Member Spotlight: IQGeo
(formerly Comsof)
By Melissa Cogavin, Managing Editor, SCTE

Kelly Fournier
IQGeo

IQGEO

Colin Waterworth
GE Digital

GE Digital

Alex Marshall
Upp

Upp
Next level broadband

Gillian Kendrick
Real World Systems

realworldsystems

As the fibre roll out continues across the UK, synergies and partnerships are springing up all over the country to facilitate the transition. Often the number of parties involved are substantial and the complex supply chain includes the existing private investment, the existing network, local authorities, altnets and software designers right up to private landlords and tenants. Upp is working with GE Digital and IQGeo Fibre to design its FTTx networks. IQGeo's auto design software, integrated with the GE Digital Smallworld Network Inventory solutions, enables Upp to automatically design an error-free network, speeding up the rollout process and keeping build costs low. Real World Systems are designing the architecture and providing trouble-shooting diagnostics throughout the process.

Upp is deploying a full-fibre network to one million premises by 2025 in eastern England, offering Next Level Broadband to consumers and local businesses. The solution provided by IQGeo and GE Digital means that Upp can roll out their network, unhampered by the shortage of fibre network designers in the UK. IQGeo fibre is an automated fibre-optic network design software that delivers advanced calculations and output. Its AI-based algorithms, coupled with its flexibility, allow fibre-optic network planning to rapidly scale. Part of GE Digital's Smallworld Geospatial Asset Management suite, Smallworld Network Inventory provides a spatially-based, end-to-end view of the network. This solution combines the fully connected inside and outside plant of the physical network with the ability to integrate logical inventory to deliver an integrated inventory capability.

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Melissa Cogavin caught up with IQGeo's Kelly Fournier, GE's Colin Waterworth, Upp's Alex Marshall and Real World Systems' Gillian Kendrick to learn more about how they're working together.

I am struck by the level of cooperation across all your companies, the hand-in-glove nature of what you do, it is very impressive. How much of this was accidental and based on existing relationships? Or has this been something that you have strategically set out to achieve?

Kelly: The GE/IQGeo collaboration started around 2015 and has only grown since then. I don't want to speak for Alex, but it seems like our story resonated with Upp. I think the success of the collaboration between the three companies has a lot to do with our open communication, and our commitment for Upp to succeed in their FTTH goals. This is not just a client/vendor relationship. It's a collaboration and a partnership!

Colin: GE Digital has been working with Alex and the team since the first spark of the company came about and have supported him through the business case definition and start of the company. GE Digital has also had a longstanding relationship with IQGeo and has developed an end-to-end integrated solution that was to form the baseline for the Upp OSS.

Alex: At Upp we tried to do something reasonably innovative with the tech partners we have, and the way that affects the way we staff our running function, which is quite interesting as a result. It's not the normal way of doing planning and consequently we are keen to elaborate to make it work. Obviously Gillian Kendrick from Real World Solutions has been integral to the success of this partnership, I can't overstate that. She makes it all work.

Because of who we are, and because the projects are interesting and innovative - and we are all curious engineers at heart - and if you make an engineer curious then you have their full attention! We are always keen to see how far we can make this go, and we have other exciting ideas in the pipeline.

Gillian: We are the people that come in and get the system working. We have to be able to understand the tech that IQGeo have, and everyone else's capability too. It was strategic with GE and IQGeo. We've invested in understanding where they are strong and where something else is needed. We work with telecoms companies to understand where their businesses work. Upp is a start-up and they need this functionality today, but in 6 months' time they'll need something else, so we also need to pre-empt those developments in a very agile way. Cooperation and good communication is essential.

Is this model being emulated beyond the UK? I am uncertain since Colin, you showed me your demo which appears to be in the US.

Gillian: Yes, although Upp is a different kind of company from others. There's quite a difference between established companies and start-ups, and territories differ too. But yes, we are working in Denmark, Japan, we work with Deutsche Telecom in Germany and we are present in the US too.

Kelly: Indeed! GE and IQGeo have had many common clients on different continents. That said, Upp has been quite innovative in their approach, leveraging our solutions in the context of the resource challenges faced in the UK.

Colin: Yes the model is global – Fibre to the Home (FTTH) roll outs are happening everywhere with a mix of government and private investment helping drive to the goal of 100% broadband coverage for all. Such integrated solutions like GE Digital's Physical Network Inventory (PNI) and IQGeo's fibre designer that automate and accelerate the plan/design process are an ask for many of our customers. The integrated solution can be used to support the strategic analysis process to define 'where to go' and then with a deepened level of analysis, layout the networks for these geographical areas. Something key here is our ability to model a 'Digital Twin' – this is the modelling of the network in the Inventory management system – so you have a representation of the assets in the field in GE Digitals Physical Network Inventory (PNI). One thing we get from a GE Digital/IQGeo solution is a consistent/standards-based entry of data – as data quality is key not only when you are building the network – but when it comes to operating your network.

Alex: Yes it is. What IQGeo and GE are already doing is not uncommon, but to do what we are doing - equivalent of CAD manufacturing is relatively uncommon. Other vendors exist but it's not the number one method. Leading edge no, at the front, yes.

Alex, I really am impressed by the level of upskilling taking place, the opportunities around what you do and the pay scales on offer. Is what you're offering going to be extended beyond the East of England?

Our business plan is to focus on the East of England region and become the regional player. There is quite a lot to go at here. There are others who have different business models - but the one size fits all doesn't work everywhere we find. Are we restructuring our talent pool to this region? No. Our talent pool is based all over the UK - Warwickshire, London, East Yorks…. In fact we even have a team overseas in Spain now. Our technology enables remote working very well.

Colin, GE is an enormous company involved in many sectors beyond the fibre roll out. How much of a focus is GE placing on this and is this an initiative the company is expanding worldwide?

Colin: GE Digital has a clear focus on all of our customers, who determine our success. We've been working with global telecommunication organisations for well over 20 years – in this time we have supported their needs in an ever-evolving market. The GE Digital Smallworld PNI solution is widely perceived as the industry leader in Inventory Management supporting the full end-to-end process (Plan/Design/Build/Operate). Our team is really proud of this status and our commitment to customers – we work closely with all our customers to ensure that our Roadmap is in line with their evolution – we also schedule regular conferences/seminars where we bring our customers together to share experiences and grow together.

Kelly, presumably your software is being updated regularly I wondered what that means for GE and Upp - do you all have to update when that happens?

Kelly: We usually have 2 software releases per year. Clients are not forced to move to the latest software version, but most are very enthusiastic in doing so when they see the new features that come with it. Our clients and partners are made aware of the new releases in advance to ensure a smooth transition if they wish to adopt it.

What happens when this whole setup goes wrong - if there is a fault, how do you work out where the issue is, given that you are working so collaboratively?

Kelly: The set up of our software is done between all stakeholders through a robust and proven delivery project. This methodology ensures all requirements are clearly identified, expectations are set, and the action plan is created and executed successfully. Everyone knows their role and what they must deliver.

Alex: We bring in Gillian and she tells us what's wrong and fixes it! We don't expect it to work like Microsoft Office - it can be idiosyncratic and things can surprise you. Geography is irregular - it's the nature of the beast. We manage to fix things by ourselves and within our arrangement there are three other support systems available to us to fix.

Gillian: Alex is right! We come in, we analyse things. We architect it, we troubleshoot and solve the problem. Each link in the chain does something different. IQGeo and GE provide the products. We are the service team. IQGeo and GE don't provide the service.

Do you ever have issues with access as far as your lease agreement with Openreach is concerned?

Gillian: We write the product - the API - we are the ongoing developer of the software. We provide the means with which the PIA, the access agreement data is located.

Alex: We access PIA as an API through the Small World platform. The PIA service is provided by Openreach. People have negative things to say about Openreach but I don't; I think they do a cracking job under the circumstances. Their software was never designed to be shared, they were forced into it by regulation. I am a big supporter of Openreach; I have worked on that side of the fence for many years so I have a lot of respect for what they do.

Colin: This is more Alex's area, but GE Digital have a close integration to the Openreach PIA portal – but this is just one part of the overall leasing process – knowing what you have leased and plan to lease is all stored in the GE solution so managing all of the leased assets is stored in a single location.

The process of wayleaves can be laborious and slow moving, while you're under pressure to get things done quickly of course. Does that mean you three are under massive pressure to keep customers happy? How does this part work?

Alex: The process would be easier if it were somehow different, but it is what it is. Is it a complete barrier to our business? No. You have to respect private property, there has to be a process to protect it. The history of wayleaves goes back centuries. Our biggest issue is multiple dwelling units - tower blocks and so on; we have to persuade the landlord that installing broadband would be a good idea. Locating the landlord can be really difficult, and persuading him to let us drill holes et cetera it is more tedious than it could be. Landlords don't always act in the best interest of their tenants. That would be a nice thing to change.

Finally, what will you all do when the roll out is complete?

Alex: Retire! Consolidation is occurring already. That means upsides for some, not for others. As a regional player we might become a consolidator but it will be dependent on the market conditions at the time. We might take this overseas. This software is adaptable, we could look at other sectors. Who knows. We won't be bored, that's for sure.

Kelly: Celebrate the success story!

Colin: But after the party, that's when the real work starts – the move from 'build' into 'operation and maintenance' is when we have to shift focus to growing the users of the network (new customers) whilst ensuring service is maintained for existing customers. One example is the provision capabilities of the GE Digital Solution to support outage management, so if there is a fault on the network, we have the capabilities to identify where the fault is and then identify who is affected.

When you fire up your laptop expecting superfast broadband you don't think about all the synergies behind the scenes negotiating with landlords, designing architecture, troubleshooting software and training engineers that enabled that to happen. What an inspiring team the IQGeo, GE, Upp and Real World Systems are. We wish them all the best.

For more information, visit www.iqgeo.com