HYBRID CLOUD INFRASTRUCTURE MANAGEMENT TOOLS

The Top Global Vendors 2021

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Strategy Score</th>
<th>Execution Score</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware</td>
<td>4.73</td>
<td>4.73</td>
<td>9.45</td>
</tr>
<tr>
<td>IBM</td>
<td>4.64</td>
<td>4.79</td>
<td>9.43</td>
</tr>
<tr>
<td>Micro Focus</td>
<td>4.58</td>
<td>4.83</td>
<td>9.40</td>
</tr>
<tr>
<td>Dynatrace</td>
<td>4.60</td>
<td>4.83</td>
<td>9.43</td>
</tr>
<tr>
<td>BMC</td>
<td>4.64</td>
<td>4.69</td>
<td>9.33</td>
</tr>
<tr>
<td>FNT</td>
<td>4.41</td>
<td>4.56</td>
<td>8.98</td>
</tr>
<tr>
<td>CloudBolt</td>
<td>4.41</td>
<td>4.49</td>
<td>8.90</td>
</tr>
<tr>
<td>SolarWinds</td>
<td>4.29</td>
<td>4.51</td>
<td>8.80</td>
</tr>
<tr>
<td>Turbonomic</td>
<td>4.21</td>
<td>4.33</td>
<td>8.54</td>
</tr>
<tr>
<td>Morpheus Data</td>
<td>4.21</td>
<td>4.25</td>
<td>8.46</td>
</tr>
<tr>
<td>Cisco</td>
<td>4.15</td>
<td>4.30</td>
<td>8.45</td>
</tr>
<tr>
<td>Virtana</td>
<td>3.93</td>
<td>4.11</td>
<td>8.04</td>
</tr>
<tr>
<td>CloudSphere</td>
<td>3.85</td>
<td>4.04</td>
<td>7.89</td>
</tr>
<tr>
<td>Nutanix</td>
<td>3.79</td>
<td>4.01</td>
<td>7.80</td>
</tr>
<tr>
<td>Netapp</td>
<td>3.63</td>
<td>3.73</td>
<td>7.35</td>
</tr>
</tbody>
</table>

Notes:
- Scale Explanation: 1 (Low) To 5 (High).
- Potential numerical deviations due to rounding.
### Hybrid Cloud Service Management Tools

**Vendor Selection Matrix™**

**The Top Global Vendors 2021**

<table>
<thead>
<tr>
<th>Strategy Leader</th>
<th>Market Leader</th>
<th>Challenger</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td><strong>Execution</strong></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>MICRO FOCUS</td>
<td>4.65</td>
<td>4.83</td>
</tr>
<tr>
<td>BMC</td>
<td>4.64</td>
<td>4.76</td>
</tr>
<tr>
<td>MATRIX42</td>
<td>4.56</td>
<td>4.71</td>
</tr>
<tr>
<td>IBM</td>
<td>4.49</td>
<td>4.75</td>
</tr>
<tr>
<td>CLOUDBOLT</td>
<td>4.56</td>
<td>4.56</td>
</tr>
<tr>
<td>BROADCOM</td>
<td>4.18</td>
<td>4.61</td>
</tr>
<tr>
<td>APPTIO</td>
<td>4.35</td>
<td>4.43</td>
</tr>
<tr>
<td>SERVICE NOW</td>
<td>4.45</td>
<td>4.30</td>
</tr>
<tr>
<td>FLEXERA</td>
<td>3.94</td>
<td>3.88</td>
</tr>
<tr>
<td>SNOW SOFTWARE</td>
<td>3.86</td>
<td>3.94</td>
</tr>
</tbody>
</table>

**Notes:**
- Scale Explanation: 1 (Low) To 5 (High).
- Potential numerical deviations due to rounding.
Every year, Research In Action surveys 10,000+ enterprise IT and business decision makers in order to gain insights on strategy, investments and ongoing challenges of technology innovation in the IT and Marketing Automation realm. These surveys give us access to a wealth of direct and unfiltered feedback from the buyers. It also helps us to understand how buying decisions are made in today’s business environment. The Vendor Selection Matrix™ is a primarily survey-based methodology for vendor evaluation where 63% of the evaluation is based on a survey of enterprise IT or business decision makers and 37% on the analyst’s judgement. The analyst’s input is fed by a combination of intensive interviews with software or services vendors and their clients, plus their informed, independent point-of-view as an analyst. All of this combines to make Research in Action Vendor Selection Matrix™ reports so unique. This approach is one of the key differentiators of Research In Action in market research. For this report we interviewed 1,500 enterprise IT and business managers with budget responsibility in enterprises globally. We selected those vendors which achieved the best evaluations scores from the buyers but disregarded those with fewer than 15 evaluations.

Hybrid Cloud is an IT architecture that incorporates some degree of workload portability, orchestration and management across both private and public Cloud infrastructures. The vast majority of enterprises today use a mix of private and public Cloud infrastructure and IT services. Therefore, they need Hybrid Cloud Management Tools to provision, monitor and manage these multi-Cloud resources and environments. The use of Hybrid Clouds in enterprises globally has multiplied in recent years. While more than 90% of enterprises globally today use hybrid Clouds, there are still almost a third of companies that do not have Hybrid Cloud Management tools in productive use. This, however, will to change quickly. By 2023, only around 3% of companies globally will not be using Hybrid Cloud Management Tools in production. The needs of the enterprise buyers vary by company size, region and industry and have resulted in two separate markets, one for more Infrastructure Management oriented solutions and one for more Service Management oriented solutions.

This report provides you with a useful guide to important Hybrid Cloud Infrastructure and Service Management Tools market trends, names the Top 15 and Top 10 vendors respectively, as selected by 1,500 users based upon product, company and service quality; and will help you make an informed decision regarding which vendors could best fit your requirements. This study can be used as a starting point before a more detailed evaluation of vendors which fits your requirements and market evolution.

To Infinity…and Beyond!
Dr. Thomas Mendel
OUR SURVEY DEMOGRAPHICS: IT AUTOMATION

Country Breakdown

- United States: 525
- Canada: 50
- DACH: 200
- United Kingdom: 125
- France: 125
- Benelux: 50
- Nordics: 50
- Southern Europe: 100
- Eastern Europe: 75
- Asia Pacific: 200

Industry Breakdown

1. Energy: 95
2. Financial Services: 255
3. Government & Non Profit: 90
4. Life Sciences: 200
5. Manufacturing: 350
6. Technology, Media & Telecoms: 200
7. Consumer Packaged Goods & Retail: 110
8. Professional Services: 100
9. Travel & Transportation: 100
10. Total: 1,500

Company Size Breakdown

- Headcount 0% (128)
- Headcount 20% (342)
- Headcount 30% (542)
- Headcount 40% (380)
- Headcount 50% (126)

Job Title Breakdown

- VP IT Infrastructure: 155
- IT Manager: 150
- VP IT: 135
- Chief Information Officer: 125
- IT Operations Manager: 121
- VP Service Desk: 107
- Chief Digital Officer: 85
- Chief Technology Officer: 66
- Project Management Office: 64
- VP IT Shared Services: 62
- VP Operations: 60
- Chief Operations Officer: 55
- VP Technology: 50
- Business Executive: 40
- Sourcing and Vendor Management: 37
- VP IT Financial Management: 35
- VP Enterprise Architecture: 34
- Project Manager: 32
- VP Application Development: 27
- VP DevOps: 25
- Chief Financial Officer: 20
- Chief Sales Officer: 15
- Total: 1,500

All Research in Action surveys are gender neutral and 100% confidential.

The Vendor Selection Matrix™
Evaluation Methodology:

The basis of our competitive vendor evaluation reports is always an extensive buyer survey. We then select those vendors which achieved the best evaluations scores from the buyers but disregard those with fewer than 15 evaluations. The final matrix scores are a combination of the survey results, vendor input and analyst’s opinion.
Vendor Selection Matrix™: The right mix makes all the difference
63% customer evaluations + 37% analyst’s judgement = 100% success
WHAT TOOLS DO YOU USE TO CREATE THE VENDOR SHORTLIST?

N = 3,750 Enterprise IT, Marketing and Business Managers with budget responsibilities.

- Vendor comparisons (e.g. Vendor Selection Matrix™) - 22.9%
- Webinars and (virtual) events - 18.7%
- Press (online and print) - 15.4%
- Crowdsourced vendor reviews - 11.0%
- Peer contacts - 9.9%
- Social media - 8.5%
- Vendor information - 4.9%
- Case studies - 3.3%
- External consultants - 2.5%
- Vendor presales - 2.1%
- Others/Don’t know - 0.7%
WHAT IS HYBRID CLOUD INFRASTRUCTURE AND SERVICE MANAGEMENT?

• Hybrid Cloud is an IT architecture that incorporates some degree of workload portability, orchestration and management across both private and public Cloud infrastructures\(^1\).

• The vast majority of enterprises today use a mix of private and public Cloud infrastructure and IT services. Therefore, they need Hybrid Cloud Management Tools to provision, monitor and manage these multi-Cloud resources and environments.

• The solution should include the following key characteristics:
  - Support for all leading public and private Cloud platforms
  - Infrastructure and service provisioning, performance and fault management
  - Service request management integration
  - Capacity, workload and cost management, CMDB integration
  - Process orchestration and automation
  - A single, unified management dashboard

• The need of the enterprise buyers have resulted in two separate markets:
  1. Infrastructure Management oriented solutions and
  2. Service Management oriented solutions

\(^1\) See: enterprisersproject.com/article/2020/7/hybrid-cloud-10-statistics
IT Automation solutions are necessary for a modern digital operating model.

IT Automation solutions are foundational for any transformation to reduce toil and decrease manual errors.

IT Automation solutions can enforce good practices to optimize digital service quality and speed of service delivery.
DIGITAL SERVICE MANAGEMENT
MATURITY S-CURVE 2021

Maturity Of Digital Service Management

Chaotic
6%* (5%/7%)

Reactive
14% (13%/16%)

Stable
42% (44%/41%)

Proactive
25% (24%/25%)

Predictive
13% (14%/11%)

* Categories show adoption rates in 2021, (/) show changes from 2020/2019.

N = 2,250 Enterprise Managers with budget responsibility.

All acronyms are defined in the report Appendix.

RESEARCH IN ACTION
vendor selection matrix®
The use of Hybrid Clouds in enterprises globally has multiplied in recent years.

91% of enterprises globally today use hybrid Clouds. However, there are regional differences. North-America is leading the pack with almost 94% slightly ahead of Europe with 92% and Asia pacific lagging with 80%.

Furthermore, enterprises globally today use four different public Cloud platforms (e.g. AWS, Microsoft Azure, Google Cloud) on average.

Research In Action predicts that 24 months from now, 99% of all enterprises globally will be using Hybrid Clouds.
RESEARCH: THE USE OF HYBRID CLOUD MANAGEMENT TOOLS TODAY AND IN 24 MONTHS

Strong growth in the use of Hybrid Cloud Management Tools over the next 24 months.

While 91% of enterprises globally use Hybrid Clouds today, there are still almost a third of companies that do not have Hybrid Cloud Management tools in productive use.

This, however, is about to change rapidly within the next 24 months. By that time, only around 3% of companies globally will not be using Hybrid Cloud Management Tools in production, while more than two-thirds of companies will be using them for both Infrastructure, as well as Service Management purposes.

N = 1,500 Enterprise IT and Business Managers with budget responsibilities.
RESEARCH:

MUST-HAVES FOR HYBRID CLOUD MANAGEMENT TOOLS

There are many important features of Hybrid Cloud Management Tools, but which ones are really more important than others?

Here are the Top Five:

1. Support for all leading public and private Cloud platforms
2. Cost control and cost optimization
3. Support for Multi Cloud provider workload shifting
4. Autodiscovery and service dependency mapping
5. End-to-end Performance Management

N = 1,500 Enterprise IT and Business Managers with budget responsibilities.
The almost unprecedented proliferation of Hybrid Clouds. The use of Hybrid Clouds in enterprises globally has multiplied in recent years. More than 90% of enterprises globally today use hybrid Clouds. However, there are regional differences. North-America is leading the pack with almost 94% slightly ahead of Europe with 92% and Asia pacific lagging with 80%. Furthermore, enterprises globally today use four different public Cloud platforms (e.g. AWS, Microsoft Azure, Google Cloud) on average. Research In Action predicts that 24 months from now, 99% of all enterprises globally will be using Hybrid Clouds.

Followed by strong growth in the use of Hybrid Cloud Management Tools over the next 24 months. While more than 90% of enterprises globally use Hybrid Clouds today, there are still almost a third of companies that do not have Hybrid Cloud Management tools in productive use. This, however, is about to change rapidly within the next 24 months. By that time, only around 3% of companies globally will not be using Hybrid Cloud Management Tools in production, while more than two-thirds of companies will be using them for both Infrastructure, as well as Service Management purposes.

There are two distinct markets for Hybrid Cloud Management Tools today. The needs of the enterprise buyers vary by company size, region and industry and have resulted in two separate markets, one for more Infrastructure Management oriented solutions and one for more Service Management oriented solutions. These buyer preferences are reflected on the vendor side as well. Many of the start-up vendors were focused on public Cloud Management and are now adding private Cloud Management capabilities. For the established Infrastructure and Service Management vendors, the journey goes the other way, by adding public Cloud Management capabilities to the mix. Over time, these two markets will inevitably converge.
These are the Top 15 vendors as selected by 1,500 users based upon product, company and service quality.

### VENDOR NAME | PRODUCT(S)
---|---
BMC | BMC Helix, BMC TrueSight
CISCO | Intersight, AppDynamics
CLOUDBOLT | CloudBolt
CLOUDSPHERE | CloudSphere Cloud Governance Platform
DYNATRACE | Dynatrace
FNT | FNT Command Platform
IBM | IBM Cloud Pak for Multicloud Management, Hybrid Cloud
MICRO FOCUS | Micro Focus Hybrid Cloud Management X (HCMX)
MORPHEUS DATA | Morpheus
NETAPP | NetApp Cloud Manager, Spot by NetApp
NUTANIX | Nutanix Beam, Calm, Flow Security Central
SOLARWINDS | Solarwinds Orion Product Suite, N-able
TURBONOMIC | ParkMyCloud, Productivity Optimizer, Adoption Tracker, Risk Monitor
VIRTANA | Virtana Platform
VMWARE | VMware vRealize Suite, CloudHealth

**NOTE:** If a vendor does not respond, Research in Action will complete its scoring assessment based on analyst experience and desk research. The vendor’s products and quick facts will be documented in the report, though a vendor scorecard will not be written.

This list is alphabetical and includes all relevant Hybrid Cloud Infrastructure Management Tool vendors and solutions named by the survey respondents.

Additional vendors that were cited but did not list in the Top 15, or had less than 15 ratings:
- MATRIX42
- SERVICENOW
- USU

On April 28th, 2021 IBM has signed a definitive agreement to acquire Turbonomic.
NOTE: If a vendor does not respond, Research in Action will complete its scoring assessment based on analyst experience and desk research. The vendor’s products and quick facts will be documented in the report, though a vendor scorecard will not be written.

This list is alphabetical and includes all relevant Hybrid Cloud Service Management Tool vendors and solutions named by the survey respondents.

Additional vendors that were cited but did not list in the Top 10, or had less than 15 ratings:
- CANONICAL
- CLOUDCHECKER
- IVANTI
- USU

<table>
<thead>
<tr>
<th>VENDOR NAME</th>
<th>PRODUCT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPTIO</td>
<td>Apptio Cloudability</td>
</tr>
<tr>
<td>BMC</td>
<td>BMC Helix, BMC TrueSight</td>
</tr>
<tr>
<td>BROADCOM</td>
<td>CA Service Management, DX Application Performance Management</td>
</tr>
<tr>
<td>CLOUDBOLT</td>
<td>CloudBolt</td>
</tr>
<tr>
<td>FLEXERA</td>
<td>Flexera One, Flexera Optima, CMP, CloudScape</td>
</tr>
<tr>
<td>IBM</td>
<td>IBM Cloud Pak for Multicloud Management, Hybrid Cloud</td>
</tr>
<tr>
<td>MATRIX42</td>
<td>FireScope Secure Discovery Dependency Mapping, FireScope Service Performance Manager, Enterprise Service Management</td>
</tr>
<tr>
<td>MICRO FOCUS</td>
<td>Micro Focus Hybrid Cloud Management X (HCMX)</td>
</tr>
<tr>
<td>SERVICENOW</td>
<td>ServiceNow IT Operations Management</td>
</tr>
<tr>
<td>SNOW SOFTWARE</td>
<td>Snow Commander, ITSM Enhancer</td>
</tr>
</tbody>
</table>
# Vendor Selection Matrix™

## Hybrid Cloud Infrastructure Management

### Vendor Quick Facts

<table>
<thead>
<tr>
<th>VENDOR NAME</th>
<th>MARKET PRESENCE</th>
<th>GROWTH RATE</th>
<th>CUSTOMER TRACTION</th>
<th>GOOD TO KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMC</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Continues its strategy towards the Autonomous Digital Enterprise</td>
</tr>
<tr>
<td>CISCO</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Offers many pieces of the puzzle but customers would like to see a more holistic strategy</td>
</tr>
<tr>
<td>CLOUDBOLT</td>
<td>Medium</td>
<td>High</td>
<td>Strong</td>
<td>Helps enterprises anywhere they are on their Cloud journey</td>
</tr>
<tr>
<td>CLOUDSPHERE</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Agentless discovery and application-level insights for multi-Cloud management</td>
</tr>
<tr>
<td>DYNATRACE</td>
<td>Very Big</td>
<td>High</td>
<td>Strong</td>
<td>Modernizes Hybrid-Cloud operations</td>
</tr>
<tr>
<td>FNT</td>
<td>Small</td>
<td>Medium</td>
<td>Strong</td>
<td>Excels in integrated management of IT, data center and telecom infrastructure</td>
</tr>
<tr>
<td>IBM</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Delivers an end-to-end experience aligned to an application’s lifecycle</td>
</tr>
<tr>
<td>MICRO FOCUS</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Enables global enterprises’ transformation towards a digital business</td>
</tr>
<tr>
<td>MORPHEUS DATA</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Brings the Cloud experience on-prem and applies on-prem control to Public Clouds</td>
</tr>
<tr>
<td>NETAPP</td>
<td>Big</td>
<td>Medium</td>
<td>Medium</td>
<td>Helps enterprises build a unified data fabric between the data center and Clouds of choice</td>
</tr>
<tr>
<td>NUTANIX</td>
<td>Small</td>
<td>Medium</td>
<td>Medium</td>
<td>Converges Hybrid Cloud environments into a single Cloud platform</td>
</tr>
<tr>
<td>SOLARWINDS</td>
<td>Big</td>
<td>Medium</td>
<td>Strong</td>
<td>A market leader with a very strong low cost alternative</td>
</tr>
<tr>
<td>TURBONOMIC</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>IBM will further improve its capabilities through the TURBONOMIC acquisition</td>
</tr>
<tr>
<td>VIRTANA</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Offers AI-powered observability for managing hybrid Clouds</td>
</tr>
<tr>
<td>VMWARE</td>
<td>Very Big</td>
<td>High</td>
<td>Strong</td>
<td>Leverages the competitive advantage created through the proliferation of its virtualization technology in enterprises and service providers</td>
</tr>
</tbody>
</table>

### NOTES:

- Market Presence combines the market share and perceived Mindshare (or Share of Mind).
- Growth Rate is the anticipated growth rate for this year where Medium is the average growth for this market.
- Customer Traction combines the vendor’s customer retention rate and the Research In Action Recommendation Index (RI). The RI is collected and calculated by asking the survey participants: “Would you recommend this vendor in this market to your peers - Yes or No?”.
# VENDOR SELECTION MATRIX™
## HYBRID CLOUD SERVICE MANAGEMENT

### Vendor Quick Facts

<table>
<thead>
<tr>
<th>VENDOR NAME</th>
<th>MARKET PRESENCE</th>
<th>GROWTH RATE</th>
<th>CUSTOMER TRACTION</th>
<th>GOOD TO KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPTIO</td>
<td>Medium</td>
<td>Medium</td>
<td>Good</td>
<td>The most important vendor for cost transparency and optimization</td>
</tr>
<tr>
<td>BMC</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Continues its strategy towards the Autonomous Digital Enterprise</td>
</tr>
<tr>
<td>BROADCOM</td>
<td>Big</td>
<td>Low</td>
<td>Good</td>
<td>Has an impressive portfolio to support Global 500 companies</td>
</tr>
<tr>
<td>CLOUDBOLT</td>
<td>Medium</td>
<td>High</td>
<td>Strong</td>
<td>Helps enterprises anywhere they are on their Cloud journey</td>
</tr>
<tr>
<td>FLEXERA</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Still a challenger today, but on a promising trajectory to become a market leader</td>
</tr>
<tr>
<td>IBM</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Delivers an end-to-end experience aligned to an application’s lifecycle</td>
</tr>
<tr>
<td>MATRIX42</td>
<td>Medium</td>
<td>High</td>
<td>Strong</td>
<td>Fully embraces the convergence of Hybrid Cloud and Enterprise Service Management</td>
</tr>
<tr>
<td>MICRO FOCUS</td>
<td>Very Big</td>
<td>Medium</td>
<td>Strong</td>
<td>Enables global enterprises’ transformation towards a digital business</td>
</tr>
<tr>
<td>SERVICENOW</td>
<td>Big</td>
<td>Very High</td>
<td>Medium</td>
<td>Continues to modernize its digital services platform to grow even bigger</td>
</tr>
<tr>
<td>SNOW SOFTWARE</td>
<td>Medium</td>
<td>Medium</td>
<td>Good</td>
<td>Works successfully at bringing simplicity, flexibility and insight to Hybrid Cloud Management</td>
</tr>
</tbody>
</table>

**NOTES:**
- Market Presence combines the market share and perceived Mindshare (or Share of Mind).
- Growth Rate is the anticipated growth rate for this year where Medium is the average growth for this market.
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# VENDOR SELECTION MATRIX™:
## EVALUATION CRITERIA

### STRATEGY

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision And Go-To-Market</td>
<td>30%</td>
</tr>
<tr>
<td>Innovation And Differentiation</td>
<td>30%</td>
</tr>
<tr>
<td>Viability And Execution Capabilities</td>
<td>15%</td>
</tr>
<tr>
<td>Recommendation Index</td>
<td>25%</td>
</tr>
</tbody>
</table>

- **Vision And Go-To-Market**: Does the company have a coherent vision in line with the most probable future market scenarios? Does the go-to-market and sales strategy fit the target market and customers?
- **Innovation And Differentiation**: How innovative is the company in this market? Does the solution have a unique selling proposition and clear market differentiators?
- **Viability And Execution Capabilities**: How likely is the long-term survival of the company in this market? Does the company have the necessary resources to execute the strategy?
- **Recommendation Index**: Would customers recommend this vendor in this market to their peers?

### EXECUTION

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth And Depth Of Solution Offering</td>
<td>30%</td>
</tr>
<tr>
<td>Market Share And Growth</td>
<td>15%</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>25%</td>
</tr>
<tr>
<td>Price Versus Value Ratio</td>
<td>30%</td>
</tr>
</tbody>
</table>

- **Breadth And Depth Of Solution Offering**: Does the solution cover all necessary capabilities expected by customers?
- **Market Share And Growth**: How big is the company’s market share and is it growing above the market rate?
- **Customer Satisfaction**: How satisfied are customers with the solution and the vendor today?
- **Price Versus Value Ratio**: How do customers rate the relationship between the price and perceived value of the solution?

### NOTES:
- 63% of the evaluation is based on the survey results, 37% is based on the analysts’ assessment.
- 40% of the evaluation is based on the survey results: (1) Recommendation Index, (2) Customer Satisfaction, (3) Price Versus Value.
- 15% of the evaluation is based on the analysts’ assessment: (1) Viability And Execution Capabilities, (2) Market Share And Growth.
- 45% of the evaluation is based on a combination of survey results and analysts’ assessment: (1) Vision And Go-To-Market (2) Innovation And Differentiation (3) Breadth And Depth Of Solution Offering.

The Research In Action Recommendation Index (RI) is collected and calculated by asking the survey participants: “Would you recommend this vendor in this market to your peers - Yes or No?”.
VENDOR SELECTION MATRIX™
HYBRID CLOUD INFRASTRUCTURE MANAGEMENT TOOLS

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STRATEGY LEADER
Hybrid Cloud Infrastructure Management The Top Global Vendors 2021

MARKET LEADER
VMWARE MICRO FOCUS DYNATRACE BMC FNT CLOUDBOLT SOLARWINDS TURBONOMIC CISCO MORPHEUS DATA

CHALLENGER
VIRTANA CLOUDSPHERE NUTANIX NETAPP

EXECUTION LEADER

<table>
<thead>
<tr>
<th>VENDOR</th>
<th>STRATEGY</th>
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<th>TOTAL</th>
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Notes:
- Scale Explanation: 1 (Low) To 5 (High).
- Potential numerical deviations due to rounding.

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### VENDOR SELECTION MATRIX™

**HYBRID CLOUD SERVICE MANAGEMENT TOOLS**

#### STRATEGY LEADER

**Hybrid Cloud Service Management**
**The Top Global Vendors 2021**

#### MARKET LEADER

- **MICRO FOCUS**
- **MATRIX42**
- **CLOUDBOLT**
- **BROADCOM**
- **IBM**

#### CHALLENGER

- **APPTIO**
- **SERVICENOW**

#### EXECUTION LEADER

- **FLEXERA**
- **SNOW SOFTWARE**

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BMC is a market leader for Hybrid Cloud Infrastructure and Service Management tools and continues its strategy towards the Autonomous Digital Enterprise

BMC is a 40-year-old software company and with its heritage, experience and innovations has continuously shaped the Enterprise Service Management and other IT automation topics. Today, the company has more than 10,000 Service Management customers across the globe. With roughly 6,000 employees, its total revenue is greater than $2 billion.

BMC continues to innovate in the area of Hybrid Cloud Management tools, well beyond what customers are used to from BMC.

The BMC vision is to be the enabler of the Autonomous Digital Enterprise. This is anchored in the fundamental belief that the future businesses must be agile, customer focused, and insight driven. The company has made large investments in the Autonomous Digital Enterprise initiative and results are already visible in the BMC Helix solution.

Customer feedback is excellent, the enterprise managers in our survey are very satisfied with BMC’s strategy. In the Research In Action Recommendation Index, BMC even scored the highest rating of all vendors.

With a global sales force, execution partners and global system integrators, BMC is well positioned to provide its enterprise service customers with new ways to automate additional lines of business beyond IT workflows. All Hybrid Cloud Management requirements, both on the infrastructure, as well as on the Service Management side are covered well.

BMC achieved the second highest customer satisfaction and highest price versus value scores of all vendors.

For enterprise organizations who are looking for a single, shared service platform for Hybrid Cloud Management which can be leveraged across IT and business functions, BMC has a lot to offer. The integration of IT Operations Management (ITOM) with IT Service Management (ITSM) products leveraging shared BMC Helix AI capabilities has created a key differentiator for this vendor in this market.

BMC is well positioned with its modern, scalable microservices-based platform with AI capabilities to support customers on their journey of hybrid Cloud adoption.
THE RESEARCH IN ACTION GMBH
VENDOR SELECTION MATRIX™ METHODOLOGY

Vendor Selection Matrix™ Disclaimer:
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About:
Research In Action GmbH is a leading independent information and communications technology research and consulting company. The company provides both forward-looking as well as practical advice to enterprise as well as vendor clients.
APPENDIX: IT AUTOMATION MARKETEXTURE DEFINITIONS

* Application Discovery and Dependency Mapping (ADDM) solutions automatically discover various applications running on server and network devices within the business hybrid infrastructure and maps the dependencies between them providing a holistic view of all the resources running and the relationships between them.

* Application Performance Management (APM) solutions manage the performance and health of applications within a IT enterprise.

* AI Powered Chatbot Platforms which are used to build applications that answer questions, provide advice and/or recommendations using natural language processing and other dialog related technologies.

* Artificial Intelligence and Machine Learning (AI/ML) are both technologies and are leveraged in automation solutions. Artificial intelligence (AI) is the ability of a computer program or machine to think and learn (AI can mimic human cognition). Within IT Automation AI is used to correctly interpret a variety of data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation. Machine learning enables computers with the ability to learn without being programmed (explicit algorithms). It explores the study and construction of algorithms which can learn and make predictions on data. The algorithms follow programmed instructions or can make predictions or decisions based on the data. Machine learning is used when explicit algorithms cannot be done (e.g., computer vision, search engines, optical character recognition).

* Artificial Intelligence for Operations (AIOps) solutions equip IT enterprise teams with analysis of volumes and categories of data to improve key processes, tasks and decision making. The adoption of these tools automates the ingestion of fast volumes of data; leverage machine learning to analyze the data, present findings to either predict or alert on issues, and leverage the knowledge for automation or decision making.

* Artificial Intelligence Predictive Analytics (AIPA) solutions apply Artificial Intelligence across development, IT operations, service management and other functional areas to gain intelligent insights for proactive work, elimination of issues and ongoing improvements in context of the owner and function.

* Application Release Orchestration (ARO) solutions equip IT enterprise organizations and their teams with the automation of the software deployment cycle across hybrid technology environments.

* Configuration Management Database (CMDB) is a database which captures IT components referred to as configuration items (CIs), which can be software, hardware, a document, article, or any such item that is part of the information system of the organization.

* Continuous Application Performance Management (CAPM) software solutions continuously identify issues around performance and availability of software applications, IT and enterprise services. The solutions strive to proactively detect and diagnose application performance problems and health and enable a situational awareness of application related issues.

* Continuous Management (CM) solutions that empower, automate and continuously manage the ongoing demands of all digital functions within an enterprise no matter if they are within IT or business teams.

* Enterprise Service Management (ESM) is a category of business management software - typically a suite of integrated applications that a service organization uses to capture, manage, save and analyze data critical to their service business performance. It automates service offerings across internal functional areas such as (1) Human resources, (2) Vendor management, (3) Technical services, (4) Field services, (5) Financial management and (6) Shared services organizations.

* Digital Service Management (DSM) solutions enable the management of resources and services which support multiple digital services leveraged by external customers. The purpose is to break down operating silos, ensure compliance and governance while enabling the business to continuously innovate new and existing digital services.

* Digital Experience Management (DEM) solutions manage the digital interaction of customers (end-users) with that of an enterprise.

* End User Experience Management (EUEM) solutions monitor and manage the impact of application and device performance from the end user’s point of view and ensure quality of service as seen and experienced by the end user.
APPENDIX: IT AUTOMATION MARKETEXTURE DEFINITIONS

• **IT Asset Management (ITAM)** software manages the full lifecycle of IT assets which typically includes all software, hardware, networking, Cloud services, and client devices. In some cases, it may also include non-IT assets such as buildings or information where these have a financial value and are required to deliver an IT service. IT asset management can include operational technology (OT), including devices that are part of the Internet of Things. These are typically devices that were not traditionally thought of as IT assets, but that now include embedded computing capability and network connectivity.

• **IT Financial Management (ITFM)** software enables the accurate and cost-effective management of IT assets and resources with the aim to plan, control, recover (or overall manage) costs which are occurring while providing IT and Enterprise Services to the organization.

• **The IT Infrastructure Library (ITIL)** is the de facto standard for IT Service Management process definitions today.

• **Internet of Things Management (IoT)** solutions vary depending on the use case but typically manage a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are equipped with unique identifiers which transfer data over a network without requiring human-to-human or human-to-computer interaction.

• **IT Operations Management (ITOM)** solutions monitor and control IT services and infrastructure and enable IT to execute routine tasks necessary to support the operation of applications, services and hardware components within an organization; typically included are the provisioning of IT infrastructure, capacity management, cost-control activities, performance and security management and availability management for all IT infrastructure and assets.

• **IT Service Management (ITSM)** refers to the entirety of activities – directed by policies, organized and structured in processes and supporting procedures – that are performed by an organization to plan, design, deliver, operate and control Information Technology (IT) services offered to internal customers. It is thus concerned with the implementation of IT services that meet customers' needs, and it is performed by the IT service provider through an appropriate mix of people, process and information technology.

• **Observability** solutions enable the aggregating, correlating and analyzing of steady streams of performance data from distributed applications and the hybrid infrastructure which support the applications.

• **Robotic Process Automation (RPA)** solutions enable the automation of tasks, processes and procedures which are normally conducted by a human. RPA solutions create software robots that mimic human actions. Typically, these are tasks that a human would do. (Ro)Bots and Virtual Agents are part of RPA solutions.

• **Secure Unified Endpoint Management (SUEM)** software enables the management and securing of mobile applications, content, collaboration and provides for the management of all endpoints like smartphones, tablets, laptops, printers, ruggedized devices, Internet of Things (IoT) and wearables.

• **Technology Cost and Resource Optimization (TCRO)** software enables the planning, management and visibility of the supporting and required business and IT technology resources from a cost and capacity perspective by visualizing, planning, prioritizing and optimizing the usage and demands of technology resources (people, processes and technologies) for the enterprise.

• **Value Stream Management (VSM)** software solutions capture, visualize, and analyze the flow of work across the entire Agile software delivery project. The capabilities include end-to-end visibility, traceability and governance over the entire process and help to plan, track, and steer work at the team, program, portfolio, and enterprise levels. It includes the people working on a project, the systems which are operated and leveraged, and the flow of information and materials between teams. It enables the measurement of speed and quality for digital transformations.
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