

Nimble Storage - Data Velocity Delivered - 2016.02.23  
One Kearny Club

Predictive Flash Press Release: [http://www.nimblestorage.com/press\\_release/the-nimble-storage-predictive-flash-platform-predicts-and-prevents-barriers-to-data-velocity/](http://www.nimblestorage.com/press_release/the-nimble-storage-predictive-flash-platform-predicts-and-prevents-barriers-to-data-velocity/)

AFA Press Release: [http://www.nimblestorage.com/press\\_release/nimble-storage-leapfrogs-competition-unveils-predictive-all-flash-arrays/](http://www.nimblestorage.com/press_release/nimble-storage-leapfrogs-competition-unveils-predictive-all-flash-arrays/)

Samsung Press Release: [http://www.nimblestorage.com/press\\_release/nimble-storage-shatters-industry-all-flash-scalability-and-effective-capacity-barriers/](http://www.nimblestorage.com/press_release/nimble-storage-shatters-industry-all-flash-scalability-and-effective-capacity-barriers/)

Leadership team - <http://www.nimblestorage.com/company/leadership-team/>

Beyond Flash: Data Velocity and the App-Data Gap - <http://www.nimblestorage.com/blog/beyond-flash-data-velocity-and-the-app-data-gap/>

Other coverage

<http://vipinvk.in/2016/02/nimble-storage-announced-their-predictive-all-flash-arrays/>

[http://www.theregister.co.uk/2016/02/23/nimble\\_roars\\_into\\_allflash\\_array\\_market/](http://www.theregister.co.uk/2016/02/23/nimble_roars_into_allflash_array_market/)

“app-data gap”

Predictive Flash Platform

Janet Matsuda - Nimble CMO, introduces Suresh (CEO)

\*Suresh\*

Founding Thesis - opportunity to transform storage business - with Flash, Cloud, Big Data Analytics

Been in the market since August 2010

First “predictive AFA”

8PB of Flash in a single system

Uses same Nimble OS as adaptive arrays - measured availability 99.9997

33 - 66% lower TCO

Varun Mehta unveils it

The problem?

We expect data to be available instantly

App-data gap slows critical business processes

What causes the gap?

- storage related
- cfg issues
- non-storage best practices
- interoperability issues
- host, compute, VM, etc

SSD and predictive flash platform to close the gap

InfoSight - predictive analytics

Unified Flash Fabric manage adaptive arrays and AFAs as one platform  
Timeless Storage - high levels of customer satisfaction

“InfoSight collects and analyses more sensor data points every four hours, than there are stars in the galaxy”

intelligent, cross-stack sensors  
deep data analytics  
install base learning

Multi-tenant SaaS portal

Benefits of InfoSight?

- prevent issues and downtime
- cross-stack RCA
- predict future needs and future planning

9/10 issues detected before you do  
<1 minute hold time to speak to a L3 engineer

Timeless Storage

NPS85 - unwavering customer commitment (trust and transparency)

Timeless guarantee

- all inclusive software licensing
- flat support prices in years 4 and 5
- option for new controller after 3 years

Capex or storage-on-demand

- only pay for the storage you use
- scale up or down to meet demand

Dan Leary introduces the array and talks about UFF

Flash - hybrid flash - best for mainstream apps, AFA - too expensive for the rest

Single architecture for all flash and adaptive flash

Common data services

8PB of “effective capacity”

“Scale-to-fit” - flexible and non-disruptive scalability

You can add disk, also NDU the controllers to add CPU and memory

Scale out with up to 4 arrays managed as one  
single system - 300K IOPS, 2PB “effective” capacity

Compared to XtremIO and Pure

Mix and match AFA and adaptive within a single scale-out cluster  
Transparent application mobility

## Lower TCO

- requires 10-30X less memory than the competition (reduces cost of controller, more flash/capacity per controller, fewer controllers needed)

## AF9000

2 EXP shelves, 12RU

2PB effective capacity in 12RU

- designed for cost-optimised 3D-NAND (advanced flash endurance mgmt, large-scale coalescing, integrated hot-sparing)

Provides 7yr SSD lifespan

Increased performance

20% more useable capacity (relative to other systems on the market)

Data reduction (variable block dedupe, variable block compression, zero pattern elimination) leads to 5x or more data reduction

Plus zero copy clones and thin provisioning

## WAN efficient SmartReplicate

application consistent backups

protect frequently

recover rapidly from online backups

5 min RPO to DR

easy test/dev with cloning

- absolute resiliency

non-stop availability

Triple+ parity RAID - tolerate three simultaneous drive failures plus intra-drive protection and integrated sparing

Integrated data protection - SmartSnap and SmartReplicate

SmartSecure Encryption - application-granular encryption and secure data shredding

## Entry-level Models

AF3000

AF5000

## Price/Performance

AF7000

## High End

AF9000

23 - 553TB RAW

Up to 2PB effective

4 - 12RU

\*Suresh and Dan taking questions\*

Essentially standard hardware with very effective software

UFF - conceptual idea. The cluster itself doesn't use interconnect (PCIe, IB, etc) between nodes, just ethernet

**\*\*One on one sessions\*\***

Rod Bagg

94% of customers who do this - partner with Toshiba in Japan

performance and Capacity planning triggers case in salesforce as well - explain why there's a lead being generated as well

Justin Giardina (customer)

iland

cloud DR-aaS

1995 - 2005 - webhosting, etc

2007 - cloud practice

IaaS, partner with Veeam, Zerto

Advanced Security platform

Big data analytics platform - ECS (Enterprise Cloud Services) - runs on Apache

Cassandra

Multi-tenancy is managed at a layer above - not the infrastructure itself.

Why Nimble?

Came from monolithic arrays

Data at rest encryption platform (legacy solution was a bolt-on - needed to replace all drives with self-encrypting)

About 7 systems today

Beta tester of the AFAs and moving to those

Not using the SAN-based replication from Nimble (using Zerto)

8 DCs (4 in US, 1 in Singapore, 3 in UK)

Australia and Europe - looking into expanding there

Complex / detailed DR service (internal IPs available, firewalls, etc) - not just re-IPing the VMs

Leonard Iventosch (Channel), Dan Leary

Back-end is not Infiniband, but 10Gbit Ethernet. Software handles (Path Selection Plugin) -> ensures that I/O is directed to the node that has the data. So there's limited amount of data transfers between nodes.

Can move adaptive and AFA systems into one cluster. Move data from adaptive system to all flash system in the same cluster, then remove the adaptive system from the cluster without downtime..

100% channel strategy. AFA allows partners to enter markets where they didn't get in to (either because they didn't have an AFA before).

InfoSight allows channel partners to see how the customer environment is performing. Customer allows one specific channel partner to see the InfoSight data.

Currently no VMVision sharing to channel partners yet: Nimble understands the need, but there's more privacy concerns which need to be tackled. If this feature is added in the future, it will require additional customer approval before it's shared out. This will be a big plus for winning deals: it will allow the channel partners to provide a transparent deal to the customer.

100% channel

getting into opportunities where they weren't able to compete

want to put pressure on partners still selling EMC / NTAP when Nimble has the 33 - 66% lower TCO

InfoSight can really help partners too - they can get access to customer data

VMVision not available to channel partners yet - still some privacy concerns

\*Customer presentation\* 2 - 4pm

Magic quadrant for general-purpose disk arrays