

Optics 101 for Non-Optical (IP) Folks

Overview

Many IP engineers (myself included) still view transceivers as simple devices that convert electrical signals to optical signals and back again.

In this session, we'll dive deeper to uncover what's really happening inside exploring the evolution from basic optical modules to today's advanced coherent pluggables.

We'll recap key optical fundamentals relevant to IP professionals, discuss recent advances in coherent pluggable optics, and examine the industry's growing move toward IP over DWDM (IPoDWDM).

By the end of this workshop, you'll understand how these innovations are simplifying and consolidating traditional multi-layer optical and IP networks into a single-layer IPoDWDM packet optical transport architecture — making networks more efficient, flexible, and scalable.

Instructor

Tashi Phuntsho

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Key Takeaways

- Refresh core optical networking concepts for IP engineers
- Understand coherent pluggable optics and their role in modern networks
- Explore the shift to IPoDWDM and what it means for network design
- Learn how to simplify and unify IP and optical layers

Who Should Attend

- IP and transport network engineers
- NOC and infrastructure teams managing optical/IP layers
- Network architects and planners
- Students and early-career professionals interested in optical networking
- Anyone curious about how light and packets work together in modern networks

Session's record

https://drive.google.com/file/d/16pOQ2wz9KrvSQ2NVWmkBgZqIgM_UeRrA/view?usp=share_link

About Tashi

Tashi has been working in the Internet industry since 2004 and is currently an Evangelist Optician and APAC Lead for FLEXOPTIX.

He comes with hands-on experience across Telecommunications and IP networks, having worked as a Transmission Engineer, IP Engineer and IP Network Lead for Bhutan Telecom.

With his knowledge of "how not to do things", Tashi worked as a Senior Network Analyst and Training Delivery Manager at APNIC until 2022.

Outside of his day job with FLEXOPTIX, Tashi also assists with NSRC workshops, especially at NOGs and other Direct Engineering Assistance engagements in the APAC region.

Tashi volunteers as PC Chair for South Asia NOG and Bhutan NOG (founding member), while continuing to help as a PC member for APRICOT, India NOG, and Mongolia NOG (founding member).

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