BIZCOMMUNITY

3 levels of smart city growth

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30 Jul 2019

Smart cities need the operational technology foundation of smart panels and transformers, the middle layer of connected devices with edge control self-management and the top layer of real-time insights that can optimise services.

When asked how we can create a smart city, we need people to understand that there are three levels to the technology.

Updated power utility system

The fundamental one is an updated power utility system that is connected – all substations and power generating centres must be digitally connected through such systems as EcoStruxure. This enables smart-ready sensors to read information, give out data to other connected products. The connected systems need to talk to each other – this is the SCADA layer. This enables the next tier of connected devices.

Accessing building management systems

In smart buildings, different computer systems have smart access to all the buildings management systems, can control lighting and air-conditioning and be able to react to the main grid in the event of power surges. Buildings can be linked to zones and these zones can extend their data exchange to such systems as public transport. It would then become possible for a bus transit system to send an app update to commuters as to its arrival time and capacity in a selected zone.

Expert analytics

At the third level, we require top expert analytics, where I could monitor buildings in Johannesburg, Cape Town or Barcelona, providing real data in real time to the cloud. This is the apex of smart cities, where real time data allows for operational decisions, across convergent systems in a country.

The catch with big data is that companies are able to get 90% of the information they need but they are only using 20% of that data to make decisions through simple data overload. Here is where the power of the cloud comes into its own; at any one time, we have over 15,000-30,000 smart analytic and software engineers globally, providing real time information to assist in those decisions. This then is the evolution of smart cities - operational technology that enables the best choices.

However, this requires change management in how citizens view AI and its ability to make good judgements, based on more empirical evidence than any one group of people is able to do.

ABOUT THE AUTHOR

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