



**Brochure**

IT Operations Management

# Full-Stack AIOps: Operations Bridge Integrations

Gain Complete Visibility and Control of Your Entire IT Environment  
with Tool and Technology Integrations for Operations Bridge

## An End-to-End View of the Entire IT Environment Is Essential for Efficient Operations

If you manage IT operations, you need to respond faster to business requests and deliver zero downtime. Meanwhile, modern businesses of all types now rely entirely on IT to support and enable business activities. Downtime translates directly to lost revenue, lost productivity, and more pressure on IT.

IT operations must understand what’s happening in the entire IT environment as it happens. With an ever-expanding IT landscape and increasing complexity, managing IT in siloed domains is no longer an option. You need a holistic view of the entire estate, and you need help managing it.

That’s Micro Focus Operations Bridge—a **Full-Stack AIOps** solution with automated discovery, monitoring, and remediation. To achieve domain agnostic AIOps, you need to capture data from all your domains; we’ll show you how Operations Bridge does that.

New tools and technologies are released every day, bringing more significant risks of fragmented visibility, poor integration, and negative impacts on business services. A dynamic, real-time, end-to-end view of the entire IT estate is more critical than ever. How can IT manage operations if it can’t see what is happening as it happens?

That’s why Operations Bridge is more necessary now than ever because its core focus is pulling the information from your entire IT estate and delivering the pertinent information directly to the right stakeholders at the right time.

What allows Operations Bridge to do this? Integrations with many tools and technologies. It has the broadest technology coverage of any competing product—a real single pane of glass. No rip and replace required.

## True End-to-End Visibility

### Operations Bridge Integrations Provide Deep Insights—from Infrastructure to Applications—in a Single Console

We have three different ways to integrate data from various technologies into Operations Bridge: operations connectors, domain-specific management packs, and specific cross-domain processes. These integrations pull critical data from cloud infrastructure, containers, databases, applications, middleware, third-party monitoring tools, and much more into Operations Bridge Manager (OBM) for processing and visualization.

**Operations Connectors** receive data from many third-party tools and technologies. Where appropriate, OBM passes information back to the originating source.

**Management Packs** provide domain-specific collections, monitoring, and visualizations.

Specific **cross-domain processes** integrate with tools such as service desks where status and incident annotations need to be synchronized.

Most Operations Bridge to other Micro Focus product integrations are built-in, no add-ons necessary.

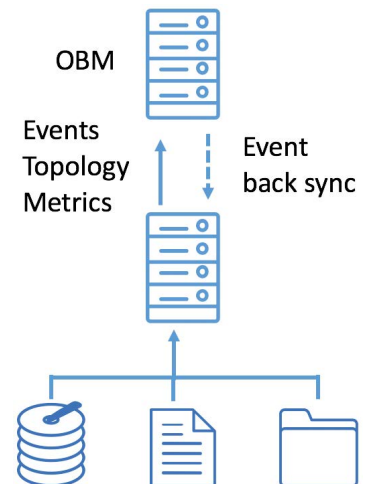
Lastly, you have the flexibility to create or tailor any integration to fit their specific needs by using the [Management Pack Development Kit](#) and the [Operations Connector SDK](#).

## Manager of Managers

### Operations Connectors and Integrations Enhance Your Existing Monitoring Investments

Operations Bridge consolidates and automates IT monitoring across domains and third-party tools for comprehensive coverage and protects and enhances existing monitoring investments. Incorporate everything from events and metrics to topology and more more to create a single view of your IT estate.

Micro Focus and third-party integrations enable you to leverage additional domain management tools with greater sophistication. No rip-and-replace is necessary.



**Figure 1.** All events, metrics, and topology flow from Micro Focus and third-party tools to Operations Bridge Manager (OBM), giving you complete visibility. In many cases, events are synchronized from OBM back to the source system.

Micro Focus Premium	Micro Focus Standard	Community
<ul style="list-style-type: none"> <li>■ <a href="#">AppDynamics</a></li> <li>■ <a href="#">BMC Helix and Remedy</a></li> <li>■ <a href="#">BMC TrueSight OM</a></li> <li>■ <a href="#">CA UIM</a></li> <li>■ <a href="#">Cherwell</a></li> <li>■ <a href="#">Datadog</a></li> <li>■ <a href="#">Dynatrace</a></li> <li>■ <a href="#">Jira</a></li> <li>■ <a href="#">NewRelic</a></li> <li>■ <a href="#">Nutanix</a></li> <li>■ <a href="#">ServiceNow</a></li> <li>■ <a href="#">Solarwinds</a></li> <li>■ <a href="#">Zabbix</a></li> </ul>	<ul style="list-style-type: none"> <li>■ <a href="#">CA APM</a></li> <li>■ <a href="#">CA Spectrum</a></li> <li>■ <a href="#">OneView</a></li> <li>■ <a href="#">IBM Tivoli</a></li> <li>■ <a href="#">Icinga</a></li> <li>■ <a href="#">Microsoft SCOM</a></li> <li>■ <a href="#">Nagios</a></li> <li>■ <a href="#">Oracle Enterprise Manager</a></li> <li>■ <a href="#">SAP HANA</a></li> <li>■ <a href="#">VMware vRealize Operations</a></li> <li>■ <a href="#">VMware vCenter Operations Manager</a></li> <li>■ <a href="#">Zenoss</a></li> </ul>	<ul style="list-style-type: none"> <li>■ <a href="#">BMC Impact Manager</a></li> <li>■ <a href="#">Apache Web Server content for COSO</a></li> <li>■ <a href="#">Huawei</a></li> </ul>

## Closed Loop Incident Process with IT Service Management Solutions

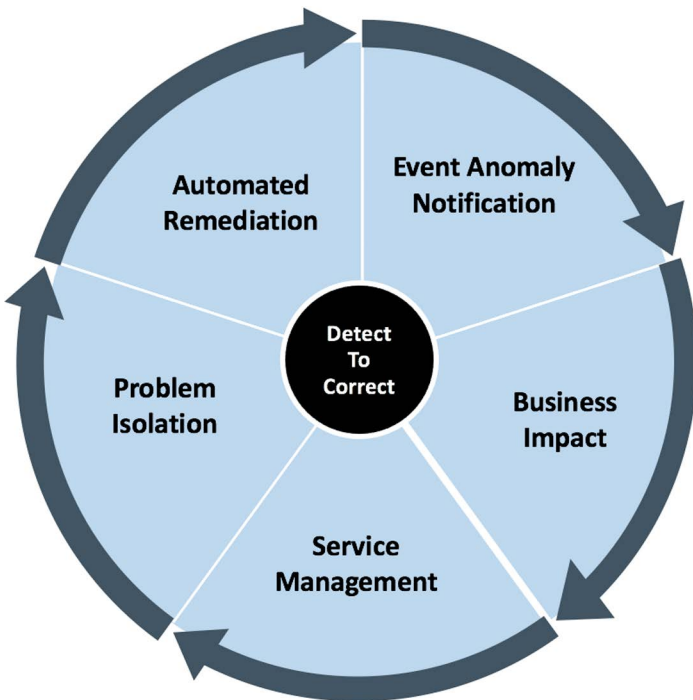
Managing business services goes beyond just monitoring. It means managing the entire lifecycle of an event, including automatic incident submission to a service desk. That's the role of the "closed loop incident process" or CLIP. Operations Bridge supports CLIP with integration between Operations Bridge and popular helpdesk tools, including ServiceNow (an integration) and Micro Focus SMAX (built-in); see tables for a complete list.

Operations Bridge Ultimate edition includes Operations Orchestration, which gives operators contextual access to a wide range of pre-defined runbooks and operations for speedy and less error-prone remediation. However, when operators identify events that require help from SMEs, CLIP can automatically create and synchronize incidents and instruct third-party notification systems, like xMatters, to notify IT staff

Partner Authored Connectors	AppLink	HYCU	Derdack	ZigiWave	Precisely	NICE	InnovateIT	Nastel	StreamWeaver
AutoPilot for WebSphere IBM Bus								■	
AutoPilot M6 for Nastel								■	
Blackberry						■			
BMC RemedyForce (SFDC)	■			■					
Citrix		■							
DB2						■			
Domino						■			
Elasticsearch									■
EnterpriseAlert			■						
ExtraHop									■
IBM iSeries-AS400					■				
IBM Mainframe zOS					■				
IBM Qradar	■								
Omx Insight							■		
Pivotal Cloud Foundry									■
Prometheus									■
Riverbed Aternity									■
SalesForce.com	■								
Signl4			■						
Splunk									■
TOPdesk				■					
WebSphere Application Server								■	
WebSphere DataPower								■	
WebSphere IBM Bus								■	
WebSphere MQ								■	
Zendesk				■					

of incidents (for example, via paging and SMS) for increased speed and efficiency. When resolved in any system, CLIP can close tickets automatically in all systems.

CLIP enables your IT staff to overcome the drawbacks of event and information overload, manual ticketing, troubleshooting, and qualifying events from the lack of linkage between events and service desk solutions.



**Unified Service Model**

**Figure 2** shows the lifecycle of an incident. Operations Bridge processes events, assess business impact and notifies the Service Management system (helpdesk).

**Domain Specific Content**

**Management Packs—Domain Specific Collections, Monitoring, and Visualizations**

Management Packs for applications and infrastructure are pre-packed; they simplify and extend the monitoring capabilities of Operations

Bridge to offer a comprehensive view of your entire IT estate. OBM with management packs enables your operators to discover, monitor, correlate, and visualize information from disparate applications and infrastructure elements.

OBM Management Packs collect metrics using vendor-supported interfaces. They automatically refresh applicable topology maps in the OBM console, continually showing up-to-date relationships between various IT domain-specific resources allowing rapid identification or root cause analysis for issues in your environment. Management Packs ensure that each new IT resource or service they support is Day-0 monitored using the automatic deployment of best-practice-defined monitoring policies specific to each domain.

Some management packs are only available with Operations Bridge Ultimate. Operations Bridge Express, also known as SiteScope, integrates via monitors. The list of [SiteScope monitors](#) is on ITOM Practitioner Portal

**Management Packs Help You:**

- Monitor your essential IT services automatically. You can assign best-practice-defined monitoring policies based on automation rules or trigger the assignment from a self-service portal using OBM's monitoring automation REST web service
- Reduce maintenance overhead—changes are automatically detected, keeping infrastructure views up to date and reducing maintenance of dependencies
- Enrich the availability and performance management of your IT environments
- Enhance the value of your Operations Bridge implementation by adding domain and application-specific Topology-Based Event Correlation (TBEC) rules for advanced correlation related to managed objects, providing faster, more accurate triage and root cause analysis (selected Management Packs)
- Accelerate operations and improve capacity and configuration planning (selected Management Packs)


**A Sophisticated and Growing Portfolio of Management Packs**

[Micro Focus](#) and [Partners](#) provide management packs for [infrastructure](#), [cloud](#), [containers](#), [databases](#), [middleware](#), and more. There are four categories: **Premium**, **Standard**, **Community**, and **Partner** content.


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## Legend for Management Pack Content

 **Micro Focus Premium Management Pack**—provided by Micro Focus and supported via Micro Focus Support for an additional fee.

 **Micro Focus Standard Management Pack**—provided by Micro Focus with your support contract and supported via Micro Focus Support to Micro Focus customers with a current maintenance contract

 **Micro Focus Community Management Pack**—provided freely by Micro Focus, but supported by the community, rather than Micro Focus Support

 **Partner Management Pack**—provided and supported by the authoring partner that may offer content in a trial, demo, or free versions, as well as their premium or fee-based offerings

## Management Packs by Domain

### DOMAIN: INFRASTRUCTURE

The **Management Pack for Infrastructure** supports more than 20 products. It features automated dynamic discovery and proactive monitoring of infrastructure instances, with multiple out-of-the-box management templates to cater to different monitoring needs. The infrastructure MP shows the availability and performance of infrastructure resources like physical servers, hosts, and virtual systems, in addition to seamless monitoring of clustered servers and cross-domain correlations for event reduction and faster root cause analysis and detection.






#### **Management Pack for Infrastructure supports:**

- |                                |                          |
|--------------------------------|--------------------------|
| ■ AIX                          | ■ HACMP                  |
| ■ HP-UX                        | ■ Microsoft Cluster      |
| ■ Cent OS                      | ■ Red Hat Cluster Suite  |
| ■ Debian Linux                 | ■ Sun Cluster            |
| ■ Oracle Enterprise Linux      | ■ Veritas Cluster Server |
| ■ Red Hat Enterprise Linux     | ■ MC Serviceguard        |
| ■ Solaris                      | ■ VMware vCenter*        |
| ■ Windows Server               | ■ KVM*                   |
| ■ Windows                      | ■ Xen*                   |
| ■ Ubuntu Linux                 | ■ AIX LPAR               |
| ■ SUSE Linux Enterprise Server | ■ Solaris Zones          |

### DOMAIN: CLOUD









Management packs for Clouds allow automated and dynamic discovery of resources in the cloud, including compute, storage, and other services—whether it be public or private cloud infrastructure.

They provide proactive monitoring of the availability and performance of cloud instances. They help you visualize cloud resources' performance in real-time—in state-of-the-art dashboards—allowing performance comparisons across multiple cloud providers like AWS, Azure, and Google Cloud along with calculated overall uptime and performance over time.

-  [Amazon Web Services](#)
-  [Microsoft Azure](#)
-  [Google Cloud](#)
-  [OpenStack](#)
-  [OpenStack Service Health](#)

### DOMAIN: BIG DATA

Management packs for Big Data give customers automated and dynamic discovery of a wide array of Big Data infrastructure. These management packs provide proactive monitoring of availability and performance of the various Big Data components like cluster status, job status and performance, workload metrics, and more. Cross-domain correlations deliver event reduction and faster root cause analysis and detection.

-  [Apache Falcon](#)
-  [Apache Flume](#)
-  [Apache HBase](#)
-  [Apache Oozie](#)
-  [Apache Solr](#)
-  [Apache Spark](#)
-  [Apache Storm](#)
-  [Apache Zookeeper](#)

### DOMAIN: MICROSOFT APPLICATIONS

Micro Focus offers management packs for several Microsoft applications. They offer automated dynamic discovery and auto-detection and monitoring of Microsoft application instances, and proactive monitoring of key operational activities and events of:

- Microsoft Active Directory resources services, response time, trust relationships, Sysvol, and more

- Microsoft Exchange services, resources, mailbox databases, delivery times, and more
- Microsoft SharePoint services, SharePoint portals, and configuration, content databases, and more

**Management Packs for Microsoft applications:**

- [Microsoft 365](#), including Exchange Online, OneDrive, SharePoint Online, and Teams
- [Microsoft SharePoint Server](#)
- [Microsoft Exchange Server](#)
- [Microsoft Active Directory](#)
- [Microsoft IIS](#)
- [Microsoft SQL Server](#)

**DOMAIN: DATABASE**

Management packs for databases give users automated dynamic discovery and monitoring of database instances, multiple out-of-the-box management templates to cater to different monitoring needs, and proactive monitoring of the availability and performance of mission-critical databases with:

- Database server and related object availability
- Database connectivity
- Space management
- Workload monitoring like CPU and throughput metrics
- SQL query performance
- Database errors and log intelligence monitoring

The database management packs also provide seamless monitoring of clustered databases and cross-domain event correlation reduction, and faster root cause detection.

**Management Packs for Database:**

- |  |                              |
|--|------------------------------|
| ■ <a href="#">Informix</a>             | ■ <a href="#">MarkLogic</a>  |
| ■ <a href="#">Microsoft SQL Server</a> | ■ <a href="#">MongoDB</a>    |
| ■ <a href="#">Oracle Database</a>      | ■ <a href="#">MySQL</a>      |
| ■ <a href="#">SAP Sybase ASE</a>       | ■ <a href="#">PostgreSQL</a> |
| ■ <a href="#">Apache CouchDB</a>       | ■ <a href="#">Riak</a>       |
| ■ <a href="#">Cassandra</a>            | ■ <a href="#">DB2</a>        |
| ■ <a href="#">Couchbase</a>            |                              |

**DOMAIN: MIDDLEWARE**

Management packs for middleware offer automated dynamic discovery of application server service components and underlying infrastructure, with associated dependencies. They also provide proactive monitoring of key operational activities and events to facilitate high availability, like application server availability and log file events. Additionally, the middleware management packs monitor critical application server performance metrics like:

- Transaction rates, loads, and durations
- Thread pool performance
- Executing times, time-outs, and request rates
- Resource utilization
- Connection status and performance
- Memory utilization, Web application processing

**Management Packs for Middleware:**

- |                                     |   |
|-------------------------------------|---|
| ■ <a href="#">Apache Web Server</a> | ■ <a href="#">HTTPendpoint</a>              |
| ■ <a href="#">IBM WebSphere</a>     | ■ <a href="#">JBoss</a>                     |
| ■ <a href="#">JBoss</a>             | ■ <a href="#">Lighttpd</a>                  |
| ■ <a href="#">Oracle WebLogic</a>   | ■ <a href="#">Memcached</a>                 |
| ■ <a href="#">ActiveMQ</a>          | ■ <a href="#">Oracle iPlanet Web Server</a> |
| ■ <a href="#">Apache Tomcat</a>     | ■ <a href="#">RabbitMQ</a>                  |
| ■ <a href="#">Glassfish</a>         | ■ <a href="#">Redis</a>                     |
| ■ <a href="#">Gunicorn</a>          | ■ <a href="#">Varnish Cache</a>             |

**DOMAIN: SAP**

Management packs for SAP provide automated dynamic discovery of SAP J2EE servers, SAP ABAP servers, SAP HANA clusters, and other related infrastructure components. They monitor different jobs in an ABAP server, like batch job monitoring, work process monitoring, and transport monitoring. For J2EE servers, the management pack monitors J2EE services, performance, and kernel parameters. In the HANA environment, the management pack monitors the performance and availability of different services and DB instances.

**Management Packs for SAP:**

- [SAP](#)
- [SAP Hana](#)

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### DOMAIN: LOAD BALANCERS

Management Packs for load balancers provide automated dynamic discovery and monitoring of the load balancer topology and proactive monitoring of the key load balancer services. These management packs also monitor critical availability and performance metrics, like server errors and logs and workload metrics.

#### Management Packs for Load Balancers:

- [HAProxy](#)
- [Nginx](#)

### DOMAIN: APPLICATION PLATFORMS AND AUTOMATION

Management Packs for application platforms and automation offer automated dynamic discovery and monitoring of the application platforms and automation tools, like Node.js, Chef, and Jenkins. Additionally, the management packs deliver proactive availability monitoring of key services like Chef, Docker, and Jenkins, as well as performance monitoring like:

- Jenkins job performance and status
- Chef workload
- Docker container workload
- Node.js request rate, response time, resource utilization

#### Management Packs for Application Platforms and Automation:

- [Node.js](#)
- [Chef](#)
- [Jenkins](#)

### DOMAIN: GENERIC

Generic management packs automatically discover the infrastructure elements that your critical services depend on, like filesystems, generic protocols, development, and automation framework. They also provide proactive monitoring of the availability of generic services like:

- SMTP service availability
- DHCP status
- FTP server availability

#### Generic Management Packs include:

- [BIND](#)
- [DHCP](#)
- [File Change](#)
- [FTP Server](#)
- [Generic SMTP](#)
- [Microsoft .NET](#)
- [OpenSSH](#)

### DOMAIN: OTHERS

Micro Focus “other” management packs address GitHub and Postfix servers, providing automated dynamic discovery, proactive monitoring of the Postfix Daemon services, and monitoring critical performance metrics like GitHub commits repository size, GitHub site response time, and Postfix messages.

#### Other Micro Focus Management Packs include:

- [GitHub](#)
- [Postfix](#)

### IT Operations Management Community for Management Packs and Connectors

Micro Focus supports an active community to federate contributions from Micro Focus engineers and third parties that extend Micro Focus IT Operations Management solutions’ reach. This community includes blogs with technical information submitted by subject matter experts, partners, and customers—the community also creates Operations Connectors.

The IT Operations Management community exploits the Micro Focus ITOM Marketplace, including a repository to freely share and download features that extend Operations Bridge and monitoring products. The Marketplace is for everybody interested in sharing content (such as scripts, integrations, policies, and tools) and knowledge around IT event management.

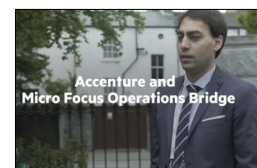
To get started, here a few tips on the Community:

- Read the [Community FAQ](#) to understand navigation and community guidelines.
- Visit the dedicated [Operations Bridge blog](#) to read the latest information
- Talk to your peers on the [Operations Bridge user forum](#).
- Browse the [IT Operations Management Community](#) for information on all IT Operations Management topics.
- Post any questions or feedback in the dedicated [forum](#).

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### Learn how Accenture uses Micro Focus Operations Bridge to integrate different vendors.

#### [Watch the video](#)

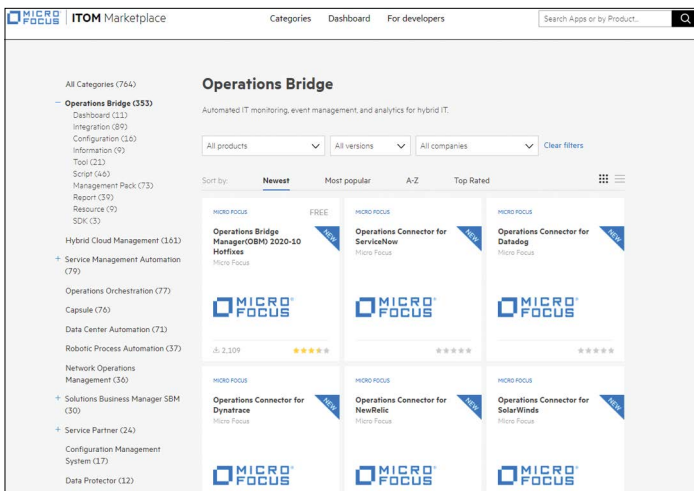


**“One of the many values of Operations Bridge is its ability to integrate and optimize existing domain-specific tools through predictive analytics and service modeling.”**

**MID-TIER HEALTHCARE ENTERPRISE IN THE UNITED STATES**

Contact us at:  
[www.microfocus.com](http://www.microfocus.com)

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**Figure 3.** With the Micro Focus ITOM Marketplace, download domain-specific management packs, operations connectors, dashboards, reports, and more

## Transform IT Operations with Micro Focus Operations Bridge

Given the complexity of today's IT environments, siloed approaches to operations management are no longer viable. To maintain the availability and performance of business services, you need to put powerful automation and AIOps capabilities to work to drive operational efficiency across the data center.

That's Operations Bridge, a solution that automates discovery, monitoring, and remediation to help you maintain your critical business services' availability and performance—and enables IT to function as a business value creator.

### Learn More

Product page: [microfocus.com/OpsBridge](http://microfocus.com/OpsBridge)

Practitioner portal: [docs.microfocus.com/itom/ITOM:Operations\\_Bridge/Home](https://docs.microfocus.com/itom/ITOM:Operations_Bridge/Home)

ITOM Marketplace: [marketplace.microfocus.com/itom](https://marketplace.microfocus.com/itom)