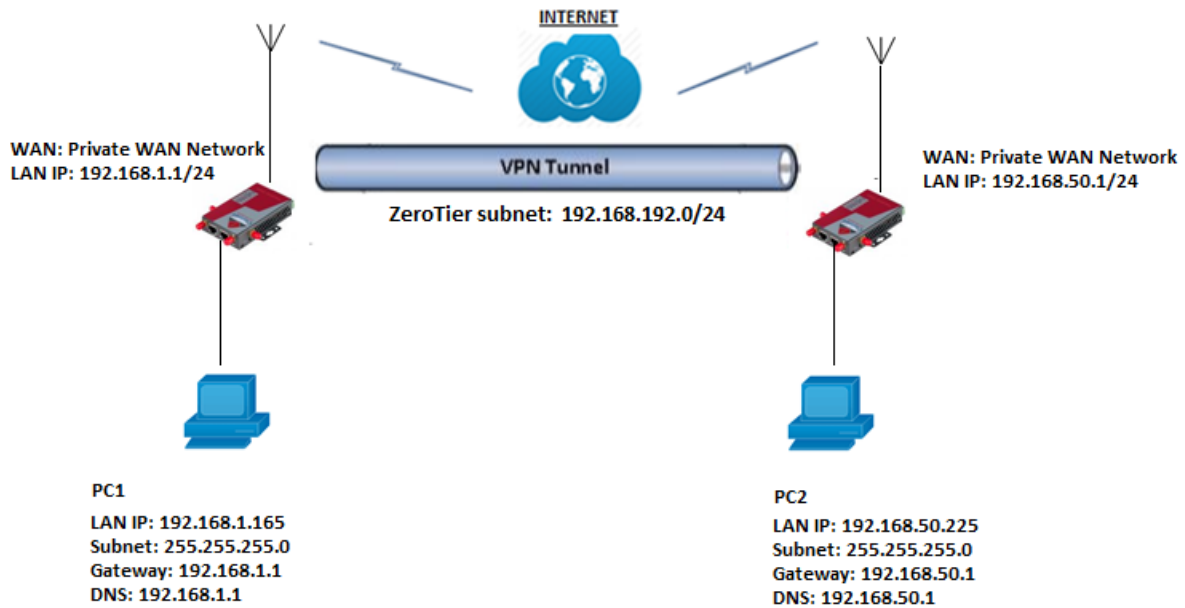


How to setup ZeroTier VPN on the Comset CM685V Router

Network Topology



1. Log in to <https://www.zerotier.com/>. Go to the Network page. Click on “Create A Network” and copy the NETWORK ID.

my.zerotier.com/network

ZEROTIER Download Knowledge Base API Communi

Create A Network

Your Networks

Networks: 1
Authorized Nodes: 2 / 25

SEARCH
1 networks...

NETWORK ID	NAME ^	DESCRIPTION	SUBNET
159924d630939299	Comset_ZeroTier		192.168.192.0/24

2. Select Private and set a Name.

Settings

Basics

Network ID
159924d630939299

Name

Description

Access Control

Private
Nodes must be authorized to become *members*

Public
Any node that knows the Network ID can become a member. Members cannot be de-authorized or deleted. Members that haven't been online in 30 days will be removed, but can rejoin.

3. Configure the subnet. You can either select from the list or configure like below:

Managed Routes 3/128

<input type="checkbox"/>	192.168.1.0/24	via 192.168.192.8
<input checked="" type="checkbox"/>	192.168.192.0/24 (LAN)	Subnet for ZeroTier
<input type="checkbox"/>	192.168.50.0/24	via 192.168.192.111

Add Routes

Destination: Via:

Submit

IPv4 Auto-Assign

Auto-Assign from Range

Easy **Advanced**

Auto-Assign Pools

Start	End
<input checked="" type="checkbox"/>	192.168.192.1 192.168.192.254

Add IPv4 Address Pools

Range Start: Range End:

Submit

- Open the router web GUI and go to Services→VPN→ ZeroTier. Use the Network ID from your ZeroTier Account.

The screenshot shows the router's web interface. On the left, a sidebar menu has 'Services' and 'VPN' highlighted. The main content area is titled 'ZeroTier' and contains the following configuration options:

- Enable:
- ZeroTier Network ID:
- Port:
- Auto NAT Clients:
- ZeroTier access control:
 - lan access zerotier
 - wan access zerotier
 - remote access wan
 - remote access lan

At the bottom, there are three buttons: 'Save & Apply' (highlighted), 'Save', and 'Reset'.

- Check ZeroTier status at web GUI Network→Interfaces. There is no IP assigned.

The screenshot shows the 'Interfaces' page in the router's web GUI. The left sidebar has 'Interfaces' selected. The main area displays a list of network interfaces with their status and statistics:

Interface	Uptime	MAC-Address	RX	TX	IPV4	IPV6
LAN (br-lan)	0h 3m 18s	90:26:08:81:8A:A5	44.45 KB (461 Pkts.)	266.20 KB (699 Pkts.)	192.168.1.1/24	ddf2:a2cf:b559::1/60
IFMOBILE (usb0)	0h 1m 32s	02:50:F4:00:00:00	32.05 KB (116 Pkts.)	37.08 KB (269 Pkts.)	10.210.12.230/30	fdf2:a2cf:b559::1/60
WAN (eth0.2)	0h 0m 0s	90:26:08:C1:8A:A5	0.00 B (0 Pkts.)	24.93 KB (85 Pkts.)		
WAN6 (eth0.2)	0h 0m 0s	90:26:08:C1:8A:A5	0.00 B (0 Pkts.)	24.93 KB (85 Pkts.)		
ZEROTIER (zteb4m23gv)	0h 1m 16s	FA:D4:4D:55:4E:0F	0.00 B (0 Pkts.)	1.23 KB (13 Pkts.)		

The 'ZEROTIER' interface is highlighted with a red box, indicating it is the focus of the check. Below the list is an 'Add new interface...' button.

6. Open zerotier.com Network configuration page. Scroll down, and find Members section.

Members

Search (Address / Name)

Display Filter

Authorized Offline 1

Not Authorized Online 1

Bridges Hidden 0

Sort By

Address

Name

< 1-2 / 2 >

Auth?	Address	Name/Description	Managed IPs
<input type="checkbox"/>	0035c83821 <small>9a:92:a6:f8:ee:05</small>	cm685v <input type="text" value="(description)"/>	+ <input type="text" value="192.168.192.x"/>
<input checked="" type="checkbox"/>	17928ceea3 <small>9a:85:01:bc:38:87</small>	remote_cm685 <input type="text" value="(description)"/>	<input checked="" type="checkbox"/> 192.168.192.8 + <input type="text" value="192.168.192.x"/>

7. Enable Auth, then configure a name and Managed IPs.

Members

Search (Address / Name)

Display Filter

Authorized Offline 1

Not Authorized Online 1

Bridges Hidden 0

Sort By

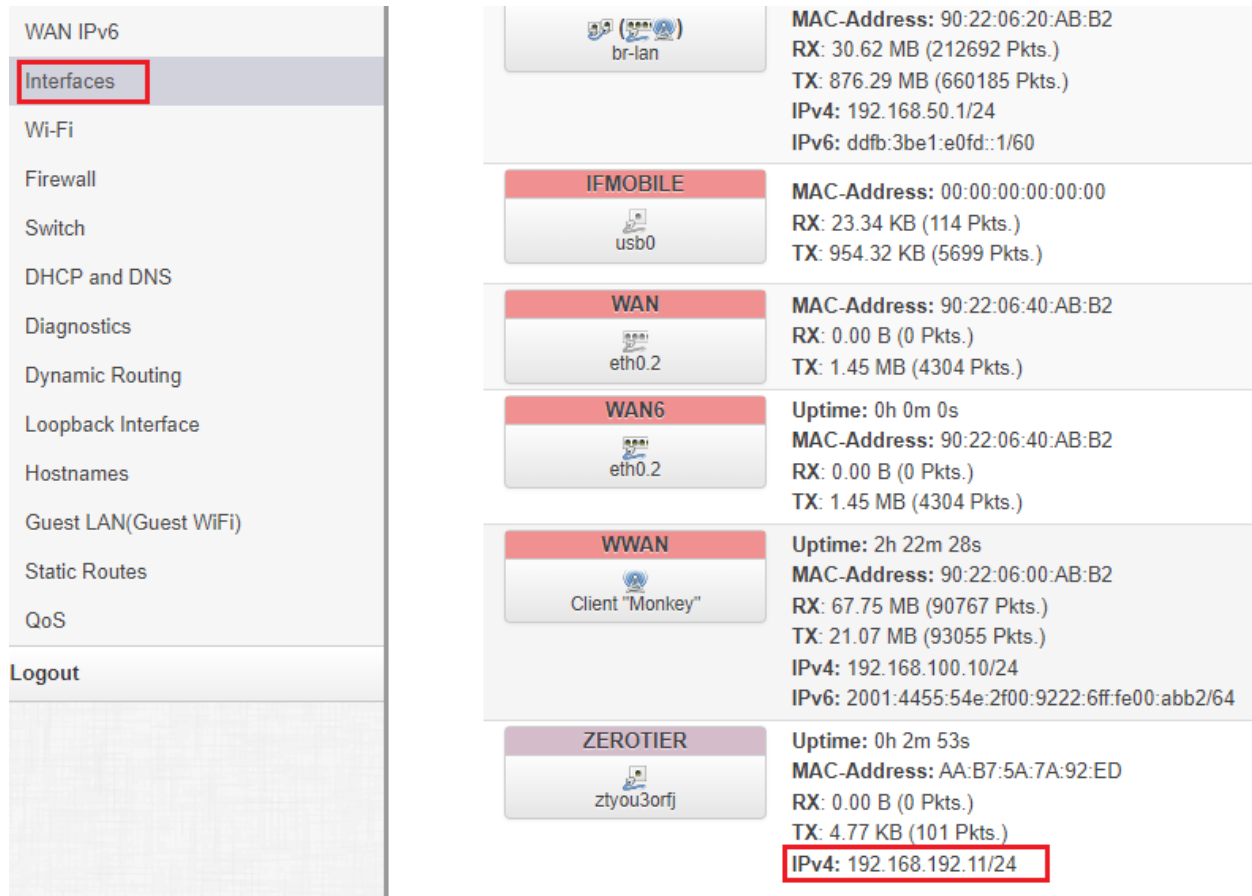
Address

Name

< 1-2 / 2 >

Auth?	Address	Name/Description	Managed IPs	Last Seen
<input checked="" type="checkbox"/>	0035c83821 <small>9a:92:a6:f8:ee:05</small>	cm685v <input type="text" value="(description)"/>	<input checked="" type="checkbox"/> 192.168.192.11 + <input type="text" value="192.168.192.x"/>	ONLINE
<input checked="" type="checkbox"/>	17928ceea3 <small>9a:85:01:bc:38:87</small>	remote_cm685 <input type="text" value="(description)"/>	<input checked="" type="checkbox"/> 192.168.192.8 + <input type="text" value="192.168.192.x"/>	2H 17M

8. Go back to the router web GUI. Check ZeroTier status again at Network→Interfaces.

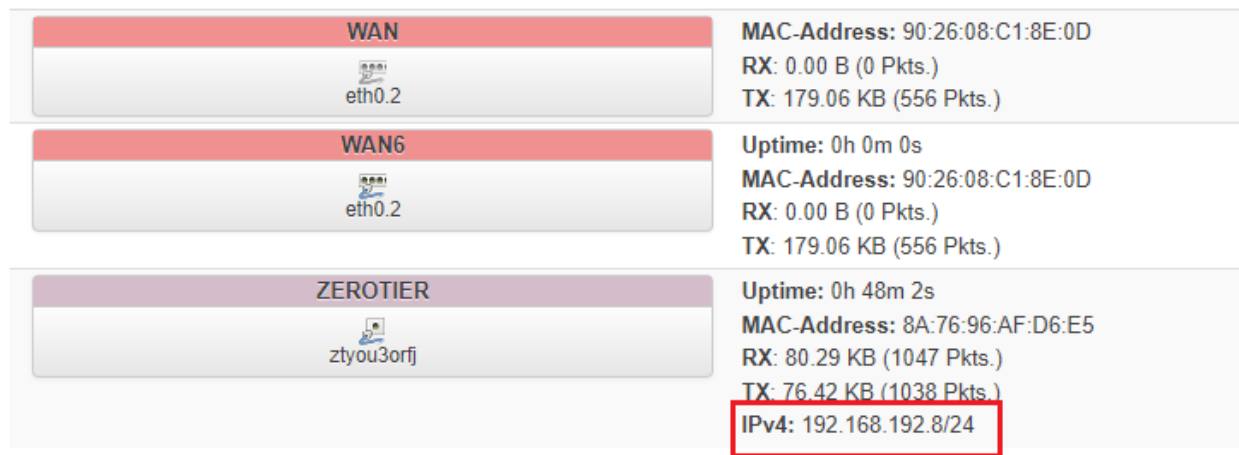


WAN IPv6	
Interfaces	
Wi-Fi	
Firewall	
Switch	
DHCP and DNS	
Diagnostics	
Dynamic Routing	
Loopback Interface	
Hostnames	
Guest LAN(Guest WiFi)	
Static Routes	
QoS	
Logout	

br-lan	MAC-Address: 90:22:06:20:AB:B2 RX: 30.62 MB (212692 Pkts.) TX: 876.29 MB (660185 Pkts.) IPv4: 192.168.50.1/24 IPv6: ddfb:3be1:e0fd::1/60
IFMOBILE	MAC-Address: 00:00:00:00:00:00 RX: 23.34 KB (114 Pkts.) TX: 954.32 KB (5699 Pkts.)
eth0.2	MAC-Address: 90:22:06:40:AB:B2 RX: 0.00 B (0 Pkts.) TX: 1.45 MB (4304 Pkts.)
eth0.2	Uptime: 0h 0m 0s MAC-Address: 90:22:06:40:AB:B2 RX: 0.00 B (0 Pkts.) TX: 1.45 MB (4304 Pkts.)
Client "Monkey"	Uptime: 2h 22m 28s MAC-Address: 90:22:06:00:AB:B2 RX: 67.75 MB (90767 Pkts.) TX: 21.07 MB (93055 Pkts.) IPv4: 192.168.100.10/24 IPv6: 2001:4455:54e:2f00:9222:6ff:fe00:abb2/64
ztyou3orfj	Uptime: 0h 2m 53s MAC-Address: AA:B7:5A:7A:92:ED RX: 0.00 B (0 Pkts.) TX: 4.77 KB (101 Pkts.) IPv4: 192.168.192.11/24

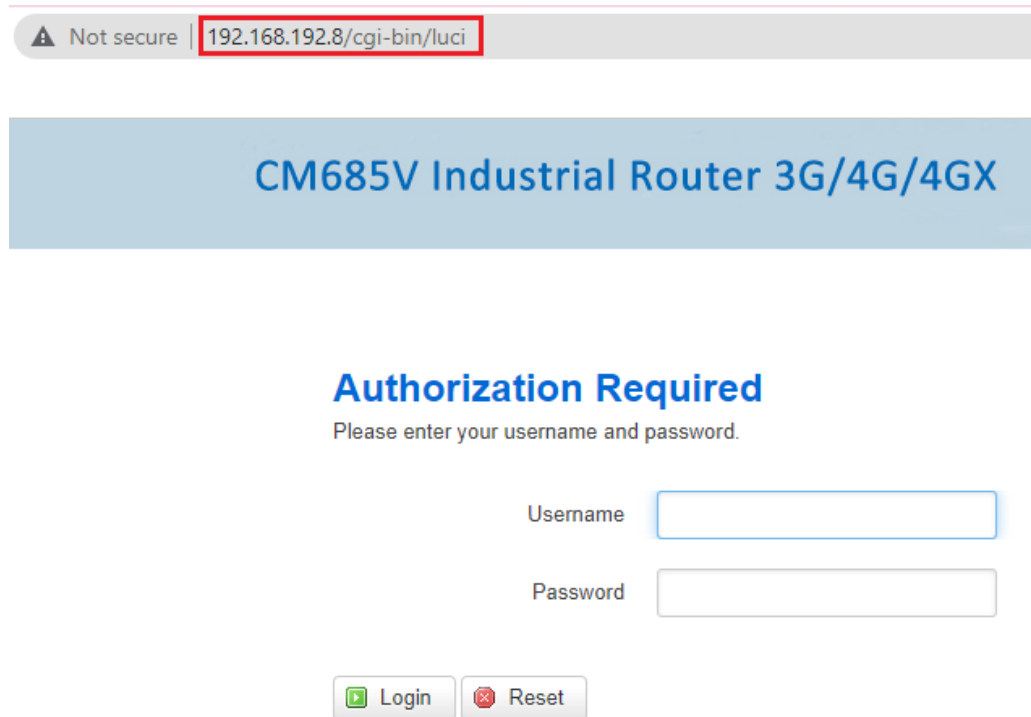
9. On the second router, do the same from step 4 to step 8.

The second router should have a ZeroTier IP address range of 192.168.192.0/24. In this test, our ZeroTier IP address is 192.168.192.8.



eth0.2	MAC-Address: 90:26:08:C1:8E:0D RX: 0.00 B (0 Pkts.) TX: 179.06 KB (556 Pkts.)
eth0.2	Uptime: 0h 0m 0s MAC-Address: 90:26:08:C1:8E:0D RX: 0.00 B (0 Pkts.) TX: 179.06 KB (556 Pkts.)
ztyou3orfj	Uptime: 0h 48m 2s MAC-Address: 8A:76:96:AF:D6:E5 RX: 80.29 KB (1047 Pkts.) TX: 76.42 KB (1038 Pkts.) IPv4: 192.168.192.8/24

10. From Router A, you can access Router B web page with its ZeroTier VPN IP address 192.168.192.8.



Not secure | 192.168.192.8/cgi-bin/luci

CM685V Industrial Router 3G/4G/4GX

Authorization Required

Please enter your username and password.

Username

Password

11. If you want to access remote devices behind the routers, you need to add the Two(2) LAN subnets on your ZeroTier account.




Configure ZeroTier Managed Routes.

192.168.1.0/24 is LAN subnet of Router A which ZeroTier IP is 192.168.192.11.

192.168.50.0/24 is LAN subnet of router B which ZeroTier IP is 192.168.192.8.

Now subnet 192.168.1.0/24 and 192.168.50.0/24 can access each other.

Managed Routes 3/128

	192.168.1.0/24	via 192.168.192.8
	192.168.192.0/24	(LAN)
	192.168.50.0/24	via 192.168.192.11

Add Routes

Destination:

Via:

You can now Ping both PC1 and PC2 from each other after adding routes above.

```
C:\Users\tsall>ping 192.168.50.225

Pinging 192.168.50.225 with 32 bytes of data:
Reply from 192.168.50.225: bytes=32 time=321ms TTL=126
Reply from 192.168.50.225: bytes=32 time=331ms TTL=126
Reply from 192.168.50.225: bytes=32 time=331ms TTL=126
Reply from 192.168.50.225: bytes=32 time=356ms TTL=126

Ping statistics for 192.168.50.225:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 321ms, Maximum = 356ms, Average = 334ms
```

```
^C
C:\Users\Comset-Ben>ping 192.168.1.165

Pinging 192.168.1.165 with 32 bytes of data:
Reply from 192.168.1.165: bytes=32 time<1ms TTL=128
Reply from 192.168.1.165: bytes=32 time<1ms TTL=128
Reply from 192.168.1.165: bytes=32 time<1ms TTL=128
Reply from 192.168.1.165: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.165:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```