ECI THE ELASTIC NETWORK

CASE STUDY

5G-READY OPTICAL NETWORK FOR THE CHANNEL ISLANDS

Region: Europe

Industry: service provider

"We needed to ensure that every step of the upgrade process was carefully planned, and our unique geographical challenges and strategic goals understood, so as to maintain a level of service that our customers already enjoy. With ECI's technical expertise and flexibility we are better equipped to scale with future networking demands and deliver the quality services our customers expect of us."

Marcus Irwin,
Head of Solution Design & Innovation at JT

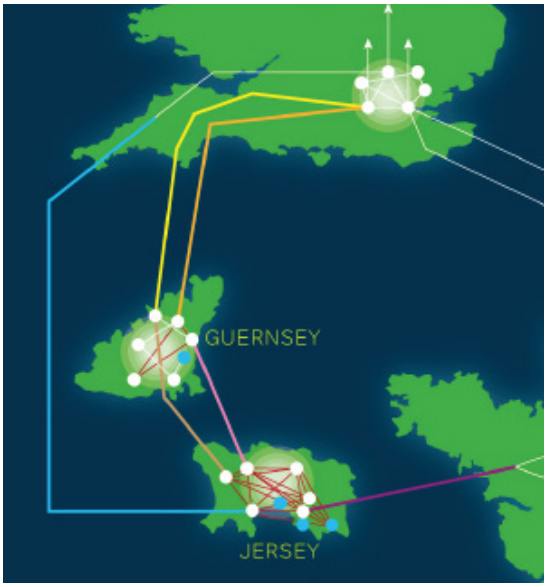
OTN SWITCHING AND ROADMS COMBINE FOR A FLEXIBLE, SERVICE-ORIENTED OPTICAL INFRASTRUCTURE

The JT Group, the largest operator in the Channel Islands, wanted to upgrade its optical transport network to provide its business customers and private consumers with a suite of high-capacity private circuit, fixed, and mobile services, to enable supremely efficient interaction with the global economy. The network also had to support 5G rollout plans, featuring even higher speeds, lower latencies, and innovative services aimed at improving the lives of JT customers.

ECI's novel solution combines OTN switching with multi-degree ROADMs satisfying all JT's service, robustness, and capacity growth needs. The network dynamically provisions a complete suite of LAN connectivity and storage networking services, and employs automated restoration at both the service and wavelength levels to ensure availability. The network scales effortlessly to meet future traffic demands of 5G-driven technology.

JT Group Network:

- Provides superior connectivity for the Channel Islands to participate on the global business stage
- Undersea fiber-optic cables link Jersey, Guernsey, the UK and France
- Serves over 3000 enterprise customers
- Jersey is the first jurisdiction in the world with fiber connectivity to 100% of premises



JT CHALLENGES

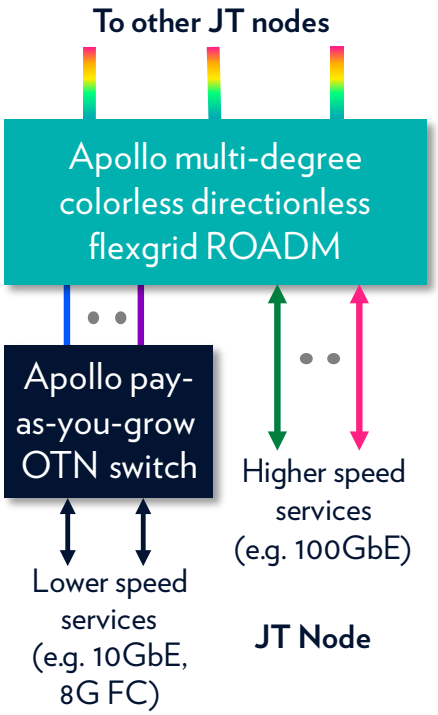
Given the unique geographical challenges of the Channel Islands, JT needed to upgrade their optical transport layer to maintain their customers' fast and reliable interaction with the rest of the world.

Their goal was to consolidate delivery of all Layer 1 connectivity services over a high capacity, flexible, scalable, and robust optical transport network. As JT was planning a 5G services rollout, the network also needed to support future 5G traffic and performance needs. The solution also had to integrate smoothly with JT's existing on-island and undersea cable fiber infrastructure.

ECI SOLUTION

ECI met these challenges by equipping JT with a novel solution that combines network-edge OTN switching with colorless-directionless ROADM wavelength routing. Key capabilities of this solution, which is based on ECI's Apollo programmable and open optical networking system, include:

- A complete suite of service interfaces, including Gigabit Ethernet (1/10/40/100GbE), Fibre Channel (1/2/4/10/16G), OTU-1/2/4, and STM-16/64/256.
- Network-edge 9904X OTN switches that aggregate multiple lower-rate services onto single wavelengths for savings, and support 50msec fault-recovery resiliency. Moreover, the 9904X's integrated fabric design allows smooth pay-as-you-grow as services are added.
- FlexGrid ROADMs with diverse fiber routing and WSON automation, for a resilient DWDM layer that can recover in seconds in the event of a fiber break.
- Ability to extend Layer 1 optical encryption selectively to any end-user service.
- Alien wavelengths and shared-spectrum services support.
- GUI-based network management for fast provisioning of services, wavelengths, and overall network care.
- Integrated OTDR, providing live fiber monitoring to detect degradations before they become a problem, and speeding up repair in the event of a fiber failure, by identifying the location in seconds.



BENEFITS

JT's upgraded optical transport network reflects its commitment to its business customers and private consumers for exceptional data and voice connectivity to participate in the global cloud economy. New services can be added easily and economically, and with automated restoration capabilities, SLAs can be extended with confidence. Moreover, JT will be able to meet all future traffic and performance demands as innovative and demanding 5G services emerge.

Multiservice
for all end-customer needs

Robust
at service and wavelength levels

Scalable
for 5G and other traffic growth

Easy-to-operate
with predictive maintenance

Contact ECI to find out how to upgrade your multiservice optical network

ABOUT ECI

ECI is a global provider of ELASTIC network solutions to CSPs, critical industries, and data center operators. With the advent of 5G, IoT, and smart everything, traffic demands are increasing dramatically, and network operators must make smart choices as they evolve their infrastructure. ECI's Elastic Services Platform leverages our programmable packet and optical networking solutions, along with our service-driven software suite and virtualization capabilities, to provide a robust yet flexible solution for any application. ECI solutions are tailored for the needs of today, yet flexible enough to meet the challenges of tomorrow. For more information, visit us at www.ecitele.com.