



VSAT Stellar
AWARDS
WINNER

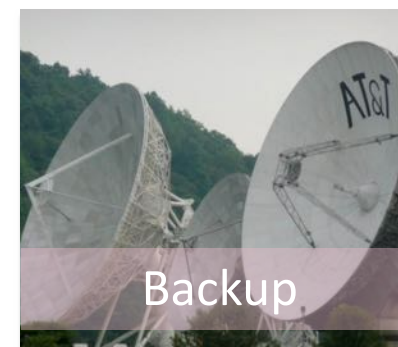
SATELLITE BACKHAUL

UNIVERSAL HARDWARE PLATFORM



SATELLITE BACKHAUL

- **DVB-S2X bandwidth-efficient** modulation and coding
- **Scalability:** start with a SCPC link and SW migrate to a TDM/TDMA network
- Highest **TDMA efficiency:** 96% and fast BW allocation
- Highest **transmit capability** : 450 Mbps aggregate
- Extremely high processing capability up to **190K PPS**
- Robust **L2** interface can carry Metro Ethernet traffic, as well as **Layer 3**
- NMS with XML-based **API** for easy integration with OSS/BSS
- Sophisticated **QoS** with built-in 2G, 3G & LTE **backhaul optimization**
- **Field proven** with major Mobile Network Operators in the USA



UHP-231: INTELLIGENT ROUTER

- Powerful L3/L2 router with 190 000 pps
- Mesh: eliminate double bandwidth allocation
- Multiple configuration profiles
- Embedded Computer for advance applications and traffic processing
- Sophisticated QoS with VLAN management and built-in 2G, 3G & LTE backhaul optimization
- 24 / -48 VDC power option



UHP BACKHAUL

Capabilities

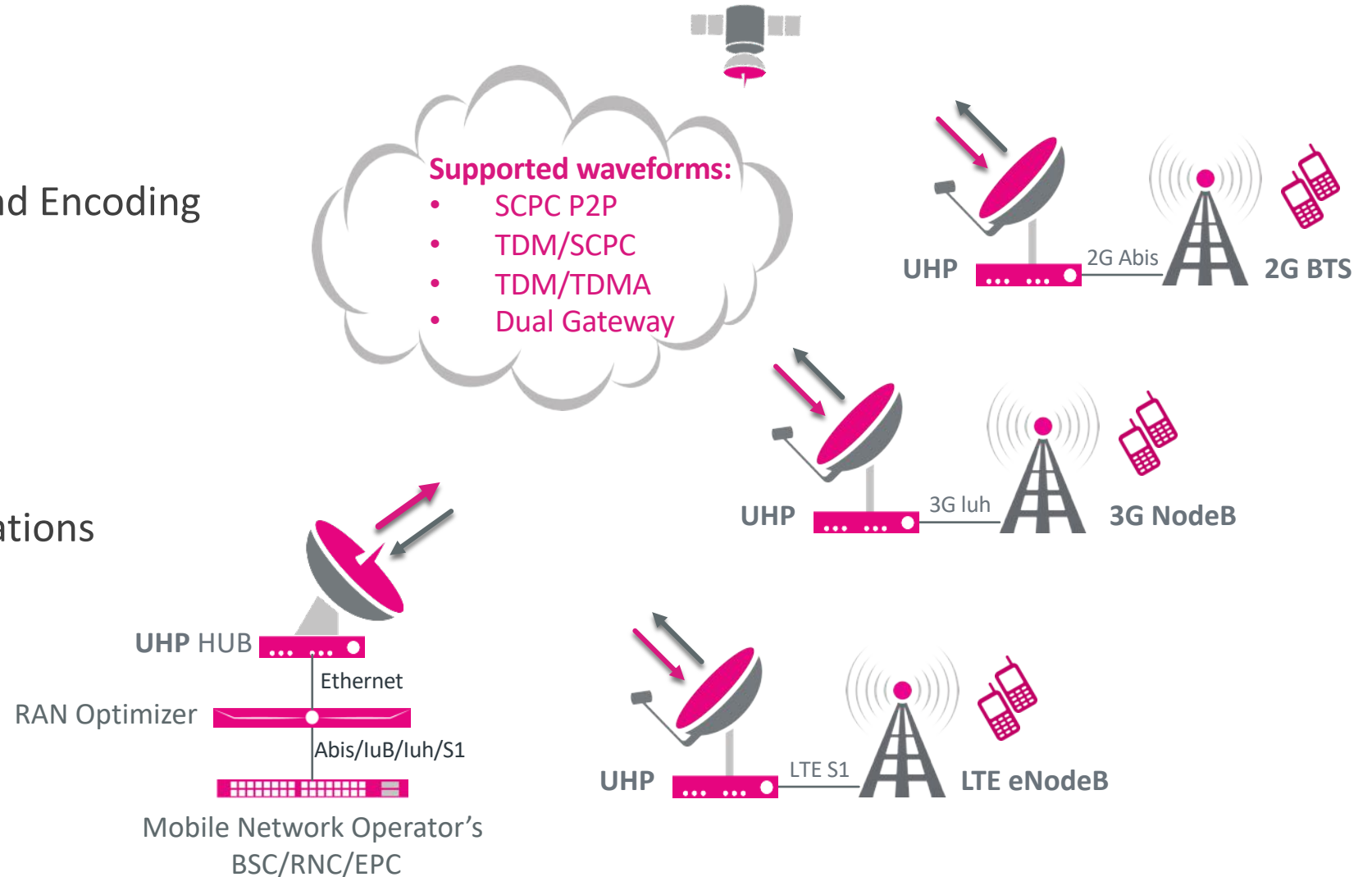
- Software-defined network (SDN)
- Support for different standards
- Seamless global coverage
- High-speed connectivity
- Flexible topology and waveforms
- Efficient use of satellite bandwidth
- Easy to deploy, reliable equipment

Advantages

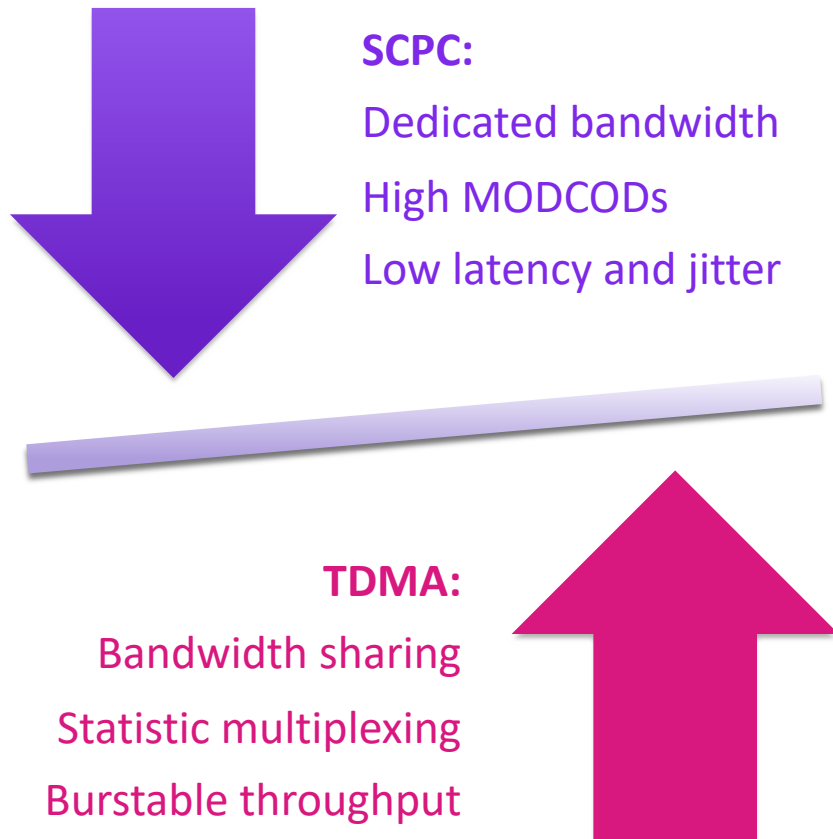
- ✓ Reduce backhaul costs
- ✓ Increase revenue and profitability
- ✓ Improve network performance
- ✓ Launch new services
- ✓ Penetrate to new regions
- ✓ Easy future enhancements
- ✓ Backup for terrestrial backhaul

CELLULAR BACKHAUL SOLUTION

- 3G luh & LTE S1 Decoding and Encoding
- Optimization & Offload
- TCP Acceleration
- DVB-S2X modulations
- Adaptive coding and modulations
- Various waveforms
- Any network topologies



SCPC VS TDMA: SATELLITE BACKHAUL DILEMMA



- **Find the middle ground: use both**
 - TDM forward channel with efficient encapsulation, traffic policies and QoS
 - MF-TDMA return channels with data rate up to 35 Mbps per carrier and 96% efficiency vs SCPC
 - Dedicated SCPC or on-demand SCPC-DAMA return channels up to 225 Mbps
 - SW-controlled switchover between SCPC and TDMA waveforms