

Trouble Ticket	
Trouble Ticket TT-05-2024	No access to head office corporate resources or other remote sites.
Date	05/04/2024
Reporting User	On Site Technician
Status	Open – passed to Networking and Remote Access Team
Priority	Very Urgent - High
Location	Remote Site S3
Affected Users	All users
Issue	Network down
Issue Description	A replacement router was sent in after the sudden breakdown of the previous one. The engineer the premises configured the router but doesn't seem to see or get any information from other remote site routers. Other sites confirm not being able to also reach Remote Site S3. This issue affects them with working with other sites and vice versa.
Action taken by Tier 1 engineer	<p>Tier 1 logs the problem on the ticketing system for resolution and takes the following action:</p> <ol style="list-style-type: none"> 1) Checks if the router is powered on and the power cables for any issue and confirms it is indeed turned on and no issues with the supply cables 2) Tests the network cables connected to the physical interfaces and also re-crimps the cable and sure enough they work well. 3) Pings the hub's IP and nothing shows.
Test Ping done by Tier 1 engineer	<pre> S3#ping 192.168.1.3 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.1.3, timeout is 2 seconds: Success rate is 0 percent (0/5) S3#ping 192.168.1.5 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.1.5, timeout is 2 seconds: Success rate is 0 percent (0/5) S3#ping 192.168.2.2 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.2.2, timeout is 2 seconds: Success rate is 0 percent (0/5) S3#ping 192.168.2.3 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.2.3, timeout is 2 seconds: Success rate is 0 percent (0/5) S3#ping 192.168.2.5 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.2.5, timeout is 2 seconds: Success rate is 0 percent (0/5) S3#ping 192.168.2.4 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.2.4, timeout is 2 seconds: Success rate is 0 percent (0/5) S3# </pre>

BGP routes tests	<pre>S3#sh ip bgp BGP table version is 23, local router ID is 3.3.3.3 Status codes: s suppressed, d damped, h history, * valid, > best, i - internal, r RIB-failure, S Stale, m multipath, b backup-path, f RT-Filter, x best-external, a additional-path, c RIB-compressed, t secondary path, Origin codes: i - IGP, e - EGP, ? - incomplete RPKI validation codes: V valid, I invalid, N Not found Network Next Hop Metric LocPrf Weight Path *> 3.3.3.3/32 0.0.0.0 0 32768 i *> 160.1.6.0/24 0.0.0.0 0 32768 i S3#</pre> <pre>S3#sh ip route Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2 i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2 ia - IS-IS inter area, * - candidate default, U - per-user static route o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP a - application route + - replicated route, % - next hop override, p - overrides from PfR Gateway of last resort is not set 3.0.0.0/32 is subnetted, 1 subnets C 3.3.3.3 is directly connected, Loopback0 160.1.0.0/16 is variably subnetted, 4 subnets, 2 masks C 160.1.5.0/24 is directly connected, GigabitEthernet0/1 L 160.1.5.2/32 is directly connected, GigabitEthernet0/1 C 160.1.6.0/24 is directly connected, GigabitEthernet0/2 L 160.1.6.1/32 is directly connected, GigabitEthernet0/2 S3#</pre>
The ticket is then escalated to a Tier 2 engineer for further troubleshooting	<p>Time: 15:54, 05/04/2024 TT-05-2024 Re: Urgent- Network Down Hello Victor,</p> <p>The entire network is down and we cannot reach the other branches and headquarters and as such all work has come to a halt. The first level have done the ping tests and no address is reachable. Please resolve the issue as soon as possible to enable resumption of operations.</p> <p>Best Regards, Matt Hunnigan</p>
