
White Paper

Professional Services

Obtaining ROI from Operations Bridge

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There are many tangible benefits to implementing and maturing your Operations Bridge function and companies, across all industries, are getting it right now.

Executive Summary

We are witnessing a period of unprecedented rate of change in the IT landscape. Technologies such as cloud, mobile, AIOps, Big Data, Machine Learning and the Internet-of-Things (IoT) are gaining real traction. Users are demanding the same technology experience from IT that they have in their private lives, and executives are pressing for “everything-as-a-service.” Applications are becoming more composite, the infrastructure more dynamic, the amount of data more overwhelming, and the consequences of poor service performance and availability more severe. Against this backdrop, IT Operations can no longer be content with being reactive, focusing on infrastructure monitoring. It must journey toward automated Artificial Intelligence Operations (AIOps) in order to be able to meet the increased expectations and help IT deliver the performance, availability, and experience business stakeholders require. Pivotal to the success of this journey is the maturing of the Operations Bridge function by transitioning from a focus on monitoring technology to monitoring services. However, to some, the return on investment (ROI) of taking this journey is unclear and tricky to define. This paper will show that such ROI is proven possible through customer examples, and illustrates how you can define and measure it.

ROI Is Real

There are many tangible benefits to implementing and maturing your Micro Focus® Operations Bridge and companies, across all industries, are getting it right now.

A Word About the ROI of Micro Focus Operations Bridge

Micro Focus Operations Bridge (OpsBridge) is a software solution that implements the Operations Bridge function and more. OpsBridge will help you to maximize your ROI from some of its features—such as event correlation and the ability to visualize a service tree dynamically based on topology collected in near-real time. However, your ROI can be further increased by maturing your capabilities with a service-oriented approach to IT Operations, which will allow you to take full advantage of all the features of OpsBridge.

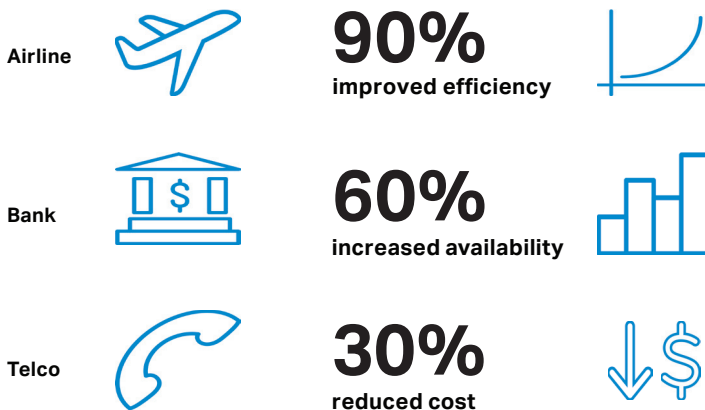


Figure 1. Examples of ROI as reported by Micro Focus Customers

Improve or Sustain? You Need Both

All improvement programs behave similarly: At first, improvement is significant and then decreases with time. At some point, the question of “Why do we keep spending money on this?” always arises. In these cases, it is useful to remember that both, the improvement and the sustaining of that improvement, are necessary for success.

The Journey to Automated AIOps

In Gartner’s “Market Guide to AIOps Platforms” report, AIOps is defined as “platforms and software systems to combine big data and AI or machine learning functionality to enhance and partially replace a broad range of IT operations processes and tasks, including availability and performance monitoring event correlation and analysis, IT service management, and automation.” This helps companies to anticipate infrastructure and application demands - and automate remediation to resolve IT problems - before they occur. Corporations at this maturity level continually monitor the IT environment for availability and performance within the context of application and business services, and align the IT infrastructure with business imperatives. Getting to this level of capability is a journey to maturity, and the OpsBridge is at the forefront enabling organizations to exercise the full potential of Automated AIOps to reduce Time to Value (TTV) and maximize ROI.

ROI Categories

Defining and measuring ROI typically involves key performance indicators (KPIs) that allow you to quantify the ROI. However, it is also important to be able to associate KPIs with a business indicator. This is mostly because a given KPI may affect several business indicators. While it is true that you can ultimately translate almost any KPI to cost savings, it is simplistic and counterproductive to think of OpsBridge merely as a vehicle to cut costs. Improving your cost structure is always important, but more important is how you use these improvements to drive innovation and growth. You can link OpsBridge ROI into three main categories:

- **Service quality:** Improving the performance or availability of services
- **Efficiency and productivity:** Do more with the same, or do the same with less
- **Innovation:** Redirecting any savings to new projects that reduce cost or increase revenue that you could not do before

Simply put, predictive service operations helps companies anticipate infrastructure and application demands—and resolve IT problems—before they occur.

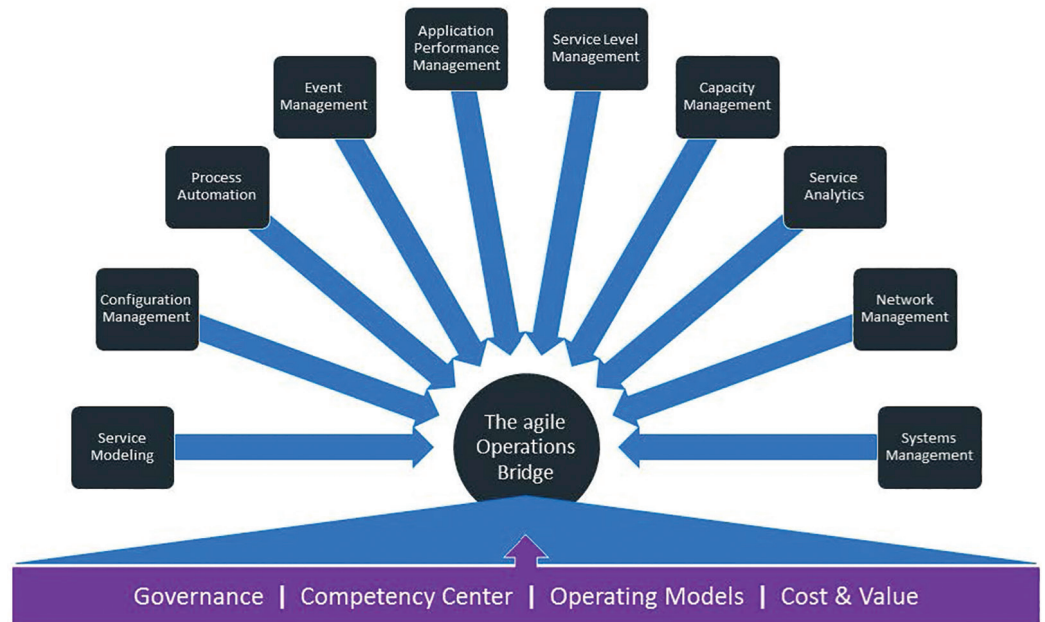


Figure 2. Automated AIOps capabilities anchored by Operations Bridge

Service Quality

Improving SLAs

The most direct way to measure improvements in service quality is through the Service Level Reporting function (part of Service Level Management or SLM). Each service has a Service Level Agreement (SLA) and reports can be generated to indicate how well IT maintains, or even exceeds, the SLA. While it is not feasible to prescribe a universal SLA that will apply to any service, it is worth noting that most issues with implementing SLAs arise due to misunderstandings between how IT and the lines of business define the service.

Measuring improvements to service quality requires services to be defined, and must be understood in the same way by the business, the application teams, and the infrastructure support teams (though this may happen incrementally). For example, organizations just embarking on the path to automated AIOps and with a history of only looking at infrastructure, will view services at an infrastructure level, and will therefore only be able to measure ROI at this level. More mature organizations may define services at the application layer, and the most mature at the business service layer. Irrespective of your maturity, it is critical is for both, service provider and consumer, to agree on the definition. Consider this example:

- The server team receives an event from a Windows Server® to indicate that the server is down. This affects the overall availability of their Windows® platform service, but only marginally, since it is one server among many.

- At the same time, an incident is created from the same event in the service desk tool, but here the server is associated with an SAP® application where it has a much greater impact on availability.

The server team will report that its SLA is still okay, while the SAP team will see its application as unavailable.

You can measure the following metrics to understand how consistent you are in your understanding of services:

- Percentage of monitored services share the same definition (model) as those in current SLA contracts; monitoring data is capable of directly influencing service availability metrics
- Percentage of monitored services share the same definition (model) as those used in incident management; monitoring data is capable of being compared directly to (and with) incident data

What this means is that to use monitoring data to correlate to and measure service availability, event management, incident management, and service level management (where reporting occurs) must all have the same definition of services.

You can translate service levels into financial terms. Almost all systems will ultimately affect either revenue generation or employee productivity. So the cost of outages, along with the cost of reducing or preventing them, can be quantified in financial terms:

- **Revenue generation:** If you know how much revenue a given service generates in a given period, it is easy to calculate the cost of the risk or the opportunity (i.e., the revenue you will have generated had the system been up).
- **Employee productivity:** Your cost per employee is a known quantity. Therefore, you can quantify the cost of outages if you consider every outage as if your employees have been idle, producing no output while still incurring the cost.

Reducing Mean-Time-to-Repair

To assess the impact that OpsBridge has on improvements in service quality, it is useful to use what is perhaps the most common KPI associated with monitoring: Mean-time-to-repair (MTTR). In fact, MTTR is so pervasive that it affects all ROI categories. MTTR denotes, on average, how long it takes IT to fix issues and return service to the expected or acceptable level. Automated AIOps capabilities in OpsBridge drastically reduce MTTR by providing faster identification of the root cause with extensive event, metric, and log analysis as well as machine learning. In fact, one of our customers, HPE IT, saw 72X faster triage using these capabilities in the OpsBridge. AIOps installation with OpsBridge is automated, and requires no configuration which shortens Time to Value (TTV). Additionally, OpsBridge can be configured to generate events that execute remediation and fix problems before any business disruption results. Reducing MTTR will have the following effects:

- You will improve service quality and user experience, and with it, IT credibility, because you can fix issues faster, shortening service outages and increasing service availability

What this means is that to use monitoring data to correlate to and measure service availability, event management, incident management, and service level management (where reporting occurs) must all have the same definition of services.

Since a single resource can handle a finite number of events, any positive trend in the above KPIs can be translated to financial terms described in terms of FTE costs.

- You will improve productivity and efficiency because with the same resources; you will be able to handle more issues, or handle the same volume of issues with fewer resources
- You will be able to drive innovation with the resources you free up. At this point, we make the following assumptions:
 - OpsBridge tooling is integrated into the ticketing system.
 - All incidents are created by events, and all events (have at least the potential to) create incidents. Reducing MTTR can be done and measured gradually.

If incident creation is currently done manually, there should be a marked improvement by automating this process. Likewise, if enough trust is achieved between incident and event teams, automatic closure of incidents after event closure will have a great benefit. If the revenue capability of a service is known, then a monetary value can be attributed to this improvement in time. If not, then industry benchmark tools can provide some approximation of average cost of an event.

- Average time between event creation and incident creation: Decreases here will be large for organizations at a lower maturity level and with a lack of automation
- Average time between event close and incident close: Higher-maturity customers need to manage the trust relationship between functions, as incident teams typically like to retain ownership of incident closure

The next step is to actually reduce the number of events that can be closed without ever reaching the incident management process. This can, again, be implemented by progressively adding automation—event de-duplication, event correlation, manual tasks, and ultimately event auto-remediation. To determine whether your automation is having an impact, you can look at the trends of the following KPIs:

- Average time between event creation and event closure: Higher-maturity organizations will proactively handle events before they cause incidents, by the use of standard remediation tasks
- Reduction in number of events that are escalated as incidents: Higher-maturity organizations will proactively handle events before they cause incidents, by the use of standard remediation tasks
- Percentage of events able to be resolved by NOC personnel: Events are generated with quality instructions and actions that operations staff can readily follow
- Ratio of inbound events to visible events: Correlation, whether through de-duplication (lower maturity) or event correlation (higher maturity), reduces time to identify outages and, ultimately, recovery time

Since a single resource can handle a finite number of events, any positive trend in the above KPIs can be translated to financial terms described in terms of FTE costs.

One of our customers says “The availability of the service that we are selling to the client is a major value that we have to keep up at top notch. Using OpsBridge, we have gained 33 percent reduction in MTTR and reached an SLA achievement of nearly 98 percent.” This illustrates the customer’s ability to measure the impact they have had.

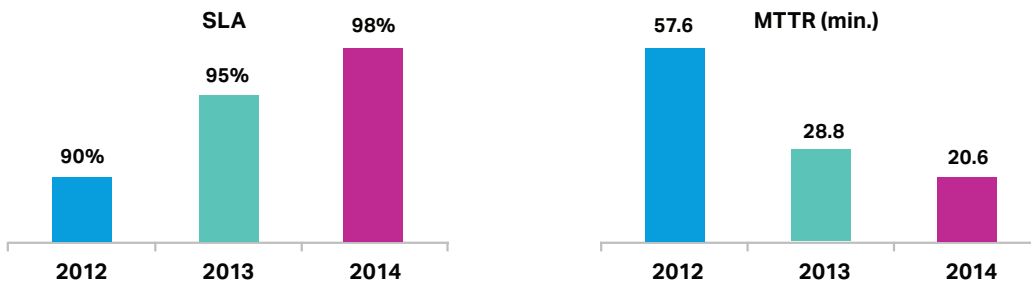


Figure 3. Benefits gained by Micro Focus customers

Improve IT Efficiency and Staff Productivity

Imagine that as soon as you deploy, for instance, a Microsoft® SQL Server database, your OpsBridge becomes immediately aware of it and automatically deploys all of the relevant monitors. Or, that as soon as you receive an event because the same Microsoft SQL Server database grinds to a halt, your OpsBridge is smart enough to know that it is because its disk is full, launches a script to clear the disk, and fix the issue. This would eliminate what you are today probably doing manually and quite wastefully, and would thus represent a quantifiable productivity improvement. You can do all of this with OpsBridge, but it is possible only with significant degrees of standardization.

Standardization

The first step toward standardization is to align your data requirements. Operations Bridges may be wrongly perceived as being unable to provide useful data, but more often than not, this is a misconception rooted in the fact that data requirements are not aligned. In other words, the OpsBridge can produce the data you need for reporting (or any other downstream activity), but it does not because monitoring and reporting are seen as two unrelated functions. So monitors are deployed without enough thought to the data that they produce, and the reporting function then assumes that the data will somehow be there.

Service				Service XYZ				
SLA:		Transaction success rate					System up time	
Data point	Txn #1	Txn #2	Txn #2	Windows	Linux	UX	Database	...
Tool								
Tool #1	x	x	x					
Tool #2				x				
Tool #3					x	x		
Tool #4							x	
...								

Table 1. Sample data matrix

Using the SLA definition as a starting point, you can determine which data you need about the service.

You can make your resources more productive by reducing not only the time but also the number of resources required to find the root cause and fix the issue.

Using the SLA definition as a starting point, you can determine which data you need about the service. You should then determine where the data exists, followed by which tools are the most appropriate to collect it. This will then allow you to define the minimum set of tools required to produce the data you need. You can represent this using a matrix, and then use the following KPIs to determine how complete the picture is:

- Data matrix percentage complete: Mature organizations will have a matrix of data and the authoritative tool responsible for its collection to avoid conflict and overlap in used data
- Percentage of staff time spent in configuration and change: As the number of discrete monitoring configurations decreases, the amount of time spent in their creation and support also decreases
- Percentage of monitored services covered by standard configurations: As standards for organizational configurations increase, the time required to cover them decreases

Once you have standardized on your data, you can consolidate your toolsets and introduce increasing levels of automation.

Automation

Automation can be broadly divided into three areas: event or incident management, monitoring deployment, and discovery. Automation will allow you to:

- Contain resourcing levels despite an increase in workload
- Make better use of your resources' time, especially your tier-1 and tier-2 experts, who are rare and expensive resources

EVENT OR INCIDENT MANAGEMENT

The complexity of the modern IT landscape is increasing as new technologies—such as cloud or mobile—are added to the mix. Moreover, your journey to automated AIOps will increase the coverage of what you monitor. These trends result in an increase, over time, of the number of raw events and incidents in your environment. Since, as previously stated, a single resource can handle a finite number of events or incidents, you would need to hire additional resources to cope with the increasing load. However, if you automate much of the event and incident management processes you will be able to significantly reduce the number of events and incidents that require the attention of your resources, and thus be able to maintain or even reduce resourcing levels. This represents ROI, as it saves you the cost of hiring additional resources to deal with the expanding IT environment.

You can make your resources more productive by reducing not only the time but also the number of resources required to find the root cause and fix the issue. This is particularly impactful when it comes to the more expensive specialized resources such as database administrators and application specialists.

There are two areas where automation will benefit you when it comes to event or incident management:

- Event filtering and correlation, using the service model or topology, so that you focus on root cause events rather than the symptoms. Exposing a single view of the status to all teams associated with the use of this automation helps prevent time lost in war rooms where numerous resources waste time to assign appropriate actions.
- Automating remediation by utilizing chatbots and launching automated workflows directly from your event console.

For organizations embarking on the journey to automated AIOps:

- The increase in the percentage of configured events with operator instructions or manual tasks assigned enables less expensive staff to execute remedial activities rather than more specialized resources
- The increase in the percentage of events taking part in active correlation rules shows an efficient use of correlation

For those a little further on in the journey, perhaps more confident in their staff capabilities and probably having a more standardized architecture in general:

- Increase in the percentage of configured events with automated scripts or associated workflows: Reduces the need for resource intervention in events
- Percentage of active events passing through correlation suggested in pre-mortem groups: Efficient organizations will suggest correlation options prior to service transition to catch different scenarios

Measuring a reduction in the percentage of time these resources spend in triage and resolution will again translate to measurable financial terms.

AUTOMATED MONITORING DEPLOYMENT

As your IT estate grows, so does the amount of required monitoring. Your staff probably spends much of their time deploying and configuring monitors for newly added assets (e.g., servers, software components), as well as changing and updating monitors for existing ones. Being able to reduce this amount of time, will again increase productivity, and be translatable to financial benefits. This is possible because of standardization. Once you know what data you need, you can automate the deployment of monitors used to collect this data. This level of automation will accelerate your implementation of a request for (or change to) monitoring, and improve traceability and compliance to industry and corporate standards.

Measuring a reduction in the percentage of the time your staff spends in triage and resolution will again translate to measurable financial terms.

- Percentage of staff time spent on deployment: Standardizing the configuration of monitoring for particular patterns of service configuration means that automation can be used for deployment

Measuring a reduction in the percentage of the time your staff spends in triage and resolution will translate to measurable financial terms.

Consolidation makes it much easier to get to a stage where you have a single pane of glass.

- Percentage of projects able to be completed on time: Shortening the development and deployment time (including change windows) of monitoring configurations reduces the overall time for project completion
- Percentage reduction in testing time: Standard configurations should have standard tests, and these tests become automated as acceptance criteria

AUTOMATED DISCOVERY AND MODELING

OpsBridge uses a unique approach to discovery. Rather than rely solely on discovery agents and scripts, the data collectors themselves perform discovery and populate the Runtime Service Model (RtSM), OpsBridge's CMDB, with topology data. For example, if you deploy an OpsBridge data collector agent to a server running a Microsoft SQL Server database, your RtSM will be populated by configuration items (CIs)— indicating not only that you have a server with storage and a database but that the two are connected. If the server experiences a disk issue affecting the database, this relationship will be instantly visible to you because the topology links the two together. This capability builds service models on the fly simply by virtue of monitoring—eliminating the need to deploy discovery tools and spend resources and time on discovery and mapping. Moreover, since many capabilities, such as configuration management and change management, benefit enormously from discovery and mapping, OpsBridge delivers direct benefits despite the fact that these functions do not fall directly under its scope.

Consolidation

One of the biggest issues for most IT Operations teams is the large number of monitoring tools they have. Invariably, these tools are not well integrated and have overlapping functionality. While it is natural for specialists to want their own tool, it is not always necessary nor is it always the most cost-beneficial solution. Being able to consolidate your tooling to the minimum viable set will allow you to save the cost of maintaining tools.

Consolidation will also make it easier to get to a single pane of glass, a common view, end-to-end and top-to-bottom, of the health of the services you manage. This will allow you to understand what services are being impacted and prioritize your actions based on their business criticality. It will also allow you to eliminate "swivel-chair management" by focusing your efforts in the right places and involving only the necessary resources rather than everyone because you may not have a clear idea where the problem lies.

OpsBridge integrates with over 200 tools and technologies to make the process easier. See the [Operations Bridge Technology Integrations eBook](#) for more details.

Innovation

It is important to understand that while reducing the HR cost of running IT operations is a direct by-product of implementing and maturing your Operations Bridge function, it is not just about “doing the same with less” but more importantly about “doing more with the same.” Redirecting any resource savings toward new innovation, and unplanned work also represents ROI because any such work should have a multiplier factor:

Some of these returns include:

- Percentage time of SMEs spent in projects vs troubleshooting: SMEs design the monitoring for the project as a part of the project, providing the right data up front rather than spending time in event resolution where the information is hard to come by
- Percentage time of SMEs spent in administration: SMEs spend less time administering point tooling that may provide minimal benefit
- Reduction in war-room effort: Automated correlation using OpsBridge multiple correlation capabilities will reduce the amount of time required to identify root cause

Don't Forget the People

Setting goals, measuring achievements, and continuous improvement are all cornerstones of any ROI program. However, an often-neglected aspect of such programs is a focus on your people. Getting maximum ROI from OpsBridge will require you to exploit all its capabilities and change the way you do things. And like any transformation, a key element to success is driving adoption by getting everyone's buy-in. Management of change is a well-defined, successful approach for driving adoption, and while it is outside the scope of this paper, we would like to highlight two aspects:

- Helping your team help itself: To guide you with figuring out what are the next OpsBridge features you should exploit, we have built into the product an innovative feature called the exploration map. This feature scans your deployment and makes suggestions on which capability you should tackle next.
- Motivation through competition and “fun factor”: OpsBridge borrows from social networks, allowing your administrators to set up a competitive, fun environment where your IT Operations staff gain points by carrying out their tasks. For example, you can get points by writing event correlation rules, or by being the first to use a certain feature. This motivates your staff by creating an atmosphere where they are rewarded for doing better than their peers.

It is important to understand that while reducing the HR cost of running IT operations is a direct by-product of implementing and maturing your Operations Bridge function, it is shortsighted to look at these improvements only through the lens of cost-cutting.

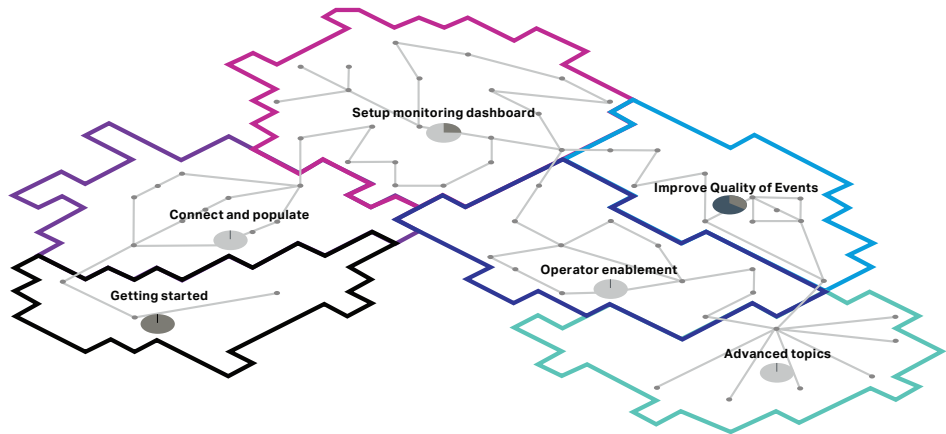


Figure 4. Operations Bridge explorer map

Micro Focus Can Help

In summary, maturing your Operations Bridge Function as part of a journey to automated AIOps can generate significant ROI. Micro Focus has the technology, OpsBridge, and Micro Focus Professional Services stands ready to guide you on your journey with our portfolio of [Micro Focus Operations Management Services](#) to help you implement OpsBridge and assist you in realizing and measuring your ROI.

Learn More At

www.microfocus.com/opsbridge

Micro Focus Operations Management Services

Additional contact information and office locations:
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