

L3 Communications

Controlling Growth & Costs Through Careful IT Management

Rapid growth can be wonderful, but without careful controls it can be a double-edged sword. With their involvement in the Defense industry, and having grown by an average of almost a billion dollars in revenue each year for the past five years, L-3 Communications has a great appreciation of this.

“L-3 embraces the Department of Defense’s (DoD) five-year spending plan and corresponding efficiency and cost-reduction initiatives,” explains L-3 Chairman, President and Chief Executive Officer Michael T. Strianese in their 2010 Annual Report. “We are constantly working to deliver greater value to our customers, and our lean and efficient operations align with the DoD’s goals.”

For Lead Virtualization Architect David Snow, L-3’s growth also increased the demand upon his team to increase service levels while keeping costs under complete control, which is why he turned to VMTurbo to help increase the visibility of his virtualized environment allowing him to keep the growth of his infrastructure in strict step with the growth of operating requirements.

Snow’s division, L-3 Communication Systems-West, manages systems for about 4,000 users spread across several states. Split between production and development, Snow estimates that he has about 140 VMs running on 11 physical servers which run everything from SQL-based applications to Microsoft Exchange for the enterprise.

“The issue when I originally started looking for a solution was that although I could get information on any particular guest or any particular host I had no good mechanism to summarize across the environment. We are very conservative in our approach and we don’t overprovision anything. In fact we try to stay at only about 80% usage if we can help it. That’s my trigger to start getting more resources in place.”

You Can’t Manage What You Can’t Measure

“Where we are now we’ve got so many hosts, so many guests, and so many different areas that the requirement to actually look at that weekly and give back reports would take several hours to do manually,” explains David Snow. “On top of that we’ve got various subgroups, our DBA’s for instance, some of our developers, we’ve got our exchange admins, that need weekly report on how their resources are faring and how their machines are faring and although we can manually put that together the impact on my managers were a couple of hours a week just to create these reports. And so that’s what the impact was. I was trying to free up my managers to have time to actually manage the system rather than just doing Excel spreadsheet calculations to create reports for all these different groups every week.”

Snow implemented VMTurbo to solve this challenge and return more time to his management team for more productive pursuits than report generation. A holistic platform for proactive and automated management of workload and resources in virtualized data centers, the VMTurbo Virtualization Management Suite optimizes application performance and utilization by balancing workload demand across server and storage infrastructure. It identifies under-and over-utilized physical server and storage capacity and provides corrective actions by considering a broad set of metrics and constraints, such as CPU, memory, network I/O, storage I/O, IOPS, latency, CPU ready queues, ballooning, swapping, clusters, VLANs, LUNs, business policies, etc.

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CHALLENGES

- Rapid company growth required innovative information management strategies
- Lack of visibility across the server farm was inhibiting the effective use of virtualization
- Required reporting took many man-hours to produce manually
- Corporate commitment to cost-control required careful scaling of virtualized resources

CUSTOMER FEEDBACK

“Disk is key with virtualization. If you don’t have performing disks, then virtualization will fail. In order to guarantee high performance, some people want high speed disk for everything. While performance is very important, virtualization is supposed to give you a big cost differential, but you need lower cost disk to support that. VMTurbo is helping us balance between cost and performance. Ultimately, we don’t want anyone to notice that we have virtualized their application, except to say it is running better than before.”

David Snow, lead virtualization architect for L3 Communications

A VMTurbo CASE STUDY

On the decision to implement VMTurbo, Snow comments that “it didn’t take a lot of business justification because we already knew we were in a state where our resources are limited, our requirements are growing and so the only way that we can compensate for that is to automate, get tools to automate what a system or process system used to do manually and so by freeing up these couple of hours a week it was really easy to justify the cost of this. And so what I had to do was show that the time this would save us by looking at this plus the amount of information it could give me so we could be proactive in keeping the system going and healthy going into the future.”

VMTurbo Contributes to \$400,000 in Annual Savings

Snow estimates that L-3 Communications is saving in excess of \$400,000 per year thanks to their implementation of virtualization, and that VMTurbo is a major contributor to their ability to do that.

Working with VMTurbo

“It’s been fantastic,” exclaims David Snow. “I’ve been able to get issues taken care of very quickly. I’ve actually been able to get suggestions on ‘hey I wish it did this or I wish it did that’ and most times the next release does exactly what I asked for it to do. I’ve had very good response from the support team and the sales team. I know several of them by first name now.”

“I also like their approach to the analytics. It made sense to me their approach of applying economic models to physical resources.”

“For us, storage is key and so a lot of what I’ve done to this environment specifically looks at storage, a lot of my grouping that I’ve set up specifically deals with storage and going into it with that mindset has really helped to let me customize this in such a way that my views are where they should be. Also knowing what your limits are also has helped. For instance I’ve been able to go in and customize the levels in reports to show my 80% in the various items so that when I give my report I can compare where it is specifically to that 80% mark. We’ve over engineered this to the hilt so looking at disc as a whole disc doesn’t do much for me. I have to look at disc in chunks and I need to be able to do reports on that level as well. VMTurbo lets me do that.”

Cost-Containment Results Contribute to Controlling Growth

Thanks to the reporting and management David Snow and his team can exercise using the VMTurbo Virtualization Management Suite, their server investments are carefully planned to be made “just in time” to coincide with the increasing requirements imposed by their rapid growth. They don’t overprovision, and they are never underprovisioned. Users enjoy full availability while the enterprise enjoys strict budgetary control.

Maximize Your Virtualization & Cloud ROI today!

Please visit our website: www.vmturbo.com
or call us at (781) 373-3540.



SOLUTIONS

- Virtualization visibility across all applications, not just Exchange or SQL
- Assignment of different categories of data to different types of storage media based on need
- Careful cost and availability control of resource expansion by accurately measuring capacity utilization
- Automated report generation returns many man-hours to IT management team
- Over-and-under-utilized physical server and storage capacity identified and corrected
- Optimized application performance by balancing workload demand across server and storage infrastructure

RESULTS

- ✓ VMTurbo collects and monitors data across the virtual infrastructure, analyzes that data and makes recommendations for IT environment improvements
- ✓ Management is alerted when L-3 Communications’ virtual servers reach 80% utilization so action can be taken to restore them to 50% utilization keeping investments in lock-step with corporate computing requirements
- ✓ Tight cost-control is maintained by assigning applications appropriately to the lowest available cost storage resources and managing storage expansion closely

Free Trial

Try the Virtualization Management Suite free for 30 days!

**30
DAYS**