ACCELERATE NETWORK EVOLUTION WITH SMARTER DESIGN SERVICES

Problem. **Solved.**

ARRIS

Smarter Design Services Decrease Design Cycles

Problem. **Solved.**

The need for capacity will continue to drive our industry, and operators will continue to redesign and segment their node serving areas to meet demands. The tasks associated with this work are typically taken for granted.

When designing node segmentations, a network designer will typically create a new design, and place it into a work package to be verified prior to execution by the construction and deployment teams. The proposed designs are done "on paper" driven by parameters such as homes passed, homes per leg, or power loading. On the other hand, the team that verifies the proposed design in the field is typically driven by physical considerations such as safety and accessibility for servicing. It is not uncommon for a significant percentage of the proposed designs to come back with mark ups, showing new locations for the node or power supply.

Design Perfection

- 10% of proposed node segmentation designs go through a redesign.
- Redesigns add weeks to the process
- ARRIS created a set of high level tasks, to aid verification and speed the redesign process
- This reduced the average design cycle for node segmentations by 66%

In today's competitive environment, speed to market matters. Taking a hard look at the design process can have significant impact.

The Problem: Frequent redesigns

A major MSO outsources their network design work to ARRIS, with a large portion of the work focused on node segmentations. ARRIS has been a partner for years, and has successfully delivered tens of thousands of designs. Recently, the need for node segmentations has exploded, as the push for fiber deeper into the network, and new technologies, such as DOCSIS 3.1 and Remote PHY, have emerged. While increasing the design work, the speed and efficiency needed to be even better than the high standard already established.

Previously, the MSO printed out ARRIS' proposed design and sent a team into the field to validate that the proposed design change, or equipment addition, was feasible. On paper, the new node location looked great. But the reality from the field visit often found that the pole was not accessible, and for safety reasons, would need to be placed in a different location.

After putting the location change back through the design process, there were portions of the node segmentation that did not meet the network parameters, requiring another redesign. Once a redesign was completed that did meet standards, it was put through the same validation process again. This back and forth process caused delays measured not in days, but weeks, and sometimes months.

ARRIS Solution: Better information for more timely, more accurate designs

ARRIS established a simple way to share critical design information about the node with the field verification teams. By including high-level information, including homes passed and power loading per leg of the node, the field verification team is better able to evaluate the location of the device. The information is effectively

communicated through color coding, and in a simple manner that is very clean and easy to read. (See Figure 1, below.) The interactions between teams has greatly reduced the verification and redesign times, along with the accuracy of the construction package turned over to be executed.

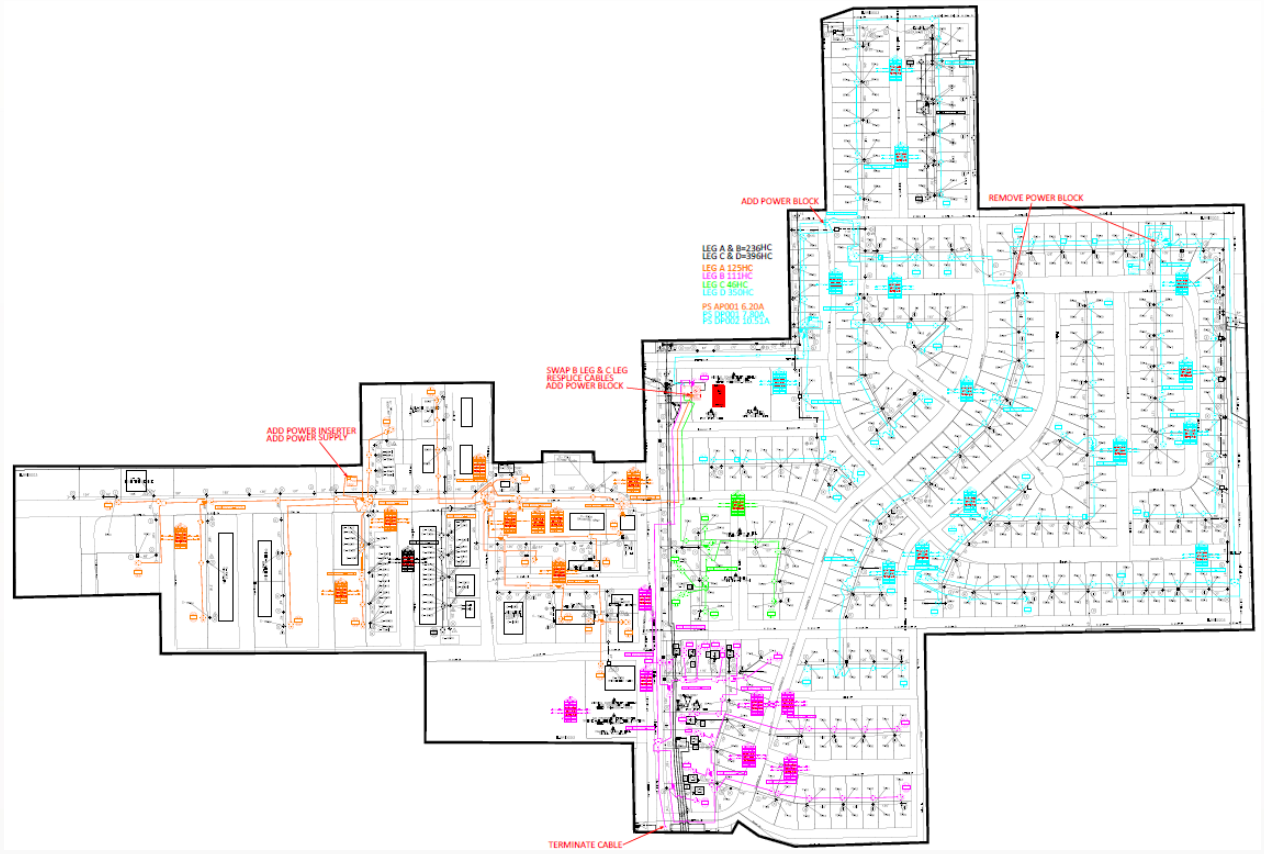

Figure 1: Color coded preliminary designs

The Result: Two-thirds reduction in redesigns

With the Customer and ARRIS teamed up and easily sharing a greater level of information on the proposed design changes, the cycle time for redesigns has been dramatically reduced by two thirds. Specifically, with the cross education and streamlined communications between the designer and the field resources, the goal of doubling node split designs has been met, and further acceleration of the Network Transformation can be planned.

ARRIS – Problem. **Solved.**

For more information on ARRIS Design Services contact your ARRIS Account Representative.