

# **Production Supporting Systems in Factories**

**ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม**

# HTTP `Get` Request

- Send a `get` request to `http://google.com`.
- Display a response to a `debug` panel.
- Write a response to `index.html`

# HTTP Server

- Create a server that responds to the `GET` request to `/hello`.
  - Respond with a static string.
  - Respond with a dynamic string.

```
const date = new Date();  
msg.time = date.toLocaleTimeString();  
return msg;
```

- Reponse to `/home` with an HTML document.
  - Create flow `http in`, `read file`, `http response`, `debug`



- `http in node`
  - `Method = GET`
  - `URL = home`
- `http response node`
  - No need to do anything.

- read file node
  - Filename = html/index.html
  - See next page.

Edit read file node

Delete Cancel Done

Properties

Filename

Output

Encoding

Name

Tip: The filename should be an absolute path, otherwise it will be relative to the working directory of the Node-RED process.

- Create a folder `html`
- Place an `index.html` in the folder
- Use web browser to the url `/home`

# Check your friends' computer

- Disable your firewall.
- Open `powershell` and type `ipconfig`
- Check if your friends' IP address is in the same subnet as your computer's
  - [Subnet calculator](#)
- Test your friends' computer by typing `test-netconnection 10.10.x.x -port 1880`
- If passed, the url is `http://10.10.x.x:1880/home`



# Networking overview

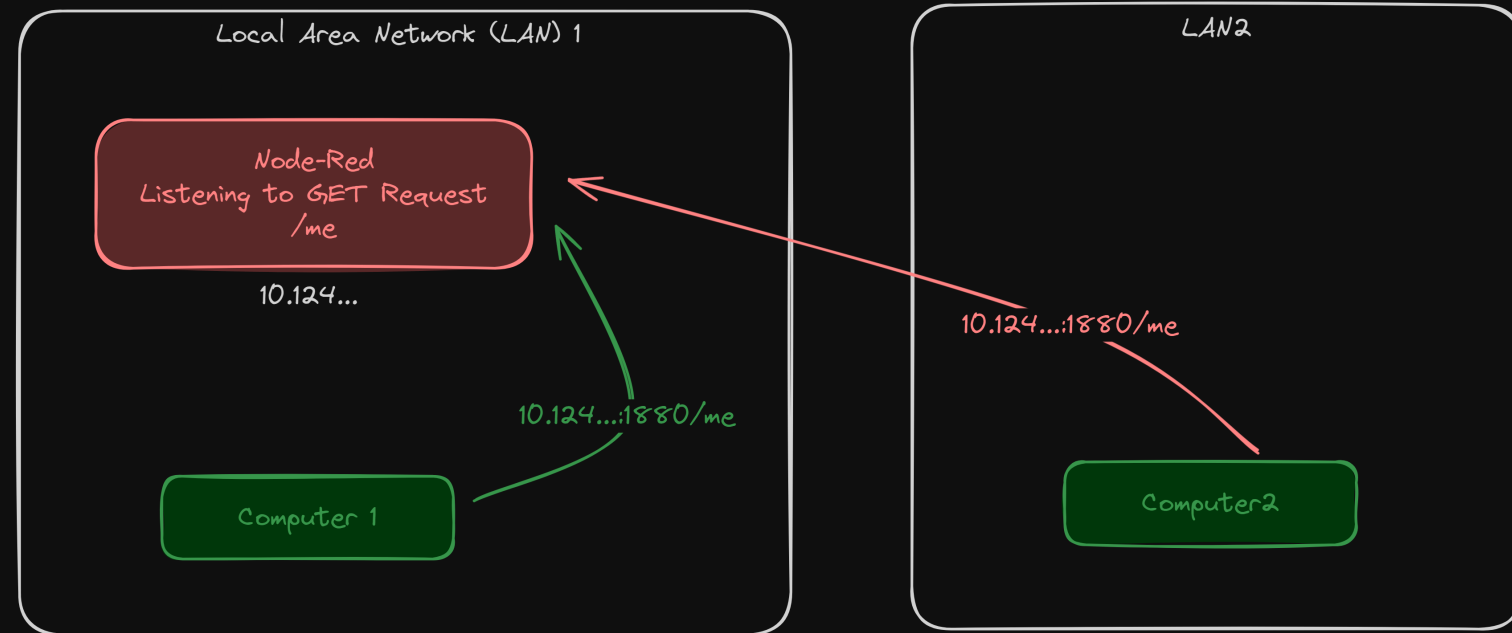
# Localhost

Node-Red  
Listening to GET Request  
/me

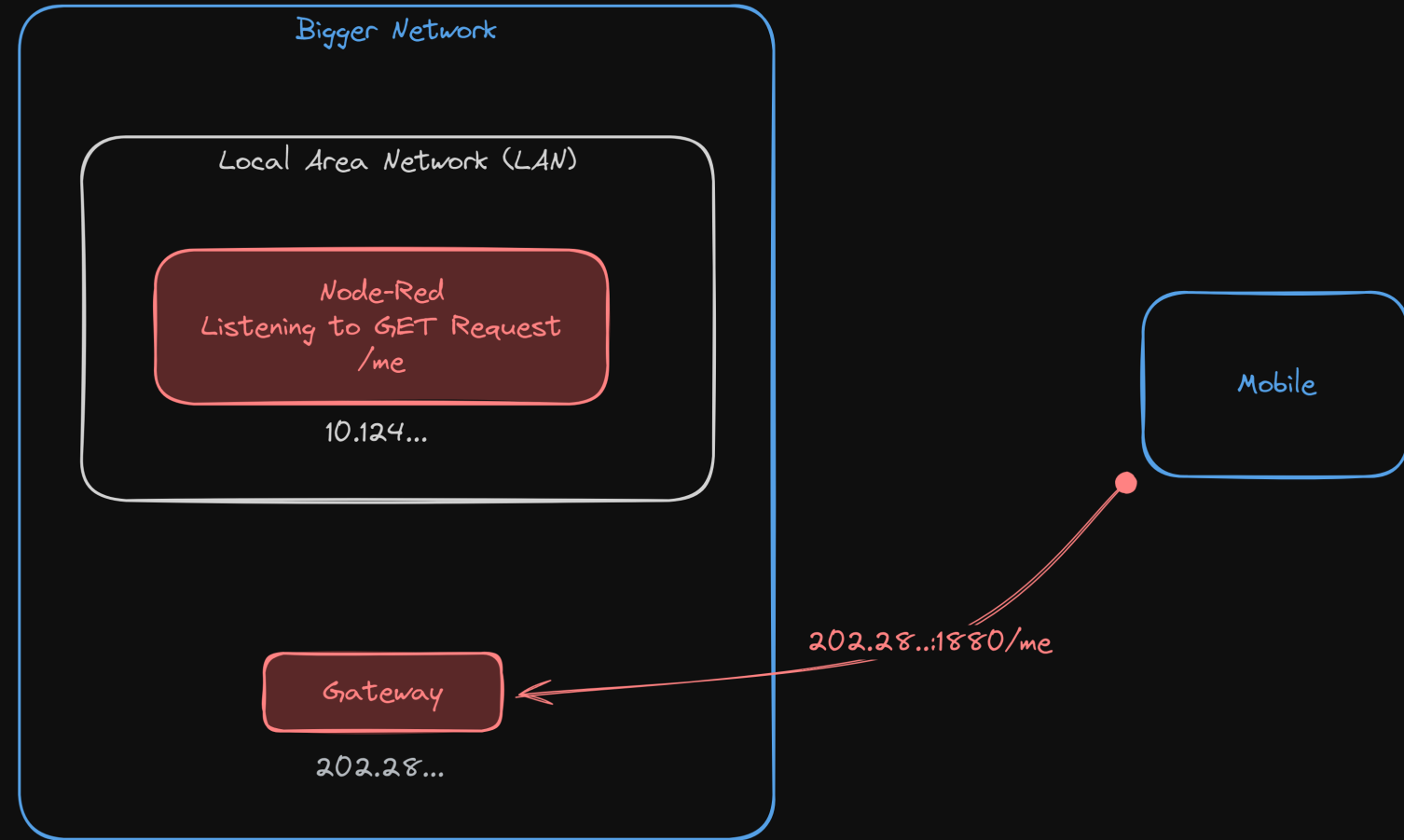
127.0.0.1:1880/me



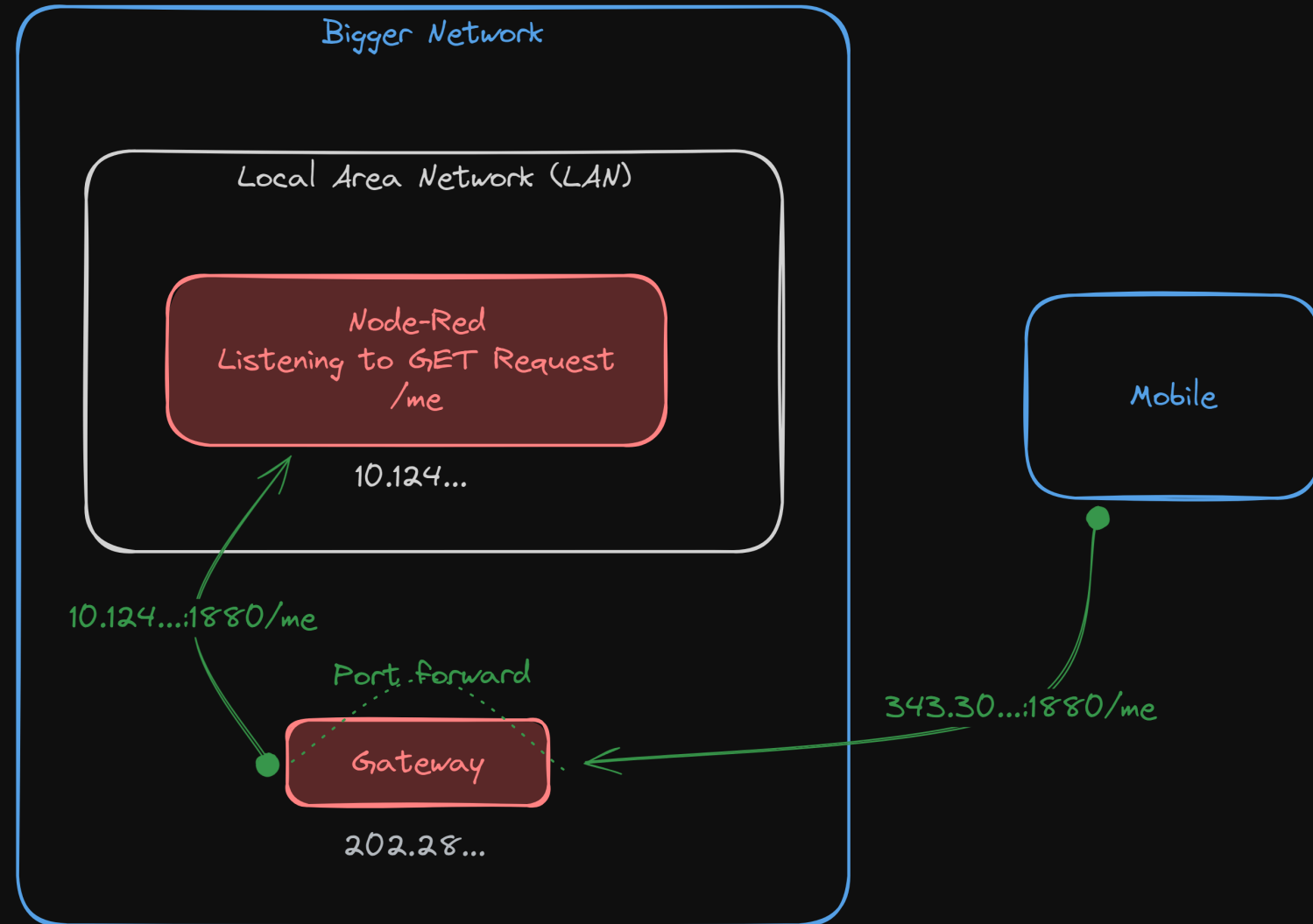
# Local area network



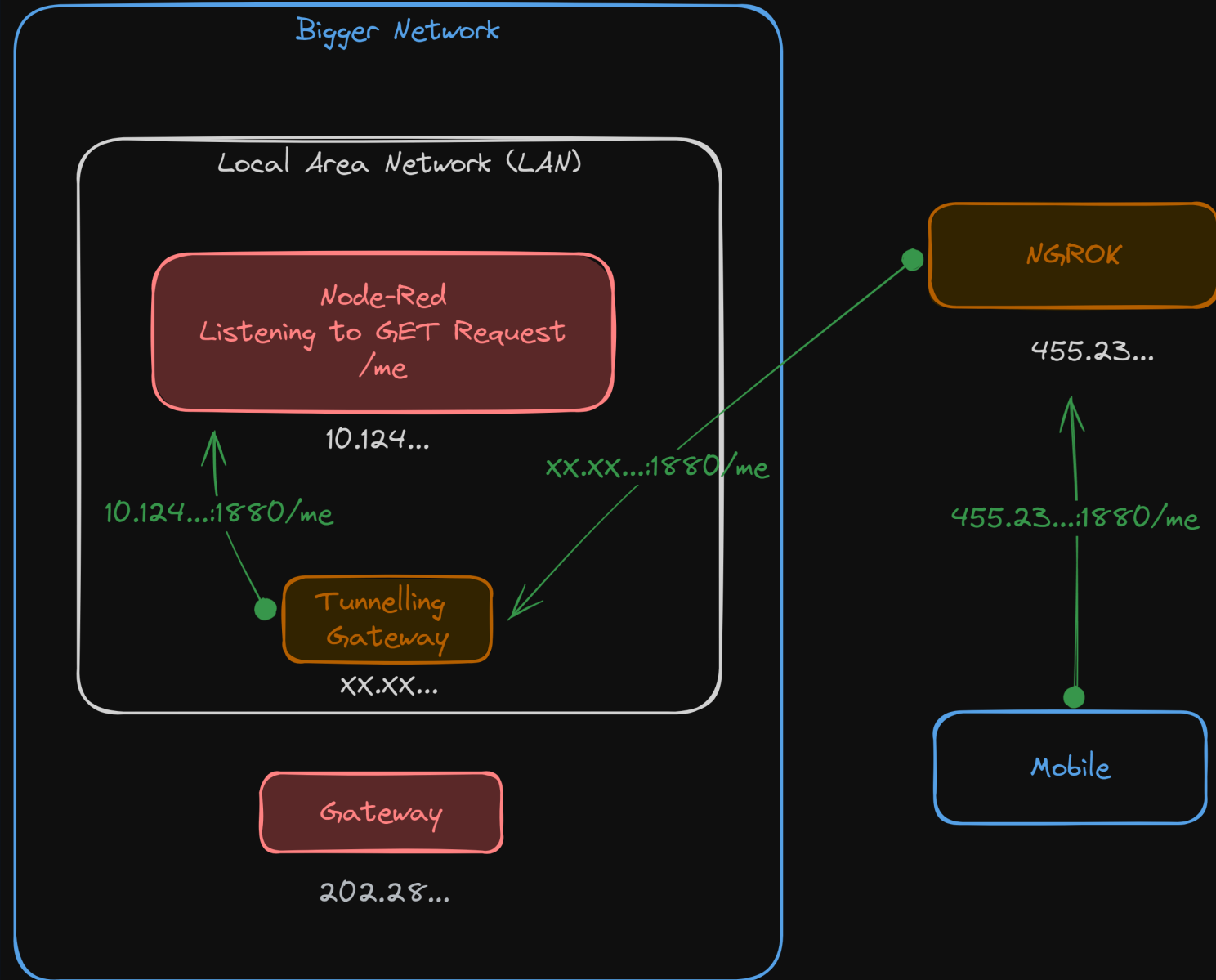
# Public IP



# Port forwarding



# Local tunneling



- Get `ngrok`
  - Create an account at <https://ngrok.com/>
  - **Verify email.**
  - Download the program.
  - Extract the program to the project folder.
  - Copy the command below.

## 2. Connect your account

Running this command will add your authtoken to the default `ngrok.yml` configuration file. This will grant you access to more features and longer session times. Running tunnels will be listed on the [endpoints page](#) of the dashboard.

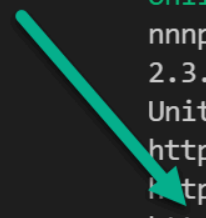
```
$ ngrok config add-authtoken
```

- VSCode
  - Create New Terminal
  - Run `ngrok config add-authtoken <YOUR AUTHTOKEN>` (Remove `./` from what you just copied.)
  - Run `ngrok http 1880`
- Copy the `https` address (`ctrl` + `shift` + `c`)

```
ngrok by @inconsreveable (Ctrl+C to quit)

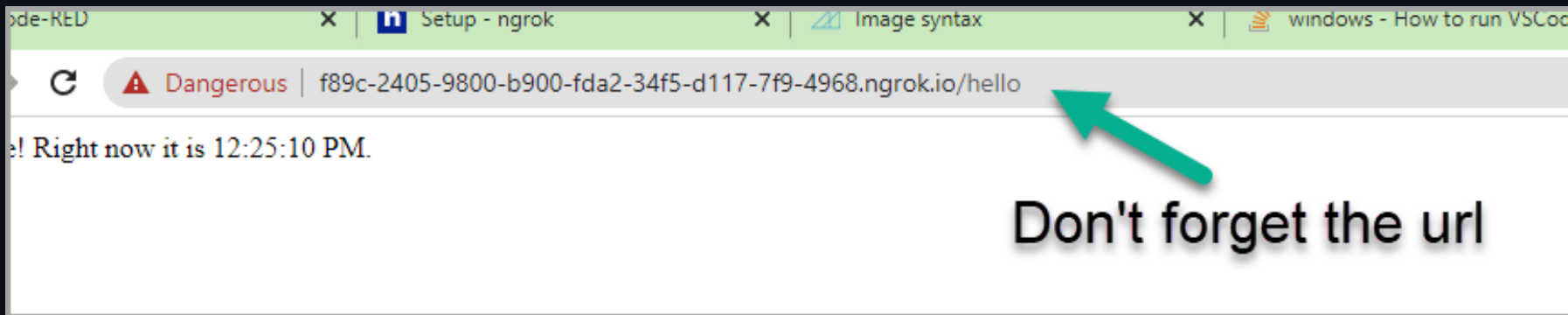
Session Status      online
Account             nnnpooh (Plan: Free)
Version             2.3.40
Region              United States (us)
Web Interface       http://127.0.0.1:4040
Forwarding           http://3fe2-2405-9800-b900-fda2-2d0a-b28f-a42c-1971.ngrok.io -> h
Forwarding           https://3fe2-2405-9800-b900-fda2-2d0a-b28f-a42c-1971.ngrok.io ->

Connections         ttl    opn    rt1    rt5    p50    p90
                   0      0      0.00   0.00   0.00   0.00
```





- Paste the address in the browser.
  - Don't forget to add the url in the end.



- Try sharing this link to your friends.