



# THE STATE OF THE DIGITAL WORKSPACE

Worldwide Survey Reveals Investment  
Results in Business, Operational,  
and Financial Benefits

DECEMBER 2016

vmware®





Digital workspace first-movers experience business, operational, and financial benefits while those that wait are falling behind... Game-changing IT depends on organizations adopting a digital workspace that includes security and identity management as vital components.

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“We’re in the business of delivering great customer experience. There’s two ways to do that. One through our people and the other through technology—but the intersection of those two is really where the gold is. That’s where the transformation is happening, and we’re seeing enormous benefits.”

**CLAIRE ROGERS**  
HEAD OF DIGITAL BANKING  
ANZ BANK

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# Modernizing and Mobilizing Business Processes for Competitive Advantage

## Executive Summary

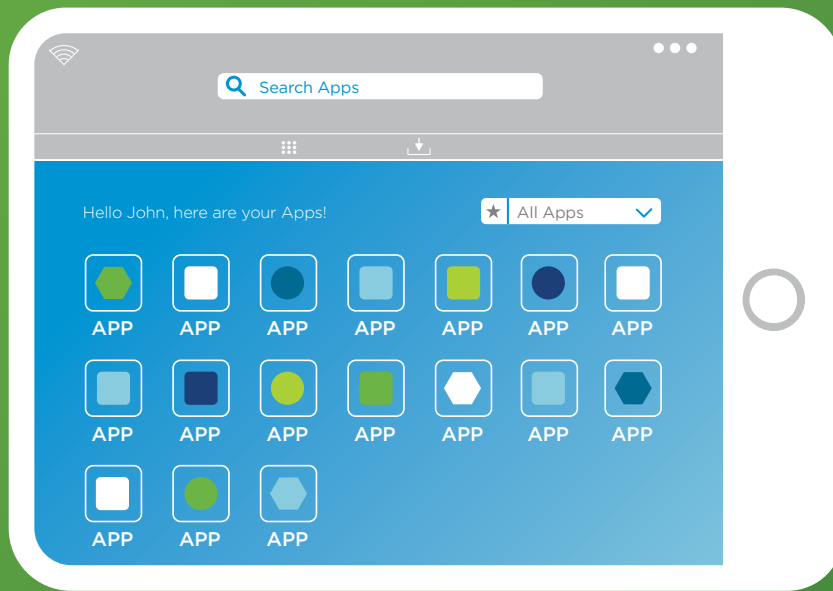
Digital workspace first-movers experience business, operational, and financial benefits while those that wait are falling behind, according to the VMware State of the Digital Workspace report. Survey respondents say game-changing IT depends on organizations adopting a digital workspace that includes security and identity management as vital components. With realistic prospects of achieving triple-digit ROI, even surveyed businesses that cite obstacles to adoption may want to consider taking another look at business mobility initiatives.

Organizations understand they must rethink traditional approaches to application delivery and management to stay relevant in an increasingly digital world. A consumer-simple, enterprise-secure digital workspace that unifies user, desktop, and mobile device management to deliver business outcomes can be the foundation for business mobility projects directly linked to process change and innovation.

For financial services firms, a secure digital workspace is an ideal way to modernize branch operations and mobilize customer engagement. Digital clinical workspaces unleash the potential of mobile devices in healthcare, providing the management, flexibility, and security for providers and patients to use the right device, at the right time, for the right task—from doctors updating charts to patients monitoring medications during a hospital stay. The secure digital workspace for retail further personalizes omnichannel shopping experiences, presenting offers through in-store kiosks and speeding checkout with endless aisle apps.

To understand more about mobility initiatives globally, VMware engaged with market research firm Management Insight in July 2016 to survey more than 1,200 IT decision makers, IT influencers, and business decision makers worldwide. The VMware State of the Digital Workspace report outlines key findings and highlights trends relevant to today’s decision makers.

The digital workspace — secure access to all apps in one place on any device.



## 2015 Report Informs 2016 Insights

The 2015 VMware State of Business Mobility Report revealed an important shift in the end-user computing market as the value of creating more productive employees began giving way to the larger value of making entire businesses more competitive and successful. At the core of that shift was an emphasis on how mobility could transform business processes, helping an organization connect with customers, generate new revenue, and streamline business operations.

With data showing how mobility was evolving—from individual productivity to team productivity to true business process re-engineering, representing mobility maturity—a clear gap existed between what businesses had achieved and the potential that remained ahead. A chief challenge to meeting mobility objectives across businesses, however, was a lack of unified technologies to advance achievement.

### Maturity in 2015 Increased Productivity and Process Innovation Rewards

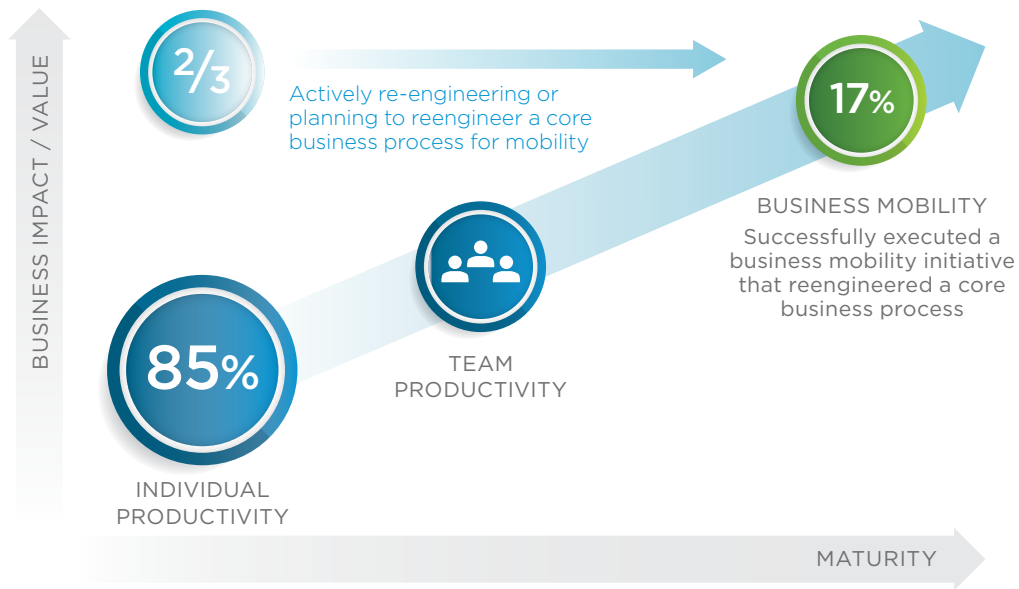


Figure 1. The Evolution of Mobility

## 2016 Report: The Digital Workspace Journey Is Underway

One year later, new survey data shows businesses continue to make digital transformation progress through the use of digital workspace technologies. A smaller gap exists between potential and what businesses have achieved to date in large part because of higher-level executive commitment and digital workspace investment.

### Growing Executive Focus and Investment

Digital transformation is now an executive priority, with more organizations—62 percent in 2016 compared to 56 percent in 2015—recognizing the power of mobility to transform their businesses and lack of adoption as an impediment. Moreover, digital workspace investment grew, with businesses citing two key goals for their decisions: increasing team productivity and business process re-engineering. Digital workspace technologies are enabling IT to meet executive business objectives with key digital workspace technology characteristics becoming critical to execution.

### Executives Prioritize Innovation

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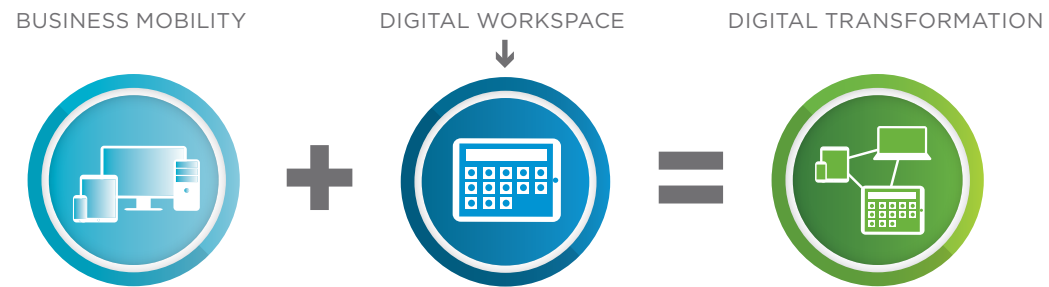


Figure 2. The Digital Workspace Enables Transformation



## Implementation Levels Rise Across Initiatives

Organizations were found to be in various stages of implementing mobile initiatives. Overall, almost 4 out of 5 organizations (78 percent) have successfully executed or are actively executing mobile initiatives.

## Mobile Initiatives Growth Continues

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Figure 3. Majority of Businesses Actively Executing



About a third of respondents (29–36 percent) are actively executing on one of 14 key business mobility initiatives, ranging from increasing “digitization” of the enterprise to deploying a bring-your-own device (BYOD) program.

### Top Initiatives Include Infrastructure Investment

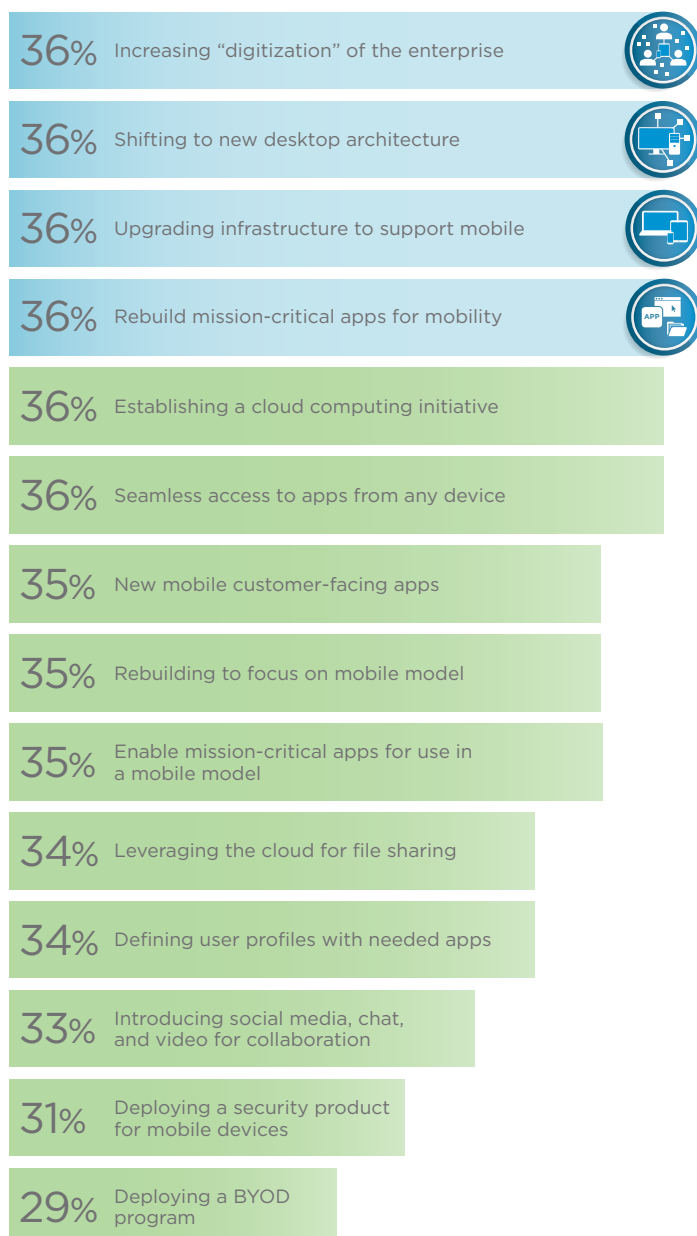


Figure 4. Digital Transformation Remains Primary Goal

From 2015 to 2016, more survey respondents in North America reported successfully executing on a range of business mobility initiatives compared to other regions of the world; four, in particular, saw the greatest increases as reported in survey results from 2015 and 2016.

### Commitment to Mobility Remains Strongest in North America

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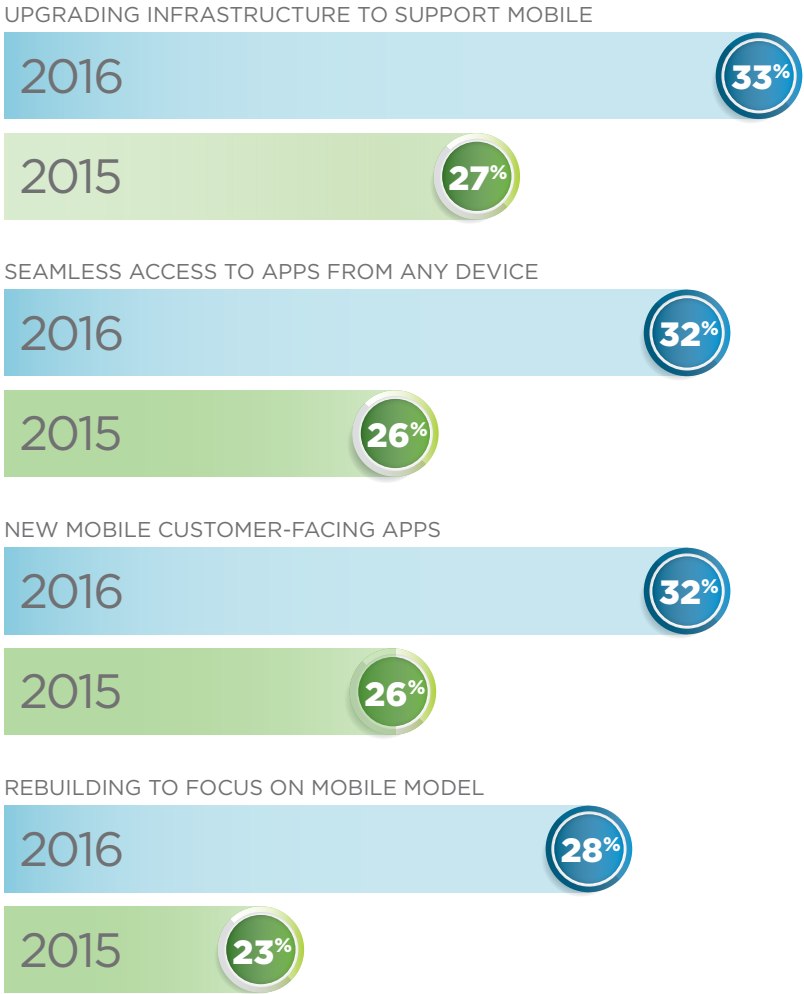


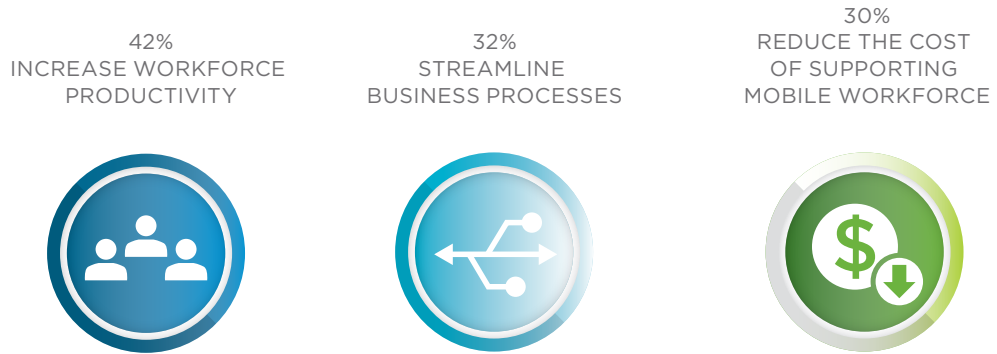
Figure 5. North America (NA) Leads in Year-Over-Year Mobility Initiatives Comparison

## Top Digital Workspace Goals in 2016

This year's survey participants reported that executives begin with a focus on team productivity, streamlining processes, and cost reduction as they look to achieve business objectives through the use of the digital workspace.

### Businesses Envision Opportunities from the Digital Workspace

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Figure 6. Business Targets for Improvement

And although challenges for organizations executing business mobility strategies still exist, digital workspace software is now seen as an effective way to address top-level concerns.

## Digital Workspace Software Mitigates Respondents' Top-Level Concerns

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42%  
SECURITY AND  
CONTROL OF DEVICES



32%  
COST, COMPLEXITY  
OF MANAGEMENT



31%  
RISK OF  
DATA LOSS



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Figure 7. Digital Workspace Software Helps Businesses Achieve IT Outcomes

A digital workspace delivers better security, reduces IT management cost and complexity, and enhances data loss prevention. Achieving these IT outcomes is driving nearly a third (30 percent) of respondents to deploy digital workspace software to achieve business mobility.





# 2016 Key Findings

- 1. Business gains outweighed operational gains with few exceptions.** Companies that have successfully executed digital workspace initiatives reported higher mobile workforce effectiveness, user access to mission-critical applications, and user satisfaction with IT than non-executing companies. For all except two categories, business-related improvements were 10-20 percent higher than the categories of operational improvements.

Business benefits increased for 38-53 percent of survey respondents, for a mean gain of 28 percent (23-32 percent overall). Over half (51 percent) of successfully executing companies saw improvements in visibility and control over mobile users, devices, and applications, compared to 36 percent of companies not executing.

Operational gains as measured by overall IT operational staff time savings showed an average reduction of 36 percent, from 87 percent of survey respondents. Nearly 90 percent of successfully executing companies experienced reduced overall development staff time.

## Operational Gains Accelerate for Successfully Executing Companies

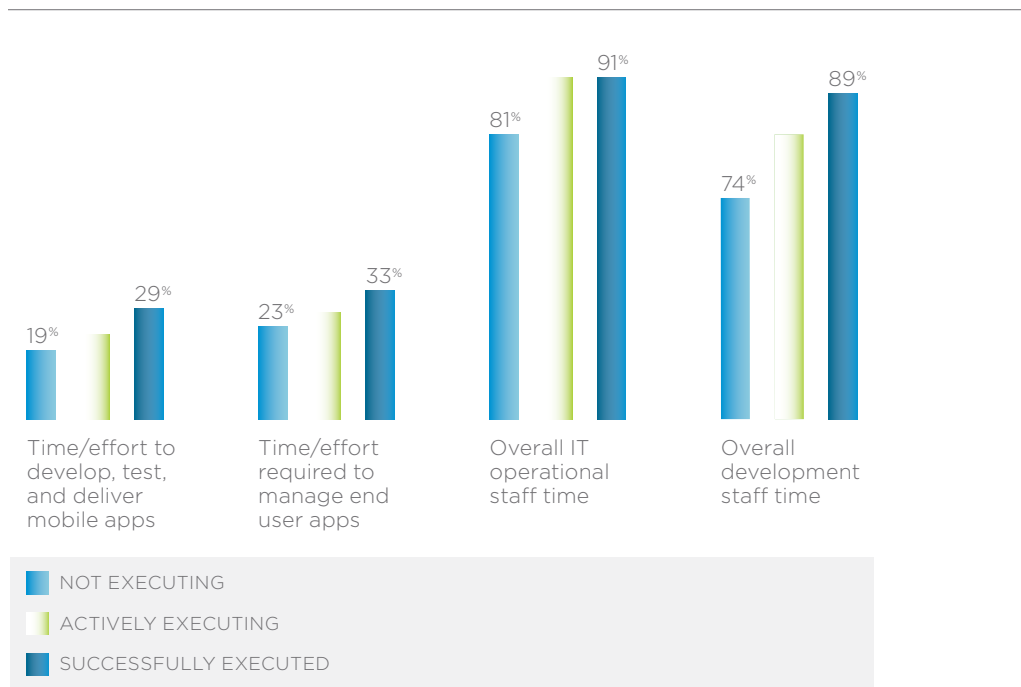


Figure 8. Top Mobile Operational Goals

**2. Costs drop significantly as businesses embrace digital workspaces; ROI averages 150 percent.** 41 percent of IT and business decision makers saw improvements in total management costs as they successfully executed on digital workspace efforts, compared with 30 percent for their non-executing peers.

### Business Mobility Cost Advantages

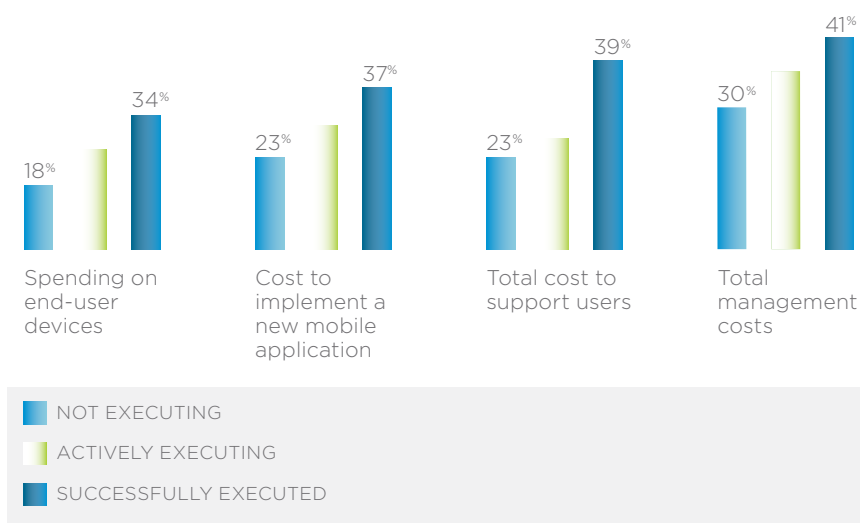


Figure 9. Companies Actively Executing Achieve Highest Gains

Total management cost savings showed an average reduction of 21 percent for the 35 percent of respondents reporting an improvement.



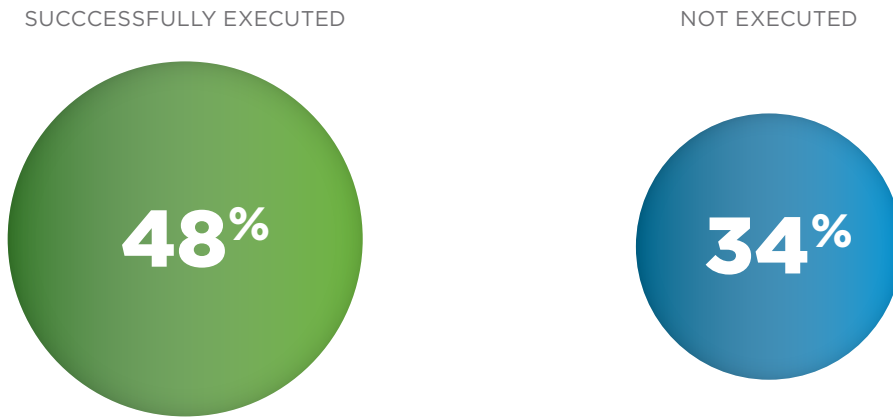
Across all businesses, ROI for business mobility solutions is also impressive, averaging 150 percent.

**3. Digital workspaces improve business' ability to rapidly bring new revenue streams online.** 48 percent of those surveyed that have successfully executed mobility initiatives have seen improvements compared to 34 percent surveyed that have not executed.

Over half (52 percent) of companies surveyed executing 10+ business mobility initiatives have seen improvements in their ability to more rapidly bring new revenue streams online compared to those surveyed that are executing less than 5 mobility initiatives.

### Successful Mobile Initiatives Lead to Faster Access to New Revenue Streams

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Figure 10. Businesses Increasing Revenue Generation Speed



**4. Businesses that execute more mobility initiatives show stronger improvements across all categories.** Benefits across all business, operational, and financial categories improved considerably as the number of successfully executed initiatives increased.

Those that successfully executed 10+ initiatives were consistently higher than those that executed 5-9 initiatives and those that successfully executed less than 5 initiatives, particularly in the business category. Similarly, across all categories, those that executed 5-9 initiatives remained consistently higher than those that successfully executed less than 5 initiatives.

Higher Number of Mobility Initiatives Improves Business Outcomes

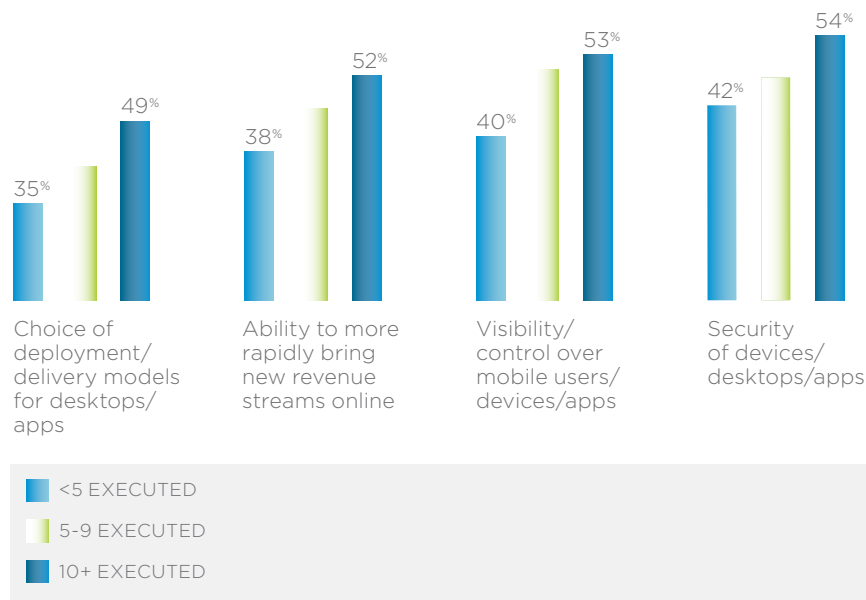


Figure 11. Comparison of Benefits by Companies Executing More than 10, 5-10, and less than 5 Mobile Initiatives

**5. Digital workspace technologies reduce business mobility initiative adoption friction, address top concerns, and include security and identity management as vital components.** Concerns about security are top of mind among executives but nearly one out of every two executives (45 percent) views a digital workspace solution that includes the necessary elements of security and compliance tools, mobile device management software, and identity management as a way to address compliance and security risks.

The following charts outline the necessary digital workspace elements key to achieving business goals and the top four use cases supported by digital workspaces:

### Digital Workspace Software Addresses Compliance and Security Risks

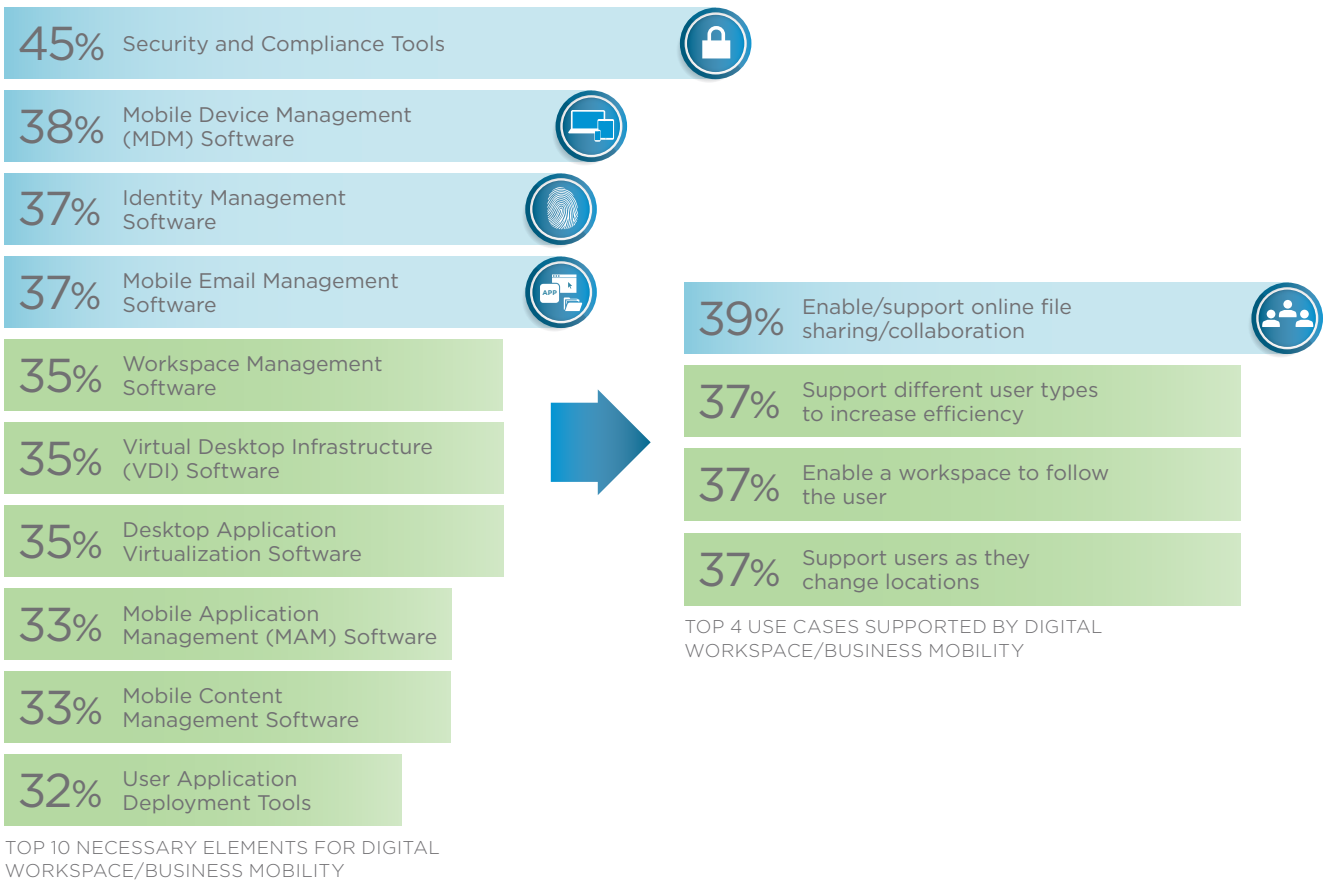


Figure 12. Critical Digital Workspace Elements and Digital Workspace Use Cases

Most notably, Identity Management software has now become vital to the digital workspace solution. 2016 survey data revealed:

- Identity Management software ranks 3 out of 14 elements necessary to create a digital workspace platform.
- Identity Management software is seen as a necessary element in the financial services segment (43 percent) and among VMware customers (42 percent).
- Globally, NA and EMEA are seeing a notable movement away from Mobile Device Management software and toward Identity Management.

### Early Adopters of Digital Workspaces Report the Biggest Gains

VMware customers self-identify as “Digital Enterprises” significantly more often than non-customers (84 percent versus 77 percent). Nearly two-thirds of VMware customers surveyed (61 percent) are planning more than 50 mobile initiatives in the next 12 months compared to VMware non-customers surveyed (47 percent).

In response to the same business, operational, and financial questions, VMware customers surveyed reported achieving higher ROI than organizations deploying other technologies. VMware customers also identified more necessary elements to creating a digital workspace platform than non-VMware customers.

## Transformation's Common Advocate

In a majority of cases, the directive to reimagine business processes and deploy digital workspace technology is coming from a strategic push at the corporate level.

### Executives Are Leading Digital Workspace Strategy

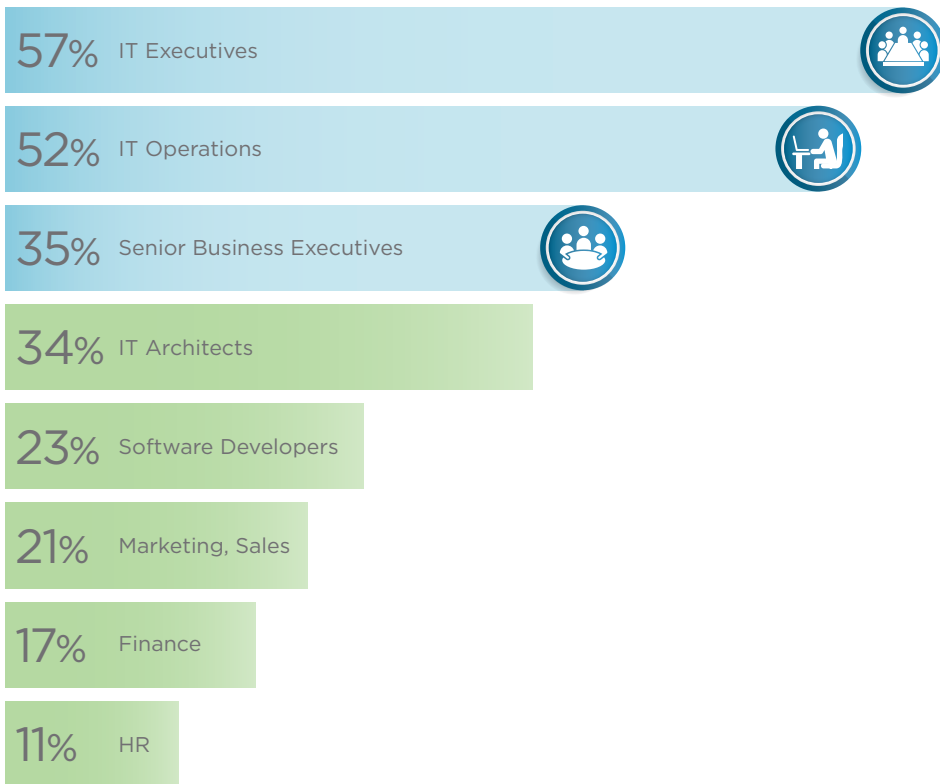


Figure 13. Top Advocates for Pursuing Digital Workspaces





# Industry Leaders Deploy Digital Workspaces to Power Transformation



“Sprint believes that mobile connectivity is the most powerful enabler in the world today. It helps us keep connected to our friends and family. It helps that child get a better education and that business to be more productive.”

**JOE HAMBLIN**  
DIRECTOR EMERGING PLATFORMS - IT ENTERPRISE SERVICES  
SPRINT

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“Using the mobility solutions we could reduce our operational costs per application by 75%. For us and our customers, this provides a huge cost saving - we also greatly reduce user incidents, from 2100/month to 210/month which is 10 times better than before. This allows the IT teams to reduce the support time and focus more on innovation.”

**CHRISTIAN HANDT**  
HEAD OF WORKPLACE INFRASTRUCTURE MANAGEMENT SERVICES  
DEUTSCHE BAHN

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“Mobility has enabled us to transform business processes. Our team can now spend less time at the office since they have the tools to work on the go. This remote access has increased employee productivity and also positions us as innovative market leaders to our clients.”

**JULIEN ZAMORA**  
HEAD OF MARKETING AND SALES  
ESSILOR

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## Market Trends Benefit Business Mobility

Organizations moving to digital workspaces understand that business transformation is enabled by IT transformation—from infrastructure and applications, hosted in the cloud and on-premises to processes, devices, and systems support. They know mobile-cloud investments must combine identity and mobility management to provide frictionless and secure access to all the apps and data people need to work, wherever, whenever, and from whatever device they choose.

For IT teams new to digital workspaces, advanced security management—including network virtualization and micro-segmentation—as well as new endpoint visibility and control with next-generation threat detection and remediation—can ease security, control, cost, and management concerns. This means greater protection for applications and processes that must comply with mandated government and industry privacy and security regulations for carrying highly confidential information such as customer or patient data and secure revenue transactions.

## Digital Workspaces Unify User, Desktop, and Mobile Device Management

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END-TO-END  
SECURITY



UNIFIED ENDPOINT  
MANAGEMENT



MODERN IDENTITY  
FOR MOBILE-CLOUD



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Figure 14. Technology Advancements Minimize Concerns

# Despite Proven Results, Digital Workspace Investment Stalls Because of Unfounded Fears

Survey respondents most often cited these top barriers to digital workspace software investment.

## Challenges Exist Yet Digital Workspaces Are Overcoming Them

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SECURITY AND CONTROL OF DEVICES



RISK OF DATA LOSS



COST AND COMPLEXITY OF MANAGEMENT



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Figure 15. Top Business Mobility Challenges





A photograph of two men in business attire. The man on the left is looking at a tablet held by the man on the right. The tablet screen displays the VMware Workspace ONE logo, which consists of a colorful square icon with four smaller squares inside, and the text 'VMWARE' and 'WORKSPACE ONE' below it. The background is a blurred office setting with large windows. A diagonal green and white graphic element is overlaid on the right side of the image.

## Secure Digital Workspaces Drive Business Mobility

Today, global companies are advancing their mobility initiatives with the VMware portfolio of end-user computing solutions, including the secure digital VMware Workspace ONE™ platform.

Workspace ONE delivers and manages any app on any device by integrating identity, application, and enterprise mobility management. It is available as a cloud service or for on-premises deployment.

VMware Workspace ONE  
Is Consumer Simple and  
Enterprise Secure,  
Giving Users Freedom  
While Keeping IT  
in Control.



Workspace ONE leverages VMware's infrastructure and next-generation security, networking, and storage solutions. VMware solutions and professional services grow businesses by empowering employees to connect with customers in new ways.

Workspace ONE Is Designed for Any Device, Any Application, and Any Cloud

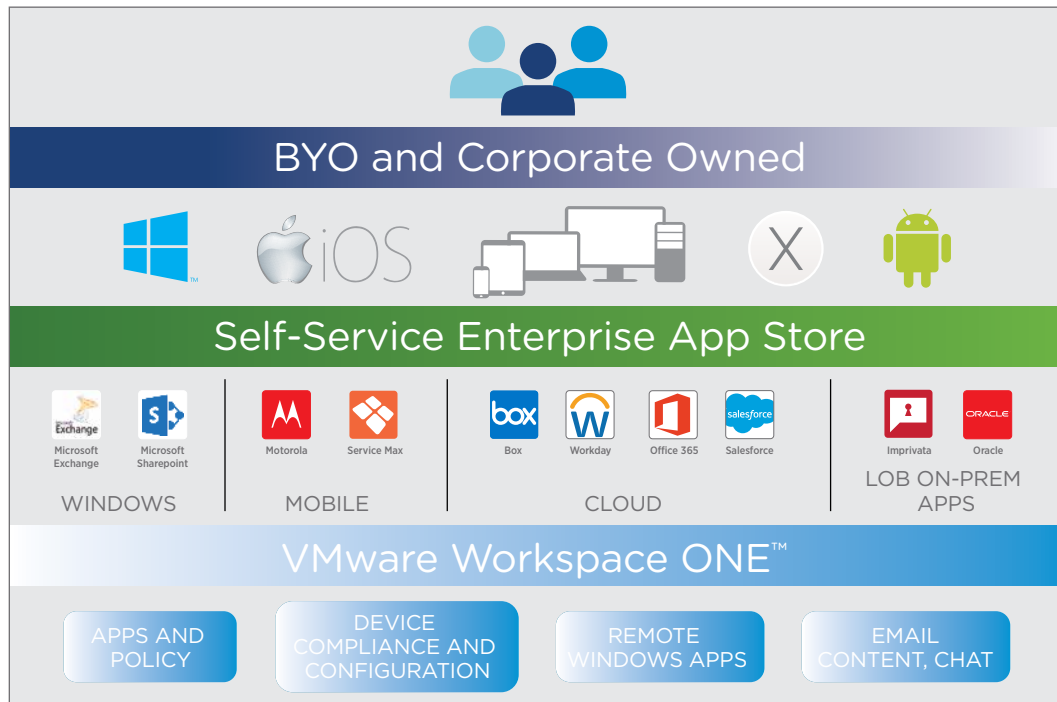


Figure 16. Workspace ONE Engages Employees, Mitigates Security Threats, and Modernizes IT Operations





## Insights by Geography

The 2016 survey uncovered some surprising digital workspace initiative differences between the NA, EMEA, and APAC regions.

### APAC Is Executing Business Mobility Initiatives More Often

The number of companies surveyed in 2016 that reported they are actively executing business mobility is notably higher in APAC. The APAC lead over NA and EMEA may be attributed to their slower start in mobile adoption. Companies surveyed from EMEA were executing more than NA and APAC in 2015.

The degree of both business and IT benefits realized is highest in NA, typically followed by APAC.

### Business and IT Benefit Gains Highest in NA, But APAC Catching Up

TOP BUSINESS INITIATIVES ACTIVELY EXECUTING	TOTAL	NA	EMEA	APAC	SUCCESSFULLY EXECUTING	ACTIVELY EXECUTING	NOT EXECUTING
New mobile customer facing apps	35%	35%	28%	40%	25%	51%	16%
Seamless access to apps from any device	36%	36%	30%	41%	24%	51%	19%
Rebuild mission-critical apps for mobility	36%	35%	28%	44%	29%	53%	14%
Deploying a BYOD program	29%	28%	22%	35%	26%	42%	11%
Introducing social media, chat, and video for collaboration	33%	34%	24%	37%	24%	47%	14%
Establishing a cloud computing initiative	36%	35%	30%	42%	27%	52%	19%
	1263	500	305	458	347	577	245

Figure 17. Top Regions Actively Executing Business Mobility Initiatives

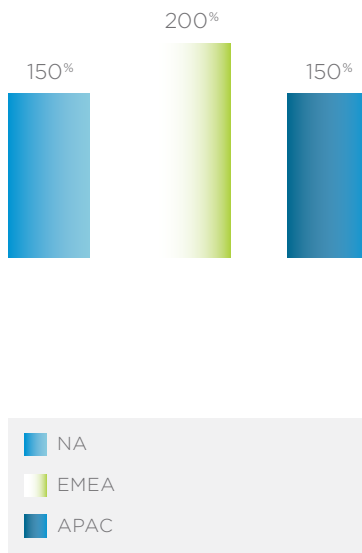
## EMEA Companies Rank Highest in Overall ROI

Despite executing fewer initiatives in 2016, respondents from EMEA companies report realizing the highest overall ROI on their business mobility initiatives.

### Overall ROI Highest in EMEA

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#### OVERALL ROI



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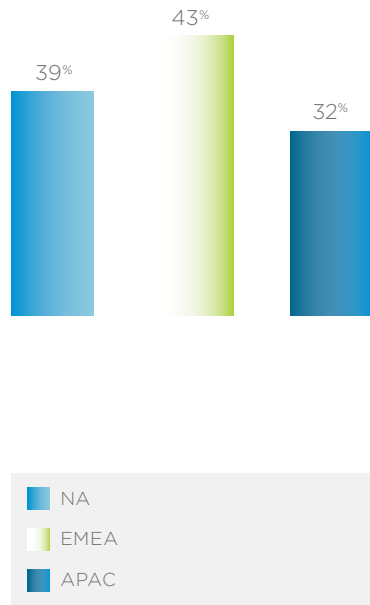
Figure 18. Regional Difference in Overall ROI

EMEA businesses are also diving deeper into workspace technologies, deploying identity management software more often than companies in NA or APAC. This may be a result of more stringent government oversight and privacy regulations.

## Identity Management Software Investment Highest in EMEA

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### IDENTITY MANAGEMENT SOFTWARE DEPLOYMENT



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Figure 19. Regional Differences in Identity Management Initiatives

## Insights by Industry

The 2016 survey included an expanded number of participants for insights addressing vertical market segments, revealing some unexpected mobility initiative differences across industries.


### Financial Services Executes Successfully While Public Sector Catches Up

The technology industry had the highest number of active business mobility initiatives in the past 12 months, according to survey respondents, yet financial services leads in successfully executed initiatives, with 9 out of 14 initiatives more likely to be successfully executed in the financial services industry.

### Mobile Execution Is Most Successful in Financial Services

TOP BUSINESS INITIATIVES - SUCCESSFULLY EXECUTED	INDUSTRY						
	TOTAL	TECHNOLOGY	FINANCIAL SERVICES	HEALTH CARE	MANUFACTURING & MINING	RETAIL	PUBLIC SECTOR
Shifting to new desktop architecture	31%	34%	39%	33%	25%	31%	17%
Rebuilding to focus on mobile model	27%	31%	35%	27%	21%	27%	8%
Upgrading infrastructure to support mobile	34%	35%	39%	38%	27%	37%	17%
New mobile customer-facing apps	30%	35%	37%	29%	27%	33%	12%
Seamless access to apps from any device	33%	37%	37%	36%	24%	39%	14%
Rebuild mission-critical apps for mobility	27%	28%	35%	29%	21%	33%	16%
Enable mission-critical apps for use in a mobile model	34%	32%	40%	35%	34%	42%	10%
Deploying a BYOD program	30%	35%	34%	29%	26%	28%	23%
Deploying a security product for mobile devices	35%	35%	43%	34%	33%	33%	21%
Introducing social media, chat, and video for collaboration	36%	38%	39%	37%	27%	43%	18%
Leveraging the cloud for file sharing	33%	36%	39%	36%	28%	31%	21%
Defining user profiles with needed apps	33%	36%	36%	36%	29%	34%	11%
Establishing a cloud computing initiative	33%	35%	40%	31%	33%	33%	20%
Increasing "digitization" of the enterprise	30%	32%	39%	29%	28%	31%	14%
	1564	375	328	280	226	226	226

Figure 20. Mobility Investment by Industry



Almost half (6 out of 14) of manufacturers' business initiatives are more likely to be in the actively executing stage. While slower to embrace digital technologies than other industries, the public sector is catching up with a significantly higher number planning to embrace more digital technologies (36 percent), say survey respondents.

Healthcare tops all other industries when it comes to reaping rewards. The percent of respondents seeing business benefits in healthcare—for 7 out of 10 benefits—is significantly higher than other industries.

Despite these gains, security remains an issue. Security risks inhibiting BYOD/CYOD (choose your own device) adoption are of greatest concern in healthcare (at 64 percent). Financial services respondents also care about security and view identity management software, a critical component of the digital workspace, as a prominent and necessary element of business mobility.

## Keys to Digital Workspace Success

A digital workspace must enable employees and customers to accomplish work anytime, anywhere across smartphones, tablets, laptops, PCs, and virtual workstations. It must support critical business processes, such as clinical patient care and customer service.

The implementation of a digital workspace requires coordinated planning and execution. Survey respondents offered the following advice to others embarking on deployment:

- 1 Invest in user education before implementing software
- 2 Weigh strategic gains higher than cost savings
- 3 Establish a business mobility center of excellence
- 4 Factor in time to assess and properly deploy

The state of the digital workspace in 2016 is strong. Worldwide and across industries, organizations in the survey already embracing business mobility and digital workspace technologies to enable digital transformation are realizing 150 percent ROI and reaching new revenue streams faster, but there is more to gain. Reengineering business processes for the mobile world is a future-proof investment ready to pay dividends to innovators.

Learn more at [www.businessmobility.com](http://www.businessmobility.com) and on [vmware.com](http://vmware.com).

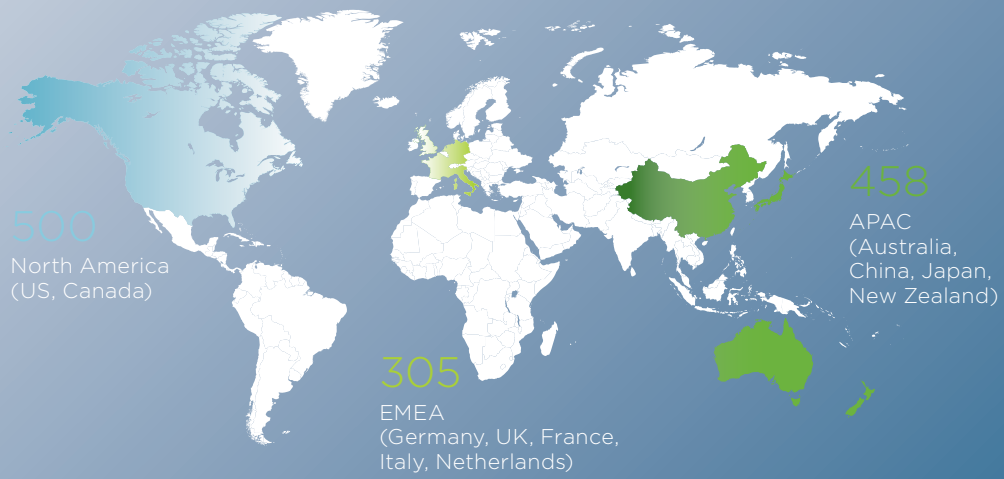
# Report Methodology

VMware engaged with market researchers from Management Insight in July 2016 to survey 1,263 IT decision makers, IT influencers, and business decision makers worldwide to examine the progress of global organizations transitioning from the client-server era to the mobile-cloud era. The survey comprised of a blind market sample and used a 30-minute Web-based questionnaire. The participants represented a broad range of industries, titles, and company sizes.

The 2016 results yield insights into digital workspace initiatives, goals, drivers, and barriers. They reveal how IT and business professionals worldwide are using mobile technologies, digital workspaces, and modern desktop architectures to help achieve distinct benefits. The 2016 report also includes insights into regional and industry mobile initiative differences with a particular focus on transformation in healthcare and financial services. An expanded number of survey participants (1,564) provided insights on vertical market segments.

GEOGRAPHY

1,263 RESPONDENTS



COMPANY SIZE (Number Of Employees)	
Medium (500-999)	30%
Commercial (1,000-4,999)	35%
Enterprise (5,000+)	35%



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