TAI Workshop

Jun. 16/17, 2021

NEC Corporation

1. Values of TAI

Network Abstraction

Operations

Service: Provisioning, Recovery

Function: Controller, Monitor

TAI

Optical Network

Hardware Abstraction

Maintenance

TAI

(Optional) TAI Mux

TAI Adapter

CFP-MIS
CMIS/C-CMIS

Hardware

Peripheral Management

Sustainment

CFP-MIS over MDIO
CMIS/C-CMIS over I2C

CPU

Bus

Module

Plug

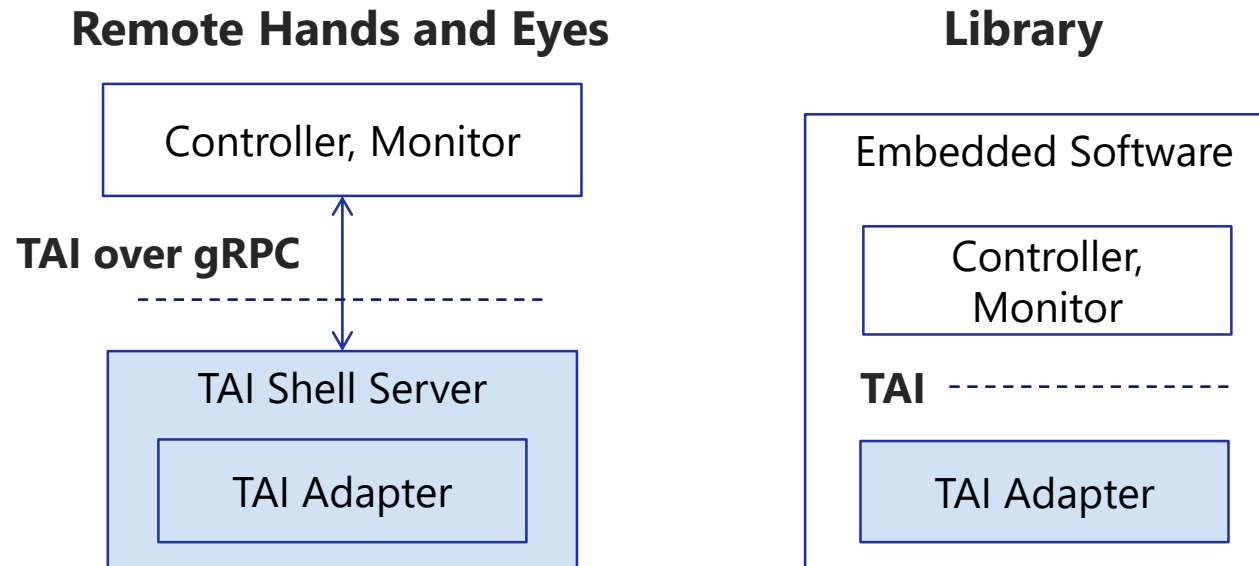\Orchestrating a brighter world   **NEC**
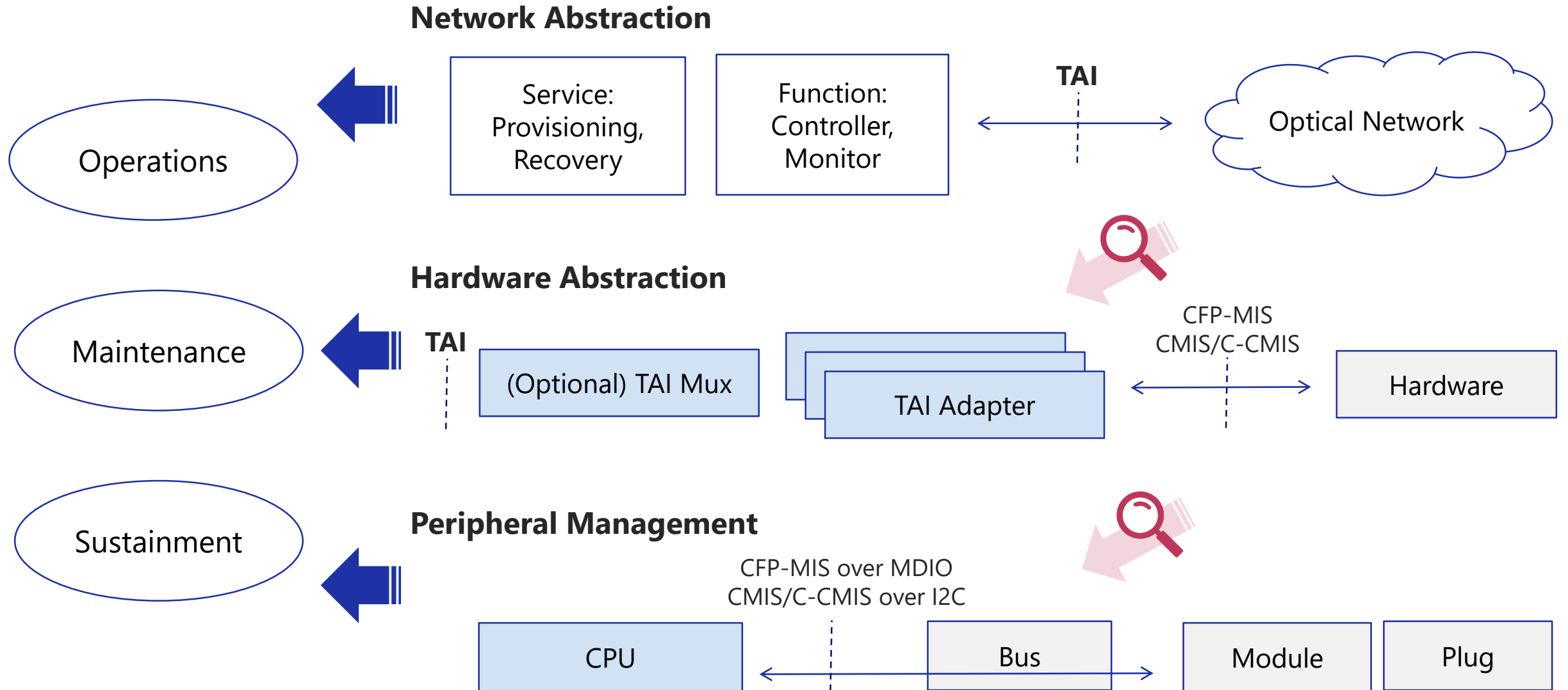
2. Network Abstraction

◆ Specification
  ■ New attribute-value pairs?

◆ Implementation
  ■ Improvement of TAI over gRPC for supporting Telemetry streaming

Remote Hands and Eyes

| Controller, Monitor |

TAI over gRPC

- -

| TAI Shell Server |
| TAI Adapter |

Library

Embedded Software

| Controller, Monitor |

TAI - - - - - - - - - - - - - -

| TAI Adapter |

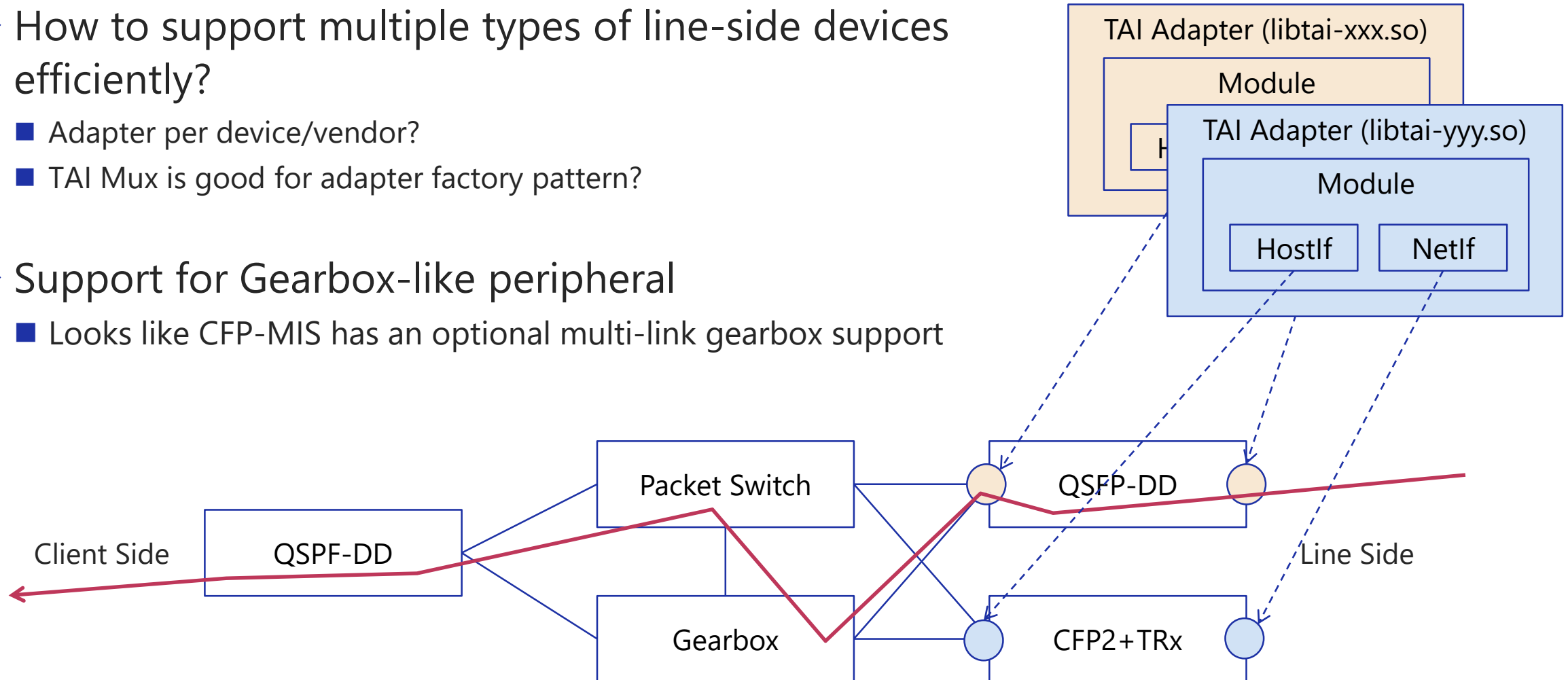\Orchestrating a brighter world   **NEC**

3. Hardware Abstraction

◆ How to support multiple types of line-side devices efficiently?

- Adapter per device/vendor?
- TAI Mux is good for adapter factory pattern?

◆ Support for Gearbox-like peripheral

- Looks like CFP-MIS has an optional multi-link gearbox support

© NEC Corporation 2021

\Orchestrating a brighter world NEC

4. Peripheral Management

◆ Providing (TAI-specific) CFP-MIS and CMIS/C-CMIS parsers might be helpful

\Orchestrating a brighter world   **NEC**