

Two into one – the need for telecoms convergence in the utilities sector

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The recent government white paper 'Meeting the Energy Challenge', set utility companies the task of updating and replacing their largely outdated legacy infrastructures. This poses problems for utilities companies reluctant to swap their two aging networks for a single, converged alternative and make the move from traditional copper networks to infrastructures managed by telecoms operators.

The utility sector has, until recently, tended to take a 'play-it-safe' approach: keeping its public sector ethos and showing a reluctance to outsource elements of its business – mainly due to lack of understanding of third party suppliers' ability to manage this unique network effectively. To bring the operational network onto a single converged alternative, which would also handle the corporate side of the business, would seem on the surface to be an unacceptable risk.

The technology is readily available but the challenge for today's telecoms operators is to gain the trust of the sector and prove that it can deliver in terms of both corporate, and more challengingly, operational needs; they need to demonstrate that this new technology can not only save companies money, it can increase revenue, reduce overheads and heighten a customer's quality of service while maintaining the levels demanded of any operational network.

So what can NGNs offer the utilities sector?

There are many common elements and shared needs if you draw comparisons between the power and water industries. The case for a converged corporate network is proven - offering improvements in customer service and cost savings from converging multiple legacy networks into one next-generation network.

Voice, data, Internet and call centres can all be run over this single network with VoIP, video conferencing, Internet connection and many other applications simply added onto the network without the need for new infrastructure. A converged network also allows utilities to prioritise specific communication requirements over others – again in real-time. If call centres are busy, the bulk of the system immediately favours the voice side of the network to reduce customer waiting time and ensure the lines are supported successfully.

These benefits mean that key business goals can be met while improving the delivery of customer service. From a purely mercenary stand-point, reaping financial benefits from reducing costs has a direct and tangible impact on the profitability of a company. In the price constrained utilities sector, this is not an insignificant benefit.

The Water Sector

The power and the water industries are operationally diverse and face different challenges and have different requirements from a converged network solution. For the water industry, NGNs address customer service challenges and help companies avoid penalties handed out by the regulator by providing a scaleable and resilient platform for customer relationship management.

NGNs also facilitate telemetry and mobile working. Telemetry has become indispensable for water management applications including groundwater monitoring, leak detection in distribution pipelines, equipment surveillance and water quality monitoring. Having data available in almost real time allows quick reactions to occurrences in the field. Workers in geographically remote locations can have office level access to core systems over a network that crucially, is fully secure. Access can be provided using a range of devices from PDAs to laptops and over different types of protocol such as 3G or WiMAX - all run across the utilities' NGN.

The Power Sector

There is a greater focus for the power companies to create a network that is inherently flexible and wholly scalable. Traditional copper networks are finally on their way out but how to design and effectively deploy what will replace them is the challenge. THUS is working with the industry to demonstrate it can provide deterministic network settings, to show real-time flows of energy on an NGN replacing out of date, legacy infrastructure.

The emergence of 'smart-grid' technology, which will be driven by developments to enable millions of 'customers' to sell power to the grid through Intelligent Cell Technology or through domestic wind turbines, brings with it its own network challenges. Alongside that, the drive to deliver so called 'smart-metering', that will enable power companies to offer improved 'customer visibility' of consumption and usage and provide responsive variable tariffs to address the green agenda, also has advanced infrastructure requirements.

How this will be monitored, managed and controlled is crucial and migration to a converged network, that can accommodate this broad spectrum of need, is perhaps the most business critical decision facing the power companies.

The future

Some utility companies have already made the switch to NGNs and converged services to handle the administrative side of the business whilst others use the network to satisfy regulators in terms of customer relationship management (for example by opening more call centres with the addition of co-location facilities for data back up and storage).

While the future asks significant questions of the utility sector, it is clear that NGNs can contribute greatly to the answers. Whether through regulation, competition or customer pressure, utilities will need to engage in the discussion and respond appropriately. Perhaps your company has some questions a NGN can answer...