



How-To Guide

Serial Pads In a Remote Environment

Copyright © 2020 Topaz Systems Inc. All rights reserved.

For Topaz Systems, Inc. trademarks and patents, visit www.topazsystems.com/legal.

Table of Contents

Options for Remote Usage with Serial Pads	3
Option 1 – COM Port Redirection for Topaz Serial Pads	3
Option 2 – Topaz Serial Pads with an External Serial-to-USB Converter.....	3
Option 3 – Topaz Serial-to-Ethernet Adapter (A-ETH1-1).....	3
Detailed Steps for Setting Up Serial Pads in a Remote Environment	4
For Citrix XenApp or Presentation Server.....	4
<i>Part 1: Client-Side Installation</i>	<i>4</i>
<i>Part 2: Server-Side Installation.....</i>	<i>4</i>
For Use With a Remote Desktop Connection	7
<i>Part 1: Client-Side Installation</i>	<i>7</i>
<i>Part 2: Server-Side Installation.....</i>	<i>7</i>
<i>Part 3: Setting Up Remote Desktop for Serial Port Redirection</i>	<i>8</i>
For Use with VMWare Horizon Virtual Desktop	9
Testing Your Serial Signature Pad	10

Options for Remote Usage with Serial Pads

Option 1 – COM Port Redirection for Topaz Serial Pads

Topaz® serial pads can be plugged into a terminal or fat-client machine, and the COM port on the client mapped via back to a COM port on the server. Ultimately, through this mapping, a serial pad physically connected to the client is virtually plugged directly into the server's COM port. A big advantage to this approach is that there are no signature pad drivers required on the client machine, therefore allowing it to be installation-free and maintenance-free.

Option 2 – Topaz Serial Pads with an External Serial-to-USB Converter

Topaz serial pads can also be used in conjunction with a Citrix- or Terminal Server-rated serial to USB converter. This would allow the Topaz serial pad to ultimately plug into a USB port on the client machine, and a "virtual COM port" created there to be mapped over to the server's COM port. For example, the [Edgeport from Digi](#) is a candidate. These are not the extent of the possibilities, as other Citrix/Terminal Server compliant serial to USB converters are available on the market as well.

Once in place, option 1 above (COM port redirection) would apply.

Option 3 – Topaz Serial-to-Ethernet Adapter (A-ETH1-1)

Topaz offers the [A-ETH1-1 Serial-to-Ethernet Adapter](#) that maps a virtual COM port to an IP address. This allows a Topaz serial signature pad to be plugged into the network, thereby providing any application running under Citrix or Terminal Server to gain access to the network-connected pad.

This device can be plugged into the network at any point, for example, right next to the client machine. Once the adapter is plugged into the network and the proper drivers installed to the server (see the [A-ETH1-1 Guide](#) for more information), a virtual COM port is created right on the server, which can then simply be chosen as the COM port assignment during the SigPlus® install on the server.

This option simply bypasses the client machine altogether, as the IP-mapped virtual COM port simply exists on the server directly. Please note, the signature pad and the server must be on the same local network.

Detailed Steps for Setting Up Serial Pads in a Remote Environment

For Citrix XenApp or Presentation Server

Part 1: Client-Side Installation

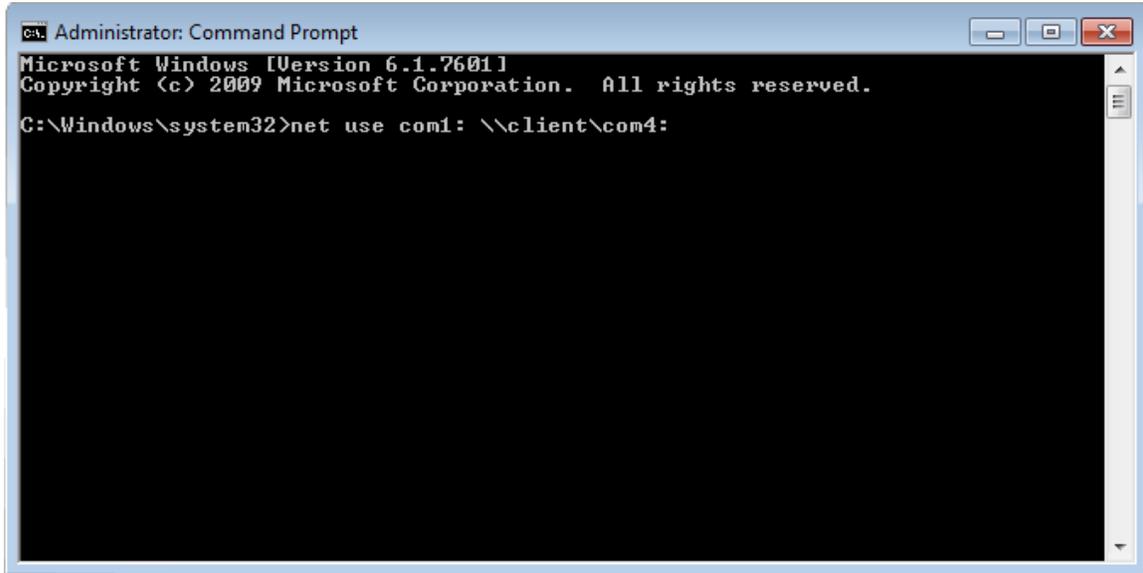
1. Click “Start”, right-click on “Computer”, and choose “Properties”. Click “Device Manager” from the menu.
2. Expand the “Ports” section and determine which of the available COM ports the signature pad is using. This value will be required later in setup.

Part 2: Server-Side Installation

1. Log into the server using an RDC as Administrator or an equivalent account.
2. Download and save SigPlus to your server:
www.topazsystems.com/Software/sigplus.exe.
3. From a CMD line, type “Change user /install” to enter “Install mode”. Install “SigPlus.exe”. Choose your tablet model during install and the COM1 connection type. After installing, from CMD line, type “Change user /execute” or restart server to place server back into “Execute mode” before using the application.
4. Copy the “SigPlus.ini” from C:\Windows on the server and place it into the root of C:\ on the server. Then rename it to “SigPlusRoot.ini”.

If you are using XenApp 7 or newer, skip Step 5 below and continue with Step 6. If you using XenApp 6.5 or older, finish with Step 5 below (do not follow Steps 6-9).

- To map the serial port on the server to the client, run “Net Use” in a command prompt or BAT file on the server. For example, the following Net Use call would map COM1 on the server to COM4 on the client:



```

Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

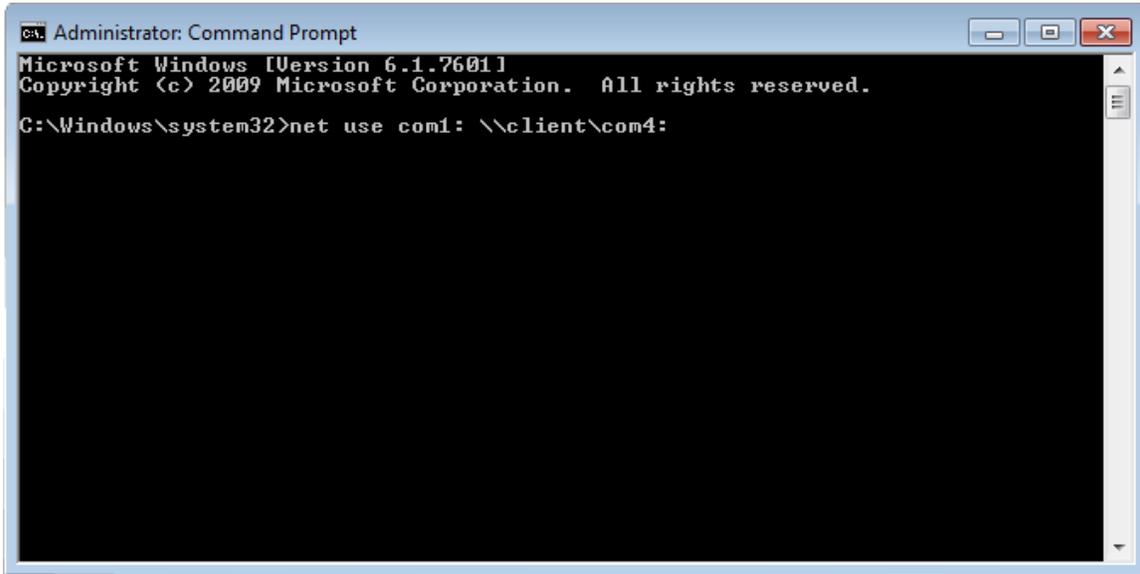
C:\Windows\system32>net use com1: \\client\com4:
  
```

NOTE: The word “client” in the above command is not a variable; do not replace this with the name of your client.

- Log into XenApp 7.x. Open the RegEdit and add a key, “Deprecated”, under HKLM\Software\Citrix\GroupPolicy\Defaults, if the key does not exist.
- At the Deprecated key, add a REG_DWORD value “AllowComPortRedirection” and set it to 1.
- Publish the Windows command line in XenApp. Reboot the system to enable COM Port Redirection Policy.

- Log into Citrix XenApp; then, launch the command line program. To map the serial port on the server to the client, run “Net Use” in this command line.

For example, the following Net Use call would map COM1 on the server to COM4 on the client:



```

Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>net use com1: \\client\com4:
  
```

NOTE: The word “client” in the above command is not a variable; do not replace this with the name of your client.

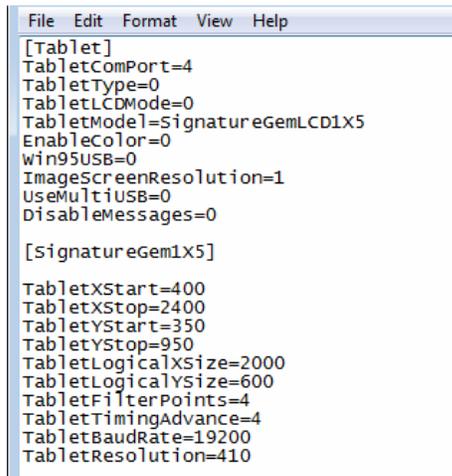
For Use With a Remote Desktop Connection

Part 1: Client-Side Installation

1. Click “Start”, right-click on “Computer”, and choose “Properties”. Click “Device Manager” from the menu.
2. Expand the “Ports” section and determine which of the available COM ports the signature pad is using. This value will be required later in setup.

Part 2: Server-Side Installation

1. Log into the server using an RDC as Administrator or an equivalent account.
2. Download and save SigPlus to your server: www.topazsystems.com/Software/sigplus.exe.
3. From a CMD line, type “Change user /install” to enter “Install mode”. Install “SigPlus.exe”. Choose your tablet model during install and the COM1 connection type. After installing, from CMD line, type “Change user /execute” or restart server to place server back into “Execute mode” before using the application.
4. Copy the “SigPlus.ini” from C:\Windows on the server and place it into the root of C:\ on the server. Then rename it to “SigPlusRoot.ini”. Double-click this new “SigPlusRoot.ini” file to open it, as seen here.



```

File Edit Format View Help
[Tablet]
TabletComPort=4
TabletType=0
TabletLCDMode=0
TabletModel=SignatureGemLCD1X5
EnableColor=0
win95USB=0
ImageScreenResolution=1
UseMultiUSB=0
DisableMessages=0

[SignatureGem1X5]

TabletXStart=400
TabletXStop=2400
TabletYStart=350
TabletYStop=950
TabletLogicalXSize=2000
TabletLogicalYSize=600
TabletFilterPoints=4
TabletTimingAdvance=4
TabletBaudRate=19200
TabletResolution=410
    
```

5. Change the “TabletComPort” assignment to the COM port you noted from Step 2 on this page (under section titled “Part 1: Client-Side Installation”). In the example above, our noted COM port was 4, so our TabletComPort = 4.
6. Once done, click “File” → “Save”.

Part 3: Setting Up Remote Desktop for Serial Port Redirection

1. Click “Start” → “All Programs” → “Accessories” → “Remote Desktop Connection”.
2. The “Remote Desktop Connection” window opens. Click “Options” in the corner.
3. Click the “Local Resources” tab at the top of the window. Then, click “More...” in the “Local devices and resources” section of the window.
4. Click “Ports” to check the box, as seen here. Then, click “OK”. “Ports” needs to be checked when you log into a session for the signature pad to work in the session.



For Use with VMWare Horizon Virtual Desktop

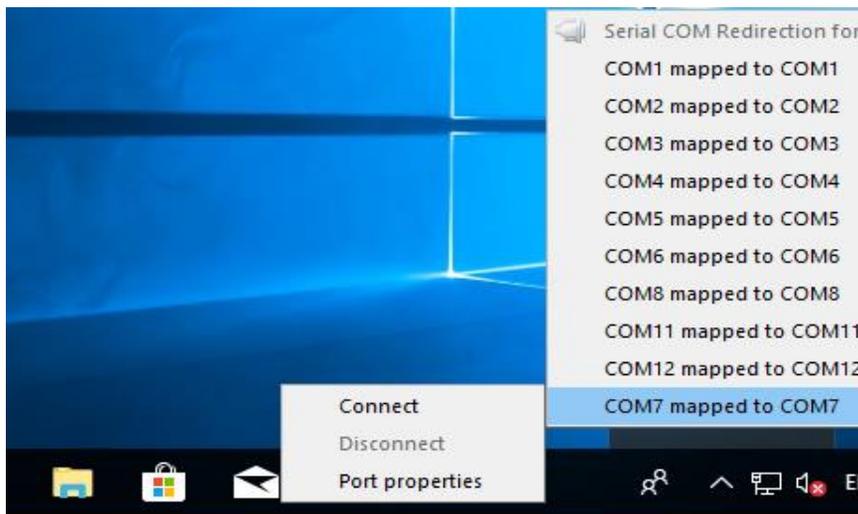
1. To support COM port redirection on the VMware Horizon virtual desktop, the “Serial Port Redirection” option is made available during installation of the agent component. This option is deselected by default. Enable it before use.



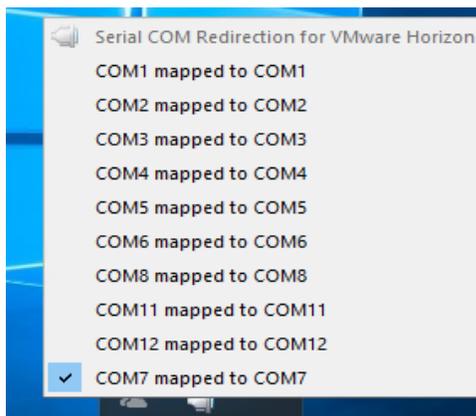
2. After installation of the “View Agent” on the virtual machine, the “Serial Port Redirection” icon will appear in the tool tray when the user connects to the virtual desktop.



- From the tool tray, right-click on the “Serial Port Redirection” icon to configure COM port mappings. Then, select the COM port to connect.



- After successfully connected, the COM port mapping should have one entry checked; in this example, COM7 is connected.



Testing Your Serial Signature Pad

Before testing your application, you should test with “DemoOCX.exe”. This can be found in C:\Windows\SigPlus on the server. Open “DemoOCX.exe”, click "Start", and sign on your pad. You should see your writing in the demo window.