

# ubuntu<sup>®</sup> Server Edition Survey

2012



...

1. Introduction	4
2. The workloads for Ubuntu on servers	5
3. Community support	9
4. Virtualisation choices	10
5. Co-existence with other systems	11
6. Demographics and methodology	12
7. Plans to deploy Ubuntu more in the future	14
8. Cloud computing on Ubuntu	15
9. Conclusion	17



# 1. Introduction

It's time to take another look at the responses to our regular Ubuntu Server survey. The results are certainly encouraging.

While Ubuntu Server remains a popular workhorse for common server tasks – print serving, file serving and the LAMP stack, for example – we see growing evidence of its consideration for mission-critical workloads.

Cloud computing is becoming more important to our survey's respondents – and the popularity of Ubuntu among these users appears to be keeping pace. While a fondness for Ubuntu alone is not enough to prompt a cloud deployment, lots of respondents are planning a cloud project in the coming year; many also consider Ubuntu to be an appropriate OS.

## 2. The workloads for Ubuntu on servers

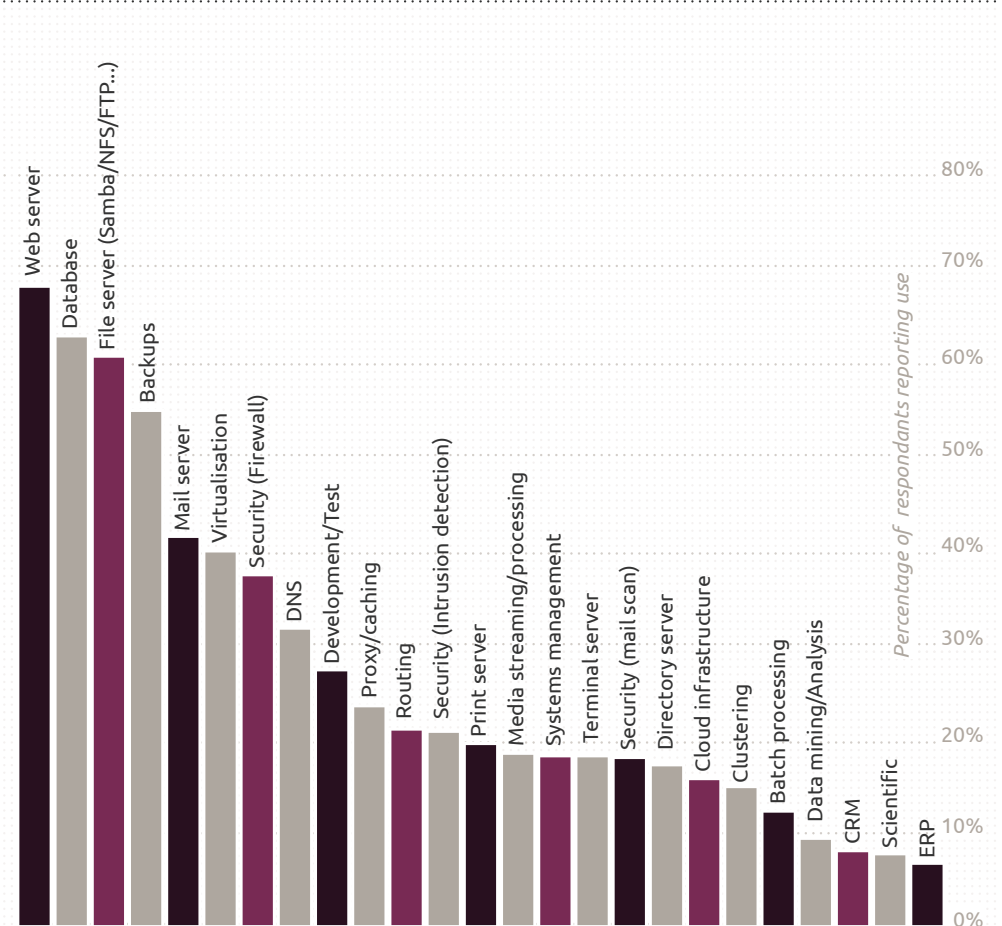
Web serving is the most popular Ubuntu use case we recorded, with database swiftly following. In fact, Ubuntu remains a popular workhorse for many LAMP-stack uses. This is hardly surprising, in a year in which we saw Ubuntu overtake Red Hat as the most popular commercially-supported OS on the web, according to W2C. It also reflects the extent to which the product has matured.

Beyond the core use cases, more than half our respondents now use Ubuntu Server in some kind of virtualised environment. The popularity of virtualisation in larger deployments suggests that Ubuntu is being used in increasingly complex scenarios, which is good news. A huge effort has been invested to expand the range of virtualisation products Ubuntu supports and it appears to have been well-received. In the next section, we'll examine this range in more detail.

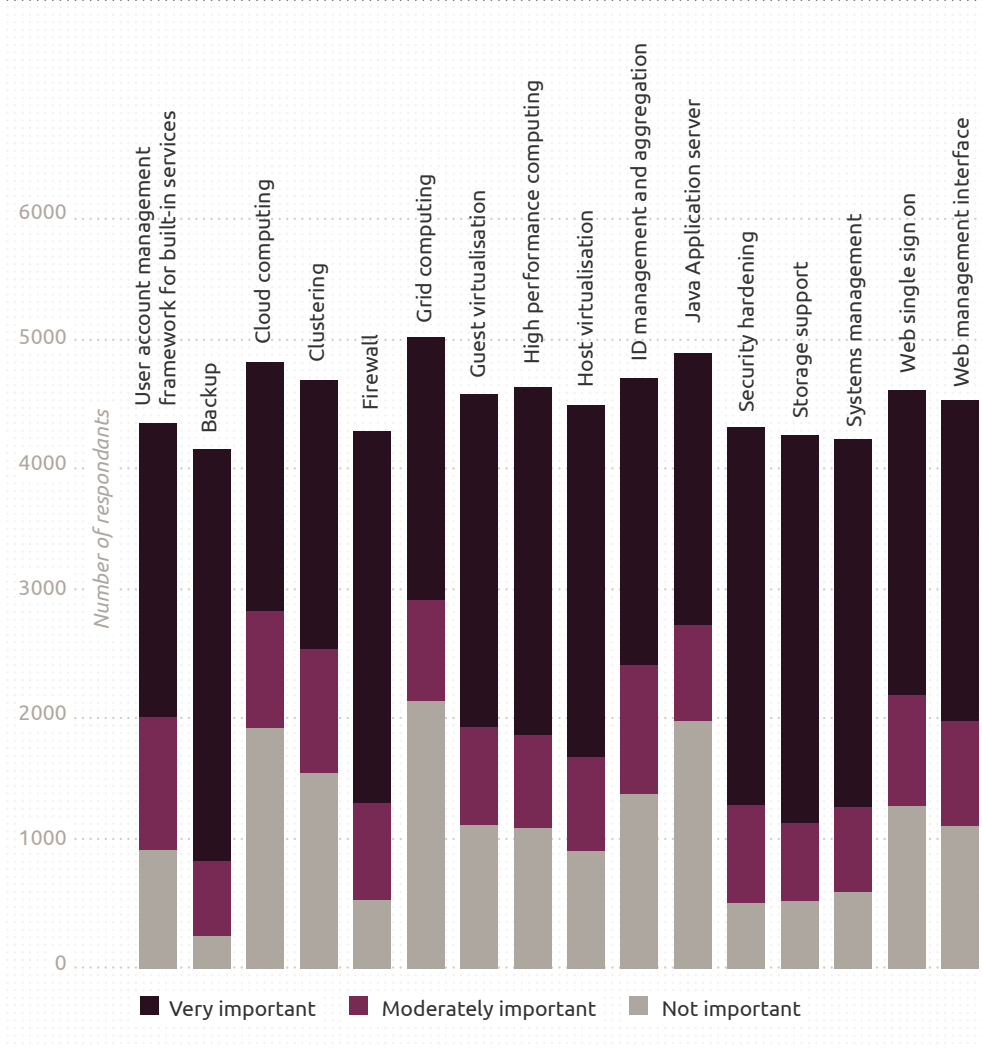
We now see 841 respondents claiming use of Ubuntu in cloud environments. The survey does not specifically ask users whether they are using Ubuntu on a public cloud like Amazon EC2 or whether they are using Ubuntu to build their own. Either way, it represents a significant shift in how and where Ubuntu is deployed. Better still, these results support the interest we are seeing in Ubuntu's cloud features, from vendors and users alike.

When it comes to application usage, the lower scores regarding CRM and ERP reflect the patchy support for Ubuntu among the big vendors in these fields. There is some deployment, of course, most likely of open source applications, yet these figures confirm that Ubuntu remains a bigger player in the infrastructure realm than it is in applications.

Ubuntu compatibility with popular server



Importance of features



## Importance of features for deployment

We always ask respondents to grade the importance of various features to their choice of deployment. Grading is from 1 to 5, with 5 being the most important. The results have been consistent over the years and reflect Ubuntu Server's continuing popularity as a workhorse in both datacentres and the IT departments of companies small and large.

Storage, back-up, firewall support all get top marks. Virtualisation, both as a host and guest, ranks shortly behind.

The relative unimportance of grid computing, clustering, ID management and Java server support no doubt reflect their lack of broad application: if you're not using a Java application server, for example, its support is of no importance. If you are, its support is clearly critical.

The same principal now applies to cloud computing. While the numbers deploying look small when compared with standard workloads, those who are making the commitment are doing so fully. Cloud support is therefore extremely important to them.

• • •

## LTS to LTS conversion and use

The last time we conducted this survey (2009), we had yet to launch the 10.04 LTS version of Ubuntu. At that time the distribution of versions looked like the chart (Ubuntu Server version used, 2009).

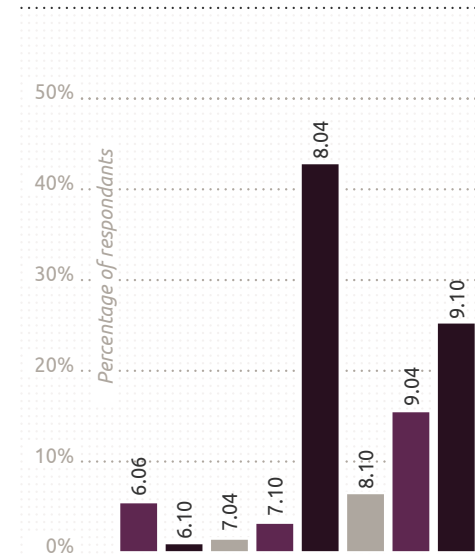
Ubuntu 8.04 LTS version was clearly the most popular at that point. As it was almost 18 months old, however, we also saw significant use of Ubuntu 9.10, which was the latest release. This might have been due to users exploring the cloud capabilities that were new in 9.04, as well as the ability to use Ubuntu on public clouds; we started to make images available on Amazon from 9.04, too.

When we look at the picture today (Ubuntu Server version used, 2011), we see strong uptake of the latest LTS and a significant percentage of users moving to the most recent release.

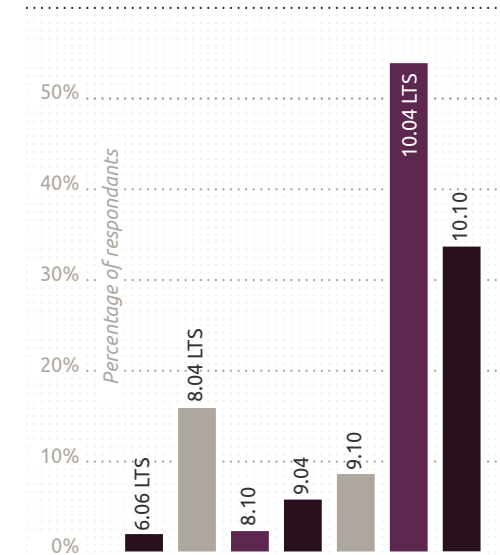
54% of users are using the Ubuntu 10.04 LTS and a further 33% are using the latest version of the product (10.10 when this survey was undertaken).

As we are using differing data sets (i.e. not all respondents took part in both surveys) we cannot draw an exact extrapolation, but it is fair to conclude that most Ubuntu Server users move to the latest LTS release, with a smaller but significant percentage using the very latest version. This also indicates active use of Ubuntu, with relatively few users simply 'firing and forgetting' their server for use on the same routine task.

Ubuntu Server version used, 2009



Ubuntu Server version used, 2011



• • •

There is, of course, a sampling bias in this survey's methodology – an active user is more likely to take a survey, after all. We must therefore be measured in the conclusions we draw, but it certainly seems that, as Ubuntu incorporates the industry's latest developments, the user base is keeping pace.

## Most popular hardware

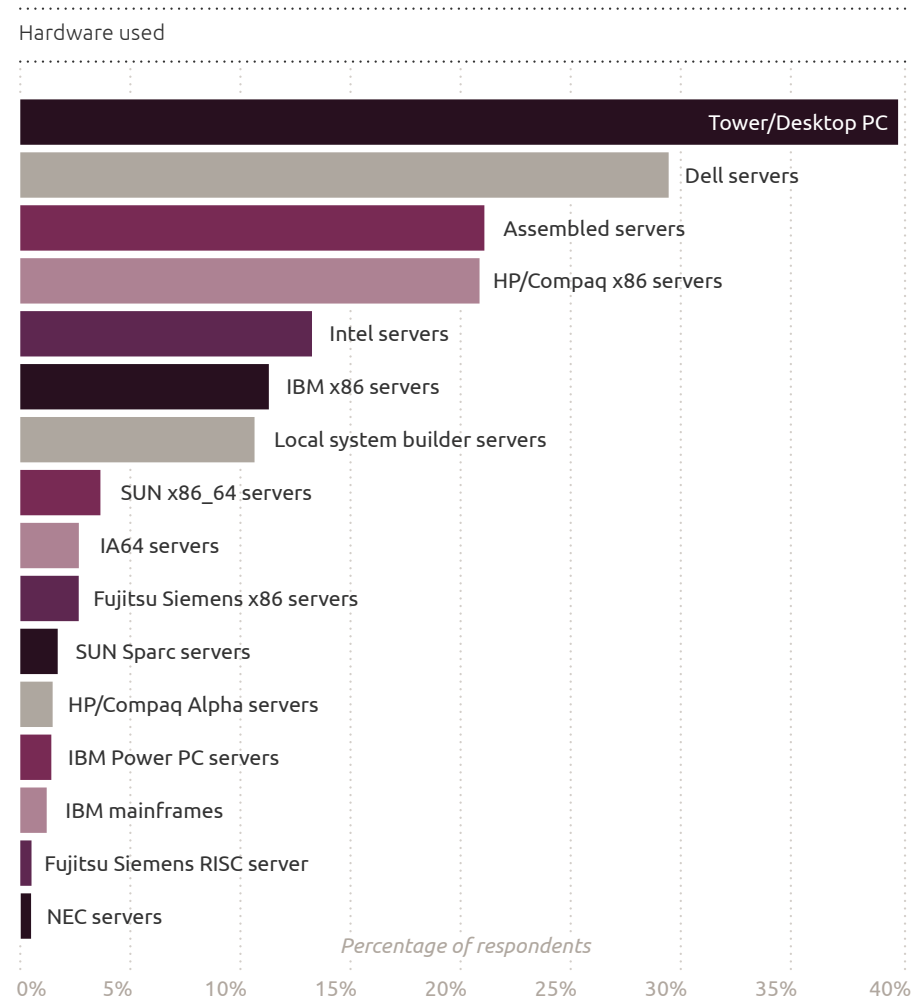
When it comes to hardware, there are very few changes and no surprises at all.

Each respondent can highlight one option only, so the prevalence of the tower PC probably reflects the number of hobbyist and home users responding to the survey.

In terms of branded hardware, the results are almost identical to those we received last time we polled this information (early 2010), confirming both the popularity of mid-range x86 hardware and the certification choices of the Ubuntu hardware team.

In the future, it will be interesting to see if the growing use of ARM-based servers affects our responses.

[ubuntu.com/certification](http://ubuntu.com/certification)

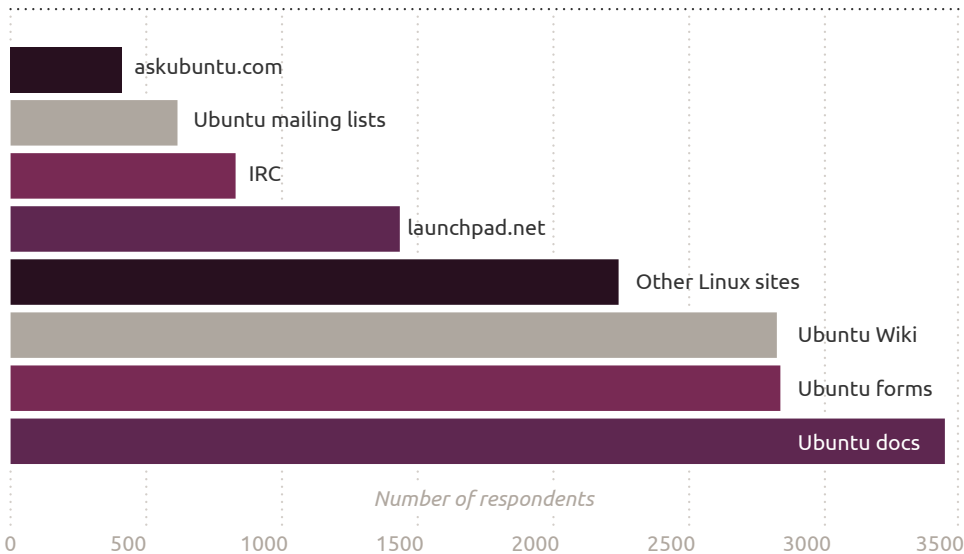


# 3. Community support

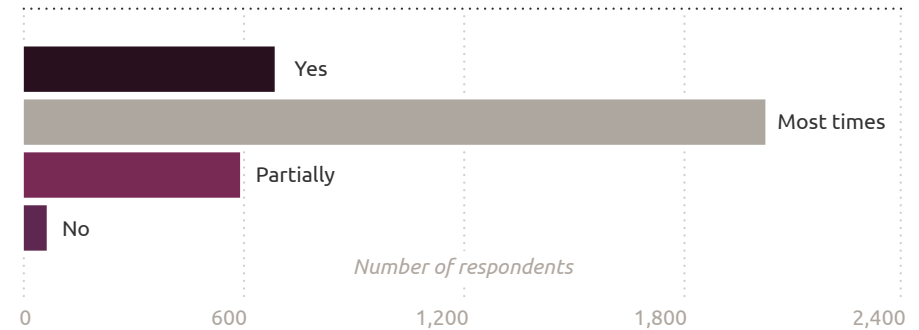
Beyond the characteristics of the technology itself, one of the most appealing aspects of an open-source operating system is the ready availability of well-informed, active and contributory communities. Ubuntu has long been proud of its community and the tools it provides for Ubuntu users. But what do the users themselves think? First, we asked about the tools used.

The forums belonging both to Ubuntu and to the projects we distribute remain incredibly strong. Over 60% of respondents have used the Ubuntu forums and 40% have used other Linux forums. askubuntu.com is beginning to emerge as a popular source of answers.

Preferred community support methods



Was your support issue resolved?



Meanwhile, there is no escaping the continuing importance of good documentation through the wiki. The enthusiastic response to this question demonstrates the importance of community support to Ubuntu use.

Frequency of use is one thing – but how useful was the information? Of those answering, a remarkable 98% had their problem resolved at least partially, with the majority having it answered in full. And 83% considered the service either good or very good. It’s hard to imagine a proprietary service with similar satisfaction levels.

# 4. Virtualisation choices

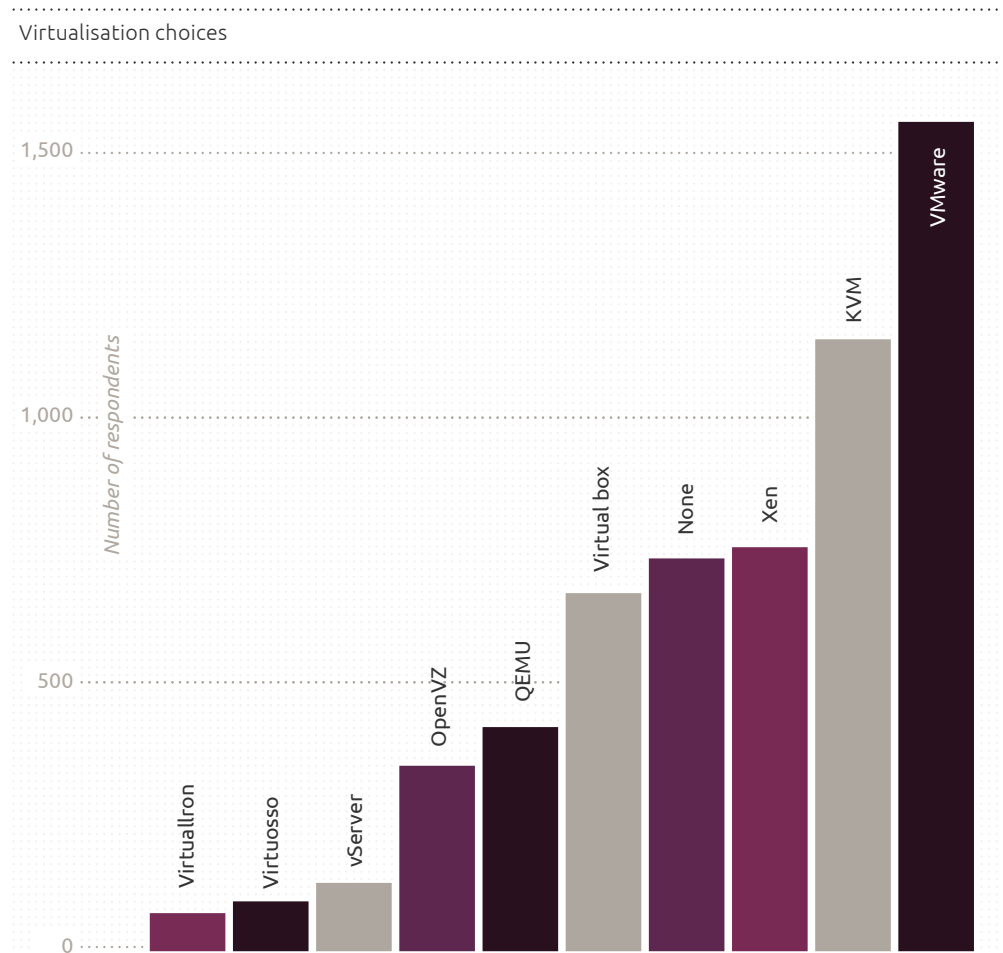
Now this makes for interesting reading. The question asked was:

*“If you use your Ubuntu servers as a host for virtualisation, which product(s)/technology(ies) do you use?”*

In other words, we asked about cases in which Ubuntu Server is the guest OS in an environment. We have already seen that over 50% of respondents use Ubuntu for virtualisation, so it’s interesting to see the variety of technologies in use.

For the first time, the default KVM technology has overtaken Xen among Ubuntu users, while market leader VMware continues to lead the way. The widespread use of Xen should not be ignored, however - in fact, it’s a key reason that it has received improved support in Ubuntu 11.10.

Please note that we have changed ‘other’ to ‘Virtual Box’ in the latest version of the survey, because it was cited in over 90% of cases as the ‘other technology’. We will be sure to continue including it that way from now on.

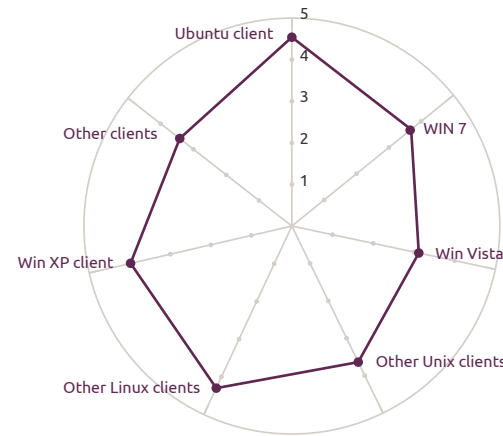


# 5. Co-existence with other systems

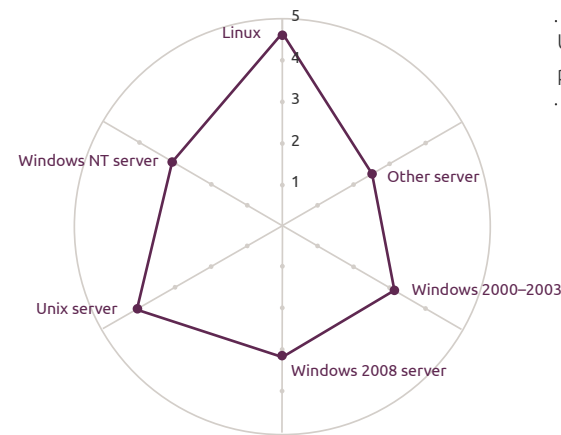
No operating system is an island. The ability to integrate well with other servers and clients is vital. Indeed, it's a rare datacentre that has a single OS in place, many serving a multitude of clients. Ubuntu takes advantage of numerous third party applications in order to work in the multi-platform world, and some are more integrated than others.

Given that the Ubuntu and Linux communities make little effort to provide compatibility with some of these platforms, the results are encouraging. Overall, it's a testimony to the strength of the integration tools outside the OS, the ingenuity of the system administrators who use them and, of course, compliance with shared standards and protocols.

The following diagrams show the relative strength of its compatibility with the most popular servers and clients. We have made no attempt to measure this scientifically; rather, we're reporting our users' impressions of dealing with these issues every day.



.....  
 Ubuntu compatibility with popular servers  
 .....  
*1. Not very compatible – 5. Very compatible*



.....  
 Ubuntu compatibility with popular client technologies  
 .....  
*1. Not very compatible – 5. Very compatible*

# 6. Demographics and methodology

The results of this survey are easiest to interpret accurately when examined in context of the methodology.

The Ubuntu survey is available constantly on ubuntu.com. The results are collated periodically, following a period during which the survey is advertised on the home page of the website.

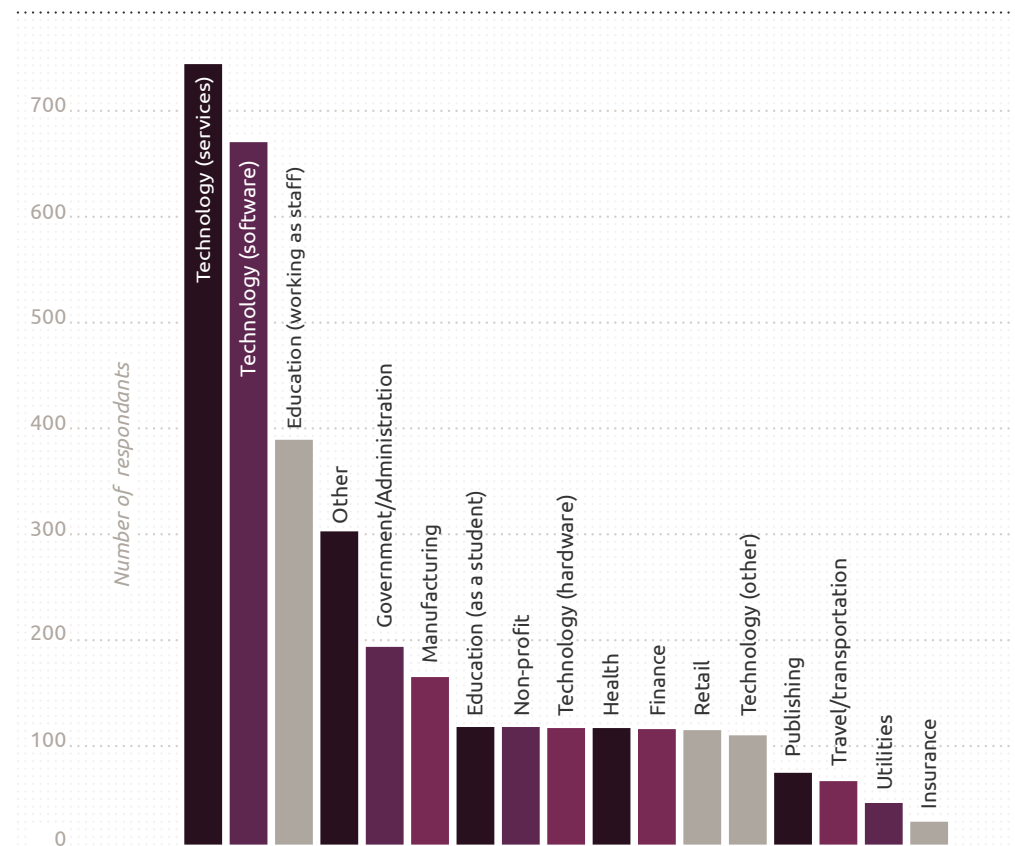
Other channels on which we publicise the survey include Ubuntu forums and Linux-related websites, the full list of which can be seen here:

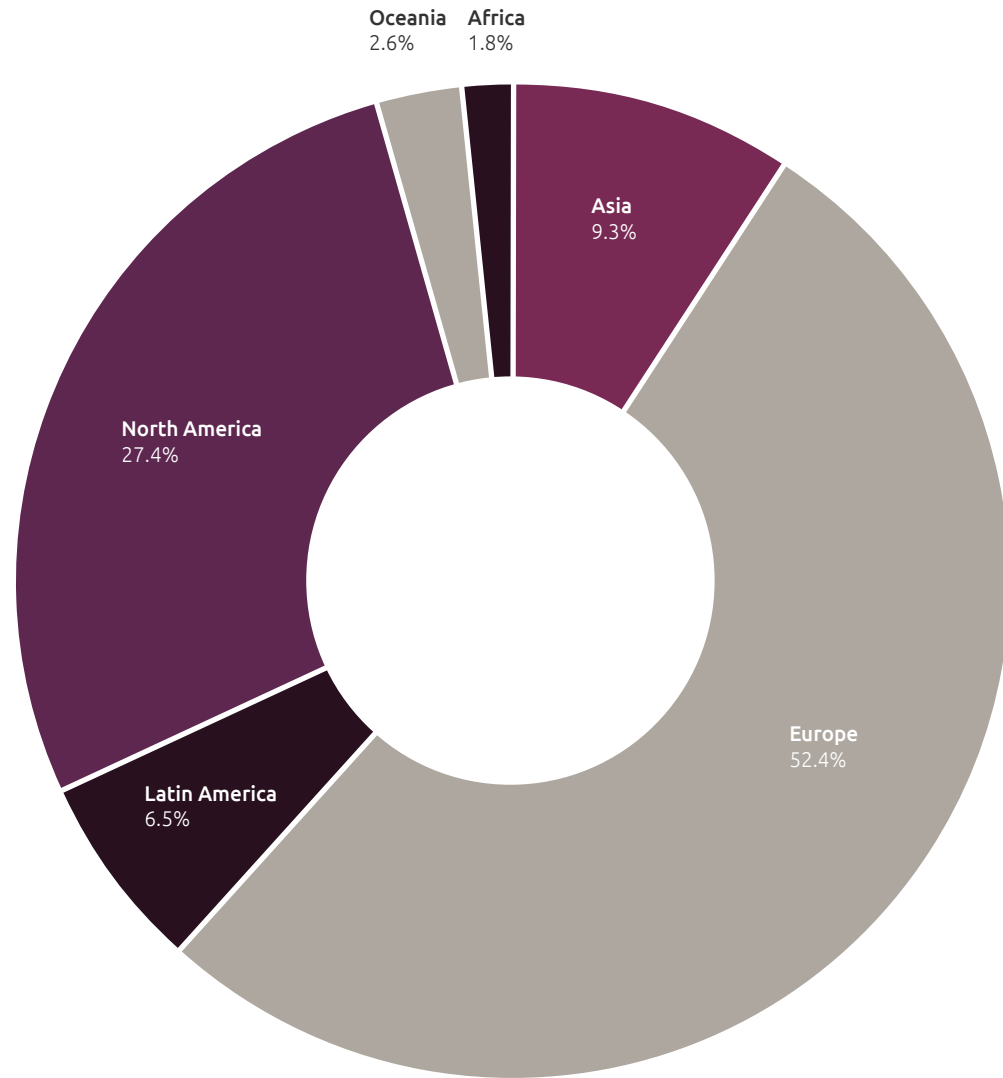
[wiki.ubuntu.com/ServerTeam/Survey/Launch](http://wiki.ubuntu.com/ServerTeam/Survey/Launch)

In total, 5,500 responses have been collated this time around, providing us with a robust sample from which to gather our findings.

As for the demographics of the respondents, they continue to represent a very wide range of industries. Technology firms, however, still dominate.

Demographics: Industry type





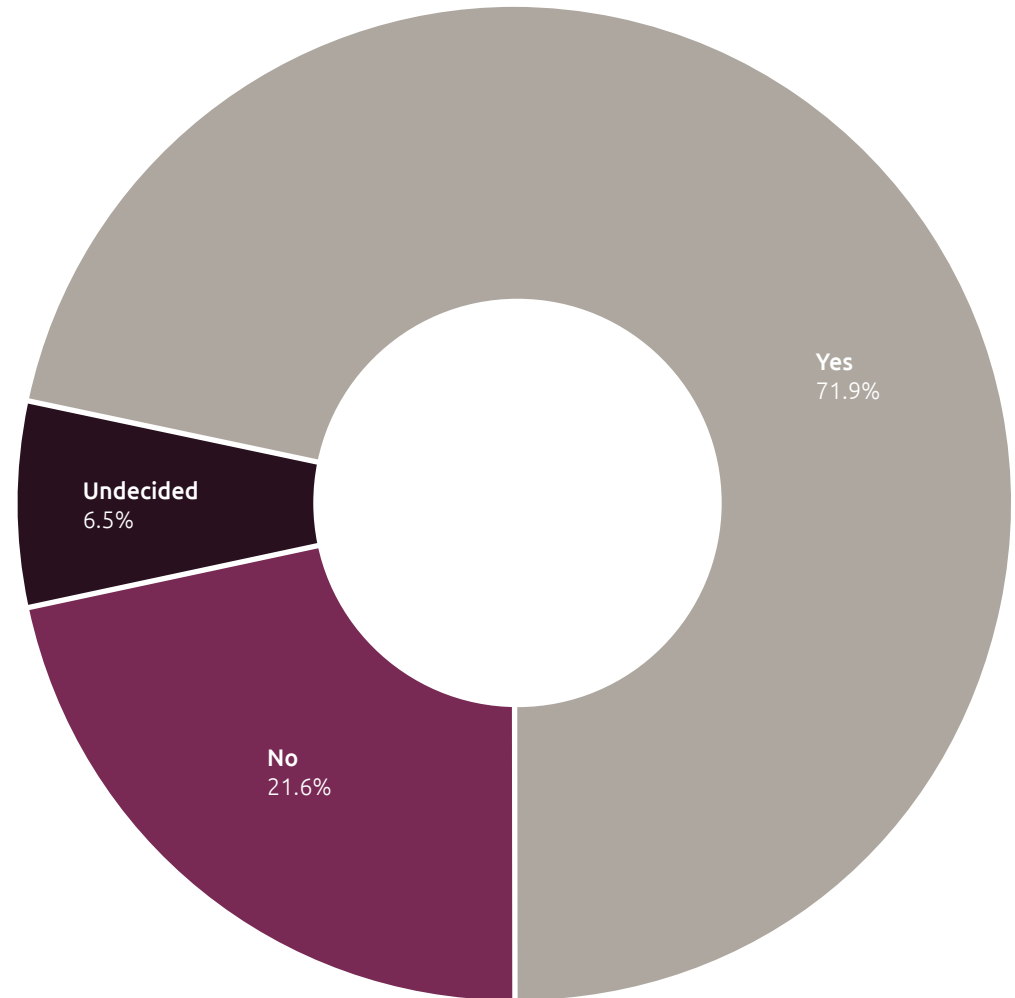
Demographics: Region

The high number of respondents in Europe runs counter to data suggesting the US plays host to Ubuntu Server's largest installed base. This could be due to disparities in the amount of publicity the survey received in the US and Europe respectively.

## 7. Plans to deploy Ubuntu more in the future

More than 3000 respondents to the survey stated that they intend to deploy more Ubuntu-based servers in the future – that's 55% of all users. As for when these additional deployments are likely to happen, there's more good news: over a third of respondents plan to undertake them in the next twelve months, with more than half planning to do it in the next three.

Do you plan to deploy in the future?



# 8. Cloud Computing on Ubuntu

The sharp growth in cloud computing makes it vital to the future success of Ubuntu Server – and the cloud software built into the product makes it an ideal IaaS choice, whether for public or private clouds.

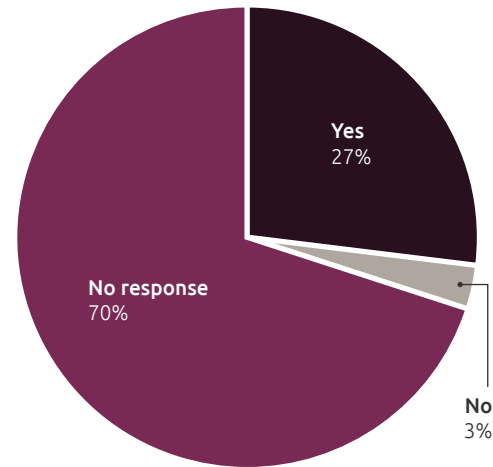
Since the first inclusion in Ubuntu Server of cloud components (under the name Ubuntu Enterprise Cloud, in version 9.10), both the product and the sector have matured. Now simply named ‘Ubuntu Cloud’, it can be used to build private clouds or public clouds - whether on an open source platform like OpenStack or a commercial solution like EC2.

## A note on methodology

Having moved very early into the cloud space, this is the second opportunity we’ve had to consult on the topic and, in moving early, we’ve been ahead of the user base. Many of them, not yet involved in cloud computing, have understandably opted not to answer some of our questions so, to focus on the responses of those who have, we have eliminated the non-responders from the data in some of the following charts. Where this is the case, we use only absolute numbers, rather than percentages of the base.

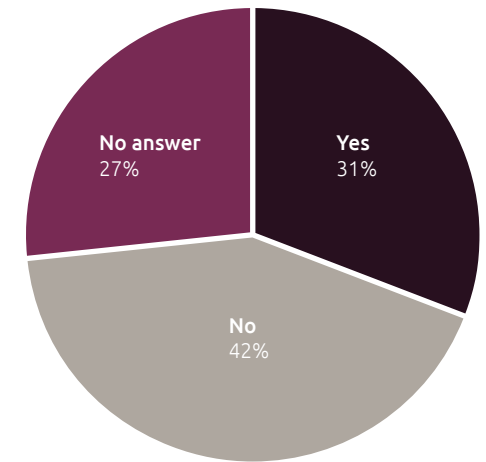
First, however, let’s look at the response to a few basic questions. In all, 841 users claimed to be using Ubuntu’s cloud features in some context, with 1157 (21%) using the cloud in any form. With 32% expecting cloud use to grow in their organisations over the next year, the future looks bright.

Do you consider Ubuntu a viable platform for cloud-based deployments?



As for whether the cloud is ready for mission-critical workloads, 1,342 respondents agreed, compared to less than 500 saying no.

Do you expect to see significant growth in your organisation?



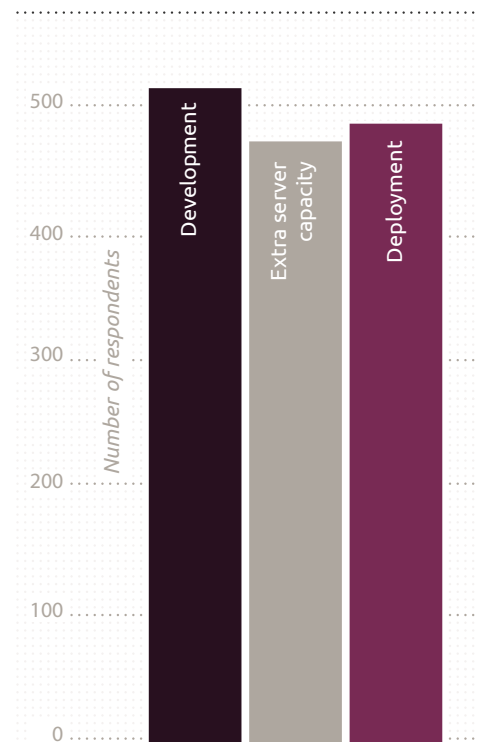
As we have already mentioned, the high number of users abstaining from this question suggests that many still lack the personal experience necessary to answer with confidence.

• • •

1,550 respondents considered Ubuntu a viable platform for cloud-based deployments. That's more than the total number already using the cloud in any form.

Almost 15% of respondents are currently using a public cloud infrastructure such as Amazon. These users are divided fairly evenly in terms of the activities they deploy to the cloud, between development, extra capacity and production deployments.

For what types of activity do you use public cloud infrastructure?



As for Ubuntu Cloud (formerly Ubuntu Enterprise Cloud), 7% of respondents (384) had actually built a private cloud using Ubuntu, however almost another 1,000 plan to do so (or increase the size of their current private cloud) in the next 12 months.

A more significant number have already used Ubuntu on public clouds. At 11%, this suggests that public clouds are seen by most as a more accessible option than private solutions. Private clouds, conversely, are considered most important to organisations, perhaps due to security concerns. This suggests there is significant growth to come in the realm of the private cloud.

The interest in cloud computing is no surprise, given the rapid development of products and the amount of media coverage the subject is receiving. But it's reassuring to see that Ubuntu figures so highly in the cloud plans of its users. The engineering efforts the community has invested in cloud computing seem to be paying off.

## 9. Conclusion

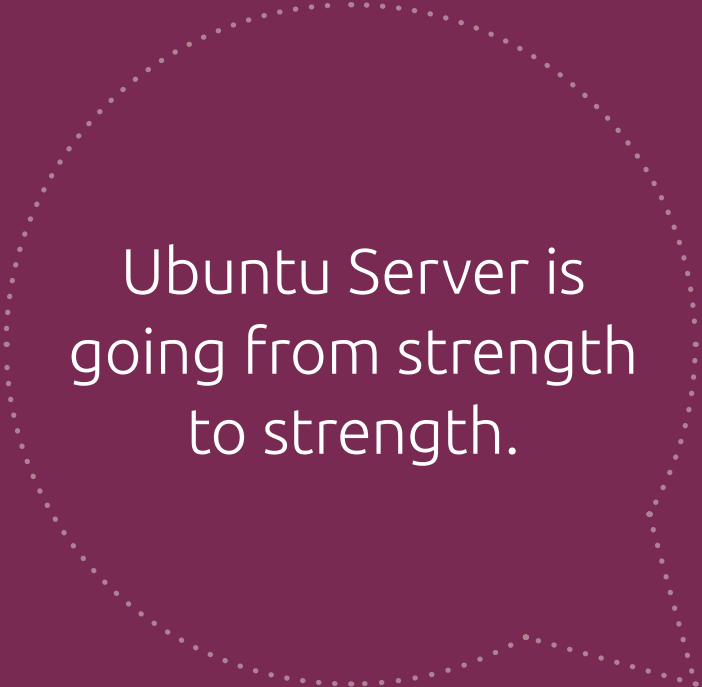
According to the results of our most recent online survey, Ubuntu Server is going from strength to strength.

Despite low scores in application areas with patchy vendor support (e.g. CRM), Ubuntu has consolidated its position as a reliable server OS, remaining a popular choice for traditional workloads. Indeed, this was the year in which it overtook Red Hat as the most popular commercially-supported web server OS.

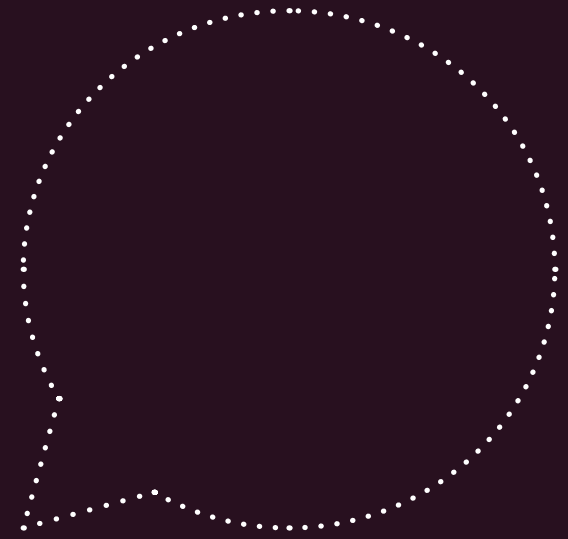
It is the growth of Ubuntu in more complex environments that appears most significant, however. There has been increased uptake in virtualisation scenarios (as both a host and guest OS), while the efforts of the community to make Ubuntu cloud-ready appear to be paying off.

It will be interesting to see how Ubuntu fares as the cloud projects our users are currently planning begin to see the light of day.

The datacentres and IT departments that use Ubuntu Server continue to manage it actively, with most running either the latest release or the most recent LTS. But the most encouraging statistic of all was the response to our question about plans for more Ubuntu servers in the future: more than 70% of respondents said yes.



Ubuntu Server is  
going from strength  
to strength.



© Canonical Limited 2012. Ubuntu, Kubuntu, Canonical and their associated logos are the registered trademarks of Canonical Limited. All other trademarks are the properties of their respective owners. Any information referred to in this document may change without notice and Canonical will not be held responsible for any such changes.

Canonical Limited, Registered in England and Wales, Company number 110334C  
Registered Office: One Circular Road, Douglas, Isle of Man IM1 1SB VAT Registration: GB 003 2322 47