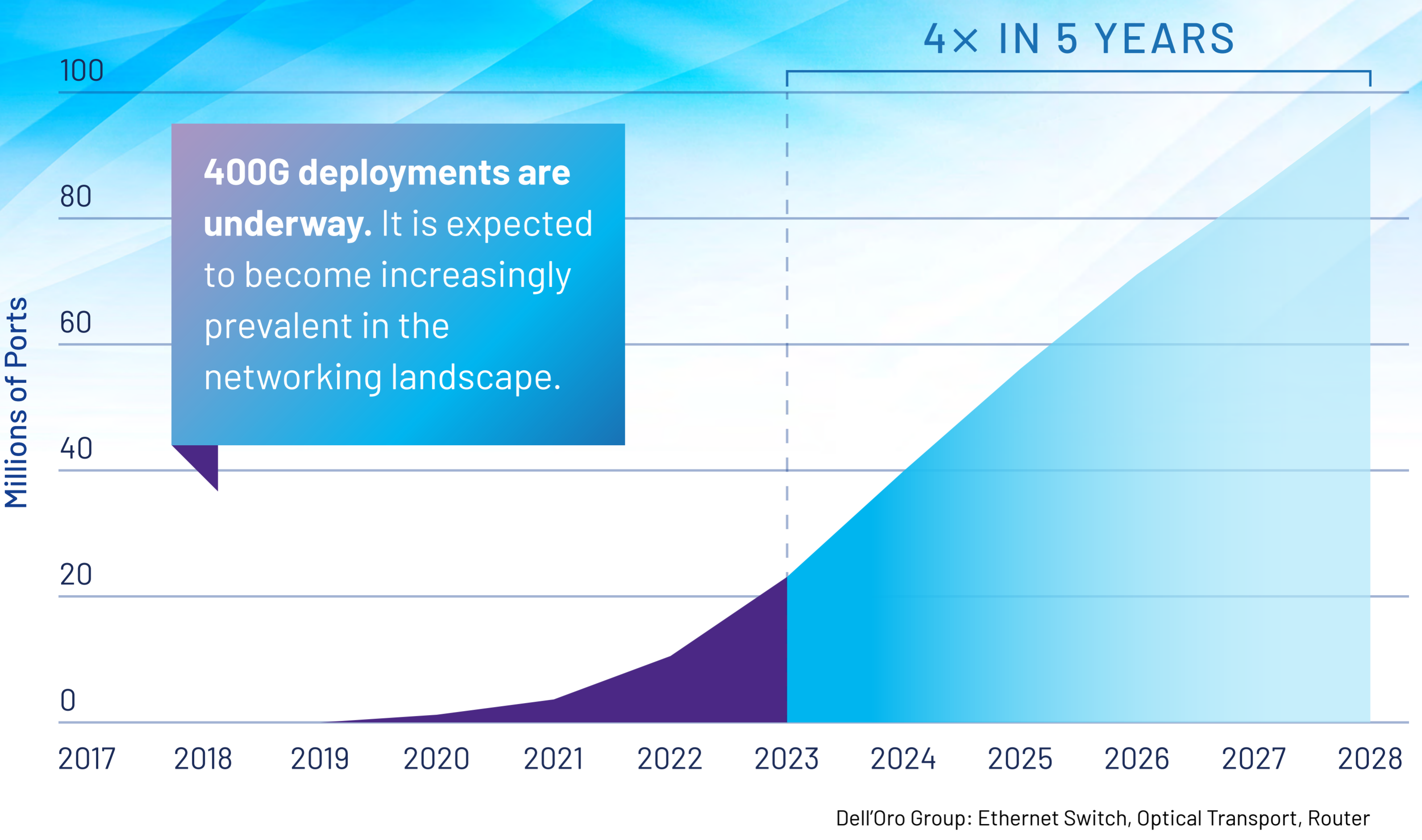
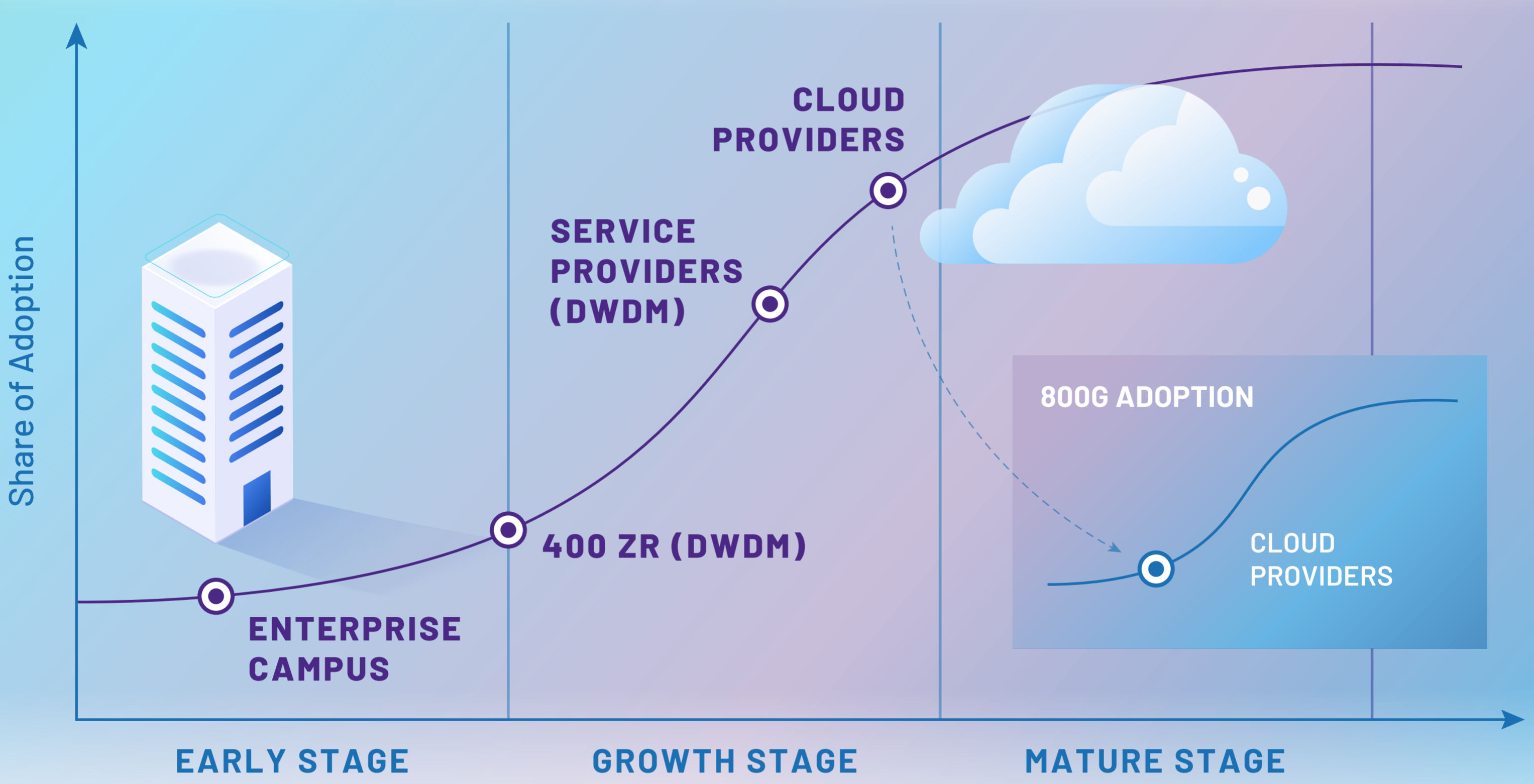


# 400G

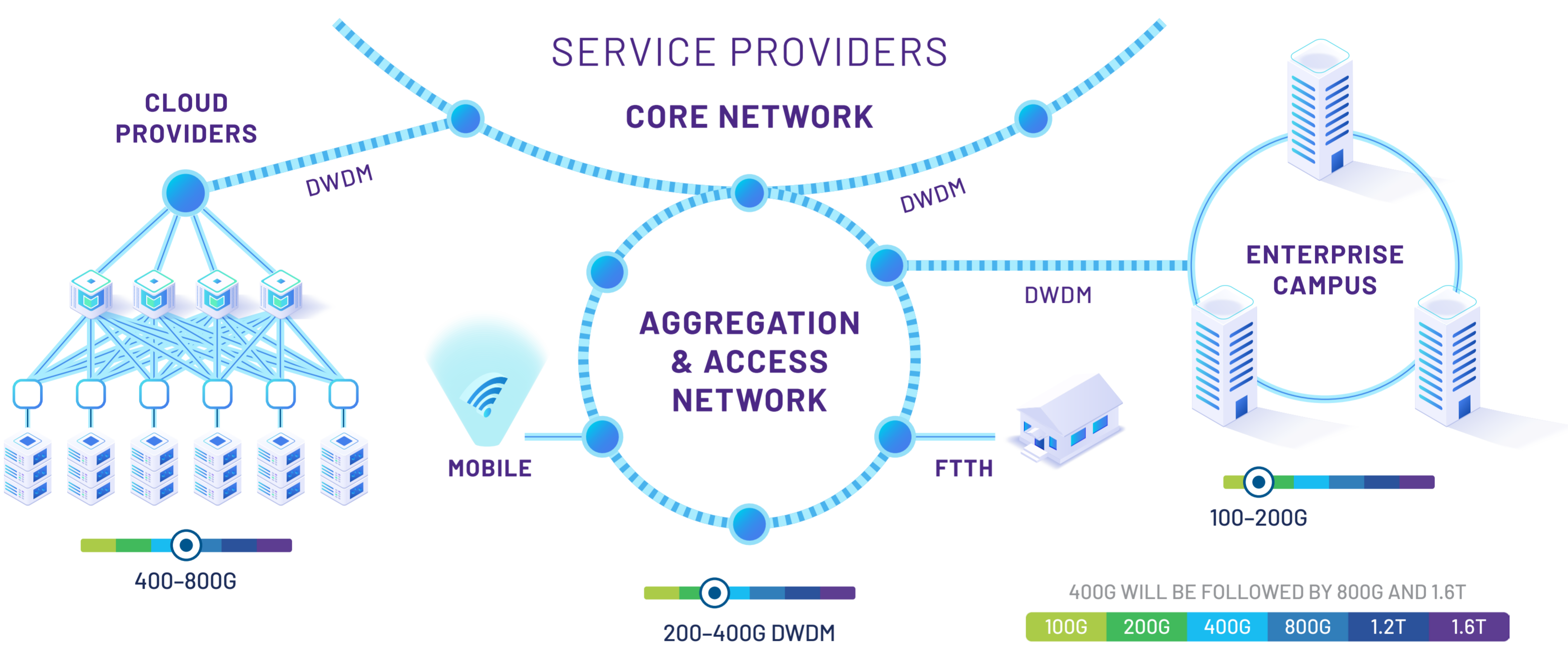
## INSTALL BASE OF 400G GROWING AT 33% CAGR



## 400G ADOPTION IS ON THE RISE



## 400G USED ACROSS MULTIPLE DOMAINS



## 400G REQUIRES HIGHER MODULATION FOR TRANSMISSION – EXPECT SIGNAL ERRORS

**NRZ (100G)**  
NRZ does not support 400G

**PAM4 (400G)**  
PAM4 replaces NRZ in client interfaces

**COHERENT**  
Coherent is used for DWDM interfaces and 400ZR/ZR+

Legend: QPSK, 8QAM, 16QAM, 32QAM, 64QAM

With 400G, Forward Error Correction (FEC) is required.

## SIGNAL COMPLEXITY PRESENTS NEW CHALLENGES

**Increased POWER REQUIREMENTS**

Infrastructure planning will be critical for the transition to higher speeds

**SIGNAL LOSS, NOISE & ERROR RATE**

More complex modulation requires better testing

**400G IS IMPLEMENTED WITH PLUGGABLE OPTICS**

A variety of form factors to choose from