

Tirros Networks

Lightweight / Stealth Small Cell Hosting Requirements

This document defines requirements for low-visibility, low-power small cell deployments intended to blend into residential, commercial, or mixed-use environments.

1. Deployment Profile

- Ultra-compact outdoor small cell (pole-mounted)
- Outdoor installation required for small cell equipment.
- Indoor access gateway (AGW) required to connect the cell to the network.
- No large cabinets, towers, or visually obvious telecom equipment
- Passive or near-silent operation preferred

2. Power Requirements

- 120V AC standard outlet only.
- Maximum continuous draw: 250W.
- Site power reliability requirement: no more than 48 hours of cumulative power downtime in the past 30 days.
- UPS or battery backup strongly preferred but not required.

3. Backhaul / Internet

- Dedicated fiber internet connection required.
- Cable / DOCSIS internet is explicitly prohibited.
- Minimum speed: 1 Gbps symmetric.
- Low jitter and packet loss required.
- Public IPv4/IPv6 or routable private addressing acceptable.
- No restrictive CGNAT that interferes with tunneling or core connectivity.

4. Network Handoff

- Direct wired Ethernet connection required between small cell equipment and the site gateway/router.
- Wi-Fi backhaul is not permitted under any circumstances.
- Ethernet handoff (1 Gbps minimum).
- VLAN tagging support preferred.
- Must allow encrypted tunnels (IPsec, WireGuard, or GRE).

5. RF & Antenna

- Low-power LTE / 5G NR operation.
- Small internal antennas or discreet external antennas only.
- Mounting pole required with antenna height of at least 5 meters above ground level.
- Mounting locations must minimize visibility where possible.
- Compliance with FCC and local RF exposure limits required.

6. Environmental

- Indoor operating range: 0–40°C.
- Outdoor installs must be weather-sealed.
- No active cooling required in most cases.

7. Security

- Equipment must be installed in a non-public, secure location.
- Host agrees not to tamper with equipment.
- Physical access limited to authorized personnel.

8. Access & Maintenance

- Scheduled access acceptable.
- Emergency access within reasonable notice preferred.
- No daily interaction required from host.

9. Legal & Permissions

- Property owner consent required.
- Deployment must not violate HOA, lease, or zoning rules.
- Silent operation with no lighting or indicators visible to the public.

10. Monitoring

- Outbound monitoring traffic permitted.
- Remote reboot capability preferred.

11. Commercial Terms

- Flat monthly hosting fee or service credit.
- Low operational burden for host.
- Flexible term lengths.

12. Trial Period & Verification

- Upon provisional acceptance, the host will receive a monitoring computer provided by Wicorn29 Networks (parent company of Tirros Networks).
- The device will monitor:
 - Power uptime and outages
 - Internet availability
 - Internet speed and sustained bandwidth
- Monitoring duration: 7 consecutive days.
- The host must:
 - Provide power and wired Ethernet connectivity to the device
 - Allow uninterrupted operation for the full trial period
 - Be cooperative with reasonable testing requests
 - Return the device immediately upon request, in the same condition it was received
 - Acknowledge and recognize that the equipment installed is property of Tirros Networks and must not be tampered with
- Failure to cooperate or meet requirements during the trial may result in disqualification.

13. Disqualifiers

- Internet below 1 Gbps fiber.
- Recurrent power instability exceeding limits.
- Visible or intrusive installation locations.
- Restrictions on encrypted traffic.