



PRESS RELEASE

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## **Polatis SDN-Enabled Optical Switches Selected to Power Bristol Smart City Network**

New software-defined optical network will provide the foundation for an open programmable smart city

**Cambridge, UK and Bristol, UK – March 2, 2015** -- Polatis, the performance leader in all-optical matrix switches, has been selected as the provider of optical switching for the *Bristol is Open* initiative. *Bristol is Open* is an open, scalable and programmable smart city digital infrastructure in Bristol, UK that will link people and machines with new services, technologies and applications.

*Bristol is Open* is a city-wide network that will enable greater interaction between people and places, with more machine-to-machine communications through the Internet of Things, which ultimately gives citizens the ability to engage more fully with their environment. Combining sensors and endpoint devices with agile fixed and wireless networks and high performance computing resources, the smart city will be able to respond intelligently in real time to everyday events including traffic congestion, waste management, energy supply and more.

Distributed sensors will supply the network with information about many aspects of city life including energy, air quality and traffic flows; the city's supercomputing and cloud resources will host and analyse the real-time information flows, providing open, accessible data for the development of a wide range of applications and services to enhance the urban environment.

Paul Wilson, Managing Director of Bristol Is Open said: "We are building in Bristol the world's first open programmable city, a ground-breaking project aimed at providing a platform for the development of applications that will promote innovation and deliver a better quality of life. After a fair and open competition we are delighted to be working with Polatis. A variety of factors informed our decision, one of which was Polatis's ability to support an open Software Defined Network environment. We look forward to working together in the spirit of innovation as we break new ground."

One of the key enablers of the *Bristol is Open* initiative is an ultra-fast, flexible and intelligent network. Polatis optical switches play a key role in bringing the fibre layer under software control to enable a high-performance, scalable and dynamically reconfigurable optical network.

Polatis DirectLight™ all-optical switches were selected for their proven performance in demanding applications where connection stability, reproducibility, security and low-loss are critical. Polatis' patented DirectLight technology uniquely enables dark fibre switching because it does not require light to make a connection that is transparent to colour, protocol and speed.

The 192x192 fibre cross-connect switches will be deployed at nodes along the Brunel Mile in Bristol, enabling on-demand connectivity between high-performance wireless hubs and compute, creative and sensor systems. The dark fibre network can be reconfigured on demand via a software defined network (SDN) control plane using embedded OpenFlow agents on each optical switch to allow unprecedented dynamic control of resources.



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“Bristol is once again pioneering advanced engineering innovations with the Bristol is Open initiative, which will serve as a model for smart city infrastructures around the world,” said Nick Parsons, Chief Technology Officer at Polatis. “We are honoured and excited to be selected for this key initiative.”

### About Polatis

Polatis delivers the world's lowest loss SDN-enabled all-optical switching solutions for remote fibre-layer provisioning, protection, monitoring, reconfiguration and test, with over 2 billion port-hours accumulated in-service. Dependable, field-proven DirectLight™ dark fibre optical matrix switch technology scales from 4x4 to 192x192 ports with typical loss below 1dB, applying class-leading performance to provide dynamic fibre cross-connects for software-defined telecommunications, data centre, government, test and video networks. For more information, please visit [www.polatis.com](http://www.polatis.com).

### About Bristol Is Open

How cities work is changing. Bristol Is Open is a research infrastructure to explore developments in software, hardware and telecom networks that enable more interaction between people and places and more machine-to-machine communication. The project uses a high performance software defined network as the city operating system, then internet of things platforms and big data analytics feed an emerging number of smart city applications. This is giving people more ability to interact, work and play with the city that they live in, and will help cities address some of the biggest challenges of modern urban life. This is the Open Programmable City - <http://www.bristolisopen.com/>

### Contact:

Matt Burke  
Polatis Networks  
[matthew.burke@polatis.com](mailto:matthew.burke@polatis.com)  
+1 603.315.0618

John Smith  
Bristol City Council  
[John.smith@bristol.gov.uk](mailto:John.smith@bristol.gov.uk)  
01173521258