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Leveraging Neuromorphic Technology in Today's Battleground and Turning Raw Data into Actionable Information for Commanders at the Edge!

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How do we survive and thrive in an ever-evolving digital battlefield? Short answer: We adapt! Incorporating new technology has proven to be the key to decisively winning and those who have failed to quickly and effectively adapt new technology have done so at their peril. History is littered with examples – Tanks in (WWI), Aircraft Carriers (WWII), GPS (Desert Storm) all have provided decisive advantages. Tomorrow's leap in technology is all going to revolve around cyber battlefields. Specifically, who can sense threats to their digital systems and mitigate them quickly. The adage "Knowledge is power" has never been more prevalent than today's digital landscape. To address this Intel Corporation and the defense industry has been making enormous strides in providing technologies to identify threats and provide countermeasures.

One way to address this is a new technology that Intel has worked with Lewis Rhodes Labs (LRL) to create called Neuromorphic Processing Units or NPU's. NPU's are a completely new capability. The "NPU's" are changing how we collect, organize and access data. Based on neurology, NPU's change how data can be queried and used. Placing an NPU on top of your data storage can make all the difference. Gathering data through sensors, log generators and other inputs has never been the real problem. Sifting, Sorting, organizing, and extracting that data has plagued organizations since the beginning of data. NPU's address that problem and significantly reduces the impact by allowing unorganized, unindexed (i.e., raw) data to be swiftly searched and extracted. Combing over 80 Gigabits per sec per server!

The key takeaway is today's data centers can collect data in whatever format and store in any file structure they want. NPU's can query it all in near real time and in seconds it can provide your systems with the critical data you need to identify, extrapolate, and action. Additionally, NPU's can work in tandem at multiple locations to provide distributed query capability and provide a unique capacity that delivers results. This feature is decisive as bandwidth will continue to be the limiting factor. NPU's can augment your existing architectures and does not require expansive recoding or removing any existing architectures. It is a physical component that optimizes your operations and has been implemented by the US Government today!

Key take aways

1. Actioning critical information is the cornerstone of success in a digital battlefield.

2. Neuromorphic technology is being deployed today across the federal government!

3. Leveraging NPU's will revolutionize how you conduct data operations.

4. Enhancing search capabilities will directly improve C2/COP, ISR, OCO and DCO operations.

Company Info

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