How energy companies can make the most of edge technology

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For those of us in the energy sector, edge computing will only get more relevant. If you read my previous blog, you know how excited I am about the opportunities this technology will create.

As a reminder, ‘edge computing’ refers to working with data at the point where it is collected. Devices that gather data need to send that data to a central location for analysis. And, without edge technology, the data first has to be routed to a location that may be far away, like a cell tower.

With edge computing platforms, however, data can be analysed at the point where it is generated – at ‘the ‘edge’ of the network.

My colleagues in the energy sector love what the edge can do for them. They avoid the costs of transporting and storing all their data in a data centre. They also reduce latency and make the right decisions much faster.

But there are a number of challenges that make it difficult for energy suppliers to get the absolute most from their edge investment. The topmost being: most firms need to have more than one edge computing platform to get the speed and agility they want. I’ve seen firms use as many as four platforms. And these need to be synced on countless devices – it’s just too much complexity.

What if we only needed one system per site?

Lately, I’ve been helping energy providers reduce the complexity of their edge solutions and I’m really excited to share the results.

One of my clients had been using three separate edge systems. Up until recently this was the only way they could deal with the amount of data gathered in harsh on-site conditions. They spent a lot of time managing complexity and couldn’t streamline their processes.

But Lenovo developed the ThinkSystem SE350 Edge Server, powered by Intel® technology, specifically designed to deal with harsh conditions without compromising on speed. Because of this server’s robust design and unbeatable processing power, we decided to replace all three previously used systems with it.

ThinkSystem SE350 Edge Server can handle temperatures up to 55°C and performs perfectly in dusty environments and even around strong vibrations. This is why I know the server is the perfect choice for energy providers. My client can now rest assured that their server will stay online – reliably giving them the right insights into their operations.

The server was easy to use on the client’s busy site too. It has several connectivity options: wired or secure wireless in Wi-Fi or LTE. This means that my client got up and running fast. And teams don’t have to work around the server – it works around them instead. Now that they only need to manage one system instead of three, they’re also freeing up time to spend on value-adding work that they enjoy.

The future of edge technology

Edge servers are already achieving great things in the energy industry. But the results I’ve seen my clients achieve recently are really just the beginning.

With robust, purpose-built machines like the ThinkSystem SE350 Edge Server, offshore operations could become much safer and more efficient. With real-time analytics, management will be able to keep an eye on machinery and other devices – no matter where they are – ensuring that they are always working safely.

When the right flags are raised without any delays, leadership can jump in and offer support before things go awry. As edge technology advances, the servers we’ll have access to will also keep getting easier to deploy. The ThinkSystem SE350 is already half the width of a traditional server – making it easier to use in the tight, awkward spaces that teams in our field need to navigate.

I can’t wait to see the advances the next few years will bring to edge technology. Whether it’s predictive maintenance or computer-vision-powered safety systems, the edge is bound to keep making a big impact on the energy sector.