



CASE STUDY

Telecom Engineering

This customer story focuses on Tilson, who provides Outside Plant (OSP) engineering, permitting, and construction management in the Telecom and IT industries.

Recently, there has been an increase in pre-construction work for large-scale fiber-optic network builds, involving pole surveying and desktop make-ready engineering (MRE). As Tilson was being awarded larger and larger engineering contracts, Tilson's management could see that a scalable and better mobile data collection solution was required over the technology they were currently using.





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Problem

Tilson had recently been awarded a statewide fiber construction project for the state of Kentucky to provide broadband access across the state. The project was to survey 10,000 utility poles—including attachments, spans, and specific attributes—and provide an MRE solution for each pole in order to apply for an attachment license for the fiber cable. Tilson had been utilizing several other data collection apps, with mixed results. Prior to Fulcrum, Tilson was primarily tackling projects that had 50 to 500 poles for a given project, primarily small cell nodes. The collection process often involved taking photos with a camera and a GPS unit, writing records in Excel, then joining them back up in the office. Tilson needed a solution where data was only keyed in once, could be monitored remotely, and exported in a variety of methods easily.

“We needed ease of integration and we were seeing a lot of siloed systems. It was the classic SAAS problem where our data would be held hostage in their environment and we wouldn’t have good access. Fulcrum really stood out in that regard, for having a modern, easy-to-use interface to get data in and out,” says Gavin Kelley, a Senior Software Developer for Tilson.





Searching for a Solution

“We needed a data-centric solution. We needed an app that allowed for user-defined fields. We wanted a highly customized, relational database, with child records and grandchild records, which is especially needed in the world of utility pole inspections. We needed an engaged company that had a product that was actively being upgraded. We could see online there was a large user community, and that helped us make our decision.” said Gavin.

Tilson was specifically in need of an app designer with location specific projects in mind. In the telecom field, every asset’s location is important and keeping records connected to the correct media file is vital for job verification. Fulcrum’s Data Share feature quickly became invaluable for creating an end-to-end solution for Tilson. Now Tilson’s project managers have the ability to monitor their progress in real time and anyone back in the office or on the client side can monitor the work in near-real time.

“When Tilson started looking for a better solution for field engineering, many solutions were tested and looked at. Because of the variability in our uses of field data collection and engineering, we needed a solution that was easy to use, easy to train our technicians and could be used on many of our projects; from wireless to wireline, engineering to construction and anything else we needed it to adapt to,” says Kelly Brewer, Tilson’s Director of Engineering.

Results & Benefits

For the first time, Tilson now has a fully scalable and readily adaptable solution. Most importantly, engineers and project managers now have access to data from the field immediately, which has paid huge dividends. Tilson can guarantee the data remotely and is able to assure team members don't under- or over-survey a given pole.

Another unforeseen benefit was the low learning curve for their crew members. Often in the telecom industry, staff can increase and decrease rapidly depending on the work availability. Fulcrum had to be simple for quick adoption by new team members. "It is so easy to use that our training period is greatly shortened. Data quality is very important to us so it can't be overly complicated," said Gavin. "Fulcrum has allowed Tilson to focus on our competitive advantage and not get distracted on mobile development." Using Fulcrum's API documentation, Tilson has gone on to develop a proprietary backend that seamlessly integrates with Fulcrum, giving them a distinct competitive advantage on the technology front. Tilson will continue to rapidly grow and Fulcrum looks forward to growing with them.

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It is so easy, but we still get the same data quality regardless if it is a junior or senior data collector.

Tilson