

ZeroTier + OpenFi 使用指南

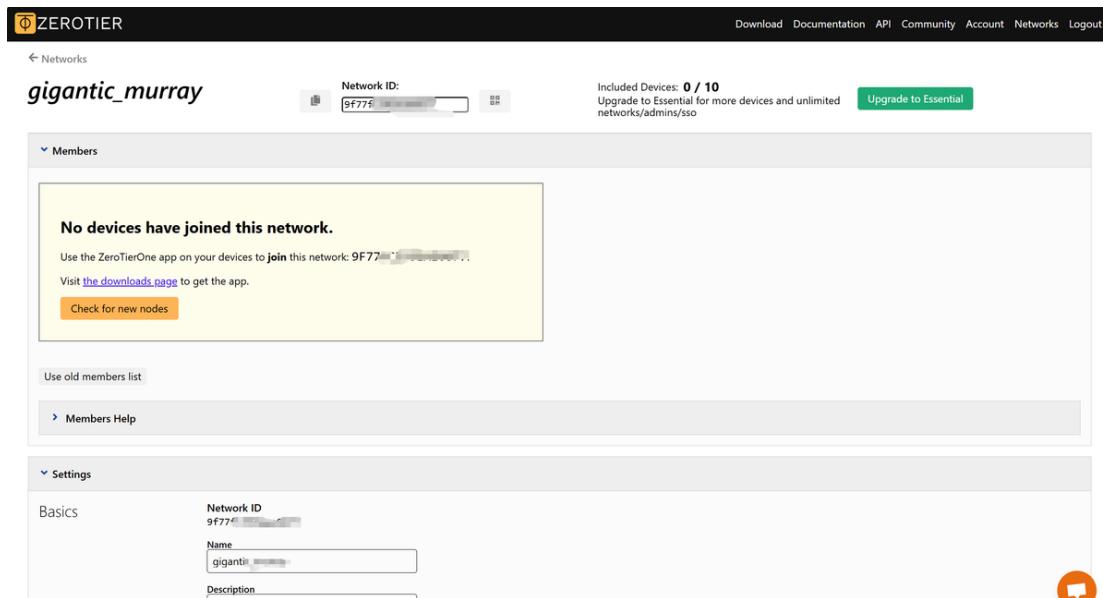
注意：因为中国路由器大多处于多级 NAT 下，使用的效果因环境而异

1. 注册 zerotier: www.zerotier.com
2. 创建 Network id



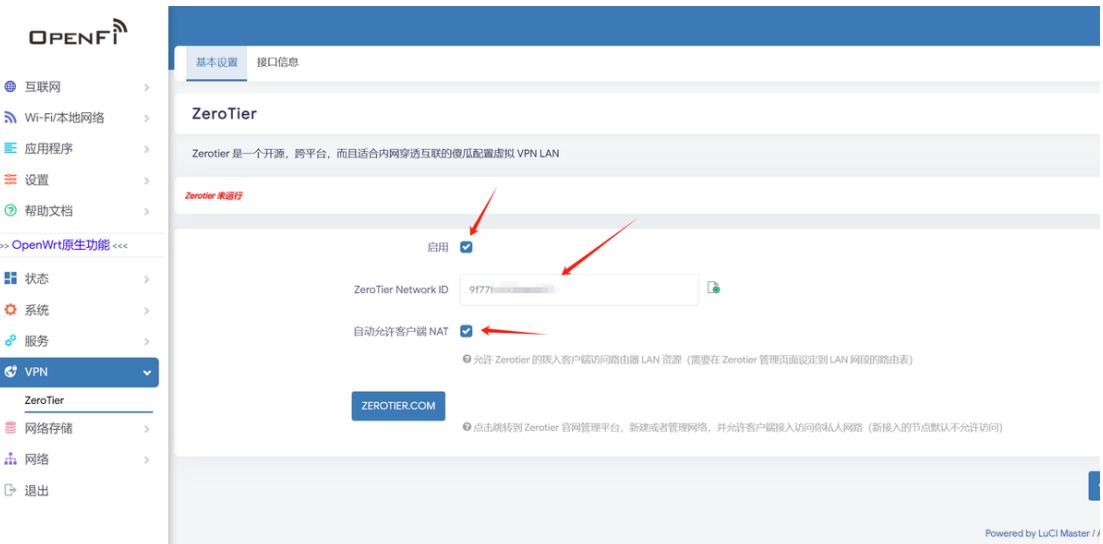
The screenshot shows the ZeroTier 'Your Networks' interface. At the top right is a yellow 'Create A Network' button. Below it is a search bar with '1 networks...' and a table with one row. The table columns are NETWORK ID, NAME, DESCRIPTION, SUBNET, NODES, and CREATED. The single network listed is '9f77fc3' with the name 'gigantic_██████████'. The subnet is '10.244.0.0/16', there are '0' nodes, and it was created on '2024-11-16'. To the left of the table, it says 'Networks: 1 / 3' and 'Included Devices: 0 / 10'. Below the table, there's a note about upgrading to Essential for unlimited features. A green 'Upgrade to Essential' button is at the bottom.

3. 点击新建的 network id, 进入管理界面等待



The screenshot shows the ZeroTier network management page for 'gigantic_murray'. At the top, it shows the network ID '9f77fc3' and the name 'gigantic_murray'. It also shows 'Included Devices: 0 / 10' and a green 'Upgrade to Essential' button. The main area is titled 'Members' and contains a message: 'No devices have joined this network. Use the ZeroTierOne app on your devices to join this network: 9F77FC3. Visit [the downloads page](#) to get the app.' Below this is a 'Check for new nodes' button. There are also 'Use old members list' and 'Members Help' buttons. At the bottom, there's a 'Settings' section with 'Basics' sub-options: 'Network ID' (9f77fc3), 'Name' (gigantic_██████████), and 'Description'. A red speech bubble icon is in the bottom right corner.

4. 进入 OPENFI 页面, 输入 network id, 点击保存



5. 打开管理界面，对新连上的 openfi 打勾并点击

gigantic_murray

Network ID:

Included Devices: 0 / 10 [Upgrade to Essential](#)

Members

One device has joined this network.

A ZeroTier network should have at least 2 member devices.

Use the ZeroTierOne app on your devices to [join](#) this network: [\[REDACTED\]](#)

Visit [the downloads page](#) to get the app.

Check for new nodes

Search all columns...	AUTHORIZATION	ACTIVITY	MISC	Reset Filters
1 total members	All <input checked="" type="radio"/>	All <input checked="" type="radio"/>	Never Authed <input type="checkbox"/>	(1)
1 filtered members	Authorized <input checked="" type="radio"/>	Inactive <input type="radio"/>	Not authorized <input type="radio"/>	(1)
	Not authorized <input type="radio"/>	Active <input type="radio"/>		(1)

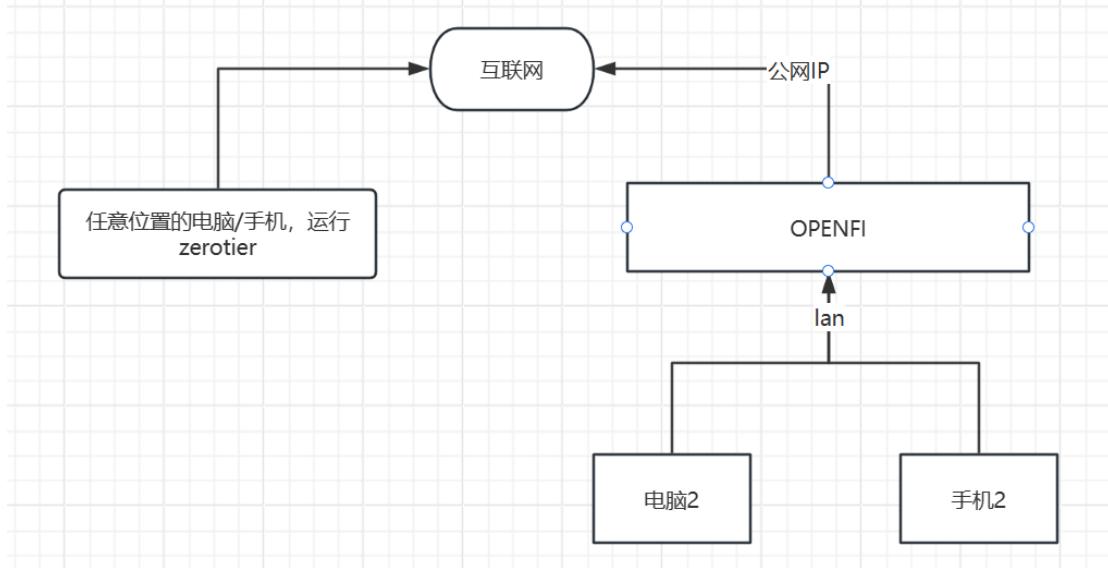
Refresh Edit Selected: Authorize Deauthorize Cancel

Auth	Address	Name/Desc	Managed IPs	Last Seen	Version	Physical IP
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	E64A4C0722 76.8c		1 minute	Unknown	[REDACTED]

6. 可以看到 openfi 里面接口信息才会拿到 IP, 这个时候已经连上了 zero 网络，另一台手机或者电脑使用 zerotier app 也输入这个 network id, 就可以访问路由器。

ztuzeveukj Link encap:Ethernet HWaddr [\[REDACTED\]](#)
inet addr:19.244.230.7 Bcast:19.244.255.255 Mask:255.255.0.0
inet6 addr: fe80::748e:e4ff:fe72:3ede/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:2800 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:27 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 (0.0 B) TX bytes:5560 (5.4 Kib)

7. 如果要实现这个拓扑，任意位置的电脑要访问手机 2 和电脑 2，需要在 zerotier 管理页面操作



设置为，将到 OPENFI 192.168.21.x 网段的设备通过 OPENFI 的 zerotier 转发
OPENFI 的 zerotier ip 在这里查看，ip 地址为 10.244.230.7

成员	授权	活动
2 总成员	All	All
2 过滤成员	已授权 (2)	不活跃 (0)
	未授权 (0)	活跃 (2)

或者在 openfi 页面的端口信息也可以看

```

ztuzeveukj Link layer: ethernet, br0
inet br0 brd 10.244.230.255 netm 10.244.230.7 Mask:255.255.0.0
inet6 fe80::748ae:edff:fe72:3ede/64 Scope:Link
    UP BROADCAST RUNNING MULTICAST MTU:2800 Metric:1
    RX packets:0 errors:0 dropped:0 overruns:0 frame:0
    TX packets:29 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:0 (0.0 B) TX bytes:5337 (5.2 KiB)

```

然后在这个地方添加路由规则，目的是任意地方的手机/电脑 要访问 OPENFI 下面的设备要通过 OPENFI 的 zerotier ip

所以 规则如下填，

gigantic_murray

Network ID:

Included Devices: 2 / 10
Upgrade to Essential for more devices and unlimited networks/admins/sso

Settings

Basics

Network ID:

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.

Advanced

Managed Routes

10.244.0.0/16	(LAN)
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Add Routes

openfi的lan ip

Destination: 192.168.21.0/24

Via: 10.244.230.7

Submit

掩码为24,意思是匹配全部192.168.21.x的IP

点击 submit 即可访问 openfi 下的设备。

8. 举例手机使用流量上网 访问 OPENFI 下的设备：

现在设置运行使用移动网络，输入 network id 点击 add

Add Network

Network ID:

Route all traffic through ZeroTier. Requires external configuration of the network.

DNS Configuration

No DNS

DNS will not be configured.

Network DNS

DNS configuration managed by network controller.

Custom DNS

DNS configuration will be specified below.

IPv4 DNS

IPv4 address:

IPv6 DNS

IPv6 address:

IPv6 address:

Add

Settings

Network Settings

Use mobile data

Disable IPv6

然后在管理页面同意手机加入网络

Members

Please Authorize at least 2 member devices

Nodes cannot talk on a network until they are authorized.

Use the table below to authorize them.

Check for new nodes

	AUTHORIZATION	ACTIVITY	MISC	Reset Filters
2 total members	All	All	Never Authed (1)	
2 filtered members	Authorized (1)	Inactive (0)		
	Not authorized (1)	Active (2)		

Refresh Edit Selected: Authorize Deauthorize Cancel

	Edit	Auth	Address	Name/Desc	Managed IPs	Last Seen	Version	Physical IP
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5F87D6A60B 76:5F87D6A60B		1 minute	Unknown	1.14.0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E64A4C0722 76:E64A4C0722	10.244.230.7	2 minutes	1.14.0	

E-Mail Join Instructions: alice@example.com

Manually Add Member: #####

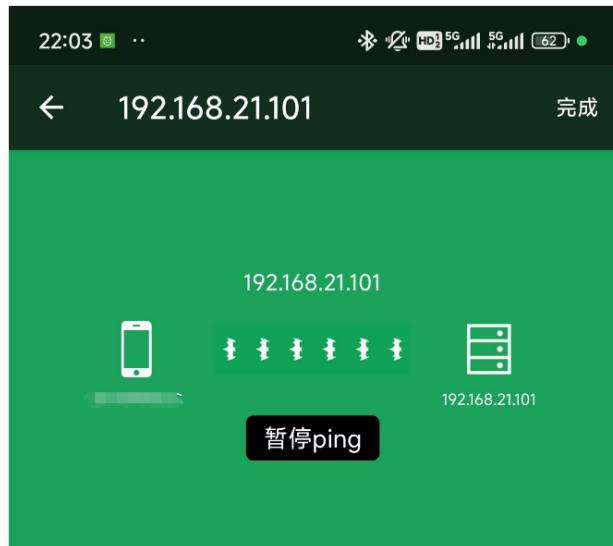
这时，点击状态可以看到已经拿到 IP

21:54 28.5 Kbps 5G 5G 5G 5G

Details for 9f77fc393eae6877

STATUS	CONFIGURATION
Network ID: <input type="text"/>	
Network Name: gigantic_n	
Status: OK	
Type: Private	
MAC: 7c:5F87D6A60B	
MTU: 2800	
Broadcast: Enabled	
Bridging: Disabled	
Managed IPs: 10.244.61.148/16	
DNS	
Search Domain: Network DNS is not configured	
Server Addresses:	

PING OPENFI 下面的电脑，结果如下



51 31 39.22% 536 ms

已发送 已接收 丢包率(%) 平均时延

