

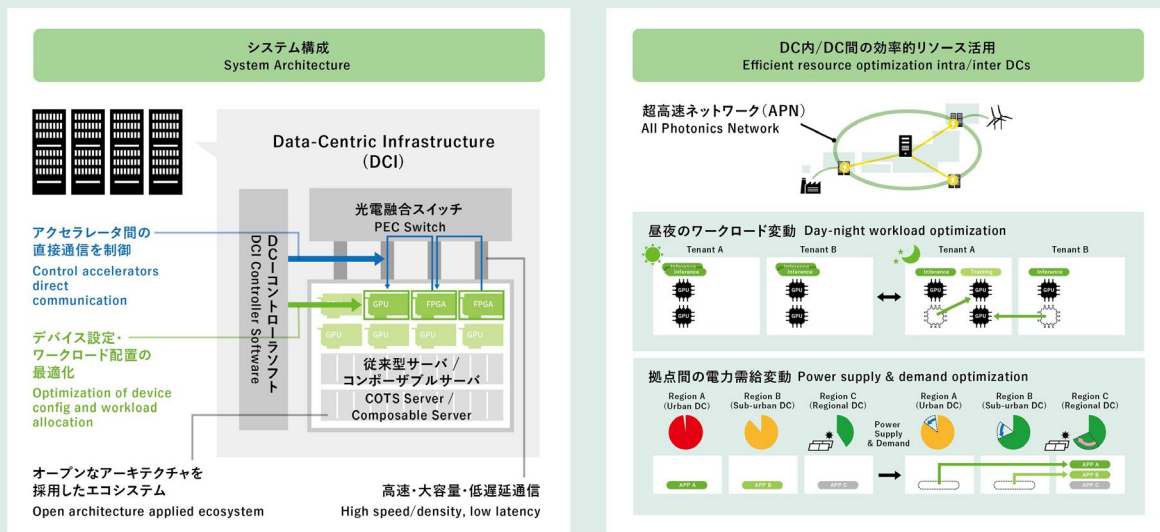
Photonic data centers and precision management achieve energy savings DCI / IOWN Photonic Disaggregated Computing

Background and Technical Challenges

With the spread of generative AI, more computing resources are being used, and power consumption is increasing. Therefore, efficiently using expensive GPUs and reducing power consumption are major challenges for data centers.

IOWN光コンピューティングによる効率的データセンタ運用

Efficient data center operation by IOWN Photonic Disaggregated Computing



R&D Goals and Outcomes

Through photonics-electronics convergence and computer resource control, we aim to achieve innovative energy efficiency.

Key Technologies

01 Core Technologies

- Optical engine for optical connection inside a computer
- DCI controller for precise assignment and monitoring control of computer resources

02 Key Differentiators

Creating a new data center architecture by integrating and controlling computing resources between computers and between sites, which is difficult with current technologies.

Use Cases Multi-Industry

R&D phase Development

Technology Schedule FY25-26

Commercialization Schedule FY27-29

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