

# Production Middle tier Tuning Recommendations

## WIN Server SAS Recommended Server Parameters

Use **REGEDIT** to set recommended number of available connections. These values request a minimum of 20 and a maximum of 1000 available connections. The number of available connections is increased by 10 each time there are fewer than the minimum number of available connections.

*Back up windows registry before making any change*

1. Set values by following WIN Registry.

➤ Access the

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\services\Tcpip\Parameters registry subkey. Add the **DWORD** value with a name of **TcpTimedWaitDelay** and a value of **30** (0x1e).

➤ Access the

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\services\AFD\Parameters registry subkey. Add the following **DWORD** values:

<i>AFD Service Parameters</i>	
<b>Name</b>	<b>Recommended Value</b>
EnableDynamicBacklog	1 decimal
MinimumDynamicBacklog	20 decimal
MaximumDynamicBacklog	1000 decimal
DynamicBacklogGrowthDelta	10 decimal

2. **Alter** user port range via command prompt. **Run** the following commands, based on the version of your internet protocol:

```
netsh int ipv{n} set dynamicport tcp start=32768 num=32767
```

```
netsh int ipv{n} set dynamicport udp start=32768 num=32767
```

*where n indicates the version of your internet protocol and is either 4 or 6*

## General WINDOWS System Configuration Recommendations

1. Disable Windows indexing on any directories that are used by SAS software.
2. Set Windows performance settings so that background processes are favored.<sup>1</sup>
3. Set the maximum power profile in the system BIOS for all systems, *except Intel Sandy Bridge*.
4. Disable the C1E BIOS setting on Dell systems<sup>2</sup>

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<sup>1</sup> <https://www.thewindowsclub.com/best-performance-for-programs-or-background-services/>

<sup>2</sup> <http://kb.eclipseinc.com/kb/how-do-i-disable-c-states-on-a-dell-server/#:~:text=Press%20F2%20to%20enter%20the,to%20set%20both%20to%20Disabled>