



TELEDYNE LECROY
Everywhereyoulook™



For Managed Service Providers

Business Case for Value-added Services
With *WorkloadIntelligence*™

Managed Service Providers (MSPs)

Managed Service Providers assume responsibility for their client's IT services such as email, help desk, cybersecurity, networking, data storage, cloud integration, backup and restore, patching, and more. The MSP remotely monitors, updates, and manages the service while reporting on quality, performance, and availability of the service. MSPs can help company's acquire software and hardware, then keep track of and report on hardware assets and software licenses.

MSPs can also provide value-added services like software development, consultation on new, emerging technologies, program management and system/application monitoring and diagnosis.

To help protect the MSP's business and their client's interests, MSPs utilize service level agreements (SLAs) to codify a list of guidelines that are contractually adhered to.

Service level agreements typically:

- Clarify accountability
- Establish boundaries
- Protect the MSP's time
- Help resolve disputes

Challenges for MSPs

Managed Service Providers (MSPs) assume responsibility for their customer's success and can utilize a number of internally-developed or commercial-available diagnostic and/or performance tools to help them investigate, characterize, and ultimately solve customer issues when they arise.

Additionally, MSPs use metrics to set expectations for their customers. These can include:

- **Mean-time-before-failure (MTBF)** which measures the predicted elapsed time between inherent failures of a system, during normal system operation
- **Mean-time-to-failure (MTTF)** which measures the average amount of time a non-repairable asset operates before it fails
- **Mean-time-to-repair (MTTR)** which measures the average time it takes to repair a system

However, understanding real-world application workloads and interaction between the various hardware systems is easier said than done. This has traditionally been one of the most challenging obstacles for MSPs to meet their service level agreements. Most organizations have little understanding how their applications interact with their system infrastructure.

MSPs face several challenges related to understanding their client’s workloads, such as:

- Inability to proactively capture, visualize and analyze production application and/or I/O workload problems when they are occurring in real time
- The lack of a deep analytics tools to analyze, assess, and tune application performance to fix problems
- Limitations of diagnostic tools that “miss” specific and/or unique issues
- New flash-based SSD technology that behaves differently than mechanically based legacy HDDs

This invariably leads to MSPs **failure to meet the SLA** which makes them subject to a penalty and/or fine.

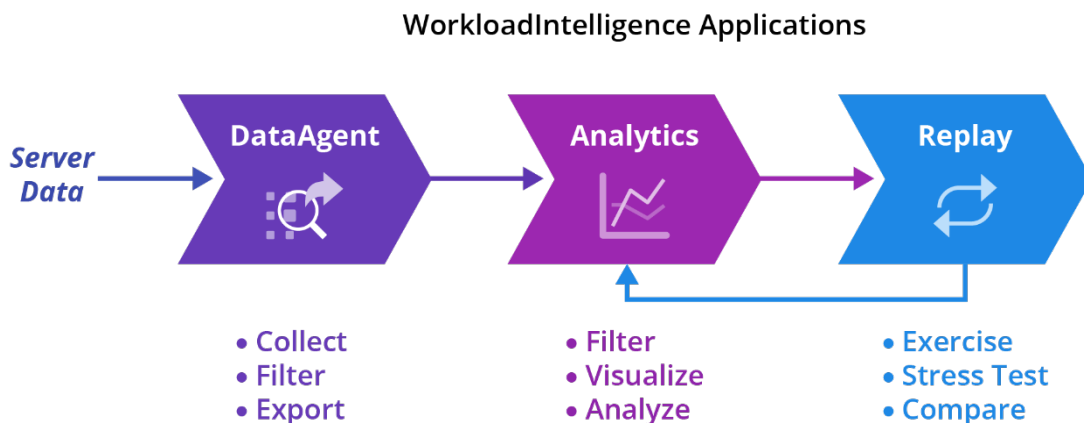
Teledyne LeCroy has worked closely with its Data Center customers to deliver deep capture, analytics and replay tools to identify, characterize and solve performance problems before systems are deployed.

These value-added software applications called *WorkloadIntelligence™* can be the perfect addition to the Managed Service Providers tool bag, offering another avenue to help your customers when they have workload and/or system performance issues.

How *WorkloadIntelligence™* can Benefit MSPs

This suite of advanced software tools called *WorkloadIntelligence* are helping our data center customers resolve complex performance issues not easily addressed by analytics tools today.

Specifically developed for engineers, *WorkloadIntelligence* enables users to optimize their infrastructure and applications through the analysis of imported *WorkloadIntelligence™* DataAgent deep workload traces and/or workload traces captured with standard methods such as Linux block layer I/O traces from data center backend servers.



With the WorkloadIntelligence™ Analytics application, users can review, analyze, and synchronize data from the application layer to the physical storage layer. The analytics tool makes it simple to create advanced performance charts with an extensive selection of parameters.

The three applications work in concert to solve some of the toughest challenges Data Center and Managed Service operators face daily. WorkloadIntelligence has been used successfully to:

- Find system and application latencies affecting performance.
- Detect database latencies affecting overall application performance
- Characterize current and future workload performance
- Identify rogue or unoptimized processes
- Ensure applications were utilizing and allocating CPU cores efficiently
- Tune the Application and Linux block layer to achieve better workload performance

► **Managed Service Provider Offering**

Teledyne LeCroy has created a project-based SaaS solution that bundles *WorkloadIntelligence* Analytics and DataAgent together to help your customers find hard-to-find problems with their applications and hardware systems.

Customers can utilize DataAgent triggering capability to capture trace data when the problem is occurring. The solution offers up to five licenses per end-user customer. Additional licenses can be provided for a fee.

The solution includes:

- Single Analytics Instance that is activated by Teledyne LeCroy when your issue is found with DataAgent
- The Analytics instance is available for one week; Monday-Friday during normal business hours
- The instance can be upgraded to multi-week project, or to a 24 hour by 7-day per week option
- Two (2) to four (4) hours product training is provided
- One (1) to two (2) hours of assistance is provided by our engineers to get the project started
- The licenses will be “timed-out” after usage

▶ Ordering Information

Product Number	Product Description
OGT-WISAAS-PRJ	WorkloadIntelligence Analytics SaaS Project Package <ul style="list-style-type: none">• 12x5 (Mon-Fri) / Single User / Single Project• Up to five (5) DataAgent's• Includes software support• 2-4 hours product training provided• 1-2 hours assistance to start project from our engineers

▶ Summary

WorkloadIntelligence™ provides Data Center customers deeper insight to identify, isolate, and understand exactly what is happening with application and storage workloads. These types of analytics and tools were not previously available.

With DataAgent's triggering capability MSPs can capture real-time issues that previously were hard, if not impossible, to capture. The data can easily be uploaded into Analytics which provides an MSP-friendly business model that lets your team use the tool as needed.

Teledyne LeCroy can also provide a method to "replay" the issue, which can be done by purchasing an optional replay system or using Teledyne LeCroy's Austin Lab services to validate the fixes before rolling them out to your customer.

WorkloadIntelligence has been used successfully to:

- Find system and application latencies affecting performance
- Detect database latencies affecting overall application performance
- Characterize current and future workload performance
- Identify rogue or unoptimized processes
- Ensure applications were utilizing and allocating CPU cores efficiently
- Tune CEPH storage solutions especially when utilizing large, clustered configurations
- Tune the Application and Linux/Windows block layer to achieve better workload performance

For more information about OakGate Technology and WorkloadIntelligence™ Analytics, DataAgent and Replay, please visit our website at www.teledynelecroy.com/oakgate or contact us at marketing@oakgatetech.com or sales@oakgatetech.com.

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*Using Teledyne LeCroy Tools
To Solve Real Problems*



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