# OIF - CMIS Live Demo

OFC 2023

Why was CMIS started?

- CMIS was originally conceived to address industry pain points in module management :
  - Management of multiple form factors
  - Module initialization variability
  - Breakout – managing multiple different services (ie SFF-8024 codes)
- The industry has embraced CMIS leading to continued efforts to evolve CMIS with the addition of support for:
  - Co-packaging / ELSFP
  - Next gen modules based on 112G/224G
  - Link Training
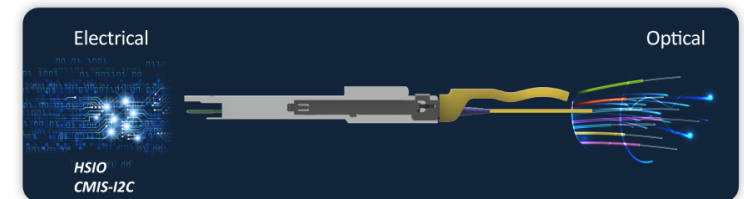
Eliminating Complexity for Pluggable Modules

- Module speeds ranging from 100G to 800G. Unites a wide range of transceiver classes under one management protocol

- Fully form factor agnostic: CMIS implementation is consistent and interchangeable between OSFP, QSFP-DD and QSFP112 modules and more.

- CMIS gives access to the low-speed I2C interface to control and program the module.

WHAT IS CMIS?
Common Management Interface Specification
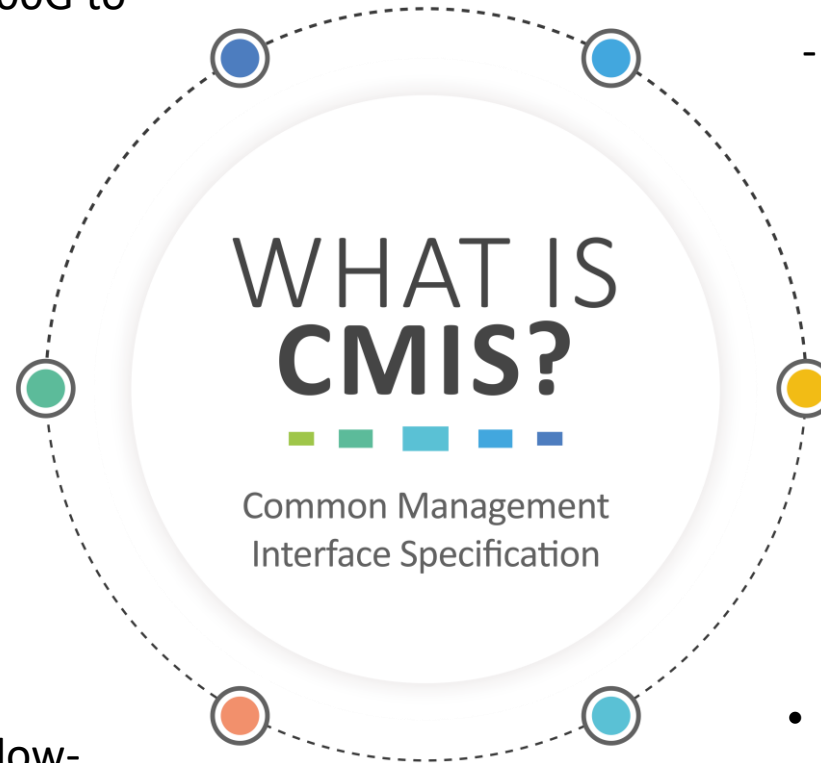
- Supports module types ranging from:
  - Active Cable Assemblies
    - Optical Transceivers
      - Coherent DWDM modules

- Provides communication between all compliant optical modules, switches, and server Network Interface Cards

- Enables interoperability between module and host and is used to test and debug the module

OIF
CELEBRATING
25 YEARS

CMIS Demo Overview

- 3 host vendors (Cisco, Ciena, Juniper)

- 2 test equipment vendors (Exfo, MultiLane)

- 8 module suppliers (Cisco, Ciena, Juniper, Lumentum, Coherent, Source Photonics, TE, Astera Labs)

- 7 interface reaches ranging from passive copper to 400G coherent (DAC, AEC, AOC, DR4, FR4, ZR, ZR+)

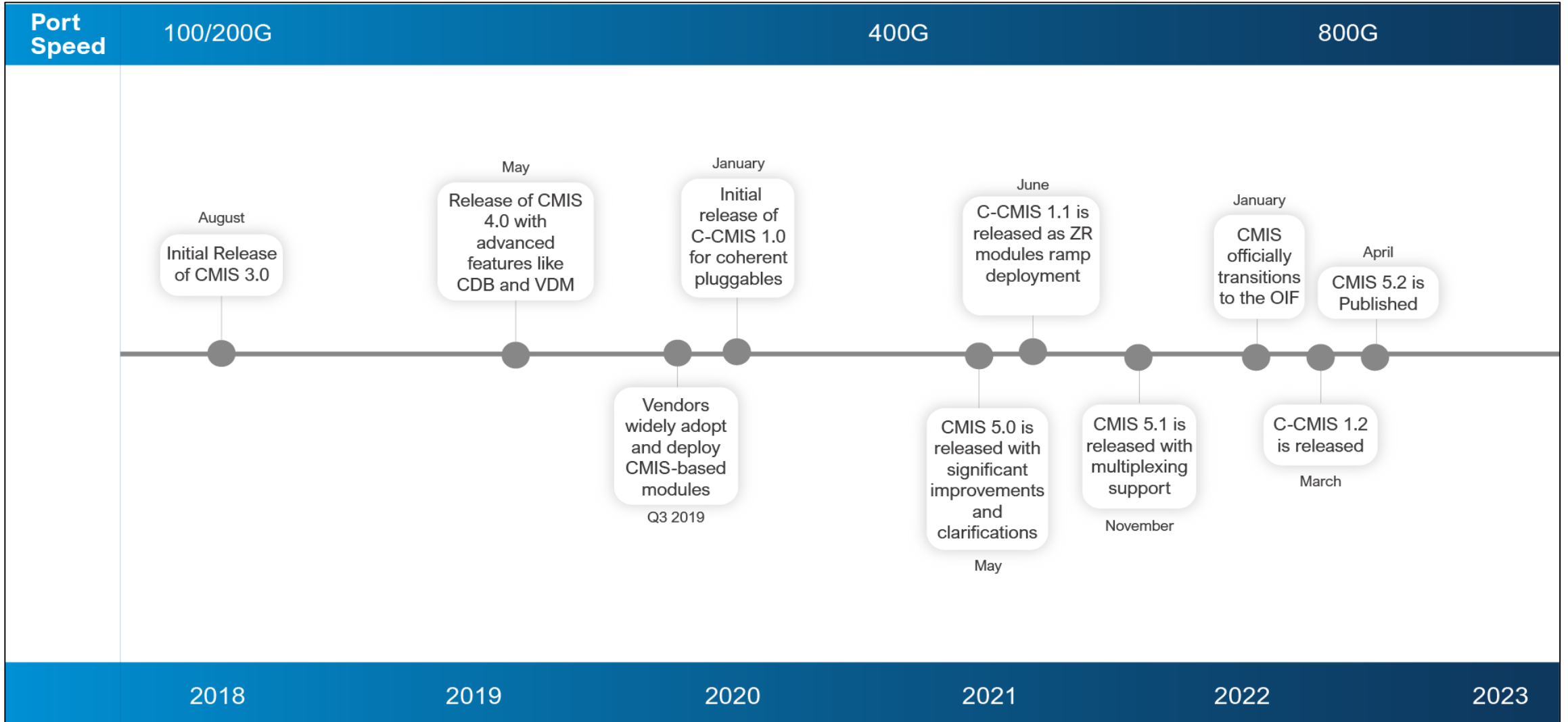### One common management platform - CMIS
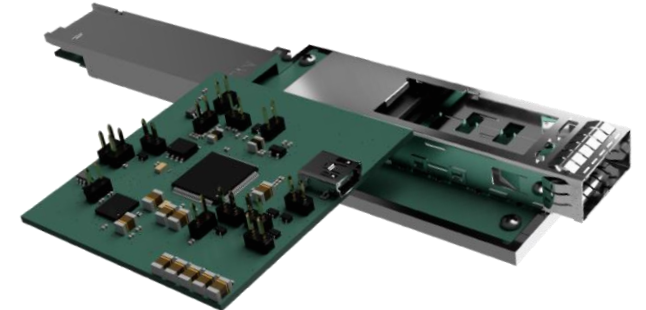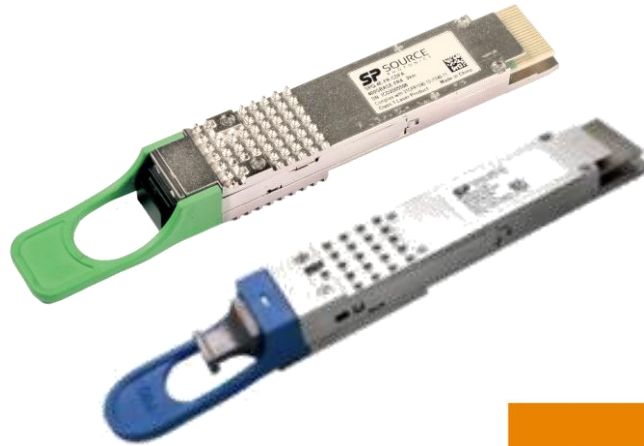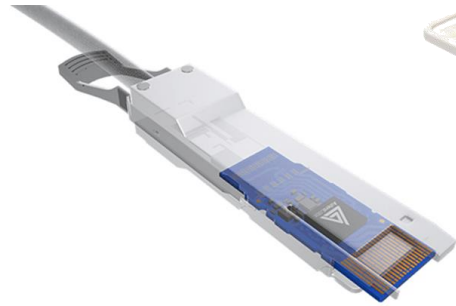
CMIS Demo Block diagram
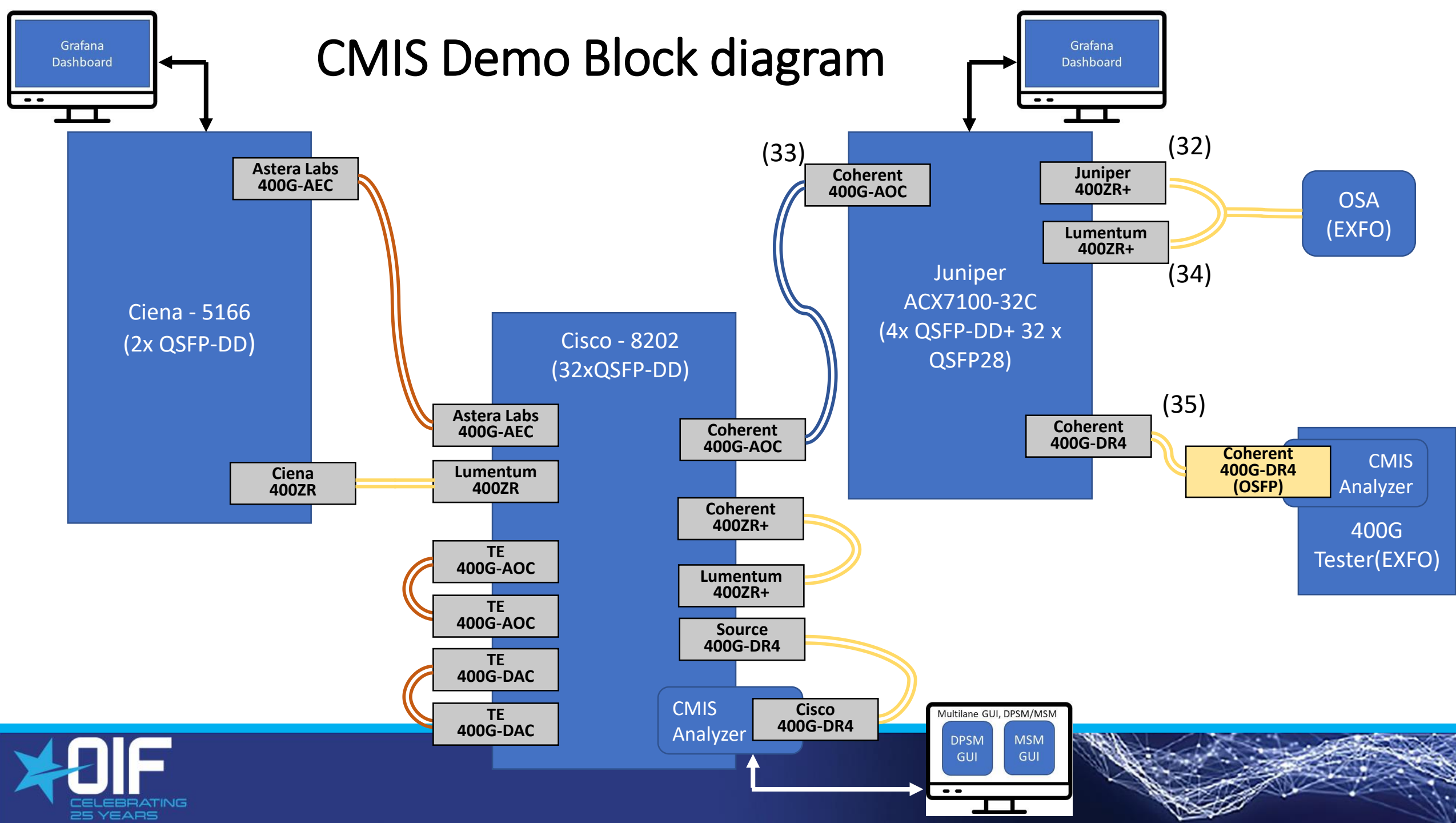
Grafana Dashboard
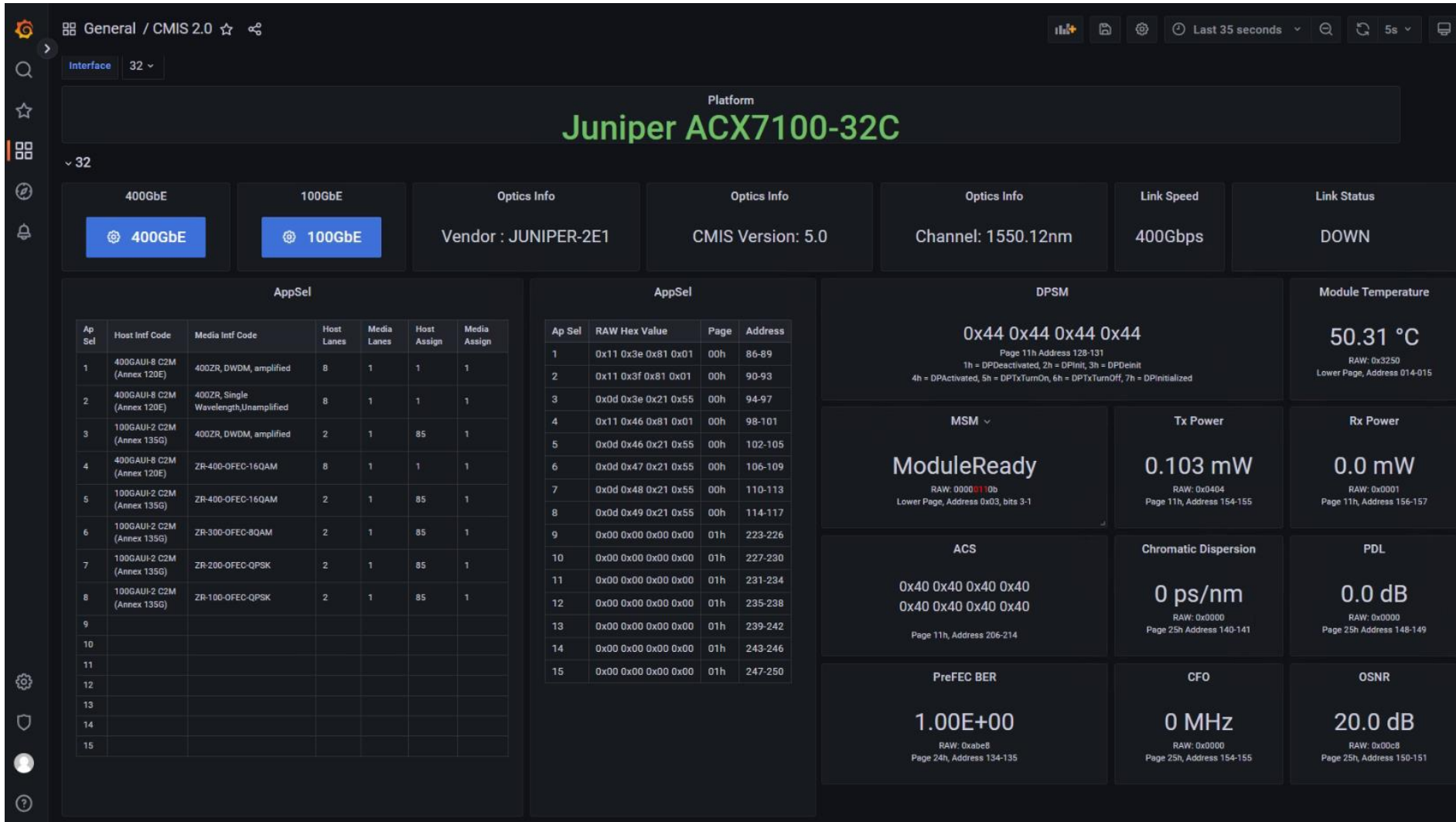
CMIS Evolution Timeline

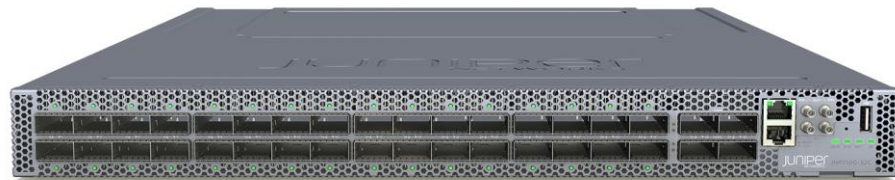# CMIS Modules – Large range of form factors, applications and capabilities

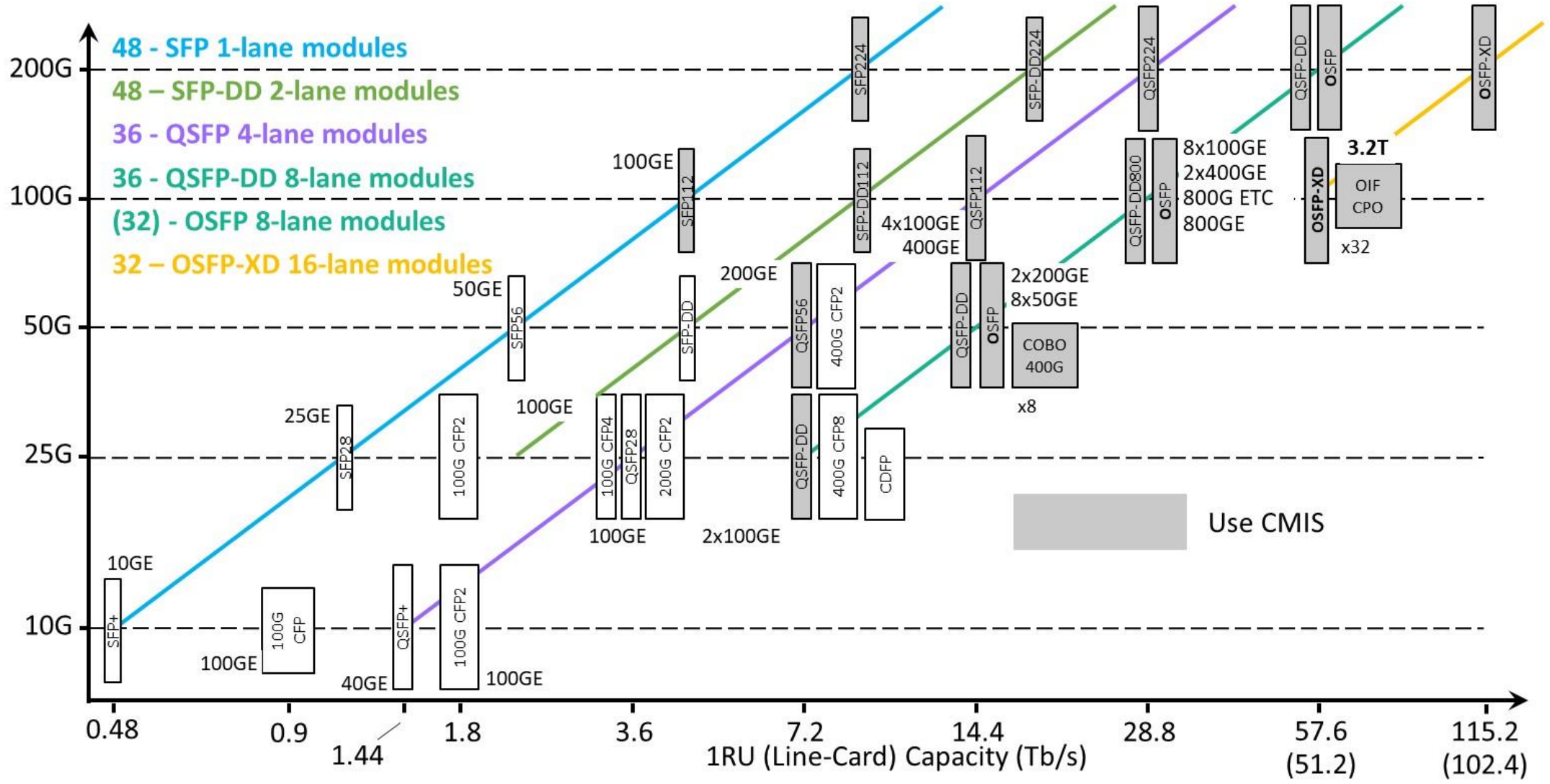# CMIS Hosts – Large range of applications including routers and test equipment

CMIS Adoption

What's next for CMIS

- The OIF management track team is working on the next release of CMIS which will include:

    - Working with the OIF electrical track to support link training for upcoming higher speed electrical interfaces like CEI-112 and CEI-224.
    - Working with the OIF co-packaging track to define management of CPO and ELSFP modules.
    - Working with other MSA groups to update the definition of Form Factor Specific Hardware Signals.
    - Expanding the number of supported applications by growing the number of appsels.

CMIS Values
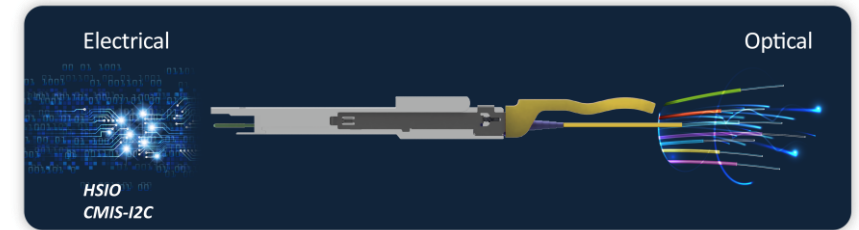
- **Common:** Standardized rule book for all MSA vendors -> all modules seamlessly plug and play into your host

- **Flexible:** CMIS is defined to support variety of modules with different speeds, form factors, link ratings, use cases, etc.

- **Extendable:** CMIS is futureproofed for tomorrow's pluggable innovations.

CMIS Demo – Participating Members

scan for demo info

www.oiforum.com

Wednesday March 8th

"Bringing Order to Chaos – OIF"
3pm-4pm in Theater 3

Moderator: **Stephen Hardy**, *Lightwave*
Panelists:
Karl Gass, OIF PLL WG Optical Vice Chair
Vladimir Kozlov, LightCounting
Sterling Perrin, Heavy Reading;
Nathan Tracy, OIF MA&E Co-Chair PLL, TE Connectivity
Alan Weckel, 650 Group

Celebration Reception
4pm-5pm
Booth #5101