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Reality Check: What You Need to Know about PC and Mac Desktop Costs

Understanding the Real Costs of Deploying Macs and PCs

Research Study

November 2010

Developed by Clearworks in conjunction with JAMF Software

INTRODUCTION

The perception that Macs are more expensive to acquire and deploy than PCs has long persisted in many IT departments. This topic has been frequently explored in an attempt to dispel this notion and uncover the true costs of operating Macs relative to PCs in the enterprise. Given how unique one organization can be from the next, providing a definitive answer to this question can be challenging.

This study represents a more simplified approach to understanding the real cost of acquiring, deploying and supporting PCs and Macs, based on actual experiences across a variety of organizations. We asked respondents to consider only the costs of acquiring, deploying and supporting a single Mac or PC to a user, and excluded the cost of the infrastructure required to support each platform – from servers to printers and other networking equipment. Because this study is focused only on desktop costs, the back-end infrastructure is assumed to be fixed and a requirement of either platform.

We explored common cost drivers, decision making criteria, and management approaches in order to understand the costs experienced in enterprises today. This report summarizes our findings based on a survey of 200 respondents and nearly a dozen in-depth interviews with companies across a range of industries including manufacturing, information technology, education and healthcare (*see Survey Methodology and Participant Specifications for more details*). We explored the following questions:

- What should be considered when comparing the costs of PCs and Macs?
- Is one platform more expensive than the other?
- Are there any real differences in the way companies support each platform?
- What are companies doing to increase the efficiency of operating Macs within their environment?

There is not a simple answer that can be applied to every organization. Instead, we captured different experiences that varied based on the specific software and hardware requirements of an organization, as well as its approach to implementation and management. What is apparent is the perceived cost gap between PCs and Macs has narrowed, and many of the old notions should be reconsidered. The results of this study will show you what a set of diverse organizations have found operating a mixed PC and Mac environment, and may make you stop and think about the cost experience within your own environment.

EXECUTIVE SUMMARY

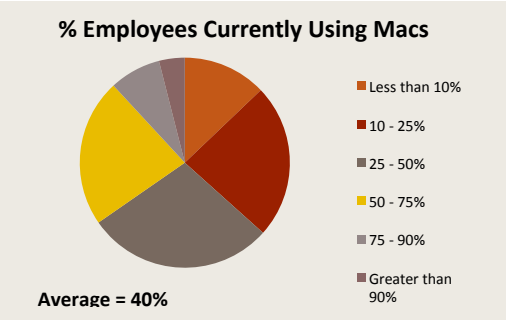
Operating a mixed PC and Mac environment presents opportunities and challenges for the enterprise. Many different factors should be considered when deciding to invest in multiple platforms. While perceptions exist about the costs of operating PCs and Macs, many of these are no longer valid. The following are some findings from the study:

- The perceived cost gaps between PCs and Macs have narrowed or disappeared in key areas.
- Comparing costs of each platform, many felt that over the life expectancy of a Mac or a PC, Macs would cost less for the company to deploy, manage and support.
- Macs can be more expensive than PCs from a hardware acquisition perspective, largely due to volume discounts on PCs and because PC configurations often have lower performance specifications compared to standard configuration Macs.
- In many organizations, the ability to distribute costs across a much larger PC installation base is a contributing factor to the perceived higher cost of Macs.
- When evaluating set-up and deployment costs (i.e. software acquisition, training, set-up and imaging, and warranty) on a unit by unit basis, Macs were found to be lower than PCs.
- The cost of deploying Macs is offset by lower helpdesk support costs, an area where most companies felt PCs were higher.
- As the presence of Macs and iOS devices grow within the enterprise, companies should consider using best practices and deploying solutions that help them manage Macs in the same way they manage their PCs.

A simple analysis of your company's costs over time – taking into consideration acquisition, start-up, maintenance, and support costs – of both PCs and Macs within your environment, could yield some interesting insights and even surprising conclusions about the true cost of deploying and supporting desktops within your company.

Enterprises are Trending towards a Mixed PC and Mac Environment

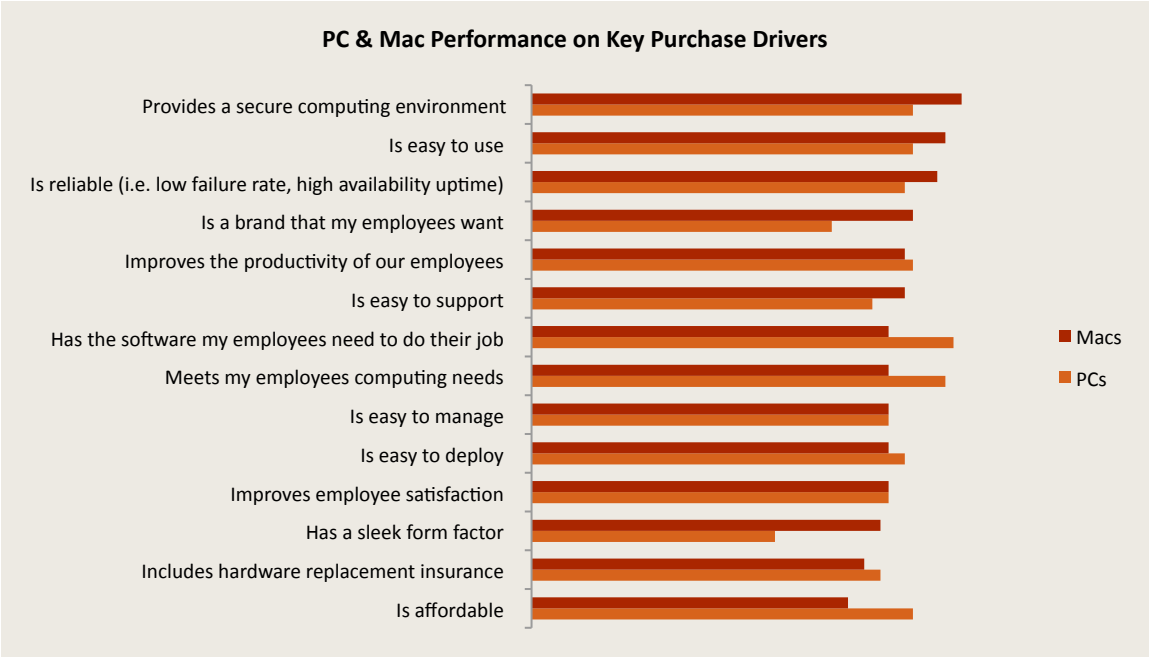
It's no secret that more and more enterprises today are operating in a mixed OS environment. In fact, 59% of companies with PCs deployed are either trialing Macs, or have completed a proof of concept and are looking to deploy more Macs to employees. In those companies, over 40% of employees, on average, are using Macs today.



PCs and Macs meet different needs within the enterprise for desktop selection, which is playing an important role in the trend toward a non-homogenous environment.

As part of this study, we asked companies about the main factors they consider when choosing one desktop or laptop over another. These days, companies are not attempting to address all their priorities through a single platform. In fact, companies are becoming more and more comfortable deploying a mix of both PCs and Macs in the enterprise to satisfy their needs.

Whether it's an HP, Dell, Lenovo, or Mac, 57% are concerned about the security impact of the machine they choose as the standard configuration in their companies. IT departments also consider employee productivity and whether employees have the ability to perform their job. IT's ease of management, deployment, and support of PCs and Macs was secondary to meeting the needs of the employee.



When considering how PCs and Macs perform relative to these factors, respondents feel PCs are affordable, have the software needed for employees to do their job, and meet employees computing needs for performance. Macs perform significantly better than PCs at providing a secure environment – the top driver for computer selection – with 53% of respondent's ranking security as one of the key advantages of a Mac. Macs also perform well in the ability to provide a reliable platform with low failure rate, little downtime, ease of use, and ease of support.

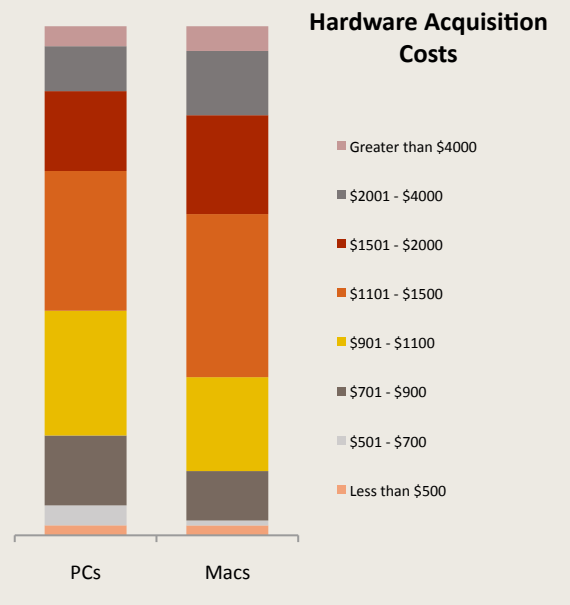
The fact that each platform satisfies different company priorities demonstrates that PCs and Macs both have their place in the enterprise environment today – both fulfilling different needs of employees and IT alike. The relative importance of

specific factors will lead companies to choose one platform over another and for many, and may end up with a mix of both platforms.

As more and more companies move ahead with deploying Macs alongside PCs, the decisions around deployment, management, monitoring, and support will become an important consideration in order to gain the most cost efficiencies in a mixed environment.

Do you know your real costs to deploy a Mac or PC?

Are companies making the right comparisons when it comes to hardware acquisition and deployment costs?



You are likely to pay more for a Mac than you will for a PC – a contention very few people would debate. However, if you look at a PC and a Mac with similar performance specifications, the gap begins to narrow.

According to study participants, a standard Mac configuration costs on average approximately $200 more than the standard PC configuration.

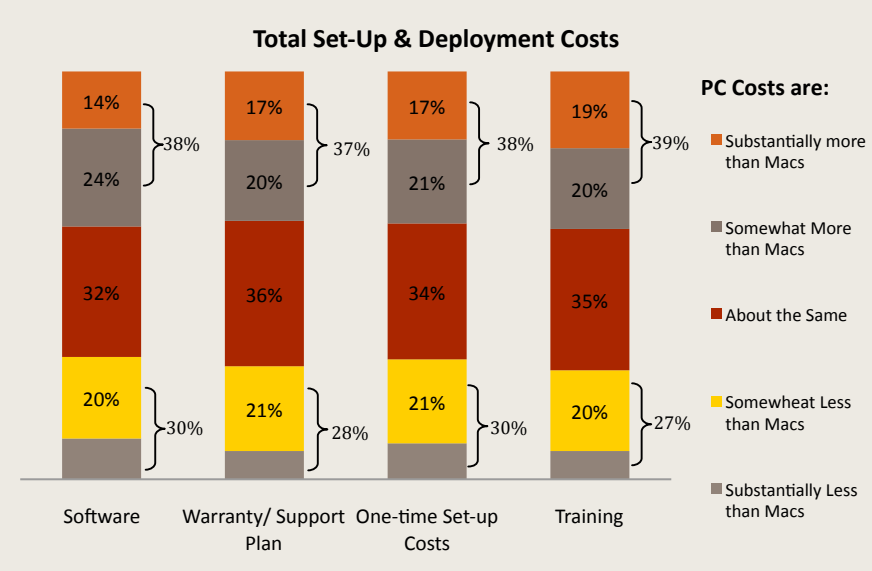
From interviews, many of the differences in pricing are driven by volume discounts on the PC side and differences in performance specifications between the two platforms.

A common theme heard across the interviews was PC manufacturers offering discounted pricing, while the performance on the Mac side is much higher. According to an IT Director at a publishing company, *"With Dell, we just got a great price [due to number of machines purchased]. They came in with just a killer price."* She went on to explain, *"We are going to pay a lot more up front for the Macs for sure, but they are doing a lot more heavy lifting than the PCs."*

On the performance side, many said they had higher-end Macs than PCs, which contribute to increased cost. *"We primarily have low-end [PCs]. Macs are definitely higher [cost] for us because we primarily have high-end configurations on the Mac side because that's what that design application requires. It is entirely possible that there may be low end Mac configurations that I have no visibility to or I haven't gone out and investigated,"* explained an IT Director from a manufacturing company.

If the hardware acquisition side is clear, what about the rest of the deployment cost story?

Many IT professionals indicated that one of the biggest barriers to deploying Macs was the upfront acquisition costs, and the difficulty in justifying the investment. But do those costs alone give you the full picture? If companies haven't spent time looking at the deployment costs between platforms, it might be a good time to start looking beyond acquisition costs.



When considering the costs for both PCs and Macs related to software, warranty plans, one-time set-up fees and training, nearly 40% of companies felt PCs cost more than Macs in these areas, and 35% felt the costs were about the same for both platforms. This suggests, for many, that Macs cost less to set up and deploy within the enterprise than PCs.

Reality Check: Macs may be more expensive from an acquisition perspective, but when you look at the whole deployment picture including software acquisition, warranty, set-up, and training, Macs were determined to be less expensive or the same as PCs.

Questions to Consider:

1. **Does your standard configuration PC perform at the same level as your standard configuration Mac? Are you really making the right comparisons with regard to acquisition costs?**
2. **Are you comparing Macs used for programming or high-end graphics which may be your standard configuration, to a standard PC used for everyday computing?**
3. **Have you looked at what your acquisition costs would be if you had a 70/30 mix of PCs and Macs in your environment? 50/50?**
4. **Have you evaluated the true costs to train, set-up, and deploy Macs within your enterprise?**
5. **Is there a difference in life expectancy between PCs and Macs? Is there a difference in the trade-in value?**

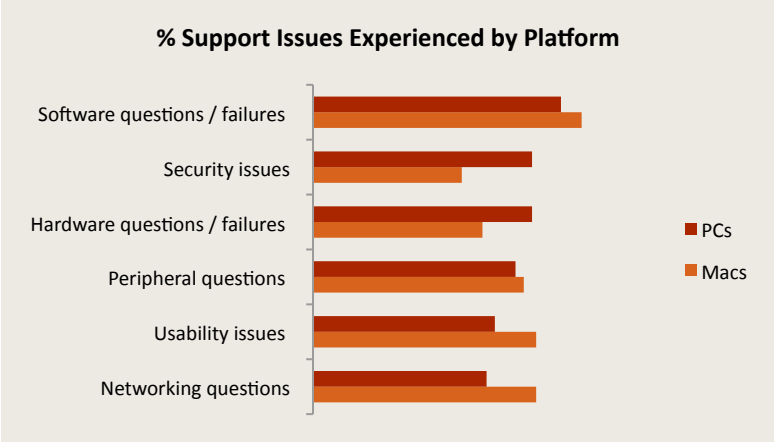
Are there any differences in supporting users on each platform?

Acquisition and deployment costs of PCs and Macs are two factors that need to be considered when you look at the real cost of each platform; however, technical support contributes significantly to the ongoing cost over time. From the types of support issues to the number of trouble tickets, this study found that the answer to whether there are differences in support is a resounding YES.

The study revealed software and networking questions are logged as frequently by Mac users as PC users. However, beyond software and peripherals, the technical support issues experienced by each platform look very different.

PC users are significantly more likely to experience problems around security, with 53% of those companies surveyed claiming that security is among the top three technical support issues compared to only 36% on the Mac. Similarly, 53% of respondents feel that hardware questions or failures are much more likely on a PC than on a Mac.

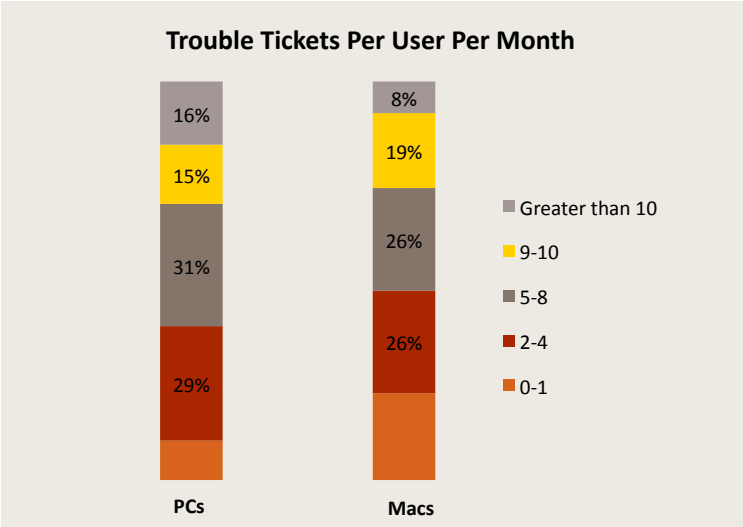
On the other hand, Mac users need more technical support around networking and usability, likely due to new users switching to the Mac platform. 54% of respondents claimed that both usability and networking are among the top three issues experienced by Mac users.



According to a VP of IT in the finance industry, "*I have to say that on the Macs - and maybe it is because we have such a small amount of them - but they are sturdier. We seldom have hardware problems with Macs but we constantly have hardware problems with the hard drives and those kinds of things for Windows.*" When asked about issues on the Mac side, he admitted that there are some networking issues, *"On the Mac side it is more about problems connecting. We are running all of the file shares and printers on the Windows side so the Macs have to sync to them. So if anything happens on the Windows side then the Mac will lose its connection."*

Do the differences in support issues impact costs? Do security and hardware failure issues cost the same or different than usability and networking issues? A look into the number of tickets might give us some insights.

Users of both platforms log an average of eight trouble tickets per month; however, 22% of respondents said that Mac users log, on average, one or less trouble tickets per month compared to only 10% on the PC side. On the higher end, companies indicated that 16% of PC users log 10+ tickets compared to only 8% on the Mac platform, suggesting that PC users skew higher on the number of trouble tickets they log on a monthly basis.

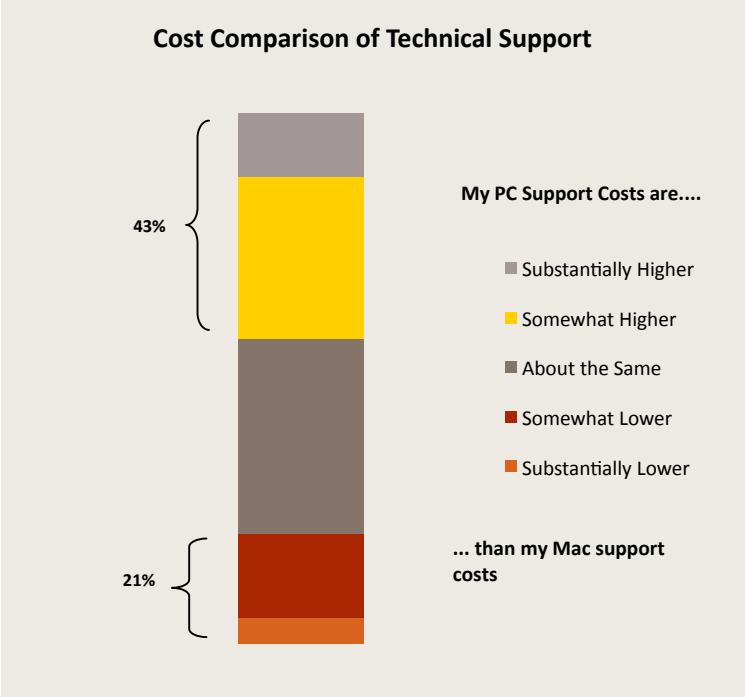


"I would be lying if I did not tell you this. It is much easier to support [Macs]. We have less help desk tickets going into support from our Mac users. They are much more self sufficient. They tend to be creative, they tend to be younger. On average we see fewer tickets per user per month than we see on the PC side," claims an IT Director from a manufacturing company.

Another IT director added that they have about 5 calls per month per user on the PC side, while they only experience 1-2 per month from their Mac users.

So how does all of this impact costs over time?

When asked how PC and Mac support costs compared overall, nearly half (43%) of respondents felt that their PC support costs were substantially or somewhat higher than their Mac support costs. Only 21% felt that their Mac support costs were substantially or somewhat higher than their support costs for PCs. This was confirmed through our discussions with IT and purchasing managers, where several confirmed that Macs are more expensive in the upfront purchasing cycle, but have found that ongoing support is much less.



Despite the larger upfront acquisition investment, Macs appear to make up ground when you look at support costs for users. Several companies that were interviewed for this study indicated that their Mac users rely almost completely on self-help or a user supported model for support. If companies can minimize the resources required to solve issues experienced by Mac users, this can certainly have a big impact on support costs.

Reality Check: Macs experience different issues, less trouble tickets per user, resulting in an overall lower cost of support than PCs.

Questions to Consider:

1. **Are the types of issues your PC users are experiencing the same as on the Mac?**
2. **Do you track support tickets by platform?**
3. **Can you differentiate your Mac support costs from your PC support costs?**
4. **Do you know how much support is costing you?**
5. **Would a self-help model work for your Mac users?**

Are Macs managed as efficiently as PCs?

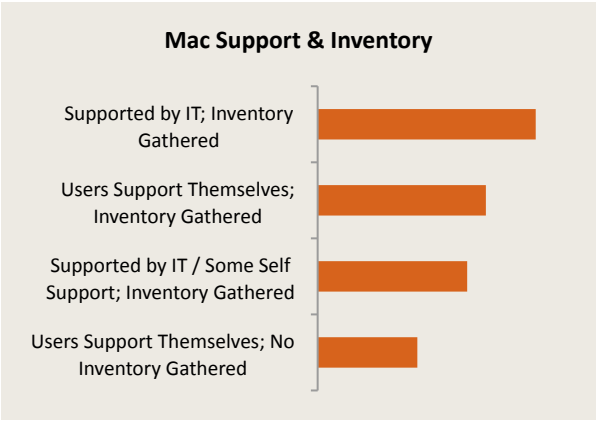
Of the participants we surveyed for this study, a similar number of companies (~50%) indicated that they had implemented a client management solution for both their Macs and PCs, and almost 40% of the remaining companies plan to do so in the next 6 to 12 months. Most participants indicated that the reason they adopted a client management solution for their Macs was that they wanted more consistency between the management of Macs and PCs within their environment and, secondarily, they were interested in further decreasing the deployment and support costs for their Macs.

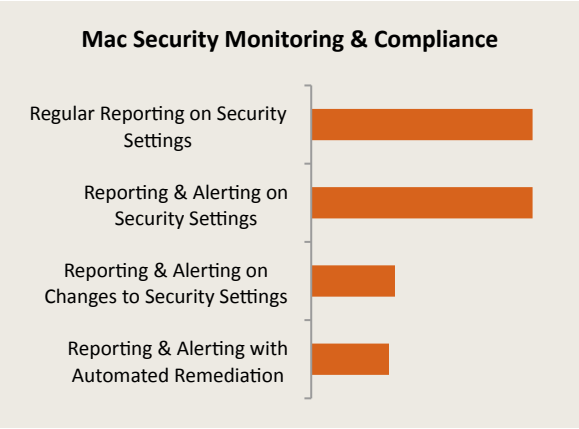
Are companies realizing the consistency and cost efficiencies they were looking for from a client management solution?

This study evaluated the degree to which best practices have been fully implemented in the deployment, support, maintenance and security monitoring of Macs. When looking at the degree of utilization of best practices, the data tells a slightly different story than the one based on companies' intent for deploying client management.

There were some areas in which organizations were further ahead with implementing best practices than others. Many of the companies surveyed were more advanced in how they approached support and security compliance for the Macs, than how they deployed or maintained them in the enterprise.

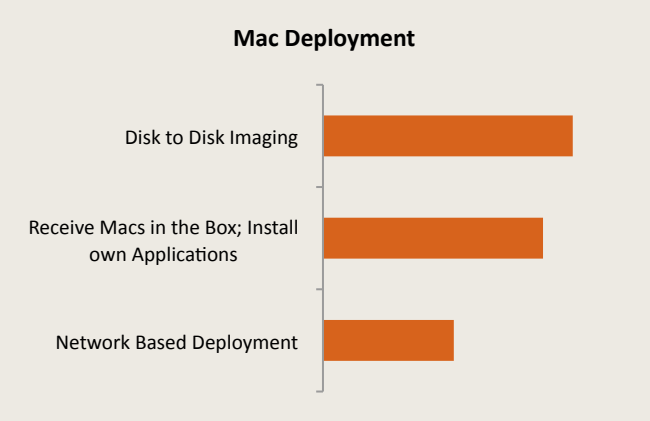
One of the biggest areas where companies have employed some form of support best practice is in gathering software and hardware inventory, regardless of the Mac support model being used. Of the companies surveyed, 86% reported they gather inventory on the Mac side, allowing for licensing compliance and more effective hardware troubleshooting.

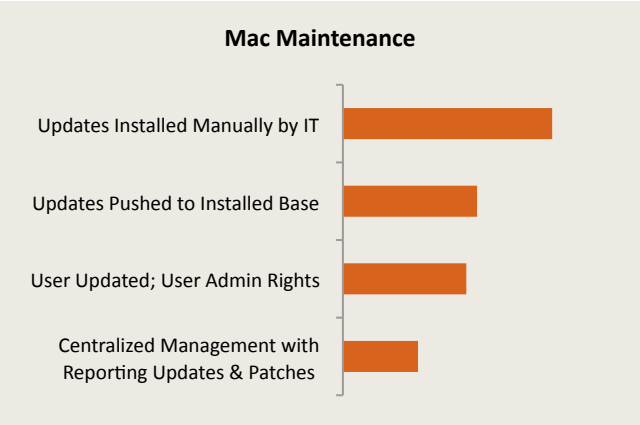




Similarly on the security compliance side, 87% using Mac client management have implemented some best practices. Of the 87%, all receive regular reporting on security settings, and some have opted for alerting about changes to settings, as well as automated remediation.

Mac deployment and maintenance are two areas where companies are still relying on more manual processes. For 42% of companies, Macs are deployed through disk to disk imaging, and nearly 40% of companies reported they still hand out Macs in the box and have the users install their own applications.





According to one IT Director, *"On the Mac side we basically give them a standard Mac notebook that comes with the latest OS. It is pretty standard stuff. Then we say okay, it can be connected to the network. Then the moment that it becomes connected to the network they have a link to a Mac server and they can install what they want. They pretty much do their own installation."* Less than a quarter of companies reported using network-based deployment with centralized user database or directory service integration.

Mac maintenance is also still a very manual process, with most companies administering updates from Mac to Mac by its IT staff or the Mac user base. Less than 40% of companies report using some type of automation to push out OS and application updates. Even fewer companies, 14%, are using a central management solution that includes reporting on updates and patches.

If Macs are an established and growing presence in the enterprise, are there opportunities for efficiencies in their management?

Given the current state of best practice implementation on the Mac platform, there is an opportunity to gain greater operational efficiencies and cost saving by eliminating many existing manual processes.

Many companies surveyed felt the number of Macs deployed to date constituted such a small proportion of their overall deployments that they did not warrant a fully automated solution. Some just felt they could live with manual processes across that rather small Mac base. According to an IT executive in financial services, *"We buy a lot of monitoring stuff and deploying tools for Windows only. If you do deploy for Mac you visit them one by one, you really don't automate anything. The volume of Macs is not worth it to buy anything for them."*

According to an IT Director for a teaching college who compares the savings associated with PC management by using a client management solution, *"To have an entire client management system in place just for the Macs is not cost justified. So what winds up happening is that we have to individually go to the Macs to do any upgrades."*

As the number of Macs continues to increase in the enterprise, the need to standardize the management of PCs and Macs will become more urgent, allowing companies to realize efficiencies on the Mac platform that have so far mainly benefitted the PC side.

Reality Check: Deploying a client management solution appears to be only half the battle – it's what you are doing with the solution that makes the difference. Enterprises are not fully realizing cost and operational efficiencies on the Mac side because they are not managing Macs like they manage PCs.

Questions to Consider:

1. **Are you employing industry best practices equally on both platforms?**
2. **If you have a client management solution on the Mac side, are you getting the most out of it that you can?**
3. **Do you use your client management solution reactively, or are you proactively managing your Macs?**
4. **Have you evaluated the solutions and costs of deploying client management on the Mac side compared to the efficiencies gained by more centralized management?**
5. **Could a savings from reduced operating costs on the Mac side make a client management system more of a priority for your organization?**

Have perceptions become reality or do companies really know the cost differences between Macs and PCs?

On one side, it is clear that the perception that Macs are more expensive to acquire than PCs is valid – whether companies are comparing similar machines or not. On the other, the study has shown that most perceive overall deployment costs of PCs to be more or the same as the cost to deploy Macs in the enterprise environment. Support costs tip the scales in favor of Macs, as most companies felt Macs cost less or the same to support than PCs.

Are companies clearly tracking and analyzing the true cost of deployment and maintenance of the two platforms?

Most IT professionals interviewed for the study were very knowledgeable about their environment, but admitted to not tracking costs on both platforms with equal detail or having conducted a formal analysis. Some of their cost perspectives appeared to be clouded by economies of scale – spreading costs over a much larger base of PCs versus burdening a much smaller numbers of Macs. Others said they were more familiar with costs on the PC side simply due to the longer time PCs had been deployed in their organizations. Others said given the small number of Macs in their environment, tracking Mac costs hasn't even hit radar screen.

One IT Director from the manufacturing sector said*, "Right now, yes, the Mac users are higher cost but they are such a small percentage of our budget that they really don't even show up on the spectrum."*

Would companies have a different perspective if they tracked and analyzed the true costs of deploying Macs and PCs?

Analyzing the true cost of deploying, supporting, and maintaining each platform on a user by user basis could seem like a daunting task, however, the benefits attained may be worth the effort.

One IT director in the furniture manufacturing industry talked openly about the analysis his company conducted on both PCs and Macs. Through an internal analysis that compared the total cost and performance of PCs to Macs, the company found:

- Downtime is about 9% less for the Macs vs. Windows
- Total IT hours are split at 40% on the Mac platform and 60% on the Windows platform
- Increased support for Windows is driven by more required updates, roughly 2:1 for the Macs
- Total operating expenses for the Macs run approximately 15% to 18% lower than the Windows platform

According to the IT director, "*It is about $500 more for the Mac than Windows. Once you take the $500 and you figure the 5 year lifespan [per Mac] vs. the 3 year lifespan [per PC] and you figure in the downtime then the Mac is a much better value for your investment. Yes, there is a cost on the floor level but when you take into consideration the implementation and the total cost it is less for a Mac."*

While this is just one company's perspective based on their own analysis, it demonstrates the type of visibility, learning, and knowledge that conducting an analysis of PC and Mac users could provide to an organization.

Reality Check: Perception sometimes becomes reality, but companies may have not spent enough time tracking and analyzing the true cost of deploying and maintaining PCs and Macs within their environment.

True Cost Analysis Checklist: Keeping it Simple

The following is a simple checklist to help companies conduct a straight-forward analysis for comparing acquisition, deployment, and maintenance costs of both PCs and Macs:

- ☐ Focus on desktops – considering things like servers, printers, and other networking equipment can get complicated
- ☐ Look at costs on a unit by unit basis
- ☐ Compare similar types of users – the requirements of high-end programmers should not be compared to general office workers
- ☐ Take into consideration the varying performance of machines – if one has higher performance specifications than the other, adjust the analysis accordingly to account for this difference
- ☐ Consider projecting per machine costs using similar volumes on each platform
- ☐ Factor life expectancy of the machines into your analysis
- ☐ Factor in the potential trade-in value of each desktop
- ☐ Track the time that it takes to image and deploy each machine
- ☐ Gather support data for a similar set of users over the course of 3 – 6 months – not only by issue type, but also by time to resolution
- ☐ Evaluate whether or not your management of machines is equivalent for both PCs and Macs; factor in any differences that might exist and consider how implementing best practices on both platforms might impact costs
- ☐ Understand whether or not the cost for client management solution on your PCs is different than client management on the Macs

Tracking cost experiences should give companies greater knowledge to help make decisions about future investments in both Macs and iOS devices. The analysis doesn't have to be complex to give you valuable insights into the operating costs of the desktops and other devices in your enterprise environment.

Beyond the Mac – What does the Future hold for iOS Devices?

Beyond Mac adoption, there is a growing trend of iOS devices becoming more standard in today's enterprise. The iPhone is the most popular iOS device, with 78% of respondents citing it as being used or being considered for use by employees. The iPad is already being used or considered by 70% of companies surveyed, even though it has been on the market considerably less time than the iPhone. The increasing popularity and requests for these devices forces IT departments to consider a host of questions, including:

- How can we accommodate employee demand for these devices?
- How do we permit access to the network on these devices and still uphold the company's security policies?
- What is the best way to manage these devices – internally or through a third party?

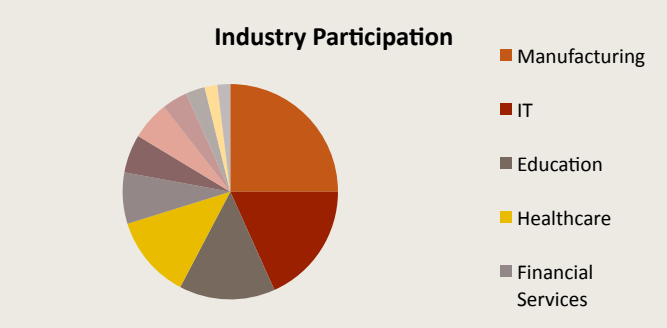
If your organization is considering iOS device adoption, now is the time to start thinking about ways to help manage the devices to help drive operational and cost efficiencies.

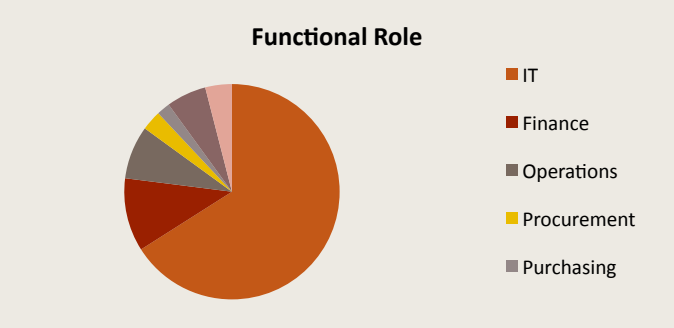
Who We Talked to and How: Survey Methodology & Participant Specifications

The research findings in this study reflect the results of a comprehensive, online survey of 200 randomly recruited participants, and 10 one-on-one in-depth telephone interviews. The study participants for both the survey and interviews represent a mix of companies operating both PCs and Macs in their enterprises. Other participant specifications included:

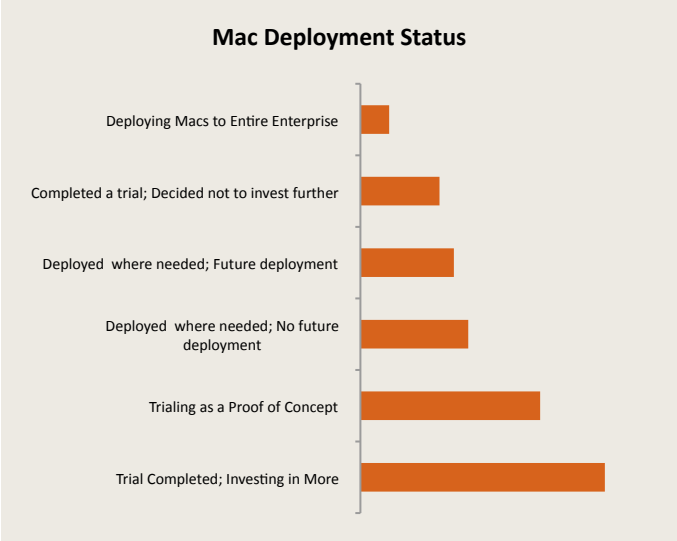
- Minimum of 100 Macs currently deployed, or expected to be deployed in the next 6-12 months
- Macs deployed and supported for at least 3 months
- Operational knowledge of acquiring, deploying, managing and supporting both PCs and Macs

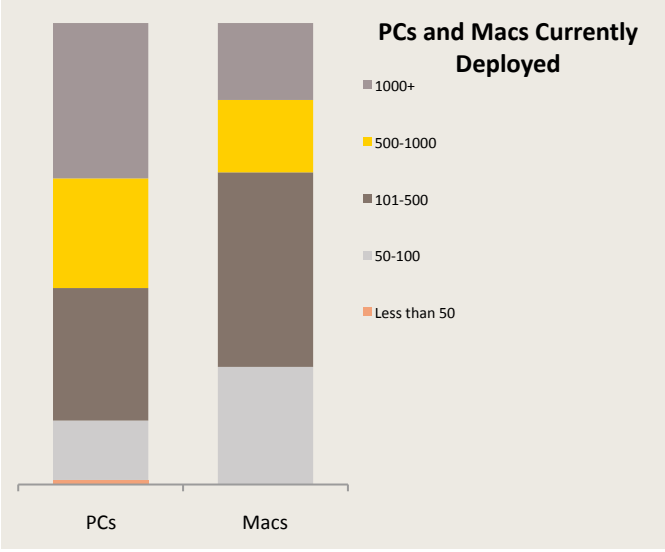
Survey participants represented a variety of industries, including manufacturing, information technology, education and healthcare. The majority of respondents worked in IT roles (66%), followed by positions in Finance and Operations (19%). Of the companies surveyed, 36% had between 1,000 and 4,999 employees, and 23% reported between 500-999 employees.





Of the respondent surveyed, 59% are currently trialing Macs at their companies, or have completed a trial and are looking to deploy more Macs to employees. Additionally, 15% of companies with more than 1,000 Macs have made the decision to deploy Macs to their entire company. 34% indicated that they had over 1,000 PCs deployed in their enterprise, while 43% have deployed between 100-500 Macs. Nearly all respondents (93%) indicated that their company authorizes and supports the purchase and use of Macs by its employees, and 41% have deployed Macs between one and three years.





IT departments primarily use Macs, followed by marketing, operations, and finance / procurement. Companies considering deploying Macs into additional functional areas rank sales, finance and operations among the highest.

About JAMF Software

JAMF Software, founded in 2002 and headquartered in Minneapolis, MN, is the creator of the Casper Suite, the only suite of client management software developed exclusively for the Apple platform. As such, it offers a native solution that provides great breadth and depth of functionality for IT managers including inventory, package building, image management, remote imaging, remote updates, management and a powerful framework for automated support.

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About Clearworks

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- Market & Competitive Analysis
- Customer Experience
- Process Mapping – from ideation to operations and support
- Product Development
- Product Marketing

Clearworks philosophy is and has always been to keep the voice of the customer at the forefront of everything we do for our clients and as a result market research is an integral part of our service offerings. By engaging and listening to customers, Clearworks is able to help our clients deliver the most compelling, differentiated products and services to the market.