BIZCOMMUNITY

A new tiered approach is needed to secure data collected from IoT devices

By Hayden Sadler

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Data growth has been exponentially fast-tracked by digital transformation, the rise of smart devices and the Internet of Things (IoT). However, as IoT devices more than often gather data on the 'edge' of the network, this data must be transferred to a storage repository quickly to be analysed in order to deliver business benefits. This process can be delayed, eroding the value it can deliver, particularly if the data is stored in a public cloud environment. The solution lies in robust, secure, on-premises tiered storage that adheres to regulatory requirements.

Hayden Sadler, country manager for SA at Infinidat

The number of devices connected to IoT networks is on the rise in South Africa. This is because the applications for connected devices are practically limitless. Examples of IoT enabled environments include smart homes to smart cities, self-driving vehicles to automated robotic mining solutions. Research conducted by Africa Analysis suggests that there were more than seven million devices connected to IoT networks in SA in 2017 and it is estimated that this number will double by 2022.

While these numbers might be low in a global context, considering Gartner’s prediction that we would see 20 billion internet-connected devices globally by 2020, current adoption numbers should not distract from the challenges presented by IoT.

If we consider the drivers of IoT, they are tightly coupled with digital transformation, which has been accelerated by the global Covid-19 pandemic. This has resulted in companies either having implemented IoT and is experiencing challenges, or those that are considering adoption and the challenges are lurking around the corner.

IoT reliance is growing

IoT is the next evolution of digital transformation and as with all evolving technologies, more investment means growth in both potential and scope. Some industries, such as manufacturing, automotive and logistics will adopt IoT faster than others and invest more than other sectors. However, any business pushing a digital transformation strategy will sooner or later have to rely on IoT devices.

For instance, within the manufacturing space, there is a trend towards the integration of Programmable Logic Controllers (PLC) into networks for the purpose of data collection on the manufacturing process.

These are highly un-secure interfaces and were designed in the days before cybersecurity became such an issue. They have now become attack vectors thus securing IoT devices is extremely important.

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To secure such IoT devices requires organisations to embark on lengthy and complicated projects that involve integrating multiple layers of their technology, including storage. This would also necessitate looking into how they collect, analyse and store all the data that is collected from those devices.

What happens is that time to value becomes protracted. Companies need to experiment and understand how to analyse, what to analyse, how to store and what to store. Yet, this is not their core competence, and they should not spend time and resources building complicated infrastructure.

Time to value is essential

Essentially, organisations need a blueprint. They should find a technology partner that has already created these blueprints successfully. In addition, the partner should have the experience and know-how to guide them through the first phase of infrastructure planning so that they can drive value a lot faster. It's all about time to value.

Another key challenge is sending data from IoT devices to the public cloud fast enough so can you analyse this data quickly. Ideally, you would want to receive that data from your manufacturing line into an on-premises system that includes some analytical and storage capabilities. Every decision that is time-critical will be made within that environment.

As digital transformation gains further momentum, and IoT and edge devices become mainstream, the need to easily store and analyse data becomes crucial. Therefore, businesses must focus on accelerating their time to value by using integrated solutions or blueprints to access data quickly. Storage plays a vital role in enabling a tiered approach that will not

only reduce risk and time to store data, it will also deliver real value to the business.

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