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SOLUTION OVERVIEW

# EMC Ionix for IT Operations Intelligence

## The Big Picture

- Automates root-cause analysis and business-impact assessment without involving senior technical staff
- Extends root-cause analysis capabilities to include VMware environments
- Monitors and manages availability and performance across physical and virtual environments from a single console
- Unifies management of advanced networking environments used to deliver next-generation network services

EMC® Ionix™ for IT Operations Intelligence (formerly EMC Smarts®) automates service and infrastructure monitoring, analysis, and reporting across physical and virtual environments. When issues arise, automated, model-based analytics allow you to put the right person on the right problem right away. That gives you the ability to restore impacted services and business processes faster than ever before, while increasing operational efficiency. You can then easily understand the business impact of IT problems, unify and consolidate monitoring and management, extend root-cause analysis to VMware® environments, and lower IT monitoring costs by as much as 70 percent.

## Improve efficiency, do more with less, and increase service levels

Businesses and organizations continue to face financial pressures. Top management has tasked IT operations with making cost reduction a top priority. However, as an IT leader, you also need to focus on maintaining and improving service levels—and deliver more value to the business—using flat (or reduced) budgets. In short, you have to improve efficiency and do more with less by:

- Automating common, repetitive, complex, and time-consuming IT tasks
- Improving utilization of existing IT assets and applying virtualization technologies such as VMware
- Leveraging proven IT service management frameworks such as ITIL
- Ensuring IT tools complement and support your frameworks and enable your processes
- Reasserting control over a rapidly changing, increasingly complex IT environment

Your operations center is the front line for monitoring and managing service levels. Its ability to effectively monitor and manage the IT environment—and proactively identify and quickly respond to problems—significantly impacts the quality of service your customers experience, as well as the costs related to delivering and maintaining those services. The mission-critical importance of business applications and services also means that the rigid lines that used to exist between performance and availability monitoring and management are no longer there. These trends—along with the increasing size, complexity, and technology diversity in today's data centers—demand a new IT approach that shifts the burden of monitoring and management away from people and manual processes and into automated analytical systems.

## EMC Ionix for IT Operations Intelligence

EMC Ionix for IT Operations Intelligence takes a three-pronged approach to helping your operations team improve its efficiency—which is critical for reducing ongoing costs and maintaining and improving service levels. This approach includes:

- Simplifying IT monitoring and analysis so you can quickly isolate and assess the impact of a failure or change that disrupts service levels
- Addressing performance and availability holistically using a unified management approach
- Enhancing visibility into virtualized data centers by extending performance and availability management capabilities to include VMware environments

**EMC Ionix products enable IT operations Intelligence**

**Core network monitoring**
- EMC Ionix Service Assurance Manager
- EMC Ionix IP Availability Manager

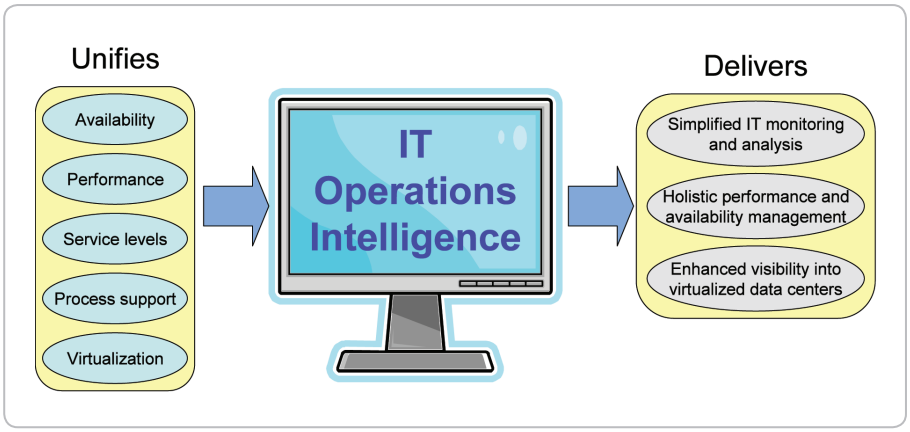
**Advanced networking environments**
- EMC Ionix Network Protocol Manager
- EMC Ionix VoIP Availability Manager
- EMC Ionix MPLS Manager
- EMC Ionix Multicast Manager
- EMC Ionix IPv6 Availability Manager
- EMC Ionix Discovery Manager

**Storage**
- EMC Ionix Storage Insight for Availability

**Performance**
- EMC Ionix IP Performance Manager
- EMC Ionix IT Performance Reporter
- EMC Ionix Server Performance Manager
- EMC Ionix VoIP Performance Manager
- EMC Ionix VoIP Performance Reporter

**Business impact**
- EMC Ionix Business Dashboard
- EMC Ionix Business Impact Manager

**Specialty operational environments**
- EMC Ionix Application Connectivity Manager
- EMC Ionix Notification Manager
- EMC Ionix Server Manager




## Simplified IT monitoring and analysis

Delivered through model-based, root-cause analysis and business-impact assessment capabilities, EMC Ionix for IT Operations Intelligence simplifies IT monitoring and analysis to span and unify management of networks, servers, and storage systems. The largest time component of solving any IT problem is identifying its root cause. For most IT operations teams, that usually takes hours longer than it needs to. EMC Ionix for IT Operations Intelligence automates critical triage processes, enabling you to unload the burden of manual incident and problem management off of the shoulders of your highest-skilled, best-trained IT personnel. EMC Ionix for IT Operations Intelligence allows you to put the right person on the right problem right away, which improves operational efficiency and effectiveness. You can instantly and automatically identify impacted services, which allows you to proactively notify users and key business stakeholders when problems occur.

In addition, the model-based architecture scales to meet the requirements of the largest data centers or managed service environments and supports a range of heterogeneous IT environments. And by eliminating the time- and resource-intensive rules writing required with other IT management offerings, ongoing operational costs are reduced, and ROI is accelerated.

## Extending the value of simplified monitoring and analysis

An open architecture and a stable of strong solutions integrations make it easy to extend the value of the simplified IT monitoring and analysis provided by EMC Ionix for IT Operations Intelligence. Two examples of this are contextual-based change management and unifying management of advanced networks.

### Managing change in the right context

Although their numbers differ slightly, all the major IT analyst firms concur that the overwhelming majority of service-impacting events—as many as 80 percent of them—result from changes made to the infrastructure. That staggering figure means that an IT monitoring and management system that integrates with change management systems offers an easy way to enhance efficiency, increase availability, and improve service levels—while also addressing ongoing change management challenges.

With EMC's simplified IT monitoring and analysis, you have the ability—with a single mouse click—to manage fault and change events in an integrated manner, from one console. You can select a monitored event and determine if any changes were associated with that event. If so, you can then—with just one more click—launch EMC Ionix Network Configuration Manager or EMC Ionix Server Configuration Manager to examine the details of the change. If necessary to restore service, you can roll back the previous change or execute a new change.

### Unifying advanced networking environments

Deploying advanced networking technologies, such as MPLS and Multicast, can help your organization create new sources of competitive advantage, especially in large-scale environments (such as service provider networks). However, the benefits of advanced network technologies will be tempered if these parts of your network have to be managed separately and you lack the ability to associate these advanced networks with the services being delivered over them.

You need visibility into the network as a whole—IP networks as well as any advanced network domains—while also being able to create specific views that align to the needs of operations staff members, who may have responsibility for regional or local geographic areas or a specific network or application technology. Management of service delivery and the end-user experience depends on how effectively you can manage each of the underlying applications and network layers—and their relationships and dependencies—and form an end-to-end view of the entire delivery architecture in terms of the services being provided (and not just the technologies used).

The cross-domain correlation and automated analysis delivered through EMC Ionix for IT Operations Intelligence easily unifies management across IP and advanced networking environments, scales to the largest network environments, and eliminates the largely meaningless sympathetic alarms that otherwise flood an operations center. Operators get a unified view of the entire network—not just domain-specific slices of it—and gain visibility to the root-cause problem and the impact in terms of what is affected (such as services, geographies, users, customers, or a combination thereof).

## Holistically manage availability and performance

The results of an Aberdeen Group report, "Application Performance Management: The Lifecycle Approach Brings IT and Business Together" (June 2008), highlight the serious consequences that poor application performance can have. More than 50 percent of organizations reported lost revenue, and 32 percent reported brand-reputation damage due to poor application performance. Without the ability to easily recognize performance abnormalities and isolate their root causes, these usually end up hindering business operations, decreasing IT efficiency, and increasing costs.

EMC's holistic IT management approach offers integrated solutions that enable you to monitor and manage—in an integrated manner—availability and performance from one console. For example, for the management-challenging environment that is VoIP, EMC Ionix provides a unified and integrated suite of VoIP-related management solutions addressing availability, performance, and reporting.

Availability management comes from the aforementioned model-based, root-cause analysis and business-impact assessment capabilities. Performance management has two components—performance reporting and application performance monitoring.

EMC Ionix for IT Operations Intelligence provides the end-to-end visibility you need into the performance of your business-critical applications. Through its integration, you can proactively monitor mission-critical applications from one unified management console that allows you to identify performance issues and assess their business impact before end users notice there is a problem.

Integrating availability and performance monitoring, management, and reporting enables you to improve service levels and increase efficiency by proactively identifying performance problems from the same console that you use to manage availability. You also increase efficiency and reduce costs by minimizing the time spent isolating performance problems. With a better understanding of peak load requirements and resource usage, you can more easily optimize resource utilization.

## Enhance visibility into virtualized data centers

Use of VMware can dramatically improve server utilization, operational efficiency, and business flexibility. However, the speed at which virtual machines can be added, deleted, and moved across the shared resource pool introduces new management challenges, including reduced visibility into service delivery, availability, and performance. You need a management solution that builds on VMware capabilities and provides the visibility and insight you need.

Working in concert with EMC's model-based management solution and VMware's vCenter, EMC Ionix Server Manager (formerly EMC Smarts Server Manager) automates root-cause analysis and impact assessment across the physical and virtual infrastructure. By automatically discovering VMware ESX Servers, mapping their relationships to virtual machines and the rest of the infrastructure, and continuously monitoring their availability and performance, Server Manager helps you improve IT service delivery, simplify virtual management complexities, holistically manage virtualized infrastructures across domains, and increase both IT service availability and IT operations efficiency.

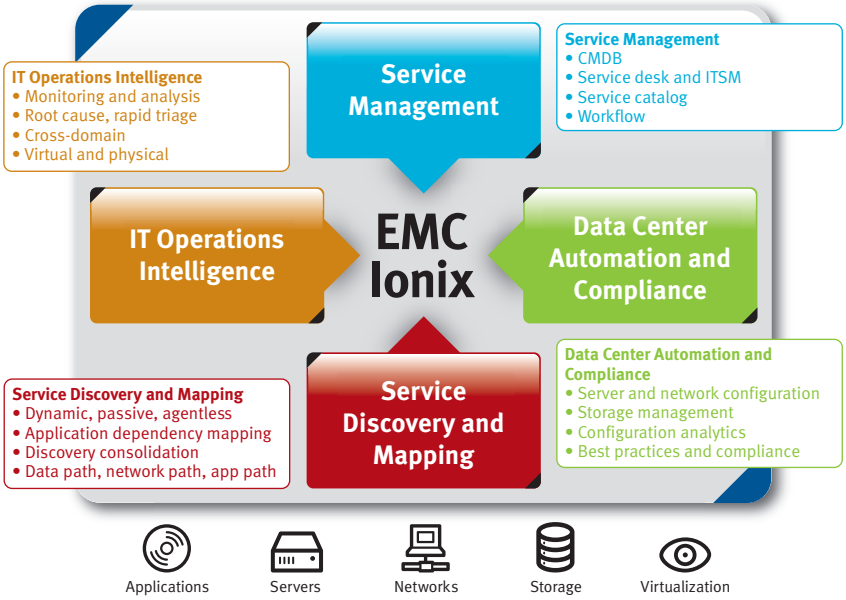
## Summary

Ionix for IT Operations Intelligence enables you to:

- Simplify IT monitoring and problem analysis
- Address performance and availability holistically
- Enhance visibility into the virtualized data center

These capabilities improve resource utilization, automate IT tasks, and complement and support processes and frameworks across physical and virtual environments. They help you reassert control over your rapidly changing and increasingly complex IT environment. And they help you dramatically increase IT efficiency, which is the foundation for reducing costs, improving service levels, and thriving when you have been challenged to do more with less.

## About EMC Ionix




EMC Ionix is EMC's family of next-generation, IT management solutions. Unlike existing management tools, EMC Ionix was built with virtualization and the next-generation data center in mind and leverages EMC's expertise across the data center. EMC Ionix solutions enable you to efficiently and effectively manage the full virtual and physical data center ecosystem across networks, storage systems, servers, and applications, as well as the IT services that rely on these infrastructure elements. With Ionix solutions working for you, you can solve today's management challenges, meet increasing service-level requirements, deploy virtual data centers faster, and be confident that you're completely enabled for your journey from physical IT, to virtual IT, to cloud computing.

Stretching across four solution categories, the EMC Ionix next generation of IT management solutions enhance EMC's position as a leading provider for virtualized data centers. It complements and extends VMware vCenter, helping you operationally manage beyond VMware to the broader, end-to-end data center of today, as well as the cloud environment of tomorrow.

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**Take the next step**

To learn more about how EMC Ionix management solutions can positively impact your business and IT operations, contact your local EMC sales representative, or visit our website at www.EMC.com/Ionix.


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