Urban Wireless solutions
Connecting the modern urbanite
Connecting the modern urbanite

With over 68% of the world’s population living in urban zones by 2050 (source: United Nations), it is imperative to ensure robust connectivity in major metropolitan areas. Network equipment across urban areas will need to be high performing, compact, cost-effective, and aesthetically pleasing to ensure subscribers are connected as they work, play, and commute.

**Urban traffic trends**

1. Mega cities and taller buildings are driving incredible urban growth
2. Energy efficiency standards are changing the way we live and the way we bring connectivity to the masses
3. Video is driving incredible traffic growth
4. Service providers need to deal with higher frequency bands moving forward
What is Urban Wireless?

The Ericsson Urban Wireless portfolio

Connecting the modern urbanite in major metropolitan areas will primarily be addressed by radios below the rooftop — bringing robust cellular connectivity closer to the subscriber. These include:

- **Ericsson Micro Radio**
- **Ericsson Radio Dot System**

**The Ericsson Urban Wireless portfolio**

Ericsson’s Street portfolio offers service providers the opportunity to seamlessly bring connectivity to urban dwellers and workers. Part of the Ericsson Radio System, the street solutions are an integrated part of the network, with feature parity and end-to-end performance.

- **Ericsson Street Macro**
- **Ericsson Micro Radio**
- **Ericsson Radio Dot System**

The Ericsson Radio Dot System is an indoor cellular solution that enables you to deliver superior indoor cellular connectivity. Dedicated capacity for high data speeds in medium to large buildings. Seamless transitions between indoor and outdoor environments.
68% of the world’s population living in urban zones by 2050
Outdoor deployments

Outdoor street coverage
General area outdoor and indoor coverage ("Suburbs")
Dedicated outdoor (8& indoor) open area ("Town square")
Dedicated building(s) Outdoor-in
Indoor/semi-outdoor open area ("garage", "mall", "station"...)

Outdoor users
Outdoor sites
Indoor sites

Street Sub-urban Urban Dense urban Indoor
Antennas @ 5-15m Above (or above) rooftop Below rooftop Outdoor street coverage
Dedicated indoor/semi-outdoor/below ground coverage
Upwards indoor/building coverage

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Indoor deployments

Network technology considerations based on venue size

1. Small
   - Outside-in or dedicated indoor, depending on building outer attenuation
   - Dedicated indoor: Radio Dot or micro radio depending on capacity requirements
   - Aggregate nearby small sites of eg campus/high rise
   - Connected to nearby macro site for shared baseband and backhaul

2. Medium
   - Outside-in or dedicated indoor, depending on building outer attenuation
   - Dedicated indoor: Radio Dot IRU connected to nearby macro for shared baseband and backhaul
   - If no macro close, use centralized baseband if dark fiber to venue exists

3. Large
   - On premise baseband, or shared indoor-macro baseband
   - If fiber not available, connect to internet grade backhaul using on-premise baseband

4. Very large
   - Radio Dot dedicated indoor complemented with micro radio for lower capacity areas, eg garage
   - If no macro close, use centralized IRU and/or distributed IRU configuration

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Venue distributed IRU sites

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**Why Ericsson?**

— The world leader in 4G LTE, 5G and private cellular networks.

— Leading the evolution to 5G and a global innovation leader with 49,000 patents.

— Global footprint with solutions deployed in over 180 countries.

**For more information:**

[Urban Wireless](#)

[Indoor Small Cells](#)

[Outdoor Small Cells](#)

[Street Solutions](#)