TrustGate
Identify the ToS bits

This Quick Application Notes covers how to identify the Type of service bits set by an application - like an IP phone.

Especially when you want to set up Traffic shaping on the TrustGate to match some application on your network – but you really don't know what ToS or Precedence bits the application is using.

More information is found in the TrustGate Online help section **Appendix C.**
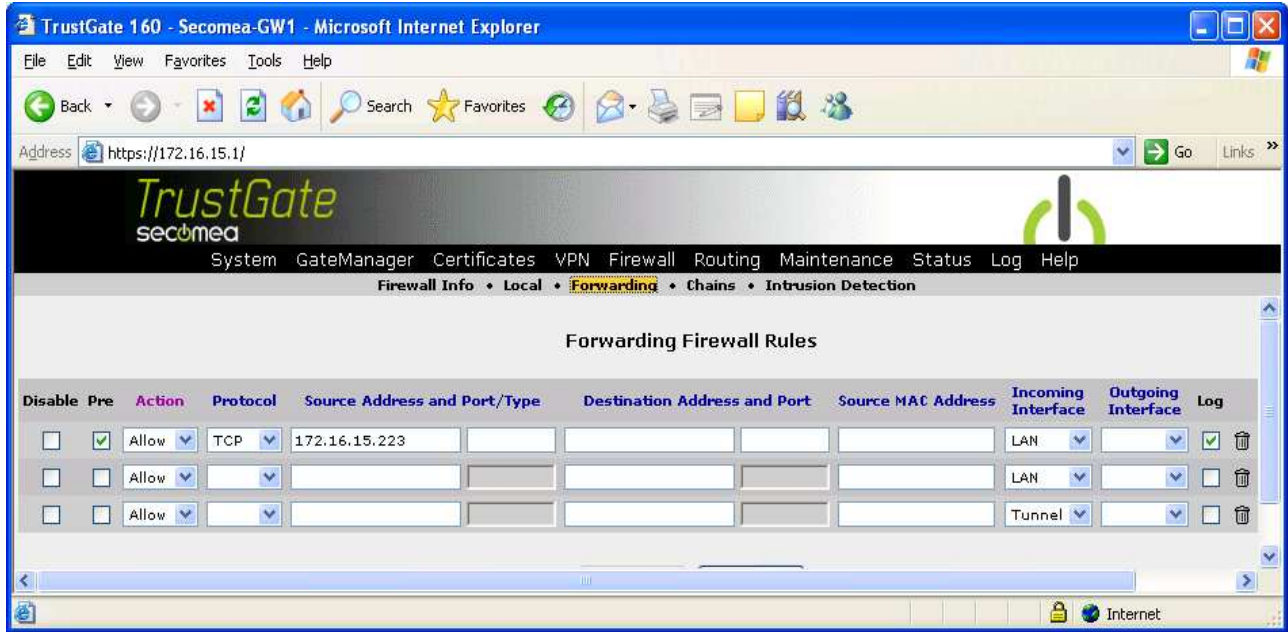
Version 0.92, 2008

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1. To track the ToS and Precedense bits from the Application

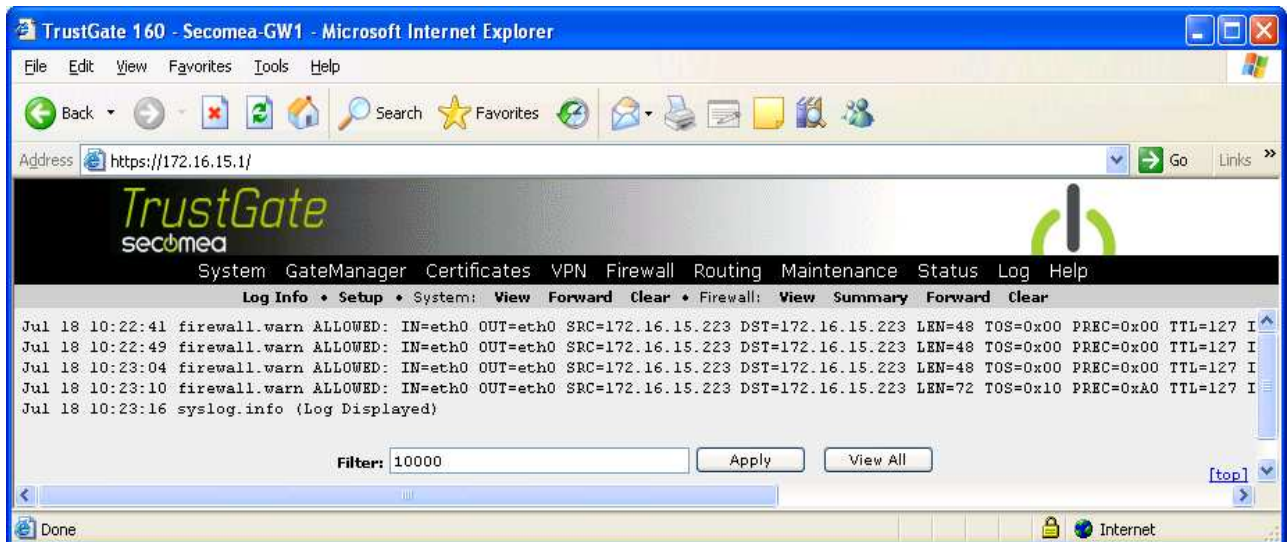The PC or the device IP Address = 172.16.15.223

1.1. Setup the Forwarding firewall with this Source IP and remember to check the Pre option for this rule.

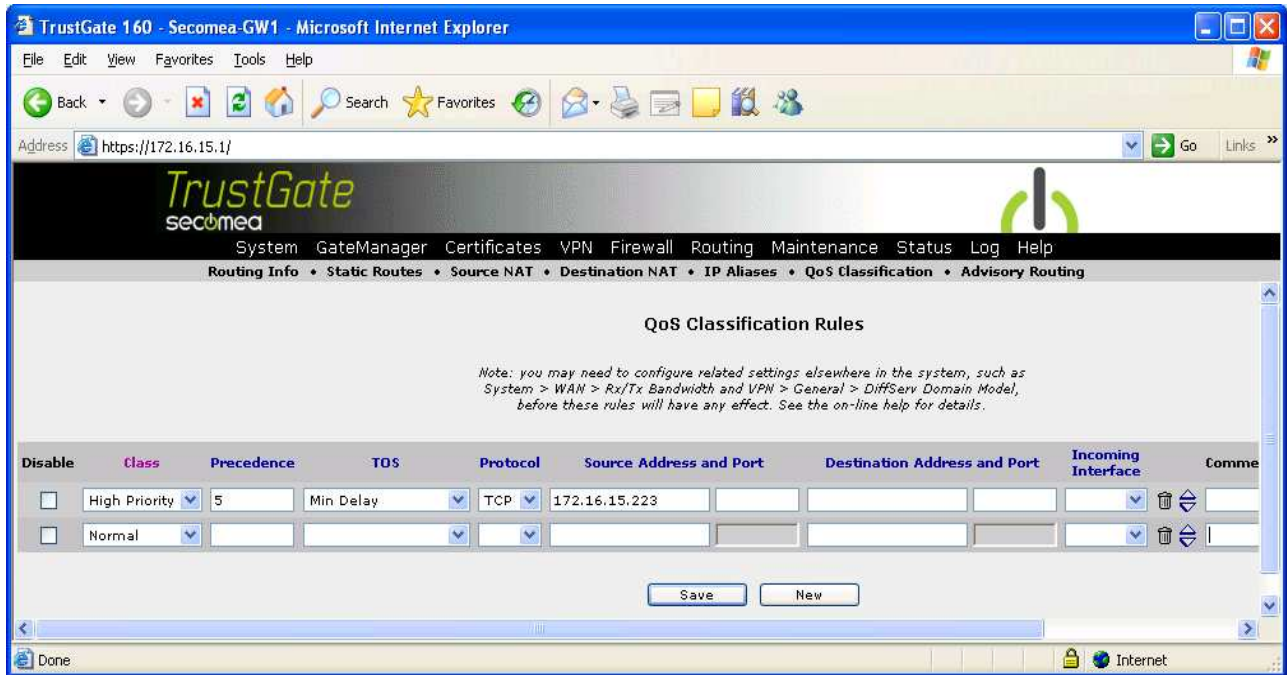## 2. The LOG > Firewall: View will show the options:

TOS= 0x10 and PREC=0xA0

This ex. is the ToS = Min Delay and Precedence = 5

Now we know that the PC application is using the QoS options Min Delay and Precedence = 5.

The Routing > QoS Classification table is set as follows:

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Note:

Depending on the set up you should vary the Rule and maybe not specify the Source IP address it the rule is for all devices that uses the Precedence and ToS setting. In this ex. it is TCP that is used but it might also be UDP or any or the other known protocols.

Also note that the Firewall Log don't always log all the packets so you might need to make several try to make the system dump a entry in the firewall log. It is the intension not to log all packets to prevent overloading the system.

3. Table of ToS and PREC values:

Value in Firewall Log	TOS to use in the QoS Classification Rules Tabel.
0x00	Blank
0x10	Min Delay
0x08	Max Throughput
0x04	High Reliability
0x02	low Cost
0x10+0x08=0x18	MinD+MaxT

….

Value in Firewall Log	Precedence to use in the QoS Classification Rules Tabel
0x20	1
0x40	2
0x60	3
0x80	4
0xA0	5
0xC0	6
0xE0	7

4. Notices

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