Point-to-Point RF Link Connectivity

Standard Operating Procedures

Document Details:

Client Name:	**ENDURANCE TECHNOLOGIES LIMITED**				
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Prepared by:	DINESH AHIRE	**Contact No.**	7447430907	**Date:**	*19.10.2020*
Reviewed by:		**Contact No.**		**Date:**	
Approved by:	*RAJENDRA PATIL*	**Contact No.**	*9890018158*	**Date:**	*20.10.2020*
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Revision History

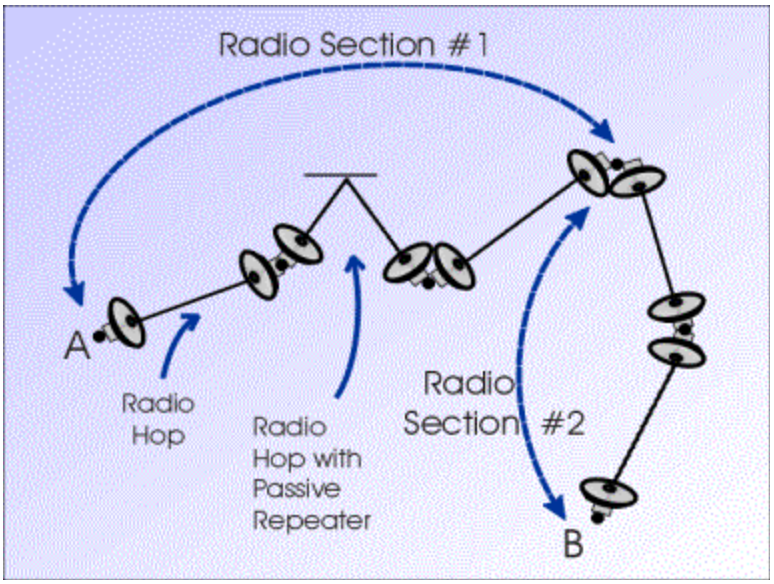
Sr. No.	Version No.	Date of Revision	Description of Change	Reason for Change	Change made by

Contents

1 Introduction

A Point-to-Point radio-relay link enables communication between two fixed points, by means of radio wave transmission and reception. The link between two terminal radio sites may include a number of intermediate radio sites.

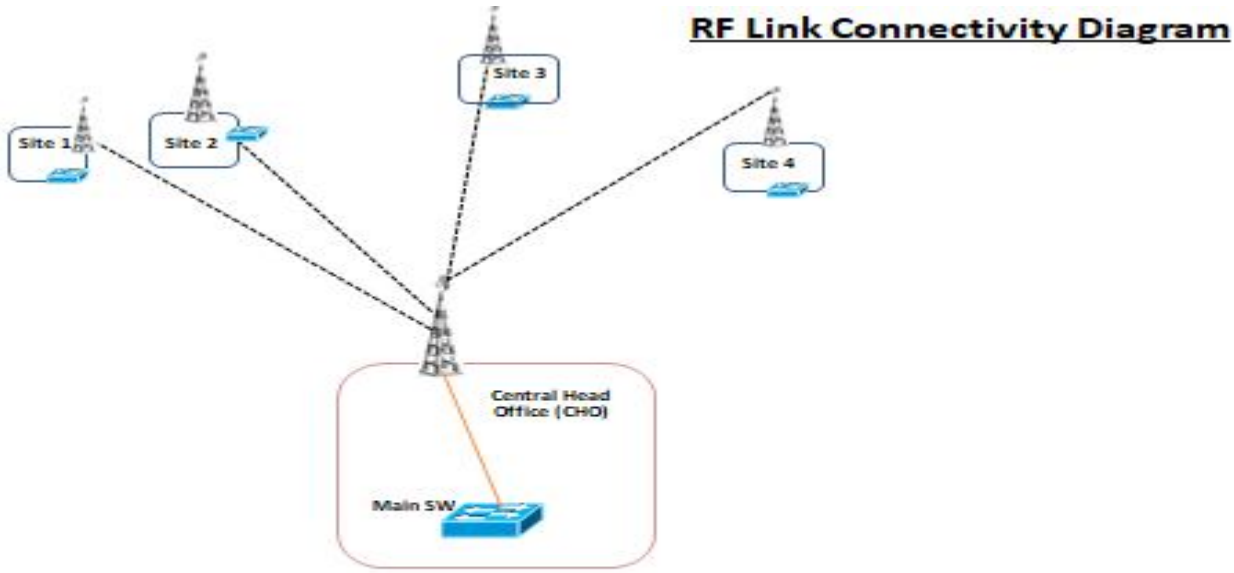
The direct connection between two (terminal or intermediate) radio sites is usually referred as a "Radio Hop". In some cases, a radio hop may include a passive repeater.



A multi-hop radio-relay link, connecting A to B, divided in two Radio Sections

A multi-hop radio-relay link, connecting A to B, divided in two Radio Sections A multi-hop radio-relay link can be divided in a number of "Radio Sections", each of them being made of one or more radio hops. Transmission performance is usually summarised on a radio section basis.

2 Connectivity Diagram



3 RF Networking Détails

3.1 Details of IP address

The details of IP address configured for four (04) sites with the Central Head Office (CHO) are as follows.
CHO = k228

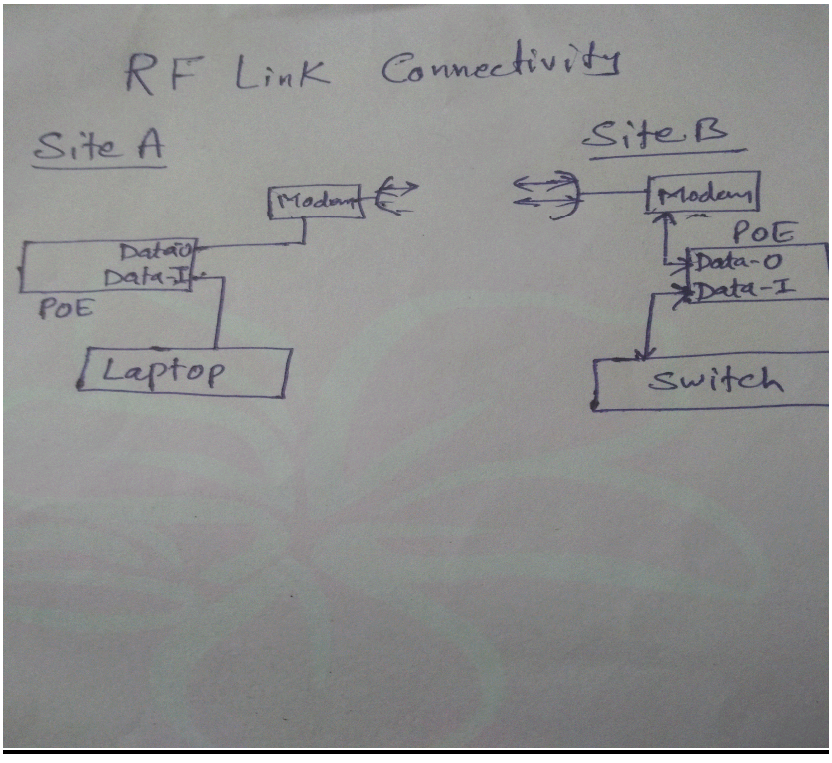
Sr.No.	Link	Device Make	Pigtail Black (Qty.)	Route	IP Address	Tower Height
1	B2 Main	Cambium	2	K228 TO B2	172.30.20.214	70 ft
			2		172.30.20.215	
2	B2 backup		2	K228 TO B2	172.30.20.216	
			2		172.30.20.217	
3	L6		2	K228 TO L6	172.30.20.209	30 ft
			2		172.30.20.210	
3	L6		2	K228 TO L6	172.30.20.211	
			2		172.30.20.212	
4	L20		2	K228 TO L20	172.30.20.205	90 ft
			2		172.30.20.206	
4	L20		2	K228 TO L20	172.30.20.207	
			2		172.30.20.208	
5	Track Testing Main		2	L6 to track	172.30.20.217	90 ft
			2		172.30.20.218	
6	Track Testing Backup		2	L6 to track	172.30.20.219	
			2		172.30.20.220	
7	E93 Main		2	K228 TO E93	172.30.20.201	70 ft
			2		172.30.20.202	
8	E93 Secondary		2	K228 TO E93	172.30.20.221	
			2		172.30.20.222	
8	E93 Backup		2	K228 TO E93	172.30.20.203	
			2		172.30.20.204	

4 Trouble shooting Steps

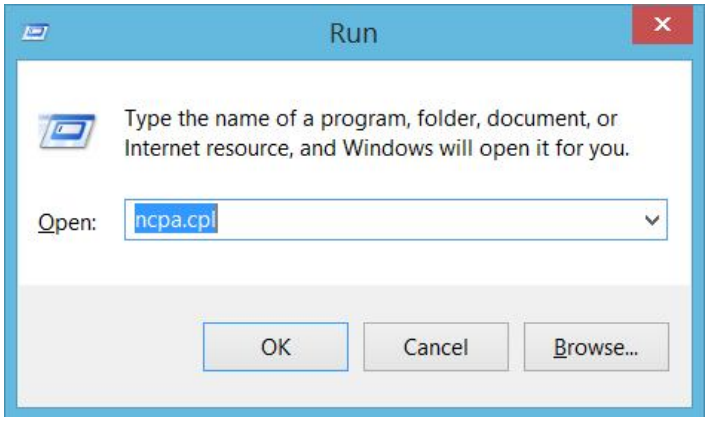
The RF Link is Point 2 Point, the following things should be the preliminary checks:

1. Check the Physical connections at A or B end site starting from Ethernet Switch.
2. Check the necessary devices or equipment's are powered-on.
3. Check the Ping response from Local Area Network Desktop/Laptop machine or through OEM tool Utility.
4. Check Input AC voltage to POE adapter.
5. Check Output DC voltage from POE adapter to Radio Modem.

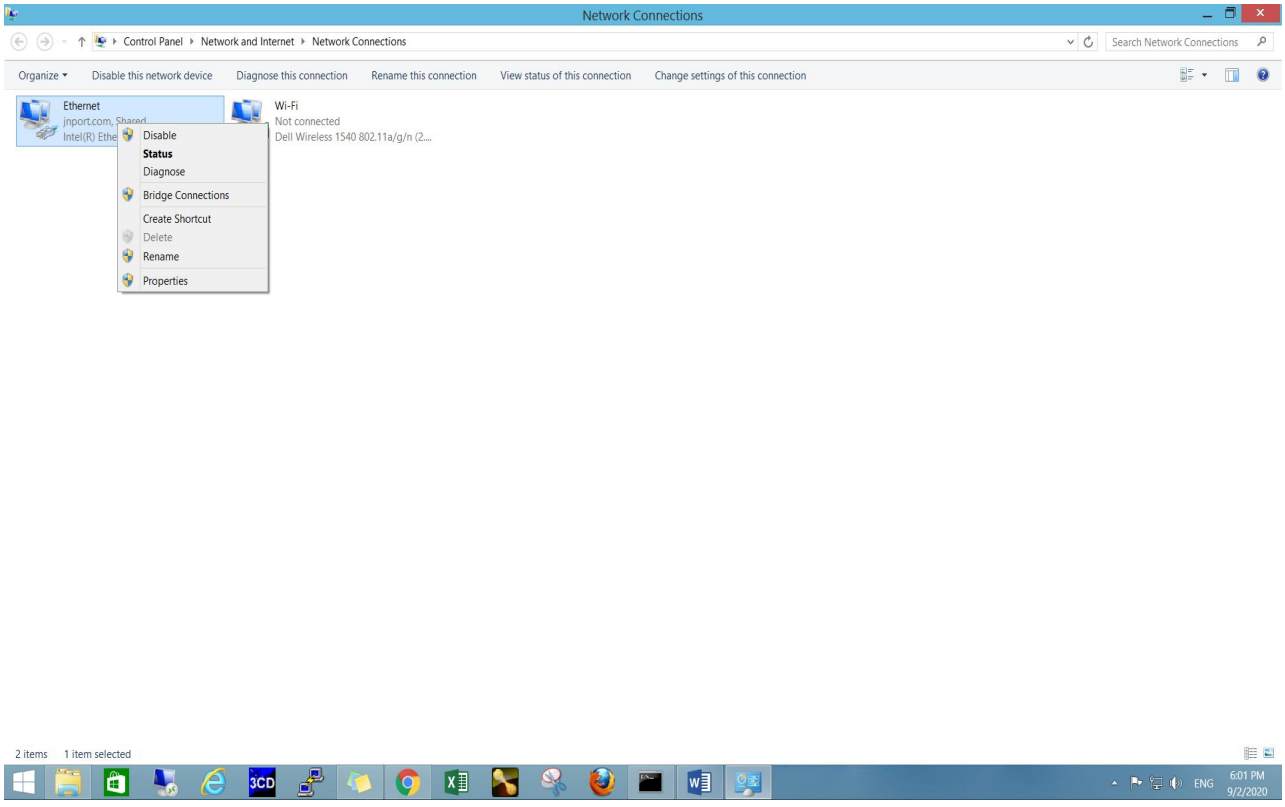
Link Troubleshooting Diagram



Laptop to Modem Ping Connectivity



Make sure that ip address of the system & modem should be in same subnet



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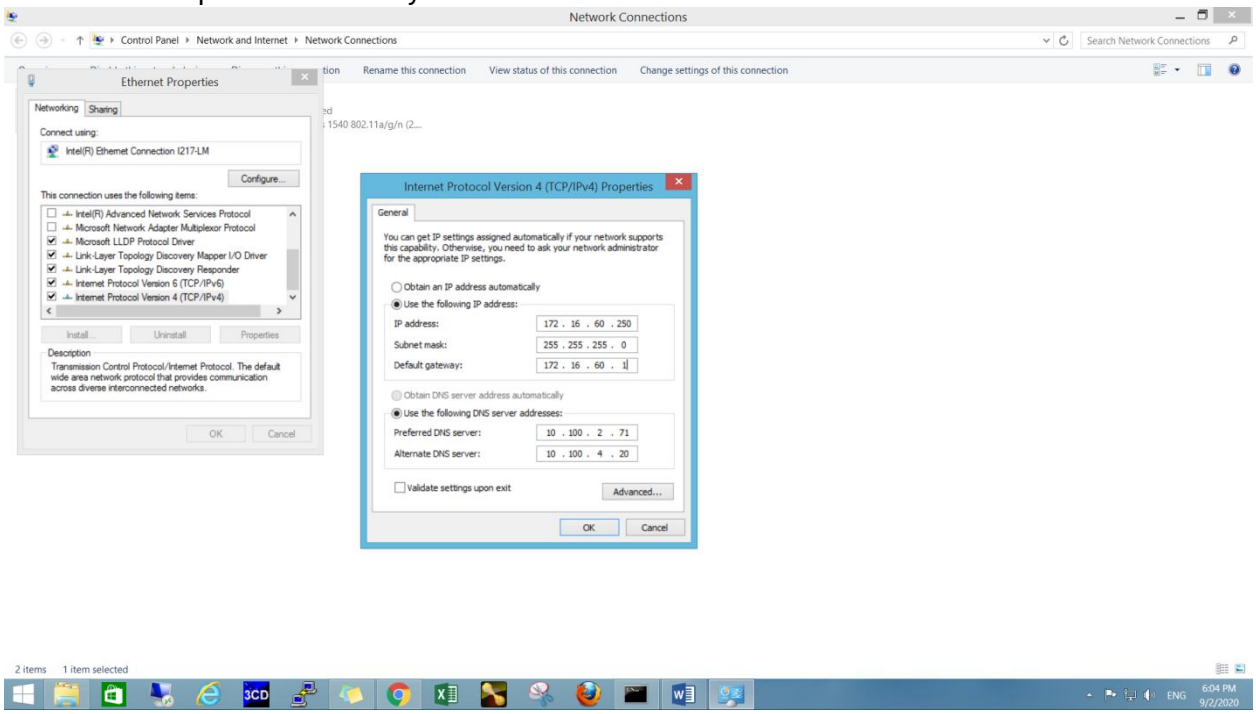
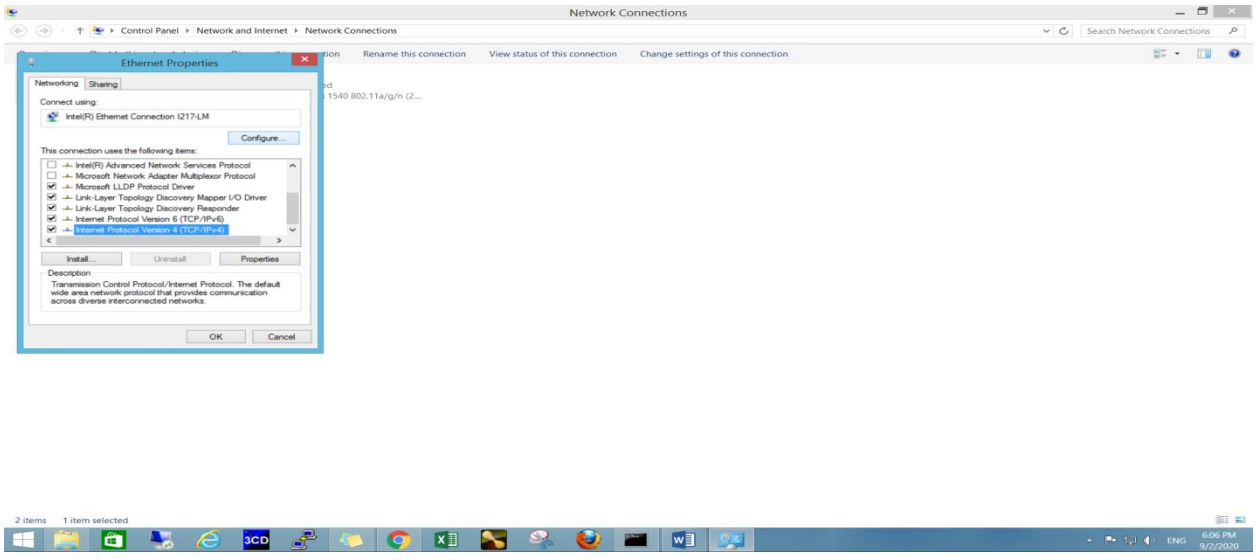
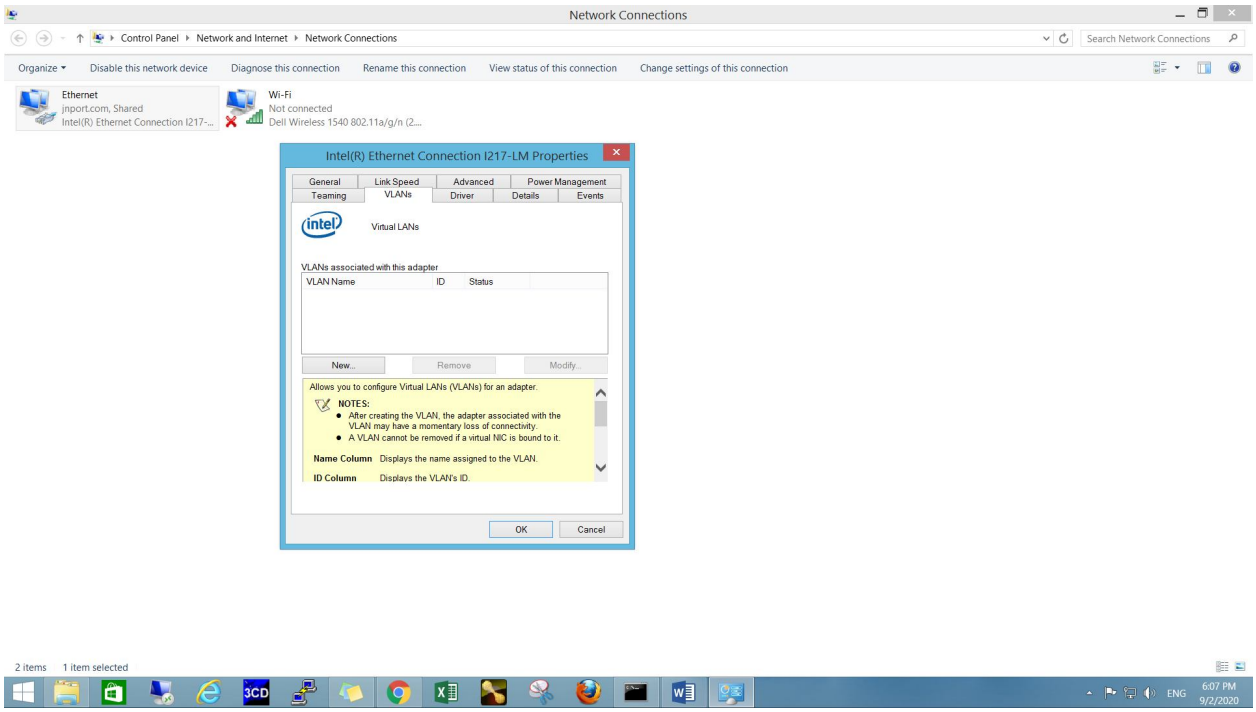


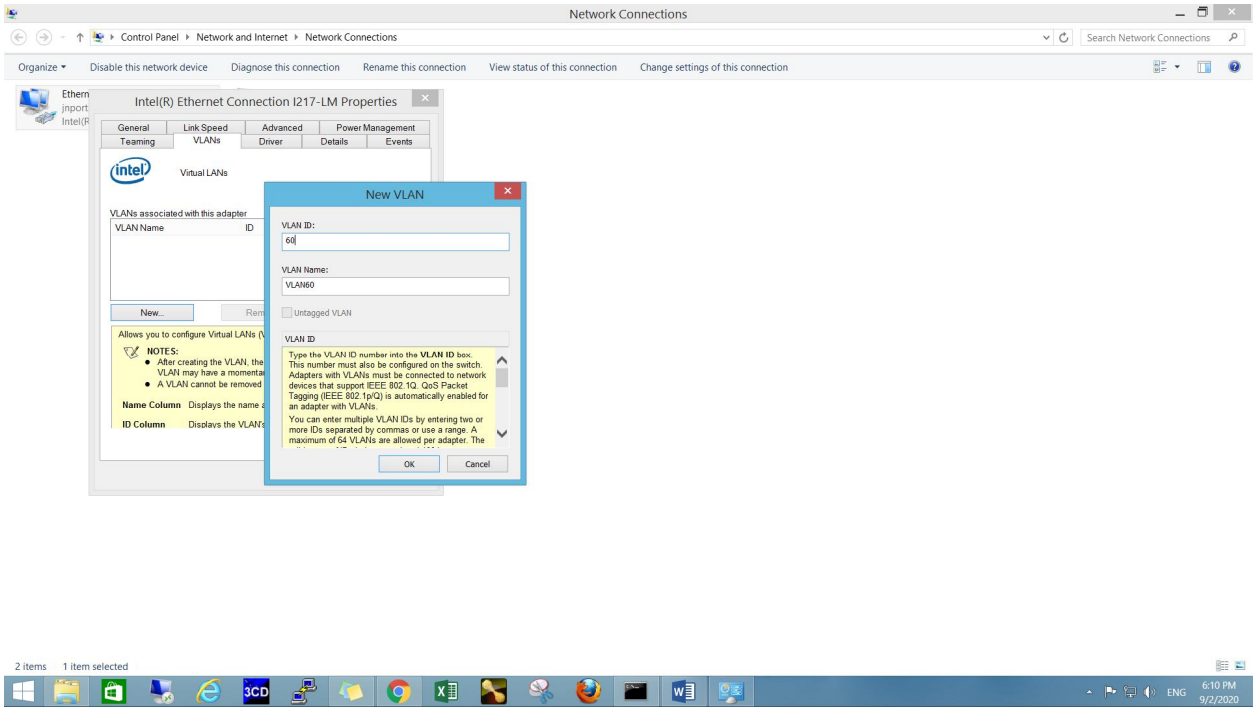
Select Configure tab



Select VLAN tab =>Click on New tab



VLAN ID=60



Then press OK.

After checking the ping response, remove the VLAN-ID & give previous IP address to system.