

Manage What Matters

Unify Business Service Management for NetApp Powered Clouds

Cloud solutions from NetApp are fundamentally transforming organizations across the globe, blurring the lines between traditional IT and business units. As part of this transformation, IT is under increasing pressure to prove its value in business terms. Availability and SLA's are insufficient, particularly for organizations whose technology has taken a significant share of the responsibility for customer interactions, satisfaction and revenue generation.

FireScope has taken the lead in helping organizations align their technology performance with their business and user experiences through highly innovative, on-demand solutions. With FireScope Unify, organizations get real-time service-view dashboards encompassing the entire cloud stack, analyzed by appropriate business metrics to correlate events and issues to their impact on business outcomes – starting on day one. Utilizing API-level access to NetApp cloud components, FireScope Unify automatically applies best-practice data collection, event configuration and rich visual controls and continually scans for changes to cloud configuration to automatically adjust its configuration as new virtual machines, storage volumes and applications are deployed.

No other solution on the market matches FireScope for its speed of deployment, depth of visibility and ease of use. Credit-Suisse, Suncorp, Sony Computer Entertainment and Travelex are among the many organizations

across the globe that transformed the way they managed their physical, virtual and cloud infrastructures with FireScope solutions. This solution brief will describe the FireScope approach to managing NetApp cloud solutions to maximize the returns on this investment, and the capabilities that enable the solution to deploy rapidly and adapt rapidly to today's dynamic cloud environments.

WHY CHOOSE FIRESCOPE?

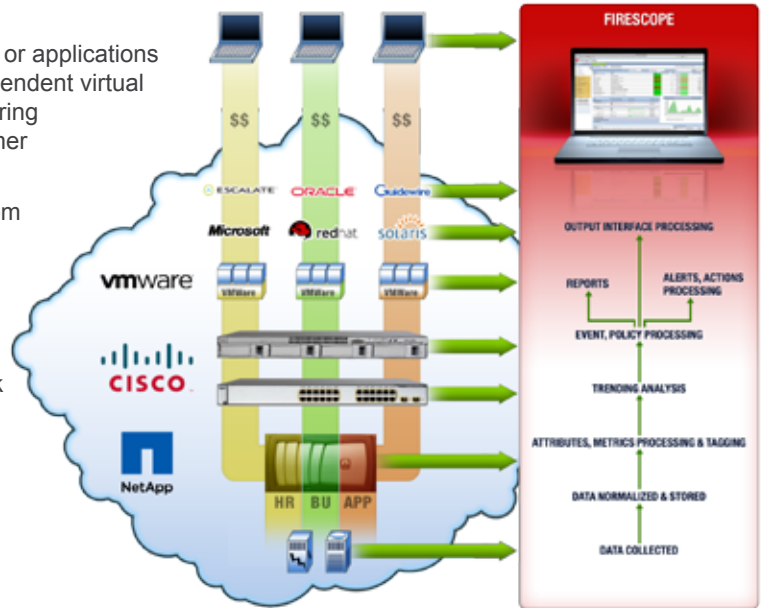
- Top-Down service-view approach to management of clouds and the critical applications they deliver increases efficiency throughout IT by managing what matters now.
- Proven experience with SunCorp's SunCloud, one of the largest NetApp clouds in existence today.
- Single-product solution without the integration risk or high cost of Big-4 solutions, with the ability to leverage and augment existing point solutions.
- Better visibility into business growth and utilization, enabling organizations to right-size budgets and projects.



THE FIRESCOPE APPROACH

The vision behind FireScope Unify is to enable organizations to align the management of their technology with the business objectives they were deployed to support. Achieving this requires a radical departure from traditional management approaches in four fundamental ways:

1. **A Top-Down Approach**, which starts at the critical services or applications being delivered through the cloud, then mapped to their dependent virtual machines, blades, LUNs and VLANs with a focus on measuring each component's impact to business outcomes and customer experiences.
2. **Complete Visibility of the Entire Infrastructure Stack**, from environmental to applications to user experiences, with a particular focus where layers intersect and interact. In the increasingly complex architectures of public, private and hybrid clouds, organizations need to understand how issues with a switch impact storage performance, or mis-provisioned computing resources have become a bottleneck for the users' experiences.
3. **Rapid Deployment, Rapid Scalability**, based on FireScope's innovative pre-configured appliance form factor and rapid delivery model, enables organizations to start utilizing real-time dashboards in a matter of days. An integrated discovery engine that makes use of API connectivity to NetApp, VMWare, Cisco and other cloud component vendors enables rapid configuration without manual effort. For geographically dispersed hybrid clouds, multiple FireScope Unify appliances, utilizing FireScope Unify's multi-site functionality, synchronize data with a master appliance to deliver a single, global view of cloud health and performance.
4. **Dynamic, Automated Configuration**, utilizing direct API access to NetApp Operations Manager, VMWare vCenter and Cisco Unified Computing System (UCS) Manager and others, FireScope Unify is able to detect changes to configuration and automatically apply best-practice monitoring as virtual machines or volumes are created or modified. This significantly reduces work for IT operators and enables greater agility for IT operations.



TOP-DOWN APPROACH

Managing each layer of the cloud stack in isolation does not translate to well performing user experiences. Mis-configured routing tables on a switch, extended latency in an application message queue or write errors on an individual disk may not raise any flags individually, yet the ripple effects on user experiences can be just as damaging as a complete outage. This is particularly true due to the increased cross-domain interdependencies inherent in cloud architectures. No organization has the resources to troubleshoot every warning message or error, nor should they as many have no impact on users and can be ignored. For maximum efficiency, IT must have the means of identifying which events are critical and which can be ignored.

FireScope Unify was specifically designed to meet this challenge with a two-phase approach. First, the data collected from every layer of the cloud stack is aligned with the critical business applications and services they contribute to. This enables the solution to correlate across technology silos and measure impact against service-level expectations. Rather than lists of raw event information, IT now has a top-level view of service status and performance, with drill down capability to quickly perform root-cause analysis.

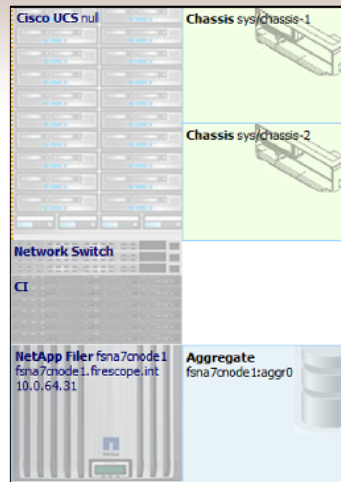
For the peak of this top-level view, FireScope Unify utilizes User Experience Checks and aggregation of key business metrics to put events and performance in context. User Experience Checks perform synthetic transaction tests of common use-cases to provide insight into how users perceive the health and performance of the application as a whole. Meanwhile, business metrics, such as revenue generation, completed transactions and others, provide insight into how IT is delivering on expected business goals. When combined, IT now has the means to effectively prioritize workloads based on impact to the business and users, or in other words, Manage What Matters Now.



COMPLETE VISIBILITY INTO THE ENTIRE CLOUD STACK

The key to delivering effective service visibility of NetApp cloud powered services is the collection from every layer of the stack, from environmentals to user experiences. Out of the box, FireScope includes over 20+ data collection methodologies that aggregate from devices and applications directly, and also enable leveraging data from existing monitoring and management tools.

Due to FireScope Unify's standards-based approach to data collection, administrators have extensive control over what data they collect and how it is collected. This extensibility means that with FireScope, the question is never 'can you collect from x', but 'how do you want to collect your data'.



THE NETAPP CLOUD FROM THE FIRESCOPE UNIFY PERSPECTIVE:

User Experience – FireScope automates testing of common user tasks on the applications hosted in the cloud, such as authentication, generating reports or logging customer information. This enables IT to understand how users perceive performance, and prompts operators to drill down through other dependencies for root-cause analysis.

Application and OS – Rich optional agents with the ability to leverage Java Management Extensions (JMX), .Net and other application and OS management frameworks enable FireScope to provide visibility down to the thread-level for unparalleled analysis of OS and application performance.

Database – An easy to configure Enterprise Service Bus that facilitates direct queries of Oracle, MS SQL and other database platforms provides access to a wealth of key metrics that ultimately affect user experiences. It also enables FireScope to collect key business metrics such as opened and closed claims that can be used to quantify the business impact of events and outages.

Virtualization – Direct API connectivity with VMWare vSphere and ESX servers is utilized to evaluate how changes to configuration and utilization impact the claims process.

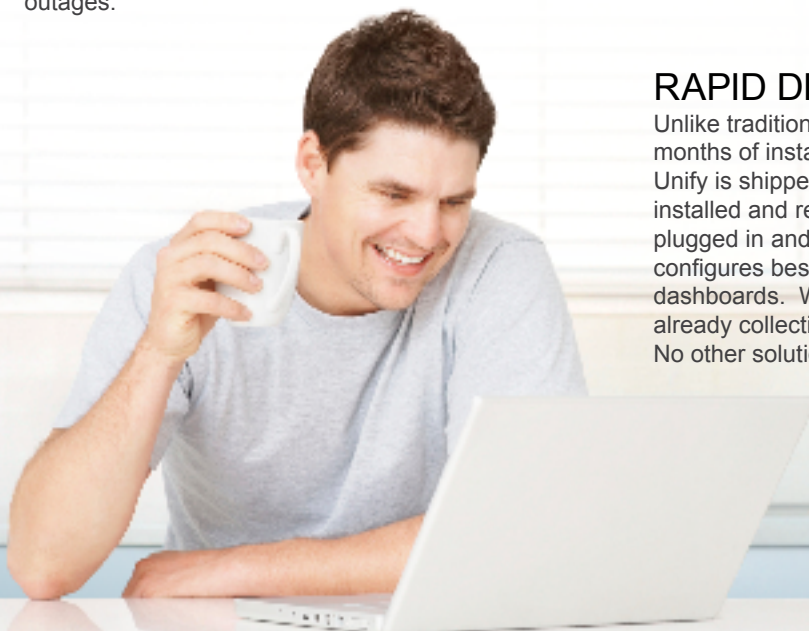
Network – In addition to monitoring key metrics concerning bandwidth, errors and collisions from the cloud fabric, FireScope also collects metrics from the network beyond, enabling administrators to quickly identify if the source of problems lies outside of the cloud itself.

Storage – Direct API access to NetApp Operations Manager or directly to the Filer enable FireScope to leverage granular data about storage allocation and performance.

Power and Air – Key metrics from power and air equipment, enables organizations to establish a baseline of consumption and develop a strategy for green IT without going dark.

RAPID DEPLOYMENT

Unlike traditional approaches to enterprise management that require months of installation and configuration of a suite of products, FireScope Unify is shipped as a single hardware or virtual appliance with everything installed and ready to go. This alone eliminates weeks of effort. Once plugged in and powered up, an integrated discovery capability automatically configures best practice data collection, event definitions, graphs and dashboards. Within the first hour of a deployment, FireScope Unify is already collecting data and presenting real-time dashboards and reports. No other solution comes close to FireScope Unify for speed of deployment.



DYNAMIC OPERATIONS

The same agility in delivering technology resources in minutes that NetApp powered clouds bring to organizations can present challenges to most management solutions. New virtual machines, storage volumes and other resources can be brought online in minutes, yet incorporating them into management dashboards and alerting systems can require hours of manual efforts. FireScope eliminates this effort by incorporating API-access to NetApp, Cisco, VMWare and other cloud components into its integrated discovery engine. As discovery is performed on a scheduled basis and new assets are identified or existing assets are modified, FireScope is able to automatically adjust its own configuration. This enables IT Operations to easily incorporate new resources into their service views as they come online and maintain agility throughout the lifecycle.

ON-DEMAND SCALABILITY

FireScope's innovative form factor and multi-site architecture make expanding the capacity of an existing deployment easier than anything on the market. The process is as easy as powering up additional appliances, completing a short wizard to configure child/parent connectivity, and finally performing discovery. FireScope's integrated discovery feature then automatically identifies devices and applications and automatically applies a best practice set of attributes and event definitions to simplify the deployment process. No major configuration changes are required on any existing appliances, and existing user accounts gain instant access to the new appliance via LDAP integration.

CONCLUSION

FireScope Unify has helped Suncorp, SITA, Hot Topic and other organizations across the globe ensure their NetApp deployments are highly available and delivering optimal user experiences while slashing costs. This is achieved by delivering visibility into the entire infrastructure stack from a single-product solution with a business-centric approach where each component is analyzed from the perspective of how they impact user experiences. No other solution on the market can match FireScope for its ease of deployment, use and price point. For more information about FireScope Unify, please visit <http://www.firescope.com/Products/Unify/> and schedule a personalized demonstration with a FireScope expert.

ABOUT FIRESCOPE

FireScope is the leader in aligning customers' technology performance to their business and customer experiences through highly innovative, on-demand solutions. FireScope's suite of products includes three primary enterprise offerings: FireScope Unify™ Business Service Management (BSM) - your dashboard for enterprise IT strategy; FireScope Orchestrate™ Configuration Management Database (CMDB) - your playbook for IT Operations; and FireScope Comply™ - your compass for managing IT compliance. FireScope Inc., headquartered in Huntington Beach, California has offices in Sydney, New York, Dallas and London. To learn more about FireScope and its advanced ITSM solutions, visit <http://www.firescope.com> or call 877-780-3473.

THE COST OF DOING NOTHING

- Lost revenue due to outages caused by cross-domain incidents.
- Lost customers due to poor performing public and internal facing web interfaces.
- Wasted time and IT resources consulting multiple interfaces to isolate root-cause of issues.
- Lost opportunities to slash maintenance and support costs on Big-4 solutions or multiple point solutions.
- Inconsistent reporting and analysis due to multiple, siloed management products.



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