



The RDOF Planner's Guide

The financial and technical benefits
of cloud-based fiber network planning
and how to take advantage of them in
your organization



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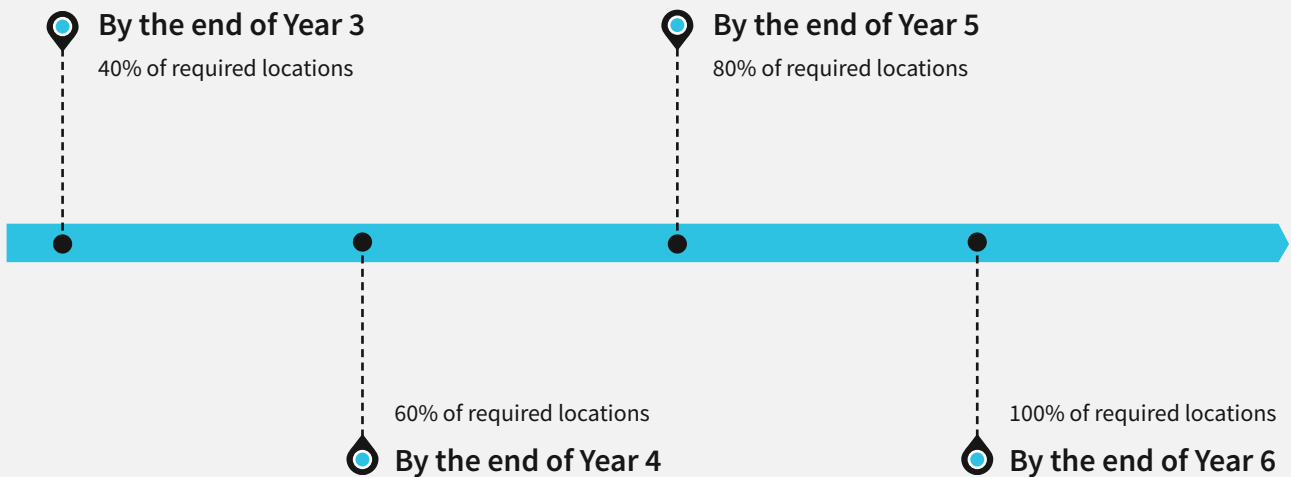
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The Challenge: Meeting FCC and Rural Digital Opportunity Fund Deadlines in your Fiber Network Planning & Design

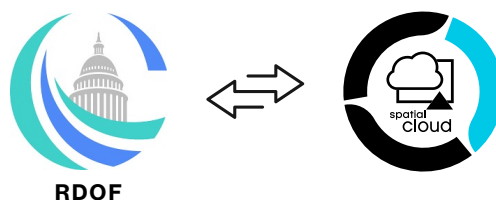
The 2020 FCC injection of funding from the Rural Digital Opportunity Fund (RDOF) for the development of rural broadband networks was a critical step forward, but now the hard work begins. The shift to remote learning and working has made the deployment of fiber networks to these areas vital to our nation. Today in the United States, only 24 percent of rural households have access to fiber internet¹.

Hit Deployment Milestones with Confidence



Solving the Challenge: The Synchronoss spatialCLOUD

To take advantage of FCC funding and to meet RDOF deadlines and standards, astute co-ops and service providers will seek the scalability, collaboration, and accountability that cloud-based network planning tools offer. spatialCLOUD is a hosted fiber networking planning service that offers industry-leading scalability, data availability, security, and performance. Scaling fiber network planning and design is not simple. It will require leadership and in-depth knowledge of your organization. However, when you automate your network design processes using accurate physical network inventory (PNI) and geographic information system (GIS) mapping, your ability to deploy and scale will increase. Customers of all sizes and levels of experience can use spatialCLOUD to address a range of network planning use cases and RDOF requirements.



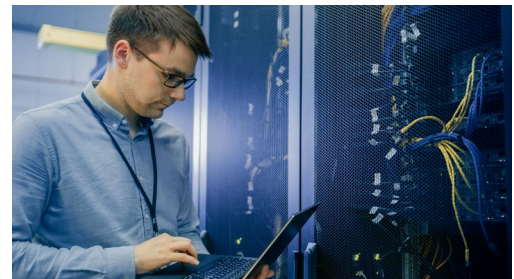


How Does Synchronoss spatialCLOUD Work?

spatialCLOUD provides RDOF award winners, especially smaller providers, co-ops, and community-owned networks, with a flexible alternative to expensive and time-consuming on-premises deployments. Synchronoss offers three spatialCLOUD deployment options:

Deployment Option	Hosting
Full Software as a Service (SaaS)	Synchronoss cloud
Managed Service	Your cloud provider of choice
Automatic Back-up	Your cloud provider of choice or Synchronoss cloud

Synchronoss can customize a spatialCLOUD instance for your organization in mere days. spatialCLOUD makes spatialSUITE's robust functionality available at the application layer. This includes configuration and set up, change and release management for application upgrades, Oracle database management including DBA work and CAD software management. spatialCLOUD also covers performance monitoring, technical support, infrastructure management, and reporting that is customizable to your organization and meets regulatory requirements.



The Financial Benefits of spatialCLOUD

The financial benefits of a hosted cloud service derive from eliminating the need for large infrastructure and resource investments. spatialCLOUD also provides scalability and flexibility to meet changing business needs that can be measured in substantial CAPEX and OPEX savings.

Deployment Flexibility

As you build out your fiber network to meet RDOF deadlines, spatialCLOUD keeps pace. It's always up to date and accessible to users and stakeholders across your organization. With a cloud deployment, you avoid incremental IT staffing requirements and simplify physical planning and space requirements. You will also gain the ability to innovate and test new spatialSUITE feature/functionality and software applications quickly and easily.

Modular Scaling

The capital expense and investment in hardware is virtually eliminated in a cloud implementation compared to an on-premises deployment. Eliminating the need for incremental IT hardware and software infrastructure and the associated connectivity, power, and redundancy will help you meet your financial metrics. The main advantage of our cloud-based solution is that it will increase your speed to market so that you start earning revenue as quickly as possible.

Lower Costs

spatialCLOUD will lower costs for licensing and managing spatialSUITE compared to an on-premises deployments. First, you'll be charged a monthly subscription fee versus a larger, up-front purchase of a long-term software license. Next, because spatialCLOUD will run on managed servers, you avoid hardware acquisition costs and the expense of staff to manage and maintain your own dedicated servers. Finally, spatialCLOUD also avoids the costs of managing extra systems, software versioning and the associated middleware. In fact, Forbesⁱⁱ notes you will benefit from a lower total cost of ownership across:

- cybersecurity
- audit compliance
- software and applications acquisition
- real estate costs
- the cost of electricity/cooling
- investing in excess capacity for future eventualities
- installation and maintenance/downtime
- staff for deployment and support as well as their training costs

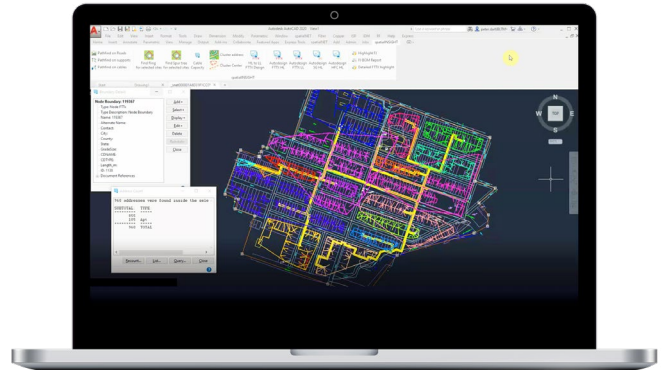


The Technical Benefits of spatialCLOUD

The technical benefits of a hosted cloud service are significant regardless of the specific solution that is hosted. These benefits are multiplied when you combine spatialCLOUD with the power of Synchronoss spatialSUITE.

Benefits of spatialCLOUD

- Accessing spatialSUITE through spatialCLOUD is seamless and managed by our team of experts.
- Adding enhanced capabilities can be done in hours instead of days or weeks compared to utilizing your own hardware.
- Scheduled data backups and recovery mean that you don't have to worry about losing time or money to recover lost data.
- spatialCLOUD's proactive data and platform health monitoring identifies potential risks 7 days a week, 24 hours a day.
- Synchronoss adheres to industry best practices and has the expertise to ensure that your data is safe.



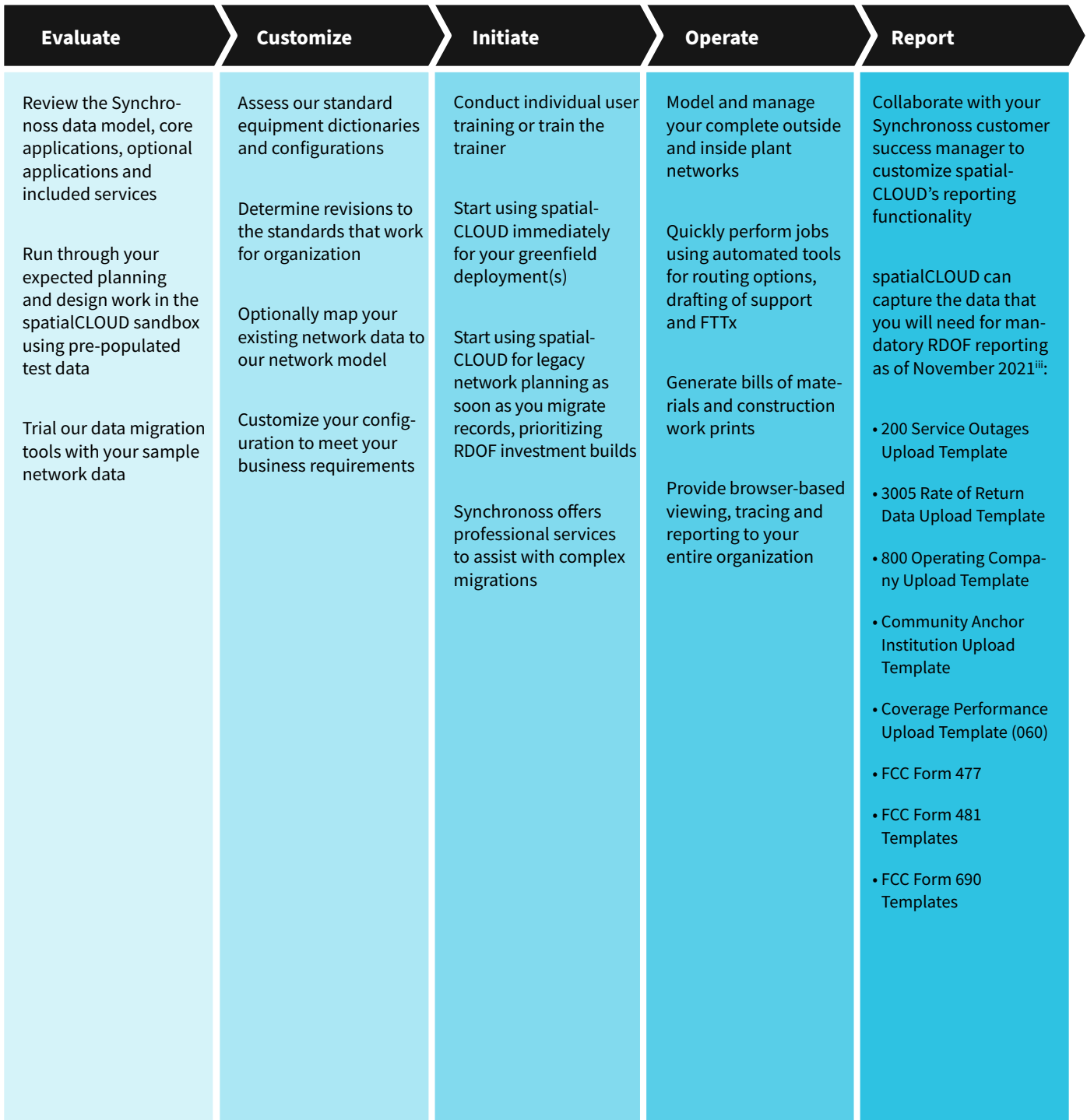
Benefits of spatialSUITE x spatialCLOUD

Feature	Benefit
Seamless outside and inside plant integration (OSP and ISP)	Provides a single fully connected network model – enabling visibility and manageability for mission critical network design, planning and restoration tasks
Version history of network changes with Hindsight™	Visualizes and reports on historical views of network changes, additions, removals, and equipment retired in place at any two points in time
FTTx design and drafting tools	Increases productivity and quality by automating the route selection, drafting, splicing and optical loss budgets for fiber.
FlexDESIGN™	Improves efficiency through collaborative design between concurrent short and long-term design activities
Comprehensive splicing and network tracing	Makes essential day to day tasks reliable, easy to perform, and simple to share with field techs
Real-world satellite and street map backdrops	Saves valuable design and drafting time by improving context and accuracy through visual cross references for orientation, geographic accuracy, and identification of obstructions
Distributed desktop and web-based access with SpatialOFFICE™	Provides real-time, read-only or update access to your 'as-built' network and jobs in design or under construction



Getting Started with spatialCLOUD

Based on our experience helping fiber companies around the world, Synchronoss makes it easy for you to get started on spatialCLOUD.





Conclusion

Using connected, automated planning tools is critical to meeting the aggressive RDOF milestone schedule. Your network planning will only become more complex as the network build out moves forward. This is where we can help. spatialCLOUD's core planning and design functionality provides seamless OSP and ISP integration to support comprehensive modeling of fiber architectures. We provide access to network and land-based boundaries so that you can confidently move to the design phase. Maintaining a single source of truth for OSP and ISP schematics, circuit assignments and address management will increase your efficiency by reducing errors to save you time and money. Our telecommunications experts are here to help you achieve 40% of your deployment target by the end of year three and we won't stop there. Our track record and long-term customer relationships are testament that we will be there with you to celebrate achieving 100% of your targets at the end of year six.

Get started today with the leaders in fiber network design and planning by setting up your free demo environment.

Contact Synchronoss >

Endnotes

ⁱ [Environmental and Energy Study Institute, 10/12/2021](#)

ⁱⁱ <https://www.forbes.com/sites/forbestechcouncil/2021/05/03/realizing-the-financial-value-of-cloud/?sh=31b307713467>

ⁱⁱⁱ [USAC administers the Universal Service Fund under the direction of the Federal Communications Commission at https://www.usac.org/high-cost/funds/rural-digital-opportunity-fund/](https://www.usac.org/high-cost/funds/rural-digital-opportunity-fund/)