Tips on improving network performance.

About:

Poor network performance could cause the robot to halt (stop) while performing the realtime motion function, the following documents give instructions for improving the network performance for achieving good performance of the realtime motion functionality of the toolbox.

License:

Recommendations: (in progress, more tips will be added)

1- Network architecture: try to reduce the traffic between the robot and the PC, it is better to limit the network to only two devices the controlling computer and the robot, use good computer with good Ethernet card and good cables.

2- Reducing the latency in the communication: for windows machine (Win10), open the ***cmd*** console, then follow the steps:
   - Type ***regedit*** then hit enter.
   - Navigate to the path, ***HKEY_LOCAL_MACHINES\SYSTEM\CurrentControlSet\services\Tcpip \Prameters\interfaces***
   - Check the folders underneath the previous path, choose the folder that has the key ***IPAddress*** compatible with the IP address of your adapter that is connected to the KUKA controller, see Figure 1.
   - In the keys dialog-box, right click with your mouse, then choose ***New*** then click on ***DWORD (32 bit) value***.
   - Name the new ***DWORD (32 bit) value*** by ***TCPAckFrequency***.
   - Change its value to ***Hexadecimal***, then enter ***1*** in the adjacent textbox.
   - Create a new ***DWORD (32 bit) value***. Name it ***TCPNoDelay***, and change its value to ***Hexadecimal***, then enter ***1*** in the adjacent textbox.

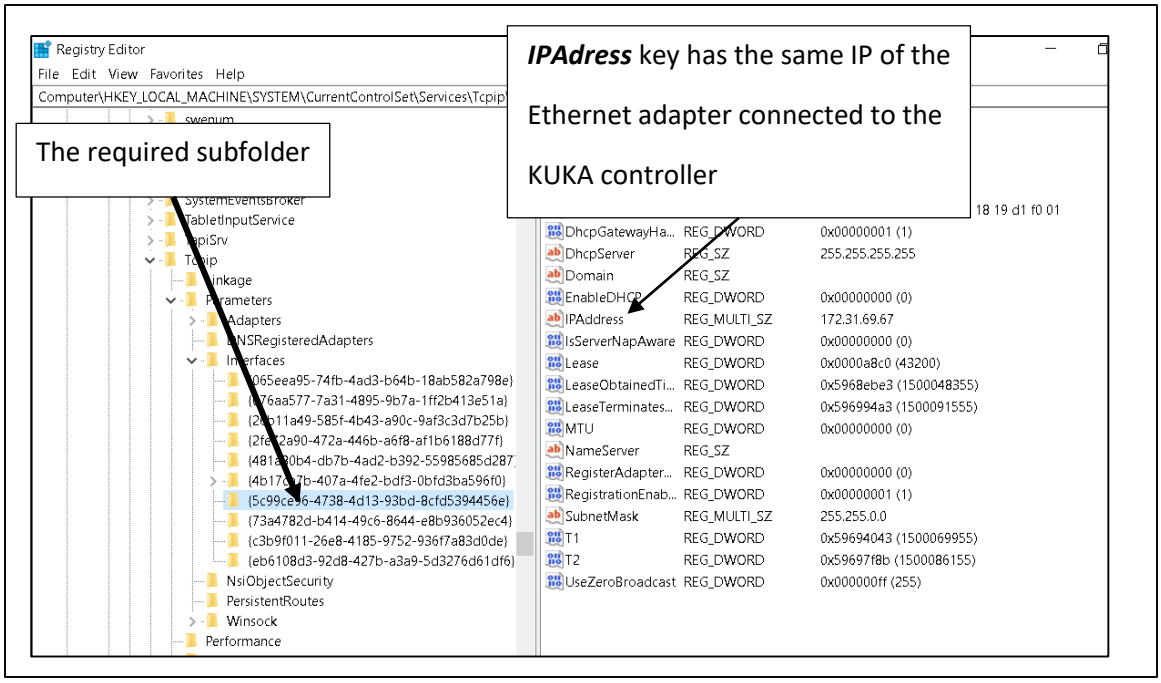

Figure 1 Optimize network performance of Windows 10