NavigateWorx

NR500 Series
Industrial Cellular VPN Router

Application Note 026

Multi-VRRP Between NR500 Series Routers

Version: V1.0.0
Date: 2018/10/10
Status: Confidential

Directory

1. Introduction

1.1 Overview

This document contains information regarding the configuration and use of Multi-VRRP between NR500 series routers.

This guide has been written for use by technically competent personnel with a good understanding of the communications technologies used in the product, and of the requirements for their specific application.

1.2 Compatibility

This application note applies to:
Models Shown: NR500 series.
Firmware Version: V1.0.0 (930.3) or newer
Other Compatible Models: None

1.3 Version

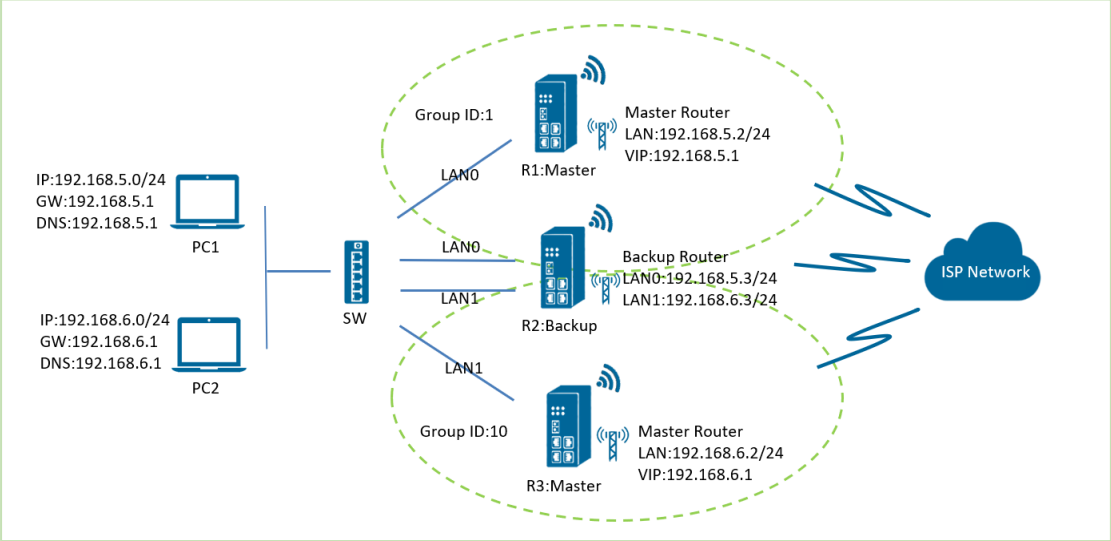
Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

Release Date	Doc. Version	Firmware Version	Change Description
2018/10/10	V1.0.0	V1.0.0(930.3)	First released

1.4 Corrections

Appreciate for corrections or rectifications to this application note, and if any request for new application notes please email to: **support@navigateworx.com**

2. Topology

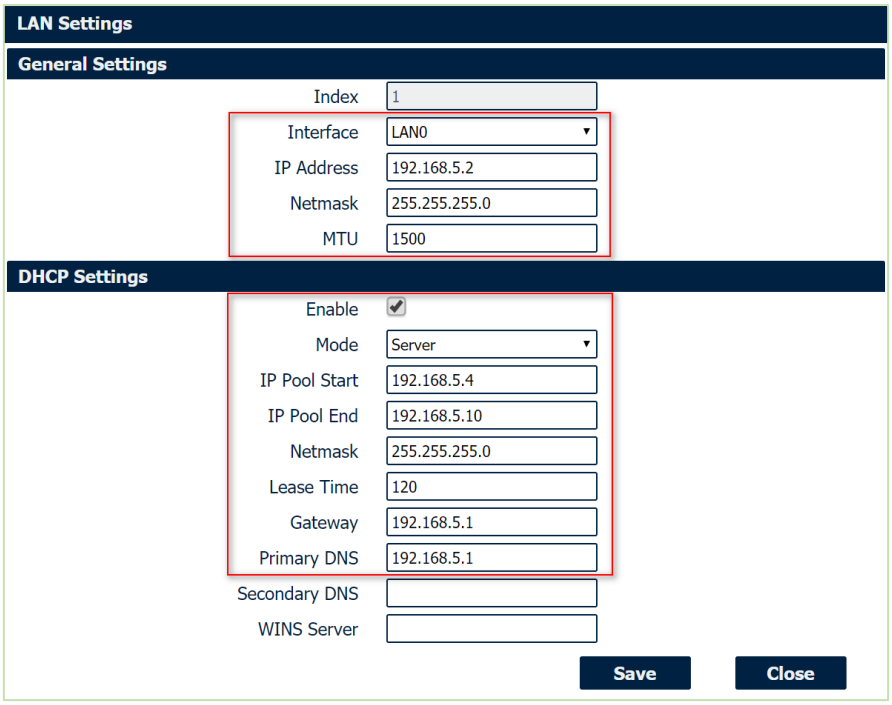


1. R1 and R3 runs as VRRP Master router. R2 runs as VRRP Backup router. Both of them connect to Internet with SIM card.
2. R1 establish VRRP with R2 via LAN0 interface. R3 establish VRRP with R2 via LAN1 interface.
3. PC1 communicate with Internet via R1 Master router in normal case. If R1 Master router is down, PC1 will switchover to R2 Backup router to Internet. If R1 Master router up again, then PC1 will switch back to R1 Master router to Internet.
4. PC2 communicate with Internet via R3 Master router in normal case. If R3 Master router is down, PC2 will switchover to R2 Backup router to Internet. If R3 Master router up again, then PC2 will switch back to R3 Master router to Internet.

3. Configuration

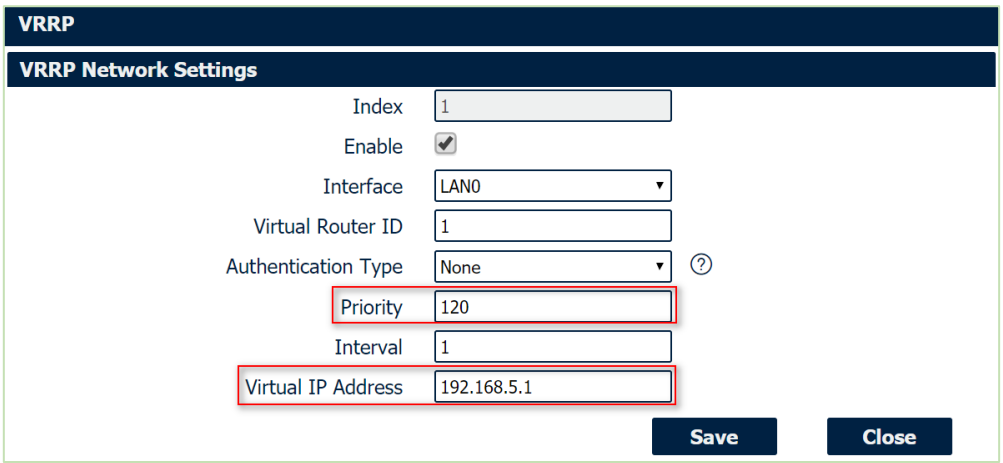
3.1 R1 Master Router Configuration

1. Go to Link **Management>Ethernet>LAN**, to specify the LAN0 information like below.



2. Go to **Network>VRRP>VRRP**, Click the Edit button of VRRP, like below:

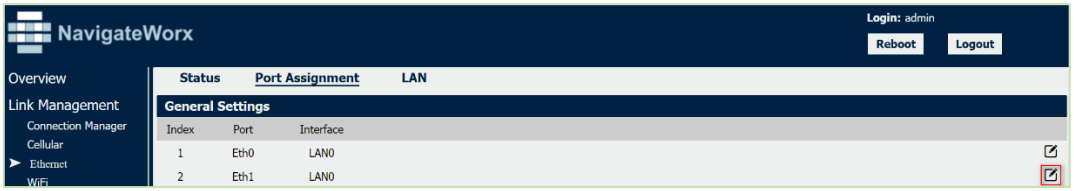
3. Configure VRRP like below picture:

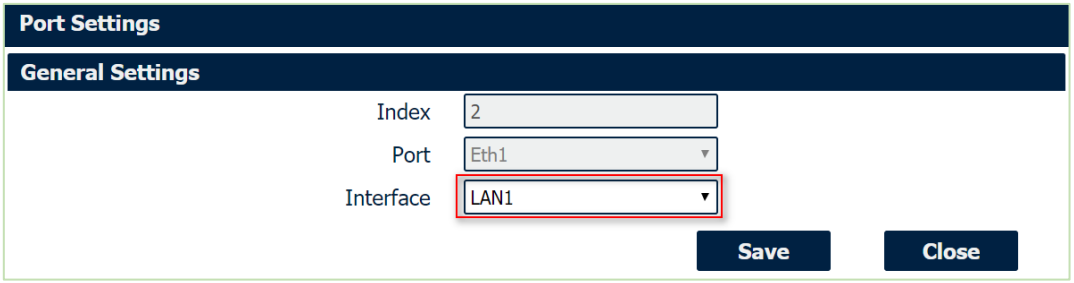


5. Click Save>Apply.

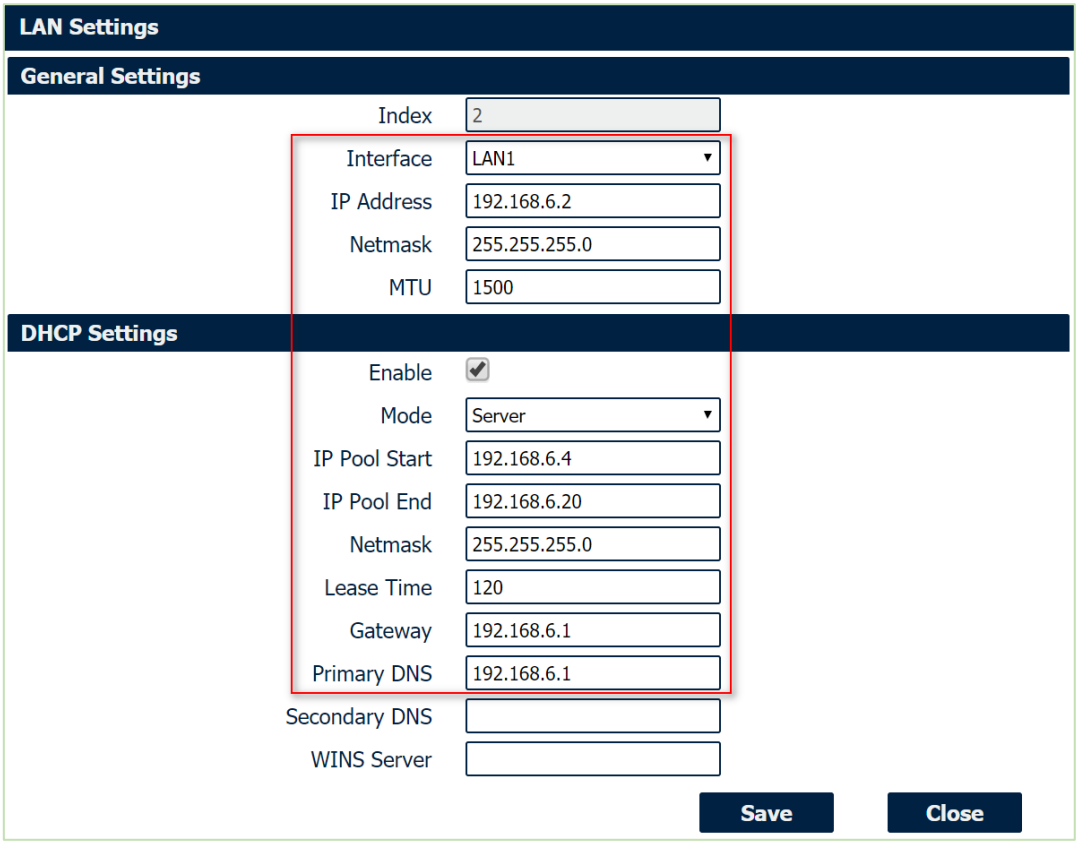
3.2 R3 Master Router Configuration

1. Go to Link **Management>Ethernet>Port Assignment**, click the Index2 to assign the LAN1 to ETH1, click Save>Apply.



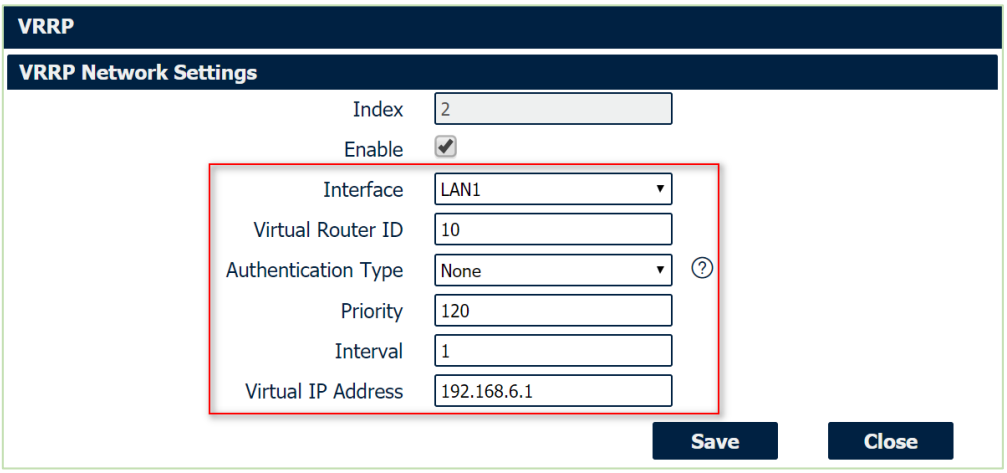


2. Go to Link **Management>Ethernet>LAN**, to specify the LAN1 information like below.



3. Go to **Network>VRRP>VRRP**, Click the Edit button of VRRP, like below:

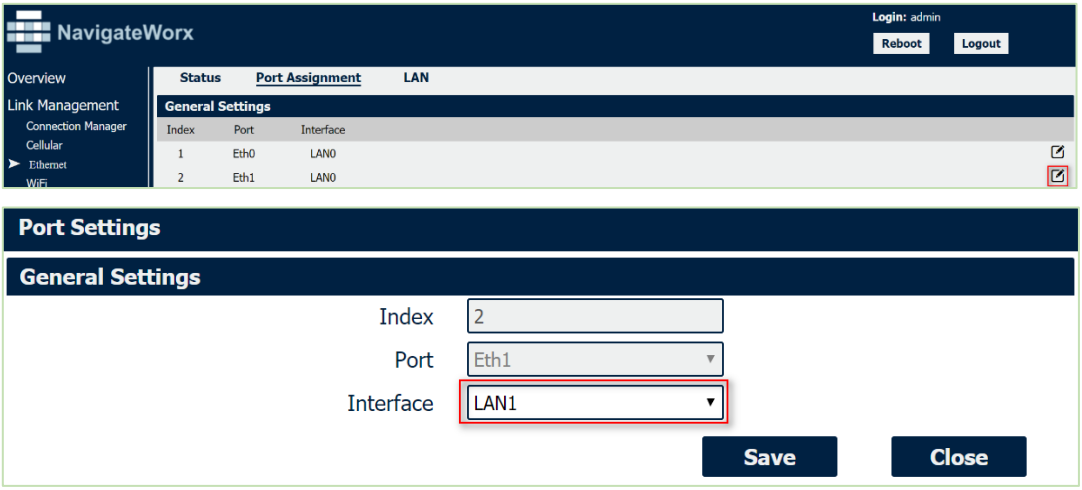
4. Configure VRRP like below picture:



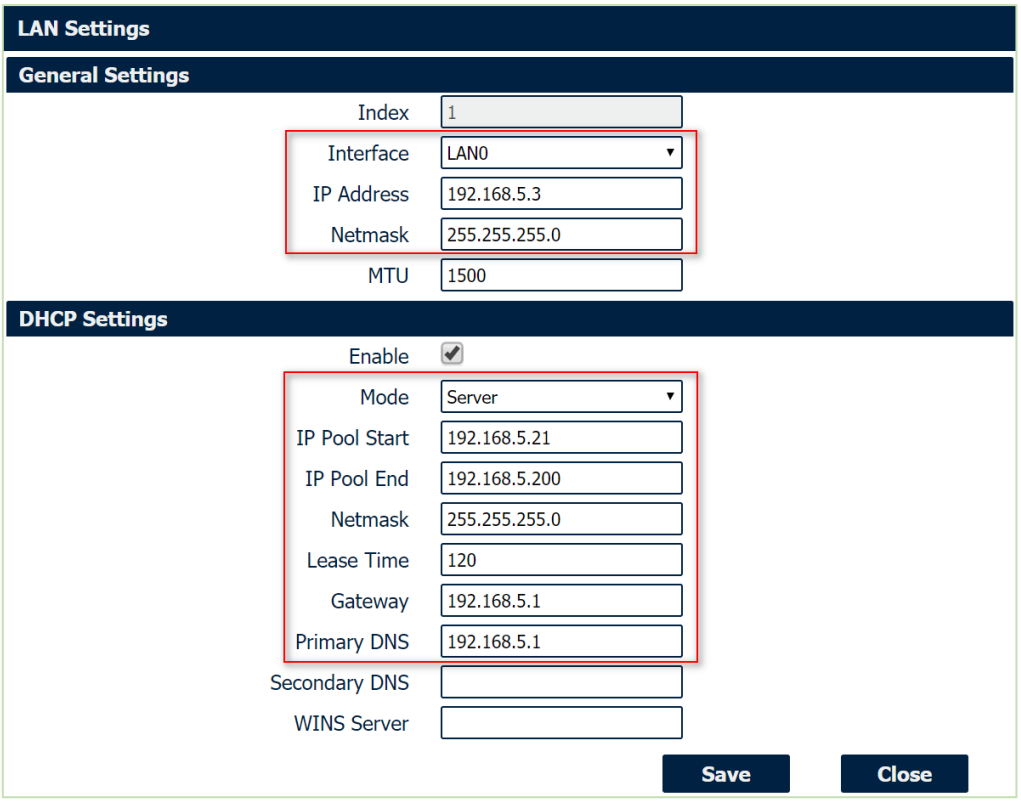
5. Click Save>Apply.

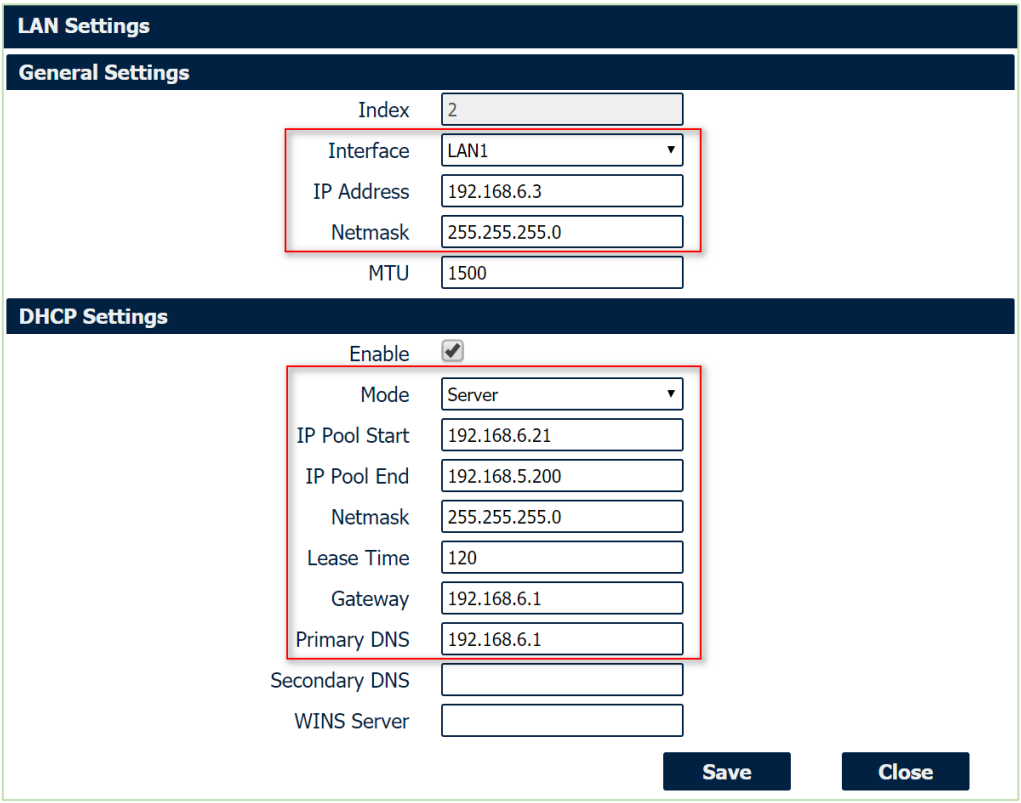
3.3 R2 Backup Router Configuration

1. Go to Link **Management>Ethernet>Port Assignment**, click the Index2 to assign the LAN1 to ETH1, click Save>Apply.



2. Go to Link **Management>Ethernet>LAN**, click the **Edit button** to add one more LAN1 interface, to specify the LAN0 and LAN1 information like below.

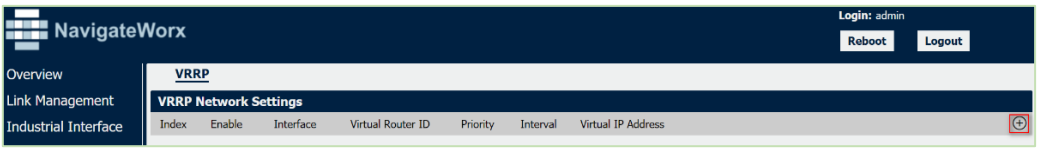




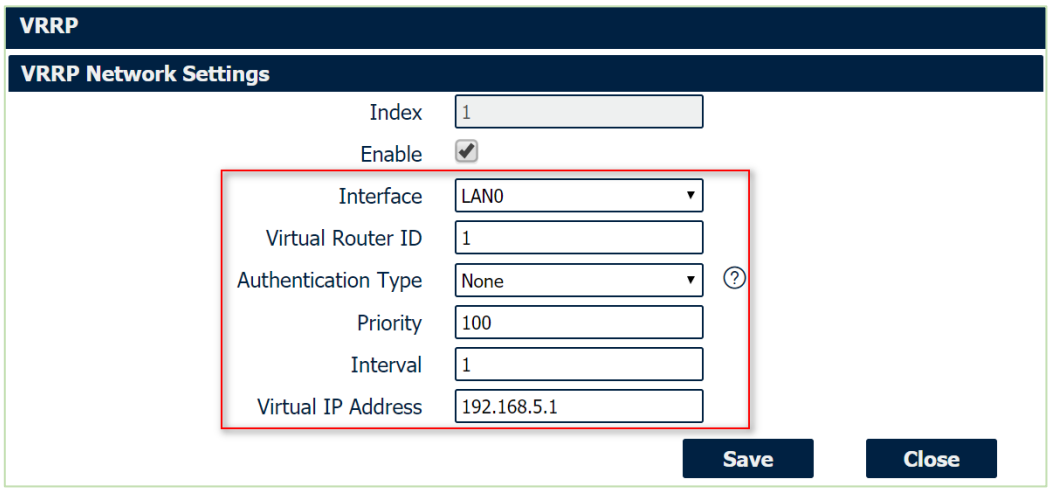
3. Click Save>Apply.

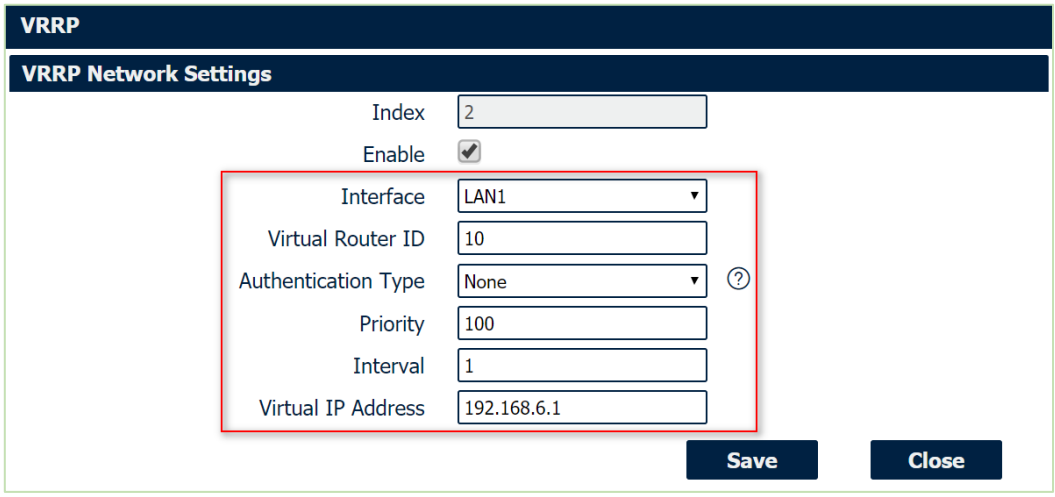
4. Go to **Network>VRRP>VRRP**, Click the **Edit button** of VRRP to add double VRRP

configuration, like below:



5. Configure VRRP on LAN0 and LAN1 like below picture:

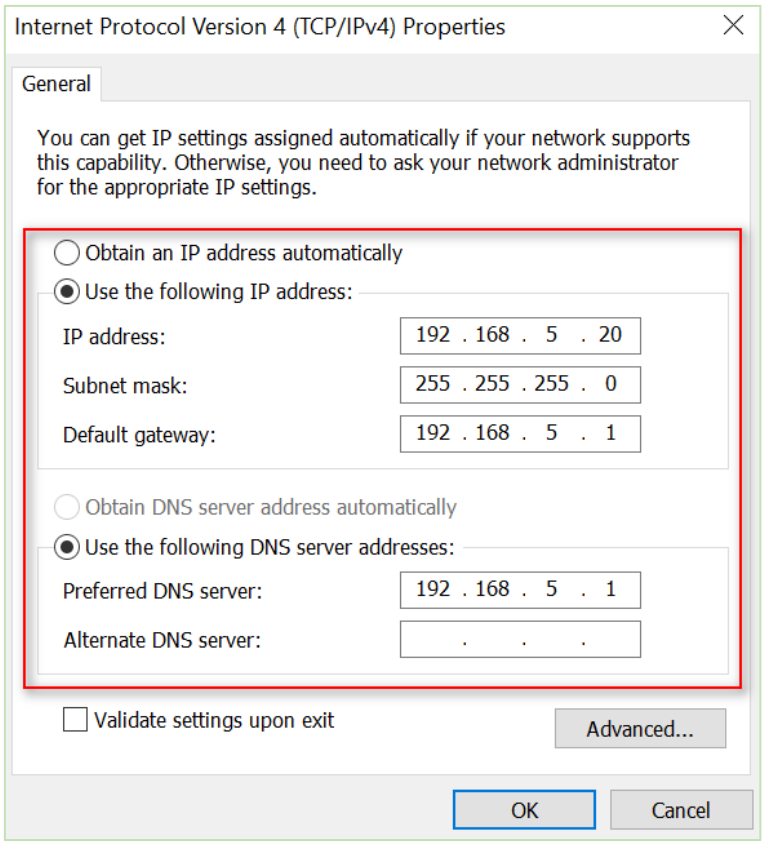




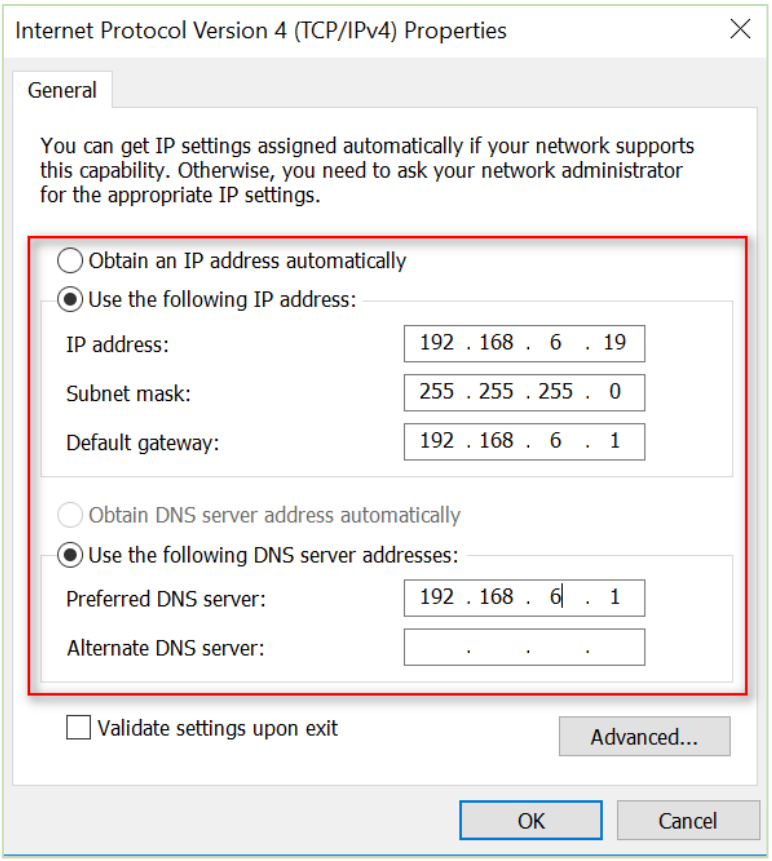
6. Click Save>Apply.

3.4 PC Configuration

1. Please enable the DHCP on PC1 or configure the static IP on PC1 like below:



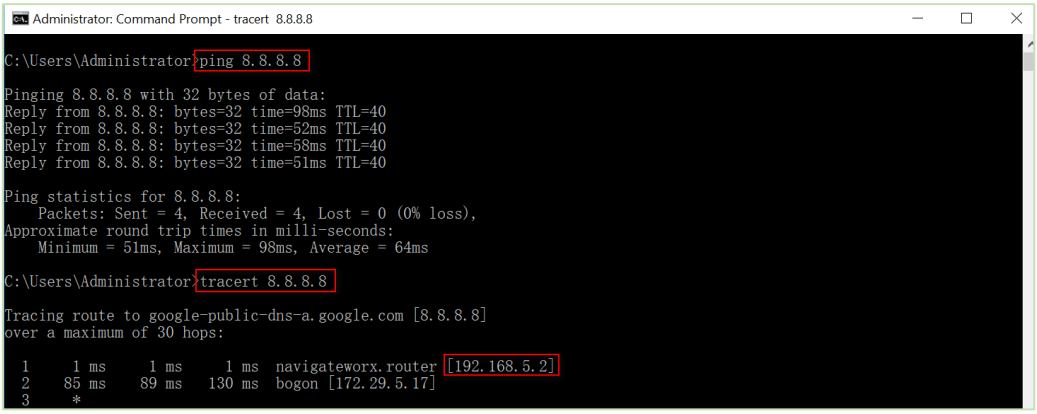
2. Please enable the DHCP on PC2 or configure the static IP on PC2 like below:



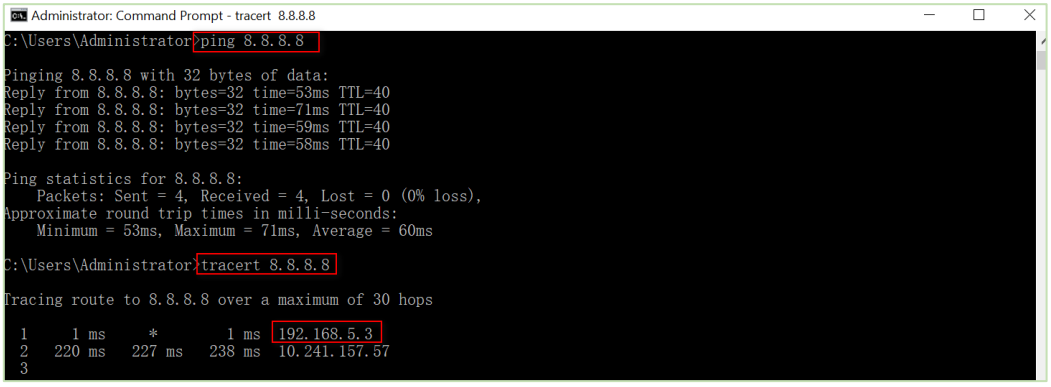
4. Test

Test on PC1:

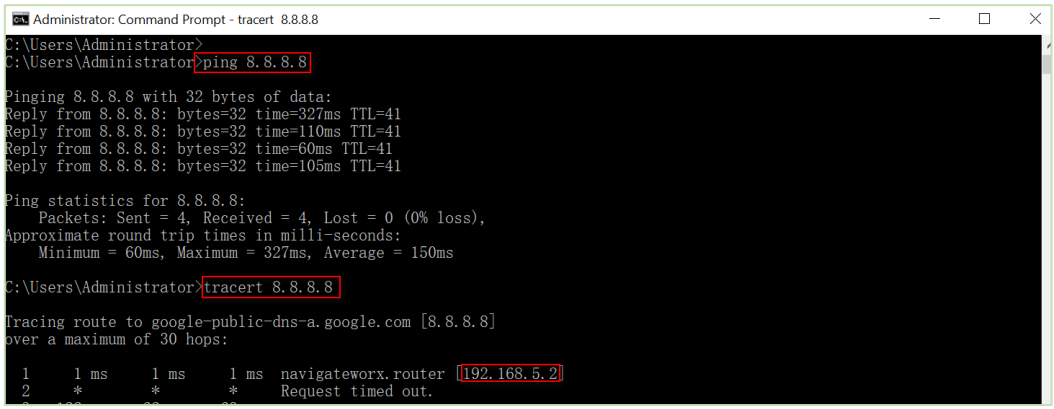
1. PC1 communicate with Internet via Master Router.



2. Remove the ethernet cable between Master router and Switch, PC1 will access to Internet via Backup Router.



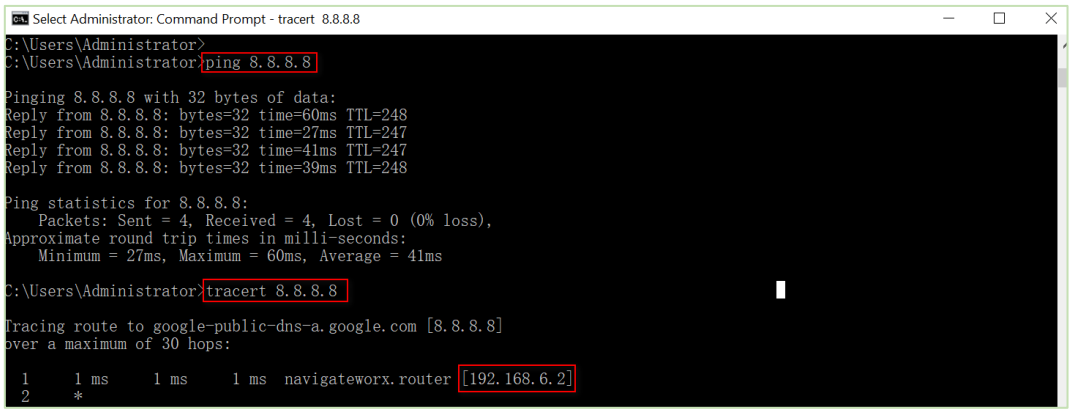
3. Inserted back the ethernet cable, PC1 will access to Internet again via Master Router.



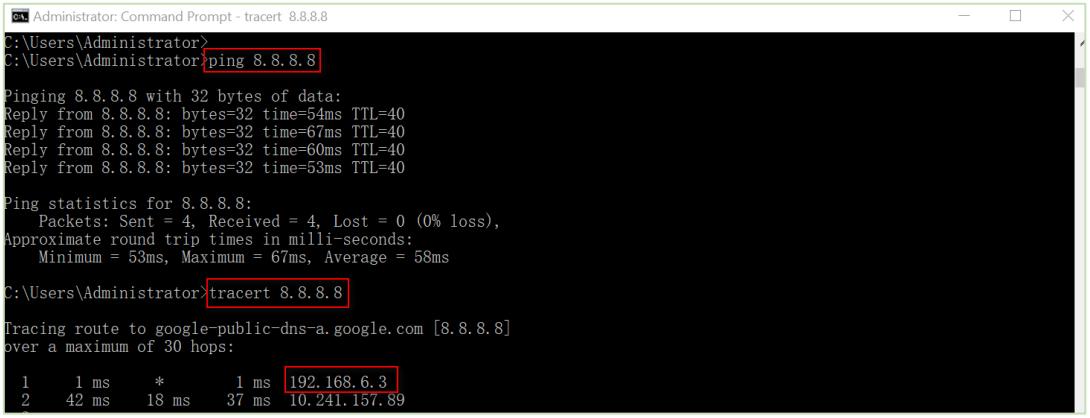
4. Test successfully.

Test on PC2:

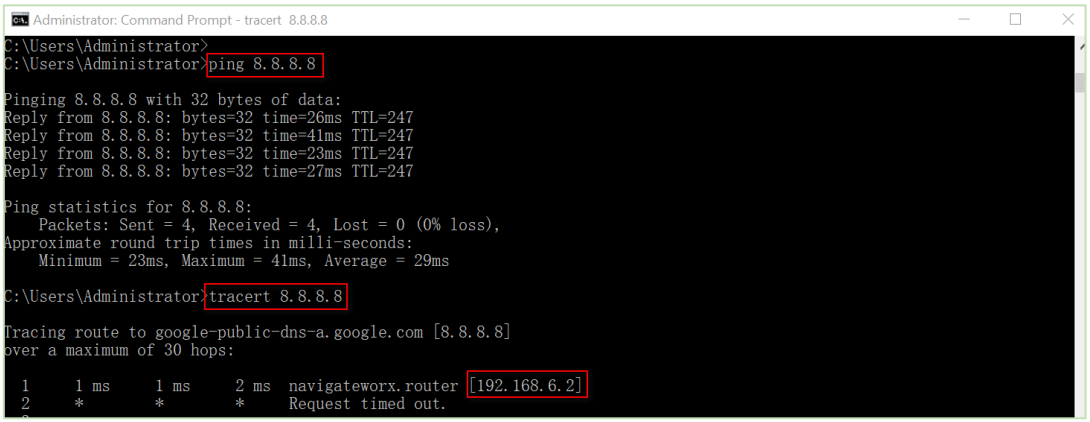
1. PC2 communicate with Internet via Master Router.



2. Remove the ethernet cable between Master router and Switch, PC2 will access to Internet via Backup Router.



3. Inserted back the ethernet cable, PC2 will access to Internet again via Master Router.



4. Test successfully.