

# Hybrid Infrastructure Management

Assure the performance, health and utilization of the infrastructure that supports your critical applications



“IT Infrastructure Monitoring has moved toward holistic monitoring and away from domain-specific monitoring. I&O leaders are benefiting from a refreshed ability to reduce the number of tools needed to monitor multiple operational areas.”

Gartner Market Guide for  
ITIM Tools, June 2017



## **Delivery of your mission critical applications demands the deepest infrastructure insights**

Your mission-critical applications rely on Infrastructure that is complex, multi-vendor, multi-generational, and dynamic — it can fail in unforeseen patterns. Virtana AI-powered monitoring and analytics provide the deepest visibility and most timely insights into infrastructure health to give you real time control of service delivery.

Market leaders in every industry vertical choose Virtana to instrument their mission critical workloads.

## **We understand mission-critical workloads**

The key to optimal allocation of resource, risk avoidance, and performance optimization, is maintaining an accurate understanding of your workloads. Workloads are Virtana's core expertise — our application-centric approach means we model your applications and the infrastructure response to the dynamic workloads they generate.

Our products monitor, model and even simulate workloads to support optimal performance, cost and risk management.

## **We simplify your journey from the data center to the cloud**

The journey to the cloud is fraught with risk and cost. Virtana offers best in class monitoring and analytics for both the on-premises Infrastructure and the public cloud, including a deep understanding of migrating workloads to the cloud.

Understanding your workloads — on-premises and in the cloud — is the key to safe and efficient journey to your hybrid future.

## **We enable you to transform from reactive, fragmented IT to streamlined and automated operations**

Most large enterprises live in a world of IT silos and specialized tools that can only react to the complex issues that transcends them. Our customers want to leverage modern monitoring and analytics to unify, streamline and, over time, automate IT operations.

Our products offer unified views of your environments across the silos, with rich analytics capabilities to streamline problem resolution, manage capacity, and automate workload balancing.

Our products leverage AIOps (Artificial Intelligence for IT Ops), but go much beyond typical AIOps products to include real-time monitoring, capacity and cost management, and workload automation.

We understand that automation is based on trust — execution of our recommendations is done within your change governance policies — and fully automated execution can take place one use case at a time.

## **We empower you to control cost, risk and performance as you transform IT Ops**

IT Infrastructure leaders are asked to control costs, while optimizing performance and reducing risk. It is possible if you can address the myriad decisions made in IT operations every day — including workload placement, resource allocations, configurations, infrastructure purchases and software updates.

It's all about making better decisions and informed actions. The key to getting it right is maintaining an accurate understanding of applications and of the infrastructure response to the dynamic workloads they generate.

This is why we went beyond monitoring and its traditional focus on alerting and problem resolution and embraced automation and the proactive decisions to balance workloads, and cost and capacity management.

Virtana watches your workloads for you and our AI and machine learning-powered decision engines help you ensure your infrastructure services are always balanced with application needs and allocated efficiently.

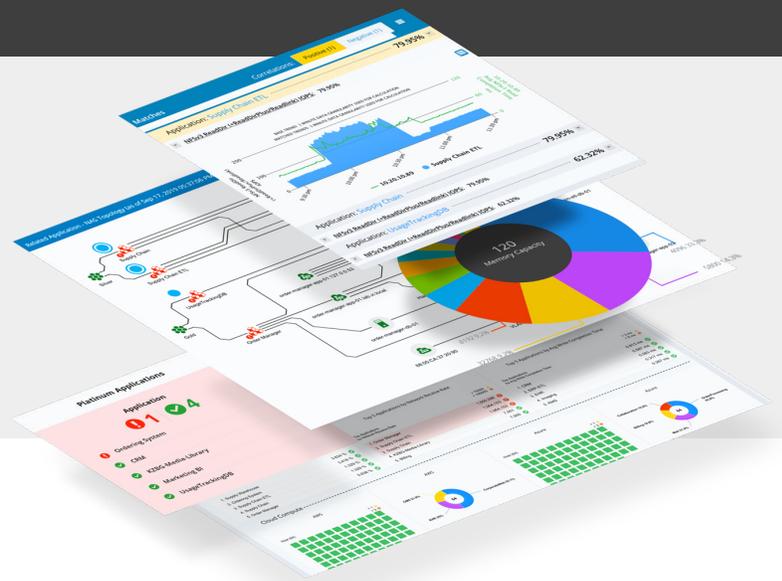
## **We understand enterprise class**

Virtana knows you expect to operate 24x7x365 at immense scale. We offer world-class support services around the globe. We also offer professional services by the industry's most experienced infrastructure performance experts to ensure value realization.

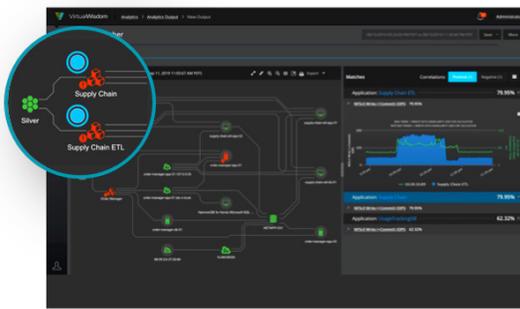
Virtana seamlessly integrates with your key ecosystem management applications such as APM and ITSM tools.

## Transform your IT Ops with VirtualWisdom

Assure the performance and availability of your mission-critical apps with the industry's only AI-powered infrastructure monitoring, analytics, and automation platform.



## The deepest visibility for your mission-critical infrastructure



### Speed problem resolution across your hybrid environment

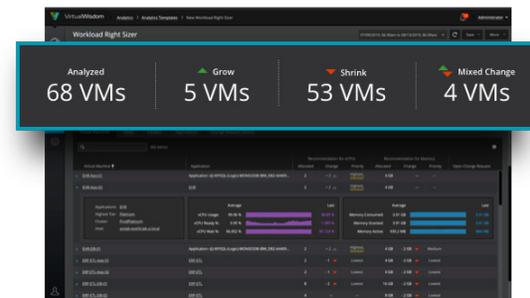
Leverage powerful AI-based analytics to radically simplify problem remediation.

- Benefit from a unified, collaborative workflow across infrastructure services
- Take advantage of app-centric analytics dedicated to problem resolution
- Access AIOps to streamline and automate remediation

### Continuously balance your applications with infrastructure resources

Enable your teams to act on AI-driven optimization recommendations in real time.

- Leverage workload balancing across compute, network and storage
- Rely on automated recommendation engines to maintain smooth operations
- Easily integrate downstream execution with your ITSM governance



### Forecast capacity needs across all infrastructure services

Deliver agile infrastructure that's automatically aligned to the business.

- Get optimal capacity forecasts based on the industry's best insights into workload behavior
- Optimize performance capacity planning globally — from a single screen
- Configure intelligent capacity alarms according to your preferences



A man in a blue dress shirt and a striped tie stands in a data center aisle. He has his arms crossed and is smiling slightly. The background shows rows of server racks with perforated doors and yellow overhead lighting. The scene is brightly lit with a greenish tint in the background.

“With the help of VirtualWisdom, we were able to transform our data center into a modern data center with the agility needed to say yes to the business with confidence. Virtana has been integral to that transformation.”

PayPal

## Easily validate workload performance

WorkloadWisdom empowers better decision-making by enabling you to test the performance and scale of any storage system with real-world application workloads.

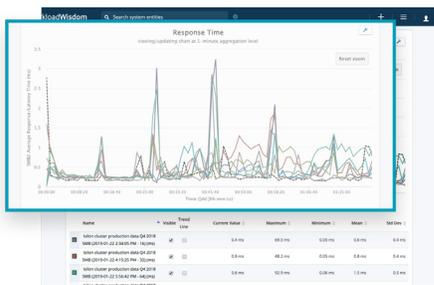
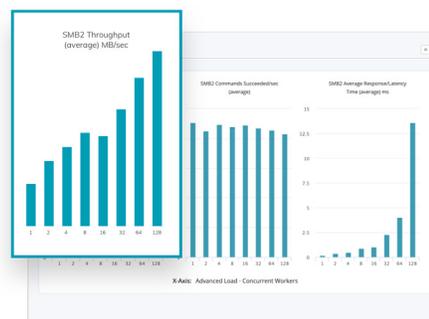


## Leverage full-featured workload validation

### Test performance and scalability for all your deployments

WorkloadWisdom leverages Workload Generators to analyze and model production storage workloads, creating what-if testing scenarios and producing workload performance analytics.

- Test across SAN, NAS, SDS, HCI, object, or cloud
- Characterize production workload profiles
- Create highly realistic workload models
- Measure storage I/O performance
- Analyze results to optimize storage



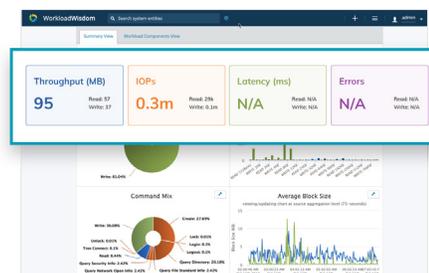
### Analyze performance via simple, customizable graphical output

Examine the performance data of different load parameters, access patterns, data content types, and configuration changes. WorkloadWisdom collects thousands of metrics every second, analyzes relevant workload data, and offers extensive charting and reporting capabilities.

### Drive millions of IOPS from a single device

Get detailed performance emulation of storage protocols with WorkloadWisdom Workload Generators. Model extreme, complex traffic loads and leverage rich, accurate representations of performance across file, block, object, and cloud storage.

- Lower testing costs by unifying storage validation processes
- Generate millions of IOPS from a single 2U platform
- Test less performance-intensive networks with WorkloadWisdom's aggregate 4Gbps throughput virtual generator



## Expertly manage your cloud

Leverage simple yet powerful cloud analytics to lower costs and streamline management.



## A single platform for cloud management



### Eliminate capacity change risks

See performance bottlenecks coming — before they affect clients and SLAs — with multi-conditional alerting powered by advanced anomaly detection. Ensure a healthy cloud environment and maximum uptime as you right-size with confidence.

### Match capacity to workload

Don't rely on guesswork in planning your resources. Provide actionable sizing recommendations per workload by applying CloudWisdom's deep analytics to capacity utilization across all cloud computing dimensions.

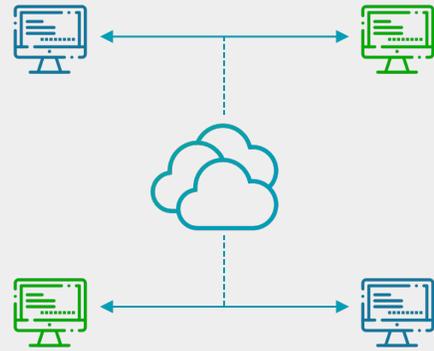


### Make AWS truly cost effective

Utilize CloudWisdom's recommendation tools and live expert advice to achieve public cloud billing that's cost-effective — but doesn't risk performance. Get reporting on trends, plan reserved instance purchases, and stop wasting money.

## Confirm cloud performance and cost before you migrate

Realize the agility, scale, and cost benefits of the cloud while lowering the risks of cloud migration by understanding in advance how your workloads will perform — and what they'll cost — once migrated to the cloud.



### Understand the project

Confirm migration objectives, scope, and approach.

- Instrument target workloads or apps
- Discover application workload characteristics
- Identify dependencies between compute, networking and storage

### Create accurate representations of workload needs

Leverage machine learning to distill large amounts of workload data into representative, synthetic groups of workloads.

- Subset synthetic groups by CPU, memory, network, and storage
- Identify and fine-tune candidate cloud configurations



### Confirm everything is working as expected

Observe migrated workloads in the cloud to identify any unforeseen performance or capacity issues.

- Monitor migrated workloads
- Compare to on-premise performance
- Recommend further tuning as needed

### Match workloads to suitable cloud configurations

Test representative workloads in specific cloud configurations to select cost-optimal placements and verify performance.

- Choose a candidate cloud configuration
- Replay synthetic workloads
- Tune candidate configuration
- Verify workload performance



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