INTERDIGITAL®

EdgeHaul™

Solutions

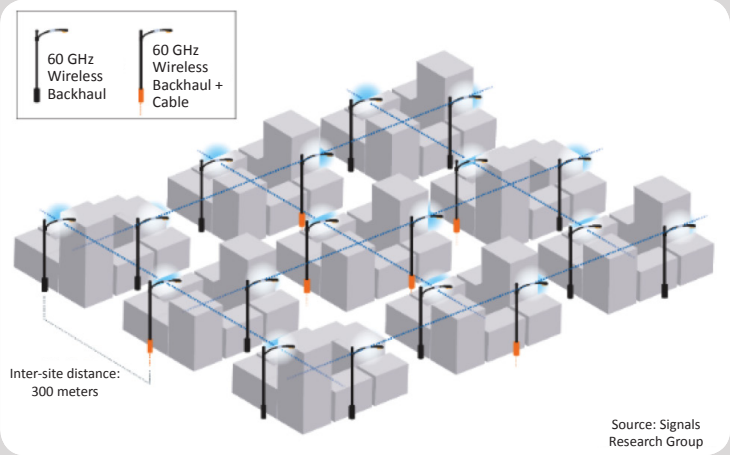
The world's first self-organizing millimeter wave Gbps transport system featuring adaptive phased array beam forming technology

InterDigital, a leader in state-of-the-art wireless technology for over forty years has developed the latest generation of mesh, self configuring, WiGig based Gbps transport system:

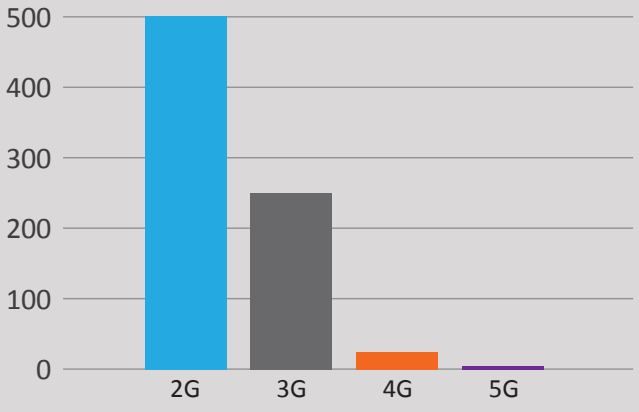
- EdgeHaul™ delivers LTE-A and 5G ready Gbps transport using low-cost design concepts (WiGig, global unlicensed spectrum, phased array antenna)
- Multi-hop topology is centrally controlled by intelligent mesh formation and routing algorithms that use the latest generation SDN technology
- Designed for mounting on lampposts or street furniture, the EdgeHaul nodes can be installed in minutes and use automated beam-steering for configuration and optimization long after the truck roll is completed

- Channel Size: 2 GHz
- Duplexing: TDD
- Operating Band: 57 – 64 GHz
- Throughput: Up to 8 Gbps
- Auto-Aligning Phased Array:
  - ±45° azimuth per sector
  - ±30° elevation per sector
- Range: 300 meters

Designed for Street Furniture and Lamppost mounting



Driving transport costs below $10/Mbps/month for small cell mobile backhaul, enterprises, and MNOs



Enabling Small Cell Deployments

- Mesh-optimized MAC functionality
- Self-Organizing Network (SON) with Self-Discovery and Automated Mesh Formation
- Automatic rerouting of data based on signal & link quality
- Interference aware Layer-2 Forwarding/ Routing with redundant/backup paths
- End-to-end guaranteed QoS support
- Dynamic routing enabled with electronically steerable phased array

InterDigital develops technologies that are at the core of mobile devices, networks, and services worldwide. We solve many of the industry's most critical and complex technical challenges, inventing solutions for more efficient broadband networks and a richer multimedia experience years ahead of market deployment. InterDigital has licenses and strategic relationships with many of the world's leading wireless companies.

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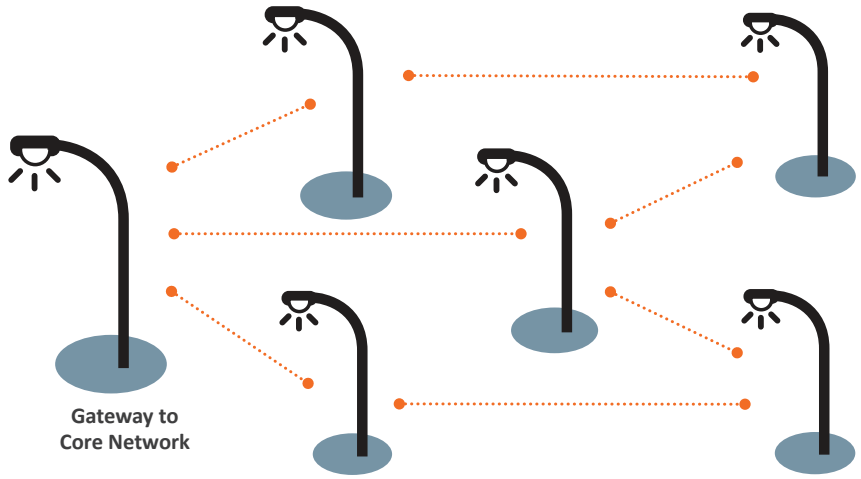
Technical Specifications

Available 1H2016

EdgeHaul™ System Components	
Multi-sector node	• Flexible architecture supporting 90,180,270 or 360° field of view
Mesh Controller	• OpenDaylight-based centralized control and management of system topology and route tables
Development kit	• Customized interfaces and access to EdgeHaul software and hardware for integration with customer platforms
Specifications	
Range	• 300 Meters
Throughput	• 2 Gbps per sector • 8 Gbps in four sector configuration
Network Topologies	• Ring, Daisy Chain, Mesh
Auto Configuration	• Automatic identification and updating of routing table
Ethernet	• 802.3ah, 802.1ag, Y.1731 • QoS and Traffic Shaping • Multi-level priority queues with end-2-end QoS guarantee
Interfaces	• 1GbE + 10GBE
Synchronization	• SyncE, IEEE 1588 v2
Management Interface	• Web based, CLI, SNMP 3.0, OpenFlow
Baseband	• 802.11ad through MCS 8
Phased Array Antenna and Radio	• 32 Element Phased Array • Gain ~ 17dBi • EIRP 36dBm • ±45° Azimuth steerable, 15° beamwidth • ±30° Elevation steerable, 28° beamwidth
Frequency	• 57-64GHz (V Band)
Dimensions	• 180mm x 180mm x 80mm
Power	• 48V DC, <50W • Power-over-Ethernet
Environmental	• -40°C to +60° C • Nema4X, IP56



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