UTILITIES

HOW TO EMPOWER
YOUR FIELD TEAMS

FIELD TEAMS CAN BECOME YOUR SECRET WEAPON – PROVIDED YOU GIVE THEM THE RIGHT TOOLS, SAYS **STEVE TONGISH**

One big stumbling block to improving operational productivity for telecoms and utility network operators continues to be the quality of the information they have about their existing network. All too often, they do not have a sufficiently accurate and timely geospatial view of their network to make informed decisions on activities including construction, maintenance, disaster assessment and even delivering rapid response to sales opportunities.

For telecoms operators, this can have a major negative impact on managing the cost of network operations, delaying time-to-revenue, increasing mean time to repair (MTTR), causing costly and unnecessary truck rolls and increasing customer churn. For utility operators, the network challenges are similar, but as they are managing dangerous electrical, gas and water networks, safety is a key driver.

At IQGeo, we have seen how field teams become the secret weapon to improving data quality by field sourcing accurate network

asset information from construction and service crews. They are eliminating inefficient spreadsheet- and paper-based processes that do not reliably capture as-built realities and create huge backlog bottlenecks and are replacing this with a modern mobile solution.

The legacy, centralised approach to network asset management that relies on a small group of GIS specialists exacerbates their bottlenecks and backlogs and compromises data quality. Instead, empowering field teams with state-of-the-art mobile software is the catalyst to building an accurate and timely view of network assets that mitigates risks and improves productivity.

Deploying a mobile field solution

While the potential benefits of mobile geospatial software are easy to explain, deploying an efficient and effective solution is another story. You may have already been involved in rolling out mobile software to staff and contractors with mixed results.

To properly field source information, it is essential to have technology that accounts for the practical realities of field operations, as well as critical human considerations.

Here are five enablers that we have found to be critical to deploying successful mobile solutions with telecoms and utility network operators.

A SINGLE COMMON INTERFACE ON ALL DEVICES

Many field crews need to use multiple mobile devices: laptops in trucks, tablets and phones when outside of their vehicles. A single common user experience across all those devices is key to field adoption. While screen real estate and data entry methods can be different on different-sized devices, users will be much more comfortable with a consistent user interface regardless of the device size or manufacturer.

For this to work, you must have a product with a native or mobile-first approach
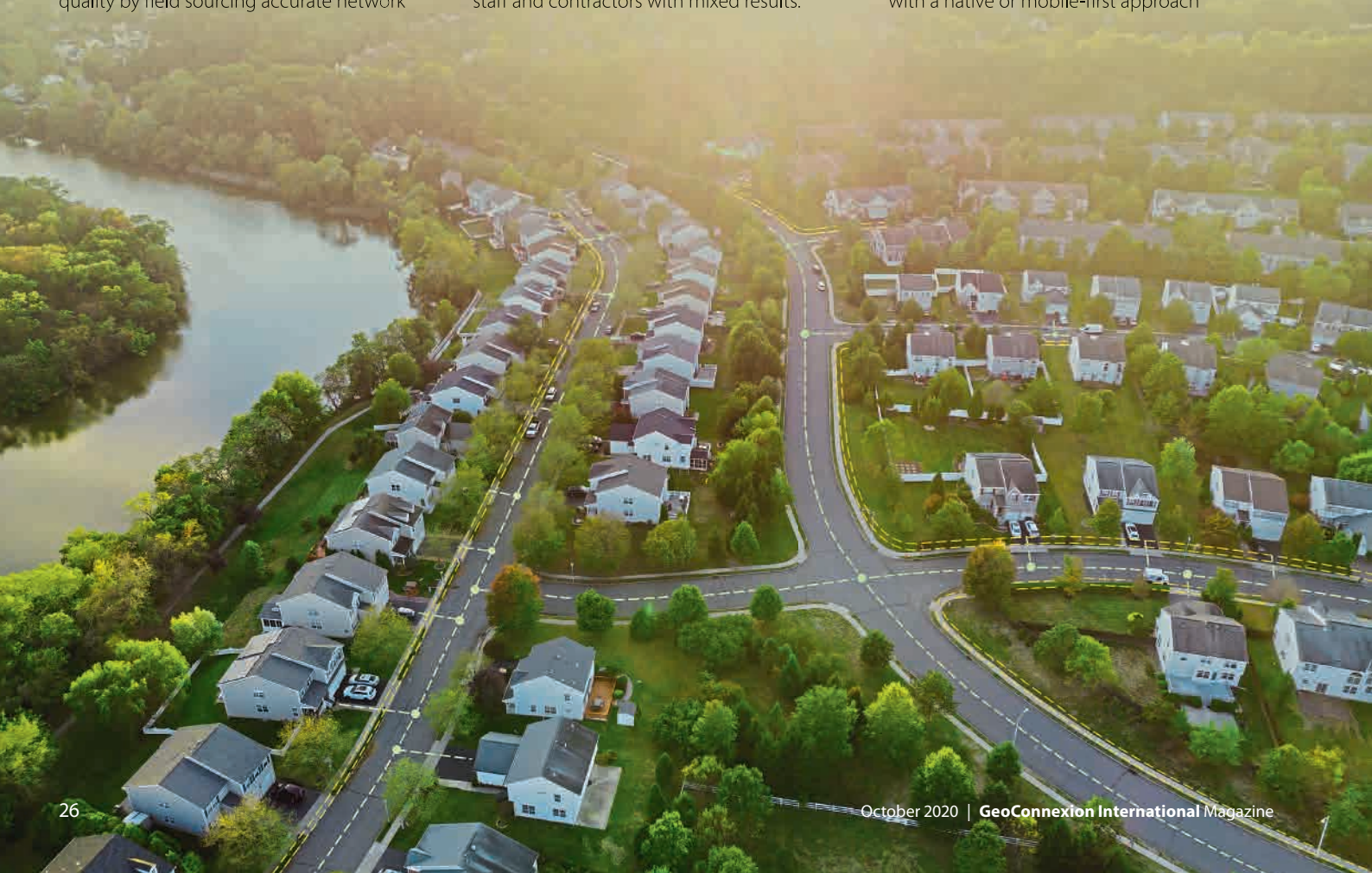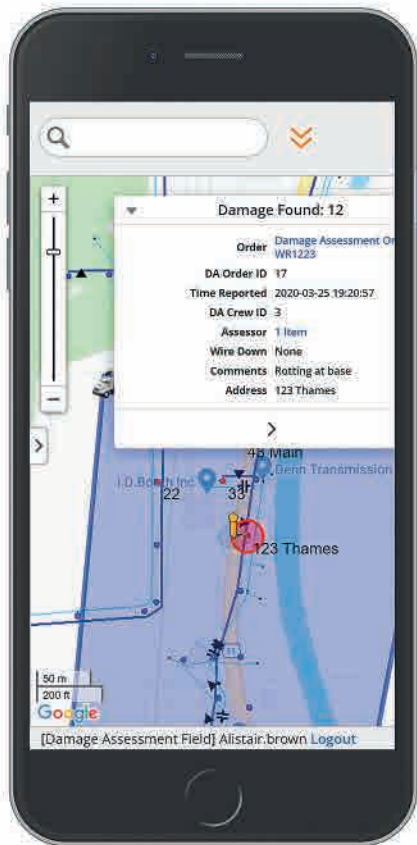
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that delivers one common development and deployment platform. Different UI experiences on different device types is not only very expensive to support and compromises adoption. Without adoption, there will be no change.

DEVICE-TO-DEVICE SHARING

One important field productivity tool is the ability to transfer a session from one device to another using a simple QR code. When a crew arrives at a job site in their vehicle, they can complete some initial sketches on a laptop and then scan a QR code with their phone or tablet. This transfers the work in progress to the mobile device so they can easily take it to the field, completing forms, taking photographs, and marking up drawings. When complete they return to their vehicle and simply close out the mobile session and all work is shared with the laptop and back office staff. Transferring job sessions to and from different devices gives field crews a way of completing their ticket that is easier and more productive then old paper-based processes. Without this, field as-built asset information will never be accurately captured.

GOOGLE INTEGRATION

The value of a Google integration is compelling and measurable. By overlaying asset locations on top of Google Maps and Google Street View, field teams get instant context and are given vital information at

night or in emergency situations. Combine this with the ability to click on an asset in Street View to access detailed information and it adds a whole new and powerful dimension to your geospatial data. Add data feeds from other applications and you have created a network view that provides reality-based situational awareness, giving field crews the flexibility they need to respond to constantly changing field circumstances. Rigid, formula-based mobile solutions that cannot provide a big picture perspective will always fail to respond to real world realities.

NETWORK TRACING AND SCHEMATICS

To properly manage a network, field teams must be able to navigate the network by tracing in the field. Field engineers must be able to see geometric and logical network connectivity, but also be able to automatically generate a smart schematic that can aggregate network loads and dynamically link back to the geospatial view. The final piece of the puzzle is being able to carry out these operations both online and offline since you cannot guarantee network connectivity. Field crews often know their network well and know what needs to be done in the field to efficiently complete their open job. Giving them easy access to the network model empowers them to make informed decisions that improve outcomes, reduce risks and prevent unnecessary future truck rolls.

EASY-TO-USE FIELD CAPTURE

The final piece in the field-crew puzzle is the ability for them to easily capture data on all

mobile devices with an easy-to-use interface. We have found that field teams will happily capture data, provided it is simple to do and quickly updates the back-end systems. For example, taking a photo to highlight an issue or identify a change on a map and associating it with an asset is essential to eliminating paper notes and redlines on physical maps.

All too often, vendors force fit an application built for a GIS specialist running on a workstation into a mobile device. This is a recipe for failure. The user experience expectations have been set by consumer applications that we use every day at home and professional mobile field application must live up to this expectation or they will fail to replace legacy paper-based processes.

Conclusion

Accurate and timely network asset visibility is critical to increasing productivity and collaboration, creating happy customers and reducing operational risks for telecoms and utility operators. The first step in this process is to empower field teams with efficient and effective mobile technology to gather accurate asset information. This can only be achieved with a geospatial mobile solution that addresses the key enablers I have outlined.

These mobile capabilities are essential to truly empower crews with a field sourcing strategy that meets critical business and operational key performance indicators.

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