

Gigabit Broadband Service for Hotels & Vacation Resorts

Summary

Network Area

- Wireless broadband service backhaul

Architecture

- Composite (nodal, tree, protected wireless rings, etc.)

Solution

- StreetNode™ V60-PTP
- UltraLink™-FX80
- UltraLink™-BX70
- OmniBAS™ OSDR

Synergies

- uni|MS™

The Need for High-Quality Broadband Services!

Tourist areas consist of chains of hotels and large resorts that stretch along coast lines offering accommodation and large recreational areas. Today, Internet connectivity is considered to be an indispensable service of hotels and holiday resorts.

Access connectivity service is primarily delivered to the customers through WiFi, which today offers hundreds of Mbit/s capacities to support the latest handheld device capabilities.

However, the backhaul network feeding the WiFi access points is in many cases based on an xDSL protocol with performance that cannot support the delivery of high-speed WiFi services.

Challenges of Wireless Gigabit Connectivity Services Delivery

Service providers planning to offer wireless Gigabit Internet connectivity to hotels and holiday resorts are faced with a number of challenges:

- **Costs for Spectrum of Operation and Licensing Procedure**
Deploying multiple licensed links to enable Gigabit connectivity results in high yearly recurring costs for spectrum licences.
- **Equipment Costs**
Conventional microwave technology wireless systems require multiple radios to deliver Gigabit+ speeds.
- **Deployment Infrastructure Requirements**
Equipment that requires purpose-made, large and expensive installation structures, can render the deployment expensive and impractical.
- **Complexity of Deployment & Operation**
Complexity of installation, configuration and Operation Administration and Maintenance (OAM) is critical for enabling practical and low-cost deployments.

Cost-Efficiency & High-Performance Redefined!

The all-wireless Gigabit+ connectivity solution from Intracom Telecom exploits the advantages of its new, high-performance, millimeter-wave and microwave all-outdoor radios. ISPs can efficiently extend their connectivity down to the hotel building rooftops and recreational areas through the deployment of:

- StreetNode™ V60-PTP radios at 60 GHz, offering up to 1.65 Gbit/s full duplex speeds, can be installed on the rooftops of the buildings and outdoor area structures in relay/add-drop configurations. Up to 800 meters.
- UltraLink™-FX80 radios at 70/80 GHz, offering up to 3 Gbit/s full duplex speeds, can connect to the service provider point-of-presence (PoP) site and the served locations. Up to 6 km.
- UltraLink™-BX70 cost-optimized TDD radio at 70 GHz, offering up to 1.6 Gbit/s aggregate capacity split symmetrically or asymmetrically. Up to 5 km.
- OmniBAS™ OSDR links, operating in conventional microwave frequencies (6-42 GHz) and offering up to 0.9 Gbit/s full duplex speeds to connect the service provider central office / PoP to the campus / resort area, especially where large distances are involved. More than 6 km.

The key features of this solution include:

- No (or low) spectrum acquisition-related costs – license fee-free spectrum at 60 GHz, or competitively-priced light-licensed plenty of spectrum at 70/80 GHz, are ideal for low-cost deployment
- Simple deployment at any location – the small size and weight enable unobtrusive deployment without necessitating costly installation infrastructure while taking up minimal space.
- Installation and configuration automations, such as the auto-alignment and zero-touch provisioning facilitate installation & commissioning and speed up link deployment, even by non-expert technicians.
- Configuration flexibility & network resiliency – the multiple Ethernet ports and integrated switch functionality of the radios facilitate their interconnection toward the forming of various network topologies, including ITU-T G.8032 Ethernet protected rings.



StreetNode™



UltraLink™-FX80



OSDR



UltraLink™-BX70

Solution Highlights

OpEx Savings



Most links operate only in OpEx-free unlicensed or light-licensed E-Band spectrum

CapEx Savings



Up to 3 Gbit/s Ethernet capacity with minimum hardware, two small-size all-outdoor radio units per link. No, or minimal, requirements for additional installation infrastructure

Unified Management



One intuitive management suite, uni|MS™, with advanced SON features manages everything, from radio equipment to wireless services

Enhancing Quality of Internet Service Experience!

Automations for Fast & Easy Deployment



Zero-touch configuration and auto-alignment (StreetNode™ V60-PTP). The radio is installed and configured in up to 30 minutes by non-specialized personnel using an Android tablet and Bluetooth

Flexible Networking

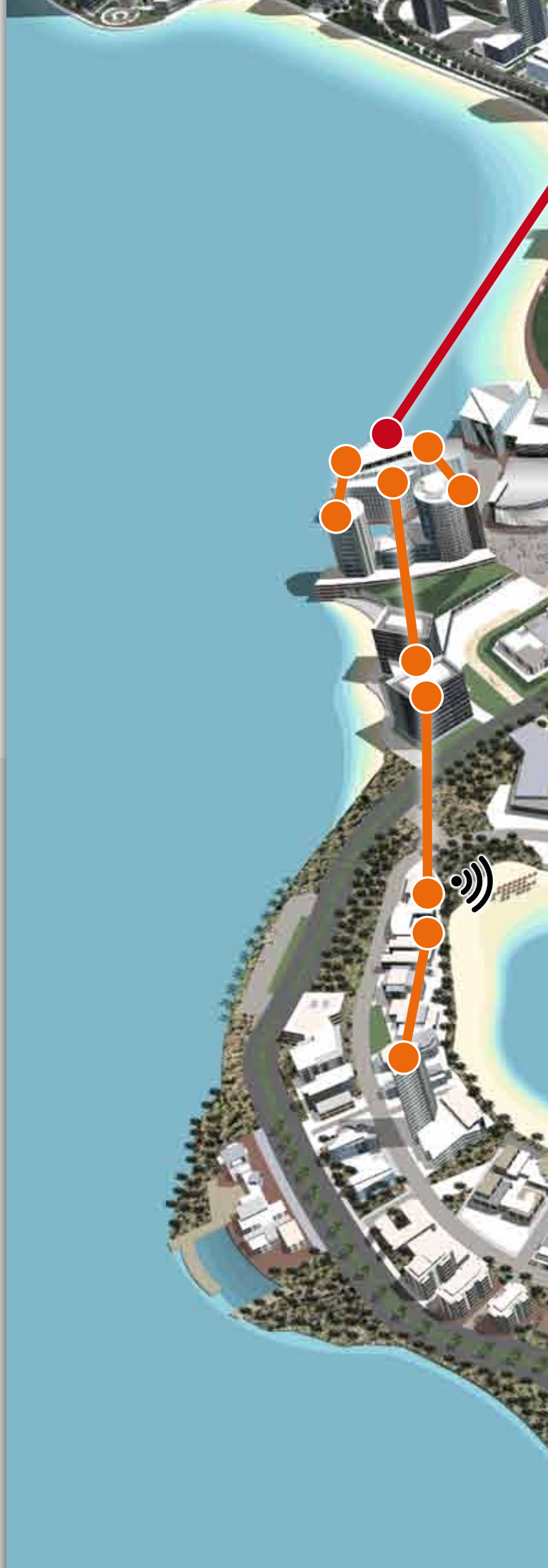


3 x Gigabit interfaces per radio and an embedded switch make the deployment in complex topologies possible and offer trouble-free connection to standard in-building switches and/or routers

Flexible Powering

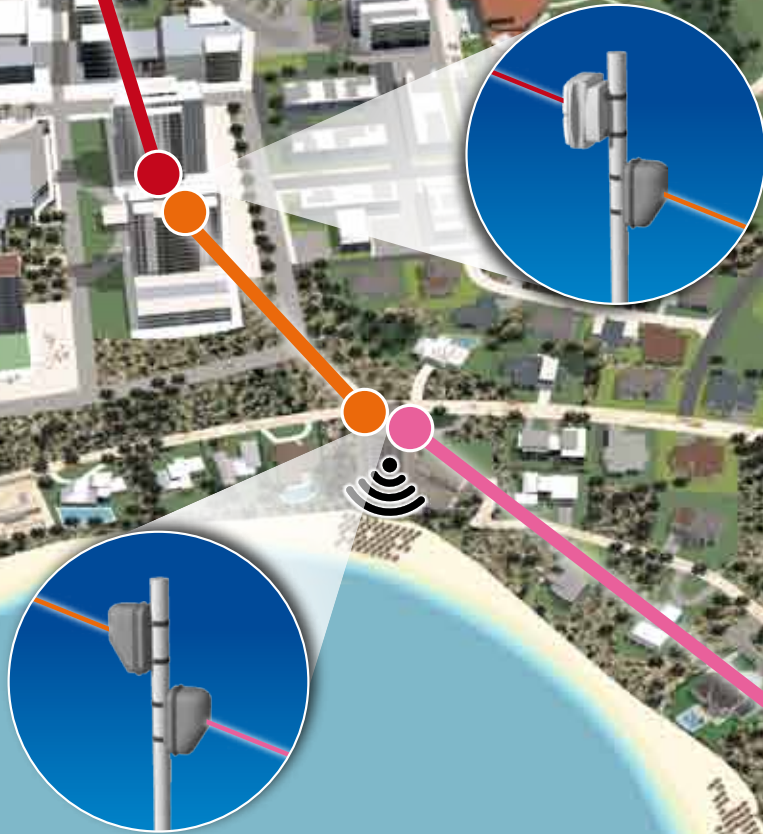


Powering options (direct DC, direct AC or PoE) adapt to the most convenient powering available on site



ISP's PoP Site

- UltraLink™-FX80
E-Band PtP
- UltraLink™-BX70
E-Band PtP
- StreetNode™ V60-PTP
mmWave PtP
- OSDR
MW PtP Hub radio (13-42 GHz)



WiFi coverage area

Served Resort Area

Why this Solution is for You

Advanced Design

- All-outdoor, compact and lightweight units
- Mounting-friendly units for hassle-free installation at rooftop/street-level
- Multiple Gigabit interfaces

High-Performance & Feature-Rich

- Highest capacity in their class
- Multiple packet synchronization options
- Carrier Ethernet networking features

Unprecedented Flexibility

- Automations for fast, error-free and cost-efficient deployment
- Powering type options – direct DC, DC PoE and AC PoE
- Easy to use, web technology NMS simplifies and automates OAM tasks

Unprecedented innovations for the millimeter-wave product family

- Highest capacity in their class
- Carrier Ethernet networking features
- Multiple network synchronization options
- Gigabit and CPRI (UltraLink™-FX80) interfaces
- Powering type flexibility – direct DC, DC PoE, AC PoE

The StreetNode™ and UltraLink™ products, which participate in this solution, can be combined with other PtP and PtMP offerings from Intracom Telecom for a complete wireless backhaul toolkit.

Participating Products Specifications Summary

StreetNode™ V60-PTP (V-Band)

- Radio
 - Up to 1.65 Gbit/s throughput
 - Up to 128-QAM hitless adaptive modulation
- Mechanical & Electrical
 - Dimensions (HxWxD), mm: 298 x 151 x 176
 - Weight: 3 kg (excluding the mounting kit)

UltraLink™-FX80 (E-Band)

- Radio
 - Up to 3 Gbit/s throughput
 - Up to 256-QAM hitless adaptive modulation
- Mechanical & Electrical
 - Dimensions (HxWxD), mm: 290 x 290 x 108
 - Weight: 4 kg (excluding the mounting kit)

UltraLink™-BX70 (E-Band)

- Radio
 - Up to 1.6 Gbit/s aggregate throughput
 - TDD throughput split 1:1, 2:1, 3:1

- Mechanical & Electrical

- Dimensions (HxWxD), mm: 200 x 200 x 40
- Weight: <3 kg (excluding the mounting kit)

OSDR (MW-Band)

- Radio
 - Up to 880 Mbit/s throughput
 - Up to 4096-QAM hitless adaptive modulation
- Mechanical & Electrical
 - Dimensions (HxWxD), mm: 290 x 238 x 96
 - Weight: 4.5 kg (excluding the mounting kit)

uni|MS™

- Unified multi-vendor and multi-technology management
- Unprecedented network visualization through Web-based user interface
- Out-of-the-box dashboards & reports with network bandwidth & performance analysis
- Highly-automated network rollout through self-organized networks
- Network and RF planning tools closing the loop between “as planned” and “as built”

Why Intracom Telecom

One-stop Shop

- Comprehensive portfolio of end-to-end radio access & backhaul solutions
- Proven integration & interoperability
- State-of-the-art end-to-end management suite

Established Wireless Vendor

- Growing and continuous presence for a variety of access and transmission solutions
- Growing brand name recognition for PtP and PtMP solutions

Recognized for Service Excellence

- Extensive implementation track record
- Specialized & highly experienced personnel
- Consulting, design, implementation & support
- Commitment to adding customer value

Continuous Innovation

- Innovating in the wireless access and transmission field for over one and a half decade
- Successful development and deployment of PtP and PtMP systems with numerous operators in Europe, the Middle East, the CIS, Asia and Africa
- Investing heavily on the continuous evolution of its wireless product lines

About Intracom Telecom

Intracom Telecom is a global telecommunication systems and solutions vendor operating for 40 years in the market. The company innovates in the areas of small-cell backhaul, wireless transmission and broadband wireless access and has successfully deployed its industry leading point-to-point and point-to-multipoint packet radio systems worldwide. Moreover, Intracom Telecom offers a competitive portfolio of revenue-generating telco software solutions and a complete range of ICT services, focusing on big data analytics, converged networking and cloud computing for operators and private, public and government clouds. The company invests significantly in R&D developing cutting-edge products and integrated solutions that ensure customer satisfaction. Over 100 customers in more than 70 countries choose Intracom Telecom for its state-of-the-art technology. The company operates subsidiaries in Europe, Russia and the CIS, the Middle East and Africa, Asia and North America.