

[Tech Note 773](#)

Checking Binding Order on a Windows Server 2008 SP2 & R2

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Topic#: 002553

Created: April 2011

Updated: January 2012

Introduction

The following Application Server and InTouch® issues are related to binding order, and can occur when binding is not configured correctly:

- Application Server Redundancy requires the binding order to be correct in order to failover correctly.
- Error Message: Platform exceeds maximum heartbeat timeout of 8 seconds.
- Deployment failures can occur. When deploying, you can get Communication error which could be related to the binding order.

This *Tech Note* outlines on how to check the binding order on a Windows Server 2008 SP2 & R2 Standard Edition operating system.

Note: Refer to [Tech Note 368 Redundancy Network Setup](#) for setting up redundancy. *Tech Note 368* also includes the Binding Order recommendation.

Application Versions

- Wonderware Application Server version 3.1 SP3 and higher.
- InTouch 10.1 SP3 and higher.

Please check the compatability matrix at the [Wonderware Developer Network Tech Support](#) site for supported operating systems.

This *Tech Note* includes instructions for the following operating systems:

- [Windows Server 2008 SP2](#)
- [Windows Server 2008 R2 , Standard Edition](#)

Windows Server 2008 SP2

To check the binding order

1. Click **Start/Network**.
2. Click **Network and Sharing Center** (Figure 1 below):

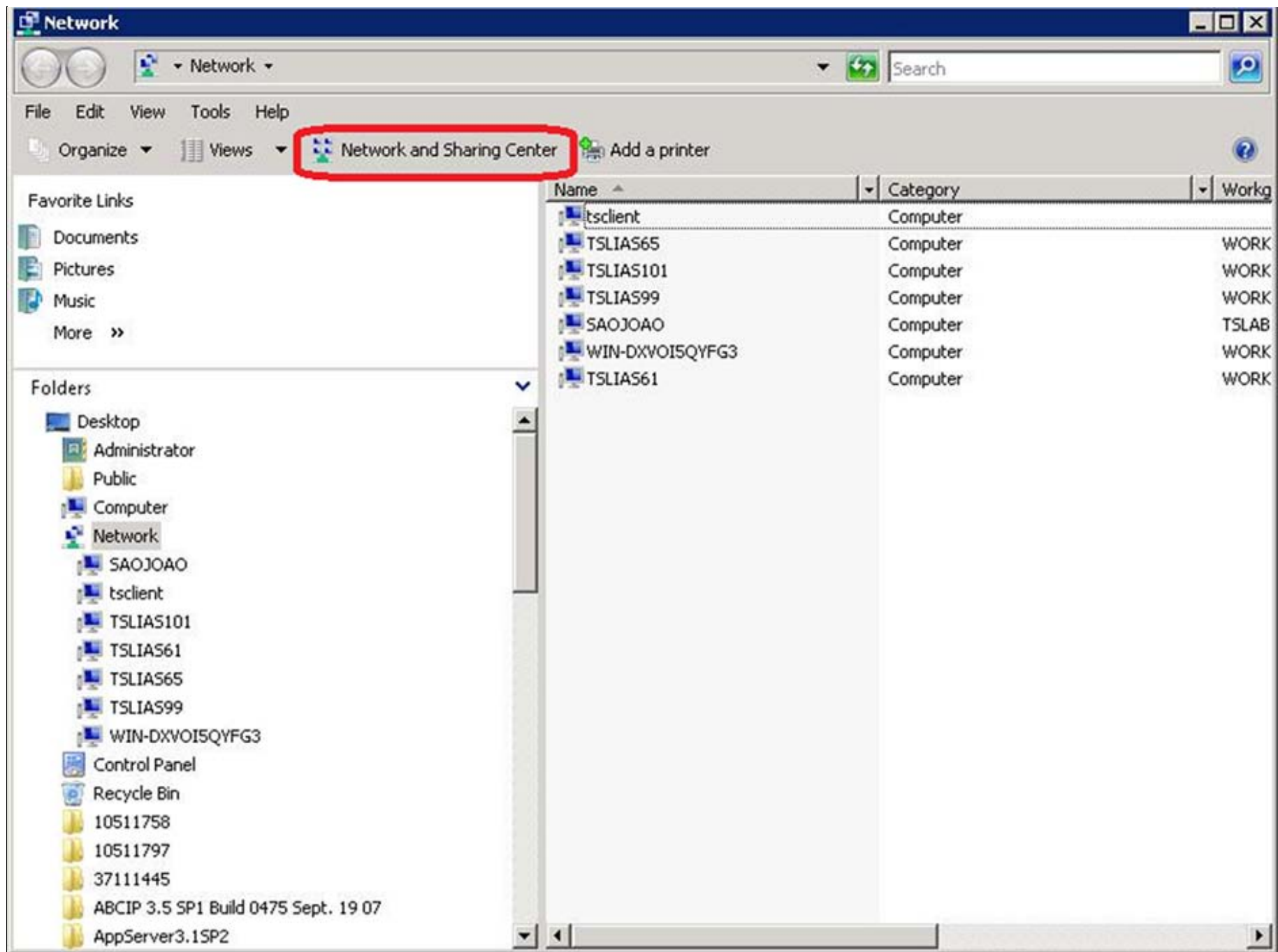


FIGURE 1: NETWORK AND SHARING CENTER

3. Click **Manage Network Connections** (Figure 2 below):

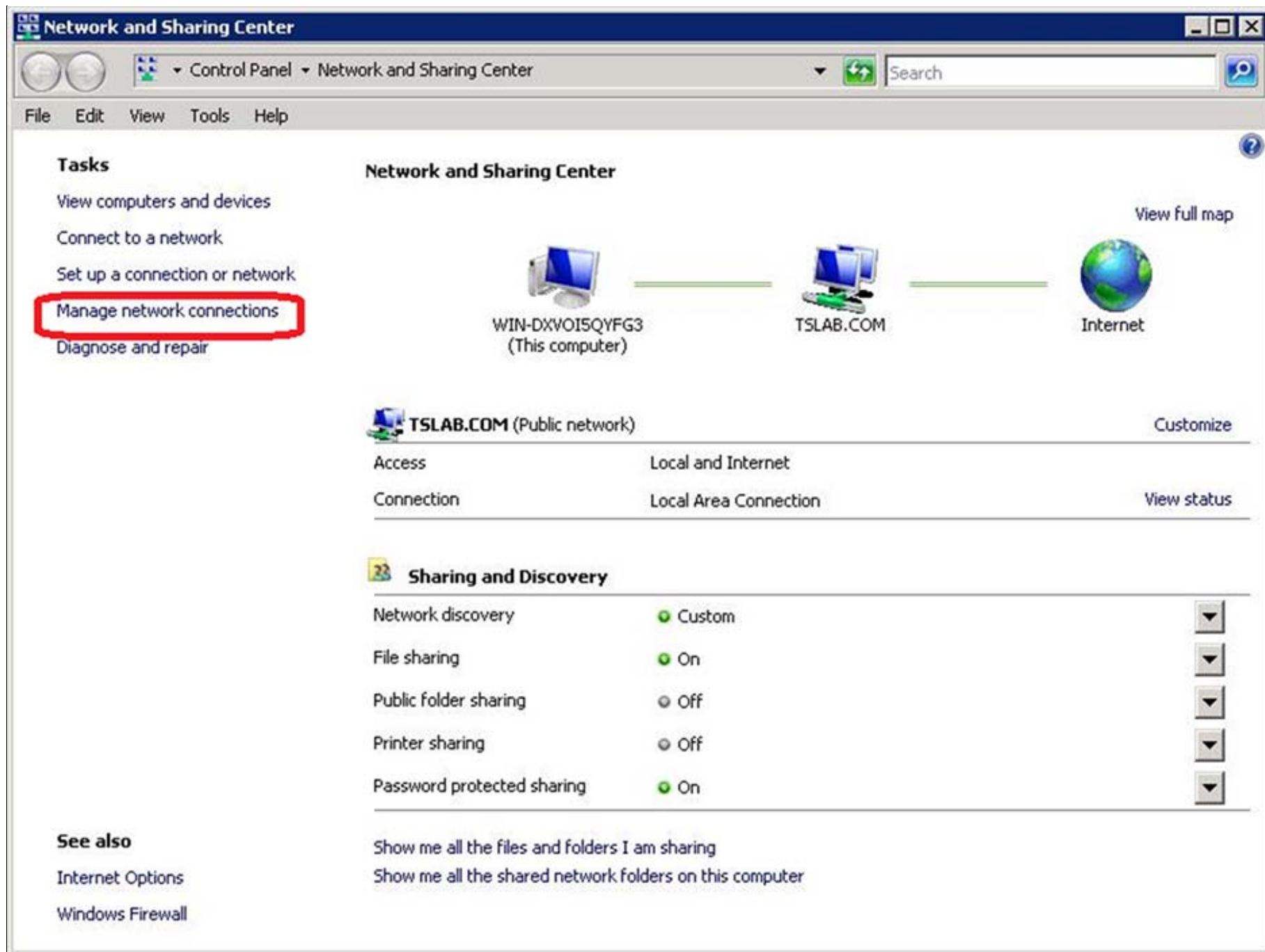


FIGURE 2: MANAGE NETWORK CONNECTIONS

4. The **Network Connections** dialog box appears (Figure 3 below).



FIGURE 3: NETWORK CONNECTIONS

5. Click **Organize** and then click **Layout > Menu Bar**. You will now be able to see all the main menu commands.

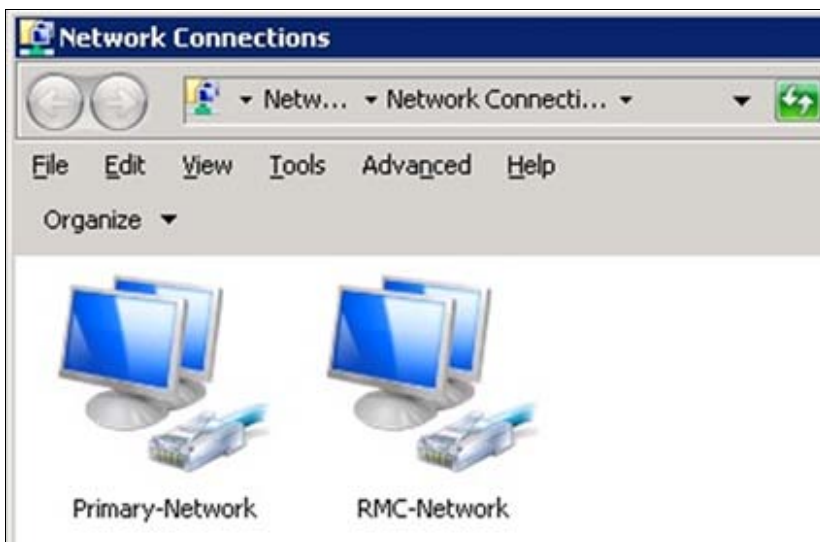


FIGURE 4: MAIN MENU COMMANDS ARE VISIBLE

6. Open Command Prompt and type **ipconfig**. This will show you all the networks in your system (Figure 5 below).

```

Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
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C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter RMC-Network:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::7045:f3ec:dfba:1c%13
    Autoconfiguration IPv4 Address. . : 169.254.0.28
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 

Ethernet adapter Primary-Network:

    Connection-specific DNS Suffix  . : tslab.com
    Link-local IPv6 Address . . . . . : fe80::d4d2:eed6:a4c9:5e67%11
    IPv4 Address. . . . . : 10.2.82.50
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.2.82.1

Tunnel adapter isatap.tslab.com:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : tslab.com

Tunnel adapter isatap.{CC542698-7ED2-435C-ACF8-EC6F1AF2D2D0}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

C:\Users\Administrator>_
    
```

FIGURE 5: IPCONFIG RETURN

7. In the Network Connections Window, click **Advanced**, then **Advanced Settings**.
8. In the **Adapters and Bindings** tab panel, set the binding order to ensure your **Primary Network** is the first to be accessed by network services (Figure 6 below).

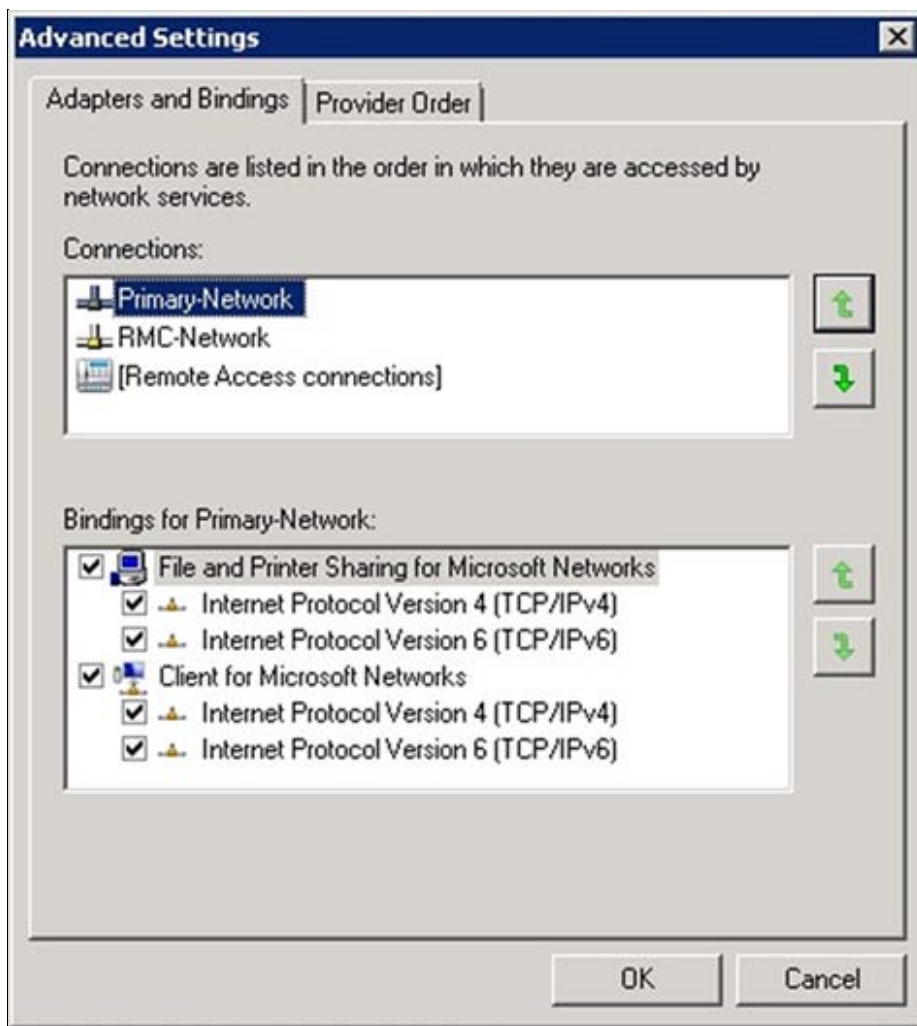


FIGURE 6: PRIMARY NETWORK CONNECTION

9. Click **OK** to close the Advanced Settings dialog box.
8. Close the **Network Connections** dialog box.

Windows Server 2008 R2 , Standard Edition

1. Click the **Start** button and then **View Network connections** (Figure 7 below).
2. Press **Enter**.

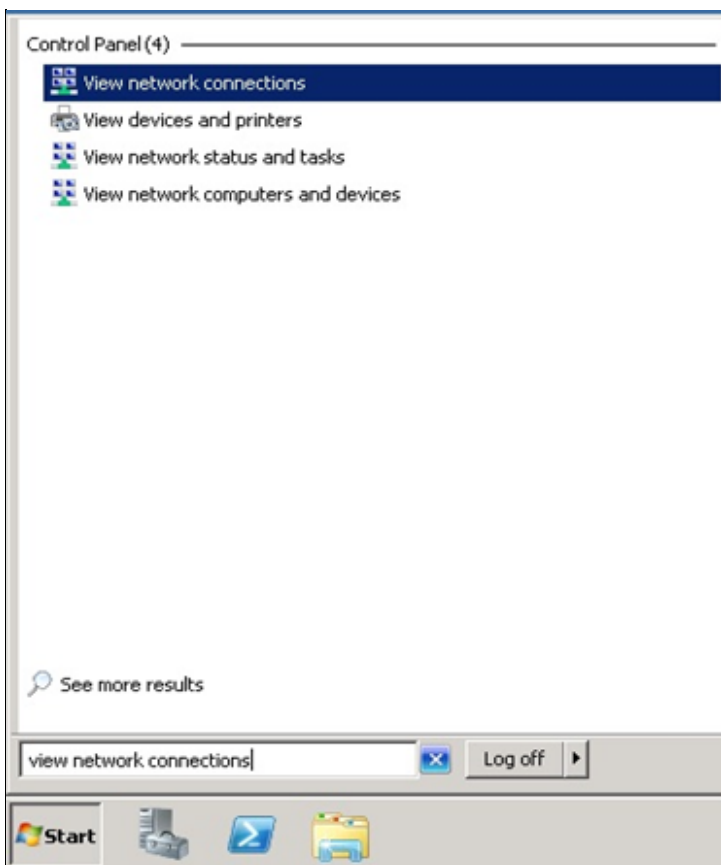


FIGURE 7: VIEW NETWORK CONNECTIONS

The **Network Connections** dialog box appears:

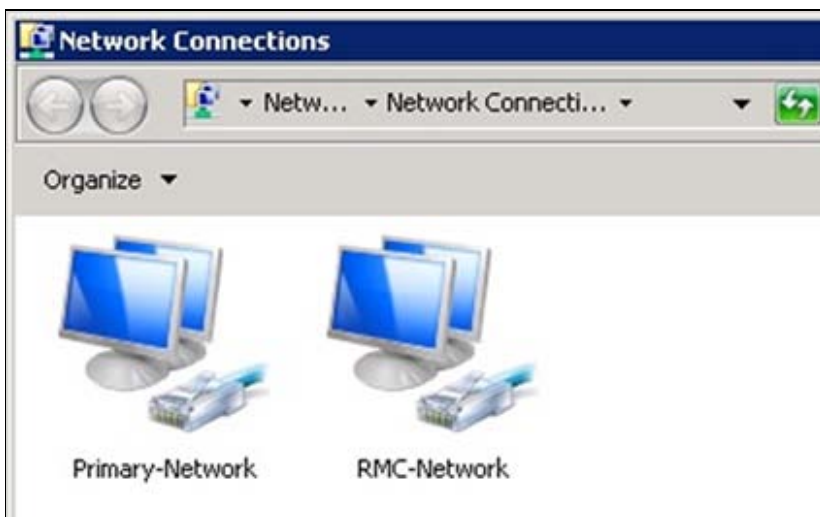


FIGURE 8: NETWORK CONNECTIONS

3. Click **Organize** and then click **Layout > Menu Bar**. You will now be able to see all the main menu commands.

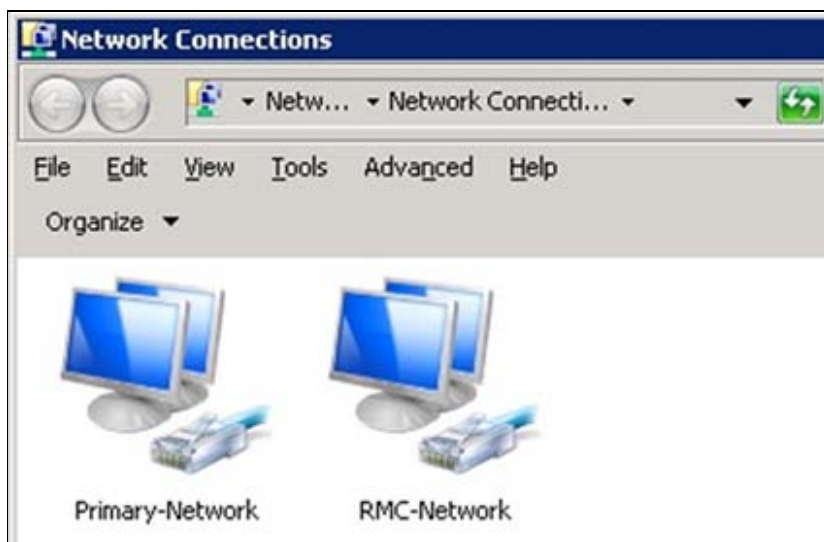


FIGURE 9: MENU BAR

4. Open **Command Prompt** and type **ipconfig** to return all the networks in your system.


```

Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter RMC-Network:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::7045:f3ec:dfba:1c%13
    Autoconfiguration IPv4 Address. . : 169.254.0.28
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 

Ethernet adapter Primary-Network:

    Connection-specific DNS Suffix  . : tslab.com
    Link-local IPv6 Address . . . . . : fe80::d4d2:eed6:a4c9:5e67%11
    IPv4 Address. . . . . : 10.2.82.50
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.2.82.1

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Tunnel adapter isatap.{CC542698-7ED2-435C-ACF8-EC6F1AF2D2D0}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

C:\Users\Administrator>_
    
```

FIGURE 10: IPCONFIG RETURN

5. Click **Advanced/Advanced Settings** from the main menu.
6. Set the binding order to ensure **Primary Network** is the first to be accessed by network services.

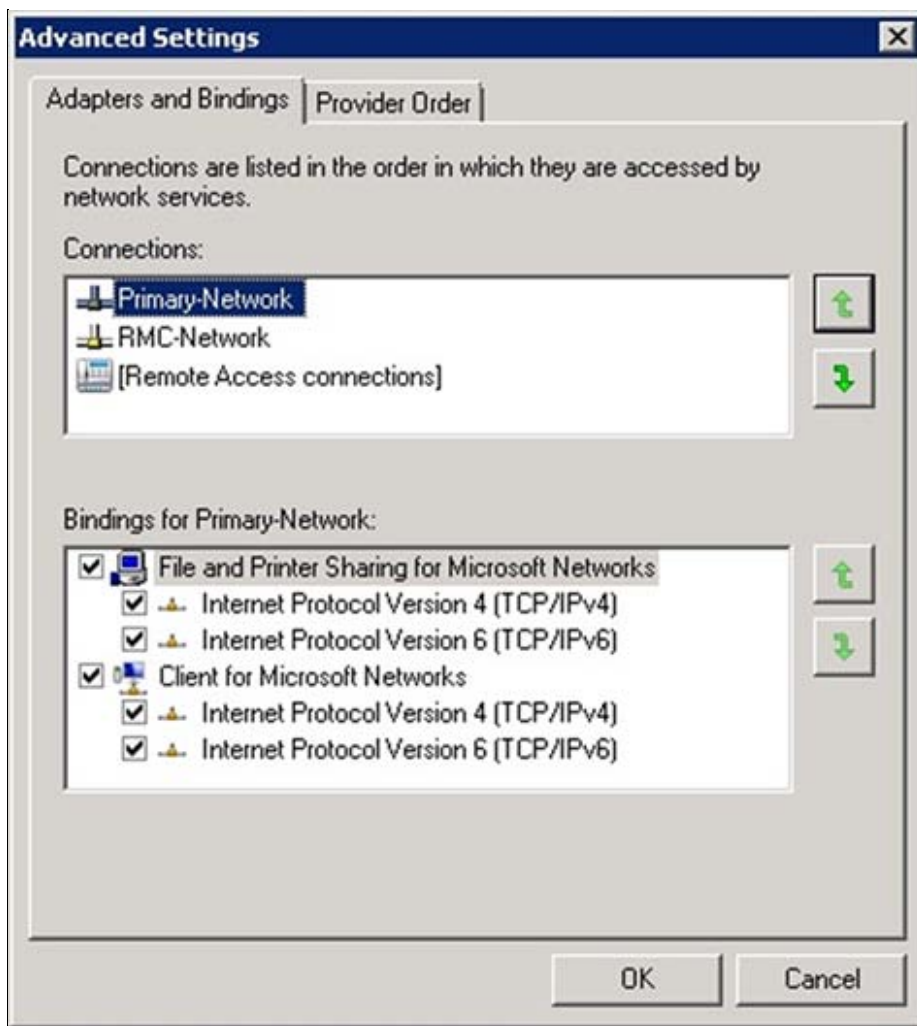


FIGURE 11: ADVANCED SETTINGS

7. Click **OK** to close the Advanced Settings dialog box.
8. Close the **Network Connections** dialog box.

Note: If you open a Remote Desktop Session from a different computer than a Terminal Server Node and get the IP Address of 254.128.0.0, **uncheck** the **Internet Protocol Version 6 (TCP/IPV6)** item from both the **File and Printer Sharing** and **Client for Microsoft Networks** under the bindings for your Primary Network. Figure 12 (below) shows the primary network as the **Local Area Connection**.

To discover the IP Address of a session use the InTouch function **TSEGetClientID()**.

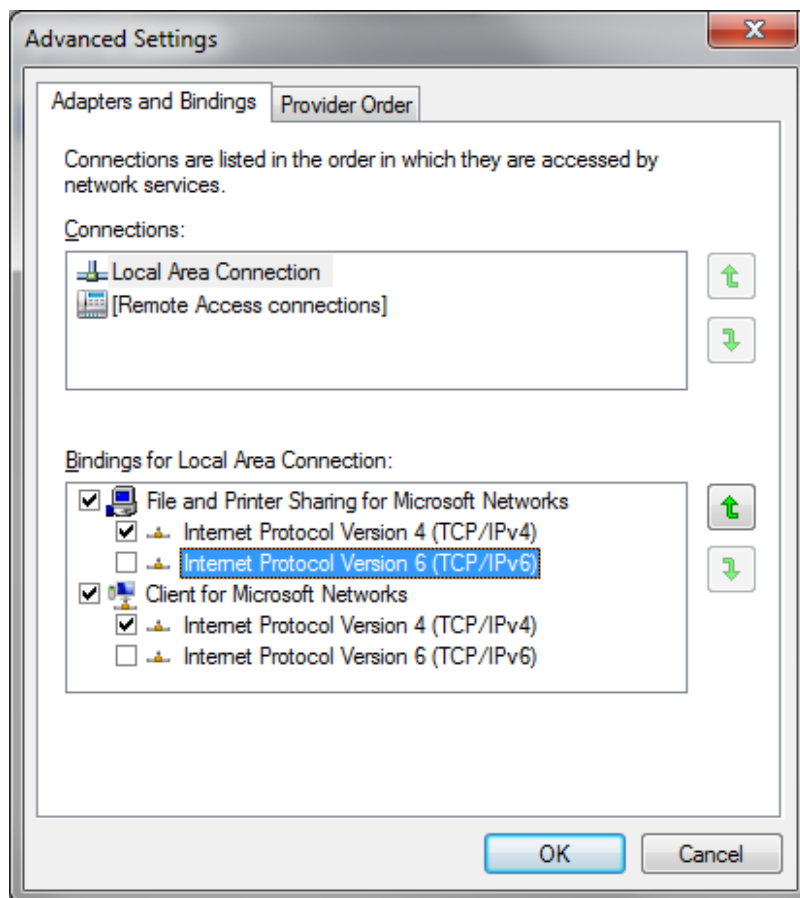


FIGURE 12: ADAPTERS AND BINDINGS FOR LOCAL AREA CONNECTION SETTINGS

B. Shah

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