Time: The Secret Ingredient behind an Effective AI or ML Product

In 2019 the level of interest that companies expressed in using artificial Intelligence (AI) and machine learning (ML) exploded. Their interest is justifiable. These technologies gather the almost endless streams of data coming out of the scads of devices that companies deploy everywhere, analyze it, and then turn it into useful information. But time is the secret ingredient that companies must look for as they look to select an effective AI or ML product.

**Data
Collection Must Proceed AI and ML**

The premise behind the deployment of AI and ML technologies is sound. Every device that a company deploys, in whatever form it takes (video
camera, storage array, server, network switch, automatic door opener, whatever)
has some type of software on it. This software serves two purposes:

1. Operates the device
2. Gathers data about the device's operations, health, and potentially even the environment in which it operates

Option 1 initially drove the development and deployment of the device's software while Option 2 sometimes got

characterized as a necessary
evil to identify and resolve issues with the device before the device was
impacted. But with more devices Internet enabled, the data each device gathers no
longer needs to remain stranded on each device. It could be centralized.

Devices can now send their data to a central data repository. This is often hosted and supported by the device manufacturer though companies can do this data collection and aggregation on their own.

This is where the AI and ML comes into the picture. Once collected, the manufacturers use AI or ML software to analyze this aggregated amount of data. This analysis can reveal broader trends and patterns otherwise undetectable if the data remained on the devices.

Only Time Can Deliver an Effective AI or ML Strategy

But here is a key to choosing a product that is truly effective at delivering AI and ML. ***The value that AI and ML technologies bring relies upon having devices deployed and in production in the field for some time.*** New vendors, products, and even new deployments, even when they offer AI and ML features, may not provide meaningful insights until the devices collect and analyze a large amount of data over some time from these devices. This can take months or perhaps even years to accomplish.

Only after data is collected and analyzed will the full value of AI or ML technologies become fully evident. Initially, they may help anticipate and prevent some issues. But their effectiveness at anticipating and predicting issues will be limited until they have months or years worth of data at their disposal to analyze.

The evidence of this is seen from companies such as HPE Nimble and Unitrends, among others. Each has improved its ability to better support its clients and resolve issues before companies even know they have issues. For example, HPE Nimble and Unitrends each use their respective technologies to identify and resolve many hardware issues before they impact production.

In each example, each provider needed to collect a great deal of data over multiple years and analyze it before they could proactively and confidently take the appropriate actions to predict and resolve specific issues.

This element of time gives the manufacturers who have large numbers of devices already in the field and who offer AI and ML such a substantial head start in this race to be the leaders in AI and MO. Those just deploying these technologies will still need to gather data for some time period from multiple data points before they can provide the broad type of analytics that companies need and are coming to expect.