

Investing in the Right Vendors Can Enhance Broadband Deployments

By adopting a multivendor approach using vendors from the same geographical region, providers will gain critical support, avoid numerous risks and overcome logistical and supply-chain issues.

By Nikolaj Sobolev / *S&T Iskratel*

When building a new fiber network, builders and operators rightly look to maximize the experience for customers while eliminating unnecessary costs. Because optical line terminal (OLT) technology is such a small part of the overall cost of building a new network, some companies may think about sourcing cheaper operator equipment – but this is a mistake.

Focusing on cutting down costs regardless of the consequences is a short-sighted view. Political, geographical and logistical challenges are commonplace when deploying a fiber network. Ignoring these risks almost always leads to additional costs.

OLT SAVINGS DON'T ALWAYS EQUAL SUCCESS

When working out potential expenditures for PON projects, it's important to separate the costs of OLTs, optical network terminals (ONTs), optical distribution network (ODN) equipment, and labor necessary for trenching and laying optical cables. On average, the cost of providing OLTs in fiber-to-the-home (FTTH) network builds amounts to only about 1 percent of the total build cost. An OLT is an

operator's equipment that connects with end-user devices, such as routers or home gateways.

Other network parts are more costly than operator equipment, including the end-user equipment and the ODN. The ODN is typically an expensive outlay because it is used for data transmission and is responsible for the performance and reliability of the system. By comparison, the labor cost of digging or laying fiber is estimated to be, on average, 60 percent of the total cost of a project.

One example of an early PON project is from the early days of GPON technology in Suupohja, Finland, from 2005 to 2007. It was a greenfield deployment in a very rural location. The total investment surpassed 10 million Euros, and the project aimed to see 5,000 homes passed with fiber. By estimating that the cost was 2,000 Euros per user, the price could be calculated to establish the OLT price per user. For this example, the average spend on OLT was just 0.47 percent.

Another example is an ongoing project in Bóly City, Hungary, that covers both rural and urban areas across 14 towns with a total population of around 12,000 people. The total number of subscribers reached 1,458 institutions and companies, and the project connected 99.5 percent of all premises. In this case, the OLT cost was just 0.57 percent.

These examples demonstrate that the average OLT cost for each PON network is below an estimated 1 percent. This means that the price difference between competing vendors offering OLT is only a tiny fraction of the overall cost of the project.

Companies selecting cheaper vendors could see savings of around 0.01–0.05 percent per project. Still, the risks and potential downsides in terms of customer experience alone make this an ultimately uneconomical and inadvisable saving.

Choosing the wrong equipment providers can also create hazards, including reduced support, risk of an unexpected political situation, a lack of availability of products, equipment delivery delays, and a lack of flexibility to migrate a network.

Choosing the wrong equipment vendors can create hazards. It's better to choose trustworthy vendors, even if they cost slightly more.

The potential financial gain must be weighed against the associated risks.

WHAT NOW?

It is critical that vendors that companies partner with have the ability to mitigate these issues. My general

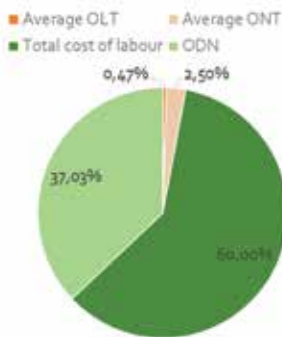
advice is to to introduce a multivendor approach and use vendors from the same geographical region. Of course, the cost may be slightly more, but local support means logistical and supply-chain issues are quashed.

Companies must carefully, diligently select equipment vendors

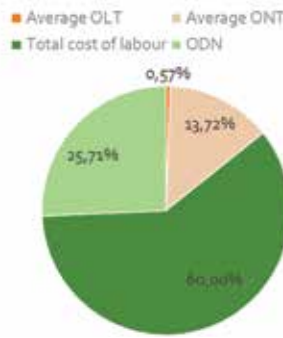
that supply the quality solutions and support that lets them unlock the full potential of their networks.

Iskratel held a webinar, “The phenomenon of 1% investment in CO equipment” in April. Watch it here: www.iskratel.com/en/resources/webinars-and-speeches/the-phenomenon-of-1-percent-investment-in-co-equipment. 🙌

Suupohja, Finland, 2005-2007



Bóly City, Hungary, 2007 ongoing



OLT costs were a small percentage of the total costs of building new networks in these cities.



Nikolaj Sobolev is the customer solution manager for the broadband business unit at S&T Iskratel.



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