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Running the syn1588® PTP Stack as Windows Service

Abstract

This application note briefly describes how to run the syn1588[®] PTP Stack on Windows hosts as service that may be automatically started if the PC is booted.

Introduction

On PCs running Windows 7 (32 bit and 64 bit), Windows 10 or Windows Server 2016, it is possible to run the syn1588[®] PTP Stack as a Windows Service in the background. One needs to download the "Non-Sucking Service Manager". Make sure you have Administrator privileges because you need them for the installation process.

Use the following instructions to set up the syn1588 $^{\otimes}\,\text{PTP}\,\text{Stack}$ as a Windows Service:

- 1. First download and extract the "Non-Sucking Service Manager" Tool (<u>https://nssm.cc/download</u>)
- 2. Open the command line tool in Windows and enter following command to start the nssm service installer:

<path>\nssm.exe install ptp

<path> corresponds to the directory containing the executable nssm tool, like "nssm.exe".

3. Enter the path to the syn1588[®] PTP Stack as well as additional arguments

N NSSM service installer ×
Application Details Log on Dependencies Process Shutdown Exit
Application Path: C:\syn1588\ptp.exe
Startup directory: C:\syn1588
Arguments: -v 2 -i 10.0.2.96 -f C:\syn1588\syn1588_ptp_log.txt
Service name: ptp Install service Cancel



4. Navigate to the tab "Details" and enter a display name and a description for the service.

N NSSM service inst	aller X
Application Details	Log on Dependencies Process Shutdown Exit
Details Display name:	syn1588 PTP Stack
Description:	This service starts the syn1588 PTP Stack
Startup type:	Automatic
Service name: ptp	Install service Cancel

Figure 2: Enter display name and description

- 5. Click "Install service" to install the syn1588[®] PTP Stack as windows service.
- 6. Run the services applet and check if the syn1588[®] PTP Stack is entered as service.

Services						_	>
ile Action View	Help						
• 🔿 📊 🖾 🤇	2 🛃 🛛 📷 🕨 🔳 💵						
Services (Local)	Services (Local)						
	syn1588 PTP Stack	Name	Description	Status	Startup Type	Log On As	
		SSDP Discovery	Discovers netw	Running	Manual	Local Service	
	Start the service	🆏 State Repository Service	Provides requir	Running	Manual	Local System	
		🎑 Still Image Acquisition Events	Launches appli		Manual	Local System	
	Description:	🆏 Storage Service	Provides enabli		Manual (Trigger	Local System	
	This service starts the syn1588 PTP	🎑 Storage Tiers Management	Optimizes the p		Manual	Local System	
	Stack	🏟 Superfetch	Maintains and i		Manual	Local System	
		🧠 syn1588 PTP Stack	This service star		Automatic	Local System	
		🤹 Sync Host_2c1da	This service syn	Running	Automatic (Dela	Local System	
		🧠 System Event Notification S	Monitors syste	Running	Automatic	Local System	
		🎑 System Events Broker	Coordinates ex	Running	Automatic (Trigg	Local System	
		🆏 Task Scheduler	Enables a user t	Running	Automatic	Local System	
		🍓 TCP/IP NetBIOS Helper	Provides suppo	Running	Manual (Trigger	Local Service	
		🆏 Telephony	Provides Teleph		Manual	Network Service	
		🏟 Themes	Provides user e	Running	Automatic	Local System	
		🌼 Tile Data model server	Tile Server for ti	Running	Automatic	Local System	
		🆏 Time Broker	Coordinates ex	Running	Manual (Trigger	Local Service	
		🧠 Touch Keyboard and Hand	Enables Touch		Manual (Trigger	Local System	
		🍓 Update Orchestrator Service	UsoSvc	Running	Manual	Local System	
		UPnP Device Host	Allows UPnP de		Manual	Local Service	
		🧠 User Access Logging Service	This service log	Running	Automatic (Dela	Local System	
		🥘 User Data Access_2c1da	Provides apps a		Manual	Local System	
		🧠 User Data Storage_2c1da	Handles storag		Manual	Local System	
		User Experience Virtualizatio	Provides suppo		Disabled	Local System	
		🔍 User Manager	User Manager p	Running	Automatic (Trigg	Local System	
		🖏 User Profile Service	This service is r	Running	Automatic	Local System	
		🏟 Virtual Disk	Provides mana		Manual	Local System	
		Volume Shadow Copy	Manages and i		Manual	Local System	
		WalletService	Hosts objects u		Manual	Local System	
		Windows Audio	Manages audio		Manual	Local Service	
		Windows Audio Endpoint B	-		Manual	Local System	

Figure 3: Windows services applet

 For Windows 10 it is necessary to disable the fast startup mode. For that navigate to Power Options → System Settings and uncheck "Turn on fast startup"

😵 System Settings		<u></u>	×
← → ✓ ↑ 🍓 > Control Panel > All Control Panel Items > Power Options > System Settings	~ Ö	Search Control Panel	٩
Define power buttons and turn on password protection			
Choose the power settings that you want for your computer. The changes you make to the settings on this page apply to all of your power plans.			
Power button settings			
When I press the power button: Shut down 🗸			
Shutdown settings			
Turn on fast startup (recommended) This helps start your PC faster after shutdown. Restart isn't affected. <u>Learn More</u>			
Sleep Show in Power menu.			
Hibernate Show in Power menu.			
Show in account picture menu.			
Save changes Cancel			

Figure 4: Disable fast startup mode for Windows 10

8. Now the syn1588[®] PTP Stack is configured as Windows Service to run automatically when the system is started.

Access to the PTP Stack Service

If the syn1588[®] PTP Stack is setup as Windows service the shared memory, used to read the status of the PTP Stack or control its operation, is not accessible by default.

If you want to setup an application to be able to interact with the syn1588[®] PTP Stack via the shared memory API (refer also to AN015 for details), you have to set the environment variable "USE_SYN1588_GLOBAL_PREFIX" to the value "1". Removing the variable or setting it to "0" will disable the access again.

For example, execute in a command shell:

>set USE_SYN1588_GLOBAL_PREFIX=1

Then execute your application in the same command shell.

This is also necessary when executing syn1588[®] utilities (e.g., eSync or ISync).

An alternative to this configuration is setting up your application or the syn1588[®] utilities as a service themselves.

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