

## Configuring Protocol Conditions with Parameters

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Use the following configuration statements to configure classify-traffic conditions that contain a parameter value for the protocol:

```
policies group name list name rule name traffic-condition name
  parameter-protocol-condition {
    protocol protocol ;
    protocol-operation protocol-operation ;
    tcp-flags tcp-flags ;
    tcp-flags-mask tcp-flags-mask ;
    spi spi ;
    ip-flags ip-flags ;
    ip-flags-mask ip-flags-mask ;
    fragment-offset fragment-offset ;
    packet-length packet-length ;
  }
policies group name list name rule name traffic-condition name
  parameter-protocol-condition proto-attr {
    icmp-type icmp-type ;
    icmp-code icmp-code ;
    igmp-type igmp-type ;
  }
policies group name list name rule name traffic-condition name
  parameter-protocol-condition proto-attr destination-port port {
    port-operation port-operation ;
    from-port from-port ;
  }
policies group name list name rule name traffic-condition name
  parameter-protocol-condition proto-attr source-port port {
    port-operation port-operation ;
    from-port from-port ;
  }
```

To configure a protocol condition that contains a parameter value for the protocol:

1. From configuration mode, enter the parameter protocol condition configuration. For example:

```
user@host# edit policies group junose list dhcp rule forward-dhcp  
traffic-condition ctc parameter-protocol-condition
```

2. Assign a parameter as the protocol matched by this classify-traffic condition.

Before you assign a parameter, you must create a parameter of type protocol and commit the parameter configuration.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition]  
user@host# set protocol protocol
```

3. (Optional) Configure the policy to match packets with the protocol that is either equal or not equal to the specified protocol.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set protocol-operation protocol-operation
```

4. (Optional) Configure the value of the TCP flags field in the IP header.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set tcp-flags tcp-flags
```

5. (Optional) Configure the mask associated with TCP flags.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set tcp-flags-mask tcp-flags-mask
```

6. (Optional) Specify the authentication header (AH) or the encapsulating security payload (ESP) security parameter index (SPI).

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set spi spi
```

7. (Optional) Configure the value of the IP flags field in the IP header.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set ip-flags ip-flags
```

8. (Optional) Configure the mask that is associated with the IP flag.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set ip-flags-mask ip-flags-mask
```

9. (Optional) Configure the value of the fragment offset field.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set fragment-offset fragment-offset
```

10. (Optional) Configure the packet length on which to match. The length refers only to the IP packet, including the packet header, and does not include any layer 2 encapsulation overhead.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
user@host# set packet-length packet-length
```

11. (Optional) Enter the protocol attribute configuration.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc
parameter-protocol-condition]
```

```
user@host# edit proto-attr
```

12. (Optional) Configure the ICMP packet type.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr]  
user@host# set icmp-type icmp-type
```

13. (Optional) Configure the ICMP code.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr]  
user@host# set icmp-code icmp-code
```

14. (Optional) Configure the IGMP packet type on which to match.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr]  
user@host# set igmp-type igmp-type
```

15. (Optional) Enter the destination port configuration.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr]  
user@host# edit destination-port port
```

16. (Optional) Configure the policy to match packets with a port that is either equal or not equal to the specified port.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr destination-port port]  
user@host# set port-operation port-operation
```

17. (Optional) Configure the TCP or UDP destination port.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr destination-port port]  
user@host# set from-port from-port
```

18. (Optional) Enter the source port configuration.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr destination-port port]  
user@host# up  
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
param-protocol-condition proto-attr]  
user@host# edit source-port port
```

19. (Optional) Configure the policy to match packets with a port that is either equal or not equal to the specified port.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr source-port port]
```

```
user@host# set port-operation port-operation
```

20. (Optional) Configure the TCP or UDP source port.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr source-port port]
```

```
user@host# set from-port from-port
```

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr source-port port]
```

```
user@host# up
```

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr source-port]
```

```
user@host# up
```

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition proto-attr]
```

```
user@host# up
```

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition ctc  
parameter-protocol-condition]
```

```
user@host# up
```

21. (Optional) Verify the parameter protocol configuration.

```
[edit policies group junose list dhcp rule forward-dhcp traffic-condition  
ctc parameter-protocol-condition]
```

```
user@host# show
```

```
protocol protocol;  
protocol-operation is;  
tcp-flags 0;  
tcp-flags-mask 0;  
ip-flags 0;  
ip-flags-mask 0;  
proto-attr {  
  icmp-type 255;  
  icmp-code 255;  
  destination-port {  
    port {  
      port-operation eq;  
      from-port outsidePort;  
    }  
  }  
}
```

- Related Topics**
- Before You Configure Classify-Traffic Conditions
  - Configuring Classify-Traffic Conditions