# The Solutions of RDP Multi-User Connection Problem

## [Problem Description]

After windows Updated, only one client can connect to the host.

## [Problem Source]

The windows updated change the terminal services file **(termsrv.dll)**, then cause the multi-user connection failed.

## [Solution 1: Replace the termsrv.dll file]

#### 1. Stop the Remote Desktop Service:

Open the "RUN", type "services.msc", then find the "Remote Desktop Services", double click and stop it.

🖅 Run					×				
					_				
	Type the name of a pro- resource, and Windows	gram, folder, docum will open it for you.	ient, or Ir	nternet					
Open:	services.msc			`	2				
	OK	Cancel	Brov	wse					
🏩 Services									X
File Action View	Help								
	Q 📑   🛛 📷   🕨 🔲 II ID								
Services (Local)	Services (Local)	_							
	Remote Desktop Services	Name	Description	Status	Startup Type	Log	On As		^
		Radio Management Service	Radio Mana		Manual	Lor			
	Stop the service	Remote Access Auto Conne	Creates a co		Manual	Lo	Remote (	Desktop S	Services Properties (Local Computer) X
	Restart the service	Remote Access Connection	Manages di	Runnina	Automatic	Lo	o		
		Remote Desktop Configurat	Remote Des	Running	Manual	Lo	General	Log On	Recovery Dependencies
	Description:	Remote Desktop Services	Allows user	Running	Manual	Ne	Service	name:	TemSenice
	Allows users to connect interactively	Kemote Desktop Services U	Allows the r	Kunning	Ivianuai	Lo	0011100	nume.	
	to a remote computer. Remote	Remote Procedure Call (RPC)	The RPCSS	Running	Automatic	Ne	Display	name:	Remote Desktop Services
	Host Server depend on this service.	Remote Procedure Call (RP	In Windows		Manual	Ne	Descrip	tion:	Allows users to connect interactively to a remote
	To prevent remote use of this	Remote Registry	Enables rem		Disabled	Lo			computer. Remote Desktop and Remote Desktop
	computer, clear the checkboxes on	Retail Demo Service	The Retail D		Manual	Lo	Path to	evecitab	le:
	properties control panel item.	Routing and Remote Access	Offers routi		Disabled	Lo	C:\Win	dows\Svs	stem 32\sychost.exe +k Network Service
	l	RPC Endpoint Mapper	Resolves RP	Running	Automatic	Ne	_	-	
		🖏 Secondary Logon	Enables star		Manual	Lo	Startup	typ <u>e</u> :	Manual
		🌼 Secure Socket Tunneling Pr	Provides su	Running	Manual	Lo			
		🌼 Security Accounts Manager	The startup	Running	Automatic	Lo			
		🎑 Security Center	The WSCSV	Running	Automatic (D	Lo	Service	status:	Running
		🎑 Sensor Data Service	Delivers dat		Manual (Trig	Lo			
		Sensor Monitoring Service	Monitors va		Manual (Trig	Lo	2	plant	Stop Hause Hesume
		Sensor Service	A service fo		Manual (Trig	Lo	You ca	n specify t	the start parameters that apply when you start the service
		🔍 Server	Supports fil	Running	Automatic (T	Lo	from he	re.	
		Shared PC Account Manager	Manages pr		Disabled	Lo	Start pa	arameters:	
		SharePlayerService	Share player	Running	Automatic	Lo	m + h/s		
		Shell Hardware Detection	Provides no	Running	Automatic	Lo			
		Smart Card	Manages ac		Manual (Trig	Lo			OK Cancel Apply
		Smart Card Device Enumera	Creates soft		Manual (Trig	Lo		_	or current Apply
	ļ	Smart Card Removal Policy	Allows the s		Manual	Loca	l Syste		
	Extended Standard								

2008R2	File folder
2012R2	File folder
2016	File folder
2019	File folder
win7	File folder
win8.1	File folder
win10	File folder

Double click the above file and unzip the correct old version "ternsrv.dll" file according to your operating system.

Go to C:	Windows System 32,	right-click	the file,	select	"properties"	"security"
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> Local Disk (C:) > Windows > System	32		
me	Date modified	Туре	Size
telephon.cpl	9/15/2018 3:29 PM	Control panel item	107 KB
TelephonyInteractiveUser.dll	9/15/2018 3:28 PM	Application extens	90 KB
TelephonyInteractiveUserRes.dll	9/15/2018 3:28 PM	Application extens	3 KB
tellib.dll	1/8/2019 9:15 AM	Application extens	3,518 KB
TempSignedLicenseExchangeTask.dll	9/15/2018 3:28 PM	Application extens	75 KB
tepeqapo64.dll	12/13/2018 4:13 AM	Application extens	74 KB
termmgr.dll	9/15/2018 3:29 PM	Application extens	415 KB
termsrv.dll	1/8/2019 9:15 AM	Application extens	996 KB
tetheringclient.dll	9/15/2018 3:28 PM	Application extens	78 KB
tetheringconfigsp.dll	9/15/2018 3:28 PM	Application extens	52 KB
TetheringleProvider.dll	9/15/2018 3:28 PM	Application extens	13 KB
TetheringMgr.dll	9/15/2018 3:28 PM	Application extens	230 KB
tetheringservice.dll	1/8/2019 9:15 AM	Application extens	241 KB
TetheringStation.dll	9/15/2018 3:28 PM	Application extens	218 KB
TextInputFramework.dll	9/15/2018 3:28 PM	Application extens	590 KB
themecpl.dll	9/15/2018 3:29 PM	Application extens	2,442 KB
themeservice.dll	9/15/2018 3:28 PM	Application extens	66 KB
themeui.dll	1/8/2019 9:15 AM	Application extens	2,826 KB
threadpoolwinrt.dll	9/15/2018 3:28 PM	Application extens	67 KB
thumbcache.dll	9/15/2018 3:28 PM	Application extens	378 KB
ThumbnailExtractionHost.exe	9/15/2018 3:28 PM	Application	34 KB
tier2punctuations.dll	9/15/2018 3:28 PM	Application extens	3 KB
TieringEngineProxy.dll	9/15/2018 3:29 PM	Application extens	20 KB
TieringEngineService.exe	9/15/2018 3:29 PM	Application	303 KB
TileDataRepository.dll	1/8/2019 9:15 AM	Application extens	530 KB
TimeBrokerClient.dll	9/15/2018 3:28 PM	Application extens	35 KB

→ Click "Advanced"

🗟 termsrv.dll Properties		$\times$
General Security Details Previous Ver	rsions	
Object name: C:\Windows\System32\	termsrv.dll	
Group or user names:		
ALL APPLICATION PACKAGES		^
SYSTEM		
Administrators (DESKTOP-TC3MMS	J\Administrators)	~
		>
To change permissions, click Edit.	edit 😜 Edit	t
Permissions for ALL APPLICATION PACKAGES	Allow De	ny
Full control		
Modify		
Read & execute	$\checkmark$	
Read	$\checkmark$	
Write		
Special permissions		
For special permissions or advanced settir click Advanced.	ngs, Ad <u>v</u> ano	;ed
ОК	Cancel	Apply

 $\rightarrow$  Click "Change" to change the owner

Advanced Se	ecurity Settings for termsrv.dll			—		×
Name:	C:\Windows\System32\termsrv.dll					
Owner:	TrustedInstaller 💎 <u>Change</u>					
Permissions	Auditing Effective Access					
For additional Permission er	l information, double-click a permission entry. htries:	To modify a permissior	entry, select the entry and clicl	k Edit (if a	ivailable).	
Туре	Principal	Access	Inherited from			
Sellow	TrustedInstaller	Full control	None			- 1
Allow 🎎	Administrators (DESKTOP-TC3MMSJ\Admi	Read & execute	None			
🚨 Allow	SYSTEM	Read & execute	None			
🚨 Allow	Users (DESKTOP-TC3MMSJ\Users)	Read & execute	None			
Allow	ALL APPLICATION PACKAGES	Read & execute	None			
🔳 Allow	and the second se	Read & execute	None			
😌 Change j	permissions <u>V</u> iew					
Enable <u>i</u> nh	eritance					
			ОК С	ancel	<u>A</u> pp	ly

## → Click "Advanced.."

Select User or Group	×
Select this object type:	
User, Group, or Built-in security principal	Object Types
From this location:	
DESKTOP-TC3MMSJ	Locations
Enter the object name to select ( <u>examples</u> ):	
	<u>C</u> heck Names
<u> </u>	

 $\rightarrow$  Click "find now"

 $\rightarrow$  Select the "administrators" group

Select User or Group					×
<u>S</u> elect this object type: User, Group, or Built-in security princip	pal		Ot	oject Types	
From this location: DESKTOP-TC3				Locations	
Common Queries					
Name: Starts with $\sim$				<u>C</u> olumns	
Description: Starts with $ \sim $				Find <u>N</u> ow	
Disa <u>b</u> led accounts				S <u>t</u> op	
Non expiring password					
Days since last logon:	×			<del>?</del> /	
Search res <u>u</u> lts:			ОК	Cancel	
Name	In Folder				^
💑 1	DESKTOP-TC3				
2	DESKTOP-TC3				
4	DESKTOP-TC3				
5	DESKTOP-TC3				
Access Control Assistance Opera	DESKTOP-TC3				
Administrators	DESKTOP-TC3				
ALL APPLICATION PACKAGES					~
		. /			

 $\rightarrow$  Apply and save the settings, back to the "security" tab, click "Edit.."

Select User or Group	×
Select this object type:	
User, Group, or Built-in security principal	Object Types
From this location:	
DESKTOP-TC:	Locations
Enter the object name to select ( <u>examples</u> ):	
DESKTOP-TC3 Administrators	Check Names
<u>A</u> dvanced	OK Cancel

Object	name: C	:\Windows	s\System	32\temsn	v.dll	
	dministrator	ATION PAG	CKAGES	MSJ\Adm	inistrators)	
< To cha <u>P</u> ermiss	nge permis sions for AL	sions, click .L	Edit.		<b></b>	> <u>E</u> dit
Full of Mod	control ify	ACKAGES		Allo	w	Deny
Read	d & execute d	e		~		
Spec	e cial permiss	ions				
For spe	cial permis dvanced.	sions or ad	vanced s	ettings,	Ad <u>v</u> a	anced

 $\rightarrow$  Click the box of "modify"

	Permissions for termsrv.dll	×
	Security	
	Object name: C:\Windows\System32\termsrv.dll	
8	Group or user names:	
< e ₽	ALL APPLICATION PACKAGES   SYSTEM  Administrators (DESKTOP-TC3MMSJ\Administrators)  Users (DESKTOP-TC3MMSJ\Users)  TrustedInstaller	
	Add Remove	
	Permissions for ALL APPLICATION PACKAGES Allow Deny	
	Full control	
ΗL	Modify	
	Read & execute	
"	Read M L	
ŀ	OK Cancel Apply	
_		
N b	/indows Security	
e	You are about to change the permission settings on sy folders. This can reduce the security of your computer cause users to have problems accessing files. Do you continue?	ystem and want to
IC	Yes	<u>N</u> o
· · · ·	2010/6/0 17:01	

 $\rightarrow$  Apply and save the settings, right click "termsrv.dll" file, rename the file such as "termsrv.dll.bak"

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🖭 tetneringservice.ali	2018/11/1 14:59
TetheringMgr.dll	2018/4/12 7:34
TetheringleProvider.dll	2018/4/12 7:34
tetheringconfigsp.dll	2018/4/12 7:34
tetheringclient.dll	2018/4/12 7:34
ermsrv.dll.bak	2018/4/12 7:34
🗟 termmgr.dll	2018/4/12 7:34
TempSignedLicenseExchangeTask.dll	2018/4/12 7:34
TelephonyInteractiveUserRes.dll	2018/4/12 7:34
TelephonyInteractiveUser.dll	2018/5/20 19:26
🔄 telephon.cpl	2018/4/12 7:34
TDLMigration.dll	2018/6/8 17:01
🗟 tdh.dll	2018/10/21 20:42
173 A	

 $\rightarrow$  Click "YES" which tips show confirm to rename, then copy and replace the old version "termsrv.dll" file which has download before in current folder.

#### 3. Start the Remote Desktop Service

Open the "RUN", type "services.msc", then find the "Remote Desktop Services", double click and start it.

💷 Run		×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	services.msc ~	
<b>4</b>	OK Cancel <u>B</u> rowse	

ţ	鵒 Services						– 🗆 X
伟	File Action View	Help					
Ŧ	(+ +) 📰 🖾	à 🗟   🛛 🖬   🕨 🔲 II ID					
	🧟 Services (Local)	🔘 Services (Local)					
		Remote Desktop Services	Name	Description	Status	Startup Type	Log On As
		Stop the service Restart the service Description: Allows users to connect interactively to a remote computer. Remote Desktop and Remote Desktop Session Host Server depend on this service. To prevent remote use of this computer, clear the checkboxes on the Remote tab of the System properties control panel item.	Radio Management Service     Remote Access Auto Conne     Remote Access Connection     Remote Desktop Configurat     Remote Desktop Services     Remote Desktop Services     Remote Procedure Call (RPC)     Remote Registry     Remote Registry     Remote Registry     Remote Access     RPC Endpoint Mapper     Secondary Logon     Security Accounts Manager     Sensor Data Service     Sensor Data Service     Sensor Service     Sensor Service     Server     Server	Radio Mana Creates a co Manages di Remote Des Allows user Allows user In Windows Enables rem Offers routi Resolves RP Enables star Provides su The startup The startup Delivers dat Monitors va A service fo Supports fil	Running Running Running Running Running Running Running Running	Manual Manual Automatic Manual Manual Automatic Manual Disabled Automatic Manual Manual Automatic Automatic Automatic (D Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig Manual (Trig	Lo       Remote Desktop Services Properties (Local Computer)       X         Lo       General       Log On       Recovery       Dependencies         Lo       Display name:       Remote Desktop Services         Description:       Callows users to connect interactively to a remote Castron and Remote Desktop and Remote Desktop and Remote Desktop Castron Host Service and on this service. To       X         Lo       Path to executable:       X       X         Lo       C:\Windows\System32\svchost.exe +k NetworkService       X         Startup type:       Manual       X         Lo       Service status:       Running         Lo       Service status:       Running         Lo       You can specify the start parameters that apply when you start the service from here.
			SharePlayerService	Share player Provides no	Running Running	Automatic Automatic	Lo Start parameters:
			Smart Card	Manages ac Creates soft	5	Manual (Trig Manual (Trig	Lo OK Cancel Apply
		Extended Standard	Smart Card Removal Policy	Allows the s		Manual	Local Syste 🗸

#### 4. Reinstall the RDP Wrapper

Run the "install.bat" file in the RDP Wrapper folder.

🚳 1.bat	3/9/2019 11:55 PM	Windows Batch File	3 KB
💿 install.bat	4/17/2019 12:45 AM	Windows Batch File	4 KB
NDPCheck.exe	8/13/2015 12:23 AM	Application	1,021 KB
NDPConf.exe	12/28/2017 2:29 AM	Application	1,071 KB
📑 RDPWInst.exe	12/28/2017 1:20 AM	Application	1,426 KB
🔊 rdpwrap.ini	4/17/2019 12:35 AM	Configuration sett	152 KB
💿 uninstall.bat	4/17/2019 12:46 AM	Windows Batch File	1 KB
💿 update.bat	2/26/2019 2:14 PM	Windows Batch File	1 KB

## [Solution 2: Uninstall the latest windows updated]

Can use the ways below to uninstall the updated:

"Start"  $\rightarrow$  "Settings"  $\rightarrow$  "Update & Security"  $\rightarrow$  "view update history"  $\rightarrow$  "Uninstall updates"  $\rightarrow$  select the updated which you want to uninstall  $\rightarrow$  click "uninstall"

#### Windows Settings

		Find a setting		Q	
旦	<b>System</b> Display, sound, notifications, power		<b>Devices</b> Bluetooth, printers, mouse		<b>Phone</b> Link your Android, iPhone
	Network & Internet Wi-Fi, airplane mode, VPN	¢	Personalization Background, lock screen, colors		<b>Apps</b> Uninstall, defaults, optional features
8	Accounts Your accounts, email, sync, work, family	(Q. A字	Time & Language Speech, region, date	$\bigotimes$	Gaming Game bar, captures, broadcasting, Game Mode
Ģ	Ease of Access Narrator, magnifier, high contrast	A	Privacy Location, camera	C	Update & Security Windows Update, recovery, backup
Q	<b>Search</b> Language, permissions, history	,			

 $\leftarrow$ Settings

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ណ	Home	Windows Update
Fi	nd a setting	Error encountered Last checked: 4/21/2019, 12:30 AM
Upc	late & Security	Your device is missing important security and quality fixes.
С	Windows Update	We could not complete the install because an update service was shutting down.
曲	Delivery Optimization	Retry
¢	Windows Security	Change active hours
Ť	Backup	Advanced options
Þ	Troubleshoot	
J	Recovery	Looking for info on the latest updates?
$\oslash$	Activation	
ቆ	Find my device	Related links Check Storage
Îŧ	For developers	OS build info
ð	Windows Insider Program	
		Have a question?
		Get help

Make Windows better

## ☆ View update history

Uninstall updates	
Recovery options	
Update history ∨ Quality Updates (2)	
2019-02 用于 .NET Free Successfully installed on 4/28/2019	rsion 1809 (KB4483452)
2019-}	 493509) (2)
Last failed install attempt on 4/28/2019 - 0x80240034	
> Driver Updates (2)	

#### Have a question?

Get help

Installed Updat	es					-	
All Control Panel > All Control Panel Items > Programs and Features > Installed Updates     Search Installed Updates     Search Installed Updates     Pograms and Features > Installed Updates     Pograms						م	
						-	
<u>File Edit V</u> iew	<u>1</u> 00IS						
Control Panel H	Home	Uninstall an update					
Uninstall a prog	gram	To uninstall an update, select it from the list and then	click Uninstall or Change	2.			
off	features on or	Organize 👻 Uninstall				:=:	
		Name	Program	Version	Publisher	Installed On	
		Microsoft Windows (5)	-				
		Update for Microsoft Windows (KB4483452)	Microsoft Windows		Microsoft Corporation	4/28/2019	
		Security Update for Adobe Flash Player	Microsoft Windows		Microsoft Corporation	1/8/2019	
		Security Update for Microsoft Windows (KB4480116)	Microsoft Windows		Microsoft Corporation	1/8/2019	
		Update for Microsoft Windows (KB4470502)	Microsoft Windows		Microsoft Corporation	1/8/2019	
		Security Update for Microsoft Windows (KB4470788)	Microsoft Windows		Microsoft Corporation	1/8/2019	
		Microsoft Corporation Parent name: Mi Support link: htt	icrosoft Windows tp://support.microsoft.co	m/?kbid=4483452			

Or run the CMD command to uninstall: wusa/uninstall/kb[the name of the updated]/quiet

#### [Solution 3: install the RDP Wrap software]

Run the RDPWrap software or the "install.bat" file to install

If there are showing "not support" when open the "RDPConf.exe" file, it means that your current operating system is not support, Need to install the latest version of RDPWrap software to make your operating system support.



# For Extra:

#### [How to disable the Windows Updated]

Windows Update blocker is developed by BlueLife. Windows Update Blocker is free software, it can help to automatic and fully disable or enable the Windows Updated on Windows System, Only need to click the button in the software.



For download Windows Update blocker V1.2: https://www.sordum.org/9470/windows-update-blocker-v1-2/

The Operation principle of Windwos Update blocker is to Disable or Enable some of the services about the windows updated automatically, include elivery Optimization Service (dosvc), Windows Update Medic Service (WaaSMedicSvc), Update Orchestrator Service (UsoSv), Background Intelligent Transfer Service (BITS).

You can also close them manually in the services panel though run "services.msc"

#### [About the RDP Wrapper]

RDP Wrapper is delvloped by Stas'M Corp and released on

Github(<u>https://github.com/stascorp/rdpwrap</u>), it is no permission to use RDP Wrapper in Microsoft. we recommend you to use the RDP Wrapper for testing or trialing. And if possible we also recommend you to purchase and install RDS-CAL which is legal through Microsoft. The Operating System which has installed the legal RDS-CAL will not be influenced by the Windows Updated.

# **RDP Wrapper Library by Stas'M**

chat Telegram Windows Vista, 7, 8, 10 📴 Release license Apache-2.0 downloads@latest 1M 📴 Total Downloads

The goal of this project is to enable Remote Desktop Host support and concurrent RDP sessions on reduced functionality systems for home usage.

RDP Wrapper works as a layer between Service Control Manager and Terminal Services, so the original termsrv.dll file remains untouched. Also this method is very strong against Windows Update.

NT Version	Screenshots
Windows Vista	
Windows 7	
Windows 8	
Windows 8.1	
Windows 10	