



The State of IT Transformation

An Analysis by EMC and VMware

EMC® and VMware® are helping IT organizations transform to business-focused service providers. The State of IT Transformation is an analysis of customer data provided by companies who have assessed their current state and identified their biggest gaps. Read on to find out how your IT organization's plans and accomplishments compare with over 660 global firms.



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Executive Summary

It's no surprise that companies in all industries are trying to transform their IT organizations. Those who do can realize significant savings, as much as twenty-four percent¹ in operations, which can then be reallocated to new digital initiatives. These operational savings are not just from greater hardware and software efficiencies, which account for a relatively small portion of operating expenses, but come from more effective use of personnel who leverage automation and tools to manage technology more efficiently.

Have you ever wondered how your IT organization's plans compare with others? The State of IT Transformation is an analysis of data provided by companies with whom EMC and VMware are helping to transform their IT organizations. These are companies across all industries that realize they need to transform the way their IT organization operates. They want to better serve the business and want to be able to broker and deliver services from both internal and external providers. They are looking for help in assessing their current state and setting priorities that can be executed within the next two years.

The analysis shows that over the last several years, companies have made advances in their IT Transformation, reporting a lower percentage of areas where they scored themselves as immature. They've gone from rating sixty-nine percent of the areas as low maturity two to three years ago to fifty-eight percent today. While eleven percent is an admirable improvement, it shows that there is still much work to be done. Interestingly, some industries have made significantly less progress. For instance, telecommunications and retail have only improved four percent and five percent respectively.

The area where most organizations want to improve is in service strategy. They want to run IT like a customer-focused business. They want to empower users with self-service and enable them to make value-based consumption decisions. This means packaging IT services for easy consumption by the business, providing financial transparency through unit-based pricing and billing, and developing processes, roles, and skills to successfully manage the supply and demand side of the portfolio.

This report discusses the areas that companies identified as having the biggest gaps in their transformation.

¹ Source: An analysis of clients by McKinsey and EMC

Cloud Infrastructure—Defining a Strategic Platform

IT organizations want to be cost-competitive with external service providers and are looking for cost efficiencies by virtualizing, standardizing, and developing hybrid cloud architectures. While progress has been made in virtualizing, most all companies still see a significant gap in their hybrid cloud execution.

- Ninety percent only in evaluation or proof of concept stage for hybrid cloud
- Ninety-one percent have no organized, consistent method of evaluating workloads for hybrid cloud
- Top performers are nearly eighty percent virtualized in compute, storage, and applications

Hybrid Cloud Architecture

Most companies are not where they want to be in having a well-engineered hybrid cloud architecture. Over ninety percent reported they are currently only in the evaluation or proof of concept stage. Those with the highest maturity, those in the top 20th percentile (indicated as ‘top 20%’ on the graphs in this report, and referred to as the ‘top performers’ throughout), are doing only slightly better, with less than twenty-percent of their production apps in a hybrid cloud environment.

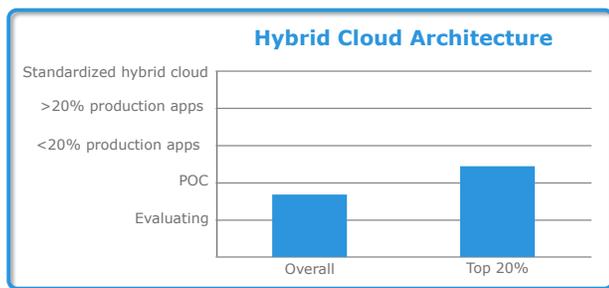


Figure 1: Most hybrid cloud architectures are in the early stages

Hybrid Cloud Workloads

When it comes to evaluating workloads for hybrid cloud, ninety-one percent of organizations have no organized, consistent means of doing so. This includes companies who have begun to establish a hybrid cloud architecture. Without a consistent process, evaluations are done ad hoc for just a few apps, are time consuming, and are difficult to repeat. This can impede the standardization and adoption of hybrid cloud across the enterprise. A mere three percent have evaluated their application portfolio with the

business, evaluating suitability for hybrid cloud delivery in light of business process and sensitivity of corresponding data.

Virtualization

In terms of virtualization, there are few surprises. Most companies want to reach between eighty and one hundred percent in compute, storage, and application virtualization, with a whopping ninety-six percent of participants identifying that as a goal for compute virtualization. The top performers are already over eighty percent virtualized in these areas.

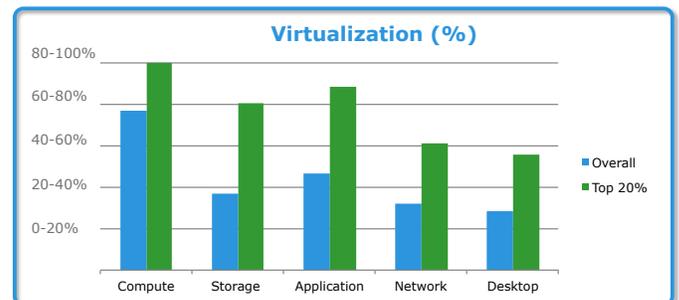
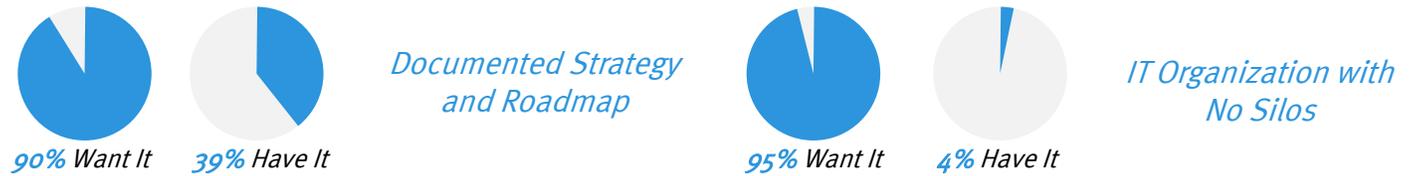


Figure 2: Progress has been made in all areas of virtualization

When it comes to networking and desktop virtualization, current scores have steadily progressed over the last several years, with the number of those who report being over sixty percent virtualized doubling for desktop virtualization and tripling for network virtualization.

Operating Model—Transforming the IT Organization and Revolutionizing Processes

IT organizations are experiencing a cultural revolution. They want to run IT like a customer-focused business. They want to empower users with self-service and enable them to make value-based consumption decisions. This means packaging IT services for easy consumption by the business, providing financial transparency through unit-based pricing and billing, and developing processes, roles, and skills to successfully manage the supply and demand side of the portfolio.



Transforming the IT Organization

Regardless of geography or industry, operating model and service strategy were where companies identified their biggest areas for potential improvement. Ninety percent of companies felt it is important to have a documented IT transformation strategy and roadmap with executive and line of business support. Yet over fifty-five percent have nothing documented.

When it comes to having an IT organization that has no silos and works together to deliver business-focused services at the lowest cost, ninety-five percent think this is critical. Yet, less than four percent of organizations reported that they currently operate like this.

With respect to IT skills, eighty-eight percent of companies have not begun, or are only in the preliminary stages of developing skills in both business-facing service definition and cloud technology.

Revolutionizing and Packaging IT Services for Business Consumption

Packaging IT services for the business involves identifying a set of services, presenting them in an easily consumable way, automating them, providing transparent pricing that makes it easy to compare with outside service providers, and metering to assess usage.

Service Catalog and Portal

The first step in becoming a business-focused IT organization is determining what the business wants.

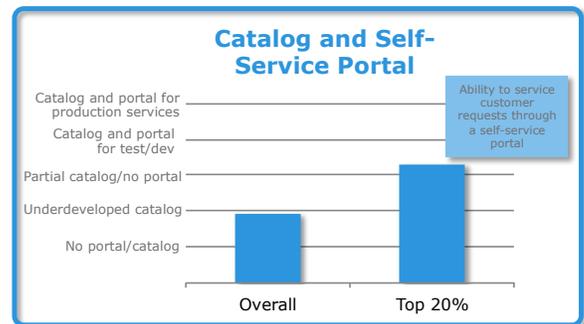


Figure 3: Service catalog and portal is the number 1 improvement companies want to make

It's no surprise then that the top gap in service strategy, identified by all companies, is their ability to provide and efficiently manage user and customer requests through a service catalog and self-service portal. Seventy-six percent of them have no self-service portal or service catalog in place, or have an underdeveloped one. Even those in the top twenty percent, those who are the most mature, have only a partial catalog.

Resource Provisioning

When it comes to automation, the most basic service, and the foundation for many other more complex or business-focused services, is infrastructure provisioning. In an ideal environment, the infrastructure layer would be completely elastic and be able to grow and shrink

on-demand in order to meet the needs of the organization. Not surprisingly, the goal of seventy-seven percent of participants is to be able to provision infrastructure resources in less than a day, or dynamically when needed. Unfortunately, over half of the participants reported that they currently take between a week and a month to do so.

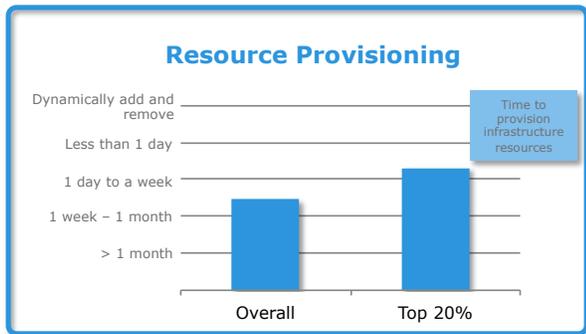


Figure 4: Provisioning of resources can take up to a month

Financial Management

For the business to evaluate and compare internal vs. external IT services, transparency of costs is a must have. Unfortunately, when it comes to recovering IT costs, eighty-seven percent of participants still rely on a yearly allocation-based recovery, or a project-by-project recovery. Only five percent are able to bill the business for services consumed at an advertised price. The most advanced companies, those in the top 20th percentile, are significantly more advanced, doing various levels of showback and chargeback.

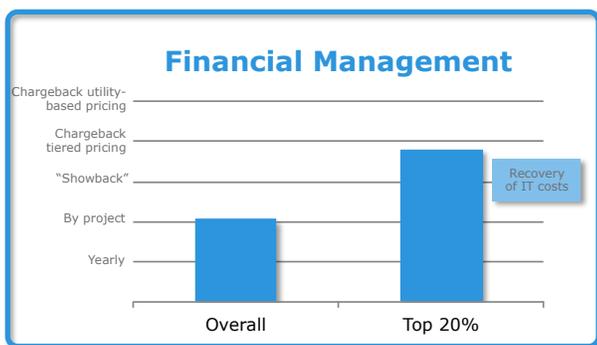


Figure 5: Most charge the business for IT services project by project

Metering

Seventy percent of companies feel they have a gap in their ability to know what resources each business unit is consuming. Eighty-eight percent want to get to a state where metering is completely automated, built into the service catalog, and with a predictive capability to understand when usage would trigger an elastic event within the environment.

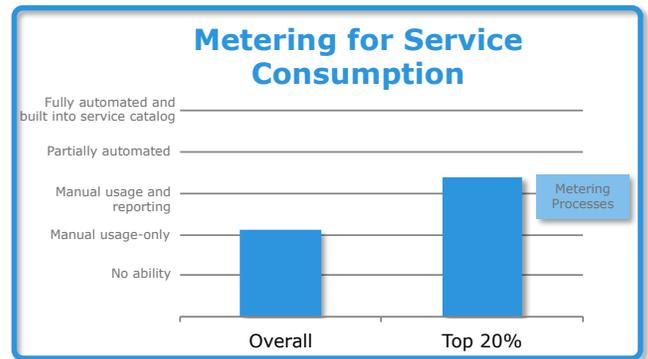
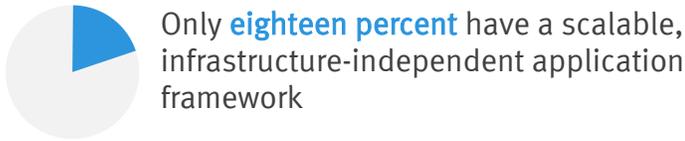


Figure 6: Metering processes are mostly manual

Applications—Empowering and Accelerating App Development

IT organizations want to create agile processes and automate platform delivery so that they can help their companies create a competitive advantage by developing software faster. Yet, progress here is slow.



Application Platforms

One of the most significant gaps in application transformation is in participants' application infrastructure. Eighty-two percent do not have a scalable, infrastructure-independent application framework on which to rapidly and consistently build mobile-friendly, cloud-native apps. A scalable, infrastructure-independent application framework ensures that whichever direction the industry goes that the applications will be able to adapt and take advantage of future infrastructure capabilities.

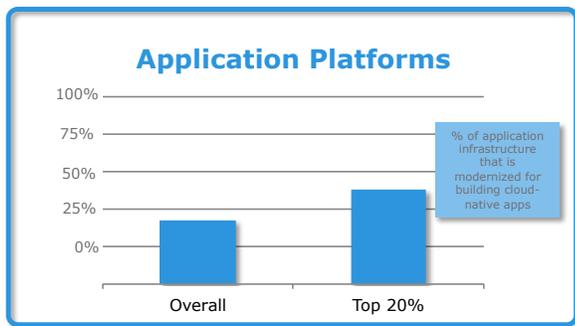


Figure 7: Application infrastructure has a long way to go

Application Development

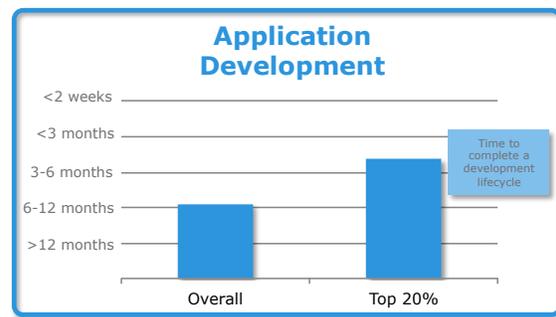


Figure 8: Participants are slow to complete a software release

Having a scalable, modern application development framework and agile processes for continuous delivery allows the rapid development and deployment of applications to meet the moving target of user and customer demand. Perhaps due to the lack of a modern development framework, sixty-eight percent of participants take over 12 months or 6 to 12 months to complete a new development lifecycle.

Industry Comparisons and Summary

For details on how each industry performed, see the individual, industry-focused State of IT Transformation reports. The following section is a summary of the key observations on the industries that had the highest level of participation in working with EMC and VMware on their IT transformation initiatives—healthcare, government, retail, telecommunications, and financial services.

Healthcare

Compared with companies in general, firms in the healthcare industry are the least mature in their IT transformation, but they are also the most interested in improving. They scored themselves the lowest in more areas of transformation (sixty-four percent), identified the most areas as having gaps that they needed to close (fifty-eight percent), and aspired to the highest level of transformation in more areas (seventy-one percent) than any other industry.

Even within individual areas of transformation, they also tend to have the highest percentage of companies who want to improve. For instance, seventy-four percent of companies overall reported that they want to improve their ability to provide and efficiently manage user and customer requests through a service catalog and self-service portal. For healthcare, it was ninety-six percent.

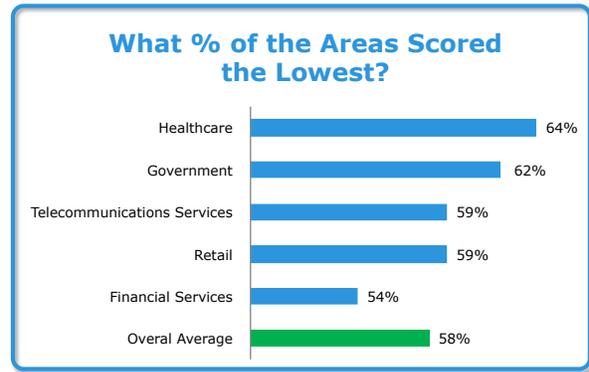


Figure 9: Which industry needs to improve the most?

Government

Government organizations were notable in that those who are in the top 20th percentile were significantly ahead of their peers in several areas within infrastructure. For instance, with many having regulatory mandates to move to cloud, it is no surprise that the top performers outshine the typical firm in cloud computing and service automation. They have made the most progress in hybrid cloud architecture, having over twenty percent of their production apps in a hybrid cloud. They have reached nearly one hundred percent in compute and application virtualization. These top performers are also able to provision infrastructure resources in less than one day and are able to charge back the business for services consumed at an advertised price.

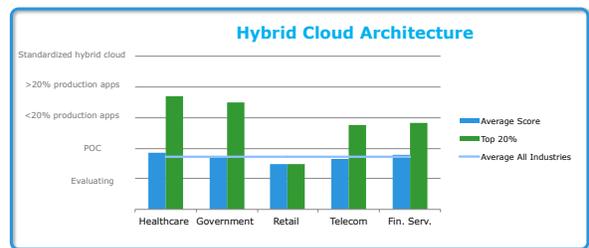


Figure 10: Industry performance in hybrid cloud architecture

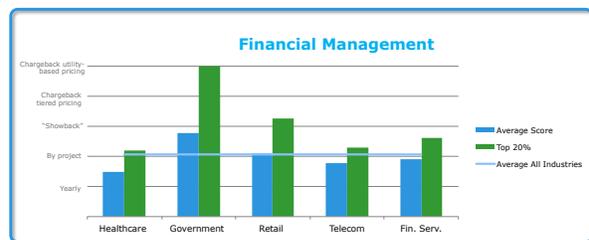


Figure 11: Government exceeds other industries in IT service charging

Retail

The retail industry reported the lowest percentage of areas with a gap in their transformation—only thirty-nine percent versus fifty percent for all participants. Additionally, all the retail companies tracked quite similarly, with the top 20th percentile

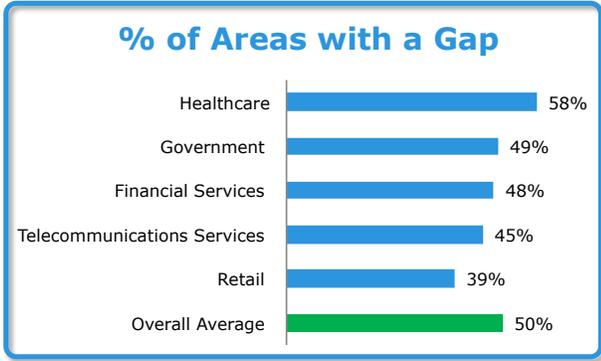


Figure 12: Retail industry has lowest gap in transformation

not significantly ahead of their peers, with the exception of two areas – desktop virtualization and application platforms. Most retail employees are in locations remote from the corporate headquarters, resulting in a distributed IT environment that can be costly to support, have higher security risks,

Telecommunications

In general, telecommunications firms were at or below the average participant in most areas of transformation, with one exception – network virtualization. Even the average organization was over forty percent virtualized. The top 20th percentile is nearly eighty percent virtualized.

Financial Services

The financial services industry (comprised of wealth management, insurance, and banking) has the most participants in the State of IT Transformation analysis. When considering all areas together, they are slightly above average in their transformation. They had fewer low scoring areas and more high scoring areas than the other industries. Perhaps this is due to the fact that nearly forty percent have a fully supported, documented IT transformation strategy and roadmap, while most of the general population has nothing documented.

and be more prone to information loss. With desktop virtualization, they are able to consolidate the remote-office IT resources into a single, centralized data center to simplify management and security while decreasing operating costs and still maintaining reliability and performance. The top 20th percentile in retail had well above sixty percent of their desktops virtualized.

The top 20th percentile also have more than fifty percent of their applications built on a scalable, infrastructure-independent application framework, reflecting the need to have an IT infrastructure that can support development of omni-channel services. This exceeds participants overall, who reported less than twenty-five percent of their apps were built using these cloud-ready frameworks.

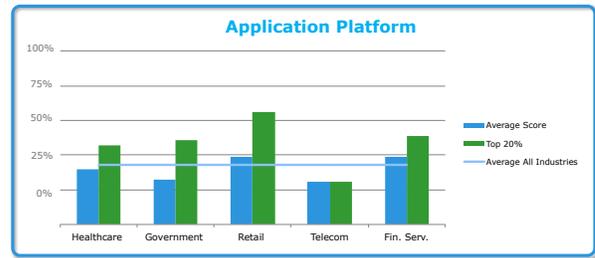


Figure 13: Retail industry top performers in cloud-ready app infrastructure

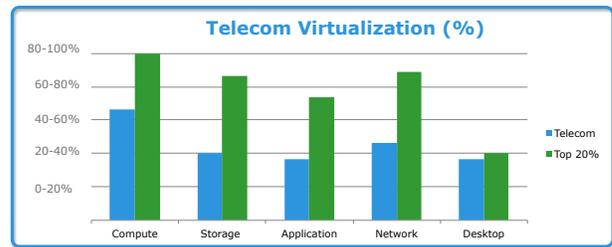


Figure 14: Telecomm top 20% exceeds other industries in network virtualization

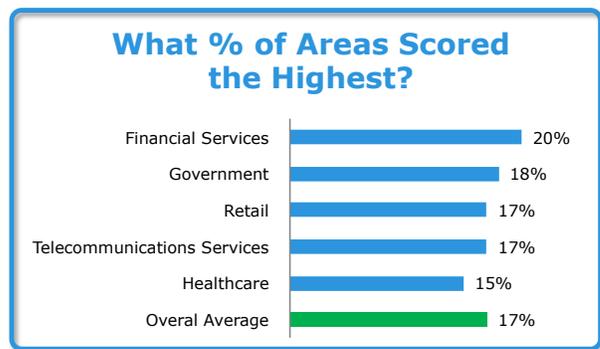


Figure 15: Financial services reports more highly mature areas

Conclusion

While this report covers the global state of IT transformation from 2014 through mid-2015, it's interesting to note that over time, participants have made significant progress in their transformation initiatives. This is easily seen when comparing the percentage of areas that participants rated themselves as being at the lowest level. Comparing the recent participant in the 2014-2015 time period with all the participants starting in 2010, the percentage of lowest scoring areas has dropped by as much as eleven percent. This is true regardless of industry, geography, or area, although it is most pronounced in service strategy.

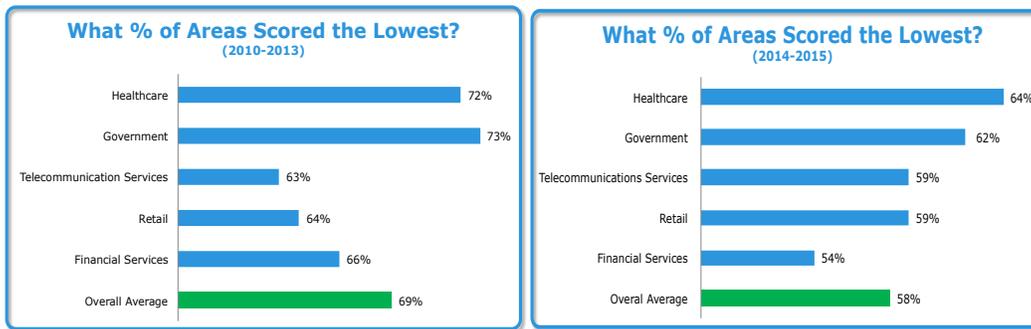


Figure 16: Companies have made substantial progress in IT transformation since 2010

About the EMC Federation

EMC II, Pivotal®, RSA®, VCE, Virtustream and VMware form a unique Federation of strategically aligned businesses, providing solutions for the software-defined enterprise that deliver business value for our customers. Solutions span the emerging “3rd platform” of mobile, cloud, big data and social, transforming experiences for billions of users with millions of applications. With more than 20,000 services professionals worldwide, plus its global network of partners, the Federation has the subject matter expertise, award-winning customer service, skills and experience that organizations need to drive the maximum value from their technology investments.

The IT Transformation Workshop can help IT organizations identify key transformational initiatives by measuring the readiness of their current environment. Organizations receive benchmarking data that shows where peers in their industry are in each area of transformation, and an analysis of the key gaps in their environment. At the end of the workshop, participants have a prioritized list of next steps to take, along with the estimated return on investment (ROI) that would be seen by closing the gaps in IT transformation that were identified in the workshop.

Appendix—Methodology

The organizations analyzed in this report began their transformation with an IT Transformation Workshop, which was specifically designed to help them assess the gaps in their IT transformation, benchmark their current state against their industry peers, determine their goals, and gain consensus among their executives on prioritizing the immediate next steps to take to achieve those goals. The CIO and his/her direct reports are the participants at these workshops.

The workshop was extremely beneficial – it gave us the insight to what we need to do to march forward [with our transformation].”

– IT Executive, Financial Services Company

This report is an analysis of the data collected during these workshops and is a barometer of where companies are in their IT transformation. This analysis therefore is not a random sample of research subjects, but an analysis of companies *who are actually in the midst of an IT transformation.*²

Prior to an IT Transformation Workshop, a company completes a questionnaire that is used to assess the company’s current and desired state of transformation. There are 29 questions that cover various areas:

Cloud Infrastructure

- Hybrid cloud – workloads and architecture
- Virtualization – compute, storage, app, network, and desktop
- Business continuity and availability

Operating Model and Service Strategy

- Packaging IT services – self-service enablement, financial transparency
- IT service automation – provisioning, metering, monitoring, reporting, and predictability

Applications

- Application modernization, development, and platforms
- End user computing

Wealth Management
Healthcare
Retail
Government
Banking
Telecommunications Services
Energy and Utilities
Insurance
Education
Industrial Manufacturing
Automotive and Transport
Business Services
Computer Services
Media
Transportation
Aerospace and Defense
Computer Software
High Tech

Workshop participants answer each question in two ways – where they are today (their current state) and where they want to be within the next two years (their desired state). A gap analysis is performed and recommendations for closing those gaps are presented to the CIO and team. The company also receives a benchmark analysis that compares their progress in IT transformation against industry and competitive peers.

Figure 17: Industries participating in the workshops

² This report covers the 343 global companies who participated in workshops between 2014 through mid-2015