

Infrastructure Performance Assessment Service: Do You Really Know How Your Infrastructure Is Performing?

Reveal opportunities to improve the health, utilization, and performance of the IT infrastructure supporting your business

Customer Challenges

Due to the challenges of complexity and scale, it's difficult to obtain the visibility required to understand the health, utilization, and performance of the heterogeneous IT infrastructure supporting your critical business functions - and guarantee its performance and availability.

Your infrastructure teams must be agile as they support an ever-changing and growing infrastructure or your business will suffer through poor application performance, frustrated users, downtime, and loss of revenue.

Infrastructure Performance Assessment (IPA) Service

Virtana's IPA service analyzes the health, utilization, and performance of end-to-end virtualized host, network, and storage infrastructure. We collect data for 1- to 2-weeks using our non-disruptive and agentless software platform then analyze the results, providing insights into how your infrastructure is really performing.

Our deep and highly-granular data collection collects data from heterogeneous, multi-vendor infrastructure and provides visibility into where opportunities exist to optimize their health, utilization, and performance. Our service provides insights into issues you are likely unaware of that are impacting your application performance. We provide a detailed report and live review of findings and recommendations, with actions you can take to improve overall health, utilization, and performance.

The IPA service is delivered by Virtana experts - the world's most experienced infrastructure performance analysts, with years of experience in helping Virtana customers obtain the highest performance at lowest cost from their infrastructure. Our experts deliver best practices along with performance, risk, and optimization assessments that show you clearly where problems exist and what you can do about them.

Benefits

- Identifies performance and behavioral anomalies and potential trouble spots
- Reveals potential infrastructure issues through comparison with infrastructure performance management best practices
- Provides an unbiased view from the container, host, or VM to the LUN/file system to find issues
- Identify over-provisioned links and under-utilized assets that can be rebalanced
- Identify failed links and less-than-ideal configurations
- Expose I/O-related performance problems
- Expose physical layer issues.links and less-than-ideal configurations
- Reveal virtualized infrastructure issues like CPU contention, memory pressure, and noisy neighbors
- Recommendations for remediation and optimization



Sample Assessments

Value Area	ID	Category	Slide Title	Finding	Business Impact	Recommendation
Utilization	36	Risk	Abnormal Host Write Peaks with Event Advisor	Abnormally high workload in relation to prior workloads on the same host	Application performance maybe impacted by workload spikes	Validate that the additional workload is by design or is an anomaly
Utilization	43	Risk	Abnormal Storage Read Peaks with Event Advisor	Abnormally high workload in relation to prior workloads on the same host	Application performance maybe impacted by workload spikes	Validate that the additional workload is by design or is an anomaly
Utilization	44	Risk	Abnormal Storage Read Peaks with Event Advisor	Abnormally high workload in relation to prior workloads on the same host	Application performance maybe impacted by workload spikes	Validate that the additional workload is by design or is an anomaly
Health	2	Optimization	Environment-wide Inventory: Physical Ports	Only X % of the SAN ports in the environment are used	CapEx opportunities is evident. Under-utilized or unused infrastructure can be retired or consolidated to reduce costs and improve operating efficiency	Measure the performance and utilization of existing devices as new devices are added/ Continue to monitor the HBA multipath and array performance as the environment grows
Health	8	Optimization	Multipath Verification - Minimal/NoTraffic HBAs	There are host with minimal or no traffic	Servers with little to no traffic are valuable assets that could be put to good use elsewhere in the environment	Investigate whether these servers can be reallocated
Health	9	Risk	Array Fabric Balance	There are fabrics that are imbalanced. Fabric A is imbalanced when compared to Fabric B	An imbalanced fabric increases the risk of performance issues.	Fix the various multipathing issues on the servers to better even out the workload
Utilization	48	Risk	vSphere - eSX Host Top	Utilization for all hosts is below X %. Host Y jumped to Z % during the monitoring period	Spikes and/or prolonged periods of high CPU utilization may impact application performance	Monitor host x to ensure it has adequate resources. Continue to monitor CPU and memory demand as the environment grows
Utilization	54	Optimization	VM Rightsizing Exercise	X VMs were identified where the number of CPUs allocated to them might be lowered.	CapEx opportunity exists for increasing the density of VMs	

Figure no.1 shows a list of key findings from the assessment, grouped by Health, Utilization, and Performance, and showing which issues are the most critical, what is their business impact, and what is Virtana's recommendation for remediation.

Complementary Services

SOS Emergency Troubleshooting Service

Virtana can handle your emergency issues and outages by responding immediately and working with you to assess the situation, provide the necessary equipment, and deliver the expert staff and tools required to discover the issues that are affecting your service delivery levels. Virtana Professional Services personnel initially undertake remote assessment of the situation and, if necessary, come to the customer's site to install instrumentation software and hardware for data collection and analysis. These tools are the most advanced monitoring and analysis tools available. Our Emergency Services capabilities include:

- Identifying performance and behavior anomalies and potential trouble spots
- Characterizing existing and potential SAN/NAS and Virtualized infrastructure issues by comparison to best practices
- Heterogeneous and vendor agnostic; provides unbiased view from the virtual machine to the LUN/filesystem to find performance issues
- Quickly identifying any SAN/ NAS or virtual infrastructure performance or availability issues; reduces typical troubleshooting time from weeks and months to hours or days
- Reducing risk by identifying evolving issues before they become real problems
- Immediate results — applications are back online at optimal performance levels
- Protecting against revenue loss resulting from availability issues and outages
- Ensures higher customer satisfaction

Workload Placement Service

Our Workload Placement Service de-risks your cloud migration by validating whether your applications are suitable to move to the cloud. Using the same data collected from the Infrastructure Performance Assessment, we map application dependencies and perform move group analysis and profiling to determine an application's fit for the public cloud. The Workload Placement Service answers these questions:

- Should I move my applications to a public cloud or keep them on-premises?
- Will my applications perform as required to support my business if moved to a public cloud?
- How much will it cost to run my applications in a public cloud?
- Which cloud vendor is the best choice for my applications?