



Impiana Hotel KLCC Network

Report Period of 26/11/2023 - 27/11/2023

Date	Description
26/11/2023	<p>At about 2200, as I was having a bad experience using the hotel network, decided to run a bit of investigation. The following are the services I was intermittent connection with:</p> <ul style="list-style-type: none"> - SSH to my development server - 175.136.228.216/29 - Anydesk connection to my client back in Alor Setar - Youtube for reference <p>The SSH connection to the development server I even tried to use VPN for the sake of it - same intermittent result.</p>
26/11/2023	<p>So I have to find my current IP with all the attached credentials:</p> <p>command issued (mac): ipconfig getpacket en0</p> <pre> op = BOOTREPLY htype = 1 flags = 0 hlen = 6 hops = 0 xid = 0x7e5eccaf secs = 0 ciaddr = 0.0.0.0 yiaddr = 10.2.197.37 siaddr = 10.2.0.1 giaddr = 0.0.0.0 chaddr = 80:65:7c:de:23:39 sname = file = options: Options count is 9 dhcp_message_type (uint8): ACK 0x5 server_identifier (ip): 10.2.0.1 lease_time (uint32): 0xe10 subnet_mask (ip): 255.255.0.0 router (ip_mult): {10.2.0.1} domain_name_server (ip_mult): {10.2.0.1} domain_name (string): impiana.klcc.wifi captive_portal_url (string): https://wifi.care/api end (none): </pre> <p>The red flag here would be the mask used which is a /16 - it is somewhat to imply that your network is expecting participation of up to 65534 devices. Imagine the broadcast packets keep answering to ARP request every now and then.</p>



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	This could render broadcast flood at certain point.
26/11/2023	<p>Since I brought together my own UTP cable, I attached my laptop directly into the RJ45 outlet in the room. Then I tried pinging directly to the gateway as previously rendered - 10.2.0.1</p> <p>The result as such after 10674 counts -</p> <pre> 64 bytes from 10.200.0.1: icmp_seq=11347 ttl=64 time=16.433 ms 64 bytes from 10.200.0.1: icmp_seq=11348 ttl=64 time=9.701 ms Request timeout for icmp_seq 11349 64 bytes from 10.200.0.1: icmp_seq=11350 ttl=64 time=183.783 ms 64 bytes from 10.200.0.1: icmp_seq=11351 ttl=64 time=49.441 ms 64 bytes from 10.200.0.1: icmp_seq=11352 ttl=64 time=23.055 ms Request timeout for icmp_seq 11353 64 bytes from 10.200.0.1: icmp_seq=11354 ttl=64 time=178.642 ms 64 bytes from 10.200.0.1: icmp_seq=11355 ttl=64 time=317.565 ms Request timeout for icmp_seq 11356 64 bytes from 10.200.0.1: icmp_seq=11357 ttl=64 time=14.813 ms 64 bytes from 10.200.0.1: icmp_seq=11358 ttl=64 time=18.865 ms 64 bytes from 10.200.0.1: icmp_seq=11359 ttl=64 time=186.600 ms Request timeout for icmp_seq 11360 64 bytes from 10.200.0.1: icmp_seq=11361 ttl=64 time=27.917 ms 64 bytes from 10.200.0.1: icmp_seq=11362 ttl=64 time=344.331 ms Request timeout for icmp_seq 11363 64 bytes from 10.200.0.1: icmp_seq=11364 ttl=64 time=31.894 ms 64 bytes from 10.200.0.1: icmp_seq=11365 ttl=64 time=23.663 ms ^C --- 10.200.0.1 ping statistics --- 12913 packets transmitted, 10674 packets received, 17.3% packet loss round-trip min/avg/max/stddev = 0.757/693.927/1008997.671/24182.777 ms 2 red flags here - First red flag would be the packet loss. This is where your application stall for a while and then try keep sending request for data packet to re-acquire information across the network. Second red flag would be the latency - Even on cable we can see up to more than 100ms latency. A healthy latency within a cabled network on local LAN would be as such: 64 bytes from 172.16.9.1: icmp_seq=1 ttl=64 time=0.422 ms 64 bytes from 172.16.9.1: icmp_seq=2 ttl=64 time=0.435 ms 64 bytes from 172.16.9.1: icmp_seq=3 ttl=64 time=0.390 ms 64 bytes from 172.16.9.1: icmp_seq=4 ttl=64 time=0.389 ms 64 bytes from 172.16.9.1: icmp_seq=5 ttl=64 time=0.430 ms 64 bytes from 172.16.9.1: icmp_seq=6 ttl=64 time=0.424 ms </pre>



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	Perhaps most at 2ms which happens very seldom.
27/11/2023	<p>Managed to contact the IT manager, Mr. Zulkiflee to communicate about the network predicament. Offered to study and provide requirement definition for network improvement only to discover that a proposal has already been sent to the turnkey management of the venue.</p> <p>Key points from Mr Zulkiflee</p> <ul style="list-style-type: none">- The whole network equipment ecosystem using Ruckus- Current firewall using watchguard- There are 3 network uplinks - TM Unifi 800Mbps, Dome (leased line) 200Mbps and Maxis 800Mbps <p>However these information are not sufficient as to pinpoint exactly the bottleneck of the bad experience I had.</p>
27/11/2023	<p>Mr Zulkiflee revealed that the proposal that was sent over to KLCC management would be using OMADA solution by TP Link - of which I am very much in favor of.</p> <p>Only that the missing link is the firewall and the architectural mechanism of implementation to alive the network.</p> <p>This findings are to be emailed to zulkiflee.mohamed@impiana.com</p>