

Embedded
Systems

Web &
Mobile

IoT

Cloud

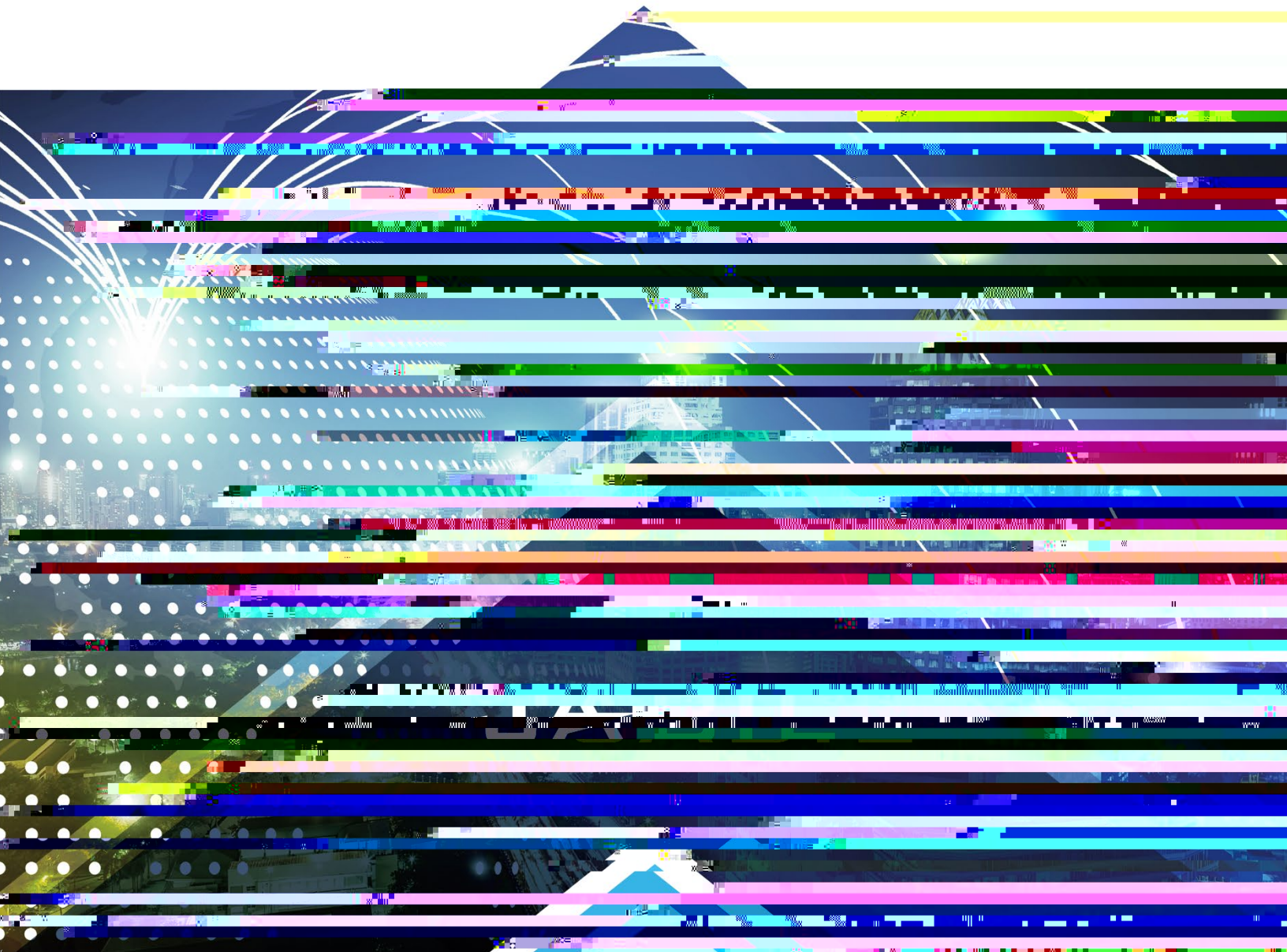
Wireless
Networking

Wireline
Networking

Jabil Software Services (JSS)



CASE STUDY Gigabit Networking



Customer Needs

Jabil's customer is a leading global provider of open disaggregated networking and communication solutions that enable voice, data, video, and Internet communications across a variety of network infrastructures. They empower communication service providers to deploy, manage and scale connectivity solutions, including mobile backhaul, optical network edge, passive optical networks, network management solutions and FTTN DLAMs.

Jabil's customer required the development of two G.fast Data Processing Units (DPU's), including 24-port and 48-port units. The customer required the development to be completed within a short timeframe due to pressure from their end-customers. The products were designed primarily to address the North American and EMEA markets, and they represent the first time the customer has supported 24/48 port DPU's with 96-port vectoring based on second generation G.fast technology.

The customer required the following key features:

- Adaptation/replacement of the packet TX/RX layer with a WP4-centric implementation.
- Implementation of a hardware monitor daemon, leveraging existing hardware monitoring code from other DPU products.
- Implementation of a debug CLI for direct on-DPU access to the traffic manager.
- Development of Linux OS, SDK, and driver adaptations.
- End-to-end testing, including L1, software module, component, robustness, performance, customer use case, scalability & security testing.

The solutions developed by JSS leveraged G.fast, a new technology used to provide symmetric gigabit broadband utilizing existing installed copper, bridging the gap between VDSL2 vectoring deployments and FTTH. The following image demonstrates how G.fast compares with VDSL2 and FTTH.

JSS dedicated a team of 23 staff to developing the customer solution, including architects, embedded developers, and testers. Technologies leveraged as part of the development included C/C++, Microsemi WDDI SDK, Tooling (JIRA, Confluence, Quality

clearly agreed scope and schedule expectations, and JSS leveraged a formal project management methodology to ensure efficient delivery, including several clearly

About Jabil Software Services (JSS)

Jabil Software Services (JSS) delivers a broad range of advanced software services across several industries, leveraging an experienced team of architects, software developers and quality assurance engineers. JSS specializes in the efficient development of embedded systems, web & mobile apps, IoT solutions, cloud solutions, and networking solutions (wireless/wireline).