Executive Summary

Increasingly complex and heterogeneous IT ecosystems require organizations to broker, integrate, and orchestrate the delivery of 3rd Platform IT systems. These services are made up of cloud, mobile, big data, and social technologies that are mission critical to business operations or involve privacy issues for protected information.

IDC expects that the influx of modern computing devices such as mobile devices, wearables and the emergence of IoT-related computing will continue to add complexity to the entire IT ecosystem and, in turn, affect how IT is provisioned, monitored, managed, and secured. Without a holistic approach to asset management that includes an understanding of how assets are linked to business, IT will find it virtually impossible to prioritize and optimize the dynamic infrastructure and applications essential for critical IT business services. This IT management disconnect not only accelerates security and investment risk but also raises costs and diminishes the value of technology necessary to achieve desired business outcomes.

To ensure the optimization and security of the systems and services underpinning essential business processes as well as effectively embrace DevOps, big data analytics, and hybrid cloud initiatives, IT organizations must expand their infrastructure management practices far beyond static inventory spreadsheets and manual processes.

In addition, with the widespread use of management frameworks such as ITIL and IT service management combined with the enterprise’s increasing push toward digital transformation, IT executives need as much visibility as possible into the hardware and software that support mission-critical business services and processes.
In this study, IDC interviewed nine organizations using BMC Discovery software. The research was designed to understand how they are using the software to achieve improved visibility into their datacenter operations. IDC’s research shows that these organizations are realizing strong value with BMC Discovery by capturing benefits from staff efficiencies, reducing vulnerabilities, enabling more effective auditing operations, and reducing costs. As a result, IDC projects that these BMC Discovery customers will earn an average five-year return on investment (ROI) of 470% by:

» Benefiting from IT staff time savings and efficiencies enabled by visibility, improved understanding of datacenter assets and dependencies, automation, and faster resolution of problems

» Making software and other auditing efforts more efficient and cost effective and reducing the costs of failed software audits

» Improving datacenter security

» Reducing datacenter costs by identifying underused and unused hardware and software and enabling informed decisions about optimizing datacenter costs

**Situation Overview**

Consumerization of IT is creating more demanding end users, increasing security issues, and reducing IT’s ability to govern users to ensure compliance with corporate policy. Likewise, IT organizations are quickly discovering the need for infrastructure management solutions that can seamlessly scale with the rapid proliferation of datacenter resources and software platforms in the enterprise. Disparate hardware platforms, operating systems, and applications in the enterprise not only increase the complexity of IT operations but also increase the risk of security attacks. Security is threatened when a server is found in an office and not racked in the datacenter or when a server is found running but thought to be removed. All it takes is one exposed security vulnerability on a single system to compromise sensitive corporate data as well as allow unauthorized entry into the company’s entire network.

There is continuous movement toward converged, software-defined, virtualized, and cloud-hosted systems. This migration increases the number of obsolete datacenter assets and creates additional open doors to cyberattacks. Cyberattacks often take advantage of the high vulnerability of end-of-life (EOL) IT systems that have ceased to receive product updates and security patches from vendor sources. Rapid resolution to such threats is challenged by the inability to sufficiently understand the entire datacenter landscape. Understanding risk impact is challenging when there is limited or no understanding of where the assets reside and precisely how the assets support the business.
IT administrators are challenged to meet SLAs and remediate issues quickly when they depend on manual processes and/or disaggregated systems management tools for asset provisioning, configuring, securing, and accounting.

Discovering the organization’s IT assets and mapping those assets to business purposes are critical first steps in establishing an effective systems and security management program. The assurance of up-to-date asset inventory and dependency mapping to properly assess the vulnerability of existing infrastructure can be a significant enhancement to effectively managing cybersecurity as well as application performance and prioritization. IT can also compare the current and future costs of an asset and, based on these projections, affect datacenter architecture designs.

Further, IT organizations lacking the ability to properly visualize and assess their company’s assets to rationalize the IT environment often overprocure or underprocure hardware and software requirements. Effectively determining actual server footprint and enterprise application use in the organization enables the company to make informed decisions about licensing agreements and be well prepared for vendor renegotiations.

IDC recommends that comprehensive IT infrastructure management initiatives focus on several key IT disciplines, including IT asset management, IT security, enterprise architecture, portfolio management, change and configuration management, and IT financial management.

**BMC Discovery**

IT leaders are realizing that traditional approaches to IT service and operations management don’t provide the tools necessary to respond quickly, are not comprehensive, and don’t scale sufficiently to keep pace with the demands of today’s complex IT environments. As a result, many line-of-business executives are taking charge of their IT future by procuring their own resources, often without the involvement of internal IT. To remain relevant, IT organizations must demonstrate their abilities in efficiently and effectively delivering, managing, securing, and brokering dynamic IT systems and services.

Additional challenges arise when isolated IT silos independently aim to embrace 3rd Platform technologies. Individual teams and/or administrators have little or no visibility into root cause and cross-system dependencies, hindering effective root cause analysis and IT operational performance. This lack of visibility directly impacts business productivity.
IT departments must find tools that allow for collaboration to troubleshoot problems effectively and provide cross-business benefits while improving operational efficiency and maintaining head count.

BMC Discovery (formally named BMC Atrium Discovery and Dependency Mapping) enables IT departments to meet such objectives by providing capabilities to automatically discover datacenter inventory and configuration information and map business applications to underlying datacenter infrastructure. These capabilities provide IT staff with a trusted inventory and holistic view of their datacenter resources, including intelligence on how these resources deliver business services.

Key BMC Discovery capabilities include the following:

» Enables rapid discovery, relationship modeling, correlation, visualization, and root cause analysis across geographically dispersed datacenter resources that can include more than 100,000 servers. In minutes, IT can link infrastructure and software to how they impact the business so that enterprises can optimize capacity, ensure stronger security, meet compliance requirements, and improve service, change, and problem management. Integration with a wide range of third-party systems and management tools provides operators with a unified view of system/service performance.

» Reduces cost and time to prepare for audits, preventing audit penalties and enabling compliant and secure datacenter operations

» Customizes the portal and reports for specific roles and needs across network operations center (NOC) specialists and subject matter experts

» Minimizes change risks by empowering the change advisory board (CAB) with trusted dependency data to evaluate change impact

» Allows IT to mitigate risks associated with moving datacenter assets for consolidation, cloud, and virtualization projects

With BMC Discovery, organizations are enabled with tools that can improve business engagement and end-user satisfaction. IT organizations can remove the manual guesswork and adopt a more integrated infrastructure management approach. BMC Discovery enables IT to shift its focus from manual and reactive troubleshooting activities to delivering consistent end-to-end service levels. The results allow for collaboration and necessary exposure with the business on proactive value-added activities. Likewise, the ability to quickly and accurately assess the source of a problem empowers IT to improve response times to critical issues, thereby improving service levels and end-user satisfaction.
“Initially we were focused on using BMC Discovery for a very narrow swath of application platforms. As we became more confident and the process for asset management as part of a broader IT service management strategy became more well accepted by IT leadership, then the application of BMC Discovery became broader, and we’ve moved from a fairly narrow scope to a broad scope of trying to discover everything.”

Through a comprehensive study with BMC Discovery customers, IDC documented the benefits of adopting holistic infrastructure management processes and how they can significantly improve the productivity of IT operations and service management teams. With BMC Discovery, these IT organizations showed they can prioritize incidents based on business impact and restore services faster with up-to-date configuration and relationship data, allowing IT executives to better position themselves as strategic business partners.

The Business Value of BMC Discovery

Study Demographics

IDC interviewed nine organizations using BMC Discovery software. The BMC Discovery customers are large organizations, with an average of 69,000 employees; 4,000 IT staff members; and 12,700 servers within their BMC Discovery environments. As such, they have expansive business and IT operations that include multiple geographical locations and datacenters. The interviews were designed to elicit both qualitative and quantitative information about how these organizations are using BMC Discovery and to understand the benefits and costs associated with their use of the software (see Table 1).

Most of the interviewed customers are using BMC Discovery to support two or more of their core use cases: asset management, service management, and infrastructure and operations management. A number of IT managers who were interviewed noted that they are extending their use of BMC Discovery as they see benefits from their current use cases. An IT manager at a United States–based healthcare organization explained his organization’s approach as follows: “Initially we were focused on using BMC Discovery for a very narrow swath of application platforms. As we became more confident and the process for asset management as part of a broader IT service management strategy became more well accepted by IT leadership, then the application of BMC Discovery became broader, and we’ve moved from a fairly narrow scope to a broad scope of trying to discover everything.”
TABLE 1

Demographics of Interviewed Organizations

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>69,000</td>
<td>1,400–250,000</td>
</tr>
<tr>
<td>Number of IT staff</td>
<td>4,000</td>
<td>67–10,000</td>
</tr>
<tr>
<td>Number of IT users</td>
<td>62,500</td>
<td>1,000–250,000</td>
</tr>
<tr>
<td>Number of business applications</td>
<td>1,100</td>
<td>19–4,000</td>
</tr>
<tr>
<td>Number of servers in the organization's BMC Discovery environment</td>
<td>12,700</td>
<td>2,500–40,000</td>
</tr>
<tr>
<td>Number of business applications in the organization's BMC Discovery environment</td>
<td>968</td>
<td>270–1,700</td>
</tr>
<tr>
<td>Countries</td>
<td>United States, New Zealand, Australia, France, and United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Industries</td>
<td>Financial services, healthcare, government, communications and media, technology service provider, and automotive</td>
<td></td>
</tr>
</tbody>
</table>

Source: IDC, 2016

Business Value Analysis

Interviewed organizations described challenges that led to their decision to use BMC Discovery. Specifically, they struggled to inventory and understand their extensive datacenter operations, including their hardware and software assets. As a result, they bore the costs of IT staff inefficiencies, time-consuming and costly software and other audits, and underused or unused datacenter assets. As an EMEA-based financial services organization explained, “Basically, we didn’t have an accurate inventory of our datacenter operations, and we had issues around software licensing. So we got BMC Discovery to help us figure that out.”

IDC’s interviews with BMC Discovery customers show that they are achieving significant business value by making their datacenter operations more efficient and effective. With BMC Discovery in place, these organizations have gained needed visibility into IT operations, have an increased understanding of their IT environments, and can match IT services to business demand.
As a result, IDC projects that these organizations will achieve average annual benefits worth $35,654 per 100 servers in their BMC environments ($4.5 million per organization) in the following areas (see Figure 1):

» **IT staff productivity gains**: BMC Discovery improves IT staff time savings and efficiencies through clarity in terms of inventory and configuration, automation, and improved ability to troubleshoot problems. As a result, IT teams responsible for incident, change, release, asset, and configuration management are more efficient and can serve their lines of business better. This also includes teams responsible for maintaining and managing server, network, and storage environments. IDC projects that these organizations will realize average annual benefits worth $18,433 per 100 servers ($2.33 million per organization) from IT staff efficiencies.

» **Risk mitigation — user productivity benefits**: BMC Discovery makes software and other auditing efforts more efficient and effective. As a result, organizations devote less staff time to preparing for and carrying out audits and minimize costs associated with failing software audits. IDC puts the average annual value of the time savings and cost reductions associated with audits at $8,495 per 100 servers ($1.08 million per organization).

» **IT infrastructure cost reductions**: BMC Discovery provides the visibility needed for organizations to identify underused and unused hardware and software in their datacenters and retire or reallocate these assets as appropriate. IDC calculates that these organizations will achieve an average annual cost savings of $7,202 per 100 servers ($911,000 per organization) from IT infrastructure optimization.

» **Business productivity benefits**: BMC Discovery improves the ability of IT teams to support business needs through agility by enabling better understanding of application and datacenter environments. This translates to higher productivity for certain groups of employees through improved application performance and scalability, to which IDC attributes an average annual value of $1,524 per 100 servers ($193,000 per organization).
IT managers interviewed for this study reported that these teams have become more efficient since the deployment of BMC Discovery, with efficiencies of 19% for configuration management, 14% for asset management, 11% for change management, and 8% for incident management.

**FIGURE 1**

Average Annual Benefits

- Average annual benefits per 100 servers: $35,654
- IT staff productivity gains: $18,433
- Risk mitigation — user productivity benefits: $8,495
- IT infrastructure cost reductions: $7,202
- Business productivity benefits: $1,524

Source: IDC, 2016

**IT Staff Productivity Gains**

BMC Discovery customers reported that they are achieving significant IT staff efficiencies in both service management and datacenter management operations. They attributed these efficiencies to common benefits of using BMC Discovery, such as improved visibility, understanding configurations and dependencies, automation, and reduced time to resolve problems.

**IT Service Management Operations**

Interviewed organizations maintain sizable teams dedicated to supporting IT operations with service management in areas such as incident, change, release, asset, and configuration management. The numerous resources devoted to these responsibilities reflect their criticality in maintaining efficient and effective IT operations. IT managers interviewed for this study reported that these teams have become more efficient since the deployment of BMC Discovery, with efficiencies of 19% for configuration management, 14% for asset management, 11% for change management, and 8% for incident management (see Table 2). These efficiencies enable these teams to better support operations without commensurate increases in staffing size and position them to spend more time ensuring that IT services support evolving business operations and demand.
Interviewed organizations mentioned several ways in which they are achieving IT staff efficiencies with BMC Discovery:

» Integration with configuration management databases (CMDB). About half of interviewed organizations have done some work to integrate BMC Discovery with their configuration management databases. This integration enables efficiencies through automation and improved ability to monitor datacenter environments in real time. As one United States–based service provider explained, “Our CMDB is used for incident, change, configuration, and asset management. The benefit of BMC Discovery is that it automates maintenance and support, which means less work for staff, and they’re probably 50% more productive in each of these areas.”

» Better data and visibility. Improved data means more effective operations, including incident management where it helps ensure faster and more accurate responses. As one organization commented, “With BMC Discovery, the incident management team can tell all of the relationships and impact when they get an incident. So they can do an impact analysis on a specific server to see what else is impacted, which helps tremendously in knowing what could potentially be impacted.”

» Fewer mistakes. Because organizations have a better understanding of their datacenter assets with BMC Discovery, members of their asset and configuration management teams are less likely to make mistakes. This means they spend less time identifying and remedying mistakes, improving their productivity and efficiency.

**TABLE 2**

**IT Service Management Staff Efficiencies**

<table>
<thead>
<tr>
<th>Staffing Category</th>
<th>FTEs Before BMC Discovery</th>
<th>FTEs with BMC Discovery</th>
<th>FTE Difference</th>
<th>Efficiency with BMC Discovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident management</td>
<td>91.4</td>
<td>84.1</td>
<td>7.3</td>
<td>8</td>
</tr>
<tr>
<td>Change management</td>
<td>52.8</td>
<td>47.2</td>
<td>5.6</td>
<td>11</td>
</tr>
<tr>
<td>Release management</td>
<td>18.9</td>
<td>18.7</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>Configuration management</td>
<td>7.5</td>
<td>6.0</td>
<td>1.5</td>
<td>20</td>
</tr>
<tr>
<td>Asset management</td>
<td>42.2</td>
<td>36.4</td>
<td>5.8</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: IDC, 2016
As a result, organizations are able to spend less time “keeping the lights on” in these areas and more time supporting IT innovation and responding to business demand.

**IT Datacenter Management**

Interviewed organizations leveraged BMC Discovery to make IT staff teams more efficient and productive. These teams handled the operations of core datacenter infrastructure, including servers, networks, and storage. As a result, organizations are able to spend less time “keeping the lights on” in these areas and more time supporting IT innovation and responding to business demand. Storage was noted by a number of respondents as an area where these organizations are looking to extend BMC Discovery’s coverage to capture efficiencies in maintaining and managing their storage environments (see Table 3).

Interviewed IT managers provided a number of examples of how they achieved efficiencies for their datacenter management teams with BMC Discovery:

- **An “authoritative source” for data.** Datacenter management teams benefit from having what one customer called “an authoritative source” for data about inventory and not needing to spend time manually updating inventory with BMC Discovery in place.

- **Proactive identification of problems.** Another organization attributed the value of BMC Discovery to being able to more proactively identify where problems might occur and being able to handle them before they consume time and resources. As one organization commented, “With BMC Discovery, information for vulnerability assessments is readily available so we can spend more time putting in remediation for vulnerabilities than going and finding them.”

- **Visibility into patching.** Another organization noted that it has made its patching operations more efficient and effective, thanks to visibility enabled by BMC Discovery, which saves IT staff time and improves its security posture. As one organization explained, “With BMC Discovery, we can scan the servers, and the application highlights which need patches through a visual display. We don’t have to rely on individual support teams but get the information in a report. It’s a tenfold improvement in patching.”

As a result, organizations are able to spend less time “keeping the lights on” in these areas and more time supporting IT innovation and responding to business demand.
### TABLE 3

**IT Datacenter Management Staff Efficiencies**

<table>
<thead>
<tr>
<th>Staffing Category</th>
<th>FTEs Before BMC Discovery</th>
<th>FTEs with BMC Discovery</th>
<th>FTE Difference</th>
<th>Efficiency with BMC Discovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server team</td>
<td>72.8</td>
<td>68.1</td>
<td>4.7</td>
<td>6</td>
</tr>
<tr>
<td>Network/storage teams</td>
<td>5.1</td>
<td>5.0</td>
<td>0.1</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: IDC, 2016

**Risk Mitigation — User Productivity Benefits**

Interviewed organizations reported that BMC Discovery has helped them make their auditing efforts more efficient and cost effective. By serving as a trusted source for audit-related data, and making it easier to obtain necessary information, BMC Discovery enabled these organizations to expend less staff time on auditing and have reduced the likelihood of incurring fines and penalties. Further, they credited BMC Discovery with helping them improve overall IT security.

**Software Audits**

Given the breadth of their IT operations, interviewed organizations have historically found responding to software audits resource consuming and time consuming. As shown in Table 4, BMC Discovery has positively impacted this burden, enabling IT to better respond to software audits, spend less staff time on software audits, and pass a higher percentage of software audits. Nearly every interviewed BMC Discovery customer mentioned software audits as an area of benefit with BMC Discovery, and several highlighted it as an impetus for deploying the software.

For these organizations, the benefits of BMC Discovery flow from having improved visibility into software use and being able to easily access information needed to demonstrate the use and status of software licenses.

Moreover, several interviewed organizations mentioned BMC’s “trusted party” status. As one organization noted, “BMC Discovery has saved us time on software audits because our vendors and suppliers trust it. They don’t come with their own tools to rediscover everything. Now we just provide content from BMC Discovery. Before, a software audit could last almost a full year. We’re doing one now with BMC Discovery that we expect will take one month.” An IT manager at another organization remarked as follows: “When I first started doing asset
management, it took almost 14 months for us to do a SQL Server audit. At the beginning of this year, we did a SQL Server audit with BMC Discovery in about 30 minutes!"

**TABLE 4**

**Software Auditing Impact**

<table>
<thead>
<tr>
<th>Staff impact</th>
<th>Before BMC Discovery</th>
<th>With BMC Discovery</th>
<th>Difference</th>
<th>Benefit with BMC Discovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of software audits per year</td>
<td>1.8</td>
<td>5.1</td>
<td>3.3</td>
<td>183</td>
</tr>
<tr>
<td>Staff time per software audit (hours)</td>
<td>3,000</td>
<td>600</td>
<td>2,400</td>
<td>80</td>
</tr>
<tr>
<td>Total FTEs — software audits per year</td>
<td>2.8</td>
<td>1.6</td>
<td>1.2</td>
<td>43</td>
</tr>
</tbody>
</table>

**Software audit failure impact**

| Percentage of failed software audits      | 50%                  | 17%                | —          | —                               |
| Number of failed software audits per year | 0.89                 | 0.85               | 0.04       | 4                               |
| Average cost per failed software audit    | $889,000             | $222,000           | $667,000   | 75                              |
| Total cost of failed software audits per year | $791,000       | $190,000           | $601,000   | 76                              |

Source: IDC, 2016

**Other Audit Operations**

BMC Discovery has made auditing operations an average of 42% more efficient. These efficiencies result from visibility, ease of obtaining data, and the ability to provide data as needed. The benefits are especially noticeable for organizations that face industry-specific auditing or compliance requirements. For example, one financial services organization reported that it has used BMC Discovery to support its Payment Card Industry (PCI) Data Security Standard compliance efforts: "We used to have to work with all the various teams about whether they are compliant or not. Now, through BMC Discovery, we can do it with a click of a button to see, and we cut down on consulting costs of people having to do this."

**Improved Overall IT Security**

In addition to staff efficiencies and cost savings related to auditing, interviewed organizations credited BMC Discovery with helping them improve the overall security of
their IT operations. In particular, they noted the importance of having a common source of record, carrying out more timely security patches, and being able to identify security threats sooner and more accurately. According to one interviewed organization, “We are constantly being brought in with BMC Discovery on different security and audit functions. We’re doing patch management with it and are identifying security patches that are not in place on servers that would ultimately put us at risk. We can then work with our security team to ensure that those are completed.”

**IT Infrastructure Cost Reductions**

BMC Discovery customers have leveraged improved visibility into and understanding of their datacenter environments to make their IT operations more cost effective (see Figure 2). In particular, they can scope with more certainty their hardware and software environments and make informed decisions about retiring or reallocating server and software resources. As a result, these organizations have been able to make informed decisions about optimizing their hardware and software environments, enabling substantial cost savings. As one organization explained, “We’re avoiding millions of dollars of software costs with BMC Discovery. We find where software is not being used or not required. Then we can reuse or reallocate the license instead of buying new licenses.” Another customer noted that it has benefited from optimizing datacenter asset use by business application: “The next wave of benefits for us with BMC Discovery came from being able to identify the product mix from a hardware and application perspective.”

**FIGURE 2**

Average Annual IT Infrastructure Cost Savings

$7,202 per year

$3,038

$1,736

$924

$276

$1,098

Source: IDC, 2016

“*We’re avoiding millions of dollars of software costs with BMC Discovery. We find where software is not being used or not required. Then we can reuse or reallocate the license instead of buying new licenses.*”
ROI Analysis

IDC interviewed nine organizations using BMC Discovery software and recorded their results to inform this study’s analysis. IDC used the following three-step method for conducting its ROI analysis:

» Gathered quantitative benefit information during the interviews using a before-and-after assessment. In this study, the benefits included staff time savings and productivity gains, user productivity increases, increased revenue, and device-related cost reductions.

» Created a complete investment (five-year total cost analysis) profile based on the interviews. Investments go beyond the annual costs of using BMC Discovery and can include additional costs related to the solution, such as migrations, planning, consulting, configuration or maintenance, and staff or user training.

» Calculated the ROI and payback period. IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations’ use of BMC Discovery over a five-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

Table 5 presents IDC’s analysis of the average discounted benefits, discounted investment, and return on investment for the BMC Discovery customers interviewed for this study over a five year period. IDC calculates that these organizations will invest a discounted average of $22,418 per 100 servers ($2.84 million per organization) over five years in BMC Discovery software, maintenance, IT staff time for deployment and management, and consulting and training. IDC projects that in return, these organizations can expect to achieve discounted benefits worth an average of $127,679 per 100 servers ($16.26 million per organization) over five years. This results in an average ROI of 470% over five years, with breakeven in their investment occurring in an average of about eight months.
### TABLE 5

**Cumulative Five-Year ROI Analysis**

<table>
<thead>
<tr>
<th></th>
<th>Average per Organization</th>
<th>Average per 100 Servers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit (discounted)</td>
<td>$16.16 million</td>
<td>$127,679</td>
</tr>
<tr>
<td>Investment (discounted)</td>
<td>$2.84 million</td>
<td>$22,418</td>
</tr>
<tr>
<td>Net present value (NPV)</td>
<td>$13.32 million</td>
<td>$105,261</td>
</tr>
<tr>
<td>Return on investment (ROI)</td>
<td>470%</td>
<td>470%</td>
</tr>
<tr>
<td>Payback period</td>
<td>8 months</td>
<td>8 months</td>
</tr>
<tr>
<td>Discount rate</td>
<td>12%</td>
<td>12%</td>
</tr>
</tbody>
</table>

*Source: IDC, 2016*

### Challenges And Opportunities

Because IT operations management costs are usually associated with deep overhead costs and are often not billed back to business units, it is not always easy to demonstrate the value of IT infrastructure management until hard metrics are available to identify existing hardware and software costs. While BMC seeks to address this issue with its innovative BMC Discovery product, the challenge of cost visibility will remain until such solutions gain widespread adoption.

Like many IT management software vendors, BMC needs to help its customers effect cultural and process changes while they update, expand, and integrate infrastructure management solutions to accommodate increasingly complex network, system, and application requirements and dependencies. Customers that want to get the most benefit out of their investment in BMC Discovery should plan to tackle cultural, process, and workflow integration activities on a coordinated basis while they deploy more unified and integrated IT operations management solutions.

IT executives must be made aware that a business case can be successfully made around IT infrastructure management solutions, which must increasingly focus on mitigating the complexities associated with the rapid adoption of virtual, cloud, and mobile computing technologies in the workplace. The business case must revolve around not just the savings associated with asset management but also the ability to embrace digital transformation...
initiatives targeted at driving business imperatives as well as effectively manage future datacenter growth, whether that growth occurs organically or through mergers and acquisitions.

BMC must continue to clearly articulate the enhanced benefits IT organizations can gain by leveraging a holistic approach to infrastructure management versus the usage of multiple disjointed point products. For instance, by leveraging a comprehensive solution, IT can view datacenter resources in a business service context and in turn ensure a wide range of software and hardware platforms remain optimized, secure, and compliant.

While cybersecurity stands to be a key driver and the budget-enabling catalyst for funding IT infrastructure management solutions, the enterprise will subsequently target other outcomes and benefits dealing with financial IT management, hardware and software life-cycle management, portfolio management, and configuration management — thereby enhancing the whole IT infrastructure management value proposition.

Summary and Conclusion

IT organizations understand that accurate awareness of how many systems and applications are in the environment, along with their location, as well as their warranty status can significantly reduce unnecessary cost, waste, and risks. Therefore, IT asset management should be viewed holistically as an essential component of an effective IT infrastructure, service, and security management program. For instance, modern technology trends (e.g., virtualization, mobile, and cloud) are increasing the complexity and importance of software license compliance as licensing models are becoming ever more convoluted as they evolve and vary based on usage from traditional client/server instances to virtual and cloud-based infrastructures.

When IT organizations lack the ability to manage and assess their company's assets to rationalize the IT environment, they often overprocure and/or underprocure IT assets. Inadequate IT purchasing and asset management practices (underprocurement) stand to have detrimental implications on the organization's bottom line and can greatly reduce IT staff business productivity and continuity. In addition, underprocurement can result in unnecessary business user downtime, increased risk of noncompliance with software licensing audits, and growth in shadow IT trends. The overpurchasing of IT resources (overprocurement) often results in unnecessary spending on licensing renewals and maintenance contracts, siloed knowledge across the organization, shelfware, and an increased risk of security vulnerabilities.
Likewise, often the first step in establishing an effective IT asset/security management program is to conduct an all-inclusive asset discovery and inventory scan, as it is essential to identify all the assets within the organization as well as their current status to effectively manage and secure corporate IT resources. Effective risk management best practices dictate that IT security plans not only leverage clear, accurate, and near-real-time visibility into all assets but also encompass the management and ongoing maintenance of those assets. By leveraging a comprehensive systems management solution that offers visibility into all the systems and applications in the organization, IT administrators can reduce the unnecessary security risks as well as financial and operational costs associated with the overpurchasing/underpurchasing of IT systems and applications.

Holistic IT infrastructure management solutions that incorporate security and asset management functionalities provide visibility and accountability of all systems and services. Regardless of platform, these solutions stand to not only enable more flexible, agile, and efficient IT operations teams but also ensure that higher end-to-end service levels keep up with the needs of the business. And while the utilization of manual processes and spreadsheets may appear to have fewer up-front costs, there are often significant long-term financial and legal consequences and expenditures associated with utilizing unrefined methods of asset management. Deficiencies in IT infrastructure management programs and practices can leave organizations vulnerable to security gaps, which can lead to the compromise of sensitive corporate data as well as failed regulatory compliance audits.

As IT organizations plan for continued investments in virtualization, mobile, big data, and hybrid cloud computing, they must account for how these strategies and architectures will accelerate the need for more unified infrastructure monitoring, analytics, and service-centric approaches to IT management and datacenter operations. Without adequate, integrated datacenter asset management resources and processes, service levels will suffer while the cost of IT operations trend upward. With BMC Discovery,

IT organizations can be more responsive to business needs by ensuring the datacenter infrastructure supporting digital services is optimized, secure, and in compliance with industry and regulatory mandates.
Appendix

*Average annual savings and benefit figures are averages of annual figures over the 5 year period of analysis in the study. Figures expressed as "over five years" are cumulative (sum of 5 years) costs or benefits over the five year period of analysis.

IDC's standard ROI methodology was utilized for this project. This methodology is based on gathering data from current users of BMC Discovery as the foundation for the model. Based on these interviews, IDC performs a three-step process to calculate the ROI and payback period:

» Measure the savings from reduced IT costs (staff, hardware, software, maintenance, and IT support), increased user productivity, and improved revenue over the term of the deployment.

» Ascertain the investment made in deploying the solution and the associated migration, training, and support costs.

» Project the costs and savings over a five-year period and calculate the ROI and payback for the deployed solution.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

» Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings.

» Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.

» The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenue.

» Lost productivity is a product of downtime multiplied by burdened salary.

» Lost revenue is a product of downtime multiplied by the average revenue generated per hour.

» The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.

Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.