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Interview with Maikel van Verseveld, OMNETRIC Group

Metering and Smart Energy International recently had the opportunity to speak to Maikel van Verseveld, CEO of OMNETRIC Group, about the company and the trends it is seeing develop in the utility space.

“The future lies in the digitisation of the electric grid and the benefits that can be derived from this move” is one of the first statements Maikel van Verseveld makes. He believes that Europe will need to have sufficient flexibility and contingency built into the grid in order to avoid blackouts and escalating grid challenges. He also believes that technology must be implemented to support a business case and deal with a current challenge, avoiding a ‘technology for technology’s sake’ situation.

However, because technology is also changing the way utilities operate, van Verseveld is a firm believer that utility business models are going to need to change to adapt to this increasingly technologically driven environment.

“Business models must evolve; otherwise you will quite simply go out of business,” he states.

OMNETRIC Group brings together the unique abilities of Siemens with its products and operations technology knowledge, and Accenture which understands business processes, information technology and the digitisation of both.

By way of example van Verseveld mentions Dutch company Van der Bron (which means ‘from the source’), a distribution company which is leveraging infrastructure sharing over a certain distance to directly procure and sell electricity between consumers and producers, effectively cutting out the middleman. With no traditional utility involved in the transactions, customers are seeing a 50% decrease in tariffs and generators are experiencing a 50% improvement in the prices they are

commanding. Van der Bron currently has 25 000 customers, but this number is growing significantly on a monthly basis. This, van Verseveld believes, is a prime example of how digitisation upsets market models. More importantly, this is being done with minimal investment in infrastructure and is being managed through a liberalised demand and supply market place and a good meter data management system.

This is the space in which OMNETRIC Group wants to operate. In Germany they are helping a generation company implement a virtual power plant, as the utility in question has invested extensively in coal and other generation technologies, but needs to have another power generation facility which is renewable energy focussed.

In this case Siemens software was implemented in the cloud and connected the generation company to the transmission companies in order to answer ancillary service demand coming out of the TSOs. This now means that the generation company can trade over 400MW of renewable energy power on flexibility markets, where often the pricing structure is unsuitable or unsustainable for coal or other types of traditional power stations. Says van Verseveld: “This is the way you are able to bring business needs and technology together.”

As customers’ needs change van Verseveld sees an opportunity to operate in the increasingly convergent IT/OT sectors. “As customers evolve, they don’t just want technology – they want solutions,” says van Verseveld. “This is what OMNETRIC Group can bring to the table.”

Changing world

The utility industry is going to be seeing some interesting trends over the coming years and these will be driven by some of the following:

- **Disintermediation** or transactive energy markets, which will be far more transaction-driven than they currently are. Jeff St. John, in his post, ‘A how-to guide for transactive energy’, comments that transactive energy is “an internet-enabled free market, where customer devices and grid systems can barter over the proper way to solve their mutual problems and settle on the proper price for their services, in close to real time.”ⁱ

Van Verseveld believes that relationships between suppliers and consumers will be short lived, although he believes back-up capacity contracts will be the longest contractual relationship in this space going forward. “Generation capacity will enable you to have contracts with whomever you wish. Consumers and/or utilities won’t be bound by multi-year contracts,” he explains.

He believes consumers will drive the tipping point for this market, but that distributors will be the initial drivers, especially those which run highly sophisticated networks -- and highlights San Diego Gas & Electric and Pacific Gas & Electric (PG&E) as actively and enthusiastically pursuing this kind of model.

- **Next generation smart metering:** smart metering as a concept has been employed in some markets for almost 10 years. In California and New York, smart metering is being taken to the next level with programmes which enable consumers

to store and withdraw KWh or capacity, regardless of where they are.

"If you look at the Van der Bron example and you see what the Californian market is proposing, you could see a DSO (distribution system operator) fulfilling the role of a 'bank' for prosumers or others who want to trade in the market and store their renewable energy either physically or virtually, with a view to using the power at a later time. Stand-alone DSOs will be the first movers in this market.

"The UK, Netherlands, Denmark, NY and California are the kind of markets which could pursue this kind of model," van Verseveld believes.

Digitisation offers benefits for outage management

Digitisation offers some core benefits to the power industry, particularly when utilities rethink and subsequently reconfigure their processes using digital technologies. One example is in the case of extreme storms. With customers wanting and expecting a new level of service and interaction from their utility, utilities have an opportunity to provide better feedback to customers and pro-actively identify outages, instead of acting reactively when they are notified by their customers. In order to do this, OMNETRIC Group has combined the Siemens outage management system with an analytic solution which enables the system to forecast the severity of storms in some regions and then used a solution from Data Capable to mine various types of social media in order to identify potential problems. This system combs sites such as Twitter and Facebook for words such as power outage, no more power, line down, lights out and is able to analyse the direction from which a photograph is taken; and through identification GPS extrapolate the location of the breakdown and identify a potentially hazardous situation.

The company is currently working with utilities on pilots for this system with the aim of proactively managing the outage management process.

"The use of social media, analytics and mobility makes for a very intelligent, digital solution," van Verseveld continues: "But what we add to this is the ability to integrate that with an outage management system. The automation drives greater speed and accuracy. We did some analysis in the US and believe that such a solution could reduce average restoration times by up to five minutes."

Cybersecurity still a challenge

Cybersecurity is still one of the biggest challenges facing vendors and utilities. Explains van Verseveld: "As quickly as you patch a gap, just as quickly another is being exploited."

He cautions that security patches need to be implemented after significant testing. Untested patches can have a knock-on effect on other elements of software and this is partly what contributes to the challenging environment. A knock-on effect can bring a distribution system down because of an unanticipated effect on another piece of distribution software.

"Software installations have traditionally been undertaken with an 'install and don't touch until it's broken' mindset in utilities. The need for cybersecurity has, through necessity, changed this focus."

What else are they doing?

Van Verseveld believes that utilities are still a bit dubious of the benefits of analytics, but that there is an interest in "companies sharing feedback based on unstructured data sources which identify or find anomalies in load patterns, or which pull up weather data correlations with potential hazards."

By way of an example, he explains how by combining various data sources, an Austrian utility was able to identify why it had a reoccurring problem with a distribution line which was constantly going down over the winter months. This analysis, which included weather and other data sources, identified tree growth as the cause of many of the resulting outages and equipped the utility with the tools to manage these proactively.

Traditional utilities becoming redundant?

"The beauty of the industry we are in is that it allows us to see things accelerate. We need a few pioneers in this market," van Verseveld enthuses. "Soon we will expect our 'smart devices' to be able to do everything for us and allow us greater control over our lives, and clearly that should include our energy."

With the high demand for digitisation which consumers currently have, they will be the driving force behind the manner in which utilities change and respond to them.

Regulatory pressures will be an influence on the changing utility sector too. In many countries, traditionally, regulation is in place in order to drive lower costs of service. However, a new focus is on encompassing more intelligence, instead of copper, into the grid. "We can't keep on laying down more and more cables. We need to start thinking more smartly," van Verseveld explains. "If you can't control supply only, then try to control demand too."

What's next on the radar?

Today, the company is growing, with more than 130 professionals joining since go-live in April 2014. With a presence in microgrid, virtual power plants, demand response and smart metering markets in Europe and US, the integrated solutions company is now expanding into the Brazilian and Australian markets during the second half of 2015.

Biggest challenge faced by utilities?

Van Verseveld concludes the conversation by saying that utilities often have conflicting priorities. He explains: "There is so much to do, so what do you do first?"

He believes however that no matter what the priorities are, it is most important to undertake development of people in a utility. "If you don't make people more data savvy, then all the investments you are undertaking will not deliver the value you were expecting. Education is vital to realise the benefit of digitisation." **MI**

The role of social media within a core OMS



Customer communications can take place in parallel with the utility's outage management operations

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i – <http://www.greentechmedia.com/articles/read/a-how-to-guide-for-transactive-energy>