

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

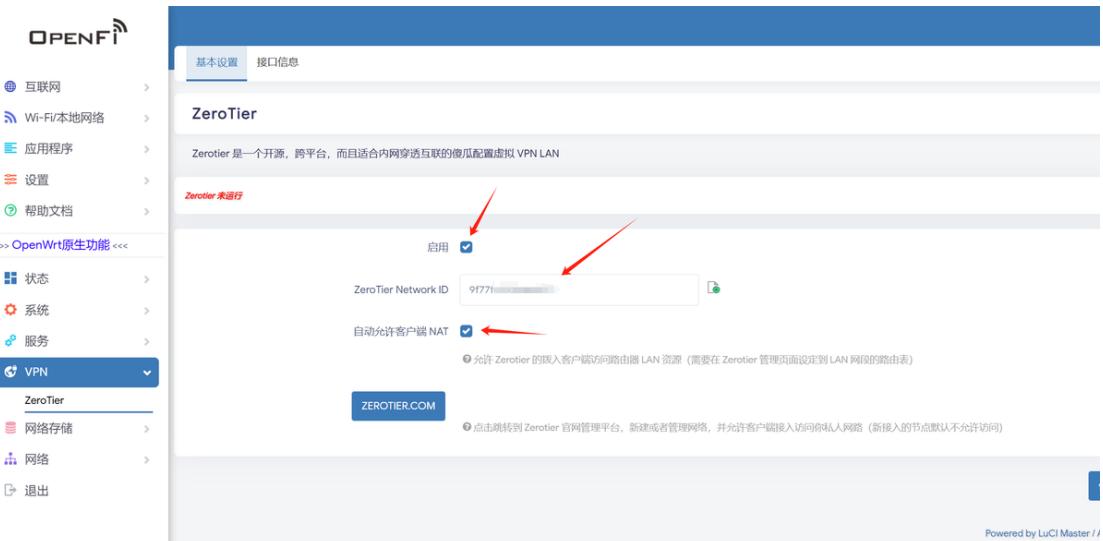
1. 注册 zerotier: www.zerotier.com
2. 创建 Network id

The screenshot shows the ZeroTier network creation interface. At the top right is a large orange button labeled "Create A Network". Below it is a section titled "Your Networks" showing 1 network created out of 3 available. The network listed is named "gigantic_murray" with a network ID of "9f77fc3", subnet "10.244.0.0/16", and 0 nodes. It was created on "2024-11-16". A search bar above the table shows "1 networks...". To the left of the table, there's a note about upgrading to Essential for unlimited features. A green "Upgrade to Essential" button is at the bottom left.

3. 点击新建的 network id, 进入管理界面等待

The screenshot shows the ZeroTier network management interface for the network "gigantic_murray". The top navigation bar includes links for Download, Documentation, API, Community, Account, Networks, and Logout. The main content area shows the network ID "9f77fc3" and the name "gigantic_murray". It indicates 0 included devices and provides a link to upgrade to Essential. Below this, the "Members" section is expanded, showing 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." There is also a "Check for new nodes" button. The "Settings" section is also expanded, showing basic settings like Network ID, Name (set to "gigantic"), and Description. A small orange speech bubble icon is in the bottom right corner of the settings panel.

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

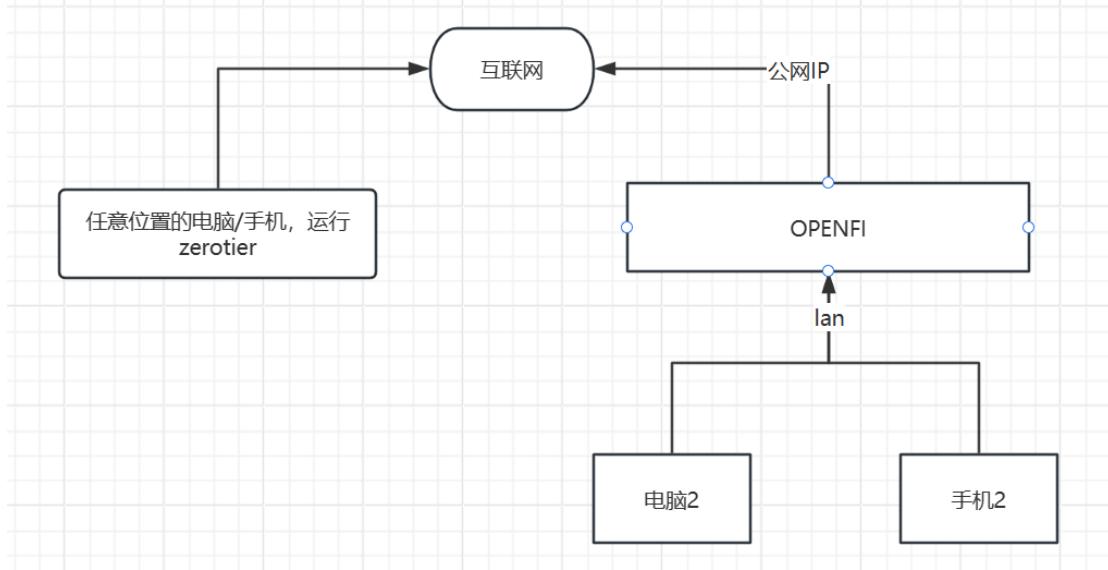
Search all columns...	AUTHORIZATION	ACTIVITY	MISC	Reset Filters
1 total members 1 filtered members	All Authorized (0) Not authorized (1)	All Inactive (0) Active (1)	Never Authed (1)	Refresh
	Edit Selected	Authorize	Deauthorize	Cancel
	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
	E64A4C0722 76.8c...	1 minute	Unknown	

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

Address	Name/Desc	Managed IPs	Last Seen	Version	Physical IP
5F87D6A60B	phone/PC	10.244.61.148	4 minutes	1.10.6	76.37.112.128
E64AAC0722	openfi	10.244.230.7	4 minutes	1.14.0	76.37.112.128

或者在 openfi 页面的端口信息也可以看

```

ztuzeveukj Link layer: ethernet, br0
inet dev: 10.244.230.7 br:br0 state:10.244.255.255 Mask:255.255.0.0
inet6 addr: 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，

The screenshot shows the 'Settings' page for a network named 'gigantic_murray'. In the 'Advanced' section, under 'Managed Routes', a new route is being added. The 'Destination' field contains '192.168.21.0/24' and the 'Via' field contains '10.244.0.7'. A red annotation points to the 'Via' field with the text '这里填入刚刚查到的OPENFI的zerotier ip'. Another red annotation below the 'Submit' button says '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

The screenshot shows the 'Add Network' screen on a mobile device. It includes fields for 'Network ID', 'Route all traffic through ZeroTier' (unchecked), 'DNS Configuration' (set to 'No DNS'), 'IPv4 DNS' and 'IPv6 DNS' fields, and an 'Add' button at the bottom. On the right, there is a 'Settings' screen with a 'Network Settings' section containing a 'Use mobile data' checkbox which is checked. A red box highlights this checkbox.

然后在管理页面同意手机加入网络

The screenshot shows the Zerotier management interface for a network named "gigantic_murray". The "Members" tab is selected. A prominent message in the center says "Please Authorize at least 2 member devices". Below it, a note states: "Nodes cannot talk on a network until they are authorized." and "Use the table below to authorize them." An orange button labeled "Check for new nodes" is visible. The main area contains a table with the following data:

	AUTHORIZATION	ACTIVITY	MISC
All	<input checked="" type="radio"/>	All	<input checked="" type="radio"/>
Authorized	<input type="radio"/>	(1)	Inactive <input type="radio"/>
Not authorized	<input type="radio"/>	(1)	Active <input type="radio"/>
		(2)	Never Authed <input type="checkbox"/> (1)

Below the table are buttons: Refresh, Edit Selected: (highlighted with a red arrow), Authorize, Deauthorize, and 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	

At the bottom, there are two input fields: "E-Mail Join Instructions" containing "alice@example.com" and "Manually Add Member" containing "# #####".

这时，点击状态可以看到已经拿到 IP

The screenshot shows the "Details for 9f77fc393eae6877" page. The top bar includes the time (21:54), signal strength (28.5 dBm), and battery level (86%). The page is divided into STATUS and CONFIGURATION tabs.

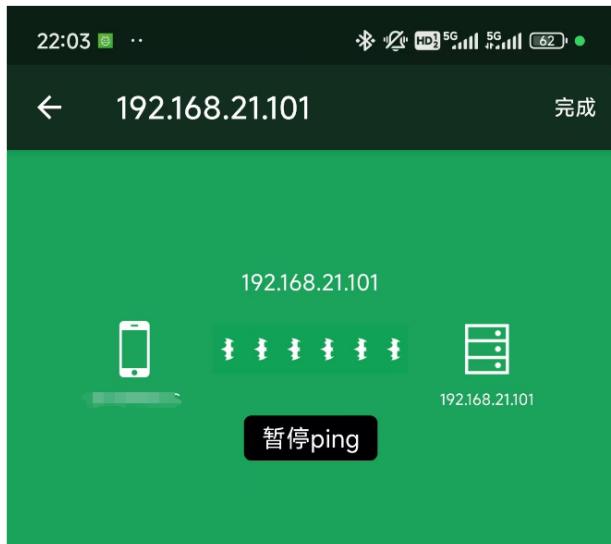
STATUS

Network ID	[REDACTED]
Network Name	gigantic_n[REDACTED]
Status	OK
Type	Private
MAC	7c:[REDACTED]
MTU	2800
Broadcast	Enabled
Bridging	Disabled
Managed IPs	10.244.61.148/16

CONFIGURATION

DNS	Search Domain: Network DNS is not configured
Server Addresses	[REDACTED]

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

