

2011 Desktop Virtualization Trends in Healthcare Research Report



Sponsored by Imprivata, Inc.

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Executive Summary

Imprivata®, the #1 independent [single sign-on](#) (SSO) and [access management](#) provider for healthcare and other regulated industries, sponsored a survey to identify [desktop virtualization](#) technology trends in the healthcare industry as compared to other industries. The study revealed that the healthcare industry, often regarded as a technology laggard, is uncharacteristically leading the charge with regards to desktop virtualization. Key findings included:

- 35% of healthcare respondents were using desktop virtualization today. This adoption rate rivaled those of other, traditionally early-adopting industries, such as financial services.
- The adoption rate for server virtualization for healthcare respondents was at 46% - well below the average adoption rate of 74.5% across all industries. In addition, only 15% of healthcare respondents indicated plans to adopt server virtualization within the next three years.
- The forecasted healthcare virtual desktop deployment rate for the next 12 months is higher than any other industry in the survey. 43% of healthcare respondents expect to have more than half of their users using desktop virtualization. The next highest industry, financial services, predicts 40%.
- The top drivers for IT adoption of VDI in healthcare were [remote access](#) (39%), desktop manageability (27%) and user desktop roaming (14%),
- The primary benefits of desktop virtualization for healthcare respondents were desktop availability (34%), improved user satisfaction (24%) and simplified workflow (19%).
- 43% of healthcare respondents not using desktop virtualization today cited cost as the major barrier to adoption.
- Only 13% of healthcare respondents report using cloud services today. 64% indicated that they have no plans to adopt within the next 3 years.

Methodology

IT decision makers in healthcare, government, financial services and other regulated industries were surveyed to understand their adoption rates and reasons for desktop virtualization. A total of 477 IT decision makers and executives were surveyed with 363 of the respondents from the healthcare industry. Healthcare respondent data are analyzed in this research brief and their profiles are presented below in Table 1.

Hospital Size	1-99 beds	100-299 beds	300+ beds
No. of beds (%)	27%	33%	40%
Yes, Part of HC Network	44%	56%	71%

Table 1. Healthcare Respondent Profiles (n=363)

Key Findings

Desktop Virtualization Trends in Healthcare

Based on the survey results, healthcare desktop virtualization adoption rates correlate with other industries, which is surprising considering the reputation of the healthcare industry as slow in adopting new information technologies. 35% of healthcare respondents reported using desktop virtualization today (Figure 1.)

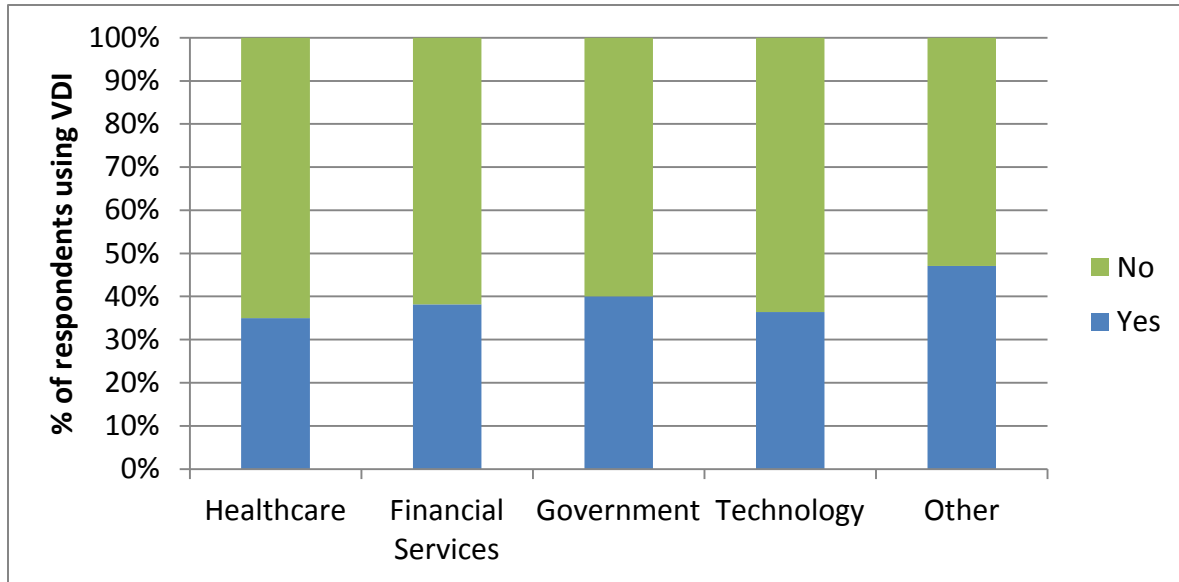


Figure 1: Desktop Virtualization Adoption Rates by Industry

Data from the survey reports that only an estimated 46% of healthcare respondents are using server virtualization (Figure 2). This usage rate is well below the average adoption rate of 74.5% across all industries. In addition, only 15% of healthcare respondents indicated plans to adopt server virtualization within the next three years.

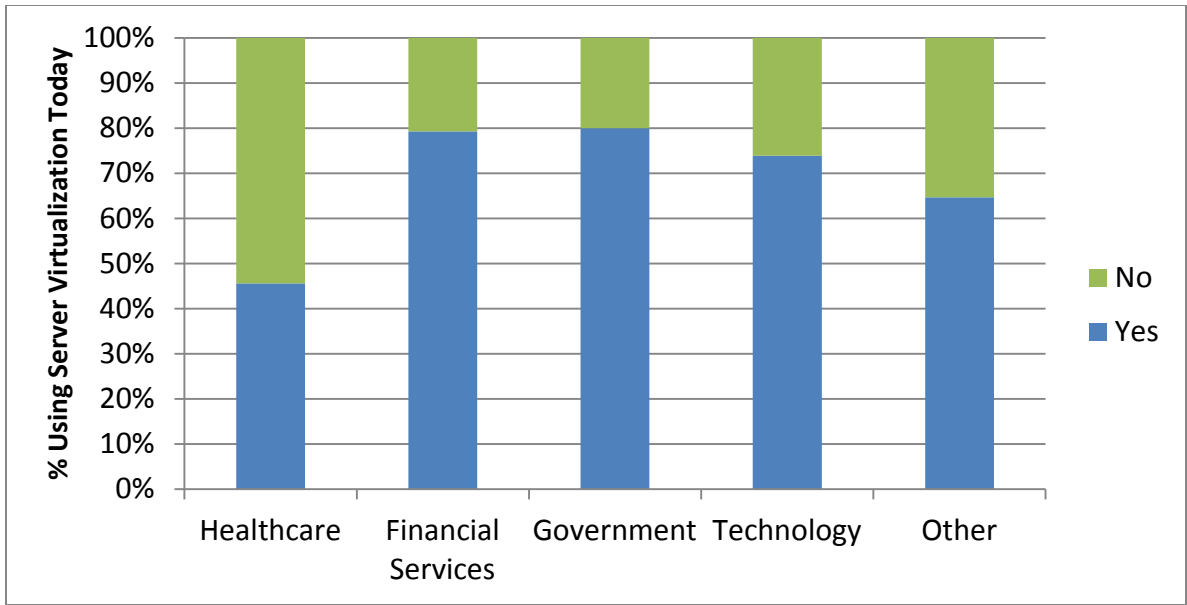


Figure 2: Server Virtualization Adoption Rates by Industry

In addition to the overall desktop virtualization adoption rate, healthcare also displayed a higher level of deployment. 31% of healthcare respondents and 25% of technology respondents using VDI claimed that more than half of their users were already using virtual. Figure 3 shows the current cross industry deployment rate.

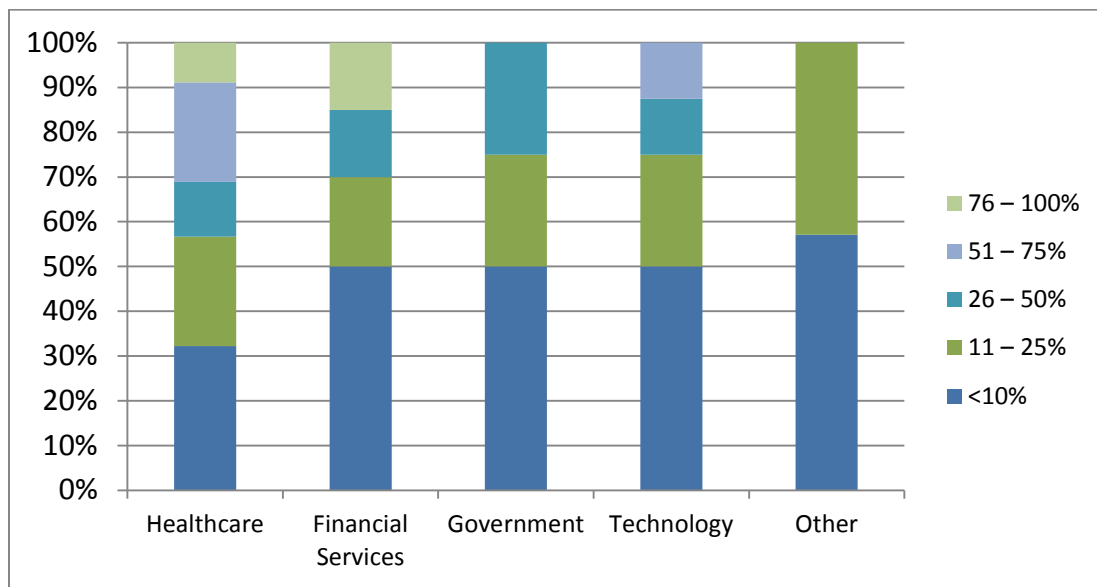


Figure 3: 2011 Current Deployment Cross Industry

For 2012 all industries showed progress in deployments with the largest move being made between the less than 10% deployed to the 11 – 25% deployed group. Healthcare leads the way in terms of those organizations with more than half of their users using virtual desktops with 43% of respondents outpacing financial services which forecasted 40%.

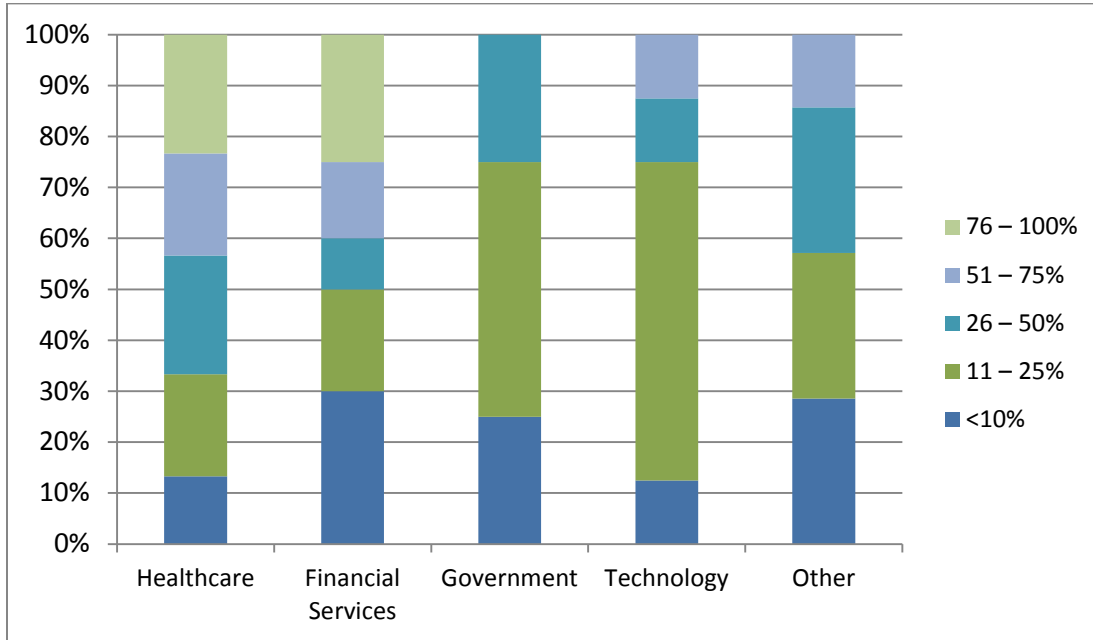


Figure 3a: Forecasted 2012 Cross Industry deployments

Primary Benefits of VDI in Healthcare

The reasons cited for initial adoption of VDI were remote access (39%), desktop manageability (27%) and to enable [desktop roaming](#) (14%), all features that help ensure that clinicians can access critical patient information wherever they are and whenever they need it. After adoption, (Figure 4a) respondents reported benefits of desktop availability (34%), improved user satisfaction (24%) and simplified workflow (19%). Of those organizations that are not planning to adopt desktop virtualization, 43% cite cost as the major barrier to adoption, and 46% cite desktop virtualization as not a priority (Figure 12).

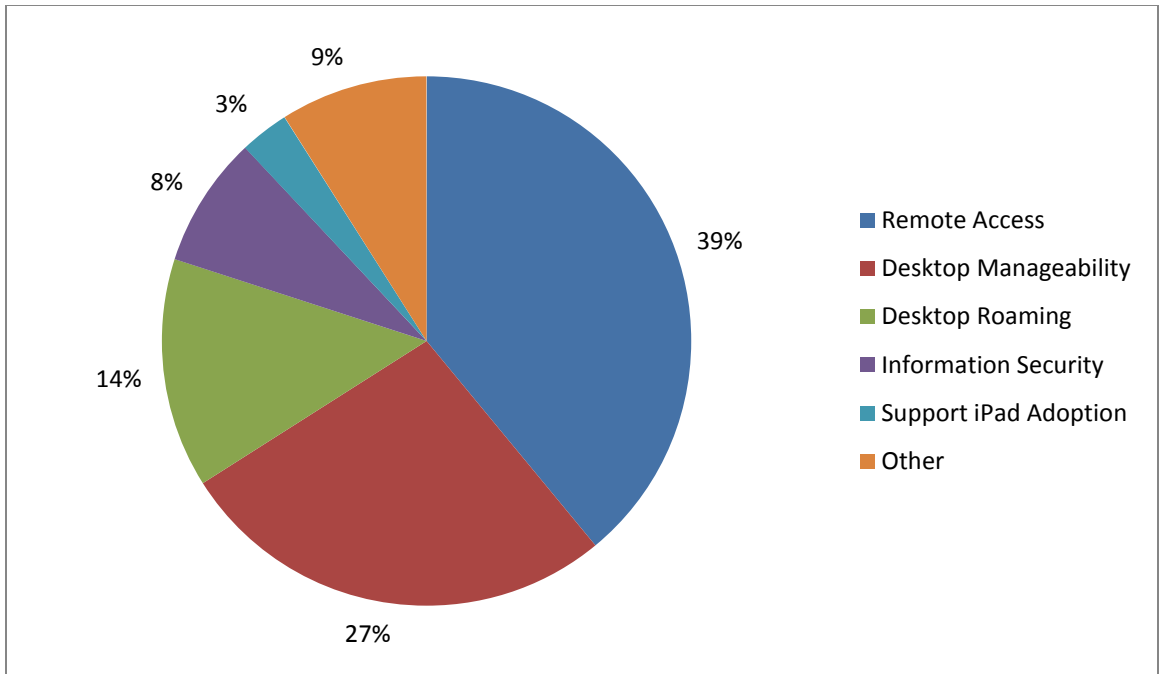


Figure 4: Primary Reason to Adopt VDI in Healthcare

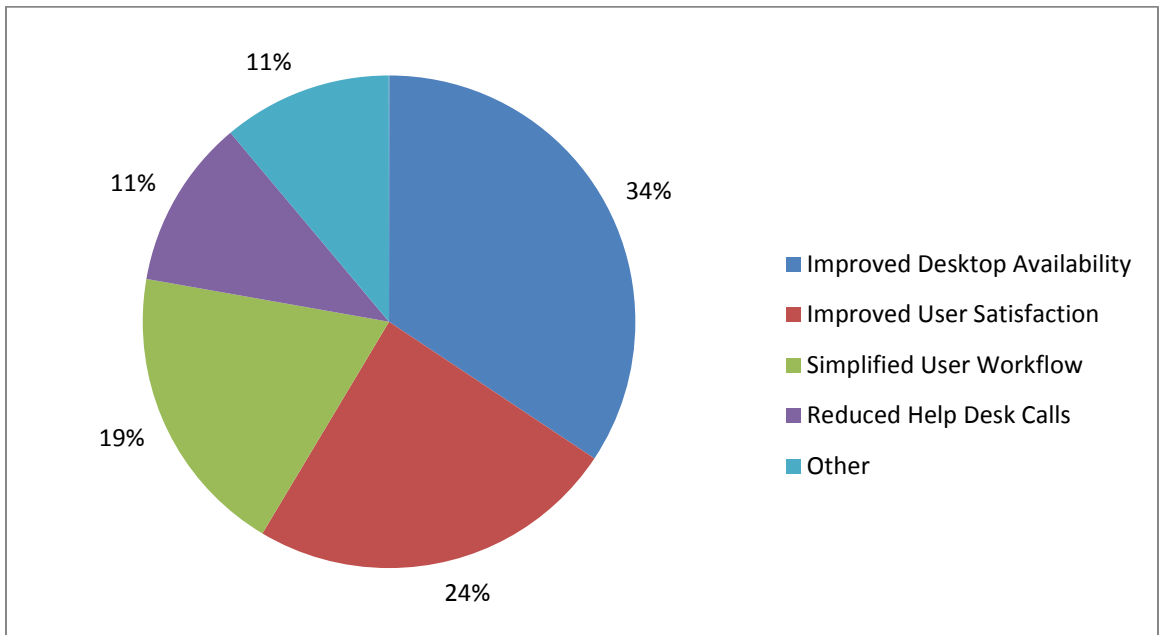


Figure 4a: Primary Benefits Seen After Adopting Desktop Virtualization in Healthcare

Healthcare Data Segmentation by Size

The survey segmented hospitals into those with beds numbering 1-99, 100 – 299 and 300+, to assess the desktop virtualization needs of small, medium and large healthcare facilities.

Server Virtualization

The usage of server virtualization increases in large hospitals with 54% of 300+ bed facilities using server virtualization (Figure 5).

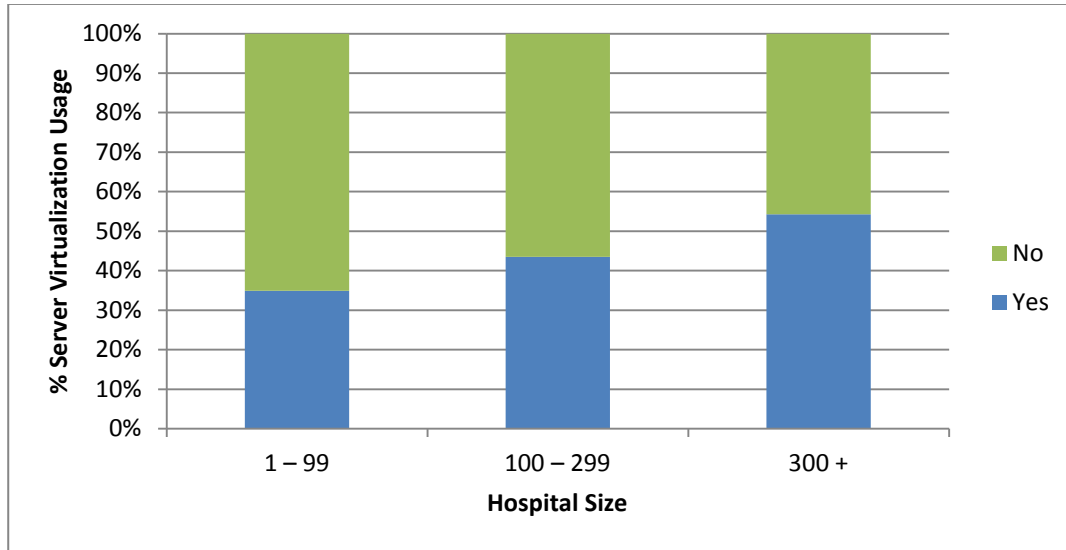


Figure 5: Server Virtualization Usage in Healthcare by Size

Desktop Virtualization Usage Trends in Healthcare by Size

Unlike the server virtualization statistics, reported usage of VDI is equally strong in the 100 – 299 and 300+ bed segments (Figure 6).

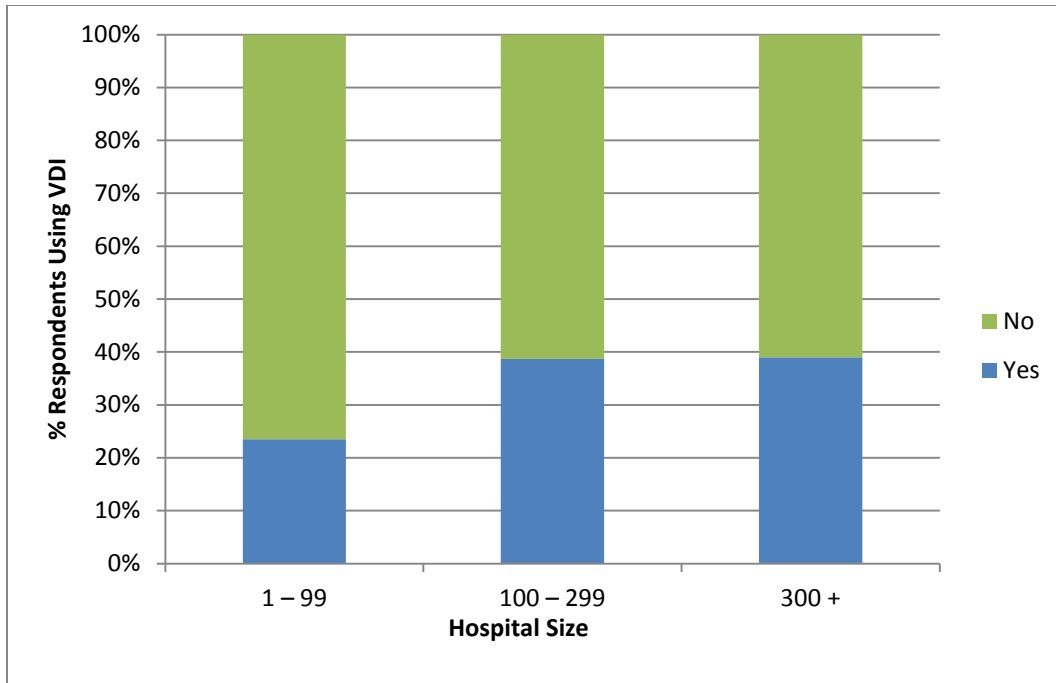


Figure 6: Healthcare Users of Desktop Virtualization by Size

Figure 7 displays a strong deployment of VDI with over 30% of respondents from the two largest segments showing that more than 50% of their users are using virtual desktops today. In 2012 this is predicted to continue with almost 49% and 45% percent respectively of the 100 – 299 and 300+ bed segments respectively looking to have more than 50% of their users using VDI. Of particular note is that 30% the 100 – 299 segment and 22.5% of the 300+ bed segment expect more than 75% of their users to be using VDI exhibiting that many organizations see desktop virtualization as a good solution broadly across their user communities.

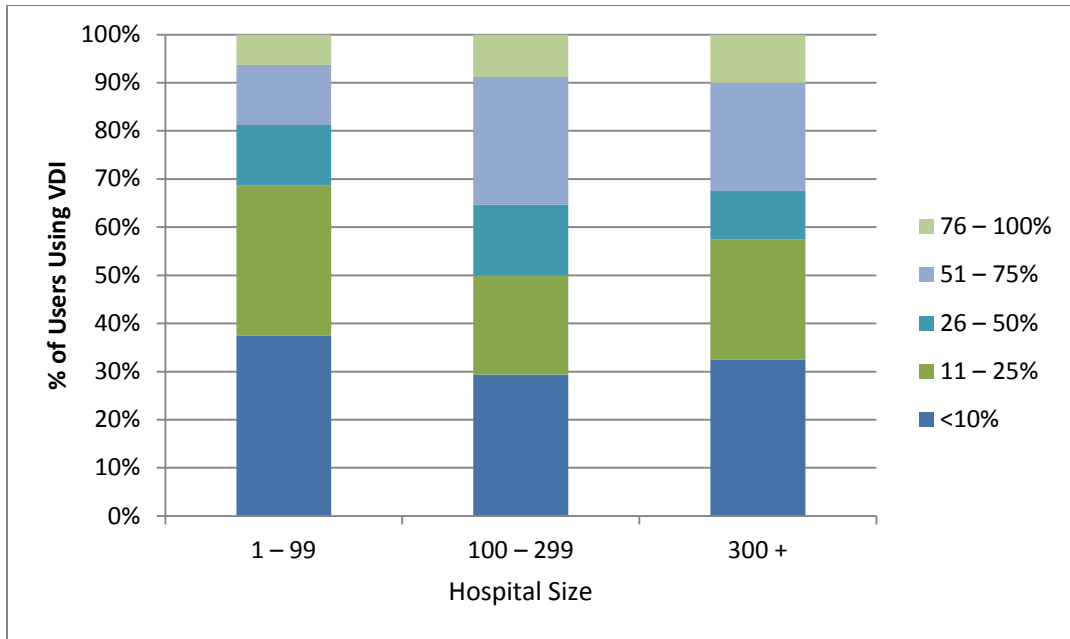


Figure 7: 2011 VDI Deployment by Size

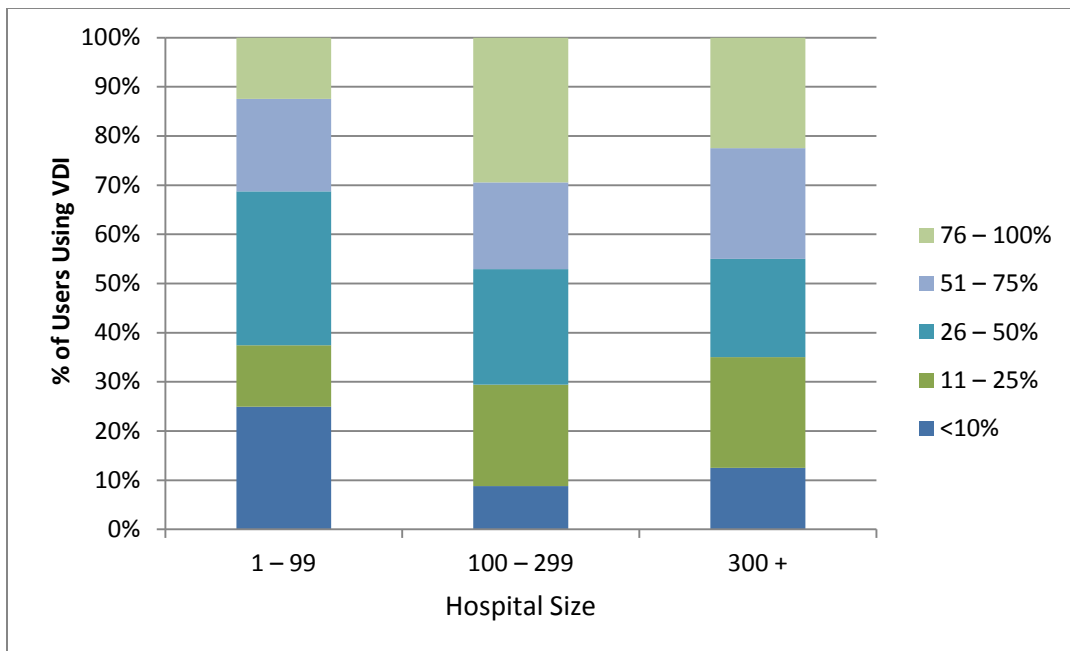


Figure 8: 2012 Projected VDI Deployment by Size

VDI Usage by Department in Healthcare Organizations

Overall, respondents report high benefit levels using desktop virtualization in patient care units and administrative / support settings (Figure 9). The 100 – 299 bed segment was particularly

strong in patient care units and ED – environments where clinicians are highly mobile and require access to information from a number of different devices.

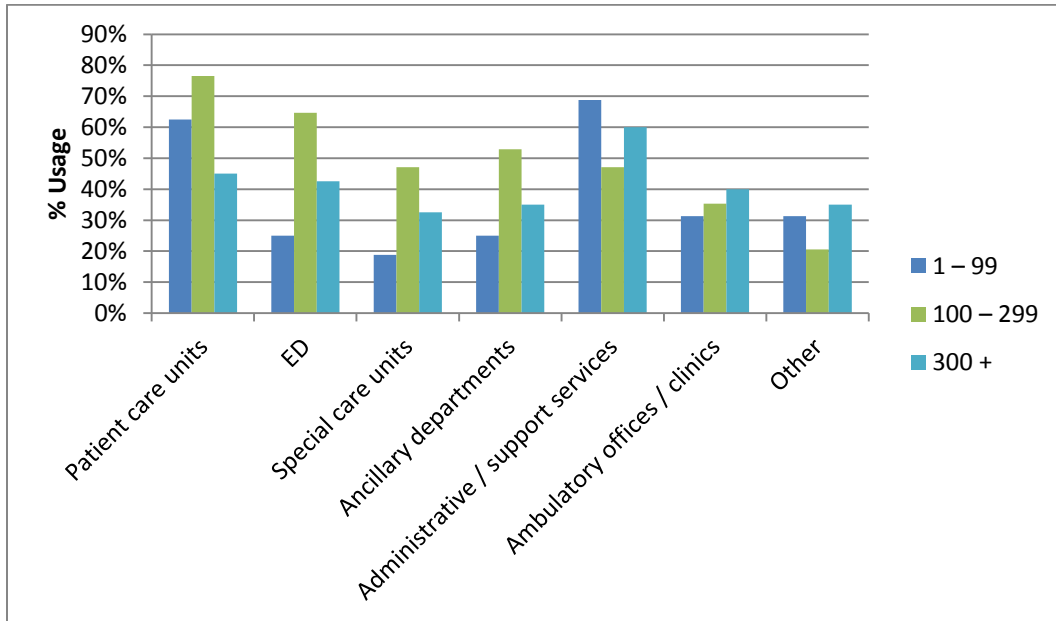


Figure 9: Departments with Highest Utilization of Virtual Desktops

VDI Usage by Role in Healthcare

Figure 10 shows broad use in the primary clinical and support staff.

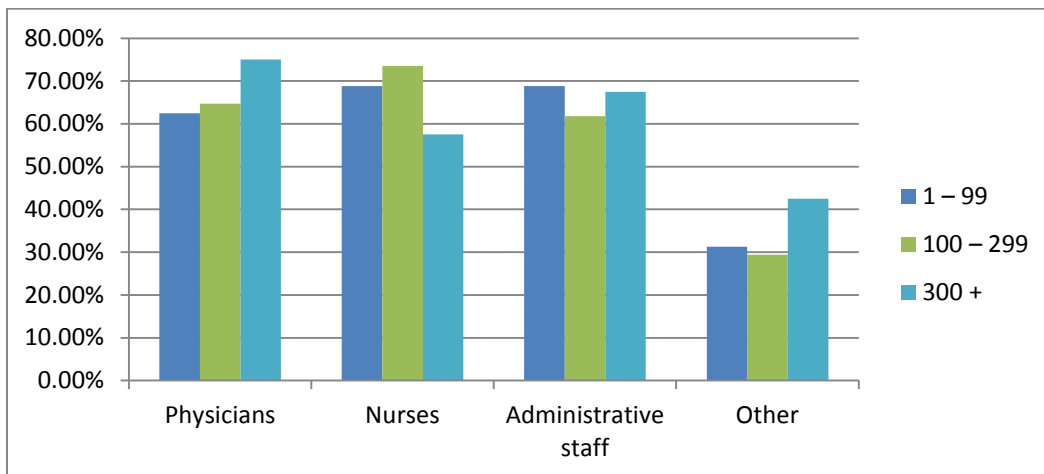


Figure 10: VDI Adoption by Role in Healthcare

Primary Benefits of VDI in Healthcare

Interestingly, there were a number of differences in the perceived benefits experienced by the different hospital segments. The smaller hospital segment (1 – 99 beds) reported simplified clinician workflow (25%), reduced helpdesk calls (25%) and improved desktop availability (19%) as the top three benefits (Figure 11). The top two benefits for the middle segment (100 -299 beds) were improved desktop availability (41%) and simplified clinician workflow (29%). The largest segment (300 + beds) split between improved desktop availability (35%) and improved user satisfaction (37.5%).

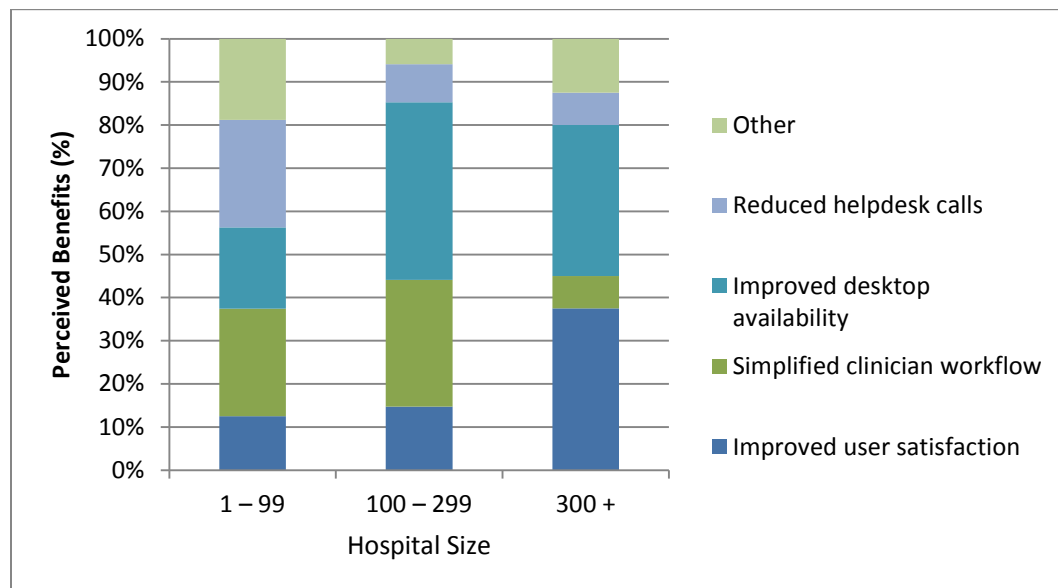


Figure 11: Top Perceived Benefits since Adoption of Desktop Virtualization

Barriers to Adoption of VDI by Hospital Size

As most hospitals marshal their resources to tackle Meaningful Use, many who are not using VDI simply reported that desktop virtualization was not a priority at this time. Cost though was also perceived as a barrier across all three segments (Figure 12).

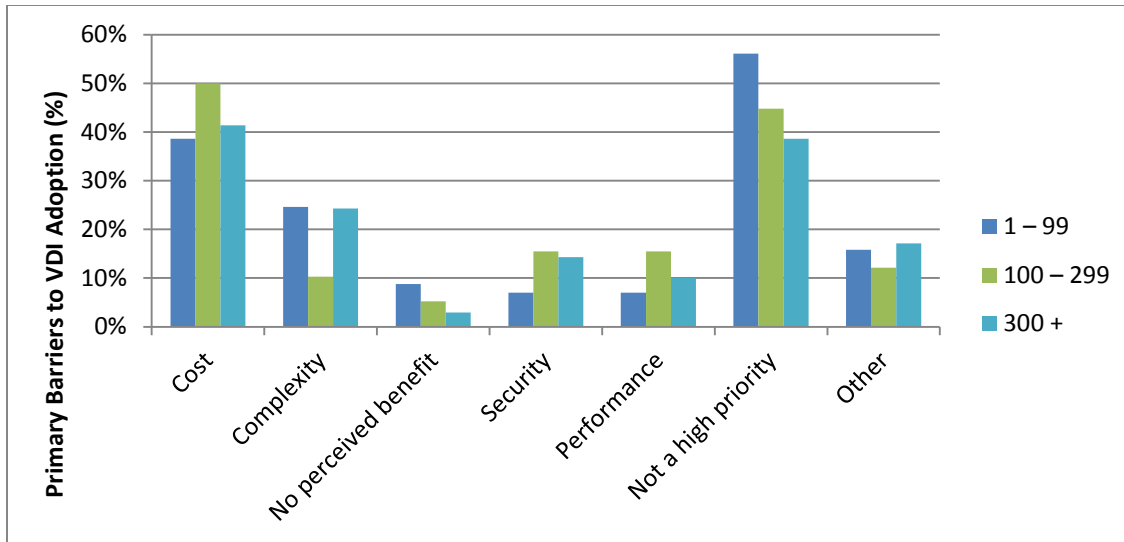


Figure 12: Respondent Perceptions of Barriers to Adoption of Virtual Desktops by Size

Cloud Services in Healthcare

Only 13% of healthcare respondents report using cloud services today and 64% indicate that they have no plans to adopt within the next 3 years (Figure 13). When asked why, 61% of those with no plans to adopt stated that this was not a priority at this time. Of the 37% of healthcare respondents that either have adopted, or are planning to adopt within the next 3 years, 60% cited the flexibility that they gain from the cloud as being the primary reason for adoption.

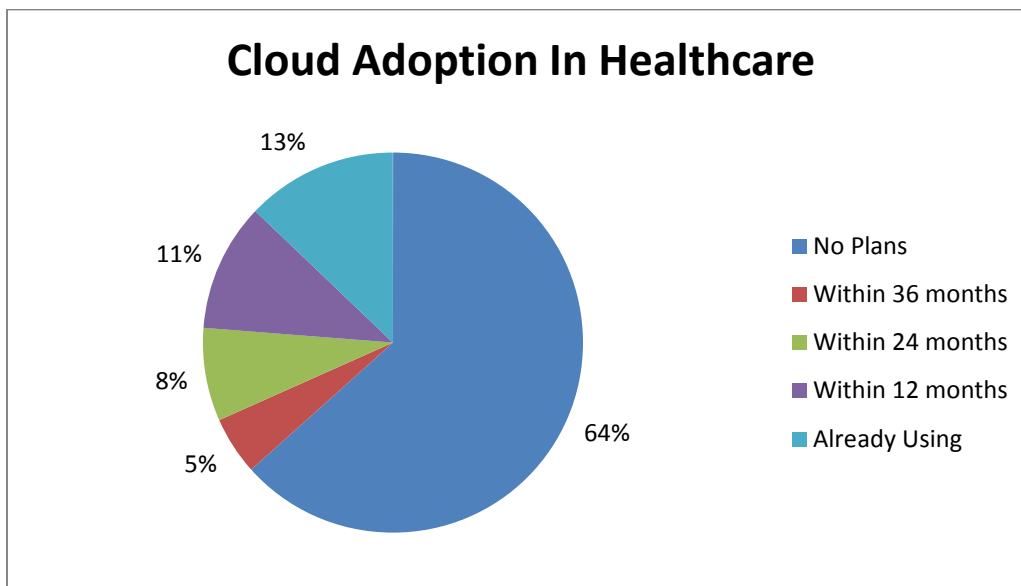


Figure 13: Cloud Adoption in Healthcare

Cloud Adoption by Hospital Size Segments

The adoption of cloud technologies differs across hospital size segments. Adoption rates are highest in the largest hospital segment with approximately 50% of respondents expecting to adopt with the next 3 years (Figure 14).

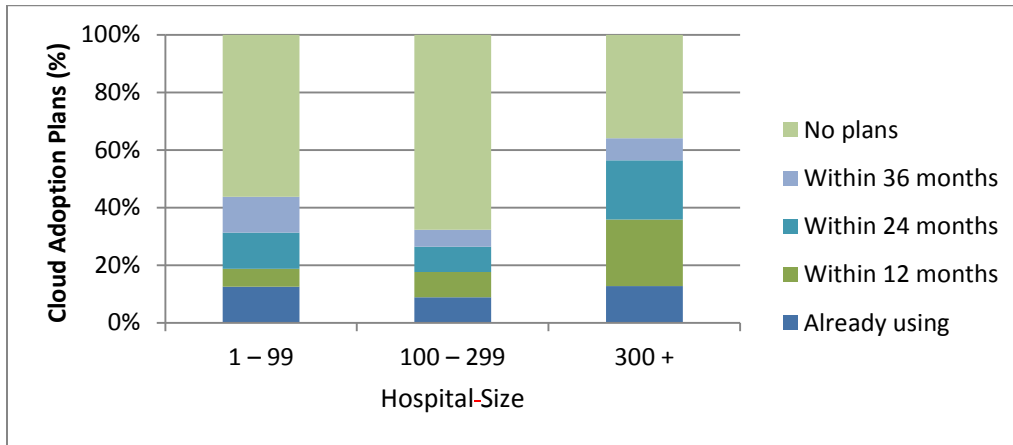


Figure 14: Cloud Adoption Plans Segmented by Size

Of those not adopting cloud technology today, there is a slight shift down in the larger segment, with only 26% expecting to adopt within the next 2 years (Figure 15).

Figure 15:

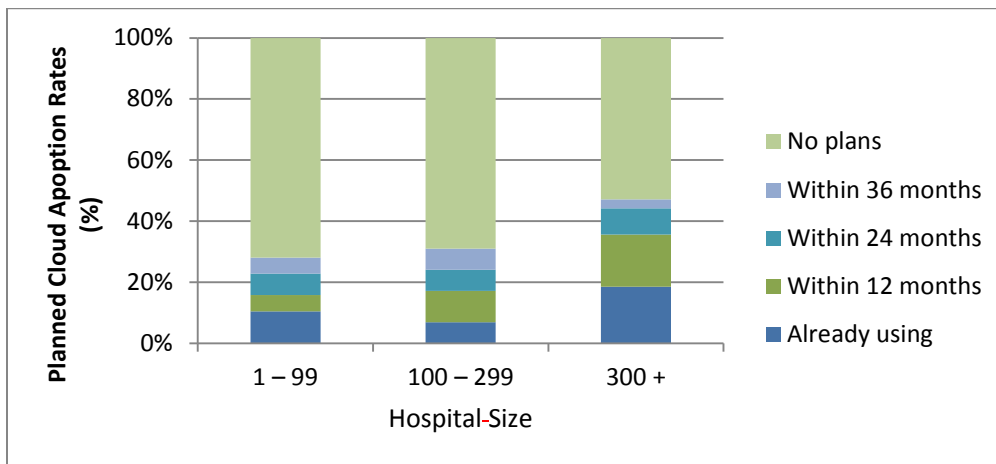


Figure 15: Future Cloud Adoption Plans in Healthcare by Size

The majority of those respondents that don't have plans to adopt cloud technology state that this is not a priority for them today (Figure 16).

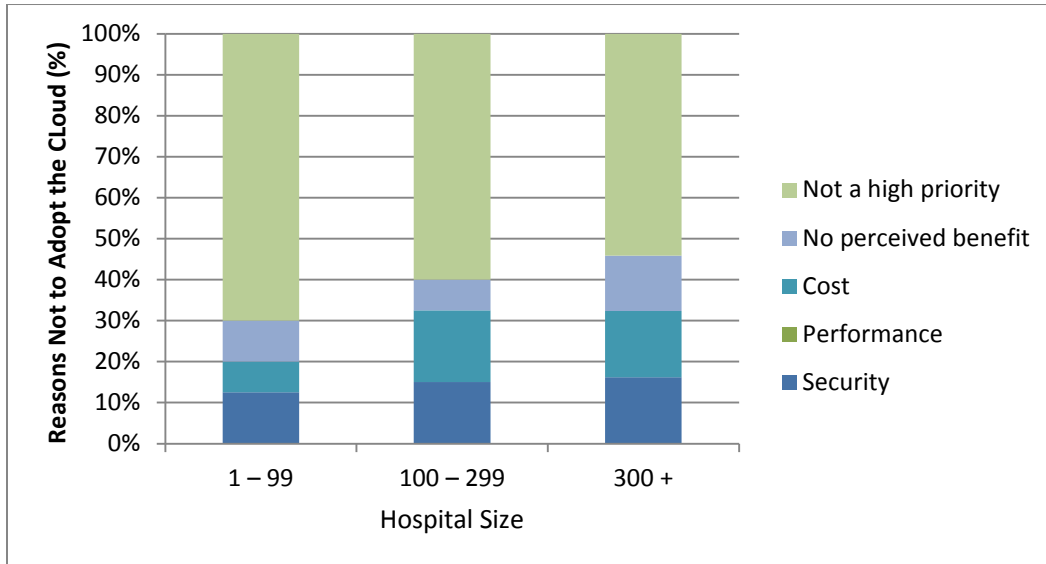


Figure 16: Reasons for Not Adopting Cloud Technologies

For the respondents who indicated that they wished to use cloud services, the flexibility offered by the cloud is the predominant reason for adoption in all three hospital size segments (Figure 17).

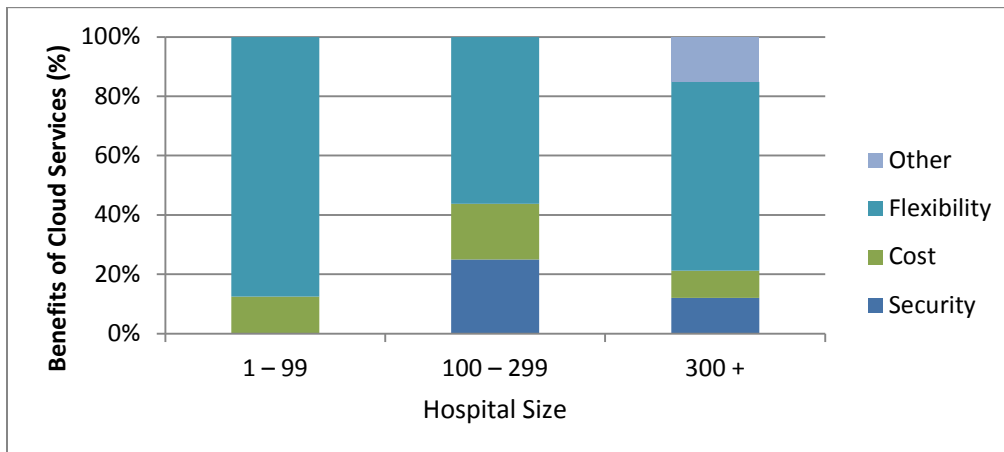


Figure 17: Reasons for cloud adoption

Summary

At a time when most hospitals are concentrating on projects that take them towards their goals of meeting Meaningful Use, desktop virtualization appears to be gaining good traction in the healthcare environment. Forecast to overtake the rate of adoption and deployment of industries that may be considered the more traditional early technology adopters, hospitals are clearly seeing the value to both users and IT.

Healthcare is by nature a mobile industry, even inside the hospital walls, with clinicians moving between patient rooms, nurse's stations and offices. Virtual desktops are finding broad applicability across the healthcare user base, simplifying clinician workflows, providing fast access to the applications and information they need, wherever they are, to support positive patient outcomes.

About Imprivata

About Imprivata

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Imprivata has received numerous product awards and top review ratings from leading industry publications and analysts, including a *Strong Positive* rating in Gartner's 2010 ESSO Marketscope, the #1 ranking in the KLAS SSO Performance report and the #1 rating in 2010 Best in KLAS and Category Leaders report. Headquartered in Lexington, Mass., Imprivata partners with over 200 resellers, and serves the access security needs of more than 1,300 customers around the world. For more information, please visit www.imprivata.com or follow us on Twitter at @Imprivata.

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