

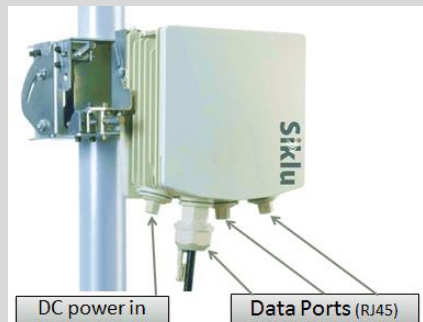
HetNet Backhaul Made Easy with Siklu Gigabit Wireless Systems for Macro Cell and Small Cell Backhaul over Uncongested Millimeter Wave Spectrum

Benefits

- Long term investment with Gigabit backhaul for macro & small cells
- Ultra wide, non-congested 60/70/80 GHz bands
 - Easy frequency planning
 - High re-use of spectrum
- Zero-touch installation
- Standards-based support for ring, mesh and multi add-drop
- Field proven technology



EH-1200 Aggregation and macro cell backhaul



EH-600T Small Cells street level backhaul

The exponential rise in mobile bandwidth consumption is driving operators to rapidly expand their mobile and mobile backhaul networks. The drastic expansion of mobile capacity is being rolled out in a multi-layered heterogeneous or het-net approach. High-capacity 3G and 4G-LTE macro cells are deployed in increasing density to provide more coverage and capacity, and an additional layer of small cells will be deployed to provide as much capacity as possible in metro areas.

The Challenge

Macro cell deployment is becoming denser and the cells are transitioning to all-outdoor, smaller form factor units, as is macro cell backhaul. The macro cell and its backhaul network is also evolving from the traditional hub and spoke topology to more advanced topologies such as daisy chain and ring, which allow easier and quicker site acquisition and provide the additional benefit of increased resiliency.

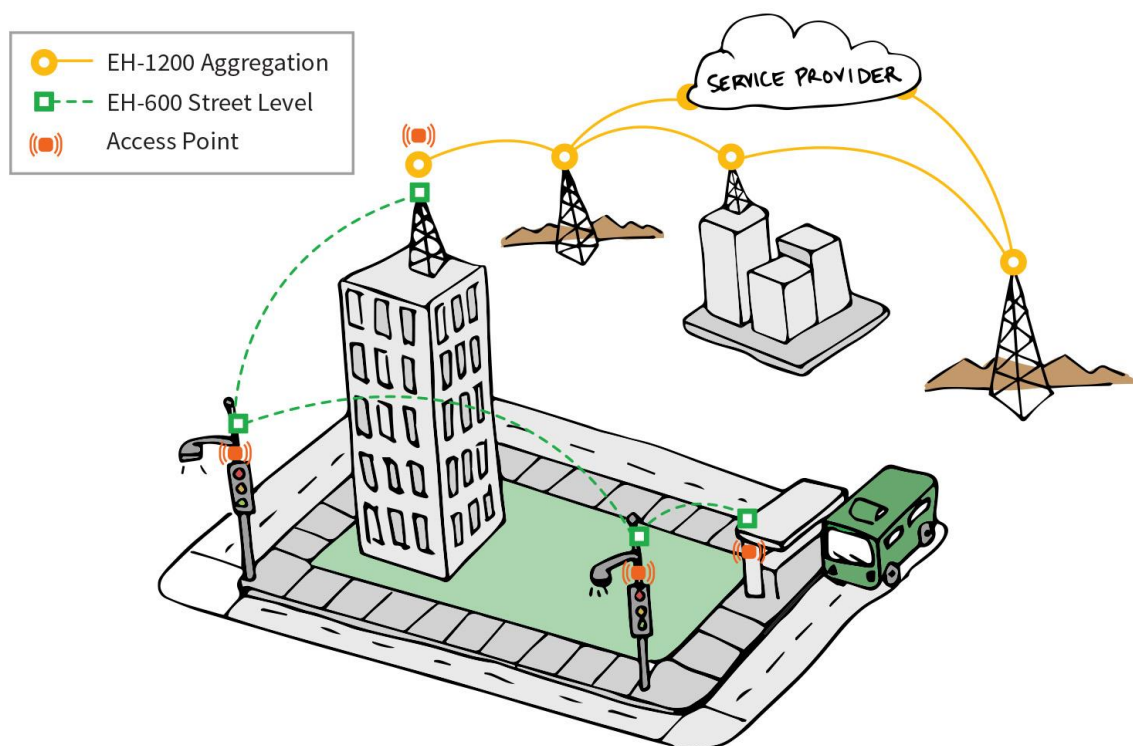
Small cells will be deployed at the street level – on anything from street lamps, street lights, electric poles and buildings fessed – and are expected to have a practically invisible form factor. They will provide enough capacity to support 4G/LTE rollouts and beyond, in advanced network topologies necessary for dense deployment. Thousands of small cells are expected to support a typical urban mobile network, so their cost and associated installation and maintenance costs must be as low as possible.

Fiber is always a reliable infrastructure choice where available, but given the high growth and increased density of the mobile backhaul network, it is both expensive and time consuming to reach all cell sites. Operators have long relied on traditional licensed microwave operating in the 6-38 GHz spectrum. However, the spectrum is increasingly congested, limiting the ability to deploy and scale high-capacity links, particularly for last mile backhaul in dense urban areas.

Introducing the EtherHaul 70-80 GHz E-band and 60 GHz V-Band Radios

High-capacity Gigabit Ethernet macro cell backhaul and palm sized Gigabit small cell backhaul enable mobile operators to profitably and reliably provide data intensive services in a HetNet topology.

- Uses the uncongested and interference free licensed E-band 70-80 GHz and unlicensed 60 GHz v-band spectrum, enabling fast and efficient frequency and network planning and deployment. As a bonus, licensing registration processes for the E-band are cheaper, simpler and quicker.
- With 1 Gbps throughput, EtherHaul radios future-proof the backhaul network to meet data growth demand from 4G/LTE installations.
- Carrier-class Ethernet provides QoS and OAM with standards-based support for ring, mesh and multi add-drop topologies assuring resiliency and high availability.
- Bandwidth aware QoS mechanism differentiates between multiple services, guaranteeing efficient transport of timing, signaling, voice, video, web surfing and more.
- Advanced timing over packet handling (SyncE, 1588) enables the migration to packet-based backhaul.
- Zero touch installation and commissioning – connects instantly to your SON
- All-outdoor unit eliminates collocation fees and indoor-associated costs and allows fast deployment at any cell-site.
- Narrow beam width and propagation characteristics make it immune to interference, frequency planning is easy, and high re-use of spectrum is possible.
- Low power consumption – can operate on PoE – delivers 80% energy savings.



Next Steps

To learn more about Siklu's HetNet wireless solution and the EtherHaul™ technology, please visit www.siklu.com or contact your local Siklu sales representative.



About Siklu

Siklu delivers Gigabit capacity millimeter wave wireless backhaul solutions operating in the 60, 70 and 80 GHz bands. The top choice of tier-1 operators worldwide, thousands of units have been deployed and deliver carrier grade performance.

Siklu's innovative all-silicon design has dramatically reduced prices and effectively opened the market for ultra-high capacity wireless links. Siklu recently launched its next innovation EH-600T- 60 GHz backhaul that enables mass deployment of small cells and other street-level networked devices. It completed the most advanced, and the only available today, full range of products leveraging millimeter wave bands, and enabling both TDD and FDD implementations.

For further information, visit www.siklu.com

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