TEST & DEV
IN THE CLOUD

Is it time to rethink the way

you deliver applications?

The speed of application development has accelerated rapidly in recent years with modern platforms offering a scalability and flexibility never before possible.

With this swift rate of change, it's easy for businesses to get left behind. Many companies are finding their current test and dev environments are costing them far more and delivering much less than the latest platforms can provide.

For example, cloud technology has decentralised production. Regardless of geographic location, users can collaborate freely using a cloud platform, resulting in huge savings both financially and in man-hours.

Evolve with a changing landscape
This whitepaper takes a look at the advantages of moving application development and testing to a cloud environment: a platform that can give your business the control, scalability, and efficiency it needs to test, deploy and get applications to market more rapidly than ever before.

Market research firm IDC, based in Framingham, Mass., predicts the automated software quality (ASQ), software as a service (SaaS) and cloud testing market will reach $1 billion by 2017.

Source: TechTarget.co.uk

The trouble with traditional test environments

Creating a conventional IT test and dev lab used to mean building a traditional hardware set up, where a degree of uncertainty over the system's integrity was to be expected. Then, of course, there were the usual moans and groans:

Time constraints
Testing takes far too long, we need to go faster. For IT Directors and Development Managers, this is a perennial complaint.
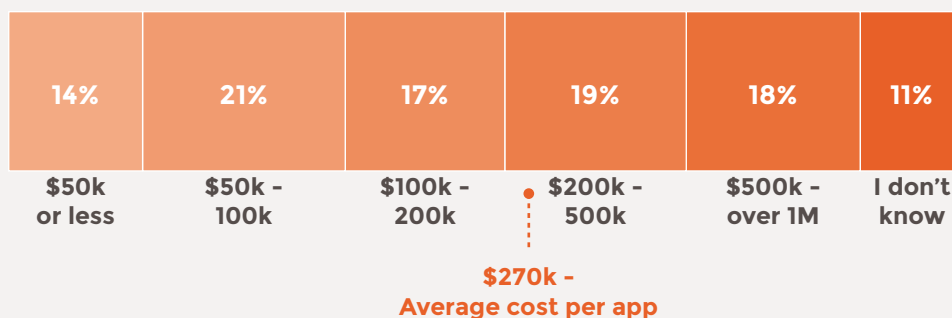
The question of time can rear its head throughout the duration of a project. Onboarding is often a time-consuming process. Plus, it can take weeks before new environments are available.

Further challenges
Another common issue has been server overload, resulting in discontented testers and developers.

Additionally, in many cases, a lack of insight regarding the overall cost of test and dev projects is cited as a factor in their failure to move forward.

How much does your organisation spend to develop & deploy one app?

14%	21%	17%	19%	18%	11%
$50k or less	$50k – 100k	$100k – 200k	$200k – 500k	$500k – over 1M	I don't know

$270k – Average cost per app

Source: Kinvey

Review your current test environment

Does it deliver?
Does your current test and dev platform give you the efficiency and control you need? Does it offer your project team self-service and insight?

Can you compete?
In today's competitive business market, development and test teams often struggle to deliver quality software at a competitive price and pace (often mutually entwined).

Global market research for the World Quality Report 14-15 revealed 55% of senior execs viewed their organisations as lacking the in-house skills to configure and manage test environments.

Trends in cloud adoption for testing and dev

Trends in testing

The share of new development projects in testing budgets, including SMAC (social, mobile, analytics and cloud) technologies, exceeds that of maintenance projects for the first time since 2012: from 41% in 2012 to 52% in 2014.
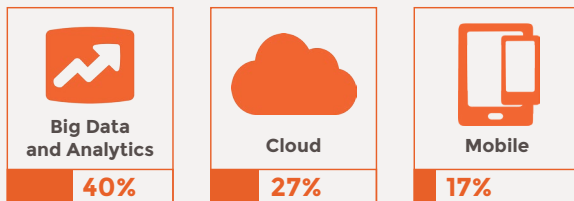
Source: World Quality Report 2014-15

The proportion of IT budget allocated to testing continues to rise – from 18% in 2012 to 26% in 2014. 35% of organisations state that they aren't satisfied with the budget allocated to testing.

Source: World Quality Report 2014-15

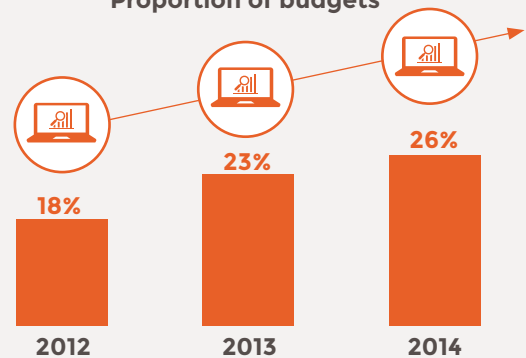### Most of QA & Testing budgets are allocated to new development projects including SMAC technologies

2012 41%   2014 52%

The new development budget is divided across **LARGE DIGITAL TRANSFORMATION INITIATIVES**

Big Data and Analytics	Cloud	Mobile
40%	27%	17%

Increased proportion of IT budgets spent on QA & Testing

Proportion of budgets

18% 2012
23% 2013
26% 2014

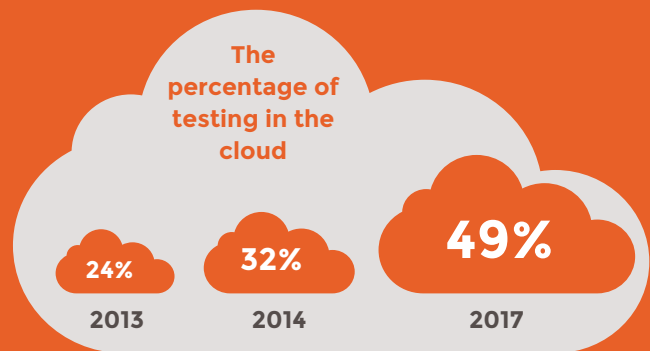## Rates of cloud adoption

Cloud adoption for hosting and testing applications continues to grow. IT leaders interviewed for the World Quality Report 2014-15 stated that as many as 28% of their applications are hosted in the cloud and they expect adoption rates to climb higher with 35% of applications migrated to the cloud by 2017.

The research also showed an increased usage of cloud-based solutions for test environments.

The percentage of testing in the cloud

24% 2013
32% 2014
49% 2017

Cloud capabilities put to the test

This increase is hardly surprising given that the cloud provides businesses with new capabilities, favourable cost structures and a responsive platform on which to host their application environment.

Traditional test environments are being transformed by cloud technology, and building new powerful and versatile applications is made easy by tools that directly tap into the cloud.

Cloud benefits for test and dev teams

- **Fast value:** quicker to market with multiple users able to input seamlessly at any time from any location.
- **Higher satisfaction:** improve performance and scalability and increase team productivity.
- **Lower costs:** minimise upfront investments and only pay for what you use.

THE GROWTH OF MICROSOFT AZURE

- **57% of Fortune 500 companies now use Azure**
- **More than 300,000 active websites**
- **More than 30 trillion storage objects**
- **3 million requests per second**
- **13 billion authentications per week**
- **More than 1 million SQL databases in Azure**
- **300 million Azure Active Directory users**
- **1.65 million developers registered with Visual Studio Online**

Source: Microsoft

Every team needs the infrastructure to design, develop, test and deliver custom applications. Cloud platforms such as Microsoft Azure gives developers the infrastructure they need to provision and manage a complete development and test environment in the cloud.

On-demand infrastructure
The agility of a scalable on-demand infrastructure enables businesses to deliver value faster and with higher quality. It also gives them the flexibility to utilise the cloud, based on their individual team needs and project requirements.

Easy access to the cloud
Azure provides straightforward access to this infrastructure. Third party solutons such as Sogeti's OneShare take this a step further providing access to the tools and resources on a pay-as-you-go basis, enabling businesses to load, test and manage their environments effectively. Users can then copy and deploy test infrastructures or move applications into production in one click.

Microsoft Azure allows test and dev teams to leverage the cloud for application development, regardless of whether the application will run in the cloud or on-premise.

Create new environments
New environments can be fired up quickly, giving access to the latest test and development infrastructure. Everything in Azure can be fully automated, so you can create and erase virtual environments with a click.

Scalability
Azure's scaling capability means you can deliver additional capacity on-demand, and at lower cost for short-term initiatives and longer-term projects. Third party add-on platforms, such as Sogeti's OneShare, provide complete visibility and control over compute usage, and allows standardisation of your environments, thanks to unlimited virtual machine access. An intuitive dashboard then allows users to turn environments on and off as needed.

An immediate success:

Telenor, one of the world's largest telecom companies, used Azure infrastructure to quickly create a development and testing environment that supported its successful deployment of SharePoint 2013. The expected 3-month window to set up the development and testing environment for a system of this size was reduced to 2 weeks – a huge savings not only in time, but also in costs.

Source: Microsoft

Working to a different pricing model

Test and dev teams are now able to reap the financial benefits the cloud brings, with its scalability, self-service, and pay-per-use model.

Pay-as-you-use pricing

Businesses can make the most of their cloud subscriptions by utilising flexible provisioning and pay-as-you-use pricing.

A consumption-based pricing model means companies avoid large upfront investment in hardware, management, maintenance and resources. Instead, they're guaranteed predictable outcomes and faster ROI.
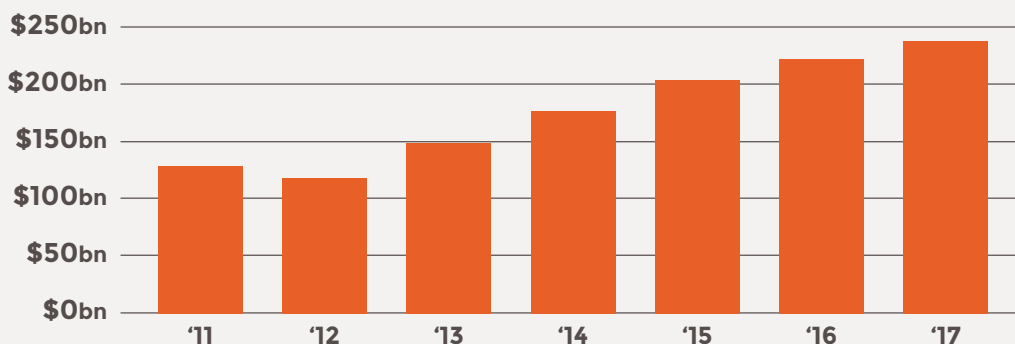
Flexible provisioning

The ease with which services can be switched on and off in the cloud is ideal for companies whose resource and project requirements fluctuate up and down.

By pre-defining the environments used by team members, it's simple to plan, prepare, specify and execute development work. As services can be consumed by the hour rather than on a weekly or monthly basis, you genuinely do pay only for what you use.

Cloud IT spending soars

Global spending forecast by enterprises on cloud architecture

$250bn	
$200bn	
$150bn	
$100bn	
$50bn	
$0bn	
	'11 '12 '13 '14 '15 '16 '17

Source: TechTarget.co.uk

The triumph of the public cloud. This year, IaaS and PaaS merged, making it easier to build, test, and deploy applications in the public cloud. All the major public clouds now provide both in some sort of integrated fashion.

Source: 9 key enterprise tech trends for 2015 and beyond, Eric Knorr, Editor in Chief, Infoworld

In conclusion

Whatever your current test or dev environment, there's no doubt that cloud-based development and testing services are enabling businesses of all sizes to embrace new tools, practices and processes.

Whether you require an on-demand test environment, are moving to application lifecycle management, or considering a modern DevOps approach, it's worth investigating what a cloud-based development and testing platform could do for your business.

Opening doors
The cost-effective opportunities presented by cloud solutions are proving to be a real door opener for many companies in terms of what they can now provide to their clients.

These additional capabilities, alongside scalability and flexibility, allow businesses to consider deals they may previously have let pass by. Companies are becoming better equipped to net new clients and retain existing ones by offering them the value of a cloud solution for application, development and test.

Enhance existing test capabilities
Once you have established a solid test and dev lab in the cloud, you can look to include additional features like automation and template creation. Spin up, reuse or decommission proven development and test models; duplicate infrastructures and run them as new in the cloud within minutes.

An analysis of the ways you could enhance your existing application development and testing capabilities will help you decide if a move to the cloud is right for your business.

The future of application testing and development
A powerful test platform delivering applications with greater ease and affordability is on the wish list of most companies. The cloud not only makes this possible it also provides immediate, tangible results:

- Improved client satisfaction
- Faster time to market
- Only pay for what you use

There's no doubt that a high percentage of future self-service development and testing will take place in the cloud.

> **"Cloud is the new style of elastically scalable, self-service computing, and both internal applications and external applications will be built on this new style. While network and bandwidth costs may continue to favour apps that use the intelligence and storage of the client device effectively, coordination and management will be based in the cloud."**
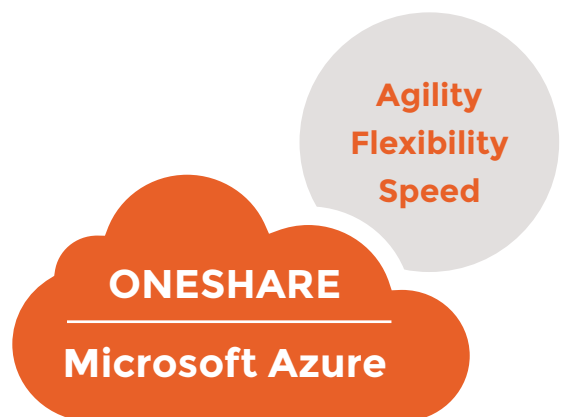>
> David Cearley, Gartner Vice President

The Sogeti solution

Sogeti's newest testing platform, OneShare, is your one-stop shop for testing and application development.

With useful templates included, an unrivaled assortment of pay-as-you-use tools and service offerings, plus all the benefits of Microsoft Azure, it's a comprehensive platform that provides a fast, flexible and continuous test environment.

OneShare gives developers the tools and processes to test and produce quality apps with an agility and cost-efficiency never before possible.

For more information on OneShare visit:
http://www.uk.sogeti.com/OneShare

Agility
Flexibility
Speed

ONESHARE

Microsoft Azure

About Sogeti

Sogeti is a world-renowned provider of testing and application development services with a reputation for revolutionising testing standards.

A leading provider of local professional technology services, specialising in Application Development and Management, Sogeti has developed a modern testing platform designed to give businesses the control, scalability, and efficiency they need.

With OneShare, Sogeti continues to define industry standards in testing services.

Contact Sogeti UK

+44 (0) 20 7014 8900
enquiries.uk@sogeti.com
uk.sogeti.com

Follow Sogeti at:

facebook.com/SogetiUK
blog.uk.sogeti.com
twitter.com/uk_sogeti

SOGETI