THE 6 CAPACITY PLANNING ESSENTIALS

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The Capacity Conundrum…

Ensuring the performance and availability of IT Services and applications is essential for high performing IT departments. At the end of the day, companies cannot run without the IT infrastructure they depend on and this makes Data Center Infrastructure Management (DCIM) essential for CIOs, Capacity Planners, IT Managers and Administrators alike. Forrester Research recently published a report that projects DCIM tools to grow by 60% through 2014. Why?

- Data Center capacity limitations are impacting service delivery growth;
- Businesses are increasingly reliant on their critical IT systems;
- Enterprises have complex heterogeneous infrastructures with both physical and virtual systems;
- Data center consolidation and virtualization is still accelerating;
- Increased capacity costs are problematic;
- Enterprises are experimenting with Cloud IaaS. Success/failure rate is 50/50.

There are many DCIM vendors on the market today, and they all seem to be preaching the same mantra of helping you "increase IT service performance." The problem with all the noise in the market is that it becomes difficult for customers to figure out which solutions meets their current and future needs.

Solve the Big Problems First…

To solve the big problems, IT Management needs to focus on capacity. Why? Because capacity can be your company's gold mine or its Titanic.

Most enterprises already have plenty of available capacity, yet continue to spend IT budget for more. Why? Simply because CIOs and capacity planners cannot get the critical capacity information they need across mixed vendor environments, including

multiple platforms and multiple datacenters. Most enterprises still have many servers running at 20% capacity or VMs running at 10%. This is a gross waste of budget and resources, when it should really be money in the bank.

Enterprises desperately need a capacity solution that provides complete capacity visibility, as a majority of CIOs don't know their current global capacity.

The real return for CIOs comes with **effective capacity planning.** Capacity planners could be the most unsung heroes of IT. With continually constrained budgets and ever more IT services to deliver, CIOs need more bang for their buck, including additional compute cycles, more I/O to the discs, and heavier traffic on their networks. To make this happen, CIOs and capacity planners must:

- ✓ Get accurate and granular capacity insight right down to the bare metal and service/application across the entire IT stack, with useable reports.
- ✓ Find underutilized capacity and put it back to work in the business.
- ✓ Slow down CapEx on new equipment until existing servers are operating at over 60% and VMs are at a minimum of 90%.
- ✓ Understand how moving applications to virtual clusters can deliver increased capacity and efficiency.
- ✓ Get a dashboard and reporting system that can monitor, measure and report on global capacity, ensuring it's always efficiently allocated.

If CIOs and capacity planners tackle these key areas, they can ensure that data center capacity is enabling the right amount of IT services to the business at the best cost.

Gartner terms this process Intelligent Capacity Planning (ICP) *DCIM: Going Beyond IT, Gartner Research,*

March 2010. ICP makes collecting and analyzing historical and real-time data from heterogeneous infrastructures possible, giving data center managers a common repository of information on resource utilization and performance. With the right tool, data center managers can optimize the performance, reliability and efficiency of the entire data center infrastructure. For any CIO or IT department with both physical and virtual infrastructure in a highly dynamic environment, this is going to mean the difference between the business viewing IT as a cost center and the business viewing IT as a strategic business weapon.

The Top 6 Capacity Essentials…

1. **Trust The Capacity Data** Where to start? Step one is having accurate capacity data. Good capacity planning and utilization decisions are driven, first and foremost, by having good data. If capacity data is unreliable or inconsistent, the integrity of your decision is compromised. In other words: garbage in, garbage out. Rock-solid data collection is essential. You cannot afford to have sporadic metrics and data collection. Once you have accurate data, capacity can be better aligned with business demand.

2. **Proactive Capacity Trending:** Capacity modeling is expensive and not always necessary. However, a clear picture of how capacity is trending is essential. It's important to see how capacity is trending over time and what the projected capacity needs are month to month (sliced easily across one or multiple platforms or one or multiple datacenters).

3. **Proactive Capacity Alerting.** IT operations must become aware of capacity problems before they snowball into a complete server or application failure. Capacity tools must include an alerting component that is as proactive as possible.

4. **Locate the Capacity Problem Source.** Understanding the problem location within the maze of components becomes a key feature that will expedite this very critical stage. This is where most time is wasted in capacity problem management, with dire consequences for user satisfaction and productivity.

5. **Analyze the Root Cause of the Capacity Problem.** A capacity management solution must provide a way to analyze the capacity issue for the root cause in the context of the initial alert. It must provide the specialist with the ability to perform a "deep dive" into the data, with granular metrics to better understand the issue, and propose a problem resolution.

6. **Have a Capacity and Performance Data Warehouse:** Choose a solution that provides complete collection of all capacity and performance metrics, giving your IT team the ability to both predict future capacity problems with trending features as well as 'time travel' back in time to perform deep dive forensics on capacity when problems do arise.

> **The 451 Research Group**
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> "In today's challenging economy and with IT budgets constrained, lower-cost but full-featured capacity management offerings like uptime's will continue to shine." - Dennis Callaghan, Analyst for The 451 Group.

About uptime software:

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Over 120,000 IT professionals and managers in mid-enterprise and enterprise companies across 40 countries have downloaded up.time to increase IT performance while consistently saving IT staff time and budget. To learn more about up.time and uptime software, please visit http://www.uptimesoftware.com

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