

Port Security Test Report

Port Security in AS200/28/XF v139318

Test Case	<p>Port Security – MAC-based; unauthorized MAC blocked</p> <p>To verify that the switch enforces MAC-based port security by allowing only the authorized MAC (learned via sticky) and blocks any unauthorized MAC.</p> <p>Port security features can be used for DoS Prevention also</p>
Test procedure	<ol style="list-style-type: none"> 1. Configure port GigabitEthernet0/6 for MAC-based port security using sticky mode with only 1 allowed MAC. 2. Set violation mode to restrict (traffic dropped but port remains active). 3. Connect PC1 (authorized MAC) and start a continuous ping to the switch default IP address. 4. Verify PC1 is pinging and its MAC is learned in the switch. 5. Remove PC1 and connect PC2 (unauthorized MAC) to the same port. 6. Start ping from PC2 and observe: <ol style="list-style-type: none"> a. Whether any replies are received. b. If switch blocks traffic quickly ($\leq 500\text{ms}$). 7. Confirm port security violation via CLI.
Configuration	<p>Configuration:</p> <pre>interface GigabitEthernet0/6 switchport port-security mode sticky switchport port-security sticky maximum 1 switchport port-security mac violation restrict exit</pre>
Test Result	<p>PC1 is allowed, ping succeeds. PC2 is blocked.</p> <pre>Jan 1 03:38:16 %LINEPROTO-5-UPDOWN: Line protocol on Interface VLAN1, changed state to up Jan 1 03:38:16 mac 000e.0987.fea9 vid 1 cause the g0/6 Security violation. Jan 1 03:38:22 mac 000e.0987.fea9 vid 1 cause the g0/6 Security violation.</pre> <pre>Reply from 192.168.0.1: bytes=32 time=1ms TTL=255 Reply from 192.168.0.1: bytes=32 time=1ms TTL=255 Reply from 192.168.0.1: bytes=32 time=6ms TTL=255 Reply from 192.168.0.1: bytes=32 time=2ms TTL=255 Reply from 192.168.0.1: bytes=32 time=9ms TTL=255 Request timed out. Request timed out. Reply from 192.168.0.20: Destination host unreachable. Request timed out. Request timed out. Request timed out. Request timed out.</pre>
Result	<p>Port Security to prevent unauthorized MAC is demonstrated successfully</p>