

# IP over DWDM introduction

Cost savings and revenue  
benefits of xWDM solution

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## Technology Overview



## Where to use xWDM?



## Transceivers and applications



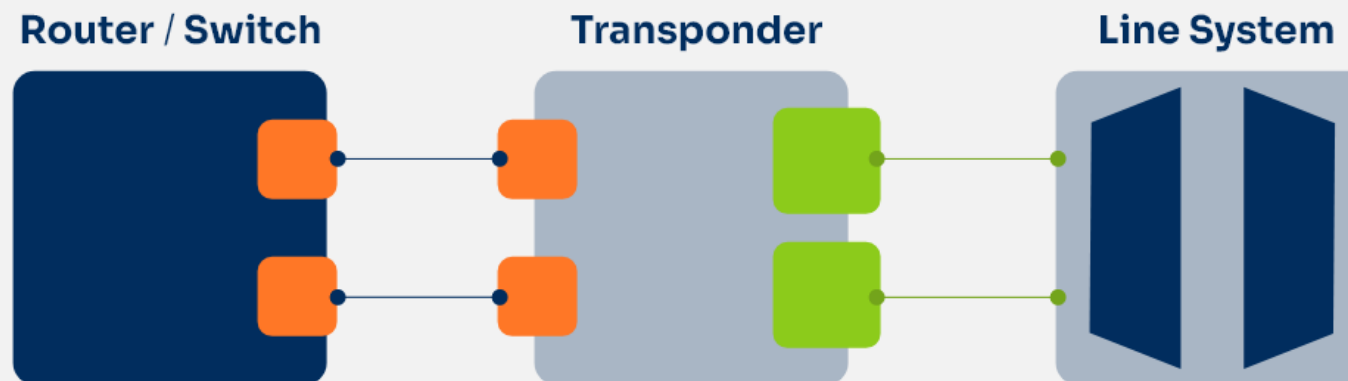
## Future of IP over DWDM



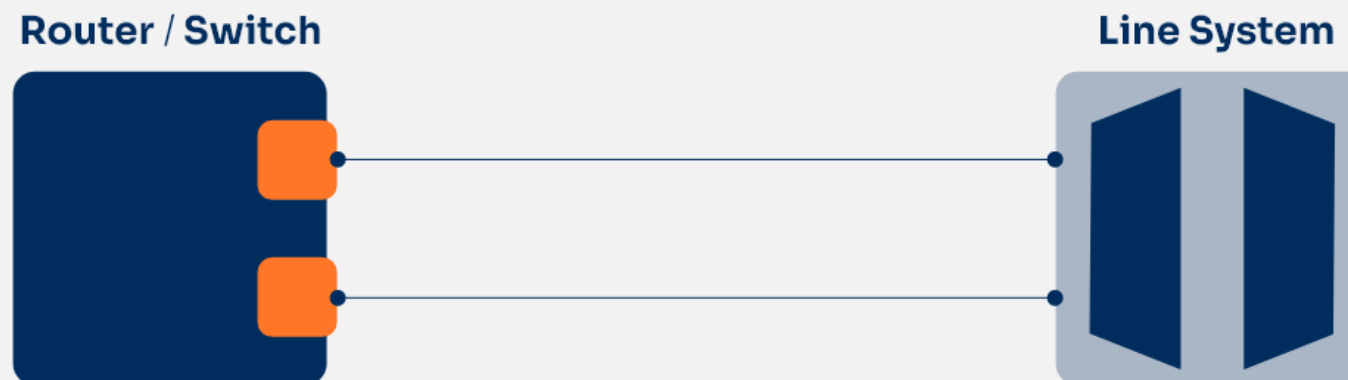
## Q&A

# What is IP over DWDM

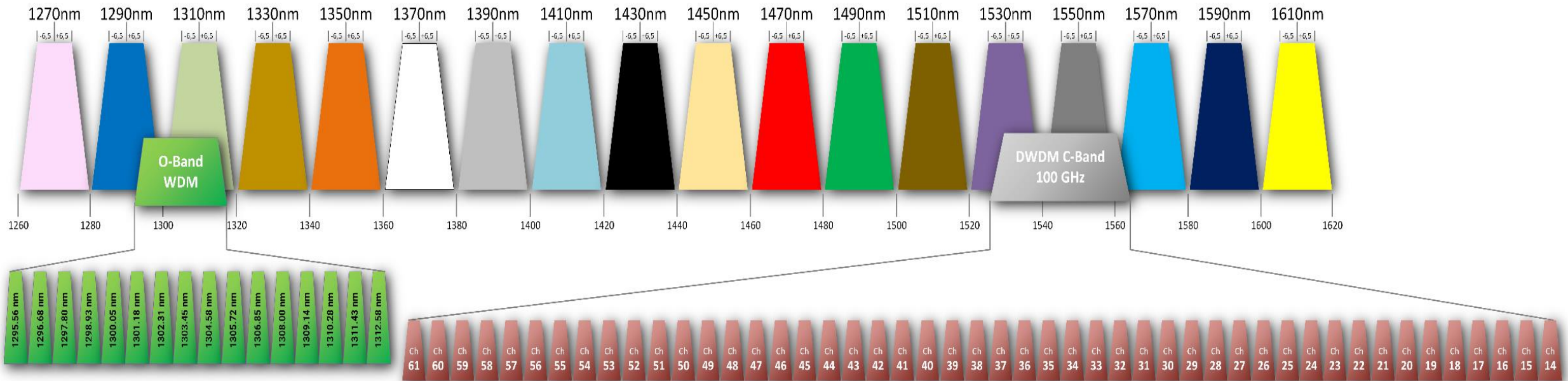
## Traditional DWDM Model



## IP-over-DWDM



# CWDM+DWDM+O-Band



# Where we could use xWDM?

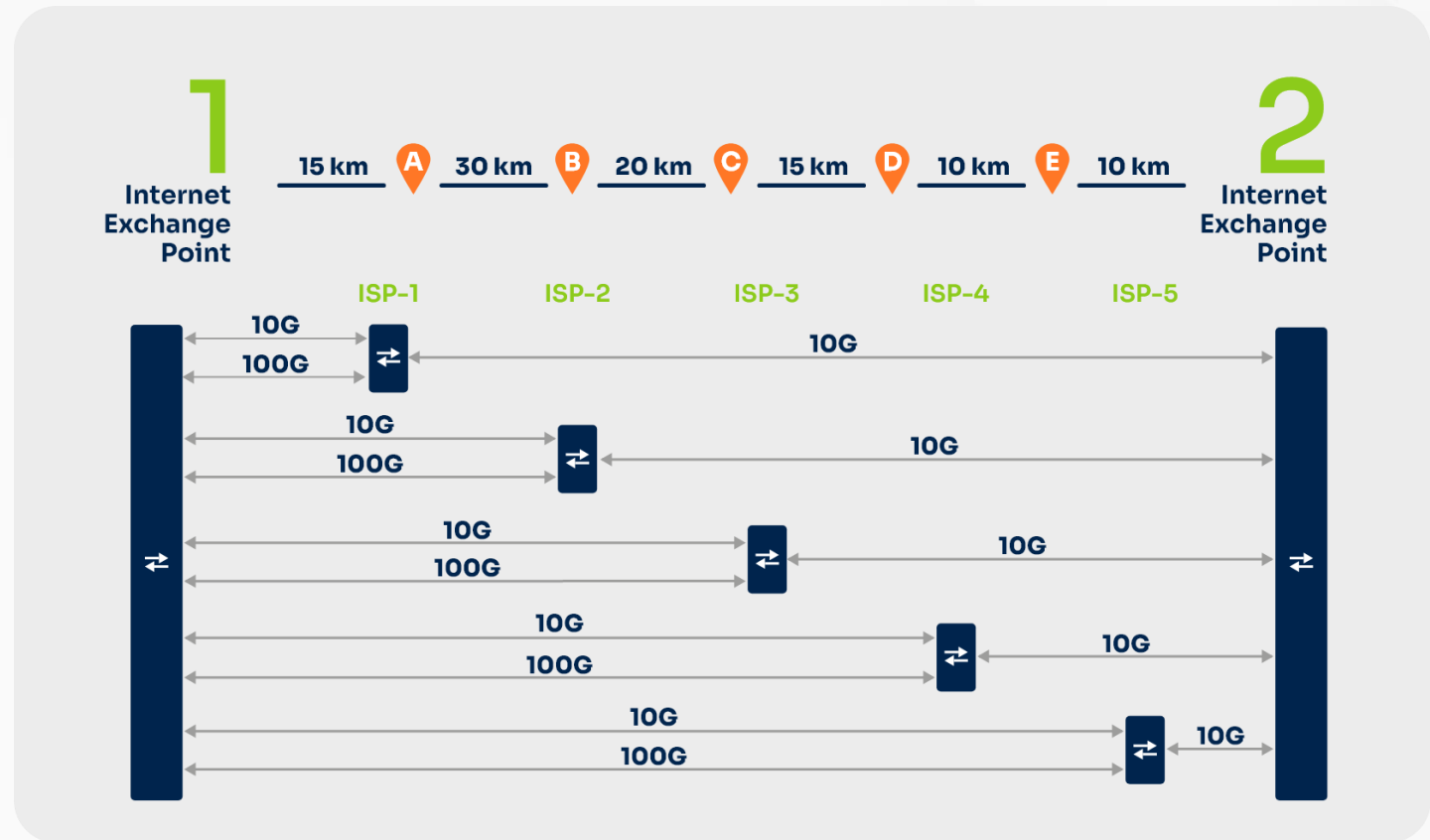
Sharing fiber for different services





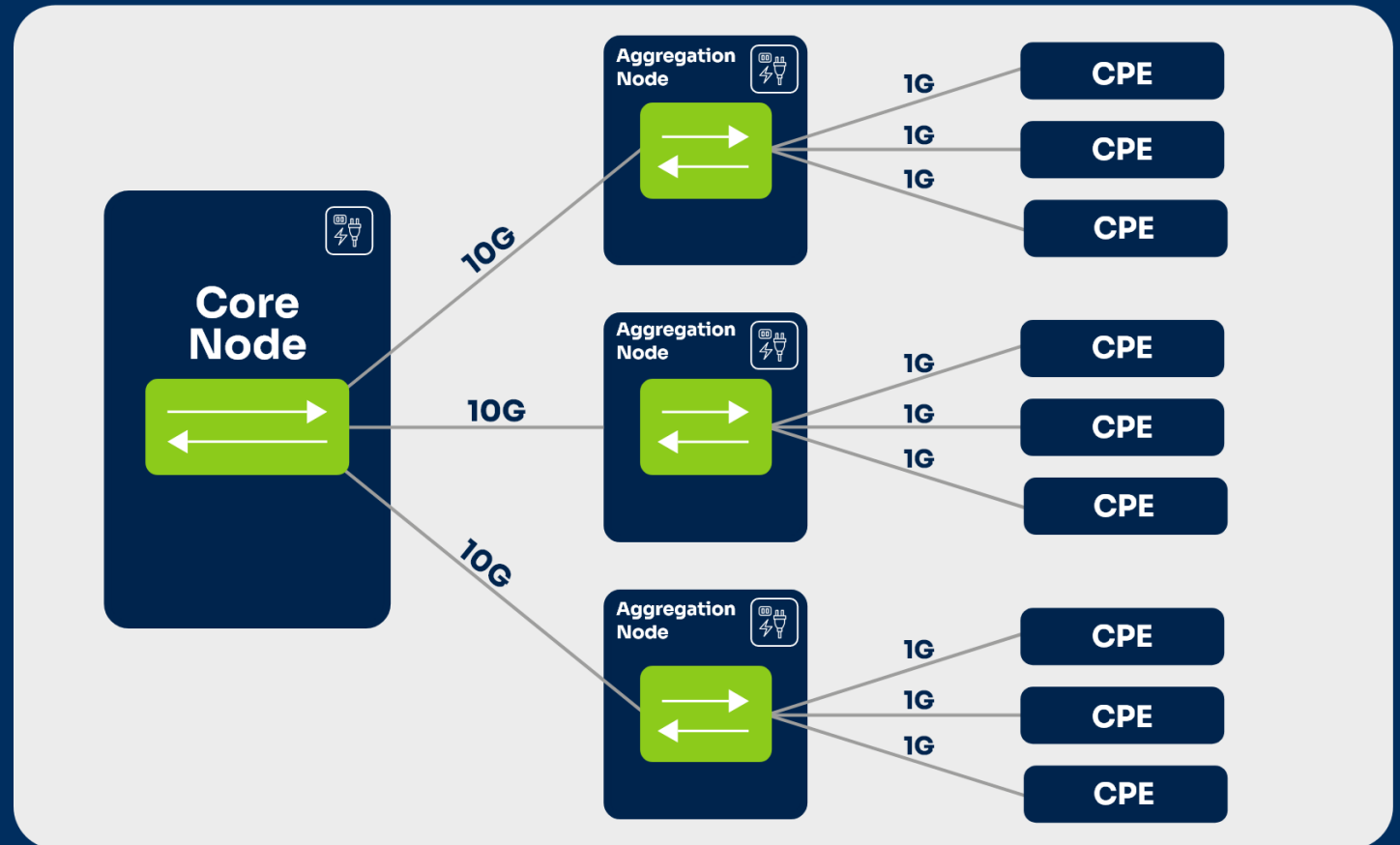
# Where we could use xWDM?

Sharing fiber for different services



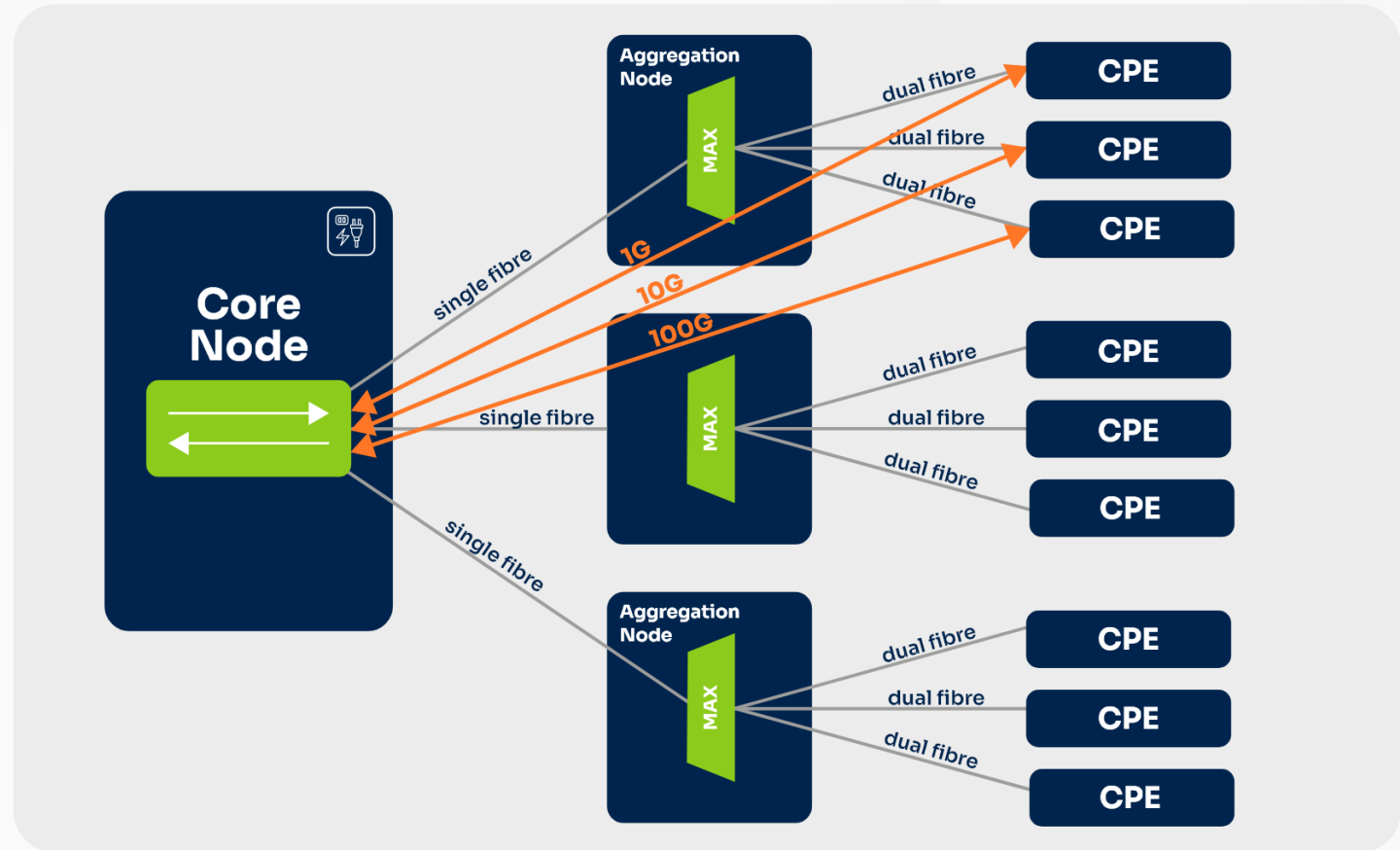
# Where we could use xWDM?

Switch or Multiplexer?



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Switch or Multiplexer?



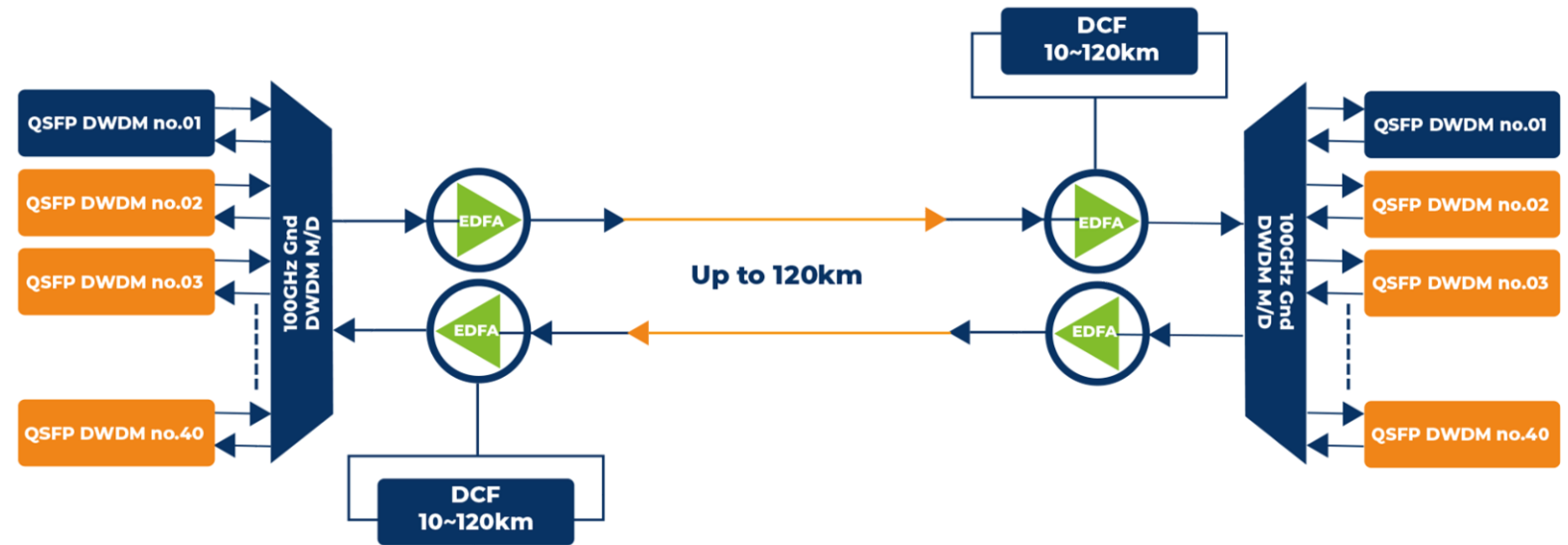


# QSFP28 O-Band

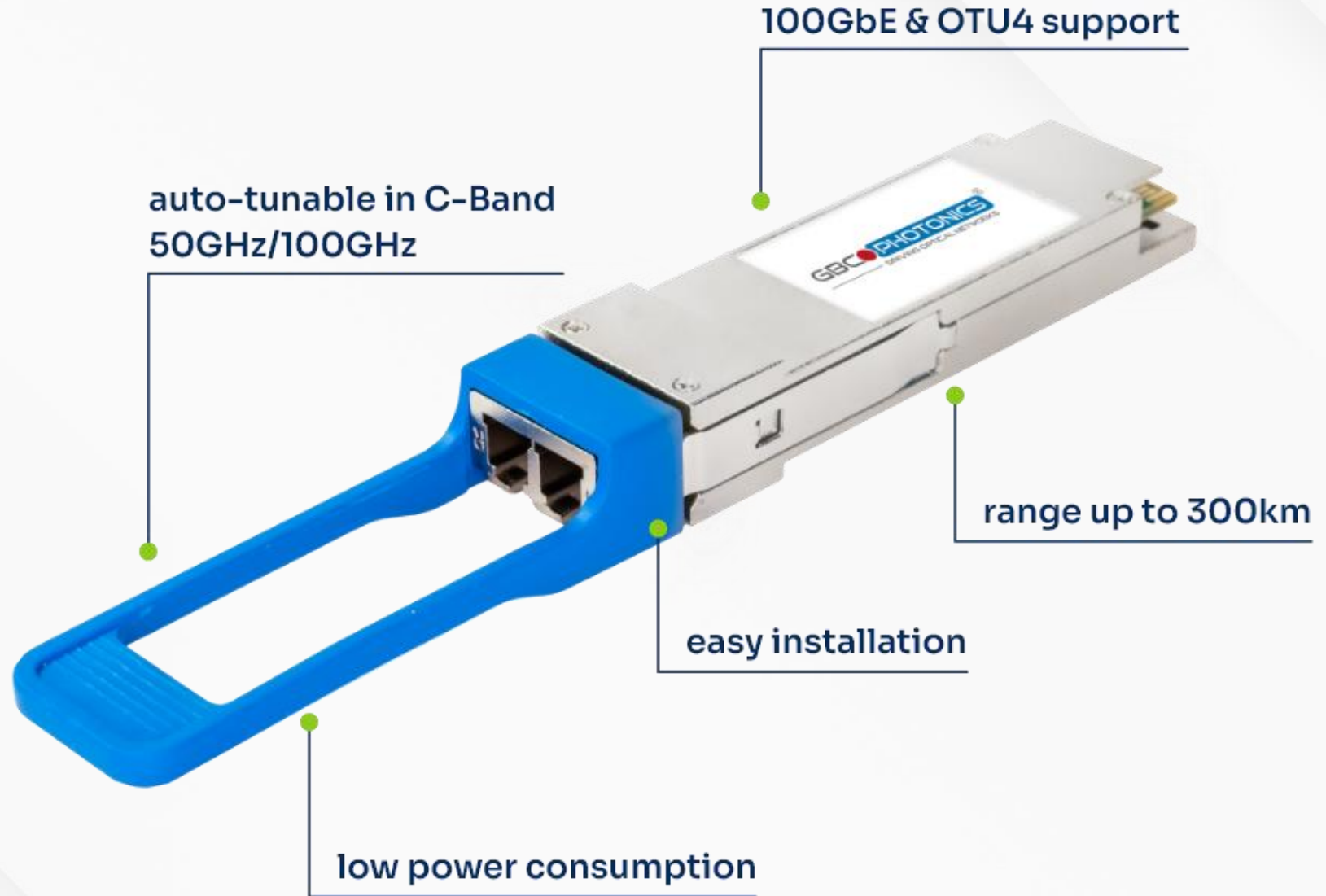
25km without  
amplifiers



# QSFP28 DWDM



# QSFP28 Coherent solution



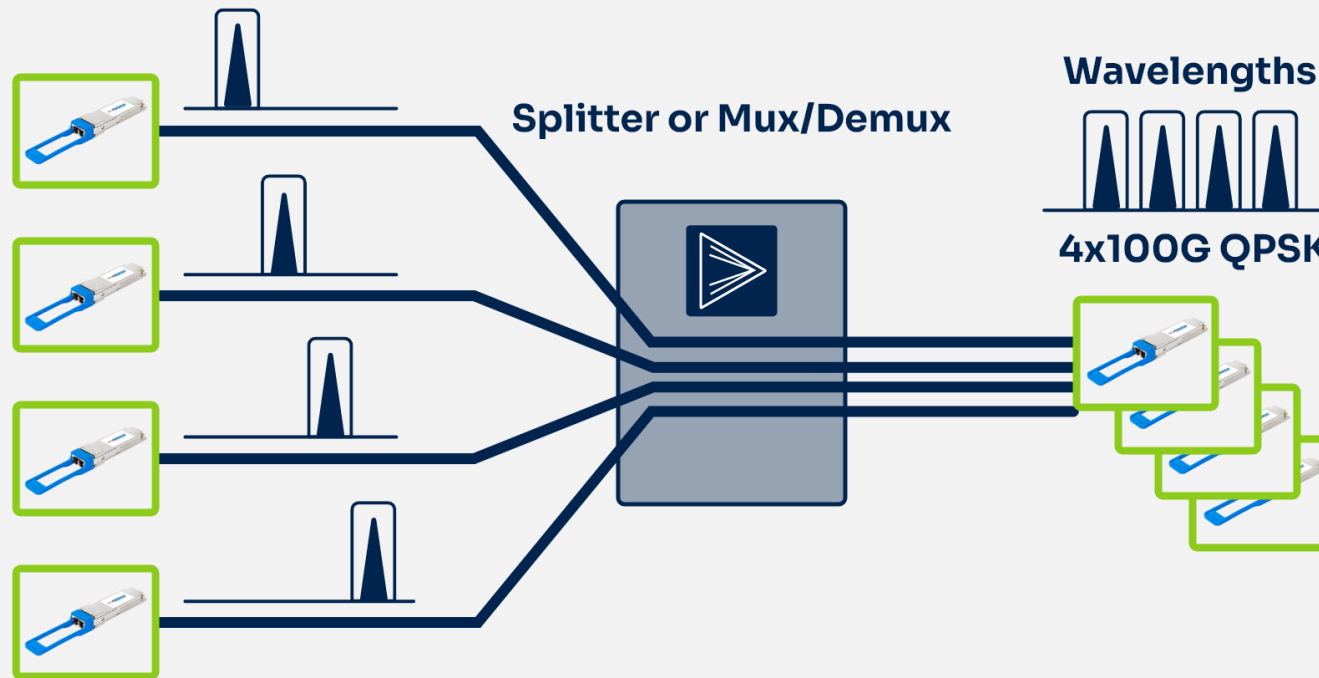
# Application of IP over DWDM Technology 100G Access

Access side

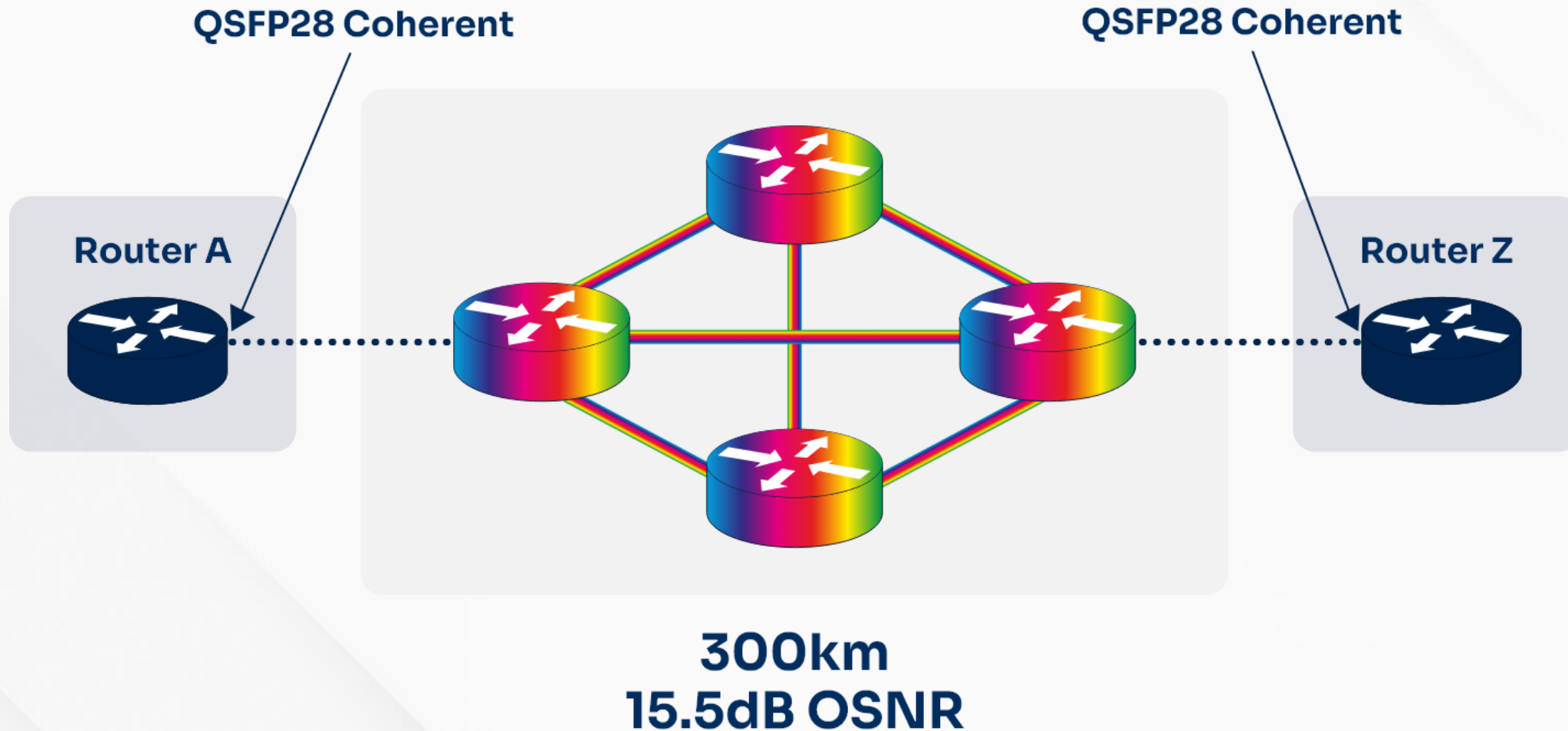
P-T-P wavelengths

Aggregation Side

4x100G  
QPSK



## DWDM Network





# QSFP-DD Coherent solution



**OIF 400ZR**

DCI



16 QAM < 120km distance

**OIF 400ZR**



**OpenZR+**

Metro, Regional and LH



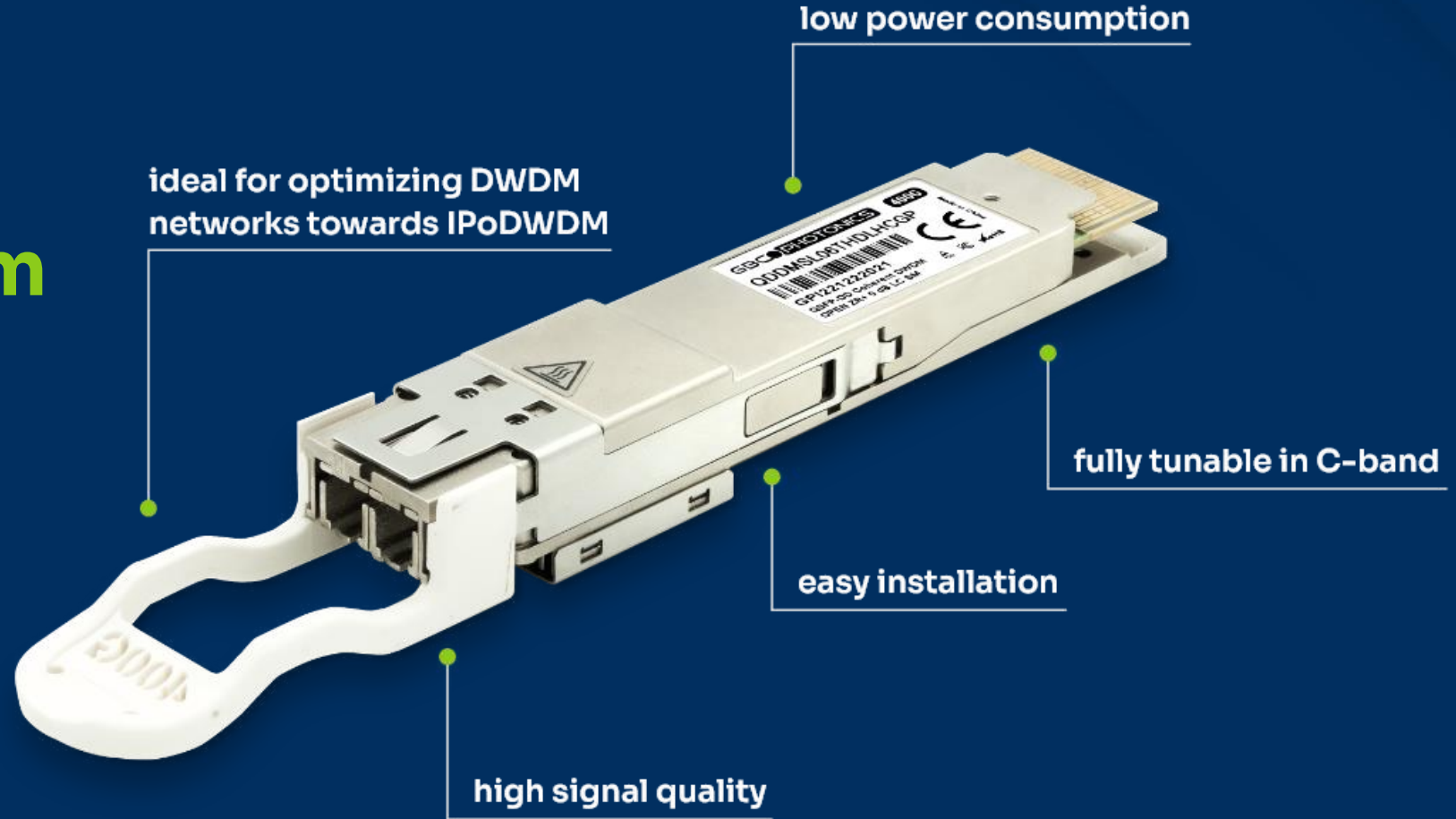
16 QAM/8QAM/QPSK > 600km

**MSA Open ZR+**

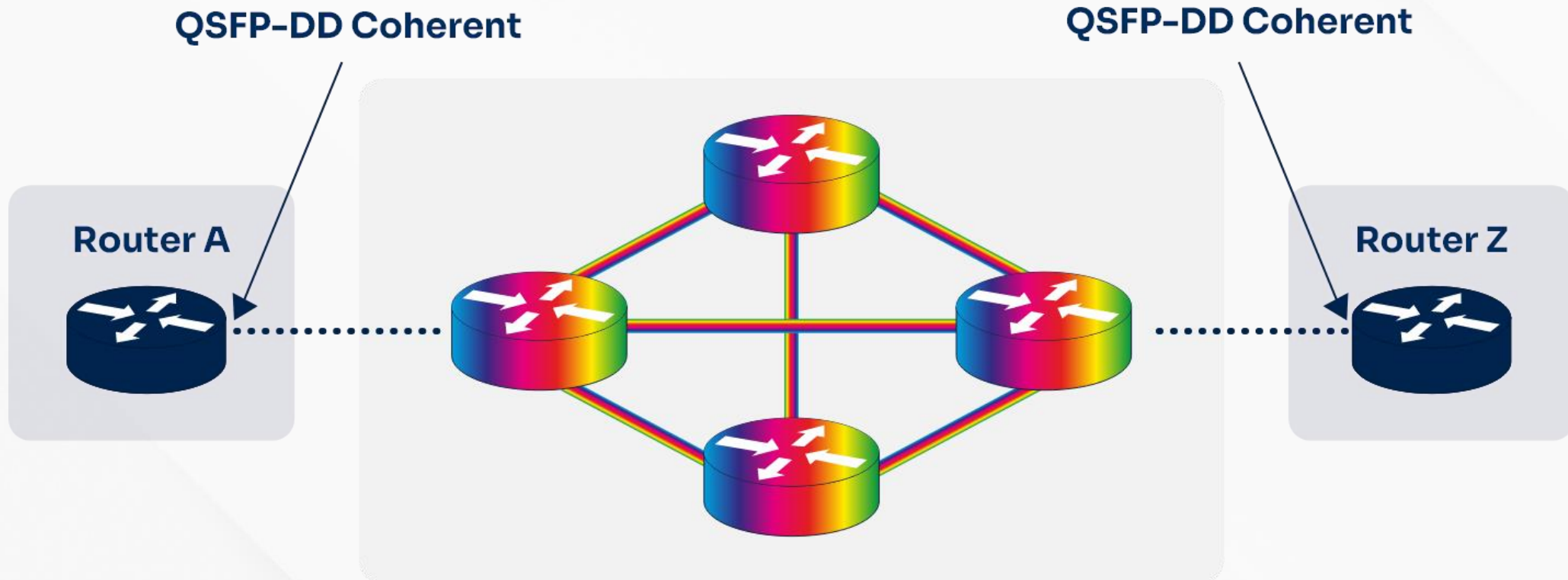
# Coherent transceiver 400G ZR+ 0dBm

QSFP-DD  
Coherent Solution

0dBm version



# DWDM Network





# Future of IP over DWDM

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We need more bandwidth

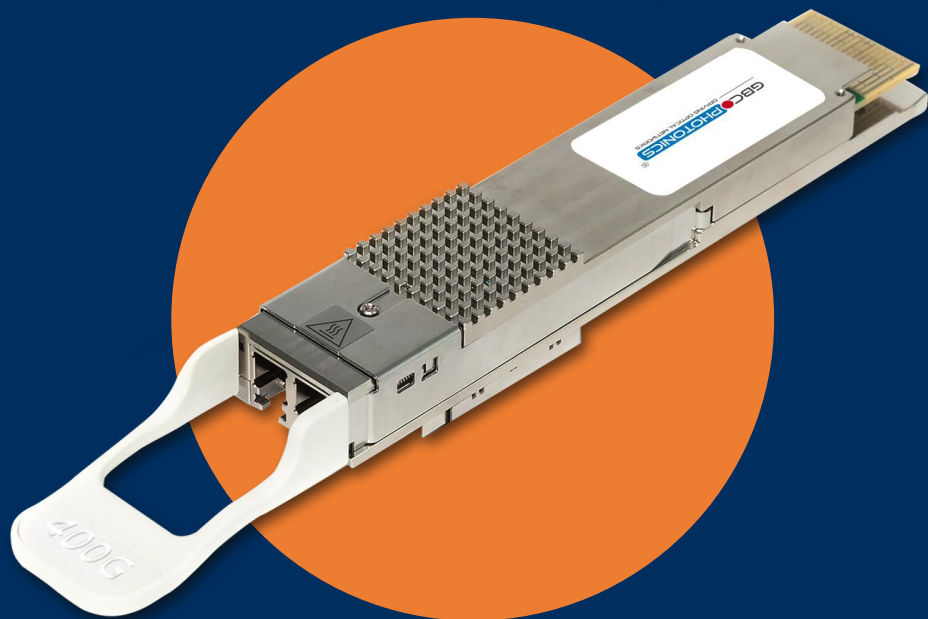


We need more automation



We need more green network

# Conclusion and Q&A



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