Legacy Network Decommissioning: Challenges and Opportunities

Migrating from copper to IP can simplify delivery models for new services and revenues

By Paul Bultema and John Morgan
The world of telecommunications has changed in the last few years. That’s no news to anyone who’s been in the business for any length of time, in any country. In what seems like the blink of an eye for a technology that’s more than a century old, communications service providers (CSPs) have had to deal with an increasingly dynamic business landscape.
Not only are there more ways to communicate, but those new ways are replacing the old ways at a startling rate. At the same time that many customers are using mobile phones in place of landlines, they also have the choice of data-enabled smartphones and tablets. There are more channels CSPs can offer customers beyond phones – Internet connectivity, gaming systems, home entertainment, movie downloads, and more.

On the one hand, CSPs should delight in having greater opportunities to interact and engage with customers. On the other hand, such opportunities have only increased the number of companies focused on this competitive landscape. And increased competition makes it difficult for CSPs to charge fees that allow them to improve their infrastructure – and offer better, more-differentiated services.

This wasn’t always true. With each new technology, there was a window for charging a premium on new services – first it was texting, then data, then 4G. But with each new technology and greater competition, margins have shrunk. Today, even while they’ve invested heavily in 4G and LTE networks and services, CSPs around the world still charge rates similar to their 3G pricing. That leaves them with only one viable option: driving down costs.

Thankfully, there is a method open to CSPs to drive down costs and, at the same time, give them a foundation for offering even more digital and high-value services: decommissioning their legacy networks. It’s a big step to unplug a facility that has offered reliable service, but with the right tactics, it can be done, and done in such a way to ultimately create long-term viability for 21st century business models.
The Pros and Cons of Decommissioning

At first, the idea of decommissioning a network that is still serving customers seems counterintuitive. But think about everything that goes into servicing that network: maintaining technology long past its prime, expiring or prohibitively expensive maintenance contracts, relying on end-of-life equipment, with an aging workforce, in facilities requiring extensive space and power; and doing so in tandem with more-modern digital architectures. Decommissioning legacy networks represents a significant cost savings in numerous areas.

Moving customers to new networks from legacy networks does not mean abandoning them, nor does it mean cannibalizing this reliable revenue stream. It means having the ability to offer them newer, more-reliable services. It means being able to offer them other services previously unavailable on the legacy network. That in turn opens up the opportunity for new upsell opportunities and increased levels of customer engagement and intimacy. Customers who don’t want to make the move – who are as reticent about new technology as internal naysayers might be – are unlikely to see the value in new services. A CSP simply can’t derive more profit out of a customer who’s satisfied with 20th century technology.

Moving to an entirely digital network may mean fewer customers, but it will also mean lower costs: in facilities (because digital equipment is less bulky); in management (because all-IP networks are easier to manage and maintain); and in customer responsiveness (because problems can be identified and rectified sooner). Other CSPs who’ve made this move have discovered that digital networks may actually deliver the same or increased revenue, and at much higher margins.

Still, CSPs have other concerns. Frequently their legacy networks are similar to equally creaky software applications – they’ve been changed and updated and cobbled together so many times that they worry that the mere process of tinkering with it will cause problems. Of course, if it’s that unstable, shouldn’t it be replaced anyway?

If CSPs are concerned about outages, the migration from copper to fiber is completely logical: copper has anywhere from twice to four times the failure rate of fiber. Not only can decommissioning the legacy network actually increase reliability, but digital management tools are more advanced than legacy management tools, and better at predicting potential outages. And having only one set of management tools also represents a cost savings in terms of licensing, training, and maintenance.

Naturally, cost is a big issue. A CSP can’t offer new services, and derive new revenues, without an upgraded, digital network. But it can’t upgrade the network without those new revenues. The answer is complex but achievable: it involves calculating new profitability models for each region and each wired center CSPs they maintain.

And once that happens, CSPs must figure out how to market those new services. CSPs in the past have focused on selling network quality, but network quality has become a given. Customers have moved beyond that in search of services that make their lives more connected and even more enjoyable.
Why CSPs Should Make The Leap

One important way to help make the decommissioning decision involves not just looking at the downsides, but the upsides as well. Consider the upside of some cost issues.

Customers
Whether considering consumer or enterprise migrations, CSPs ultimately need to make migration decisions at the local wired center, to understand product profitability and technical migration alternatives, as well as to help reduce facility costs.

Facilities
Because digital technology is more compact than legacy technology, CSPs can repurpose or, more often, salvage equipment and sell facilities that have housed wired centers.

Reuse
Not only does replacing fiber with copper help increase capacity, but copper at today’s prices can be salvaged and resold at a profit.

IT Systems
Once customers have been migrated off legacy networks, and the networks have been decommissioned, then the IT systems support can also be culled, providing enormous incremental costs savings.

Legal
One CSP discovered that it could not lay off workers because of union agreements, so they were underutilized while still on the payroll. It put those technicians to work on their decommissioning project, using their knowledge and experience and increasing their productivity.

Regulatory
When a CSP ceases to be the dominant provider in a particular region (that is, falls below 50 percent of potential customers), it can reduce its liabilities relating to government-mandated universal service obligations and pole taxes.

There are other reasons to pursue a conversation strategy as well. For one, the potential payoff from new services far exceeds costs, simply from the ability to upsell customers to new products and services. Studies have shown that the potential lifetime value of consumer purchasing triple-play services can be 15 times that of a simple DSL customer. The same applies to corporate customers – and the more new services a CSP can offer any customer, the less likely they are to switch to another CSP that doesn’t have equivalent services. New networks are a sure path to increased customer engagement – CSPs have the potential not to cannibalize, but to upsell.

Another advantage of an all-IP network from an internal standpoint is the ability to contract with third-party providers for managed services and even network sharing. These services range from customer support, network management, field service support, and other capabilities. By offloading these needs, CSPs can reduce capital expenses while deriving more predictable operating expenses.

There are other reasons for CSPs to consider when making the move to all-IP networks. One is simply time: it’s a conversion that has to be done eventually. Planning for it now gives CSPs more control than if they’re forced to do it later. Nor is time on their side when it comes to the technicians maintaining legacy equipment; both are on the verge of either retiring or being retired. CSPs face the prospect of owning the equivalent of mainframe computers with a diminishing pool of mainframe programmers.

CSPs must also consider how they are going to compete with new companies entering their market or consolidation within. Given that there are now more than 100 carriers in Europe alone, consolidation will happen. CSPs must be able to offer and deploy new services quickly, efficiently, and reliably, and that’s not possible with a creaky network. Arguably, they will incur costs, but those costs have a significant potential for return on investment. The costs involved in maintaining a legacy network do not.
As these factors show in aggregate, there is a way to make conversion to an all-IP network work. Simply put, CSPs must think holistically. CSPs that have failed in these efforts have looked at them from a narrow, siloed viewpoint and failed to take into account multiple faces of their operations.

First, decommissioning a legacy network and then deploying a state-of-the-art network requires looking at a business model from end to end, from not just a departmental standpoint, but also from a corporate standpoint. Where are the costs and the cost savings of decommissioning, especially in the admittedly arcane legal and regulatory environment? What are the investments and the potential returns on investments from an all-digital network, especially given the ability to migrate consumers and corporations to new levels of service? How does the effort affect workflow within the organization? How does it affect the ability to outsource certain activities for lower costs?

And most important, CSPs should think about how conversion can give them a foundation to build a dynamic future where they can be more responsive to customer needs. That’s the biggest payoff of all.
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About the Authors
Paul Bulthuis is a Managing Director, Strategy Consulting for the Communications, Media and Technology Industry, where he drives strategy for our communications industry and network service line of business. Paul is our global legacy network decommissioning lead. He can be reached at Paul.J.Bulthuis@accenture.com.

John Morgan is a Senior Manager in Accenture’s Communications, Media and Technology Industry. John has over twenty years of deep industry experience, specifically in the areas of Fundamental Network Planning, Operations, Product Development, Regulatory Policy, and Finance. He can be reached at J.A.Morgan@accenture.com.

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