Virtualizing Capital Markets...Can it Be Done?
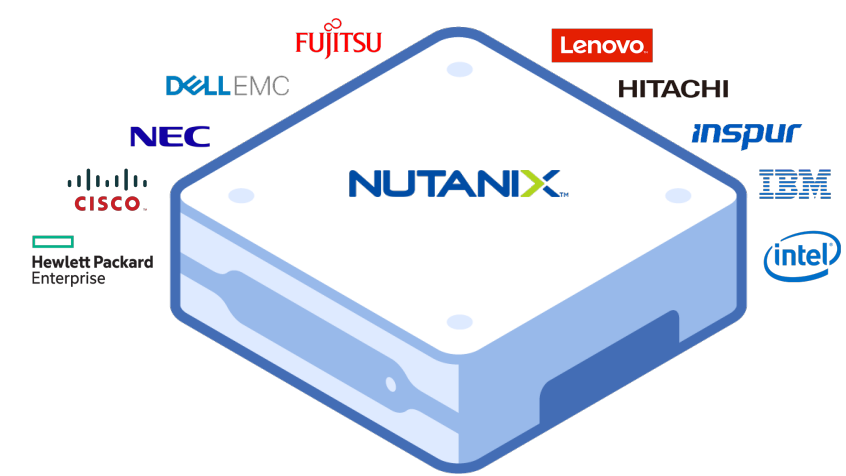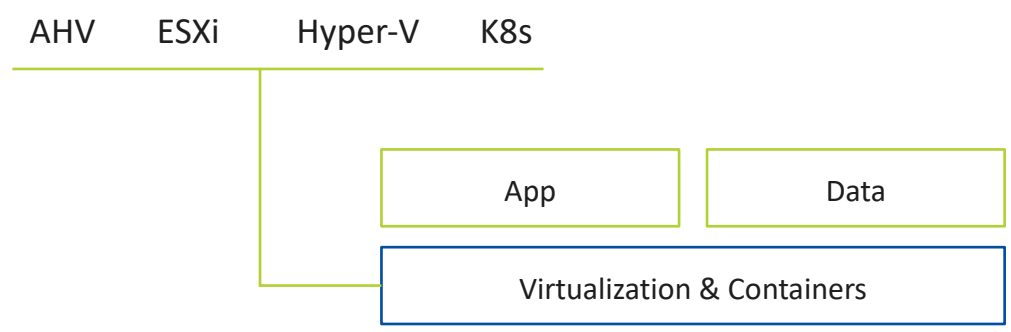
Nutanix AOS: Only HCI Software with Virtualization Choice

App

App

Virtualization

Compute

Compute

Fiber Channel Switch

Fiber Channel Switch

Storage Controller

Storage Controller

Storage Controller

Storage Controller

Storage Controller

Storage Controller

AHV   ESXi   Hyper-V   K8s

App

Data

Virtualization & Containers

FUJITSU

Lenovo

DELL EMC

HITACHI

NEC

inspur

CISCO

IBM

NUTANIX

intel

Hewlett Packard Enterprise

Integrated compute, storage, virtualization, network, and security

What we're doing – What we see?

We are working to *engage* with the STAC community, *obtain* and *share* results from relevant benchmarks, and create an effective feedback loop to continuously improve

What we are Seeing

- Pressure to move workloads from bare metal to virtualized infrastructure
- Questions about virtualization from a performance and determinism perspective
- See virtualization, containerization, and orchestration are top capital markets priorities, <u>HOWEVER</u>
  - There is a lack of benchmark data and understanding of how these environments CAN perform/be optimized.
  - For HCI, what to expect with workloads

Efforts Underway

- Engagement and understanding STAC community requirements
- We are committed to improving performance clarity for Capital Markets workloads. Ex. Analytics & other critical trade path workloads
- Working through the STAC-M3 Benchmark suite test harness to offer clarity about what HCI performance looks like for this initial M3 test and working to produce results

How can we help?

Nutanix Aims to Be the Fastest Virtualization Platform Available to Capital Markets

- **How are we different?**

  - Nutanix has complete control of both the hypervisor and the storage layer

  - Our storage stack is completely distributed and allows us to place data in the right place, at the right time, in real time of the devices
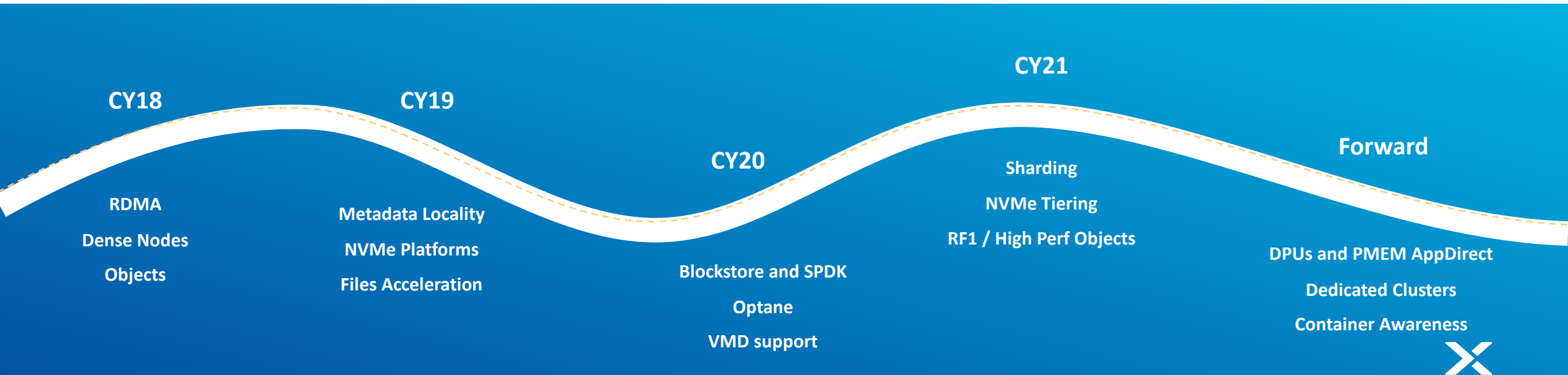
- **What does that mean?**

  - It means that we can optimize our hypervisor storage, to provide the lowest latency and the highest throughput

  - Because we're hyperconverged and we were able to pass storage to our software control, we can get close to the raw performance of the devices

Generational Advancements to HCI Architecture

- Nutanix HCI is built-on a **Web-scale** architecture with a **Data first** principle

- Evolving the architecture for **performance and scale**

  – Modernize Infrastructure for New Apps

  – Strengthen TCO and Density

  – Accelerate Innovation

CY18

RDMA

Dense Nodes

Objects

CY19

Metadata Locality

NVMe Platforms

Files Acceleration

CY20

Blockstore and SPDK

Optane

VMD support

CY21

Sharding

NVMe Tiering

RF1 / High Perf Objects

Forward

DPUs and PMEM AppDirect

Dedicated Clusters

Container Awareness

Virtualizing Capital Markets with Nutanix *CAN* be achieved!

NUTANIX™

If this of interest, come talk with us

Visit our Booth!

Join our Breakout Sessions!

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