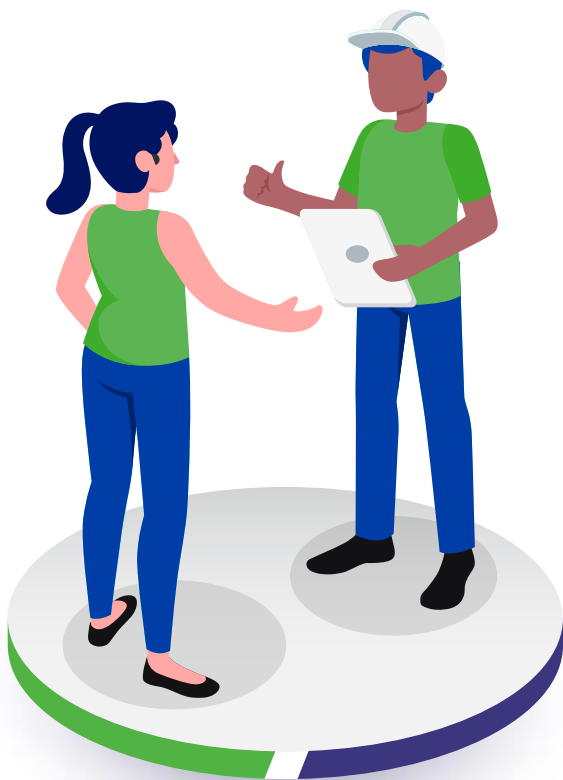




# Multi-vendor collaboration: Bringing best-of-breed technologies together

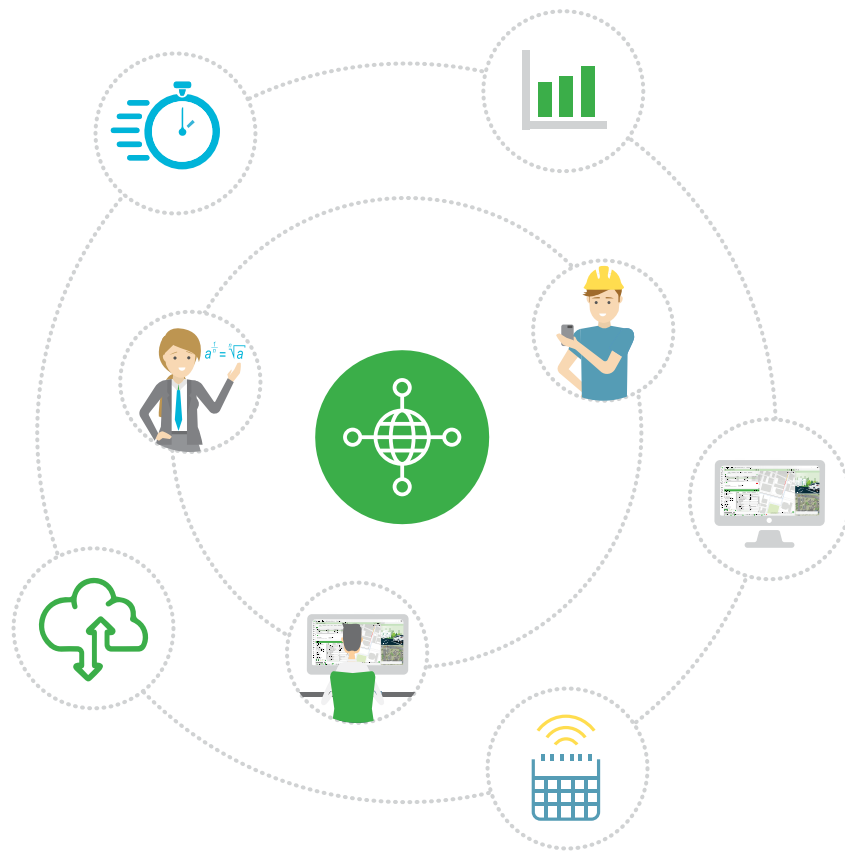


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# Overview

Collaborative environments using a network management ecosystem create a solid foundation for flattening information data silos that work against profitability. Through encouraging vendor collaboration, Service Providers can realize their strategic goals of open architectures, task automation, and accelerated workflows. When their collective collaborative efforts have that data or insight into the buildouts easily accessible and working, that's when the service provider can get the sales and marketing teams knocking on doors and saying, "We start turning service in your neighborhood next week. Can we sign you up?" "Can we upgrade you to fiber?"



## Collaboration breaks down silos, mitigates the “hand-off factor”

CSPs and their fiber network vendors are employing successful collaboration strategies, and in return are scoring competitive advantage for business growth opportunities and leveraging their data assets. Some of those wins are:

- > Increasing work efficiency for planning and engineering departments by as much as 50%
- > Reducing re-work of planning and engineering due to fiber assignment issues by 10% to 30%
- > Improving project management efficiencies by 1.5x by integrating engineering to construction data workflows and decreasing production reporting costs by over 50%
- > Reducing deployment risk for fiber networks capital projects by automating and increasing the accuracy of planning activities
- > Decreasing swivel chair turns where data is being put into multiple systems, creating efficiencies of time savings by as much as 25 to 30% of single processes
- > Reducing time-to-market by delivering inventory readiness to sales teams

CSPs, like most organizations, have department “data silos,” each with unique budgets, objectives, personnel, etc. As well, their engineering firms, lead construction companies and subcontractors, backhaul suppliers, and other vendors have their own data silos. Network management application platforms are capable of establishing the foundation for connecting the data and improving collaboration so that network projects are delivered faster: plan to build.

“I think the challenge service providers have is to bring these disparate business processes from within and outside of the organization so there is a single ‘system of record’ that supports the processes,” says Micheal Measels, Vice President, Products, 3-GIS. These environments enable the project managers to extract financial, operational, schedule, and various other data from respective information silos into coordinated systems so everyone follows the same North Star.

Service providers see physical asset network management systems as a foundation layer enabling that system of record. Measels sees “this trend actually occurring within many providers today in which the geospatial, attribution, connectivity data is being collected from initial planning through engineering and construction. They use our application to roll up elements required for more complex design and construction management applications.” The environment generates the entire construction plan from the inputs collected through the planning and design processes.

When you equip these multi-vendor teams with the appropriate technologies that enable collaboration to happen more effectively, everyone completes their deliverables in the network projects faster and with better financial results. Otherwise, projects get bogged down with permitting delays, erroneous forecasting, operations incompatibilities, and other preventable occurrences.

Historically, engineering and construction were two very isolated divisions of an operation. Engineers would send the design over the wall with a presentation and say, "good luck!" Construction managers then would be mystified, wondering what the document in front of them has to do with reality.

Later, the engineers would complain the construction personnel didn't build what the designers specified or capture relevant as-built information. Construction crews pushed back citing the impacts on scheduling, material forecasting, or labor utilization. For an upcoming network buildout, three application vendors, Vitruvi, 3-GIS, and Comsof, collectively planned the collaboration for delivering the physical plant and system of record faster.

## Foundation for collaboration

Collaboration has not been easy because many software tools and trackers for various network build out tasks also build data silos. "Engineering professionals are focused on engineering tools and workflows, they want the best toolset possible for them," explains Justin Reid, Vitruvi VP Sales and Partnerships. "Construction and Project Managers are equally focused on their specialty and the best possible solutions for them. CSPs can bridge this gap by selecting a multi-vendor solution that integrates a GIS-enabled workflow and construction management system that is driven by integrations with design and system-of-record."

Silos also afflict carriers, co-ops, and other network providers. Asset management people want their particular tools that can subsequently create silos. Marketing has tools to ascertain which constituents want service delivered to their neighborhoods. Some cities and counties have resources such as data centers and dark fiber that need to be incorporated into the network buildout.

The information contained or created by this chain of applications are valuable to these organizations, but as separately they are the antithesis to the communication that facilitates collaboration for the enterprise. This is where a network management system with a robust GIS-based data model gives CSPs and their vendors an environment for collaboration that they can take to the bank.

Often single-use software solutions are like putting a Band-Aid over a cut rather than looking at the holistic, whole-body health of the organization. "The service providers should be thinking, 'what's the integrated technology ecosystem that we want to invest in so we don't make these limiting one-off decisions that create islands of data isolation,'" says Reid. "Automating workflows and data integrations between systems, that's how you gain the competitive edge."

## Making the collaborative solution work for you

Collaboration to deliver the network and system of record faster and more accurately starts with the planning data deliverables. Comsof, which markets software to automate the planning and designing of fiber networks, has shown they are able to decrease design work effort by up to 90%. If a carrier wants to design a network for 100,000 homes, what years ago would have taken six months to do, can now be completed in a couple of weeks. Another example of where time is money.

“When you are looking for opportunities to streamline cost through collaborative efficiency, 10% of the overall project cost is in the engineering, 90% is with the construction.” Reid says, “It’s no surprise that construction operation is where the most cost overruns are. You have delays in construction, the delays for material to be delivered, the miss-ordering of work, inefficient truck rolls, overages in the project.”

GIS-based systems can create a complete workflow, or work-breakdown structure. Reid says, “Anytime there’s a change in design, schedule, or delivery, embedded software routines auto-reflect the changes into the construction managers’ project plan. This is a ‘knock it out of the park!’ solution to problems that occur frequently.”

Every problem, workflow, task, or assigned piece of work should be tied to the project map. These items are not portrayed in the “two-by-two” table-structured format like you’d find on a spreadsheet page. An engineer has to apply for a permit? In an integrated network management system, applying for the permit should be visualized on a map so you can see how the activity relates to other project activities.

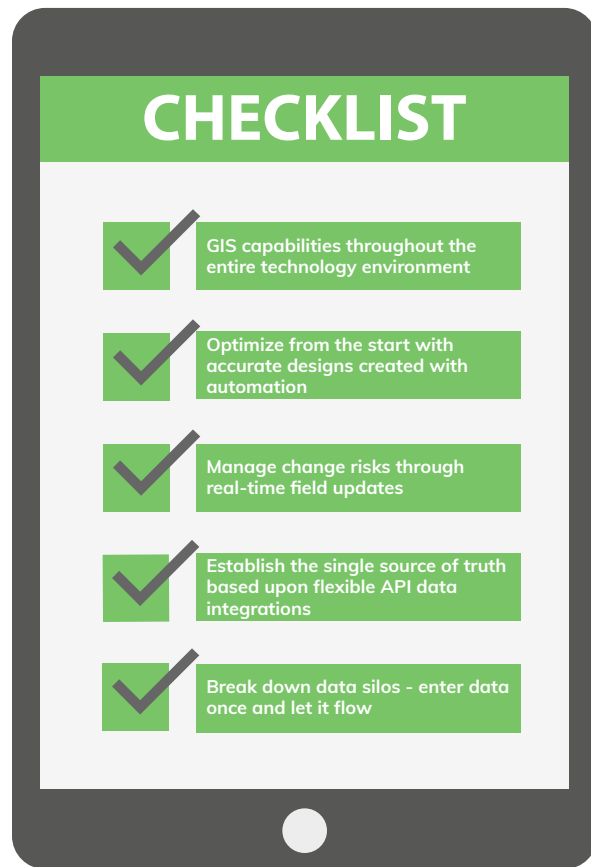
Network management systems with mobile computing features are particularly effective for bridging the gap between the office operations and the field. Every time a field technician completes a piece of work in the field, they need to be able to create updates with a mobile app where they capture photos, as-built data to provide real-time production reporting.

As the prospects of major new orders to build networks are the near horizon, it’s time for network providers and their vendors to assess their business, planning, and building practices to meet the challenges of faster deployment.

Increase the velocity and value of multi-vendor collaboration by looking for every opportunity to have systems speak to each other. Make it the company’s and its collaboration partners’ main mission to design faster, build faster, and manage data to inform the network operations to reach transformation goals.

## Review best practices

Having planning and construction data integrated with the network data is a competitive advantage for deploying fiber networks ready for operational management - in the sense that when you change any network element - a cabinet location, a fiber assignment, or even a delivery date, - everything directly affected throughout the entire work process is automatically changed. "Most Service Providers realize the value of an optimized GIS-based design," says Kevin Wynne, Head of Comsof Americas. "If these designs can be integrated with the construction and network management system, the value for the CSP is significantly higher". By having the initial design integrated with these other systems, all aspects of the network will be automatically created and updated globally, eliminating manual "swivel chair" efforts.



"From our collective experience with various fiber deployments, one of the more common challenges is a lack of interoperability between data formats and systems," says Wynne. This is why it is imperative to ensure the various solutions have existing integrations and are compatible with one another. It is necessary to do this due diligence upfront, as realizing there are data migration issues mid-project results in lost time and can significantly impact the project budget.

"Try to ensure that all the vendors who are collaborating agree on the business objectives and project milestones," says Wynne. "Transparency and cooperation is the key to having everyone satisfied at the end of the implementation". By having transparent communication, the stakeholders can eliminate many costly assumptions and keep everyone working towards the same end goal.

# Physical network data, the gift that keeps on giving

As CSPs turn their focus to breakdown data silos that create inefficiencies and disrupt managerial visibility, they are looking to their vendors to collaborate more to help them meet their strategic goals. CSPs are seeking to gain a competitive advantage for network expansion opportunities and to leverage their data assets.

CSPs can get the best solution when they create an environment where multiple vendors collaborate to bring their best-of-breed products to address a single mutual business goal, speed-to-revenue. In this case, the unified goal of planning, designing, and constructing a fiber network so that it is ready for service activation faster than each vendor working independently.

Increase the velocity and value of multi-vendor collaboration by looking for every opportunity to have systems speak to each other. Make it the company's and its collaboration partners' main mission to design faster, build faster, and manage data more efficiently, all to help network operations reach its transformation goals.

The bottom line impact of collaboration - the whole is greater than the sum of the parts. The value to the CSPs is that the collective data from the entire buildout process is available for downstream applications - provisioning, service repair, etc. With appropriate configuration, your network management ecosystem is ready to generate long-term ROI.

## **3-GIS Network Solutions**

[www.3-GIS.com](http://www.3-GIS.com)

*3-GIS web-based network management solutions give our customers the information tools they need to expedite their time to revenue, protect the integrity of their network data, and inform business decisions throughout their entire organization.*

## **Comsof Fiber**

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*Comsof Fiber software automates and optimizes the planning and designing of fiber networks. Comsof is the most used and most trusted tool to plan and design fiber optic networks.*

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