Map, Monitor, and Manage Distributed Applications in System Center 2012
The Challenge: Managing Distributed Applications in System Center 2012

System Center 2012 gives IT Operations managers the ability to manage everything about their infrastructure in one place. BlueStripe’s FactFinder provides automatic distributed application discovery, mapping, and response time monitoring. Together, BlueStripe + System Center provide the ability to manage both the infrastructure and the distributed applications that businesses depend on.

Introducing Complete Distributed Application Management for System Center 2012

Within today’s complex datacenter and cloud environments, how do IT Teams know which servers each distributed application relies on? How do they find the source of performance problems in complex, multi-tier applications? How do they make the move from monitoring hardware to managing the performance of business services?

Microsoft partnered with BlueStripe to provide a joint solution. BlueStripe integrated its FactFinder end-to-end transaction monitoring tool with System Center 2012. As a result, System Center users get complete, multi-tier application management. The integrated BlueStripe + System Center solution delivers several key benefits:

- Provides automatic creation and update of Distributed Application maps (Views) for Operations Manager
- Extends System Center to cross-system (non-Windows) and hybrid (cloud + datacenter) distributed applications
- Elevates System Center from infrastructure management to complete application management

The BlueStripe + System Center solution combines dynamic application topology maps and application context with System Center data and functionality. BlueStripe’s dynamic application topology maps show users...
which infrastructure components make up each distributed application. This application context extends the performance, configuration, and control features in Operations Manager from individual servers to the complete distributed application. The joint solution allows IT Operations team to:

- Map, monitor, and manage distributed applications in Operations Manager
- Escalate or remediate application service level performance problems with Orchestrator, and
- Determine the impact of changes to applications in Service Manager

BlueStripe + System Center helps IT Operations teams to use System Center’s infrastructure management capabilities to greatly expand their ability to deliver business services.

**Dynamic Distributed Application Maps — The Key to Application Context**

With dynamic Distributed Application maps in Operations Manager, System Center users can always see which applications are impacted by infrastructure performance issues. This application context — the ability to see how the infrastructure components that support an application impact that application’s service levels — lets System Center users elevate monitoring to the service delivery level, greatly enhancing the value for IT Operations teams.

Dynamic Application Maps are useful for more than just Operations Manager users. In addition to Operations Manager, the same application topology maps (and the application context that they provide) enhance the value of Service Manager and Orchestrator. For Service Manager users, adding application context into the System Center CMDB can greatly enhance the understanding of how systems are being used. Orchestrator users can move from alerting on infrastructure performance metrics to prioritizing alerts based on performance impact on specific Distributed Application service levels.

**Automatic Remediation of Service Level Problems in Orchestrator**

Problem remediation is a powerful use case for System Center Orchestrator. With the application context that FactFinder adds to System Center, users can now generate automated workflows that prioritize alerts based on the impact on specific applications and application service levels.

Companies often have thousands of alerts covering all the servers that they monitor, leaving IT Operations teams to sort through those alerts manually. With the addition of application context and service-level monitoring, Orchestrator alerts can be prioritized solely on how infrastructure impacts application service levels.

For example, at any given time there might be several alerts in the system announcing different component performance issues with databases. But what IT Operations teams really need to know is whether a specific database is impacting the service level delivery of a business service. Service-level alerting with Orchestrator means that instead of generating multiple alerts about different infrastructure performance metrics, priority can be directed to the underperforming database that is impacting overall business service delivery. With the application context provided by FactFinder’s maps and alerts, Orchestrator becomes the first line of defense for application incidents.
Live CMDB Population and Updates in Service Manager

With FactFinder, Service Manager users can automate the work of documenting the servers and infrastructure a business service uses. Instead of assigning the manual process of creating and maintaining the Service Manager Configuration Management Database (CMDB) to staff, FactFinder can populate and update the CMDB automatically.

With an accurate CMDB, IT professionals working on an application trouble ticket or planning a change can see which applications are involved, and by extension which application owners need to be informed of changes. Even better, IT teams can always rely on the information being current.

How BlueStripe's FactFinder Works With System Center

BlueStripe's FactFinder automatically discovers and maps the topology of distributed applications. FactFinder identifies all the servers and infrastructure components that make up the distributed application. It tracks any application, whether it runs in the cloud, the datacenter, or a hybrid of both.

FactFinder discovers all links between application processes — even ones IT teams didn’t know about. Then, FactFinder automatically syncs this data with Operations Manager to provide Distributed Application views that always show the structure of real world business systems. Just like Distributed Application Views that are built by hand, these maps feature health roll-ups for each component from installed Management Packs.

FactFinder doesn’t stop with discovering and mapping the Windows components of an application. It also discovers all Linux, Solaris, AIX, and mainframe components, and even finds application dependencies on remote, third-party services. When FactFinder adds Distributed Applications to Operations Manager, it includes these components, even for platforms Operations Manager does not support natively.

![FactFinder Integration Architecture](image)

*Figure 2: The architecture of the integration between BlueStripe FactFinder and Microsoft System Center Operations Manager.*
Conclusion

With BlueStripe FactFinder and Microsoft System Center 2012 together, IT Operations teams get end-to-end distributed application and infrastructure management. In one view, they can track both their infrastructure and the business services that the infrastructure supports. By adding application context— the ability to see which distributed application each infrastructure component supports - IT Operations teams can move from managing infrastructure to managing the delivery of business services.