



UK metering and billing provider transforms environment with Microsoft Azure



Cape Town-based IT solutions provider, RJ45 Networking Solutions, has recently migrated the IT environment of UK metering and billing agent, Insite Energy, to Microsoft Azure.

This was done without any downtime to live services including its newly launched in-house digital prepayment web-app, KURVE, and enabled the organisation to significantly enhance the billing and meter management services it provides to its clients and customers.

About Insite Energy

Insite Energy is a UK metering and billing agent working with heat suppliers and landlords who have heat networks installed in their buildings. The company provides smart metering, billing and payment services to more than 250 heat network schemes and 30,000 customers in the UK.

Becoming more energy efficient

As part of the UK government's target to be carbon neutral by 2050, it is rolling out several green initiatives. One of these is the increased adoption of heat networks, also known as a communal or district heating schemes. Heat networks are used to provide low carbon heating and hot water to all connected residential and commercial properties through a distribution network of insulated hot water pipes. Heat energy is generated on-site from a single central source, such as a large boiler within a plant room. Through this method, property owners can implement renewable energy solutions from a centralised location instead of having individual gas boilers installed in each apartment, driving up heating costs and carbon emissions.

Insite Energy delivers smart metering and billing services to a variety of clientele, including property developers, housing associations, managing agents and contractors. They also provide direct customer and payment services to the residential customers receiving the energy, providing them with the support and ability to manage and pay for their utilities.

The challenge

In recent years, Insite's ageing IT environment made it increasingly challenging to service customers and clients cost effectively and to a high quality. As such, the company was looking to standardise on Microsoft Azure to enhance its existing cloud environment and servers hosted in remote data centres.

"Although we have always been cloud-focused, the COVID-19 pandemic has had a massive impact on the way companies work. For instance, our Peterborough call centre had a diminished

number of people coming into the office due to lockdown restrictions. Generally, work from home has benefited our business, so we wanted to offer our staff greater flexibility and provide business continuity. By choosing Azure and Microsoft 365, we have achieved this," says Louis Uys, Head of IT at Insite Energy.

Employees can now work from anywhere, with files accessible via Microsoft Teams, email available through Microsoft 365, and a virtual private network (VPN) would run access to servers in the Azure data centre.

The solution

Before they could migrate to Azure, Insite Energy needed to have all its firewalls optimised to work in the new environment. Because the firewalls were managed through a service provider, network services were not optimally configured. The first task for RJ45 was to take over the firewall management and get the network services up and running by moving user computers away from their more traditional IP address set-up. Ultimately, the VPNs and firewalls had to integrate with Azure if the project was to be successful.

RJ45 also needed to create a secure VPN tunnel to link to Azure. Part of this entailed overhauling the existing VPN solutions from third-party vendors, of which there were many.

The environment was also complex from a client perspective. The top-up payment environment, handling several different payment methods, also needed to be successfully migrated to Azure. For instance, over-the-counter (OTC) payments at PayPoint outlets across the UK required every UK PayPoint affiliate to send a payment request over a VPN link to the Insite Unix Payment Server in Azure. The payment portal receives the notification, contacts the end metering provider, processes the top-up, and returns a top-up code to the terminal at the newsagent, where the top-up code is printed for the customer.

The payment portal also accepts SMS payments, and an online portal allows customers to make one-off payments or set-up scheduled or balance-triggered top ups.

Alongside the payment methods available to their main customer base, Insite also had the challenge of ensuring there was no impact to the operation of their brand-new in-house prepayment web-app solution, KURVE. This allows customers the ability to make payments through the web-app using the embedded hosted web-fields of PayPoint, over the phone using an Interactive Voice Response (IVR) service, and OTC within any PayPoint outlet.

“Pay-as-you-go (PAYG) customers are the single most important aspect of Insite’s business. They have no other way to top up their utilities, and our clients expect this platform to be up 100percent of the time. The Azure migration had to be cognizant of that, with downtime not an option. Given the scale of the project, this was a significant challenge for RJ45, which it handled with aplomb,” says Uys.

Furthermore, because of the sensitivity of the customer data being managed, Insite needed to implement multi-factor security for its remote employees accessing the system. It did not want to launch its VPN before this was in place to provide the business with a second level of assurance.

The benefits

Despite the challenges in migrating the Insite environment to Azure, it experienced significant performance improvements thanks to the work done by RJ45.

“Within Azure, we can now access live data and be in full control of our environment. Insite can perform monitoring on an individual virtual machine basis to identify any bottlenecks, whether it be metering or customer payments. Previously, we had no idea why some of our servers were running slowly and had to throw more computing power at them. With the work RJ45 has done, we now have visibility of our entire IT environment,” adds Uys.

Uys says that Insite’s experience in working with RJ45 has been excellent, even though the migration was a complex undertaking.

“RJ45 is always available for support, and if there are any issues, they address them virtually and instantaneously. They think outside the box to get resolutions for problems and do whatever is required to make things work as effectively as possible,” says Uys.

With Azure, there is significantly more flexibility in Insite’s IT environment with all their services, including the call centre, now available in the cloud. This enables Insite’s business to scale as opposed to being limited by its infrastructure.

“Our servers are now linked at the speeds required with no bottlenecks constraining our operational success. We can perform back-ups and have restores instantly available, which previously took a few days to perform. Our client and customer experience have improved significantly due to this, which opens up more business opportunities for us,” says Uys.

The future

“Thanks to RJ45, we can now operate entirely using a laptop and an internet connection from anywhere in the world. We are also working on a virtual desktop platform where an employee can open a Windows Remote Desktop session. This provides employees with access to everything they require without needing to use expensive equipment. Going down the Azure route has also benefitted our software licensing structure over the one we had in place before.”

He says that with RJ45 and the support of its Microsoft distributor, Westcon-Comstor, Insite now has a trusted partner that has provided it with the springboard for growth as the heat network market evolves and more clients look to centralise their metering and bill management.