Linux Continues to Gain Momentum in Enterprise Server Market

New research confirms that the server OS is gaining strength for a growing array of critical business applications, driven heavily by IT’s desire to avoid vendor lock-in and reduce TCO.

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The server OS is gaining strength for a growing array of applications, driven heavily by IT’s desire to avoid vendor lock-in and reduce TCO.

The debate about whether Linux would achieve mainstream adoption in enterprise computing environments is over: Linux has taken its place as a major platform for enterprise computing.

For many years, Linux’s adoption was tightly focused on such segments as supercomputing, Web servers, Internet hosting and application development. But more recently, Linux has seen far broader acceptance in mainstream computing environments, from departmental servers to data center server clusters. In fact, IDC said that more than 20% of all server revenue in 2012 came from Linux-based servers.

The reasons for Linux’s growing popularity are well known and widely accepted. Its pricing model (free licensing) enables organizations to significantly drive down total cost of ownership (TCO), and the development of an extensive support ecosystem and enterprise-quality maintenance and support subscriptions have dramatically helped mitigate deployment and ongoing operational risks. Linux also benefits from IT departments’ hopes of migrating away from more costly Unix platforms, since Linux is widely considered the most logical technical transition from Unix.
A new research study sheds light on a variety of factors that, taken collectively, lend credence to the notion that Linux will continue to gain strength in a variety of enterprise computing applications, including more and more mission-critical apps.

The key findings of the study — based upon 167 responses from IT professionals across a variety of vertical markets — include the following takeaways:

- Most respondents agreed with the idea that moving to open source platforms will help them avoid vendor lock-in.
- Nearly one-half of the respondents said Linux currently is either widely or significantly deployed throughout their organizations.
- Of those that have not yet deployed Linux, almost one-half either plan to install Linux on their servers in the next 12 months or have not ruled it out.
- Web servers are the No. 1 application for Linux-based servers among those surveyed, but databases — led by Oracle — are a close second.
- Third-party service/support, security and lack of in-house technical skills are the biggest impediments to greater Linux adoption, although the majority of respondents identified none of those as a significant problem.
- Security, TCO and high-availability features are the most significant issues respondents look at when they consider migrating their mission-critical applications to Linux.

**Server-Based Linux Installation Trends**

Ten years ago, it was unlikely that Linux-based servers would have been installed in more than a handful of organizations other than for specialized applications, such as Web servers and supercomputing. That’s changed dramatically during the past decade, as a result of both Linux’s strong track record for resiliency, security and scalability and its demonstrated TCO advantage over competing platforms.

Respondents to the survey — which was fielded in April/May 2013 — indicated impressive strength in Linux deployment throughout their server installations. In fact, more than 40% of respondents said Linux is either their primary server operating system or one of their top server platforms.

**How widely deployed is Linux on your organization’s servers?**

- Widespread: 17%
- Significant: 37%
- Scattered: 41%
- Nonexistent: 5%
Among the respondents — all of whom work at organizations with at least 500 employees, with more than half working in organizations with at least 5,000 employees — 42% said Linux is either their primary server operating system or one of their top server platforms.

It’s also worth noting that among the 17% of respondents who have not yet deployed Linux on their servers, 46% said they either expect to deploy it in the next 12 months or aren’t sure about their near-term deployment plans.

Among those with Linux already installed on their enterprise servers, Red Hat Enterprise Linux is the most-deployed platform, followed by SUSE Linux Enterprise Server, which was installed by one-third of respondents.

**Linux for Enterprise Business Applications**

Linux has come a long way from the days when it was selectively deployed on a limited number of applications. Today, Linux has gained wide acceptance and is being utilized in an impressive variety of critical business applications throughout the enterprise, including some that would arguably be considered mission-critical.

For instance, while respondents named Web application servers as the top application for Linux-based servers, it was closely followed by databases and even data warehousing and business intelligence. Linux’s strengths in scalability, multiprocessor performance and resiliency make it extremely viable for those demanding enterprise applications, particularly when those capabilities are combined with Linux’s historical strength in TCO.

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**Does your organization currently run, or plan to run in the next 12 months, any of these applications on Linux-based servers?**

<table>
<thead>
<tr>
<th>Application</th>
<th>Currently Run</th>
<th>Plan to run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web servers</td>
<td>76%</td>
<td>14%</td>
</tr>
<tr>
<td>Oracle DB</td>
<td>63%</td>
<td>6%</td>
</tr>
<tr>
<td>DB (non-Oracle)</td>
<td>51%</td>
<td>11%</td>
</tr>
<tr>
<td>Data warehousing</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td>Bus. Intelligence</td>
<td>45%</td>
<td>17%</td>
</tr>
<tr>
<td>Custom/vertical</td>
<td>43%</td>
<td>8%</td>
</tr>
<tr>
<td>CRM</td>
<td>30%</td>
<td>12%</td>
</tr>
<tr>
<td>SAP</td>
<td>25%</td>
<td>8%</td>
</tr>
<tr>
<td>ERP (non-SAP)</td>
<td>24%</td>
<td>7%</td>
</tr>
</tbody>
</table>
As Linux gains momentum and wider acceptance for enterprise applications, IT organizations will continue to ask tough questions when it comes to evaluating Linux for their most essential, mission-critical applications. Inevitably, issues such as security will likely be at the top of the list, as it was for the majority of survey respondents. It’s important to note, however, that respondents also said they are evaluating Linux for mission-critical applications on the basis of such issues as TCO, high-availability features and the ability to deliver the highest possible performance.

**Evaluating Linux in a Real-World Environment**

Analysts have published numerous reports and white papers indicating that Linux’s most prevalent heritage is its evolution from what had been Unix-centric environments. From a technical standpoint, Linux is seen as sharing many more characteristics with Unix than it does with the server version of Windows, including resiliency, performance, scalability and security.

When respondents were asked about where they still held “significant concerns” about evaluating Linux as a server platform alternative to Unix, they generally felt Linux compared well to Unix on virtually all key issues. Of those issues, the Linux vendor’s service and support capability was the top issue about which they voiced significant concerns, although fewer than 50% of the respondents said it was a significant concern when compared with Unix.
One reason Linux stands up well as an enterprise server platform when compared with Unix is, of course, its open source foundation. Linux adherents have always touted the fact that open source software helps the IT organization achieve the important goal of avoiding vendor lock-in more than any other server platform. And survey respondents generally agreed that migrating to Linux would give their organizations considerable benefits in terms of ensuring migration freedom and flexibility and not being locked into specific hardware and software vendors.

Do you agree that moving to open source platforms like Linux will ensure your organization avoids vendor lock-in?

- Strongly agree: 37%
- Agree: 20%
- Neither agree/disagree: 38%
- Disagree: 1%
- Strongly disagree: 4%
Summary

Linux in the enterprise is a fact of life for more and more IT organizations. The operating system’s security, scalability and resiliency take it beyond its traditional roots in Web servers and supercomputing and make it an appropriate host for mission-critical applications — and its common technical roots with Unix and attractive TCO make it a prime choice for IT departments.

Perhaps most important, survey respondents felt strongly that moving to Linux would help them avoid vendor lock-in, thus delivering the necessary economic and operational benefits of a truly agile and flexible enterprise computing architecture.