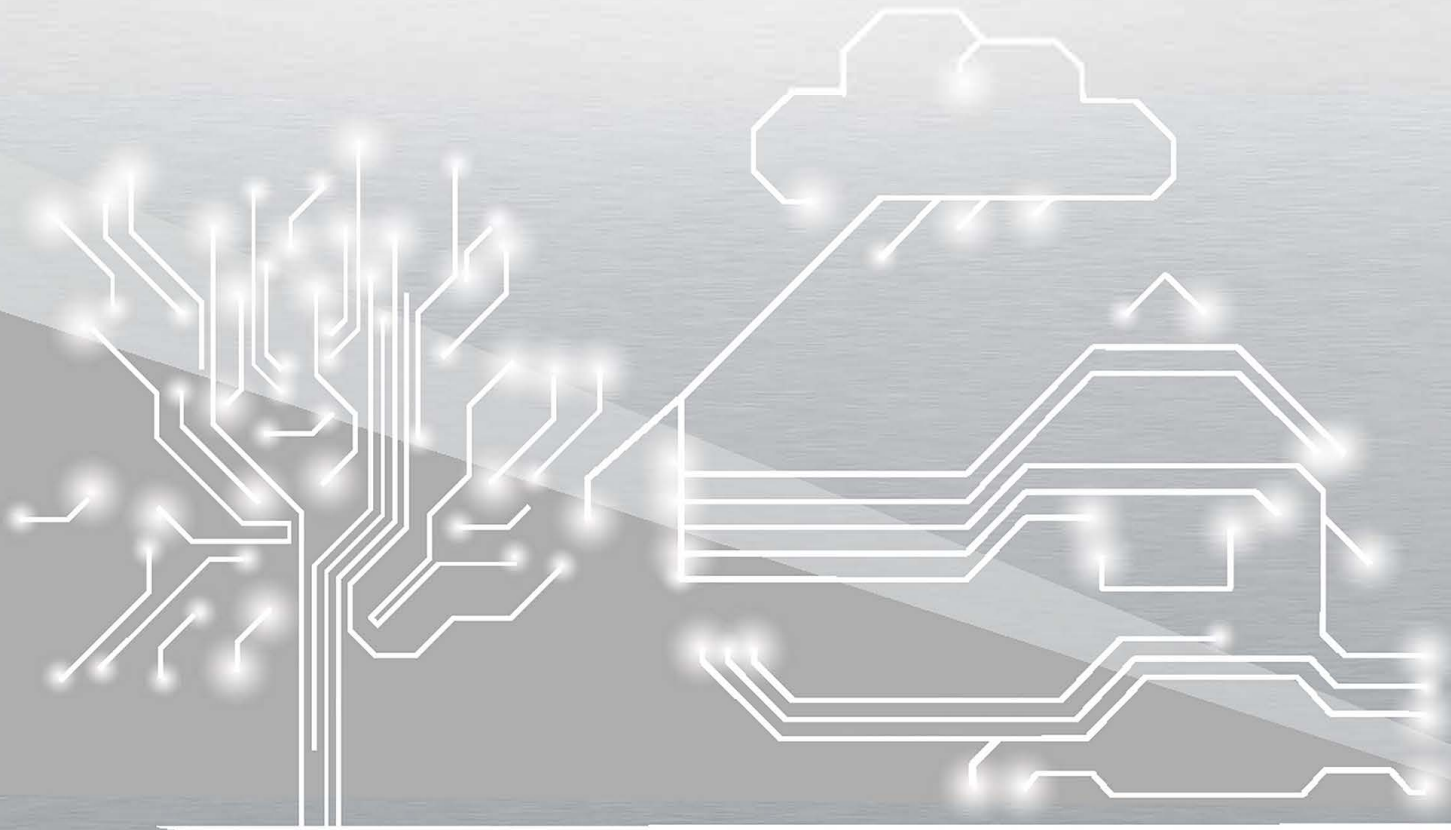


DELIVERING MORE CAPACITY
FOR A NATIONAL NETWORK, FAST

Problem. **Solved.**



Delivering more capacity for a national network, fast

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In the highly competitive telecoms landscape, high network capacity and low congestion underpin everything. Whether it's Voice over IP service, large-scale data transfer, or video streaming, dependable network performance is the foundation of all services.

One European Multi-Service Operator (MSO) was experiencing problems with its high-speed network, impacting its ability to deliver video and data to the home. This was leading to unhappy customers and undermining efforts to win new subscribers.

It needed to deliver more capacity, to more people – fast.

Benefits for the customer:

- End-to-end project management of turnkey national deployment
- Delivered to ambitious time, cost and performance targets while reducing risk
- Progressive capacity enablement without service disruption
- 2x previous deployment speed
- Increased end-user satisfaction

The Problem: Poor customer satisfaction due to network capacity and congestion

Before starting its network enhancement program, this MSO was concerned by national data that showed 8 percent of its ports were congested – far below the target figure of 2 percent or less. As a result, improving performance across the network was the overarching priority, which would be achieved by alleviating congestion, enabling more capacity and optimizing infrastructure.

It was a major undertaking, involving numerous sites across the country, each with different challenges, complexities, legacy technologies, and levels of readiness. Some didn't even have enough power, and most were missing sufficient transmission capabilities.



With no project management office, the scale and complexity of the initiative led the MSO to look for a partner to lead the project – one which would push the program through quickly, seamlessly lead a number of vendors, and who would commit to delivering the project to set key performance indicators and timescales. What's more, this all had to be achieved without disrupting the service for existing, satisfied customers.

ARRIS Solution: Peerless management and progressive deployment

ARRIS was selected to take on the end-to-end management of this turnkey network deployment, overseeing the program in its entirety, from network design to infrastructure deployment, integration, and traffic migration – all to power the capacity expansion.

Work began by implementing a new project and program management system, encompassing all areas of the deployment, including frequent network change requests. A purpose-built integrated workflow management tool allowed ARRIS to coordinate as many as 600 work orders, across up to 80 sites at any one time, and track individual deliveries for each site – a vital capability, given the numerous interdependent aspects of the project. This was supported by the development of customized reporting that showed overall program status and individual site statuses at all times.

From a technical standpoint, ARRIS increased the network’s capacity in three ways: replacing legacy CMTS equipment, enhancing existing equipment with additional cards and chassis, and re-configuring the current infrastructure. To make sure that progress was as swift and impactful as possible, work was prioritized according to an evolving list of the Top 40 most important sites for customer satisfaction – all overseen in close collaboration with the MSO, to ensure flexible and effective prioritization at all times.

As homes were added to the network, engineering teams added more hubs to serve them, while simultaneously re-segmenting the network. These additional hubs unlocked more capacity, enabling more network traffic. But at some sites this wasn’t possible, and in these instances ARRIS added new CMTS products, or installed additional cards in the existing network infrastructure.

Sites were worked on during early morning maintenance windows, which were used for migrating traffic from legacy to new hardware, and for all network re-segmentation.

ARRIS scope of responsibility:

- Turnkey CMTS build
- Downstream fibre optic engineering
- Physical & logical design
- Build & deploy
- Physical & logical integration
- Traffic migration
- Configuration / validation
- Physical & logical decommissioning
- Program management

The Result: Higher performance for new and existing customers

“ARRIS was an integral part of the success of this project. Without the ARRIS team’s expertise and delivery capability, we would not have reached these levels of improvement in our KPIs, and ultimately, customer satisfaction.”

SVP of Engineering

ARRIS had the expertise and resourcefulness to assess, understand and tackle the MSO’s challenges, taking on the risks and known costs of the project, and providing a turnkey deployment to an ambitious timeframe and demanding KPIs – from design through build, to integration and decommissioning.

As well as designing a bespoke project management process, ARRIS undertook a number of steps to speed the completion of this ambitious project. It used its Offshore Centers of Excellence to work around the clock and accelerate the design, software configuration and prior testing of the

infrastructure for each site, helping to ease integration. What's more, new capacity was enabled immediately after installation, rather than delaying this until the full site was decommissioned. This ensured constant improvement in network performance throughout the project.

Combined, these initiatives accelerated progress so that ARRIS was able to deliver a growing number of sites each month – peaking at just over 40 per month.

All network engineering and site work was carefully scheduled for specific hours at night, resulting in minimal noticeable disruption for subscribers. And as installations progressed, existing users experienced a higher level of service, thanks to reduced network congestion and greater capacity, translating to better broadband services. Port congestion dropped below the 2 percent target figure – down from over 8 percent at the beginning of the project – and the MSO was able to add more subscribers, while enjoying a reduced churn rate.

By taking full responsibility for the project, ARRIS helped the MSO de-risk this major project while simultaneously enhancing services for current users and readying its network to support new subscribers.

ARRIS – Problem. **Solved.**

For more information on ARRIS Network Transformation Services, visit:

<http://www.arris.com/services/network-transformation-practice/>