

IP Telecom Increases Resource Efficiency in the Data Center with Cisco Workload Optimization Manager

IP Telecom · Industry: Telecommunications and Cloud Service Provider · Size: 80 employees · Location: Lisbon, Portugal

IP Telecom services both corporate and public sector clients, providing infrastructure, telecommunications, and cloud solutions. The company operates the largest fiber optic network in Portugal and offers extensive experience in telecommunications systems and networks. With three data centers nationwide, IP Telecom provides 24/7 support and solutions tailored to the needs of each client.

Challenges

- Managing workloads, memory, and processing
- Optimizing virtualization
- Reducing licensing costs for Microsoft and VMware
- Improve service performance and stability

Solution

- Cisco Workload Optimization Manager

For more information

- [Cisco Workload Optimization Manager](#)



Results

- Reduced resource utilization for Microsoft systems by 30 percent and for VMware by 15 percent
- Improved intelligence for managing memory and processors
- Accelerated application response times by eliminating workload spikes
- Experienced a 10 to 15 percent reduction in tickets for customer questions and complaints

Challenge: Improve resource optimization and utilization

When you offer infrastructure-as-a-service solutions, performance is critical. And efficiency drives that performance. However, many data centers operate with their own definition of “normal.” And often times, that normal means accepting what seems like unsolvable issues or insurmountable obstacles.

If you asked Filipe Frasquilho, business development manager, IP Telecom, to describe how the company’s data centers were functioning, he would likely have answered, “status quo.” Inquiring further, he would have explained, “we have issues that have become a “normal” part of how we operate, and there is always room for improvement.”

Managing workloads, memory, and processing certainly required the most substantial improvement. The company saw massive peaks in workload, which affected performance for its clients. There was also an issue with optimizing virtual resources.

“We had limited optimization functionality with VMware,” says Frasquilho. “Our capability relied on simplistic algorithms that provided a basic level of resource distribution, but not the level of intelligence that we required to solve our major issues.”

There was also a challenge with licensing costs. Limited ability to optimize memory on VMware hosts meant higher costs for IP Telecom, which got passed on to clients.

The solution boiled down to two options. The IT team could spend precious time and energy on continuous monitoring and evolving the algorithms to account for more factors. Or the company could opt for software automation.

“When your IT team is putting out fires 24/7, you don’t have the crucial human resources to innovate and push forward as a company. We had to address the deeper issue of the inefficiencies in our systems,” says Frasquilho.





Better visibility and intelligence

After consulting with local Cisco Gold Partner Cilnet, IP Telecom chose to explore the benefits of Cisco Workload Optimization Manager. Already significantly invested in Cisco equipment in the data center including Cisco® Application Centric Infrastructure (Cisco ACI™) and Cisco Unified Computing System™ (Cisco UCS®), adding a Cisco solution to address resource inefficiencies made sense.

Since the company's operations team wasn't completely on board with adding another solution to the environment, IP Telecom opted for a four-week proof of value (PoV) to prove the capabilities and merits of Cisco Workload Optimization Manager in reducing costs and management time.

"We saw some optimization benefits almost immediately in the PoV," says Frasquilho. "We gained visibility into constraints and resource optimization issues, which we never had insight into before."

Frasquilho points to CPU waits as one of those critical metrics. CPU waits measure the time that virtual machines are waiting for processor resources. Historically, IP Telecom had some issues with this metric, and relied on infrequent human intervention to review and take action if required.

Cisco Workload Optimization Manager evaluates the metric and takes action—either automatically or provides a recommendation—to optimize that critical factor.

"We reduced waits on any host of the cluster significantly because Cisco Workload Optimization Manager was able to address density, which we couldn't do with our previous tool. We always had density issues on some hosts. Now, we have better distribution," says Frasquilho.

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Filipe Frasquilho

Business Development Manager,
IP Telecom

Objectives achieved and looking ahead

With the implementation of Cisco Workload Optimization Manager, IP Telecom realized a 30 percent reduction in resources required for its Microsoft systems and a 15 percent reduction for VMware so far. That level of resource optimization translates into reduced licensing costs. Performance and application speed have also improved by eliminating workload spikes, identifying overworked machines, and redistributing resources.

"For the first three weeks of the PoV, we focused on collecting information. During the last week, we turned on the automation. Our plan is to use the automation 24/7, so we don't need three people watching and redistributing resources," says Frasquilho.

Now the IT team has the time to concentrate on planning, upgrades, and new infrastructure to support business development.

"Because of how intelligent the system is, Cisco Workload Optimization Manager saves our teams a lot of time, especially our IT people," says Frasquilho. "Automation means our '24/7' team doesn't have to work 24/7. Now that they aren't constantly putting out fires, we can put that talent to work thinking about the future."

IP Telecom has also extended Cisco Workload Optimization Manager capabilities to its private cloud environment with the goal of improving the customer experience and instilling greater confidence. There has already been a 10 to 15 percent reduction in tickets for customer questions

and complaints. The company also plans to use the solution for automatic client reporting and better transparency.

"With the parameters we laid out in the PoV, we learned a lot. We are excited to expand Cisco Workload Optimization Manager capabilities in a full production environment, which we plan will go live in the coming months. But based on what we've seen so far, we expect a significant return on investment in approximately a year and a half, as a result of software licensing efficiencies and improved hardware distribution," says Frasquilho.

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