IDERA® | Uptime Infrastructure Monitor Whitepaper

THE UNIFIED IT DASHBOARD FOR ENTERPRISES

Complete Visibility and Control for a More Agile, Integrated and Proactive IT Department

IT management is faced with the daunting task of quickly turning complex data into accurate, actionable information, which in turn generates informed decisions that support the organization's overall business strategy. At the same time, IT management is responsible for ensuring high availability and performance of mission-critical applications, while continually working to prove the value of the IT department to the organization and not being seen as a cost center.

Unified IT dashboards are integrated views that collect and communicate key data in a clear manner. They monitor, measure and manage IT services and performance to help executives and managers make informed decisions that support the strategic objectives of their organizations. A unified IT dashboard is a single solution that provides the high-level views and reporting that IT management wants, while also offering the day-to-day and deep dive tools that IT administrators need to monitor performance, availability and capacity across all platforms, environments, servers, networks, applications and business services. problem proactively.

THE REAL WORLD CHALLENGES

Each day, IT managers are faced with the formidable task of effectively managing and optimizing a diverse and complex IT environment. They are under great pressure to deliver high-performance and high-availability of business-critical applications from e-mail, to Web, to on-demand applications – all essential to business competence. The new "hybrid" IT environment relies on physical, virtual and cloud resources to stay agile and cost effective, but mixed environment computing has clearly made IT more complex to monitor and manage.

This challenge is further exacerbated by systems performance data that is becoming increasingly unmanageable. As the number of an organization's servers, applications and networks grow, IT managers and administrators must find a way to convert metrics on server performance and IT service and application availability into effective business intelligence that drives good (and fast) IT decisions.

The reality is that IT services are becoming more closely linked to overall business objectives. Service Level Agreements (SLAs) are becoming the norm for most IT departments, in order to help them better communicate the value of IT to the business units. High performance and availability are essential to delivering and supporting the SLAs and business goals. However, transparent and easy-to-understand reporting is needed to show the value that IT brings. Consistent and clear Service Level Agreement reporting that links IT to business metrics is essential; otherwise even high-performing IT departments will have trouble showing their contributions.

What IT managers need is an accurate and well-organized view of systems performance, availability and capacity data that gives them the clarity and insight to make the best possible business decisions quickly and effectively. They need to see this information consolidated across all IT platforms and environments, and they need the subsequent reporting that can help them communicate the performance of IT to the business units.

At the highest level, IT executives and managers face the challenge of finding a better way to sync decision making with the objectives of the business units. The unified IT dashboard provides the key. This alignment of visibility and accountability between the business and IT has been labeled "The Discomfort Zone" by Gartner. Gartner continues to drive home IT and business integration by saying, "in an era of hyper-connected businesses, few enterprises will meet their strategic objectives without integrating business and IT strategic decision making."

COMMON PITFALLS

There are common mistakes that enterprises make when trying to deliver a unified IT dashboard. One such strategy is the integration of multiple, separate monitoring tools (server, application, network, database, etc.), in the hope that the result will act as unified IT dashboard. It's important to understand that multiple point tools (and even modules from a framework or suite) are not a unified IT dashboard/platform. These cobbled-together solutions can't offer the same benefits as a unified dashboard; including making IT more proactive, decreasing Mean-Time-To-Repair and producing high level views and capabilities (SLA monitoring and reporting). A unified IT dashboard is a single tool that works across platforms and environments to encompass the high-level and deep dive monitoring, alerting and reporting needed by the many roles in the IT department.

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HOW THE UNIFIED IT DASHBOARD ALIGNS THE ORGANIZATION

A unified IT dashboard is also referred to as the enterprise 'Single Pane of Glass' view. Over the last several years, the IT dashboard has evolved as a replacement for traditional, static, preformatted reporting. The key to its value lies in the real-time, customizable dashboards that can display role-based critical metrics in an intuitive, interactive, user-friendly format. IT managers can see the high-level views that they need (SLAs, availability, etc.), while administrators have the dashboards, heat maps and deep dive tools to quickly and proactively find and fix potential problems.

A unified IT dashboard should measure and monitor such factors as Service Level Agreements, IT service health, application availability, server performance, network performance and total resource capacity, while offering multiple hierarchical views to choose from. Views should include high-level management dashboards and performance and availability "snapshots," as well as detailed, drill-down metrics for fast trouble shooting and root cause analysis. Each role in the IT department should have access to their own dashboard, critical metrics and reports, all pulled from the same IT data warehouse (the powerful engine behind the unified IT dashboard).

This ensures that teams are working from the same set of data, ending common IT 'blame game and finger pointing' problems that traditionally plague IT groups. Dashboards also need to provide alerts into performance, availability and capacity issues across the entire IT service and application delivery process, including all the servers, services and networks that make up the delivery of an application. Without a single dashboard to monitor this process, performance problems and outages can take too long to recover from, as managers run between IT silos and administrators comb through multiple separate point tools to find the problem.

The only way to enable fast proactive and reactive response and resolution is to monitor the entire IT environment with an integrated toolset, one that rolls up into a unified dashboard.

At a glance, IT managers need to gain key information about what is really going on across the enterprise. At the same time, IT administrators need deep dive tools to monitor, alert and report across all IT platforms (which includes Windows, Linux, UNIX, VMware, etc.) and environments (physical, virtual, cloud) in order to react immediately and decisively. A unified IT dashboard should satisfy this need, with the net result being happier end-users and a highly valued IT department.

According to Gartner, providing the right IT information to the right roles at the right time is essential for a successful IT department. Identifying the objectives and metrics through Gartner's simple methodology for action is a good first step. Make each metric "SMART": Specific, Measurable, Action-oriented, Relevant, and Timely.

Unified IT dashboards drive informed decisions that not only improve IT processes but impact the organization as a whole. The net result is fast problem resolution and happy end users.

5 CRITICAL REASONS A UNIFIED IT DASHBOARD IS ESSENTIAL

Simply put, the unified IT dashboard can deliver tremendous strategic value in five critical ways to the IT department, the business and its end-users. This ensures better IT service/application availability, optimized enterprise server capacity and a proactive IT system health strategy.

1. Easier Service Level Agreement Management

Research has shown that while many companies want to leverage the value of SLA management and reporting, too many are running into complex requirements, long timelines to deploy, confusing reporting and escalating costs. It's important to find a solution that includes the dashboards and reports that both IT and the business want, but is within budget and has a fast time-to-value with a short deployment cycle.

The business units aren't worried about servers or network issues; they care about mission-critical services and applications like Email, Payroll, CRM, etc. Unified dashboards should provide high level IT views across applications and services for performance, availability and SLA management. At the same time, the dashboard solution should help map business needs to IT infrastructure and provide integrated, deep dive tools to spot and fix server, network or application issues before they negatively affect the SLA. With this type of solution, IT can generate simple and easy to understand reports and graphs that the business understands.

A unified dashboard should also provide additional capabilities, such as proactive "what-if" SLA modeling based on historical data, to help remove the risk of setting overly ambitious SLAs. Proactive SLA management also requires intelligent SLA alerting that notifies IT when an SLA is trending to miss its target.

As noted in the previous section on "Common Pitfalls," proper SLA monitoring and management is nearly impossible when using multiple point tools for monitoring. The differing metrics and complex integration often leads to inaccurate data and reporting and as soon as IT is seen as having inaccurate SLA reports, all credibility is lost.

An SLA Example: Trying to integrate multiple monitoring tools and their disparate and differing data into an SLA solution can be riddled with problems. An SLA solution must be an integrated part of the IT monitoring platform in order to have accurate data. A unified dashboard should include SLA monitoring and reporting capabilities that have access to all metric performance data, across the necessary components of a service or application, including the servers (physical, virtual and cloud), the network and all other underlying elements. Historical performance data from the unified IT dashboard should be used for predicting how an SLA will perform before it is agreed to. Why is this important? It shows how a potential SLA will act based on historical data. This helps remove the risk associated with setting IT SLAs, as historic modeling ensures that IT won't over-commit and sign an SLA of 99.5% uptime, if it has only achieved 95% uptime over the last 6 months. Once the SLA is set, the unified dashboard measures historical and current performance against goals and Service Level Agreement (SLA) metrics. With this information, IT managers can quickly identify "gaps" and proactively take the appropriate measures to ensure the objective or SLA is continually met or exceeded.

2. Assuring IT Service/Application Availability

As IT becomes more user facing, mission-critical application and service downtime will not be tolerated. Continuous availability is simply now the standard in IT management. To keep systems up and running, IT must have a clear, consolidated, big-picture view of the enterprise and all of its parts. Many companies have tried to tackle this challenge by using multiple point tools or modules. For a single silo, a point tool may make sense. However, this strategy simply doesn't work when applied across the multiple IT silos and groups that make up IT service delivery (server, network, application, etc.). In a typical IT department with multiple monitoring tools, an incident or call to the service desk requires the IT manager to have each IT group run their separate tools to see if the problem is related to their area. The result is IT "blame game," as each group points the finger at another group. With many different tools, measuring with different metrics, the IT manager is stuck wondering which tool or group has the "right" data? Not only is this frustrating and time consuming, but it also interrupts the IT staff who aren't the cause of the problem. In the end, critical time is wasted identifying where the problem resides and who needs to fix it, before any resolution action can happen. In addition, budget and staff time are constantly wasted purchasing, installing, configuring and maintaining all these tools. Perhaps the biggest downfall of using multiple tools or modules is the lack of integration. Duct-tapping multiple tools together isn't a unified dashboard. It won't provide management and IT users with the accurate and all-encompassing "Single Pain of Glass' view of IT they need.

A unified IT dashboard provides this real-time, service outage data and offers a fast, accurate and comprehensible way for the entire IT department to "see the whole picture," get to the root cause of an availability or resource problem, and help resolve issues quickly.

The unified IT dashboard can also serve to improve the perception of IT across the enterprise. The ability to provide critical information and reporting across the business in a transparent and accountable manner will build trust and confidence. This, in turn, leads to an IT department that is highly valued by the business units.

3. Combining the Physical, Virtual and Cloud Worlds

Today, almost every company has a mixture of physical and virtual infrastructure, with more and more companies also starting to add cloud resources as well. This new "hybrid" datacenter offers some great benefits—and some jaw dropping complexities. Will companies be able to cope with such a dynamically growing and changing environment (from a monitoring perspective) and maximize the full cost savings and productivity gains of virtualization and cloud? Do you have the management, monitoring and processes in place to cope with this trend?

IT Directors, IT Managers, and System Administrators need unified dashboards that include virtual and cloud infrastructures, applications and services as a natural part of IT delivery. In reality, business users don't care if an application is on a physical server, a virtualized one or in the cloud; it just needs to work. A unified IT dashboard should monitor, measure and report on the entire IT service delivery process, regardless of vendor, platform or environment. In addition, these new dynamic environments can change rapidly, so the monitoring and management platform needs to keep up. A unified dashboard, and its integrated tools, should be quickly deployable across the IT environment (even complex ones) and should automatically find newly added resources (like VMs) and attach the appropriate monitoring and alerting to them. That way, the entire IT environment is always fully represented in the dashboard and the manual monitoring tasks of adding and removing systems to and from the monitoring platform is removed.

With this simple fact in mind, unified IT dashboards need to incorporate the virtual environments from VMware, Microsoft and others, as well as UNIX platforms (like AIX LPARs and Solaris Zones) as part of an enterprise "Single Pane of Glass" view. Dashboards that don't help IT Managers plan, manage and monitor their virtual infrastructure in concert with the physical and cloud environment will continue to cause headaches, as the hybrid datacenter grows at such a rapid pace.

4. Optimizing Enterprise Server Capacity

IT managers and administrators need a way to quickly determine capacity and identify resource trends to make accurate capacity management decisions. Put simply, IT needs to answer these three questions:

1. How much capacity do I currently have?
2. How much capacity am I currently using?
3. When will I run into capacity problems or outages?

These are straightforward questions, but tough to answer when aggregating capacity information across various platforms and environments.

The unified IT dashboard should tackle this capacity management challenge easily. It should consist of high-level capacity dashboards that give snapshot views of current capacity, as well as historical capacity. It should include clear, consolidated and integrated capacity reporting, whether broken down by server, business unit, application requirement or even global capacity across all Windows, UNIX and VMware platforms in multiple datacenters. The unified dashboard should alert when capacity thresholds are being breached and act as an early warning system before outages occur. Additional capabilities should also include dynamic capacity management, which is the ability to automatically spin-up extra capacity when needed and then decommission that capacity as the workloads return to normal.

The unified IT dashboard should offer quick and intuitive views on critical enterprise server resources such as CPU, Memory, I/O, and storage capacity on both a real-time and historical basis. Gone are the days of historical performance data being limited to last week or last month. Dashboards should store complete historical performance data that spans many months and even years, allowing more accurate trending of capacity for better capacity-oriented decisions.

This simplified “enterprise capacity view” helps management identify trends and forecast infrastructure requirements – critical to evaluating future needs and justifying future resource budget requests.

The unified IT dashboard should identify opportunities for server consolidation and virtualization. This can help reduce costs dramatically and improve the management of existing resources. *In some cases, a dashboard should identify and flag servers that are ideal candidates for virtualization,* then continue to watch over, monitor and report on the virtual instances once the consolidation is complete.

A Banking Institution (Virtualization): An IT manager in a large investment bank was virtualizing onto VMware, but needed to know which remaining physical servers were the best candidates. With one simple report, the IT dashboard pinpointed and flagged servers across the infrastructure that were prime candidates for consolidation. This saved hours of manual work isolating and qualifying potential servers, and then the IT dashboard automatically attached the appropriate monitors, alerts, and reports on the entire new virtual infrastructure. No manual staff time required.

A Telco Company (Historical Capacity): A global telecommunication company’s call center wanted to increase the volume of calls it could handle per minute. However, there were concerns about how the infrastructure would handle this increased demand. The unified IT dashboard provided historical and current data on the systems and resources used by the call center, allowing the IT managers to take a more proactive approach to planning for call center capacity. The IT managers were then empowered to make recommendations about potential capacity issues and how to solve them via proactive trouble-shooting and adding more capacity. The net result was high levels of performance and availability during an increase of call volume. Finally, automated monthly availability/IT Service reports were scheduled and sent to the Call Center Manager and Executive team, communicating the value of the IT investments.

5. Creating a Proactive IT System Health Strategy

As is the case with human healthcare, prevention and early problem detection can save time, money and pain. A proactive IT system health strategy empowers IT to drive decisions based on a proactive, rather than reactive, model. The unified IT dashboard provides information needed to implement this type of strategy. IT managers can get instant overviews of higher-level business metrics, while the administrators use deeper, low-level metrics to proactively head off problems before they happen. This easy-to-find information gives managers and administrators the insight to prevent serious outages now and in the future.

A key starting point for a proactive IT health strategy is a base-lining of the IT infrastructure — an important first step in being able to identify out-of-scope behavior to prevent future problems.

A Financial Institution (Proactive Monitoring): An IT manager in a large US bank saw a branch was breaching a critical threshold, which was highlighted in yellow on their customized World Map IT dashboard. Within minutes (and before the IT service desk had even been notified), an IT administrator was able to drill down through the dashboard, perform an analysis of the root-cause and determine the issue. In less than five minutes, the problem server was recovered and the dashboard map icon for the branch changed from yellow to green. Armed with this information and the unified dashboard, the administrator proactively checked similar servers across all branches, to investigate if other servers might be in a similar predicament.

A Web Retailer Example (End-user Experience Monitoring): A Web-based retail operation was experiencing slow response times, as highlighted on the unified IT dashboard via end-user experience monitoring. The unified IT dashboard alerted IT of the problem and helped IT quickly pinpoint and rectify a capacity issue in minutes, before it escalated into a major outage and crashed shopping carts.

In All Cases: A Unified IT Dashboard = Strategic Decisions

In all five areas, a unified IT dashboard makes it possible for CIOs, Directors of IT, IT managers and IT staff to have a real-time, accurate, global overview of the enterprise. This is critical to understand problems and opportunities across the entire IT environment. It enables IT managers to budget smartly, plan resources more proactively and make more intelligent management decisions. It provides IT staff with a single view of IT, across all silos, platforms and environments, that makes finding and fixing problems fast and enforces a proactive and team-based (not a finger pointing) approach to IT.

FROM A UNIFIED DASHBOARD TO ACTIONABLE BUSINESS DECISIONS

To leverage valuable IT dashboard information, enterprises should have policies to ensure that insights gained from the dashboard lead to actionable measures and, ultimately, improved IT availability and performance. To put such processes in place, the IT manager might use the Information Technology Infrastructure Library (ITIL) framework of best practices for delivering high-quality IT services. These vendor-neutral management procedures provide support for quality, value and guidance on IT infrastructure, development and operations.

Used strategically, a unified IT dashboard can underscore the business value of IT, create a proactive IT environment, remove the need for multiple tools, help manage IT risk and change, and identify opportunities for continuous improvement. The key is to develop a way to communicate these results vertically and horizontally within the organization and map your critical focus areas with overall business objectives. This strategy creates a highly valued IT department that is seen as much more than a cost center.

SUMMARY

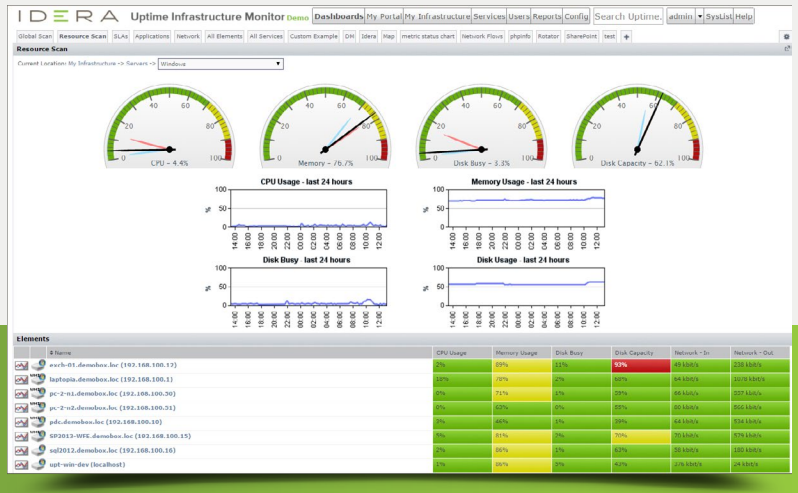
The demand for high performance and high availability of business-critical applications is fast becoming a cornerstone of business competence. Properly used, a unified IT dashboard can effectively track and communicate performance, availability and capacity across the datacenter (including all servers, applications, network and IT services) at both a high, strategic level, and a granular level, providing a mechanism for clarity, insight, and better decision making on important IT-driven business issues.

There are key reasons why a unified IT dashboard is essential in an IT operation: managing and monitoring Service Level Agreements; moving from multiple monitoring tools to a unified solution; the assurance of IT service/application availability; combining the physical, virtual and cloud worlds; optimal IT capacity management; and the benefits of a proactive system health strategy. In these key areas, dashboards can be highly effective in turning complex data into accurate, actionable information that helps IT management make informed decisions quickly and proactively, manage IT change, ensure high availability, and support continuous improvement and strategic objectives across the enterprise. Monitoring has never been more critical.

The effective monitoring of IT and all of its parts is essential to ensure your business and its applications are running. If you're responsible for the performance, availability and capacity of the datacenter, your job is tough and getting more complex every day.

FREE IT DASHBOARD CHECKLIST & CALCULATOR:

If you are considering evaluating unified IT dashboard solutions, this is an excellent way to start. It's designed to be vendor agnostic and customizable to help you compare different products. A free download is available here:



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