

NUTANIX™

Nutanix - New Products and Technology



# Nutanix: The Enterprise Cloud Company

Make datacenter infrastructure and clouds invisible, elevating IT to focus on applications and services

**10,000+** customers

Over **140** countries

**6** continents



Founded in **2009**



**~4,000** employees

# Gartner Magic Quadrant for Hyperconverged Infrastructure 2018



## Strengths

Gartner®

“Highly innovative and scalable architecture that is generationally advanced compared with most rivals.”

“Flexibility in hypervisor choice with growing adoption of AHV, based on KVM, as customers seek a lower-cost alternative to VMware ESXi.”

“Proven user acceptance and high customer satisfaction, resulting in repeat sales and high node counts (100+) in large global enterprise accounts.”

# Nutanix Beats Three-Tier Architectures



**60%** Lower  
TCO



**97%** Fewer  
Unplanned  
Outages



**534%** Five-  
Year ROI



**7** Months to  
Payback



**\$10.56M**  
Additional  
Revenue  
per Year



# Software Convergence

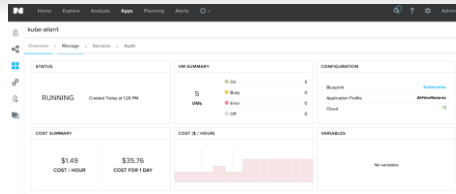
## Cloud-Native Infrastructure for All Workloads



Prism Alerts



Cluster Health



PulseHD



Deep Analytics

### App Marketplace

[VMs, Containers, Functions]

ACS

[Multi-Cluster Management, Private, Public, Hybrid]

### Prism Central

[CALM, Capacity Forecasting, Financial Reporting, Governance, Compliance]

Botmetric

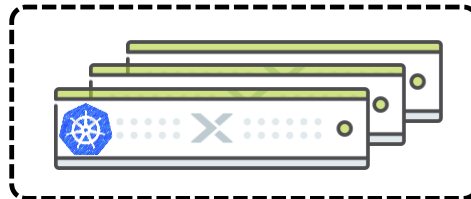
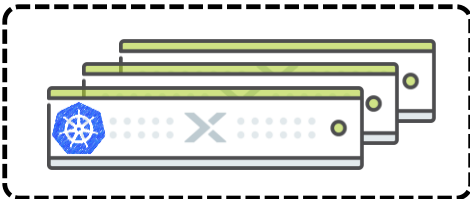
### Flow | Mantle | Era

[CNI Plugin, Network Policy, Secrets Store, DBaaS]

NETSIL

### Multi-Hypervisor | SDS

[AHV, ESXi, Block, File, Object]



# > Unified Platforms for All Enterprise Workloads



## Enterprise Cloud OS



Public Cloud



Private Cloud



Distributed Cloud

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Acropolis Container Services 2.0



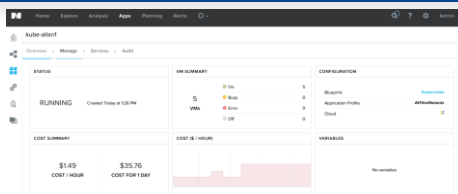
# > ACS – Global Kubernetes Cluster Manager



Prism Alerts



Cluster Health



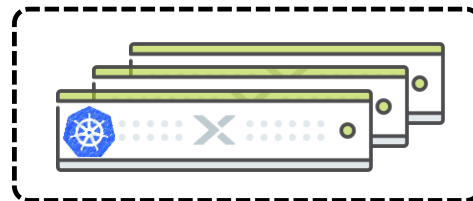
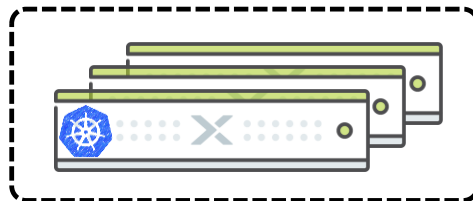
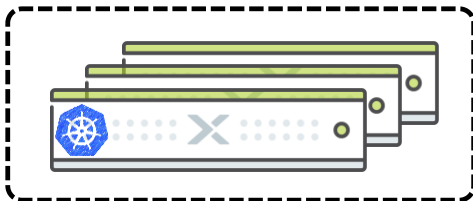
PulseHD



Deep Analytics



## PRISM CENTRAL



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# > Why ACS – simplify Kubernetes without hiding its power

- **Easy to use**

- Fastest path to Kubernetes on-prem
- Multi-Cluster Management

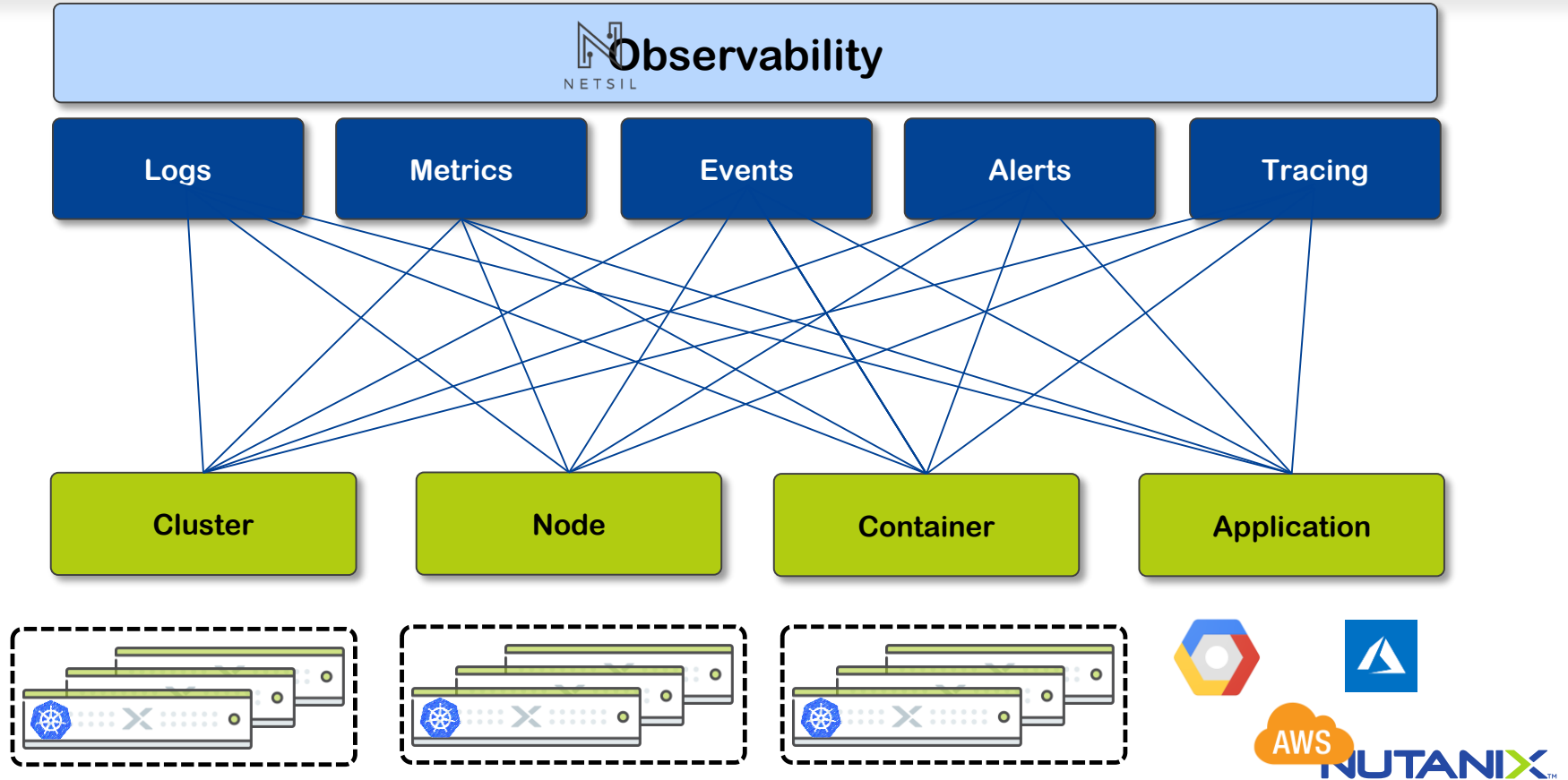
- **Easy to manage**

- Highly Available Cluster Provisioning
- Lifecycle Management (in-place upgrades and patching)
- Integrated Storage, Networking, Monitoring, Logging and Alerting
- End-to-end visibility into clusters and workloads

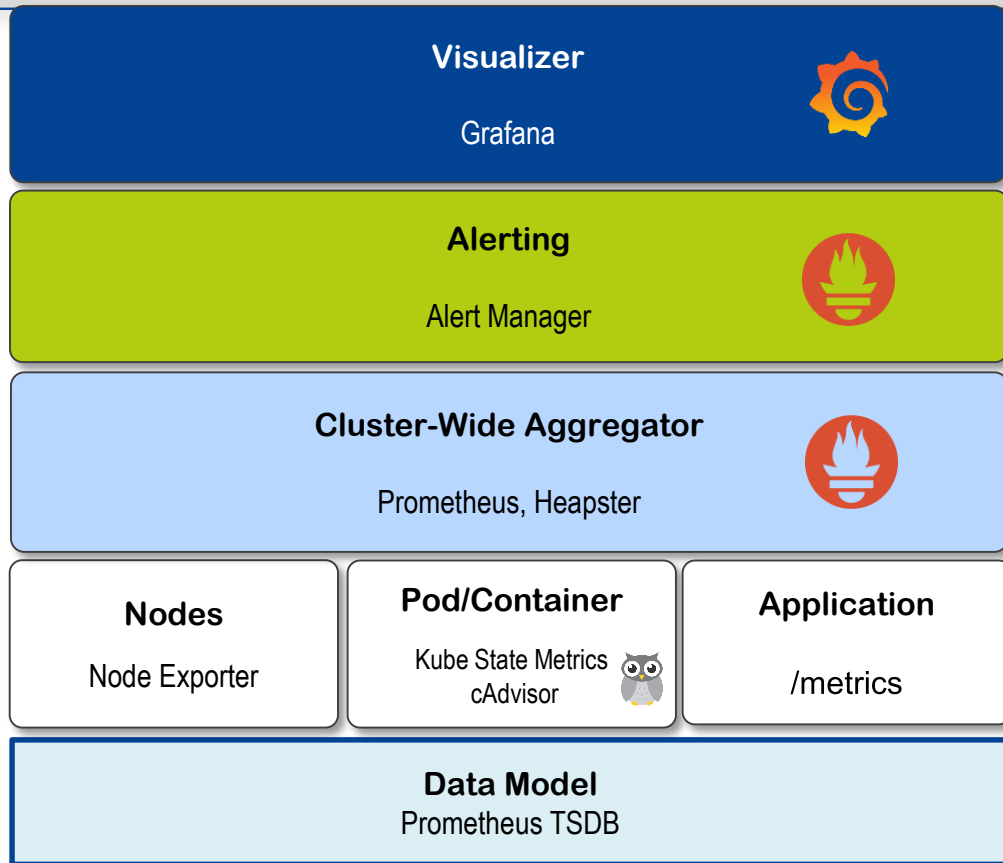
- **Uses Open APIs**

- 100% upstream Kubernetes and Docker
- Free to use 3<sup>rd</sup> party ISV's
- Team contributes to the Kubernetes project
- ACS API's

# > Visibility about your Kubernetes Cluster



## > ACS – Integrated Monitoring and Metrics



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Object Storage Services



# > Block, File, Object Storage Spectrum

## INTERFACE

iSCSI/FC

CIFS/NFS

HTTP REST APIs  
S3, Swift

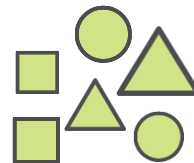
## STORAGE OPTIONS



● Block



● File



● Object

## CAPABILITIES

Structured



Unstructured

Granular block level access  
and manipulation



Object level access and  
manipulation

Strongly consistent



Strongly to Eventually  
consistent

# > Why Object Storage

1. Objects are inherently immutable, making them ideal for long term retention.
2. Object Versioning allows modifications, but still keeps older data intact (kind of like our snapshots).
3. Object storage is capacity-optimized: limited requirements around CPU/Memory/Flash → enables dense, cost-optimized platforms.
4. Durable and Accessible 3<sup>rd</sup> platform backup (3-2-1)
5. Global namespace for cross geo collaboration.
6. Enables Build -> Test -> Deploy -> Scale with a standard S3 protocol.



## Long Term Retention

- Active archive
- Write Once Read Many (WORM)
- Regulatory compliance



## Backups

- Multiple sources
- Database backups
- Ecosystem



## DevOps

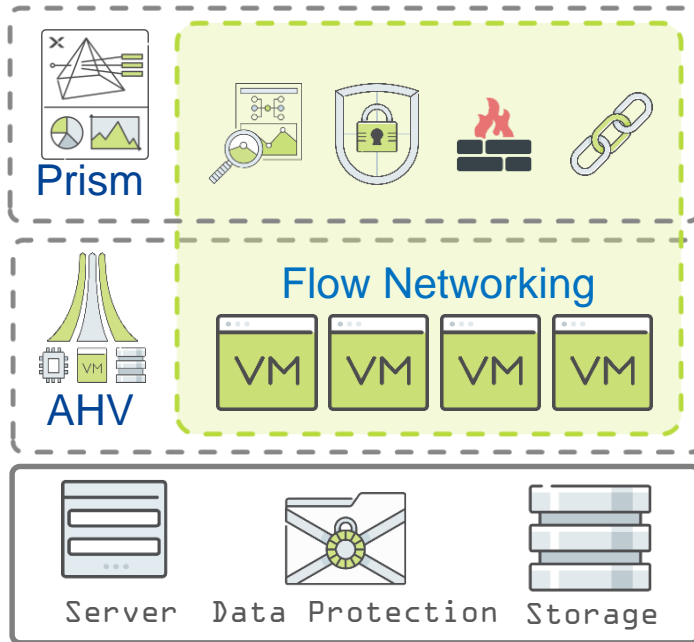
- Build, release, and operate
- A/B testing
- Automation

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Flow and Netsil



# > Flow – App-centric Security for Enterprise Clouds



- Native functions built into the Nutanix Enterprise Cloud and AHV
- Powerful visualization, policy, microsegmentation and networking capabilities
- Intuitive & scalable solution with no additional tools needed
- “1-Click” simplicity of Nutanix

*Comprehensive Visibility, Security, and Automation*



# > Why Flow?

## Why are we delivering Flow?

- Better security at the heart of the datacenter
  - Compliments traditional perimeter security
  - Prevent VM:VM malware spread
- East / West firewalls (microsegmentation) protect against insider VM to VM threats
  - Volume of end points makes traditional implementations complex to manage within dynamic VM environments.

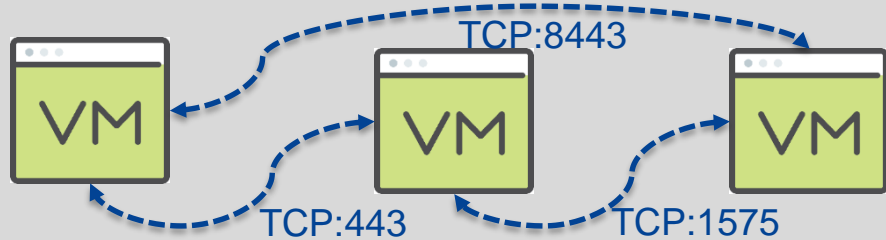


## How is Flow Different?

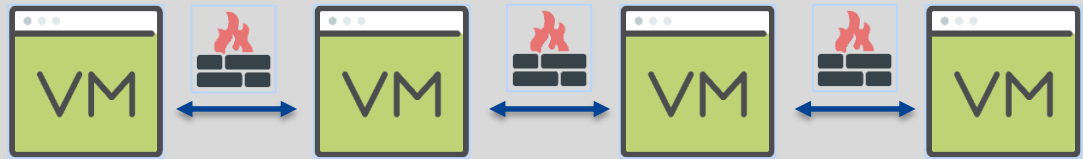
- Flow is an easy to manage East / West firewall based on an unique visualizations and policy model
  - Express policy in the language of the application

# > Nutanix Flow – Visibility, Security, Automation

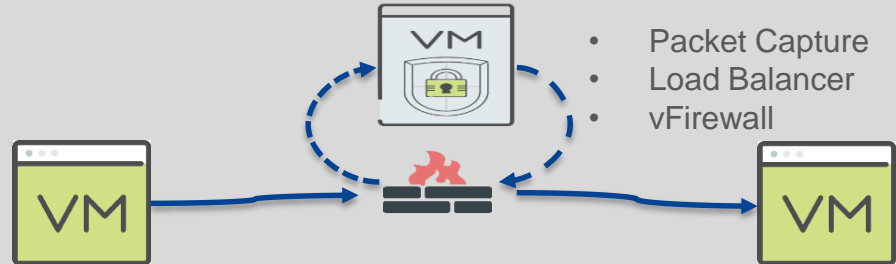
Application  
Visualization



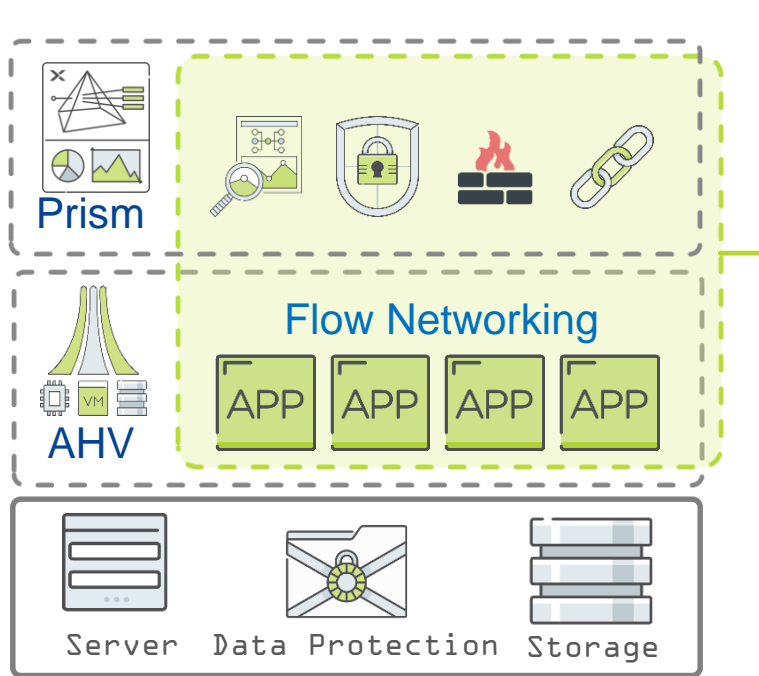
Define Policy for  
Microsegmentation  
(East-West Firewall)



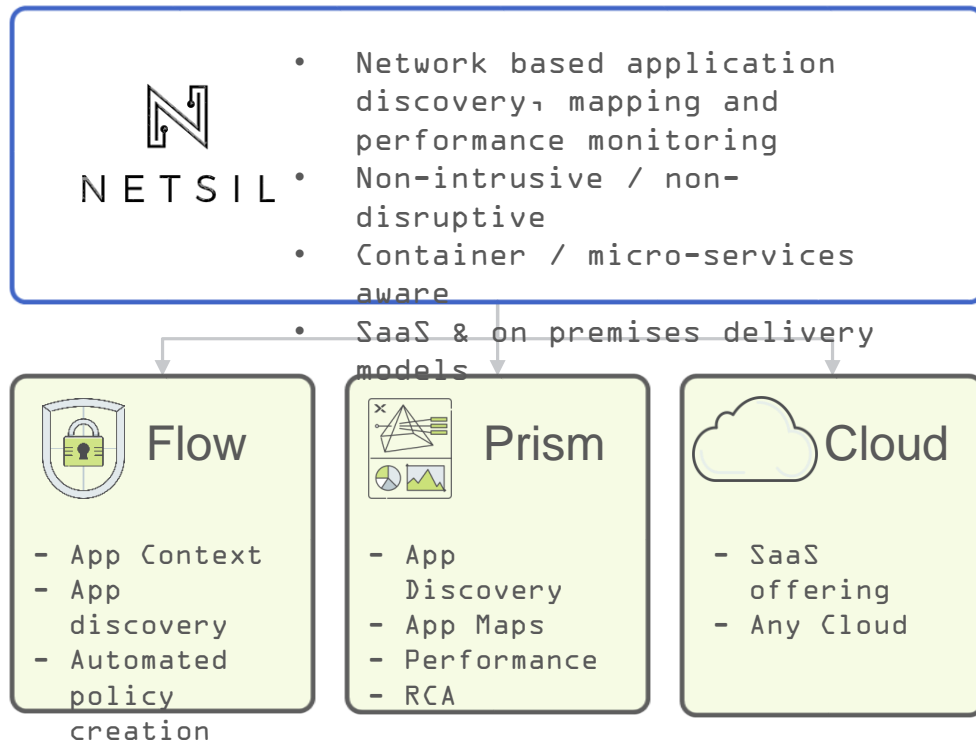
Expand with Service  
Chains  
Network Functions



# > Flow + Netsil – App-Centric, Any Cloud



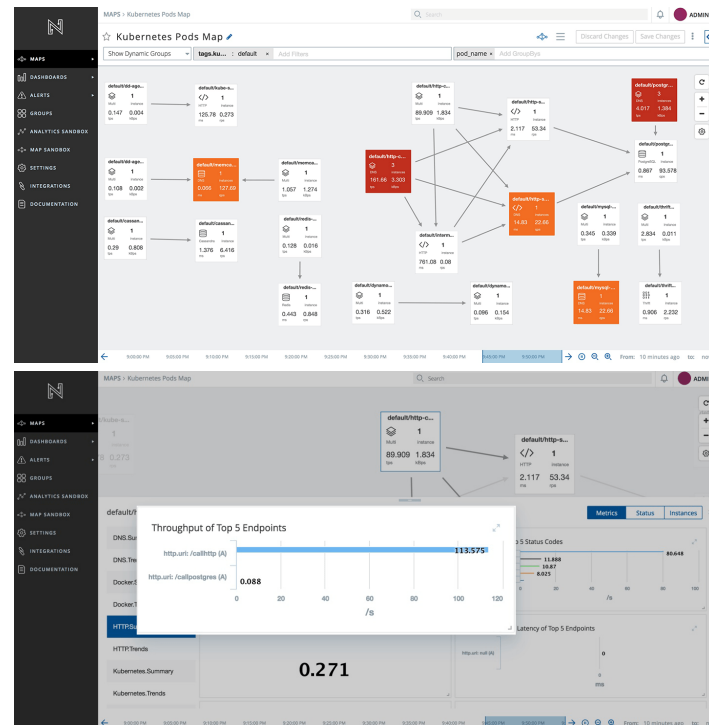
Target: 2HCY18



# > Netsil Technology – Mapping and Discovery

See everything with auto-discovered application Maps

- **Monitor** traffic flows and reconstructs application protocols between all internal & external services.
- **Search and discover** services and their dependencies pervasively without any code changes.
- **Create and share** maps by filtering and logically grouping hosts by infrastructure tags and traffic attributes.
- **Time travel** to compare past behavior, for example, before and after new deployments.
- **KPIs** such as latency, throughput, errors are available on the services

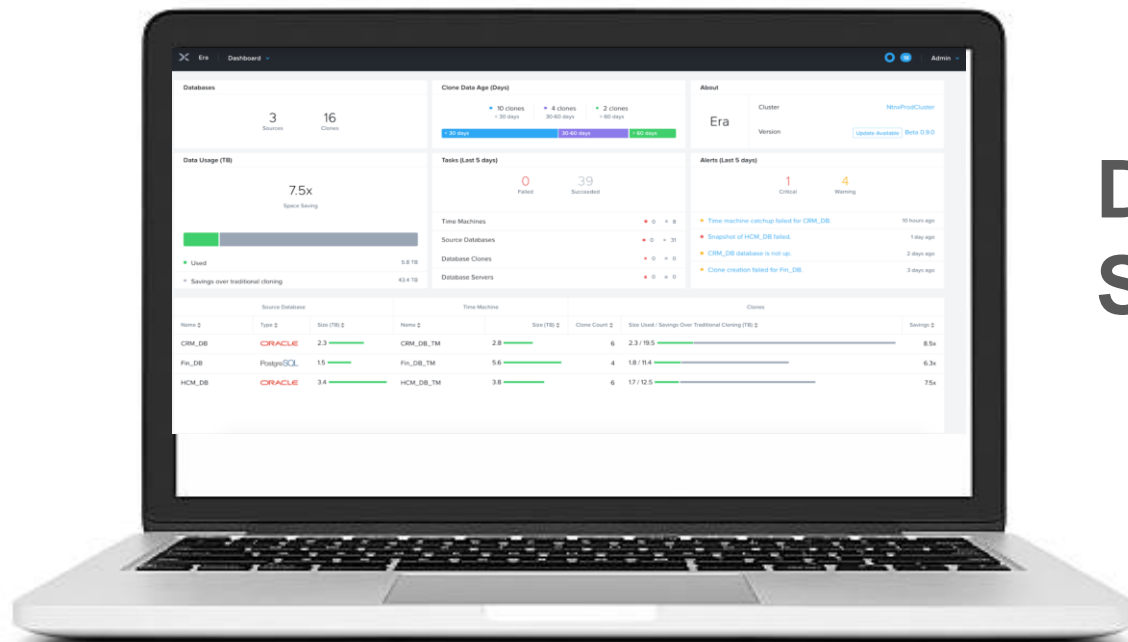


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Era

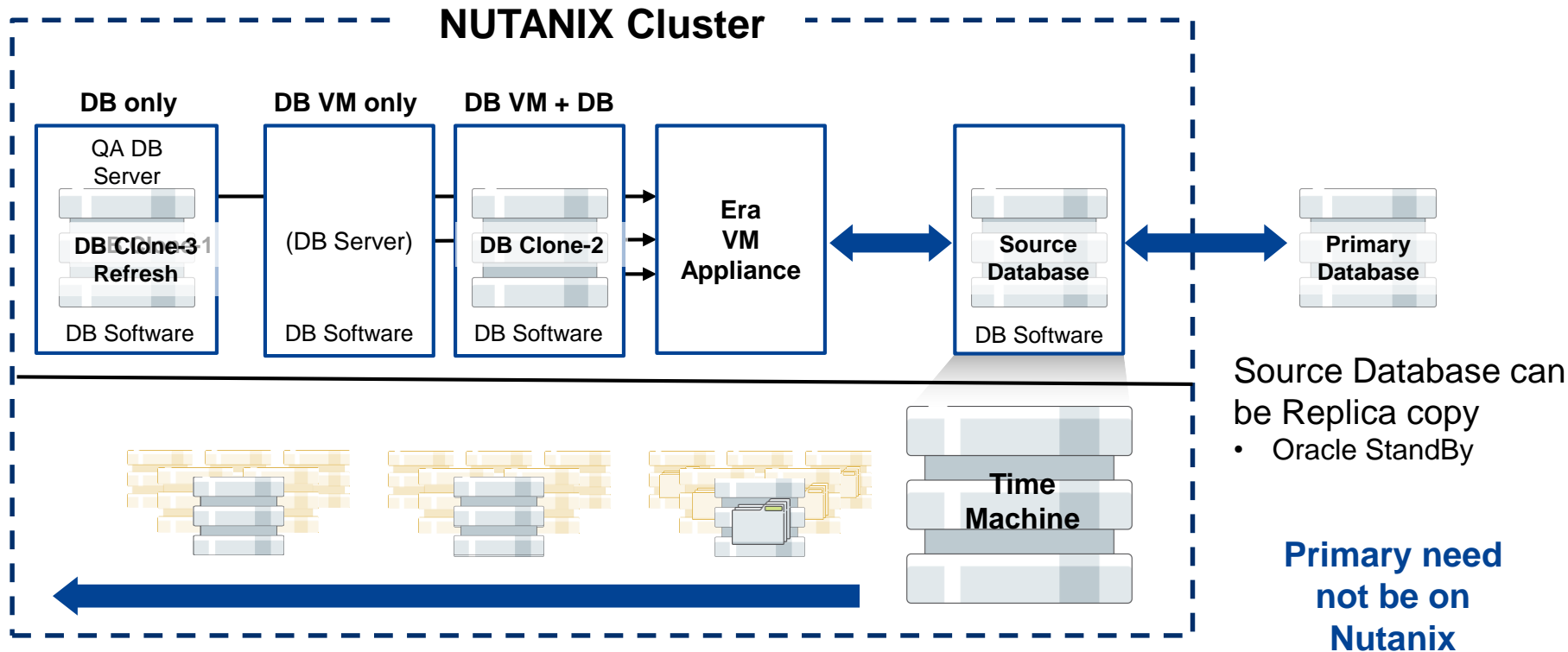


# > Introducing Nutanix Era

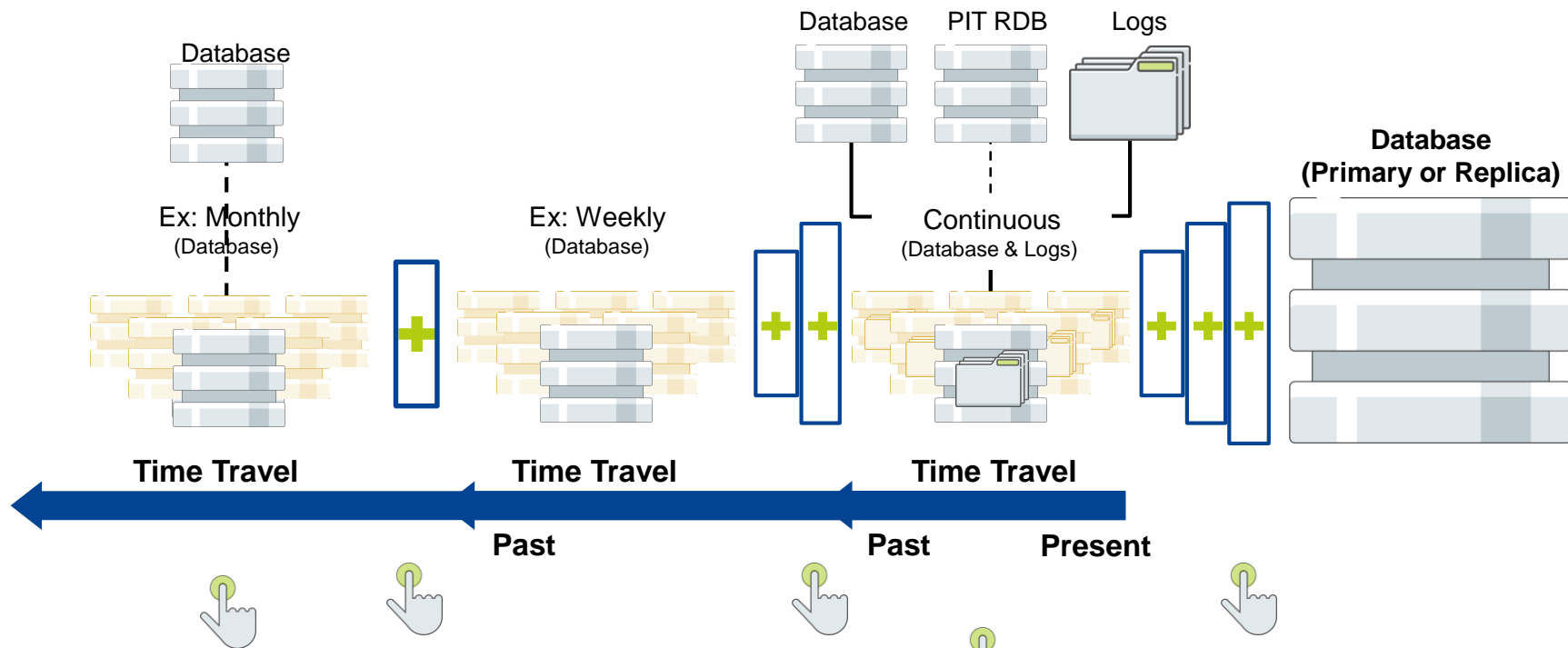


## Database Made Simple

# > Era's Copy Data Management feature



## > Time Machine: Full Privilege View (Prod Admin)



Time-machine gives an ability to clone, refresh, restore databases to any point-in-time, to anywhere subject to the SLA



# > Nutanix Era 1.0

ORACLE®



PostgreSQL

Supported databases

One-Click  
Provisioning



One-Click  
In-place Backup & Restore  
Clone & Refresh

Oracle 11.2.0.4 & 12.1.0.2

PostgreSQL 9.6 and 10.3



To any point in time

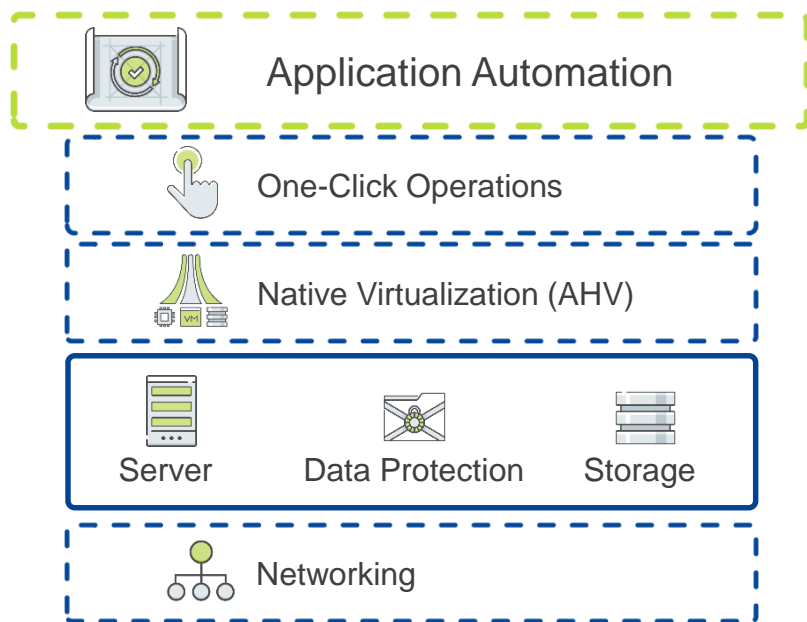
Last transaction

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Calm



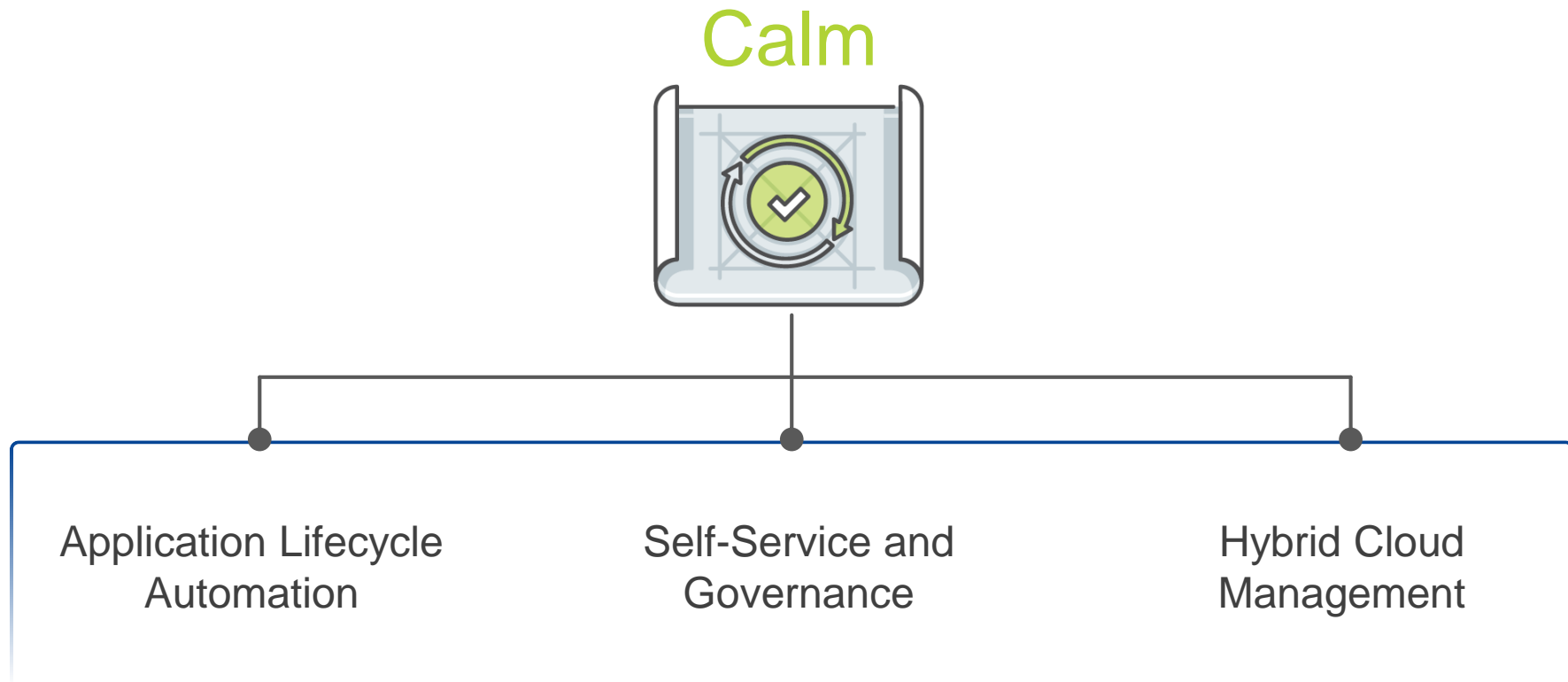
# > Delivering the Enterprise Cloud Vision



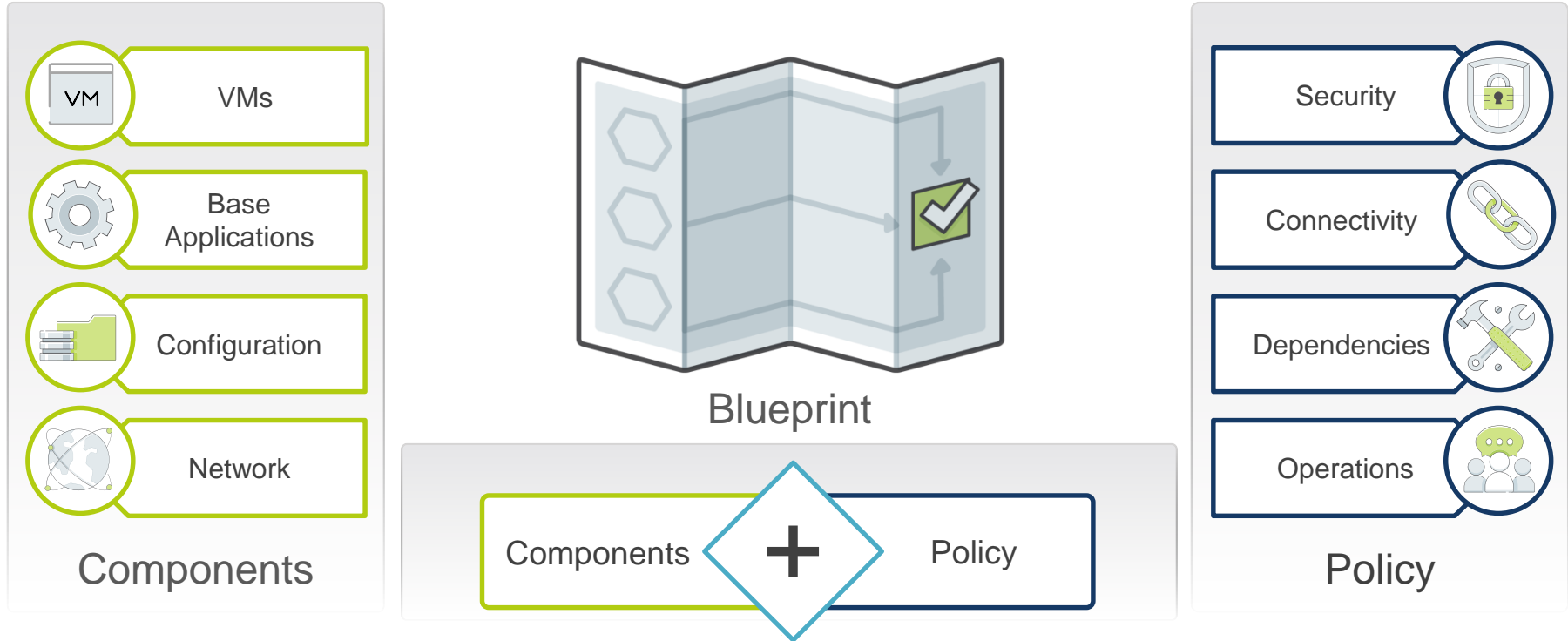
## Application Automation

- ✓ App-centric orchestration and lifecycle management
- ✓ Policy-based governance
- ✓ Self-Service provisioning

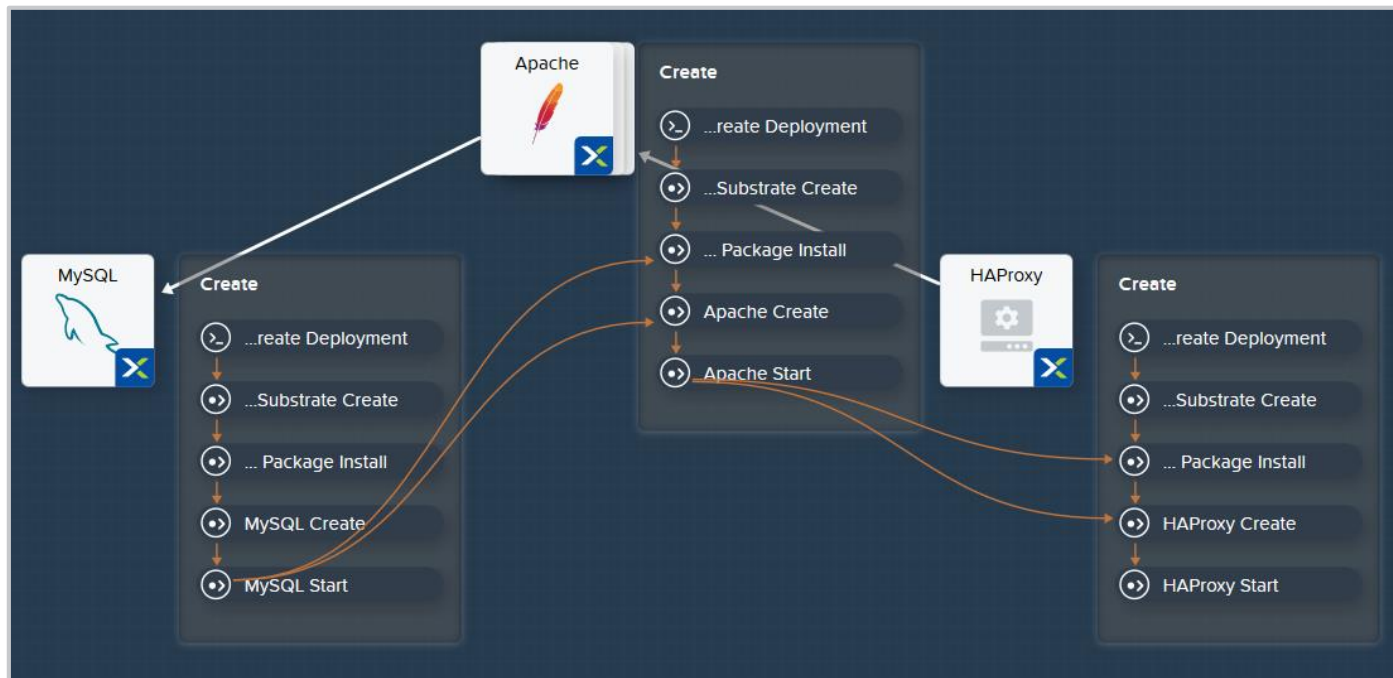
# > Nutanix Calm



# > Blueprints Capture All Elements of the Application



# > Make Sense of Complexity in a Visual Way



Capture organizational knowledge

Streamline provisioning and lifecycle tasks

Easy to understand dependencies

# > Pre-Integrated Blueprints

CITRIX®

IBM

Lenovo

DELL EMC

veeam

Sureline  
Systems

COMTRADE  
SOFTWARE

PLEXxi

silver peak®

ARISTA



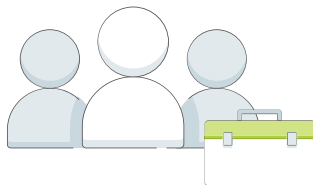
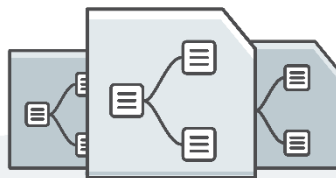
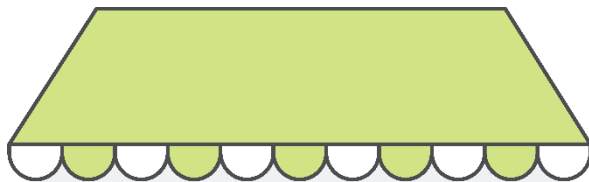
Bitdefender®



Mellanox  
TECHNOLOGIES



COMMAVULT™



Admin



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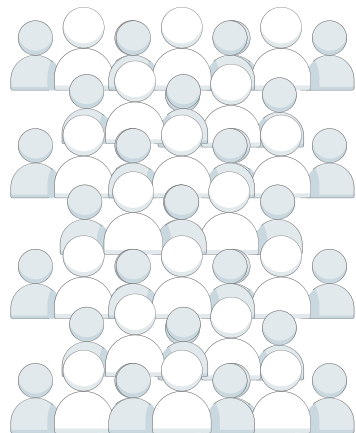
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Xtract & X-Ray





# > Xtract Customer Adoption

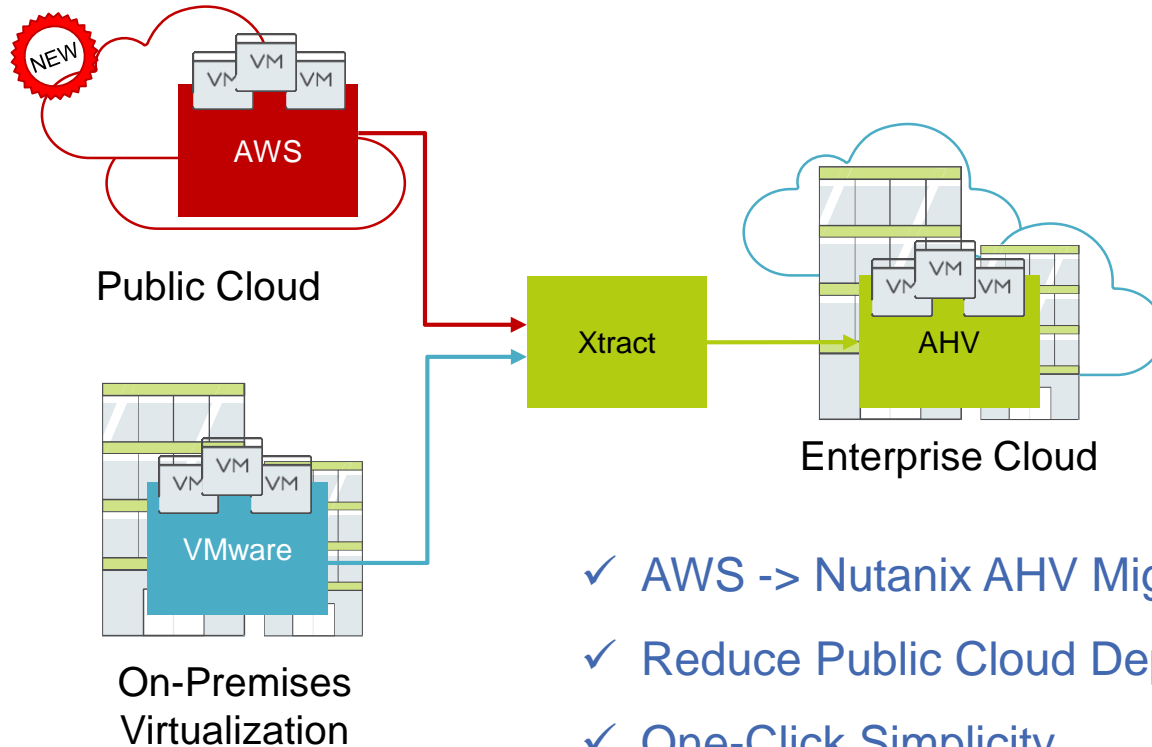


Customers Migrations



months since launch

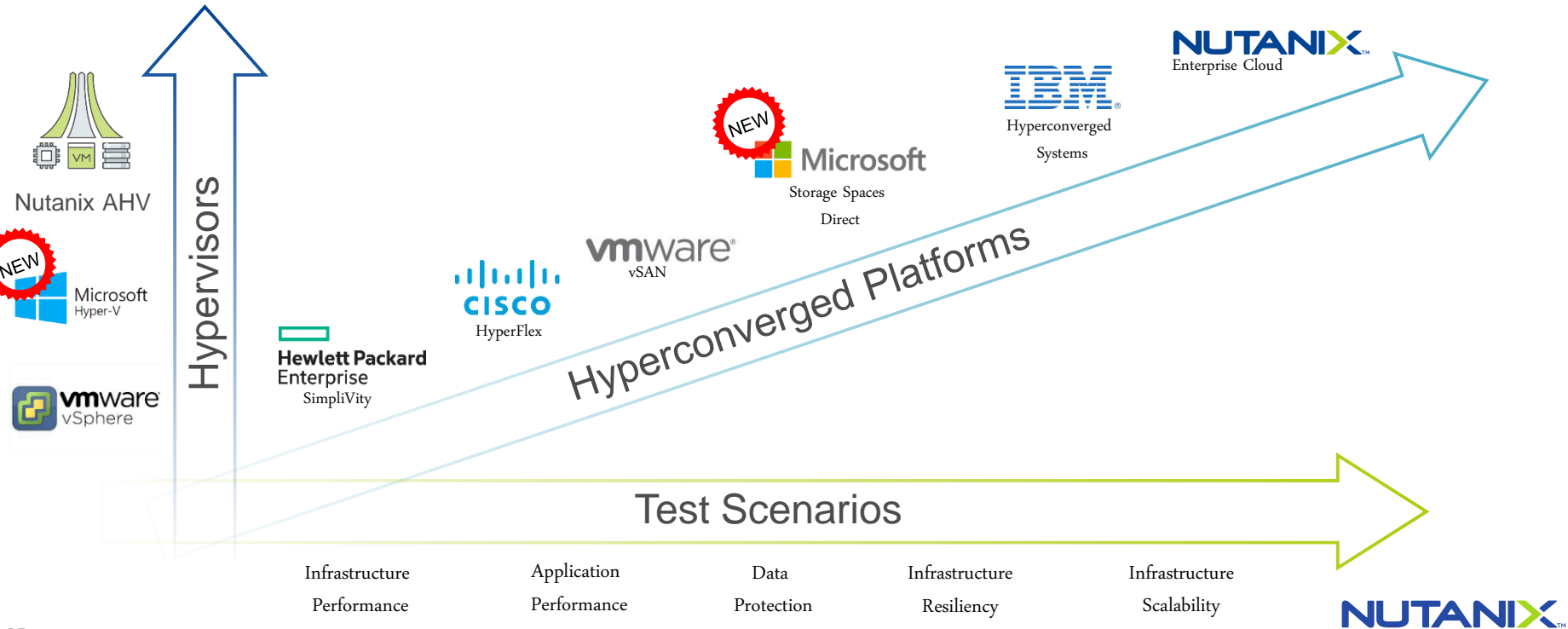
# > Introducing App Mobility with AWS VM Migrations



- ✓ AWS -> Nutanix AHV Migrations
- ✓ Reduce Public Cloud Dependency
- ✓ One-Click Simplicity

# > X-Ray: Chaos Monkey for the Enterprise Cloud

## NEW X-Ray Test Scenarios Now Open Source

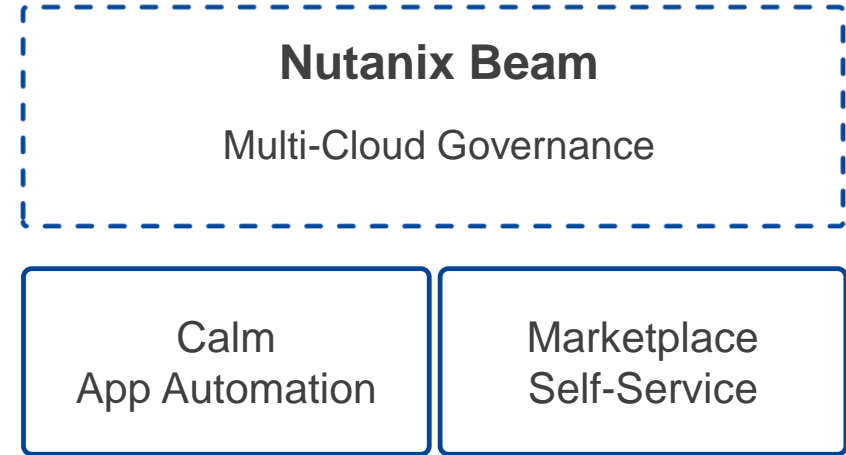
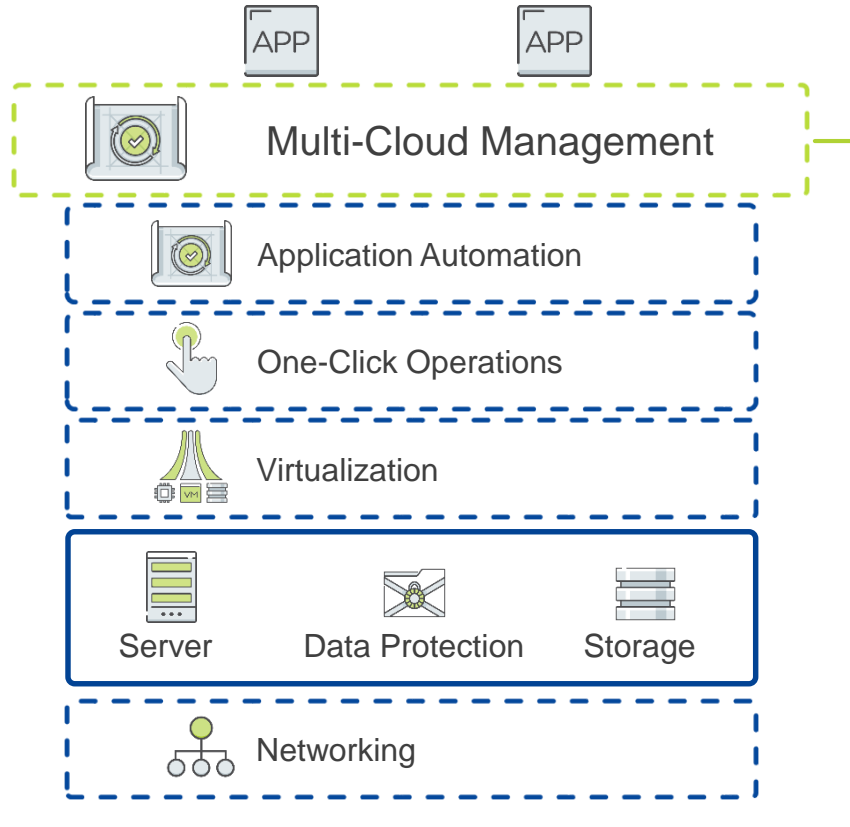


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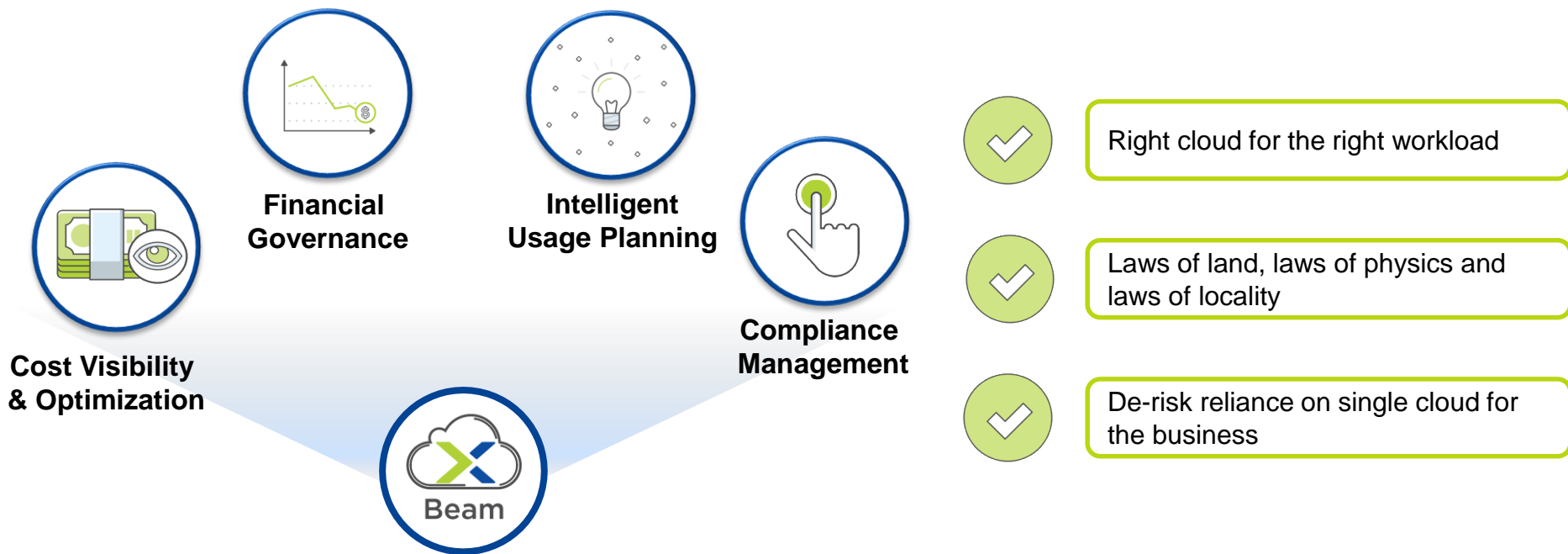
Beam



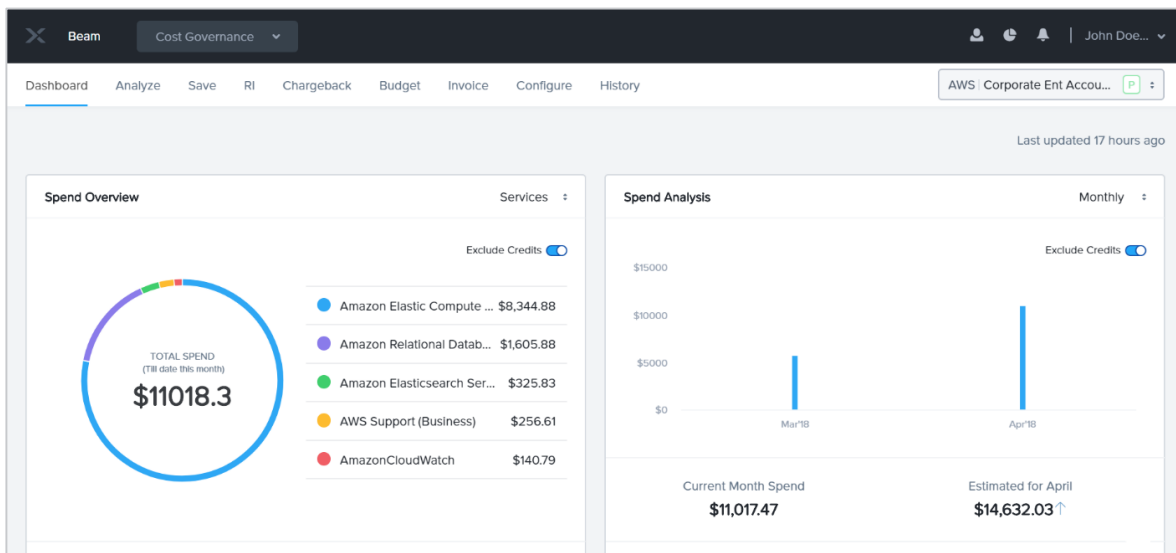
# > Beam Adds To Our Multi-Cloud Mgmt Strategy



# > Nutanix Beam – Freedom To Multi-Cloud



# > Cost Visibility and Optimization



## Unified Cost Visibility

Single dashboard across clouds



## Intelligent Cloud Insights

Optimization recommendations based on machine-intelligence



## One-Click Cost Optimization

Eliminate or right-size unused and underutilized resources

# > Intelligent Consumption Planning

Beam Cost Governance						
Dashboard Analyze Save RI Chargeback Budget Invoice Configure History						
Data shown below:						
TYPE	PLATFORM	LOCATION	PURCHASE TYPE <a href="#">Edit</a>		QTY	ON DEMAND COST
t2.micro	Windows	us-west-1b (az)	1 Nos	1yr, All Upfront, standard	1	\$161.18
No Upfront	1 Yr Standard		3 Yr Standard		1 Yr Convertible	
	Savings 20.65%		Savings 37.50%		Savings 12.50%	
	On Demand 161.18		On Demand 483.55		On Demand 161.18	
	Savings 33.28		Savings 181.33		Savings 20.14	
	Upfront 0.00		Upfront 0.00		Upfront 0.00	



## Proactive Utilization Planning

Ongoing recommendations for consumption planning



## Intelligent Purchase Recommendation

Powered by machine-intelligence to improve cloud spend

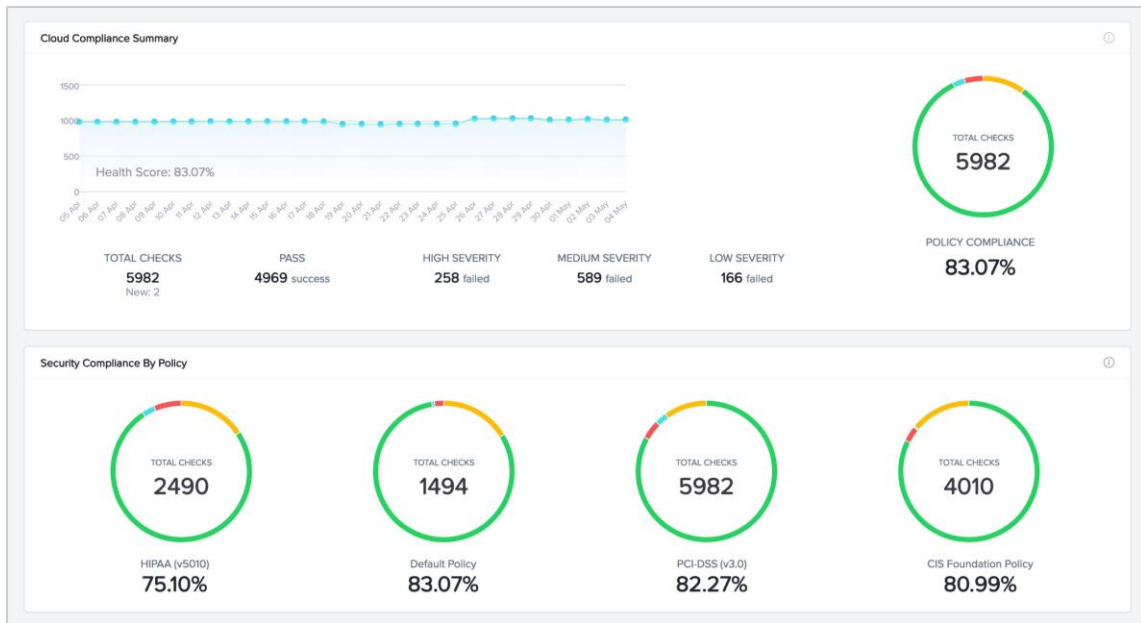


## Multi-Cloud Savings

Complex planning turns into simple decisions



# > Simplified Security Compliance



## One-Click Remediation

Click-to-fix security and compliance vulnerabilities



## Policy-Based Compliance

Enforce policies for HIPAA, ISO, PCI-DSS, CIS, NiST, SOC-2



## Custom & Built-in Security Checks

250+ built-in security checks

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