

Setting up a private RPC server on Debian / Ubuntu

1. Set up and sync your BPX Chain full node [following this guide](#). When creating the execution client systemd service, add some new parameters to the **bpx-geth** command line:

```
ExecStart=bpx-geth --syncmode snap --http --http.api web3,eth,net --http.corsdomain ""
```

- `--http.api web3,eth,net` makes only safe APIs available to the public: `web3`, `eth` and `net`, while blocking access to potentially dangerous RPC methods, such as `admin` or `personal`
- `--http.corsdomain ""` allows your RPC endpoint to be used in dApps across all domains

If you want your RPC endpoint to provide archive data as well, replace the mentioned line with the following one:

```
ExecStart=bpx-geth --syncmode full --gcmode archive --http --http.api web3,eth,net --http.corsdomain ""
```

2. Create an **A** record in your domain's DNS zone and point it to the IP address of your BPX full node.

BPX developers recommendation: All private RPC endpoints should be named `bpx-dataseed`, so if your domain is `yourdomain.com`, please name your RPC server `bpx-dataseed.yourdomain.com`.

3. Install the **nginx** HTTP server and **certbot**:

```
apt-get install nginx python3-certbot-nginx
```

4. Configure nginx as a reverse proxy for **bpx-geth**:

```
nano /etc/nginx/sites-available/bpx-dataseed.yourdomain.com
```

```
upstream geth {  
    least_conn;
```

```
server 127.0.0.1:8545;
}

server {
    server_name bpx-dataseed.yourdomain.com;

    location / {
        proxy_pass http://geth;
    }
}
```

Save file and exit.

5. Enable the new site and restart nginx:

```
ln -s /etc/nginx/sites-available/bpx-dataseed.yourdomain.com /etc/nginx/sites-enabled/bpx-
dataseed.yourdomain.com
systemctl restart nginx
```

6. Obtain a free SSL certificate from **Letsencrypt** to enable HTTPS:

```
certbot --nginx -d bpx-dataseed.yourdomain.com
```

During the Certbot wizard, provide your email address for notifications related to the certificate, then select the option to redirect all HTTP traffic to HTTPS.

7. It's done. Test your RPC endpoint by adding `https://bpx-dataseed.yourdomain.com` instead of the public RPC address in your wallet, such as MetaMask.

Let the BPX developers know that you are hosting your own RPC endpoint. If it operates reliably for a certain period, we will promote it on our website and in other places.

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