Exploring The Complexities Of Cloud Migration And App Modernization

Capitalize On Cloud’s Ability To Innovate And Modernize Through Pragmatic Due Diligence
Cloud Uniquely Positioned To Fuel Multiple Elements Of Digital Renewal

The rise of digital has left organizations with an ultimatum: Keep up or get left in the dust. Businesses need to respond to market conditions, function like a well-integrated machine, and be collaborative by encompassing all parts of the organization. Technology leaders adapting to the pace of change have often touted cloud as the engine of digital transformation and the key to ongoing business evolution and innovation. However, envisioning, managing, and driving cloud adoption is a complex task that must consider the impact on the business, applications, and challenges.

In September 2018, Micro Focus commissioned Forrester Consulting to explore enterprise cloud migration and application modernization practices. This study exclusively looks at enterprises that are actively considering migration of existing applications to a public cloud platform.
Moving To The Cloud Is A Key Initiative To Enable A Digital Transformation

Organizations in every industry face opportunities and threats caused by the digitally empowered customer. Acquiring customers — or losing existing ones — has never been easier. Digital transformation requires organizations to innovate, optimize, and modernize rapidly to remain competitive in their industries.

When asked about critical and high priorities over the next 12 months, organizations noted revenue growth (90%), application sourcing optimization by transferring to the cloud (89%), improving the customer experience (CX) (83%), and improving their ability to innovate (81%). Lower in priority but still highly sought after were simplifying the organization (77%) and reducing costs (77%), which ultimately make the other initiatives possible.

Cloud technologies have the unique ability to deliver on all three (innovation, optimization, and modernization), but doing so is far from simple. Early cloud usage focused on innovation and delivering value. Over the past few years, organizations have been heavily utilizing cloud as a transfer target to optimize their application sourcing and as a platform for app modernization. This process is not easy, but it does require a different approach or strategy.
Moving To The Cloud Isn’t Simple, And App Modernization Takes Time

Moving a core business application to a generic cloud platform isn’t a pain-free sourcing change. Many applications can experience performance degradation, but organizations with existing technology management operations simply cannot start from scratch and rewrite everything for the cloud. The more intensive the adjustment requirements, the more cost-intensive the move to cloud will be. Organizations must devise a strategy for evaluating candidate apps — determining what, if any, changes should be applied to ensure the move is successful and the performance and cost balance is met.

Recently, organizations have been selecting their most high-value apps that are closely tied with revenue generation and strategic differentiation to undergo more complete modernization. To accelerate the modernization process, organizations turn to unique value-added services: 39% listed managed service providers as one of the top three drivers for moving to cloud.

Enterprises move applications to the cloud to outsource commodity services (39%) and workloads (34%) and to scale apps quickly (33%).
Moving To The Cloud Reveals Various Challenges Throughout The Process

Apps are not all one and the same. Most core business applications are built to handle horizontal scaling or nonresilient infrastructure. Force-fitting all apps or taking a single transfer approach lowers efficiency. At times, this means overspending on modernization for less valuable or packaged apps, building in needless redundancy, or ignoring new investments that have not yet matured. Tackling this next phase of cloud requires due diligence and app-by-app evaluation. Survey respondents identified key areas through the stages of migration:

- **Prior** to the move: Alignment between business and IT (25%), security and privacy issues (24%), inadequate change management programs (22%), cultural resistance (21%), and lack of budget (21%).

- **During** the move: Lack of business C-level executive support (38%), inadequate or missing internal skills (37%), legal and regulatory compliance (36%), availability of partners to help (34%), security and privacy issues (34%), and inadequate control over management processes (32%).

- **After** the move: Security and privacy (31%), inadequate control over management (31%), cultural resistance to the cloud (31%), and inadequate change management (30%).

### Forrester Opportunity Snapshot: A Custom Study Commissioned By Micro Focus | December 2018

*Exploring The Complexities Of Cloud Migration And App Modernization*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Before</th>
<th>Faced</th>
<th>After</th>
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<tbody>
<tr>
<td>Security and privacy issues</td>
<td>24%</td>
<td>34%</td>
<td>31%</td>
</tr>
<tr>
<td>Lack of alignment between IT and business</td>
<td>25%</td>
<td>31%</td>
<td>27%</td>
</tr>
<tr>
<td>Inadequate or missing relevant internal skills</td>
<td>19%</td>
<td>37%</td>
<td>26%</td>
</tr>
<tr>
<td>Legal and regulatory compliance</td>
<td>20%</td>
<td>36%</td>
<td>25%</td>
</tr>
<tr>
<td>Inadequate change management programs (communications, incentives, etc.)</td>
<td>22%</td>
<td>29%</td>
<td>30%</td>
</tr>
<tr>
<td>Cultural resistance to moving cloud</td>
<td>21%</td>
<td>27%</td>
<td>31%</td>
</tr>
<tr>
<td>Lack of business C-level executive support</td>
<td>14%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Inadequate control over management processes (backup, etc.)</td>
<td>13%</td>
<td>32%</td>
<td>31%</td>
</tr>
<tr>
<td>Lack of budget</td>
<td>21%</td>
<td>28%</td>
<td>27%</td>
</tr>
<tr>
<td>Availability of partners to help us</td>
<td>20%</td>
<td>34%</td>
<td>21%</td>
</tr>
</tbody>
</table>

*What are the biggest challenges your organization encountered before, during, and after moving your systems and applications the cloud?*

Base: 255 IT decision makers responsible for application development, enterprise architects, and business process leaders.

Note: Percentages may not total 100 because of rounding.

Source: A commissioned study conducted by Forrester Consulting on behalf of Micro Focus, December 2018
People And Process Top Challenges For App Modernization

Application modernization is often tied to moving to the cloud. Rather than rehosting an application with minimal changes on a cloud platform, enterprises look to more resource-intensive modernization efforts if they see value in modernizing system applications, processes and infrastructure.

Enterprises undergoing application modernization efforts find that coordinating multiple interests and solving for change management are the most common challenges. Specifically, enterprises noted that aligning business and IT (53%), achieving consensus (42%), obtaining new talent (42%), and lack of existing talent (37%) are all key challenges. Organizations also listed challenges due to customization and the inability to streamline modernization techniques.

To sustain digital change dependably over time, business and IT leaders must apply discipline to overcome siloed thinking and drive a holistic perspective around cloud migration. Thirty-seven percent said the effort may not justify the benefits; their focus is also on other initiatives and building new apps.
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Firms Ditch The Rip-And-Replace Mentality

Technology leaders understand that too much change at once is not only costly, but disruptive with few potential benefits. As such, enterprises approach decisions with pragmatism. Rather than starting from scratch, technology leaders seek strategic change. They select which existing systems can and should be reused/repurposed, versus where to invest in the most impactful changes. This allows IT leaders to focus on key experiences and efficiencies that most benefit their digitally savvy customers. Given the investment and change required for core business systems to move to public cloud platforms, many remain on-premises. In fact, 41% of respondents said their core business apps will be on-premises. Yet, many enterprises look to integrate complex systems (41%), like moving mainframes to newer cloud environments rather than replacing some (25%), most (27%), or all of their mainframe usage (4%).

<table>
<thead>
<tr>
<th>“Where will your core business applications be located?”</th>
<th>“What is your strategy for replacing existing host/mainframe systems of record applications with cloud applications?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-premises or colocated facility</td>
<td>Integrate host/mainframe systems of record with cloud applications, e.g., Salesforce</td>
</tr>
<tr>
<td>Outsourced to a public cloud provider</td>
<td>Replace most of our host/mainframe applications with cloud applications</td>
</tr>
<tr>
<td>Outsourced to a specialist with mainframe and/or COBOL</td>
<td>Replace some of our host/mainframe applications with cloud applications</td>
</tr>
<tr>
<td>Outsourced elsewhere</td>
<td>Replace all of our host/mainframe applications with cloud applications</td>
</tr>
<tr>
<td>Unknown</td>
<td>No changes to our host/mainframe applications</td>
</tr>
</tbody>
</table>

41%
38%
20%
1%
1%
41%
27%
25%
4%
2%
Modernization Through Cloud Enables Transformation Across Business And IT

Real digital transformation requires fast, sweeping modernization of old systems into new cloud-based systems that enable agility and flexibility. Survey respondents agreed with this notion, stating that modernizing applications benefits in multiple ways: increased quality of apps (49%), increased delivery flexibility (46%), and meeting customer demands with engaging apps (45%).

This is exactly why enabling application modernization is considered a transformation journey, one that fosters business agility and the ability to take advantage of ongoing vendor innovation. Nevertheless, it’s important for organizations to see how to blend their core business systems with cloud-based technologies to enable real transformational change.

To modernize apps, organizations are focusing on DevOps (56%), security (51%), fine-grain improvements like microservices (47%), and app changes like UI and functionality (44%).
Conclusion

To keep up with the pace and change of technology adoption, organizations must consider how they manage transfer/move activities. Technology and business leaders must be laser-focused on what they want to achieve and remember the following:

• Align business systems to the business strategy. Core business applications are not exempt from rigorous sourcing evaluations to determine if change would drive value that exceeds the costs spent. Carefully determine which path is best for your apps — integrate, modernize, and move. Moving to the cloud and digital transformation have launched these conversations into the top business objectives of enterprises. Tackle this challenge with the pragmatism it requires.

• Seek high-value changes, which can be resource intensive. Moving to the cloud is notably more challenging than cloud adoption for new applications. It will take a careful balance of costs and performance. For lower-value apps, minimize changes to control costs. For key business applications, modernize but with similar caution toward cost control. Key benefits can be improvements in flexibility, customer experience, and the ability to do business in new markets/regions or for new users.

• DevOps process improvements drive transformation. Although application modernization draws much of the focus in digital transformations, process modernization is just as common and valuable. Process modernization can deliver speed. Without efficient process, the value of many technologies is limited. Experience the full value by getting out of your own way.

Methodology

This Opportunity Snapshot was commissioned by Micro Focus. To create this profile, Forrester leveraged its existing research on cloud platforms and app modernization. Forrester Consulting supplemented this research with custom survey questions asked of 255 respondents responsible for their organizations’ cloud strategies. The custom survey began in October 2018 and was completed in December 2018.

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