CASE STUDY

80 GHz RadioLink Common Operation Test and Results

Problem

GSM companies set up separate Radiolinks for their own transmission traffic in the field areas they use in common, and even so they cannot provide transmission traffic at high capacities.

However, 3 RL system equipment (6 Antenna, Radio and indoor unit units) for 3 operators in a single site causes energy waste and frequency pollution.

Considering the increasing traffic needs, they have to install more RL systems to provide these capacities. In terms of cost, this means more materials and labor.

Solution

The CTech-UFUKFO80HDX system installed with 80 GHz RadioLink provides a capacity of up to 10 Gbps (20 Gbps in 2+0 XPIC), and with the Provider Edge Bridge feature, it can transfer traffic to more than one operator in the same location with a single transmission antenna.

In this way;

1. With a single transmission antenna, it is possible to transfer traffic to more than one operator.
2. Cost advantage is obtained.
3. Ease of installation and operation occurs.

EXECUTIVE SUMMARY

Short Summary

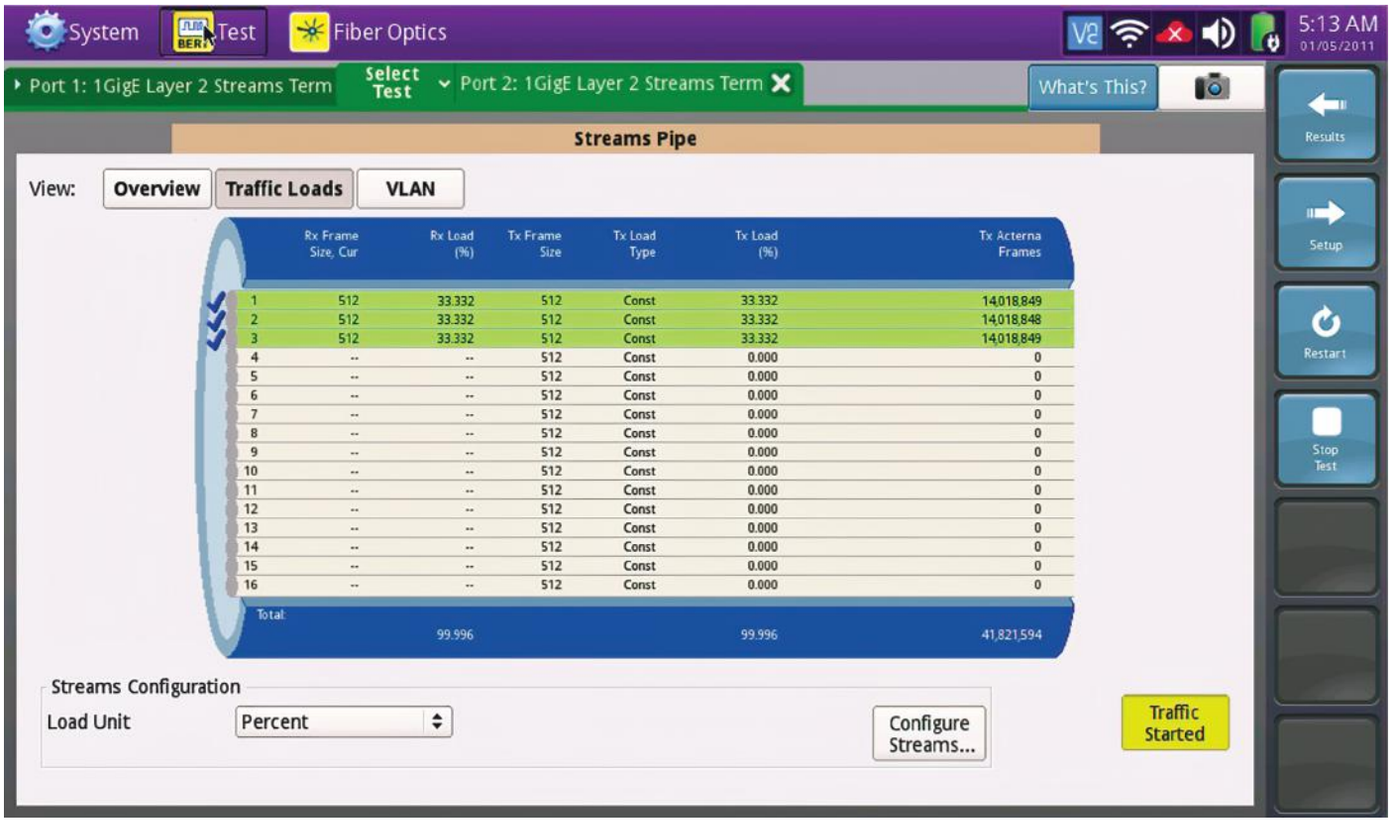
Sector : Telecommunication

Current Difficulty

1. In shared areas, 3 operators carry their traffic with different transmission antennas at standard frequencies. This means 3 RL and Indoor systems for 3 operators.
2. Waste of energy and pollution of materials
3. Low Transmission (Data and Voice) capacity

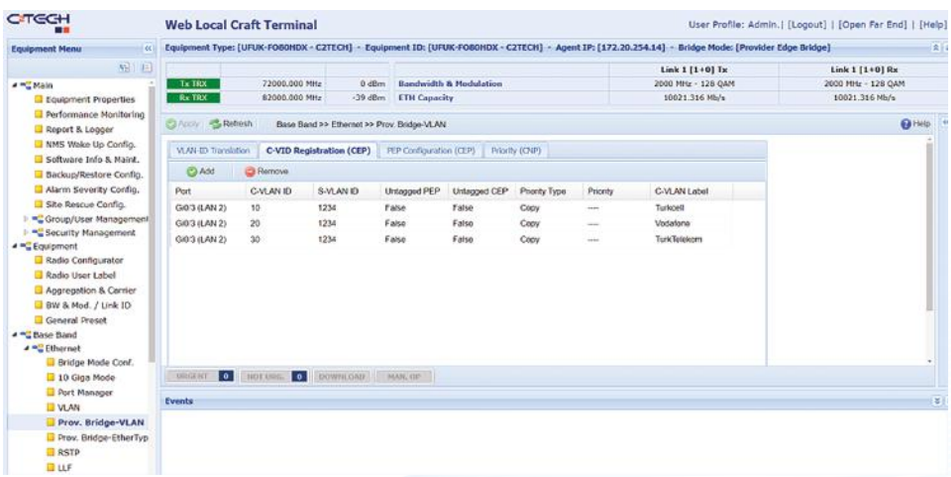
Results

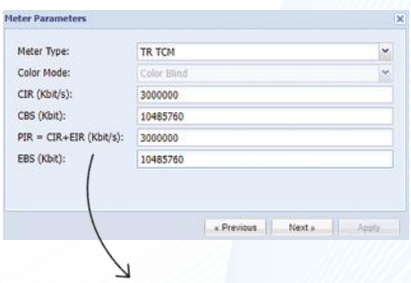
1. After the test studies, the capacity up to 10 Gbps can be divided equally between 3 different operators. (Approx. 3.3 Gbps per operator (6.6 Gbps with 2+0 XPIC) net Throughput)
2. In terms of cost analysis, the number of 3 different antennas to be installed in the same location will be reduced to a single antenna, thus preventing antenna and frequency pollution.
3. Through to our full outdoor system, space and energy savings are achieved in the indoor unit area.
4. Ease of use can be provided with common software by supporting more than one operator with a single NMS.
5. Energy efficiency was achieved as the number of equipment decreased in locations.



Difficulties to be experienced in terms of operating the system;

- By which operator the relevant single equipment will be operated, and sharing the work in maintenance and breakdown processes,
- Simultaneous loss of traffic and performance of operators in the same location in case of any malfunction or interruption.





PIR = CIR+EIR (Kbit/s) : 3000000

3Gbps capacity configured for each customer.