ESG Research Insights Paper

IT Transformation’s Value
Research Proves a Link to Agility, Innovation, and Business Success in India

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Introduction

ESG, in partnership with Dell EMC and Intel, has done extensive research on the topic of IT Transformation. IT Transformation is the act of modernizing and automating information technology systems and software holistically to improve IT operations and refine relevant business processes. It’s a major endeavor, but ESG’s research shows a meaningful link between IT Transformation progress and positive IT and business results.

The overall research effort consisted of a survey of 4,000 IT decision makers working at organizations with 500 or more employees across various industry verticals from 16 countries; however, this report summarizes the findings derived specifically from respondents based in India—a subset of 400 respondents.

The goal of this report is to quantify and summarize the benefits that IT Transformation is delivering for these Indian organizations. It also identifies the components of IT Transformation maturity, and it examines the progress organizations in India have made compared with other organizations across the rest of Asia.

ESG, Dell EMC, and Intel have also developed a complimentary online IT Transformation self-assessment to help an organization assess its own IT Transformation maturity. The assessment combines the research data with your unique inputs to provide customized recommendations on where you should focus transformation efforts based on your organization’s status. The assessment also allows you to access more specific insights by enabling you to compare your organization with others in your region only, or within your industry only.

Market Overview

IT Transformation is a concept with strong momentum in India. When ESG asked respondents to agree or disagree with the statement: “If my IT organization does not embrace IT Transformation, we will not be a competitive company,” 90% of Indian respondents agreed. The high number of Indian respondents agreeing with that statement is a powerful finding in its own right, but it becomes even more compelling when compared to the rest of the Asia-Pacific and Japan region (74% agreement).

Why IT Transformation Matters

ESG was able to assess the level of IT Transformation progress for each organization participating in the research. In its analysis, ESG grouped organizations into one of four categories based on their progress: Legacy, Emerging, Evolving, and Transformed.

In addition to asking questions that allowed ESG to assess transformation progress, ESG included many questions related to the organization’s IT efficiency, business success, and outlook. Examining the correlation between IT Transformation progress and positive business and IT outcomes, it is very clear that organizations should be implementing IT Transformation with a high degree of urgency.

Moreover, many of these correlations were stronger in data from Indian respondents compared with the rest of Asia (see Figure 1).

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1 Please see the global research report here.
How ‘IT Transformation’ Differs from ‘Digital Transformation’

In this research, ESG noted a strong correlation between IT Transformation progress and mature “Digital Transformation” initiatives. While these terms sound similar, it is important to understand that they are different:

- **Digital Transformation** emphasizes evolving to thrive in a digital economy—for example, using smart devices, connected sensors, and data-driven insights to out-innovate, out-think, and out-pace competitors. Digital Transformation focuses on embracing change to become the disruptor, not the disrupted.

- **IT Transformation** centers on modernizing and automating the underlying technology infrastructure. The business becomes “more transformed” by growing beyond its reliance on rigid, manual, hard-to-maintain legacy technologies. IT Transformation enables speed, efficiency, scale, and cost-effectiveness—automating manual tasks and streamlining operations to free up resources and fuel Digital Transformation initiatives.

It is also important to note that ESG believes, backed by this data, that IT Transformation is a foundational enabler of Digital Transformation projects.

Defining and Measuring IT Transformation Maturity

As noted, ESG segmented organizations into four tiers of IT Transformation maturity. It did so via a data-driven maturity model that ascribed maturity points to an organization based on how its respondent answered key survey questions on behalf of his or her organization. These questions related to the level of adoption and sophistication of:

- **Modernized data center technologies**—*Transformed* organizations take steps such as virtualizing their servers. They use all-flash storage where appropriate. They run a considerable portion of their workloads using scale-out and converged or hyper-converged infrastructure platforms. They commit to a software-defined approach for networking and storage. And they adhere to a comprehensive and well-tested data protection strategy with the best-available backup, deduplication, and archiving tools at its foundation.
Automated IT processes—Transformed organizations automate their environments to help them deliver IT as a service in a cloud operating model for cost transparency, efficiency, and responsiveness. They incorporate automation to support server change configuration and storage provisioning. And they offer self-service capabilities so end-users can order and manage on-premises resources as needed.

Strategically aligned organizational dynamics—Transformed organizations believe in tight business and IT alignment, and business units regularly inspect IT outcomes for effectiveness. The IT organization’s executives almost always report directly to the C-suite leadership team, making it easier for IT to contribute to business strategy. Transformed organizations also often adopt DevOps principles and methodologies.

See the Criteria for Evaluating Respondent Organizations’ IT Transformation Maturity in the Appendices section of this report to review the full list of dimensions of IT Transformation maturity upon which ESG evaluated respondents.

Given the business outcomes that can be unlocked by full IT Transformation, there is an incentive for organizations to maximize their IT maturity. While relatively few organizations in India—17%—have achieved the fully Transformed status, it is a much higher percentage than was observed in other Asian countries researched (4%). Similarly, far fewer organizations in India were rated as Legacy compared to the rest of the region (2% in India versus 13% in the rest of Asia). It is important to note that throughout the report, comparisons of fully Transformed organizations will be made against Legacy and Emerging organizations combined since there were so few Legacy organizations in the sample. Figure 2 shows the percentage of organizations in India in each transformation category.

Figure 2. IT Transformation Distribution: The Maturity Curve in India

Respondents Say Progress Must Accelerate

As noted, positive sentiment for IT Transformation is strong, with Indian respondents broadly agreeing that it is vital to overall competitiveness. ESG asked the respondents if they agreed or disagreed that: “If we don’t embrace IT Transformation, we will not be a competitive provider of IT services to the business.” In this case 88% agreed with the statement, once again a notable increase from the rest of the region (75%).
ESG believes three macro trends are helping IT leaders at Indian companies realize the importance of IT Transformation:

- **The relationship they see between IT Transformation and Digital Transformation.** Nearly every Indian respondent surveyed (399 of 400) reported their organization has Digital Transformation initiatives underway—either at the planning stage, at the beginning of implementation, in process, or mature. Those initiatives are linked to IT Transformation progress. *Transformed* organizations in India are 24 times more likely than *Legacy/Emerging* organizations to have successful digital transformation initiatives: 72% of Indian respondents whose organizations have achieved *Transformed* status also report having *mature* Digital Transformation projects underway versus only 3% of the Indian *Legacy/Emerging* companies ESG surveyed.

- **Time-to-market pressures.** Nearly universally, 89% of Indian respondents said their companies are under pressure to deliver products and services faster, which requires having an agile approach to IT. Successful IT must allow the rest of the organization to deploy and scale digital services at the pace of business.

- **A pervasive requirement to reduce costs.** Even *Transformed* IT organizations in India are still measured on keeping costs low and delivering projects on or under budget. Two-fifths (41%) of respondents at *Transformed* companies cited cost reduction as a key IT success criterion. Minimizing costs depends on having a reliable, highly automated, easy-to-deploy, and easy-to-manage infrastructure.

### Outcomes Associated with Increasing IT Transformation Maturity

Numerous, strong, positive correlations exist between IT Transformation maturity and various IT and business outcomes and key performance indicators. When responses from India are isolated, these correlations hold: Organizations that have transformed their IT consistently outperform those with lower maturity scores.

### Business Performance and Driving Growth

ESG asked the respondents how their organization performed against revenue goals. Respondents from *Transformed* organizations in India were 1.35 times more likely to have exceeded their revenue targets in the past year compared with *Legacy/Emerging* Indian organizations (97% versus 72%). Additionally, 75% of respondents from Indian *Transformed* organizations believe their companies are in a very strong competitive position for the next few years versus 7% of respondents from Indian-based *Legacy/Emerging* companies (see Figure 3). It is worth noting that respondents working at *Transformed* companies in India are significantly more optimistic about their companies’ prospects than their peers in the region: just 45% of respondents at *Transformed* companies in the rest of Asia reported their companies were in a very strong position.

“IT Transformation has now become a very important part of any business and those companies who lag will definitely be left behind.”

— Retail Company, India

Stage 2 IT Maturity
Speeding Time to Market through Better IT Agility

At many companies, the time it takes for a product or service to go from concept to general availability depends on the IT function. The IT group is responsible for making sure the applications that employees use are performing reliably and meeting functional requirements. IT also is responsible for giving the developers the right tools and capabilities to meet all product release target dates.

In short, when IT gives internal end-users and partners what they need, when they need it, IT is also helping the business as a whole to give external customers what they want, when they want it.

As mentioned, 89% of Indian respondents reported feeling a need to move at an accelerated pace. The research showed that their success in doing so is tied to their IT Transformation maturity. ESG asked the respondents to characterize their companies’ timeliness in developing and launching products and services relative to competitors. Transformed companies in India were far more likely to report being significantly ahead of the competition compared with Legacy/Emerging organizations—specifically, 81% of Transformed Indian companies report usually being significantly ahead of the competition, but only 10% of the Legacy/Emerging organizations reported that level of success (see Figure 4). Additionally, Transformed organizations in India are outperforming Transformed organizations in the rest of Asia, 65% of whom report usually being significantly ahead of competitors in time to market.
Using Data to Drive Decision Making

In addition to time to market, ESG questioned respondents about decision-making speed and quality. Respondents at Transformed companies in India were 8.5 times more likely than Legacy/Emerging organizations (86% versus 10%) to say their company almost always makes better and faster data-driven decisions (see Figure 5). Once again, it is meaningful to note that Transformed companies in India are enjoying greater success than other Transformed organizations in the region, 68% of whom stated they almost always make better, faster decisions than competitors.

Figure 5. Making Data-driven Decisions in India

Generally speaking, how would you characterize your company’s success at utilizing data to make effective business strategy decisions relative to its competition? (percent of respondents)

Stage 4 companies are 8.5X more likely to make better, faster, data-driven decisions compared to Stage 1 & 2 organizations

<table>
<thead>
<tr>
<th></th>
<th>Stage 1 &amp; 2 - Legacy and Emerging</th>
<th>Stage 3 - Evolving</th>
<th>Stage 4 - Transformed</th>
</tr>
</thead>
<tbody>
<tr>
<td>We almost always make better, faster decisions than our competition</td>
<td>10%</td>
<td>37%</td>
<td>86%</td>
</tr>
<tr>
<td>We often make better, faster decisions than our competition</td>
<td>64%</td>
<td>57%</td>
<td>13%</td>
</tr>
<tr>
<td>Neutral, we are usually in line with our competition</td>
<td>21%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>We often make worse, slower decisions than our competition</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Timely Application Deployment

On a similar note, ESG looked into the timeframes organizations operate under when deploying applications to their internal end-users and customers, work that typically encompasses infrastructure installation, integration, provisioning, and configuration—activities that can all be streamlined by automation. Transformed companies in India showed very strong performance here: 61% reported that most of their application deployments happen ahead of schedule. Only 6% of the surveyed Legacy/Emerging Indian organizations reported that level of success (see Figure 6). Moreover, while Transformed organizations in India were 10 times more likely than Legacy/Emerging organizations to report the majority of their applications are deployed ahead of schedule, in the rest of the region Transformed organizations were only 7 times as likely to enjoy this level of success compared to lower scoring organizations.

Figure 6. Application Deployment Timeliness in India

How would you characterize the timeframe in which the majority of your production business application deployments (inclusive of application installation, infrastructure provisioning, network configuration, etc.) are completed? (percent of respondents)

Keeping IT Projects on Schedule

ESG asked the respondents in India to assess how many of the IT projects and initiatives they undertook over the past few years were completed ahead of, on, or behind schedule.

The further along a company is on its IT Transformation journey, the larger the proportion of projects it finishes ahead of schedule, on average. Specifically, Transformed organizations in India reported completing, on average, 33% of their IT projects ahead of schedule in the past few years, versus 19% reported by Legacy organizations.
Figure 7. IT Project Completion Timeliness in India

Please consider the IT projects and initiatives your IT organization has undertaken over the last few years. Roughly what percent of these projects have been completed in each of the following timeframes? (Mean)

- Stage 1 & 2 - Legacy and Emerging
- Stage 3 - Evolving
- Stage 4 - Transformed

Stage 4 companies have completed 14% more of their projects ahead of schedule versus Stage 1 & 2 organizations.

IT Staff Focused on Development and Strategy versus Operations

ESG asked respondents to place their IT staff’s focus areas into three categories: operations, strategy/architecture, and application development. On average, Transformed organizations in India don’t spend as much time on infrastructure operations. They are able to shift staff from classic IT operations such as infrastructure deployment, management, and monitoring to higher-value activities such as strategic planning, architecture, and application development.

The data showed that India’s Transformed companies have, on average, 9% fewer staff dedicated to routine operations (35% versus 44% for Legacy/Emerging companies), 3% more staff dedicated to application development (34% versus 31%), and 7% more staff focused on strategic-level planning and architecture (24% versus 31%).

It is worth noting that among Transformed companies in the rest of Asia fewer staff (6%) are freed up from IT operations compared to their Legacy/Emerging counterparts.

Innovation versus Keeping the Lights On

ESG asked respondents to split their IT budget into two categories: budget for new projects or initiatives, and budget for maintaining existing systems and services. On average, Transformed organizations in India are spending 47% of their annual IT budget on innovation. India’s Legacy and Emerging companies, on the other hand, are allocating on average just 41% of their budget to new projects/initiatives, and 59% to maintaining existing systems and services.

IT Staff Allocation

Transformed Indian companies are able to shift 9% more of their IT staff to higher-value activities.

But what does that mean from a real-world standpoint?

Consider a 5,000-person company with a 250-person full-time IT staff. If it’s a Transformed company, roughly 23 more of those staffers are allocated to strategic endeavors such as planning, application development, architecture enhancement, and digital transformation compared to a similarly sized Legacy organization.
Cost Competitiveness versus the Public Cloud

ESG noted a strong correlation between IT Transformation maturity and the respondents’ sentiments about how cost-competitive they think their on-premises compute infrastructure is compared with public cloud services. Specifically, 78% of respondents who work at Transformed companies in India believe their IT infrastructure is highly competitive—i.e., as good as or even better than public cloud services in terms of operating cost. But only 29% of respondents from surveyed Legacy/Emerging organizations in India thought the same (see Figure 8). Once again, it is meaningful to note that Transformed companies in India are enjoying greater success than other Transformed organizations in the region, 65% of whom reported that their organizations’ infrastructure is highly competitive with public cloud costs.

By operating a cost-competitive on-premises environment, India’s Transformed organizations are giving themselves great flexibility to leverage the public cloud where it makes sense or keep workloads on-premises if those workloads are better served by local control and performance—without incurring incremental costs.

Figure 8. Cost Competitiveness versus Public Cloud in India

<table>
<thead>
<tr>
<th>How competitive do you believe your on-premises compute infrastructure is relative to public-cloud compute services on cost? (percent of respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1 &amp; 2 - Legacy and Emerging</td>
</tr>
<tr>
<td>Highly competitive (i.e., internal infrastructure is comparable or better)</td>
</tr>
<tr>
<td>Competitive (i.e., internal infrastructure is generally comparable, but needs improvement)</td>
</tr>
<tr>
<td>Not competitive (i.e., internal infrastructure is worse than public cloud alternatives)</td>
</tr>
</tbody>
</table>

Stage 4 companies are nearly 3X more likely to be cost-competitive with public cloud versus Stage 1 & 2 organizations.

IT Spend per Business-critical Application

Transformed companies in India run a higher number of critical applications, generally have more sophisticated IT environments, and spend less than other companies do on a per-application basis. To normalize expenditures regardless of organization size, ESG divided respondents’ IT budgets by how many business-critical applications they manage (see Figure 9). ESG found that India’s Transformed organizations spend 21% less per application than Legacy/Emerging companies do. They are spending, on average, ₹45 million per business-critical application, versus the average ₹57 million that Indian Legacy/Emerging companies spend per application. Perhaps more impressive is the fact that Transformed Indian organizations spend 31% less per app than other Transformed companies in the region (₹64 million).
It appears that by making extensive use of automation and advanced IT solutions (as well as being smarter about organizational structure), Transformed companies in India have been uncovering major cost efficiencies and don’t need to spend as much on the routine maintenance of their environments.

**IT Involvement with Business Strategy**

ESG tested the idea that IT leaders who work at forward-thinking Transformed companies are “invited to the table” earlier and more frequently to provide input to business-strategy decisions. The findings definitively confirmed that assumption: IT groups at Transformed companies in India are 6.5 times more likely to be involved in business-strategy development compared with their counterparts at Legacy/Emerging companies (46% versus 7%, see Figure 10). Moreover, in the rest of the region Transformed organizations were only 5 times as likely to enjoy this level of involvement compared to lower scoring organizations.

**Figure 10. IT Involvement with Business Strategy in India**

Thinking of major business strategy decisions your company has made in the past 12 months (markets to enter, product features to develop, etc.), how would you generally describe the IT department’s involvement? (percent of respondents)

- **Stage 1 & 2 - Legacy and Emerging**
  - Involved at the outset (including strategy development): 7%
  - Involved early on, as a strategic partner: 22%
  - Involved as strategies take shape to ensure effective execution: 16%
  - Involved only after strategies have been formalized: 46%

- **Stage 3 - Evolving**
  - Involved at the outset (including strategy development): 33%
  - Involved early on, as a strategic partner: 31%
  - Involved as strategies take shape to ensure effective execution: 19%
  - Involved only after strategies have been formalized: 11%

- **Stage 4 - Transformed**
  - Involved at the outset (including strategy development): 48%
  - Involved early on, as a strategic partner: 35%
  - Involved as strategies take shape to ensure effective execution: 19%
  - Involved only after strategies have been formalized: 18%

Source: Enterprise Strategy Group
IT/Line of Business Cooperation

Respondents described the degree of cooperation and collaboration they believe exists between the IT department and other lines of business. Decision makers at Transformed companies in India were 2.5 times more likely to report high levels of cooperation than Legacy/Emerging organizations were (74% of respondents at Transformed companies reported high cooperation levels versus 29% of the Legacy/Emerging companies).

Maturity Characteristics Compared with the Rest of Asia

Clearly, the evidence is overwhelming that for Indian organizations, IT Transformation correlates with improved IT and business outcomes. Understanding how these firms compare with companies across the rest of the Asia-Pacific and Japan region in terms of IT Transformation can also help other organizations in the country to decide where and how to focus their own modernization efforts and enhance their own outcomes (see Figure 11).

Figure 11. Summarized IT Transformation Technology Progress, India versus the Rest of Asia-Pacific and Japan

In terms of modern data center technology usage, Indian organizations appear to lead their counterparts across the rest of Asia. For example:

- India-based organizations are more apt to use Flash, 84% of surveyed Indian companies use All-Flash and/or hybrid arrays compared with 73% for the rest of Asia.

- Indian organizations lead compared with the rest of Asia in terms of scale-out storage utilization—82% of Indian organizations surveyed use scale-out storage versus 65% for the rest of Asia.
Indian organizations are much more likely than the rest of Asia to be committed to software-defined data center technologies, e.g., software-defined networking and storage—72% of Indian respondents indicated such a commitment compared with 53% across the rest of Asia.

India-based organizations were more likely to report using both converged and hyper-converged infrastructure in their environments—46% versus the 19% reported by organizations in other Asian countries.

Indian organizations are more virtualized than other Asian organizations—49% of Indian production servers are VMs versus 45% in the rest of Asia.

In addition to modern data center technologies, Indian organizations are, in general, exceeding the rest of Asia in terms of automation and process evolution:

- India’s organizations were more likely to report extensive (29% versus 7%) self-service infrastructure provisioning capabilities to end-users compared with the rest of Asia.
- India-based organizations are more likely to have highly automated server environments including provisioning (35% versus 15%), updating (39% vs. 16%), and troubleshooting (34% versus 13%) processes.
- Lastly, ESG asked respondents to qualitatively describe how extensively their organizations have adopted formal DevOps principles and practices. Indian organizations appear to be ahead of the rest of Asia, with 26% reporting extensive adoption compared to 10%.

The Bigger Truth

The themes uncovered in ESG’s global research also ring true for respondents from India specifically. IT Transformation is correlated to superior organizational performance across a broad cross-section of outcomes and KPIs. Moreover, on balance, it appears across all IT Transformation attributes, India-based organizations lead the Asia-Pacific and Japan region in terms of IT maturity.

Assess Your Own IT Transformation Maturity

To enable greater IT Transformation maturity and realize the positive business outcomes that come with mature IT, you must first understand where you stand today. Dell EMC, Intel, and ESG have made an interactive online assessment available based on this research. This free-of-charge tool allows you to see where you stand in relation to your peers and helps you understand your strengths and weaknesses.

Start the journey toward transforming your IT organization, accelerating the pace of innovation, and fueling tomorrow’s digital transformation initiatives today.
Appendices

Research Methodology

The data summarized in this report comes from a subset of a 1,374-respondent Asian survey conducted by ESG between September 19, 2017, and November 6, 2017. The Indian findings detailed in this report were provided by 400 senior IT executives who work at private- and public-sector organizations throughout India.

To qualify for the survey, respondents were required to be familiar with their organizations’ current and future IT budget and spending plans and involved in their organizations’ infrastructure (e.g., storage, servers, networking, virtualization, and/or data protection) purchase processes.

ESG filtered out unqualified respondents, removed duplicate responses, and screened the remaining completed responses (on several criteria) for data integrity.

All respondents were provided an incentive to complete the survey in the form of cash awards and/or cash equivalents. Note: Totals in figures and tables throughout this report may not add up to 100% due to rounding.

To calculate maturity levels, ESG asked each respondent questions about her IT environment and processes—allocating a corresponding number of maturity points to each question and answer. The sum of the points represented an organization’s total maturity score.

An organization could earn 0 to 100 points. Those with 0 to 25 points were classified as Stage 1 (or Legacy) organizations. Organizations earning 25.5 to 50 points were Stage 2 (or Emerging) organizations. If they earned 50.5 to 75 points, they were Stage 3 (or Evolving) organizations, and if they earned 75.5 to 100 points, they were Stage 4 (or Transformed).

Criteria for Evaluating Respondent Organizations’ IT Transformation Maturity

ESG’s maturity model determined organizations’ IT Transformation maturity based on respondents’ answers to a subset of questions included within the more than 60 questions in the survey. The figures that follow detail these questions.

Figure 12. Organizational Adoption of DevOps in India

<table>
<thead>
<tr>
<th>Extensive adoption</th>
<th>26%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good adoption</td>
<td>56%</td>
</tr>
<tr>
<td>Some adoption</td>
<td>12%</td>
</tr>
<tr>
<td>Limited adoption</td>
<td>5%</td>
</tr>
<tr>
<td>No adoption</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group
Figure 13. Percentage of Production Servers Virtualized in India

Of all on-premises production servers in your environment, approximately what percentage are virtual machines (VMs)? (percent of respondents, N=400)

- 4% of servers: 20% or less of servers
- 13% of servers: 21% to 30% of servers
- 21% of servers: 31% to 40% of servers
- 21% of servers: 41% to 50% of servers
- 19% of servers: 51% to 60% of servers
- 8% of servers: 61% to 70% of servers
- 6% of servers: 71% to 80% of servers
- 6% of servers: 81% to 90% of servers
- 4% of servers: More than 90% of servers
- 0% of servers: Don’t know

Source: Enterprise Strategy Group

Figure 14. Assessment of Organization’s Infrastructure Administration Automation in India

How would you describe your IT organization’s progress toward automating infrastructure provisioning, configuration, and change management tasks? (percent of respondents, N=400)

- Excellent progress: 31%
- Good progress: 48%
- Some progress: 21%
- Little or no progress: 1%

Source: Enterprise Strategy Group
Figure 15. Assessment of Organization’s Enablement of Self-service Infrastructure Provisioning in India

Does your IT organization enable developers and/or line-of-business end-users to provision on-premises IT resources (VMs, storage capacity, network connectivity, etc.) in a self-service fashion? (percent of respondents, N=400)

- Yes, we have extensive self-service capabilities: 29%
- Yes, we have moderate self-service capabilities: 41%
- Yes, we have limited self-service capabilities: 22%
- No, but we are interested in offering self-service provisioning capabilities in the near future: 7%
- No, all provisioning requests are submitted to IT and this is unlikely to change in the near future: 1%
- Don’t know: 1%

Source: Enterprise Strategy Group

Figure 16. Solid-state Storage Utilization in India

For workloads that utilize solid-state storage, what is the primary implementation type (i.e., the implementation that supports the largest number of workloads)? (percent of respondents, N=400)

- None (not using solid-state storage): 16%
- Entirely hybrid array deployments: 20%
- Mostly hybrid array deployments with some all-flash array deployments: 30%
- Evenly split among hybrid array and all-flash array deployments: 22%
- Mostly all-flash array deployments with some hybrid array deployments: 9%
- Entirely all-flash array deployments: 4%

Source: Enterprise Strategy Group
Figure 17. Utilization of Scale-out Storage in India

Approximately what percentage of your company’s applications are currently supported by storage systems that utilize scale-out architectures? (percent of respondents, N=400)

- None (not using scale-out storage): 19%
- 1% to 10% of applications: 4%
- 11% to 20% of applications: 15%
- 21% to 30% of applications: 32%
- 31% to 40% of applications: 16%
- 41% to 50% of applications: 8%
- More than 50% of applications: 7%
- Don’t know: 1%

Source: Enterprise Strategy Group

Figure 18. Organizational Perspective of Software-defined Networking and Storage in India

Which of the following best represents your company’s perspective on software-defined data center technologies? (percent of respondents, N=400)

- Committed to SDDC as a long-term strategy and have begun to implement SDDC technologies: 30%
- Committed to SDDC as a long-term strategy and in technology evaluation/planning phase: 42%
- Conceptually interested in SDDC as a long-term strategy but we have no formal initiatives underway at this time: 24%
- Have evaluated SDDC technologies and have no interest at this time: 3%
- Have not evaluated SDDC technologies and have no interest at this time: 1%
- Don’t know: 1%

Source: Enterprise Strategy Group
Figure 19. Utilization of Converged Infrastructure in India

Approximately what percentage of your company’s on-premises applications are currently supported by converged infrastructure platforms? (percent of respondents, N=400)

Source: Enterprise Strategy Group

Figure 20. Utilization of Hyper-converged Infrastructure in India

Approximately what percentage of your company’s on-premises applications are currently supported by hyper-converged infrastructure platforms? (percent of respondents, N=400)

Source: Enterprise Strategy Group
Figure 21. Comprehensiveness of Deployed Data Protection Solutions in India

Has your organization deployed data protection solutions for any of the following environments? (percent of respondents, N=400)

- Endpoint devices (i.e., PCs, smartphones, tablets, etc.) 45%
- Public cloud applications (i.e., SaaS applications) 53%
- Public cloud environments (i.e., IaaS-resident VMs) 68%
- Virtual environments (i.e., on-premises VMs) 67%
- On-premises physical servers and VMs (i.e., unified data protection) 72%
- None of the above 1%
- Don’t know 1%

Source: Enterprise Strategy Group

Figure 22. Assessment of Server Administration Automation in India

To what extent would you say each of the following server infrastructure management tasks are automated within your IT operations team? (percent of respondents, N=400)

- Entirely automated
- More automated than manual
- Even mix of automated and manual tasks

Source: Enterprise Strategy Group
Figure 23. Frequency of IT Organization Evaluation by Business Executives in India

How frequently is the IT organization and the outcomes it delivers (e.g., availability, agility, cost) evaluated by C-suite business executives (CEO, CFO, COO) or the board of directors? (percent of respondents, N=400)

- Weekly: 15%
- Monthly: 43%
- Quarterly: 36%
- Semi-annually: 3%
- Annually: 1%
- Ad-hoc, only when there is a compelling reason that prompts the evaluation: 2%
- Don’t know: 0%

Source: Enterprise Strategy Group

Figure 24. CIO Reporting Structure in India

To whom does the most senior IT executive at your company report? (percent of respondents, N=400)

- CEO or equivalent: 51%
- President/COO: 32%
- CFO: 9%
- SVP/VP: 7%

Source: Enterprise Strategy Group
Respondent Demographics

The figures below detail the demographics of the respondent base: individual respondents’ current job responsibilities, as well as respondent organizations’ total number of employees, primary industry, and annual revenue.

Figure 25. Indian Respondents, by Job Responsibility

Which of the following best describes your current responsibility within your company? (Percent of respondents, N=400)

- Most senior IT executive at my company (e.g., CIO or equivalent), 43%
- Senior IT management (e.g., VP of IT, Director of IT, etc.), 48%
- IT management, 9%
- 43% of respondents, N=400

Figure 26. Indian Respondents, by Number of Employees

How many total employees does your company have worldwide? (Percent of respondents, N=400)

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000 or more</td>
<td>9%</td>
</tr>
<tr>
<td>10,000 to 19,999</td>
<td>11%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>14%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>22%</td>
</tr>
<tr>
<td>1,000 to 2,499</td>
<td>23%</td>
</tr>
<tr>
<td>500 to 999</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group
**Figure 27. Indian Respondents, by Industry**

What is your company’s primary industry? (Percent of respondents, N=400)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail/Wholesale</td>
<td>21%</td>
</tr>
<tr>
<td>Financial (banking, securities, insurance)</td>
<td>16%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11%</td>
</tr>
<tr>
<td>Technology</td>
<td>9%</td>
</tr>
<tr>
<td>Health Care</td>
<td>6%</td>
</tr>
<tr>
<td>Government (Federal/National, State/Local)</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>31%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group

**Figure 28. Indian Respondents, by Annual Revenue**

What is your company’s total annual revenue ($US)? (Percent of respondents, N=400)

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50 million</td>
<td>3%</td>
</tr>
<tr>
<td>$50 million to $99.999 million</td>
<td>18%</td>
</tr>
<tr>
<td>$100 million to $249.999 million</td>
<td>14%</td>
</tr>
<tr>
<td>$250 million to $499.999 million</td>
<td>26%</td>
</tr>
<tr>
<td>$500 million to $749.999 million</td>
<td>0%</td>
</tr>
<tr>
<td>$750 million to $999.999 million</td>
<td>10%</td>
</tr>
<tr>
<td>$1 billion or more</td>
<td>29%</td>
</tr>
<tr>
<td>Not applicable (e.g., public sector, non-profit)</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group

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