# Fujitsu's Rundberget Talks Frankly About Open Source

by Alison Diana, Editor, Broadband World News

Operators can add open source modules to their network, benefit financially from the investment and then implement other modules as they wish -- an approach that eliminates much of the fear and complexity some associate with open source implementation.

That is the message Kirsten Rundberget, open strategy lead at Fujitsu Network Communications, shares with her team, many partners and service providers interested in exploring open source. That number is growing, but operators still have many questions and some misconceptions about it.

Rundberget sat down recently for a phone interview with Broadband World News Editor Alison Diana. In a conversation that covered everything from DevOps and agile to interoperability myths, Rundberget shared how service providers large and small can quite quickly use open source in their network without immediately entering into an era of their own digital transformation and associated costs – both monetary and workforce-related.

**Broadband World News: Why are many service providers not yet adopting open source when so many I speak to say they want to deploy it?**

**Kirsten Rundberget:** I honestly believe we're a couple of years out from those service providers fully embracing open. A lot of it has to do with the uncertainty of, "How do we deploy this? How do we manage this?" It requires a complete change in the way you manage your network. You can't just run out and say, "Today I'm proprietary. Tomorrow I'll be open." It involves changing management systems, how you deploy spares, how you train your people. Everything is involved. It's not a small process. So for smaller companies that don't have a real deep bench, it's more difficult for them to move in that direction. They're going to have to depend on their vendors or system integrators to help them make that transition.



**Kirsten Rundberget**
Open Strategy Lead at Fujitsu Network Communications

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**BBWN:** What sorts of hurdles are in operators' way?

**KR:** Some of the challenges that service providers face -- and honestly it's at all levels -- to fully embrace open, it requires changes in back-office systems. It requires changes in their operating systems, their OSS, orchestratration and controls. Everything. So what we're trying to do is develop a program where the customer can choose how open they want to be so they can migrate slowly over time; they don't have to go out and replace their entire infrastructure at once.

That's what we are working on internally to try and help our customers do. If they have a system and simply want to put open transponders over that system, then we're working to help them do that. If they're working to replace some of their RoadM network, we're looking to help them do that, as well. The advantage of open is, once you're there, it makes it a lot easier to add innovative new features in the future. The getting there is the challenge. We need to come up with ways to help them do that.

**BBWN:** Is there a logical starting point for an operator's first open deployment?

**KR:** I believe the simplest place or the first step most service providers will take, is the transformation of an open transponder or an open exponder on their network. If they have a RoadM out there, they've got available wavelengths, they know what the performance on a particular wavelength path is on their network, I can see them adopting open transponders of one form or another, putting them on that wavelength and then upgrading, updating, a wavelength at a time, and then only upgrading their RoadM when they start running out of capacity. Or when they go to a modulation scheme that requires a change.

One of the simplest, easiest places to adopt some of the open technologies is by putting third-party transponders over their existing systems that are controlled by an open controller. That does require some adaptation layer to allow their network controllers to talk to each other, but it's an easy, simple way to start adopting open.

**BBWN:** And what kind of benefits or return can operators expect?

**KR:** It will allow them to deploy innovation at the wavelength layer a lot faster. If they have to deploy an entire new RoadM network to offer 400G, that's probably not going to happen but if they have a need for it -- today -- they have the ability to go out and potentially deploy it over an existing RoadM network.

And maybe it's not 400G. Maybe they have an older network and they're currently running at 100G and they want to get to 200G. Their vendor may not provide a 200G solution, but [open source] may enable them to go out and buy a 200G solution from somebody else. This then prolongs the life of their RoadM network because now they can put more capacity on each wavelength.