Fujitsu Network technology for IOWN connected AI community

Next-generation Communications and Infrastructure Technology
What’s IOWN?

Innovative Optical and Wireless Network (IOWN)

Future communication infrastructure based on leading-edge optical technology and information processing technologies to realize a smarter world.
Fujitsu’s 5 Key Technologies and IOWN Global Forum Technology Areas

Fujitsu’s 5 Key Technologies

- **Computing**
  - Supercomputer
  - HPC Quantum
  - HPC: High Performance Computing

- **Network**
  - Cloud-native network
  - Photonics PEC
  - PEC: Photonics-Electronics Convergence

- **AI**
  - Explainable AI
  - Trustworthy AI
  - Human-sensing

- **Data & Security**
  - Blockchain
  - Data trust
  - Digital identity

- **Converging Technologies**
  - Cutting-edge digital technology
  - X
  - Knowledge of humanities / social

**Data Centric Infrastructure**
- DCI functional architecture
- Acceleration of data transfer

**Open All Photonic Network**
- Open APN architecture

**Mobile Network using IOWN**
- Use of APN and DCI in mobile networks

**Fiber Sensing**
- Incorporation of fiber optic sensing equipment into Open APN

**IOWN Security**
- Information security on APN/DCI
- Post quantum computing security

**Digital Twin Framework**
- Digital twin in use cases of IOWN Global Forum

IOWN Global Forum’s Technology Area
Fujitsu is leading in network and computing technologies

Our network vision is focused on three main areas:

1. Open Network
2. Disaggregation
3. Intelligent Networks and Green Technologies

- **Open Network and Disaggregation** cover APN, Mobile base station (open RAN), Open Management systems, and Open Transport.

- Network Visualization, Automation & Optimization with AI/Machine Learning are the main components of **Intelligent Network**, while **Green Technologies** include Sub-terahertz, Photoelectronic Fusion, and liquid-cooling Technology.
IOWN connected AI community

Latest focus area, Artificial Intelligence

Single AI vs AI Community by IOWN

Logic of Quantity
Logic of Value

From Quantity to Value logic in AI era
IOWN connected AI community

Latest focus area, Artificial Intelligence

Digital Twin with AI Community

AI Community

Digital Twin

IOWN

Real World

IOWN connects Real World with AI Community/Digital Twin

Fujitsu is planning to support AI Community by our network technology.
Fujitsu IOWN Global Forum Web Site

For More Details

Fujitsu 1FINITY™ Optical Networking Platform

Optical Networks for Digital Transformation

Fujitsu developed the 1FINITY™ optical networking platform to meet the need for a modular, disaggregated platform that can withstand the worst of time and continuous change. We realized that traditional optical networking solutions are limited when it comes to flexibility and performance. A simple, radical approach to create an optical platform for the next generation digital transformation.

An Open Platform of Modular, Disaggregated Blades

1FINITY is an open platform designed to be physically modular and disaggregated while being brought together in logically aggregated, software-defined. This autonomous, programmable architecture enables the network to meet business needs for speed and scale, rather than constraining network operator rules, policies, and practices in outdated technologies.

1FINITY supports the use of photonic, modular, pre-integrated blades, therefore, the platforms can be deployed in various configurations to provide the possibilities for both traditional and non-traditional use cases, enabling a traditional converged platform.

1FINITY Transforms Optical Networks

1FINITY combines fast, open deployment with a wide range of options for high-level scalability. A 1FINITY network can scale quickly and reliably to support current and future needs and is capable of 100% network capacity with software-defined remote access, ensuring the network isn't an obstacle to connectivity.

For More Details
Thank you