Car dealership revs up for new comms system

Yorkshire-based car retailer JCT600 has invested £1m in a new communications system in a bid to power up its business.

The privately-owned firm, which has grown into a £1bn brand, threw out its old phone system and introduced cloud-based technology, powered by west Yorkshire-based Vapour Cloud. JCT600 said it hoped to improve communications between the company and its customers, as well as enabling it to meet security standards for card payments taken by phone.

Earlier this year, JCT600 announced its sales had hit a record high in 2018, despite continuing challenges faced by the automotive sector.

"In so many parts of our business, we excel in terms of state-of-the-art, technology-driven customer service, but our historic on-premise telephony would have undoubtedly started to hold us back," said Chris Gensmantel, group IT manager at JCT600. "Vapour's solution will allow us to streamline our systems and processes, whilst integrating voice into the other exciting technologies we've implemented throughout JCT. Our 100-seat call centre also plays a crucial role in the long-term, customer-focused service delivery of the group, so we will continue to invest in the infrastructure we provide to this team."

JCT600 hope to improve communications between the company and its customers, as well as enabling it to meet security standards for card payments taken by phone

PHOTO: JCT600.CO.UK/BRANDS/MAZDA

Vapour and Leeds-based tech group PTG recommended Avaya's ACS Select solution – software that allows businesses to control their voice, video and messaging services all in one platform.

"JCT600's phone systems were previously updated on a site-by-site basis, as necessary," added Tim Mercer, chief executive officer at Vapour. "However, this staggered telecoms investment has resulted in inconsistencies when it comes to the technology utilised and the potential level of service delivered. If left unaddressed, this could have started to impact upon the qualities that the brand is renowned for."

The 12-month upgrade which began in the summer of 2019 is now nearing completion and Vapour's cloud-based technology will also safeguard JCT600 from breaching data protection laws. ■

SIMEC Atlantis plans tidal powered data centre in Scotland

Tidal power specialist SIMEC Atlantis Energy has revealed plans to create the world's first ocean-powered data centre in the north of Scotland.

The company's ambition is to supply electricity to a "hyperscale" operation in the Caithness area from its MeyGen tidal operation in the Pentland Firth.

Currently using a 6MW operational array, which has now generated more than 20,000MWh of electricity for export to the grid, there is also the potential to expand MeyGen to 80MW.

The giant server farm is being primed to go live by 2024 and would be connected to international subsea fibre optic cables connecting to London, Europe and the US.

"Data is being touted as the new oil. It is arguably becoming the world's most valuable resource, and the amount of data requiring storage is increasing at a staggering pace," said SIMEC Atlantis chief executive officer, Tim Cornelius. "However, data centres are undeniably power hungry, and the clients of data centre operators are rightly demanding power be sourced from renewable and sustainable sources."

Cornelius added that the project represented "the marriage of a world leading renewable energy project in MeyGen" with a data centre operator keen to provide its clients with a large amount of computing power, powered from a sustainable and reliable source. ■

The company's ambition is to supply electricity to a "hyperscale" operation in the Caithness area from its MeyGen tidal operation in the Pentland Firth

IoT sensor 'a game-changer' for social housing providers

Local authorities and housing associations will soon have access to new technology to help put an end to unhealthy living conditions in their properties.

Developed by Alertacall, the Envosense monitor uses the internet of things (IoT) technology to prevent cold, damp conditions in homes that could eventually lead to the onset of mould or other conditions, triggering health complaints as a result. It can even alert providers to cases of fuel poverty or arrears.

Local authorities and housing associations are now bound to meet strict regulations on living conditions under the Homes (Fitness for Human Habitation) Act – a law which became effective across England in March 2019.

The legislation gives tenants the legal right to take action against providers if their properties are not safe, healthy and free from things that could cause harm.

Now, housing providers will be able to adopt an innovative device to ensure they stay in line with the law – protecting themselves against future claims.

James Batchelor, chief executive officer at Alertacall, said it offered local authorities and other housing providers a simple way to help make sure properties do not fall below decent living standards as set out by the Homes Act.

"With the new legislation coming into force in March, it's crucial housing providers can use prevention to stop properties falling into substandard conditions," he added. "This is a game-changing low cost product which offers housing providers the chance to use IoT technology to help improve outcomes for tenants and to protect their stock."With the average cost of repairing a property affected by damp currently running into thousands of pounds, there is a significant benefit in identifying homes that require repair or maintenance work at the earliest opportunity."

Batchelor said the benefit for tenants is that Envosense will alert housing providers to problems that may be fixed with a simple repair, "or support and signposting" toward help for those living in fuel poverty. ■

VIEW FROM THE TOP...

Laying the foundations for a 5G future, *by Robin Mersh, chief executive officer at Broadband Forum*

Data traffic is growing exponentially. Today, each of the 3.3 billion smartphones in use generates 3.4 Gigabytes of data per month globally. By 2023, this will increase to a huge 17 Gigabytes per month per smartphone, of which there are expected to be 7.2 billion worldwide. A significant factor behind this anticipated growth is 5G, driven by not only the substantial increase in bandwidth it promises, but also the compelling new services it enables. More than the latest generation of mobile technology, 5G brings challenges and opportunities for the telecoms industry, in the fixed and mobile space.

For operators to capitalize on the opportunities for additional revenue streams, a shift in how mobile and fixed networks are managed is needed. Previously separate entities, the fixed network must be integrated into mobile networks not only to enable concepts like seamless service delivery, but to realize the efficiency of operating a one service delivery network across all services rather than multiple networks.

As the plumbing that keeps fixed and mobile networks flowing, the transport network is critical to this – but is it ready for a 5G future?

Starting out

With early rollouts in full force, 5G brings a set of challenges – especially in the transport network. At some point the radio ends and the network begins, and here, all of 5G's advantages have to be maintained by the network. This includes any increase in capacity, reliability and performance, in terms of reduced delay and a more consistent service. Improved service isolation will be needed to enable more autonomous control. Finally, network scalability will need to become much greater to support an increased number of connected devices and the amount of data consumed.

In this new network, flexibility and dynamism will be key. Previous generations of the transport network were more or less static and backhaul-focused, but the 5G architecture must be more dynamic and scalable to support a vast range of use cases. This will bring the transport network into play for the fronthaul network. It will also be used for backhaul on a larger scale than ever before due to new, high-bandwidth technologies like 10G PON, capable of supporting 5G requirements. In addition, emerging services like network slicing will need to leverage new technologies to enable greater traffic isolation and customer control capabilities.

To achieve the promise of 5G, the Radio Access Network (RAN) can be split to introduce the transport network for fronthaul. In this new architecture, unlike in more static networks which can be used to describe 2G through to LTE networks, point-to-point fibre is not necessarily collocated with the Centralized Unit (CU) and Distributed Unit (DU). With evolved Common Public Radio Interface (eCPRI), the Radio Unit (RU) and the DU can be separated, as can the DU and centralized functions which are split. While the RAN split from 3GPP allows separation, the performance requirements on the transport network between the equipment are stringent – especially in terms of capacity, latency and delay variation. Backhaul interfaces must be enhanced to support the requirements already mentioned, including performance, capacity, resiliency and scalability. New deterministic networking technologies that can enable these enhancements are being developed in the IETF, IEEE and OIF.

The road to 5G

In order to evolve transport networks, there are two options available to operators – leverage what exists and migrate, or forklift and replace. For many, the former presents a more cost-effective and efficient option, as it eliminates the need to throw away existing investments and reduces the risk of major service disruption. Instead, the additional bandwidth, performance, reliability and scalability capabilities can be added to existing MPLS IP and ethernet-based transport networks.

5G not only promises a substantial increase in bandwidth, it will also enable a host of compelling new services. More than the latest generation of mobile technology, 5G brings challenges and opportunities for the telecoms industry, in the fixed and mobile space

Much of this – up to 80% – can be done using existing technologies. Virtual Private Networks (VPNs), provide independence between service types, Ethernet switch networks provide simple Layer 2 connectivity, and IP networks give very scalable Layer 3 network capabilities. MPLS can deliver traffic-engineered control and convergence, enabling multiple services to be delivered over the same network. Meanwhile, incorporating multiple access technologies, such as NG-PON2 and direct fibre connections, will help meet backhaul requirements. The required Quality of Service (QoS) can be achieved by isolating services from each other via traffic management and multiplexing.

The remaining evolution can then happen over time, with network slicing and deterministic transport technologies among the new developments that will play a key role in 5G.

Laying the foundations

Leveraging and integrating the newest technologies to ready the transport network for the future of wireless is at the core of Broadband Forum's 5G work. With a focus on capacity, performance, reliability, scalability and security, the scope of work on the transport network includes: control, management and data plane for the IP layer down to the physical layers, including time and synchronization; OAM, routing, resiliency, scalability and security; virtualisation of the mobile transport infrastructure and enablement of software driven networking.

This complements the Forum's work on wireless wireline convergence to develop a coexistence strategy for seamless service launches and interworking between home networks and 5G core components. A 5G Access Gateway function that adapts fixed access onto the 5G core, architectural deployment options and underlying infrastructure aspects are among the areas being addressed, along with operator requirements for interworking existing fixed access subscribers and deployed equipment into a 5G core. This work reached a milestone earlier this year when Broadband Forum delivered detailed recommendations to 3GPP, which is working in conjunction with Broadband Forum.

With this industry-wide collaboration and a seamless unification of fixed and mobile networks, the transport network will be perfectly placed to meet the challenges 5G brings and keep the unprecedented amount of traffic new service launches will bring flowing.

For more information on how Broadband Forum is shaping the future of broadband, including 5G, visit its website.