
Wavelength allocation in the existing ODN

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The existing ODN has been constructed with the ITU-T G.982.

The wavelength other than G.982 may not be transmitted in the existing ODN.

Therefore, the wavelength of 10G-EPON should be consistent with G.982.

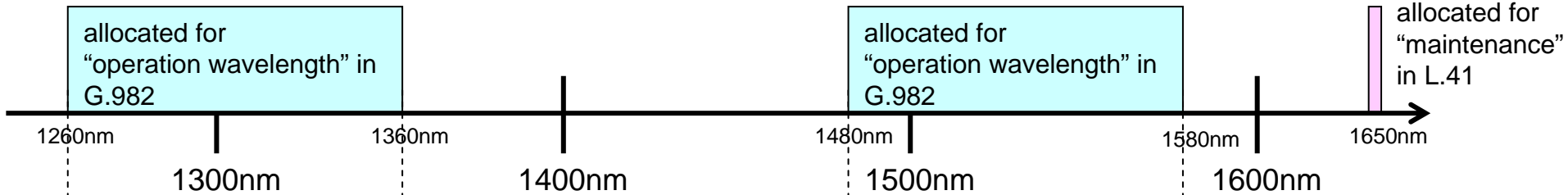
And 10G-EPON is not affect to the existing 1G-EPON and RF-video.

We should consider the blocking filter of the existing systems.

Standard

The wavelength other than allocated in G.982 may not be transmitted in the existing ODN.

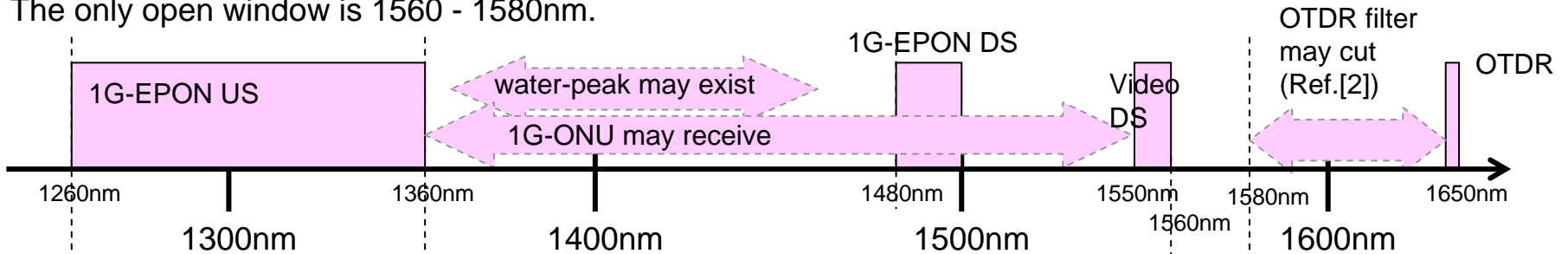
The wavelength should be allocated in 1310-window (1260 - 1360 nm) or 1550-window (1480 - 1580 nm). (Ref.[1])



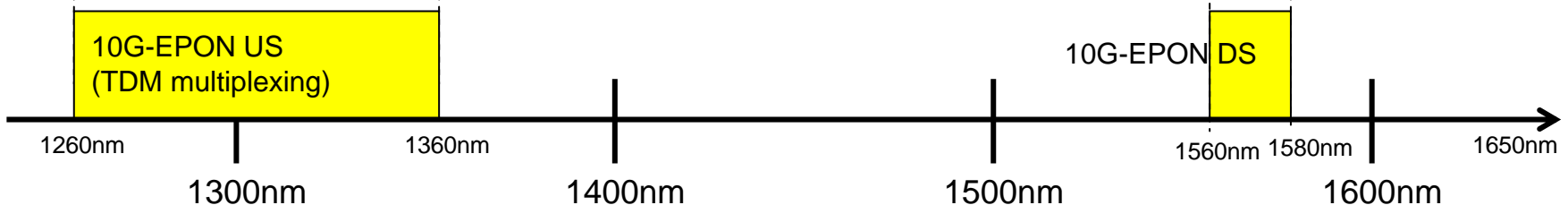
Existing System

The wavelength which is not received by the existing systems should be used for the new system.

The only open window is 1560 - 1580nm.



Possible solution



Conclusion

Upstream

The upstream wavelength should be allocated within 1260 - 1360 nm window.

The narrower range is preferred for the future use.

Downstream

The only open window for the downstream is 1560 - 1580 nm.

References

[1] G.982

8.1 Wavelength range for the 1310 nm region

8.2 Wavelength range for the 1550 nm region

[2] L.41

Appendix II Japanese consideration for selecting maintenance wavelength