

# Cell Site Gateway Router

UfiSpace Open Compute Contribution

Kei Lee

Director of Technology, Ufi Space Co., Ltd.

Kei.Lee@ufispace.com



### Our Company



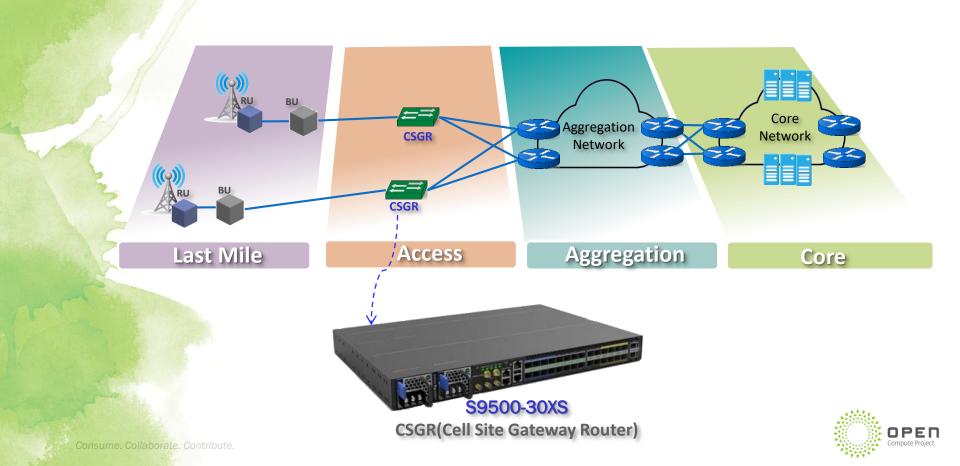
- Vision: Open Networking Platform & End-To-End Solutions
- Markets Served: Telco & Hyperscale
- Business Model: IDM/ White Box
- Products: Switch/ Server/ uCPE/ Router/ Broadband/ Wireless/ CPE
- > Profile:
  - Founded in 2012
  - 🥿 HQ in Taipei, Taiwan
  - RD Design and Sales & Marketing focused
  - Partnered w/ top tier EMS for engineering support & manufacturing operation
  - Joined OCP community in 2018





### Next Generation Open Network Platforms





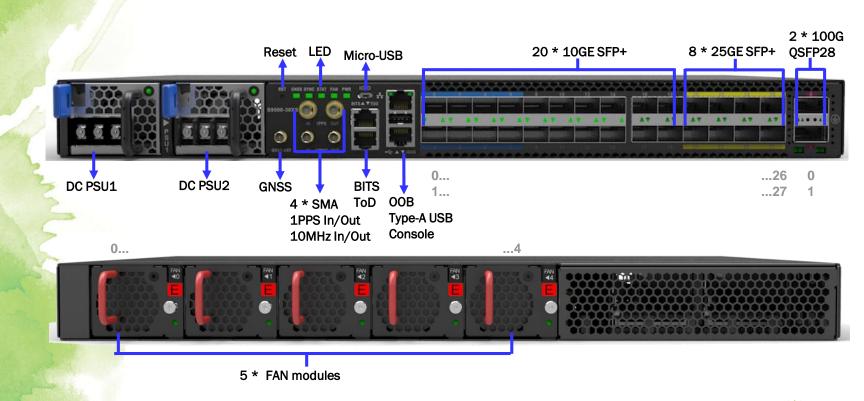
### S9500-30XS Cell Site Gateway Router



- Compliant with the AT&T Cell Site Gateway Router Specification
- > TP-76200 & TP-76450 compliance for OSP/CELL-SITE Class 2, NEBS Level 3
- > 2 x 100G QSFP28, 8 x 25G SFP28, 20 x 10G SFP+ optical Ethernet ports
- Mobile mid-haul/backhaul deployment, capable to support up to 80 km longreach application
- Industrial operating temperature range (-40C to +65C) for both indoor and outdoor application
- IEEE 1588v2 and Synchronous Ethernet with T-GM, T-BC, T-TC, T-TSC-A support for 5G synchronization
- > 1RU height, 300mm chassis depth especially designed for existing 19' cabinet rack-mount installation
- 350W max. system power consumption, dual 48VDC and AC Power Supply options with 1+1 redundancy

## S9500-30XS Cell Site Gateway Router

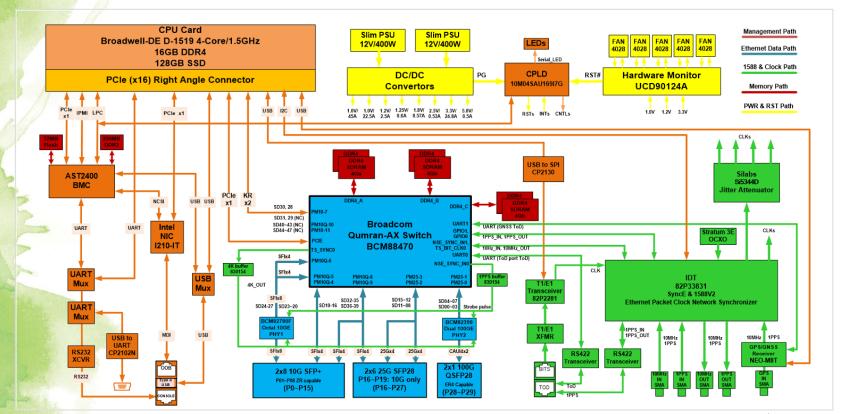






### S9500-30XS Cell Site Gateway Router







### Software Support



♦ BIOS

The S9500-30XS Supports AMI Grangeville BIOS firmware with the Intel Broadwell-DE x86 CPU module

◆ BMC

The S9500-30XS Supports AMI MegaRAC SP-X BMC firmware for Aspeed ARM AST2400 platform.

ONIE

The S9500-30XS supports the open source environment to install varies network operating systems.

The machine (S9500-30XS) has been committed in github.com/opencomputeproject/onie



#### **OCP Tenets**



#### EFFICIENCY

The cell site gateway router adopts x86, BMC, switching and timing 4 subsystems in a compact pizza box, with temperature-hardened, high port density, high-throughput, low packet latency, power & cooling redundancy, full 1588V2 & SyncE synchronization functions, and self hardware management features. The CSGR enables lower infrastructure cost & higher Telecommunications Energy Efficiency Ratio or TEER (at 4Gbps/W) for both indoor and outdoor 5G application.

#### SCABILITY

✓ With automatic provisioning and remote management features, the cell site gateway router enables carrier/service providers to deploy large scale disaggregated open network infrastructure for various 5G mobile network access applications. Components with firmware/software inside the box are 100% online programmable, easy to maintain and fast service upgradeable.

#### OPENNESS

The complete CSGR hardware design package is in the process of contributing to the Open Compute. The CSGR also supports numerous open source options, including ONL, ONIE, OpenBMC, and the Open Compute Project (OCP) Cell Site Gateway Router specifications.

#### IMPACT

▼ The cell site gateway router is open-design for Open and Disaggregated Transport Network (ODTN) services in the 5G era. The high performance, high reliability, complexity, & synchronization flexibility features make CSGR suitable for mobile mid-haul, back-haul, carrier access, and edge computing applications.

□ PE

Computer

C

