

Photonic Exchange (Ph-EX)

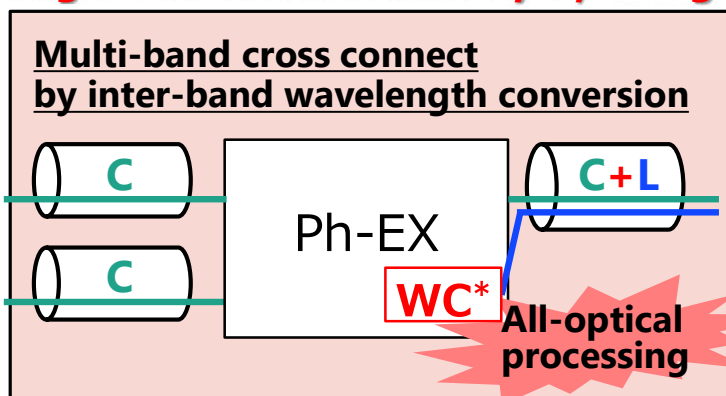
-Optical node system for saving energy by applying optical effects-

We demonstrate the functions and technology of an optical node system called Ph-EX towards realizing the All-Photonics Network (APN).

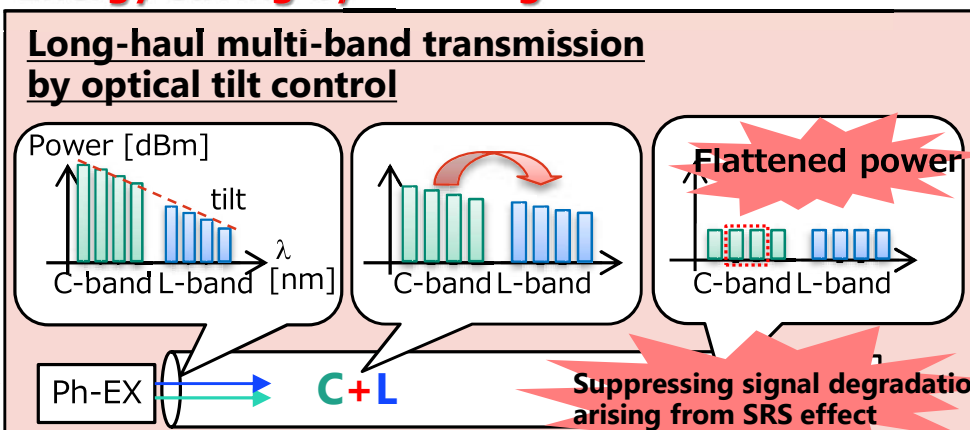
The inter-band wavelength converter improves the wavelength utilization efficiency per fiber by expanding the accommodation wavelength band.

Long-haul multi-band transmission by optical tilt control reduces power consumption by reducing the number of points that require optical-electrical-optical (OEO) conversion.

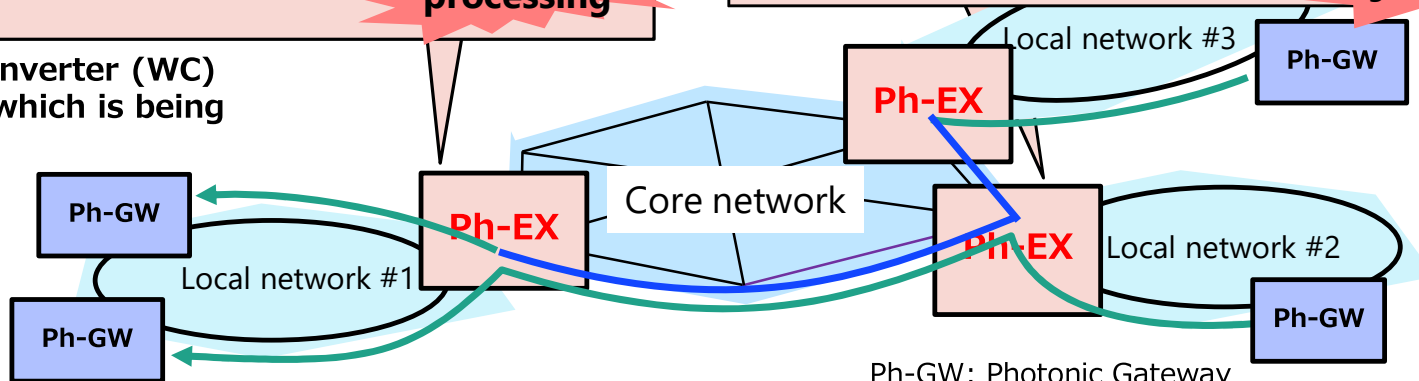
Improving wavelength utilization efficiency by using WC



Energy saving by reducing OEO conversion



*Inter-band wavelength converter (WC) realized by PPLN devices, which is being studied by NTT Labs.



Ph-GW: Photonic Gateway