N 2.Operator & BGM	Option 1 Option 2	Option 3 Option 4 Option 5	optione(cri)			
3.Timers & Counters	-1st Party CTI			CTI Multi PBX Control		
😽 4.Week Table		System status retry interval timer (s)	60 😂		PBX Name :	
😭 5.Holiday Table 🕵 6.Numbering Plan		System status retry counter	: 5 🗳		USB Serial Number : 1	\$
7.Class of Service		CDR retry interval timer (s)				
8.Ring Tone Patterns				-CTI Make Call		
/= 9.System Options		CDR retry counter	: 1 😴	-SLT Ring		
10.Extension CID Settings				C Enable	<ul> <li>Disable</li> </ul>	
11.Audio Gain (Paging/MOH)	-3rd Party CTI					
		System status retry interval timer (s)	: 60 🗳			
		System status retry counter	: 5 😂			
		CDR retry interval timer (s)	20 😂			
		CDR retry counter	: 1 📚			
3.Group						
4.Extension						
5.Optional Device						
6.Feature						
7.TRS						
8.ARS						
9.Private Network						
10.CO & Incoming Call						
11.Maintenance						
Interactive Mode	Type : TDA30	Level : Installer		Version004-000	Region000-000	

## 3.2. Log Settings

🏠 Panasonic TSP 0000 (	Configuration X
Setting Categories	
Setting Categories Link Parameters TSP Log Settings Version Info Other Parameters	Image: Instant of the stamp of the sta
	is reloaded by TAPI server. The log filename will have current day of the month appended.
	OK Cancel

The "TSP Log Settings" configures how Panasonic TSP will output log.

## a. Log Type

Panasonic TSP has logging capabilities. TSP has 3 log levels:

- Raw : Contains only binary CSTA messages exchanged with PBX.
- Decoded CSTA values: Contains binary CSTA messages and their human readable form.
- Debug: Contains decoded CSTA messages as well as TSPI function calls and TSPI messages sent to TAPI. This is the most effective information to solve an irregularity.

## b. Log File Path

logs<xxx> folder is created in the path which user specified and log files are stored in the folder. Default path is <Program Files>\Panasonic\KX-TDA TSP. The log file name will be composed of the base file name and 0 through 3. (0->1->2->3->0->1->...) When the 4 days passed the previous log files is overwritten. Default of log file name is "KXTDAxxxxx (\*\*).txt. "\*\*" is 0 through 3.

#### Note

When overwrite installation is done, log file path setting is change back to default path.

## c. Log file size

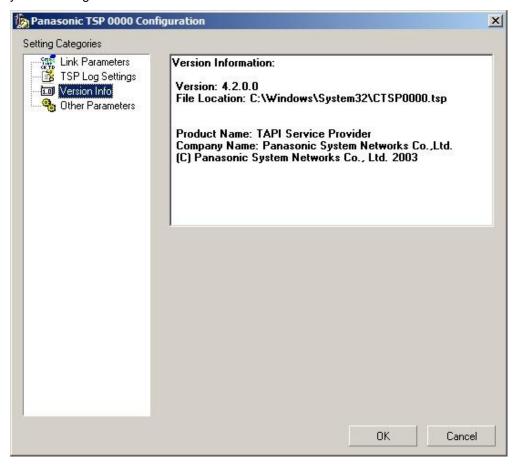
When log file size grows greater than established Log file size, then the log file is restarted from the beginning.

#### d. Include time stamp in log

By checking this box the log file will contain a time stamp for each operation logged.

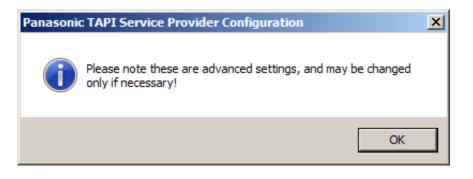
## 3.3. Version Info

The "*Version Info*" is read only and contains version information about the Panasonic TSP you are using.



## 3.4. Other Parameters

When the "*Other Parameters*" option is selected, a message box will appear to inform the user that these settings are advanced and must be changed according to TAPI Application requirements.



The "Other Parameters" configures optional parameters.

🏠 Panasonic TSP 0000 Co	nfiguration		×
Setting Categories Link Parameters TSP Log Settings Version Info	Mode Selection Standard Mode PMS Interface Mode(KX:A291X,	A292X, A293X)	
	Account Info Buffer Size(100 -10000)	500	
	Message Delay KX_SMDR	1000 ms	
	Message Delay LINE_ADDRESSSTATE(FORWARD)	1000 ms	
	Send KX_REINIT and KX_RETRIEV © Number of connection retries © Number of connection retries	is 25	
	🔲 Separate DID/DDI Information Numb	er/Name	
	Caller ID of Transferred Call (by DISA, Voice Mail)		
	🔲 Caller ID of Transferred Call (by Exten	ision line)	
		Yes No	
		OK Cancel	

Setting Categories Setting Categories Link Parameters TSP Log Settings Wersion Info Chter Parameters	Mode Selection O Standard Mode O PMS Interface Mode(KX:A291X)	A292X, A293X
	Account Info Buffer Size(100 -10000)	500
	Message Delay KX_SMDR	1000 ms
	Message Delay LINE_ADDRESSSTATE(FORWARD)	1000 ms
	<ul> <li>Send KX_REINIT and KX_RETRIEV</li> <li>Number of connection retries</li> <li>Number of connection retries</li> </ul>	is 25
	🔲 Separate DID/DDI Information Numb	er/Name
	Caller ID of Transferred Call (by DISA	
	Caller ID of Transferred Call (by Exter	
		Yes No
		OK Cancel

Configurable parameters are as follows:

#### a. Mode Selection

- Standard Mode TSP works in normal mode.
- PMS Interface Mode TSP works in compatibility mode for Panasonic PMS Interface application.

Note:

- Multiple TSP instances are not available for "PMS Interface MODE".
- When "PMSI Interface MODE" is selected, some of options are unavailable as dialog above.

#### b. Account Info Buffer Size

This parameter configures the number of account information records that the Panasonic TSP can store on the HDD. If Panasonic TSP cannot reserve its needed space to save on the HDD all account info records, then an error message will be displayed and Panasonic TSP will not start.

#### c. Message Delay (KX\_SMDR)

Panasonic TSP can be configured to queue LINE\_DEVSPECIFIC (KX\_SMDR) events sent to TAPI in order to let the application have enough time to process each event. Each line device that supports this kind of message has its own queue. It is recommended to use default value of 1000 ms.

#### d. Message Delay LINE\_ADDRESSSTATE (LINEADDRESSSTATE\_FORWARD)

Panasonic TSP can be configured to queue LINE\_ADDRESSSTATE (LINEADDRESSSTATE\_FORWARD) events sent to TAPI in order to let the application have enough time to process each event. Each line device that supports this kind of message has its own queue. It is recommended to use default value of 1000 ms.

## e. Send KX\_REINIT and KX\_RETRIEVE

When this option is checked and TSP is in Standard MODE, in case if Panasonic TSP loses connection with PBX, it sends LINEDEVSPECIFIC (KX\_REINIT) and begins recovery procedure.

However, Panasonic TSP may fail recovery in some case. (e.g. "When PBX Setting changed between KX\_REINIT and KX\_RETRIEVE." etc.).

Call event is not notified while TSP sends KX\_REINIT event and KX\_RETRIVE event.

Otherwise Panasonic TSP sends LINE\_DEVSTATE (REINIT) and enters in an unknown condition waiting all Applications to reinitialize use of TAPI.

## f. Number of Connection Retries

Number of Connection Retries is 25 - When Panasonic TSP loses connection with PBX, TSP tries to re-connect 25 times (same as previous version).

Number of Connection Retries is infinite - When Panasonic TSP loses connection with PBX, TSP tries to re-connect infinitely.

## g. DID/DDI Information Number/Name

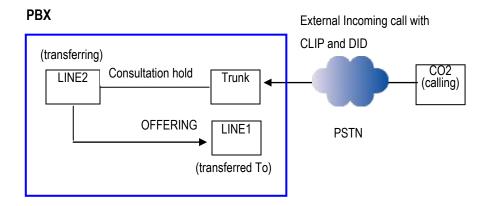
When this option is checked, Panasonic TSP fills CALLINFO.DEVSPECIFIC structure with DID/DDI number and name in separated format (the number is set into dwDIDDDISize/DIDDDIOffset area and the name is set into dwDIDDDINameSize/dwDIDDDINameOffset area).

Also CLIP information including CLIP Name in transferred call is set in separated format (the number of CLIP information is set into dwTranCLIPSize/ dwTranCLIPOffset area and name of CLIP information is set into dwTranCLIPNameSize/dwTranCLIPNameOffset area).

#### h. Caller ID of Transferred Call (by DISA, Voice Mail)

By checking this option, parameter value of LINECALLINFO.CallerID and CallerIDName for transferred to line (LINE1) becomes original callerID(CLIP) only when transferring line (LINE2) is DISA or voice unit for both screened and unscreened transfer.

When transferring line is other than DISA or voice unit, CallerID and CallerIDName parameter value is actual transferring line (LINE2).



#### i. Caller ID of Transferred Call (by Extension Line)

By checking this option, parameter value of LINECALLINFO.CallerID and CallerIDName for transferred to line (LINE1) becomes original callerID(CLIP) only when transferring line (LINE2) is an extension line for both screened and unscreened transfer.

Note : When a UT series SIP phone is used as transferring line, this option is not applied.

#### j. Enable connection to TDA PBX "Do you want to start TSP ?"

When Panasonic TSP and PBX Maintenance Console are set to connect to PBX by USB connection, both software cannot be used at the same time.

When Panasonic TSP is installed and computer is restarted, Windows may start Panasonic TSP automatically. Therefore, PBX Maintenance Console may not be started by installation of Panasonic TSP. For this reason, to start TSP or not, you can set the switch ("Yes" or "No") in "Do you want to start TSP?".

## (1)In case of "Yes"

After computer is restarted, you can use TAPI Application. However, Panasonic TSP may be started automatically after computer restart and you may not be able to start PBX Maintenance Console.

## (2)In case of "No"

After computer is restarted, you can use PBX Maintenance Console. However, you cannot start TAPI Application after computer restart.

## Note:

All settings will take effect after the next restart of computer.

## 3.5. Settings for Multi-PBX Connection

## 3.5.1. Before setting Multi-PBX Connection

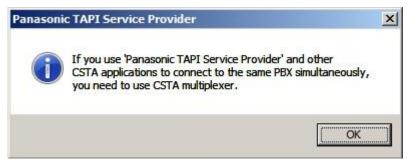
This feature allows you to connect two or more PBXs. Before setting multi-PBX connection, install TSP for one PBX.

## 3.5.2. How to set Multi-PBX Connection

1 In order to start Panasonic TSP Multi-PBX Configuration, follow: "Start->Program->Panasonic->KX-TDA TSP->MultiPBX Configuration" like in the next image.

Panasonic KX-TDA TSP	Documents
Connection Monitor	Computer Network Control Panel Devices and Printers Administrative Tools
✓ Back	Help and Support Run
Search programs and files	Log off

**2** The following message will appear in order to note that TSP and CSTA Application cannot be used at the same time without CSTA Multiplexer. Press "**OK**" to continue.



**3** Select "**Panasonic TSP 0001**" and double click to configure a new TSP instance for second PBX. Then configuration dialog for the second PBX will appear.

SP Instance List	Instances to install	Apply Settings Close
Instance Name	Configuration	Enable/Disable
T→ Panasonic TSP 0000	IPAddress = '192.168.0.101', IPPort = '33333'	Enable
→Panasonic TSP 0001	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→ Panasonic TSP 0002	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→ Panasonic TSP 0003	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0004	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0005	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0006	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0007	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
ote: You may double click on inst ou may double click on "Enable/I	ance name in order change settings.	

**4** When "Panasonic TSP 0001" configuration dialog is opened, configure Link Settings in Link Parameters menu and press "**OK**".

b Instance 'Panasonic TSP	0000' Settings -Active	×
Setting Categories Setting Categories Link Parameters TSP Log Settings Setting Version Info Other Parameters	0000' Settings ○ USB Connection ○ LAN Connection Address 192 . 168 . 0 . 101 Port 33333	×
	OK Cancel	

**5** To enable the new TSP instance, double click "Disable" field of the instance.

SP Instance List	Instances to install 8	Apply Settings Close
Instance Name	Configuration	Enable/Disable
→ Panasonic TSP 0000	IPAddress = '192.168.0.101', IPPort = '33333'	Enable
Panasonic TSP 0001	IPAddress = '192.168.0.120', IPPort = '33333'	C Disable
→Panasonic TSP 0002	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic TSP 0003	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic TSP 0004	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic TSP 0005	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic TSP 0006	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
<mark>⇔</mark> Panasonic TSP 0007	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
	stance name in order change settings.	

6 To save the settings, click "Apply Settings".

SP Instance List	Instances to install 8	Apply Settin Close
Instance Name	Configuration	Enable/Disable
iii → Panasonic TSP 0000	IPAddress = '192.168.0.101', IPPort = '33333'	Enable
T→Panasonic TSP 0001	IPAddress = '192.168.0.120', IPPort = '33333'	Enable
➡ Panasonic TSP 0002	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
Panasonic TSP 0003	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
Panasonic TSP 0004	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
🖶 Panasonic TSP 0005	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
🖶 Panasonic TSP 0006	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
<mark>m→</mark> Panasonic TSP 0007	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
	stance name in order change settings. /Disable'' in order to change status.	

7 Click "Close" to terminate Multi-PBX Configuration Tool. Then please reboot the PC manually.

## 3.5.3. Multi-PBX Configuration Dialog

SP Instance List	Instances to install	Apply Settings
		Close
Instance Name	Configuration	Enable/Disable
→ Panasonic TSP 0000	IPAddress = '192.168.0.101', IPPort = '33333'	Enable
→ Panasonic TSP 0001	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→Panasonic TSP 0002	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→ Panasonic TSP 0003	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
→ Panasonic TSP 0004	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0005	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0006	IPAddress = '0.0.0.0', IPPort = '33333'	Disable
➡ Panasonic TSP 0007	IPAddress = '0.0.0.0', IPPort = '33333'	Disable

TSP Instance list contains following information:

- "Instance Name" This is TSP Instance Name same as Control Panel Phone and Modems Options - Advanced displays.
- o "Configuration" Informative of configuration string.
- o "Enable/Disable"

"Enable": TSP instance is registered with TAPI

"Disable": TSP instance is unregistered with TAPI.

At startup this field contains current registration status of TSP Instance. "Enable":

TSP instance is registered with TAPI. "Disable": TSP instance is not registered with TAPI.

Multi-PBX Configuration Tool allows to:

- Specify parameters of each instance
- Register/Unregister each TSP instance with TAPI (Telephony System).

## Annex A

## **TSP Connection Monitor Tool**

This tool is provided to show PBX connection status of each TSP instance.

You may use provided shortcut under "Start Menu-> Programs-> Panasonic-> KX-TDA TSP -> Connection Monitor."

📮 Panasonic TAP	I Service Provider Monitor		
PBX	Panasonic TSP 0000 IPAddress = '192	2.168.0.101', IPPort = '33333'	•
Connection	Disconnected		
Status	Send	Receive	
Packets	0	0	_
			Close

Use "PBX" combo box to select TSP instance which you want to see the status.

Connection may be:

Now Connecting – TSP instance is initializing connection with PBX.

Connected - TSP instance is connected with PBX. It is possible to control/monitor with TAPI application(s).

Disconnected – TSP instance is not communicating with PBX.

Not Registered with TAPI – TSP instance is not registered in TAPI (Telephony System).

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