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## Remote access

# Tailscale

OpenClaw can auto-configure Tailscale **Serve** (tailnet) or **Funnel** (public) for the Gateway dashboard and WebSocket port. This keeps the Gateway bound to loopback while Tailscale provides HTTPS, routing, and (for Serve) identity headers.

## Modes

`serve` : Tailnet-only Serve via `tailscale serve` . The gateway stays on `127.0.0.1` .

`funnel` : Public HTTPS via `tailscale funnel` . OpenClaw requires a shared password.

`off` : Default (no Tailscale automation).

## Auth

Set `gateway.auth.mode` to control the handshake:

`token` (default when `OPENCLAW_GATEWAY_TOKEN` is set)

`password` (shared secret via `OPENCLAW_GATEWAY_PASSWORD` or config)

When `tailscale.mode = "serve"` and `gateway.auth.allowTailscale` is `true` , valid Serve proxy requests can authenticate via Tailscale identity headers ( `tailscale-user-login` ) without supplying a token/password. OpenClaw verifies the identity by resolving the `x-forwarded-for` address

via the local Tailscale daemon ( `tailscale whois` ) and matching it to the header before accepting it. OpenClaw only treats a request as Serve when it arrives from loopback with Tailscale's `x-forwarded-for` , `x-forwarded-proto` , and `x-forwarded-host` headers. To require explicit credentials, set `gateway.auth.allowTailscale: false` or force `gateway.auth.mode: "password"` .

## Config examples

### Tailnet-only (Serve)

```
{
  gateway: {
    bind: "loopback",
    tailscale: { mode: "serve" },
  },
}
```

Open: `https://<magicdns>/` (or your configured `gateway.controlUi.basePath` )

### Tailnet-only (bind to Tailnet IP)

Use this when you want the Gateway to listen directly on the Tailnet IP (no Serve/Funnel).

```
{
  gateway: {
    bind: "tailnet",
    auth: { mode: "token", token: "your-token" },
  },
}
```

Connect from another Tailnet device:



Control UI: `http://<tailscale-ip>:18789/`

WebSocket: `ws://<tailscale-ip>:18789`

Note: loopback ( `http://127.0.0.1:18789` ) will **not** work in this mode.

## Public internet (Funnel + shared password)

```
{
  gateway: {
    bind: "loopback",
    tailscale: { mode: "funnel" },
    auth: { mode: "password", password: "replace-me" },
  },
}
```

Prefer `OPENCLAW_GATEWAY_PASSWORD` over committing a password to disk.

## CLI examples

```
openclaw gateway --tailscale serve
openclaw gateway --tailscale funnel --auth password
```

## Notes

Tailscale Serve/Funnel requires the `tailscale` CLI to be installed and logged in.

`tailscale.mode: "funnel"` refuses to start unless auth mode is `password` to avoid public exposure.

Set `gateway.tailscale.resetOnExit` if you want OpenClaw to undo `tailscale serve` or `tailscale funnel` configuration on shutdown.



`gateway.bind: "tailnet"` is a direct Tailnet bind (no HTTPS, no Serve/Funnel).

`gateway.bind: "auto"` prefers loopback; use `tailnet` if you want Tailnet-only.

Serve/Funnel only expose the **Gateway control UI + WS**. Nodes connect over the same Gateway WS endpoint, so Serve can work for node access.

## Browser control (remote Gateway + local browser)

If you run the Gateway on one machine but want to drive a browser on another machine, run a **node host** on the browser machine and keep both on the same tailnet. The Gateway will proxy browser actions to the node; no separate control server or Serve URL needed.

Avoid Funnel for browser control; treat node pairing like operator access.

## Tailscale prerequisites + limits

Serve requires HTTPS enabled for your tailnet; the CLI prompts if it is missing.

Serve injects Tailscale identity headers; Funnel does not.

Funnel requires Tailscale v1.38.3+, MagicDNS, HTTPS enabled, and a funnel node attribute.

Funnel only supports ports `443` , `8443` , and `10000` over TLS.

Funnel on macOS requires the open-source Tailscale app variant.

## Learn more

Tailscale Serve overview: <https://tailscale.com/kb/1312/serve>



tailscale serve command: <https://tailscale.com/kb/1242/tailscale-serve>

Tailscale Funnel overview: <https://tailscale.com/kb/1223/tailscale-funnel>

tailscale funnel command: <https://tailscale.com/kb/1311/tailscale-funnel>

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