

Carrier Perspective on 40GE Serial Optical Compatibility

IEEE 802.3 – 40GE SMF PMD Study Group
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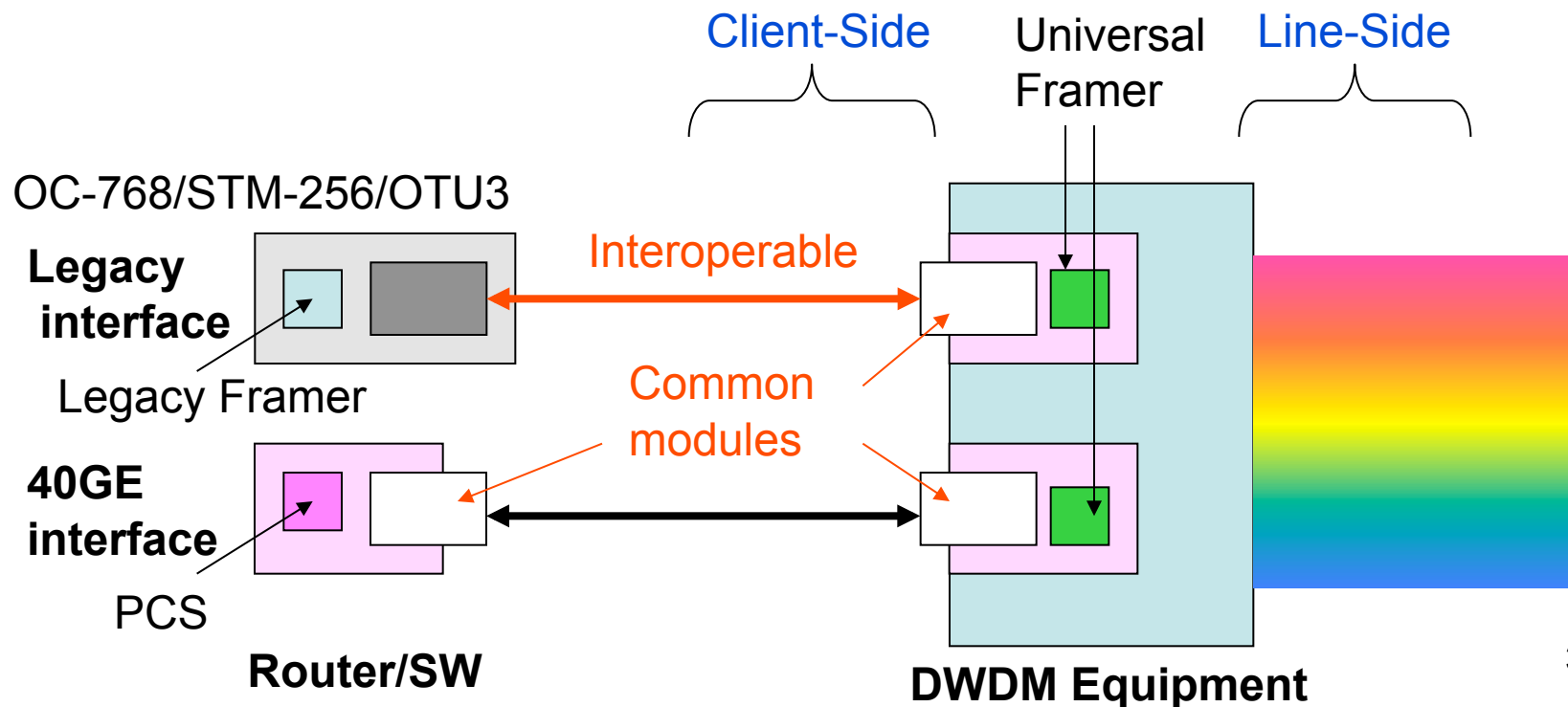
Martin Carroll – Verizon
Sam Sambasivan, Martin Birk – AT&T
Osamu Ishida - NTT

Carrier Request

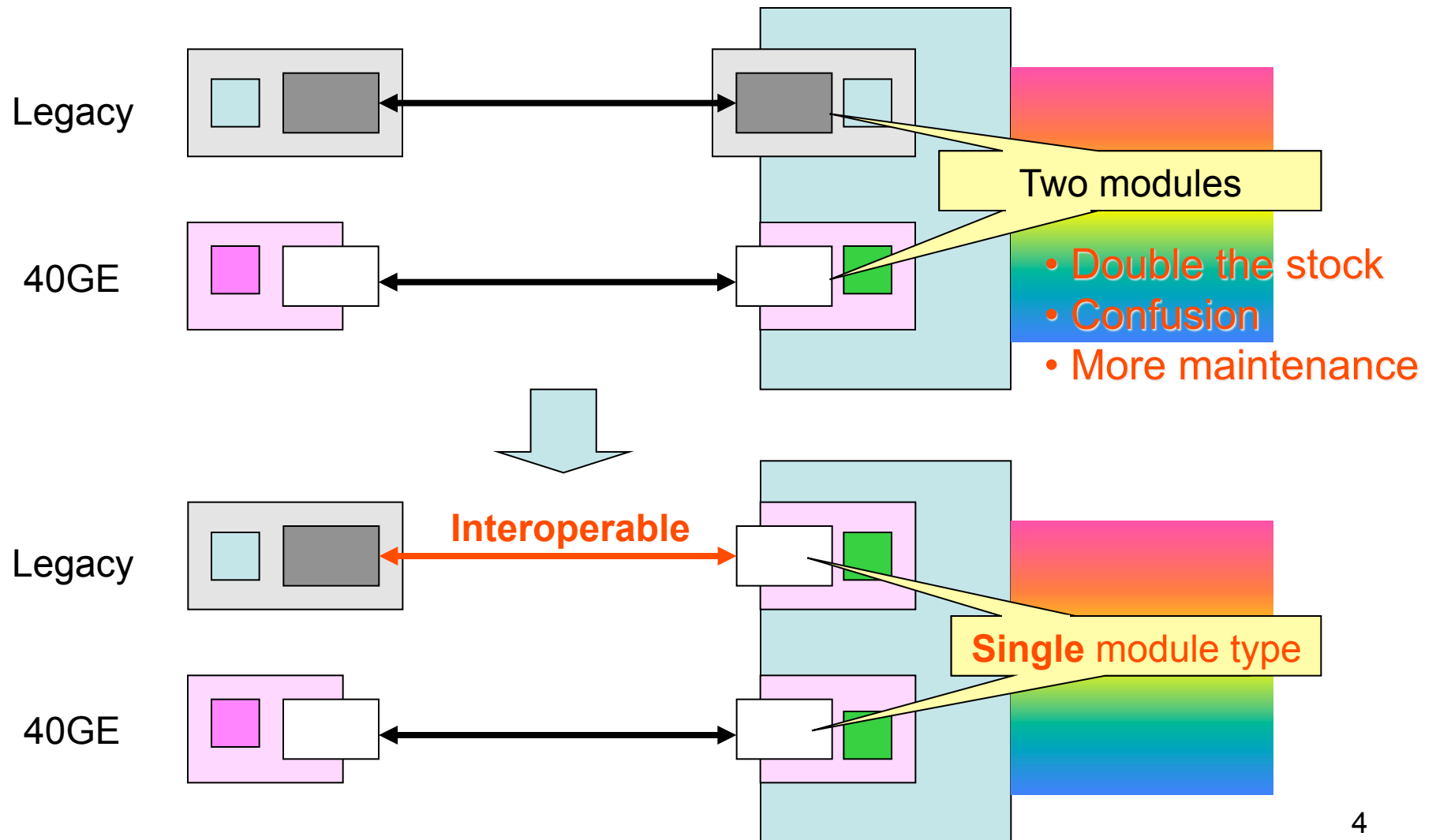
- Request is for an interface with the same number of wavelengths (one) as the field-installed OC-768/STM-256/OTU3 interface
- The request is not for the same wavelength, link budget, jitter tolerance, etc. ~ this needs to be defined in Task Force
- Goal of Task Force should be to develop an interface specification that can support both backward compatibility, as well as leverage Ethernet market forces

What is “Optical Compatibility”

- New spec that enables cost effective implementation of a tri-rate **common module** for OC-768/STM-256, OTU3, 40GE
- Enable common modules **interoperable** with installed-base legacy interfaces
 - Single wavelength, 40G with NRZ modulation



Why we need it be “interoperable”



Objective and Path Forward

- “Optical Compatibility” objective means
 - 40GE spec that enables a tri-rate common module implementation
 - For common modules interoperable with installed-base legacy interface, that requires
 - Single wavelength
 - 40G NRZ format
- If this objective is approved, then the Task Force will discuss
 - Link budget parameters, such as
 - Wavelength
 - Link budget
 - Jitter