2016 Veeam Availability Report: How to close a widening Availability Gap

Enterprises must deliver on users' demands
for 24/7/365 access to data/applications
or risk financial implications

VEEAM IT JUST WORKS!™ | **AVAILABILITY**
for the Always-On Enterprise™

Contents

Executive Summary

Executive summary

With business transformation being driven by a new breed of user – one that desires a seamless, connected experience – the ability for modern enterprises to deliver non-stop services and continually innovate has never been more urgent. However, are today's businesses delivering on what users need? Users need access to a greater amount and variety of data than ever before – IoT, big data, social media and more. How does one deliver the Always-On Enterprise™?

In simple terms, it must eradicate downtime. Veeam® is aware that downtime can mean different things to different people, and that the impact of downtime can also vary from organization to organization.

If unplanned downtime does occur, then organizations should have systems in place that reduce or entirely remove their Availability Gap (the gap between what users demand, i.e. 24/7 access to critical applications and data, and what IT departments can deliver). However, are enterprises able to deliver the levels of Availability needed by today's user?

To answer this, Veeam commissioned 1,140 interviews with senior decision makers in IT departments (referred to as ITDMs or respondents) across 24 countries, which are compared, where appropriate, to 630 interviews with ITDMs carried out in 2014.

Research

Veeam's research discovered that 84% of ITDMs interviewed – 2% higher than in 2014 – admitted that their organization has an Availability Gap. To combat this, most organizations are investing in their data center, with two-thirds (68%) doing so specifically to enable 24/7 Always-On™ operations. While enterprises appreciate the challenges facing them, and are taking measures to address the challenges, most are falling short.

What is alarming is that despite obvious investment, the average number of unplanned downtime events reported has increased since 2014 (from 13 events to 15 in 2015). The average length of each downtime event has also increased (from less than one and a half hours to almost two hours for mission-critical applications).

The result of these increases is that the average annual cost of downtime to an organizations can be up to $16 million. That is $6 million higher than recorded in the 2014 wave of this study. In addition, application downtime can have an impact that goes beyond financial loss: the majority report that confidence in the organization (68%) and brand (62%) can also suffer.

What this study clearly illustrates is that despite senior ITDMs understanding that Availability is of paramount importance, and that investments are being made, the reality is that service levels are falling short. Users are demanding a crisp, seamless experience, but instead they are dealing with services that are below par. This is costing enterprises millions of dollars in lost revenue, productivity and brand reputation.

The average annual cost of downtime to an organization can be up to $16 million. That is $6 million higher than recorded in the 2014 wave of this study.

Modernizing
the data center

Modernizing the data center

Always-On Enterprise is of vital importance to end user. Application downtime is an area where almost all (99%) ITDMs report that end users are asking for improvements of some type. End users are most likely to be asking for real-time interactions (63%) and 24/7 global access (59%). This shows that it is not only a case of providing the devices to users that allow access, but also one of enabling the users to maximize their use of the organization's infrastructure.
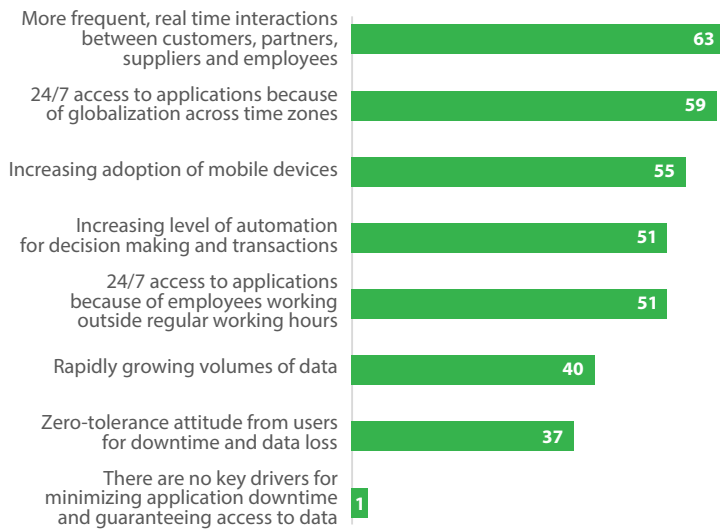
ITDMs report between three and four demands, on average, from end users to keep downtime to a minimum. This shows that reducing downtime could improve application Availability in several ways. This expectation from end users requires a proactive response from the IT department in order to meet the needs of the business by reducing downtime.

Ninety-nine percent of ITDMs report that their organisation is modernizing their data centers by investing, or planning to invest soon, in several areas . The need to enable 24/7 Always-On operations is driving this activity (reported by 71%, from 68% in 2014).
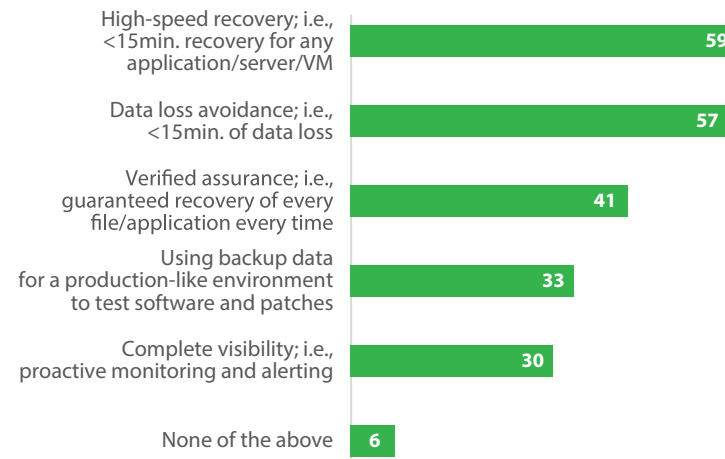
Figure 1:
"What does 'Always-On Business' mean for you – that is, which of the following demands from end users are key drivers for minimizing application downtime and guaranteeing access to data?" Asked to all (1,140 respondents)

Figure 2:
"Which of these capabilities would you like to have in your organization's data center, but cannot achieve now for some reason?" Asked to all (1140 respondents)

Figure 1

Figure 2

However, nearly two-thirds (65%) also report that the investment in modernization is to lower operational costs for IT. This demonstrates that IT departments are under pressure to not only improve Availability and minimize downtime, but also to lower their costs while doing so. Furthermore, the same number of ITDMs report strengthening security and control (65%) as a driver for data center modernization. This shows that security is another area of focus that can distract from the goal of being an Always-On Enterprise. This is because being Always-On requires a flexible and adaptable infrastructure, but these are two elements that are seen as potentially dangerous when compared to more security-conscious and rigid infrastructures.

Decision makers need to find a balance between savings, security and Availability when choosing how to modernize their data center.s This balance is likely to vary from organization to organization depending upon end-user needs. Establishing what is most important to the businesses and end users when it comes to Availability is vital if organizations are to be Always-On Enterprises.

The Availability Gap

The Availability Gap

More than 8 out of 10 (84%) ITDMs agree that their organizations' data centers have an Availability Gap and cannot meet the users' needs of an agile, Always-On Enterprise as a result.

Almost all ITDMs also report their organizations have increased their requirements to minimize application downtime (96%) or guarantee access to data (94%) to some extent over the past two years.

Therefore, most ITDMs recognize that their data centers need to improve when it comes to Availability and recovery. But how?

Critically, on average, almost half (47.3%) of ITDMs' organizations' current workloads are mission-critical, and this number is expected to increase to just over half (52.4%) over the next two years. This demonstrates that having high Availability will become increasingly important as a greater proportion of workload becomes critical to the functioning of the organization. This shows that Availability is becoming even more important over time.

This is a problem that decision makers should address as soon as possible, not only to deal with the weaknesses of today, but also to prevent even bigger problems tomorrow.

Almost all ITDMs also report that their organization has increased their requirements to minimize application downtime (96%) or guarantee access to data (94%) to some extent over the past two years. Most ITDMs therefore recognize that their organizations' data centers need to improve when it comes to Availability and recovery.

Downtime is significantly limiting Availability in organizations, threatening their day-to-day functioning and their ability to make the step to being Always-On Enterprises. This problem is likely to only get worse unless decision makers take action.

Figure 3:
Analysis of average RTO/RPO for mission-critical applications vs. RTO/RPO required to close Availability Gap (in hours), asked to all (1,140 respondents)

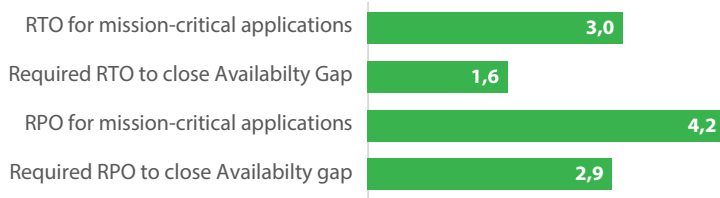|	
RTO for mission-critical applications	3,0
Required RTO to close Availabilty Gap	1,6
RPO for mission-critical applications	4,2
Required RPO to close Availabilty gap	2,9

Figure 3

This demonstrates that organizations are still a long way from their ideal application recovery times and recovery points. And with the importance of availability likely to increase as more workloads become mission-critical, this could cause serious issues in the event of downtime in the future.

The cost of downtime

The cost of downtime

But what are the costs of downtime that decision makers are facing if they do not take action? ITDMs report that their organizations, on average, experience 15 unplanned downtime events per year. This compares to the average of 13 events reported by ITDMs in 2014.

In addition, the average length of downtime events has also increased. ITDMs report that unplanned mission-critical application downtime length has increased from 1.4 hours to 1.9 hours and non-mission-critical application downtime length has increased from 4.0 hours to 5.8 hours.
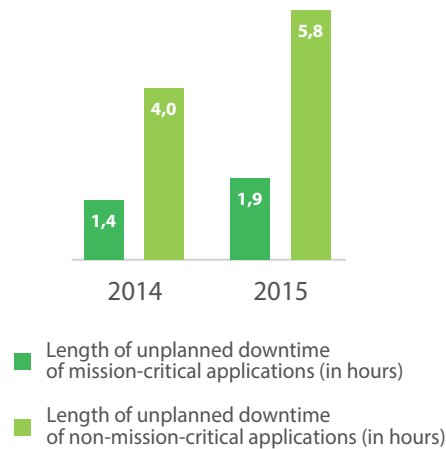
As a result of these increases, the estimated average annual costs of downtime to ITDMs' organizations can be up to $16 million. This is an increase of $6 million on the equivalent 2014 average.

This demonstrates that there can be huge financial cost to organizations that experience unplanned downtime. With ITDMs also report that they are trying to reduce costs, it shows that cost cutting can be counterproductive. A key lesson here is that if investment in key data protection processes is reduced, it can lead to larger costs down the line.

Figure 4:
"On average, approximately how long does each individual instance of unplanned downtime (i.e., caused by IT failures, external forces or other factors) of your organization's applications last?" Asked to all, comparable data (760 respondents in 2014, 630 respondents in 2015)

Figure 5:
"What other impacts could result in your organization from application downtime or data loss?" Asked to all (1,140 respondents)

- ■ Length of unplanned downtime of mission-critical applications (in hours)
- ■ Length of unplanned downtime of non-mission-critical applications (in hours)

Figure 4

Figure 5

More than 6 out of 10 ITDMs report that loss of customer confidence (68%) and damage to their izations' brands (62%) can also result.

This shows that downtime can have a significant impact on organizations that goes beyond the data center and the wider financial implications. Furthermore, around half (51%) report that downtime can result in the loss of employee confidence. This demonstrates that the negative impact is also likely to be felt internally within the organization, with potentially wider implications for morale and performance. When planning investments in Availability, business decision makers need to examine the intangible potential impacts of the future as well as the tangible impact today.

Almost a third (31%) also report that downtime might result in a diversion of resources from long-term/business-critical projects, which again has wider implications for the long-term strategy of the organization. This can also have an impact upon their ability to save, which illustrates once more that the twin targets of minimizing downtime while reducing operational costs can be counterproductive. Decision makers must look beyond the near future if they are to balance the costs and benefits of Availability successfully without triggering risks for the business.

Conclusion

Becoming an Always-On Business requires a great deal of effort and investment to deliver true Availability. It is more than simply providing employees with devices that enable email access while on the move. It is about guaranteeing access to all resources, whether the resources are necessary for action requests or for nothing more than data retrieval, whether this access is needed for an employee locally or for an employee across the other side of the world.

Data centers are likely to be in the process of extensive updates, if not now, then in the near future (according to 99% of ITDMs). Eighty percent report that their organizations are currently or planning to invest soon in data protection and disaster recovery. Enabling 24/7 access for the Always-On Enterprise is most likely to be the driver of these updates. But IT departments are under pressure to keep operational costs to a minimum, threatening their ability to support the wider business. At the same time, IT departments are also being asked to strengthen security. Is it realistic that these actions can be carried out while maintaining an Always-On Enterprise?

Organizations must stop the increase in number and length of unplanned downtime incidents if they wish to avoid the risk of suffering a significant setback. And with the increasing proportion of organizations' mission-critical workloads, the risks can only increase further as it becomes more likely that downtime will have an impact upon these critical workloads.

This impact will be felt both financially and on the brand level, with unwanted negative press and loss of employee confidence. Some will be tempted to minimize the adoption of Always-On practices, in order to minimize costs, or to maintain rigid security. However, this can cost organizations up to $16 million a year if (or when) they experience downtime. Not adopting Always-On practices will cost organizations millions and, ultimately, competitiveness.

Being an Always-On Enterprise allows organizations to compete in the modern economy. For enterprises to continue to compete, attract the best talent and succeed, they must embrace innovative Availability solutions. If they do not, the ramifications could be significant.

Next steps

Today's users – whether as employees in the workplace or as consumers at home – are immersed in technology and have zero patience for applications and data not being available, so delivering a seamless experience is pivotal. Business leaders need to challenge traditional thinking and really ask themselves whether their operations are truly up to this task. If the answer is no, then they need to be prepared to feel a user backlash.

Business decision makers (BDMs) should find out what their end users need from an Always-On Enterprise. These needs should be communicated to the IT department. But to support the IT departments in this, BDMs need to encourage their organizations to invest in their data centers and continue planning further investments. One area for potential investment is that of backups, the use of which are not being maximized. Nearly half report that they only test on a monthly basis or even less often. Using back ups for preproduction patch testing makes the most of back ups that are otherwise dormant, but only 40% are doing so.

Most organizations have an Availability Gap and are not achieving the SLAs for the RTOs and RPOs required to close this gap. ITDMs should establish the SLAs they need to deliver the services that users require and work towards reaching them. However, this cannot be achieved overnight, and ITDMs cannot do it alone. BDMs need to support their organizations' IT departments in improving Availability. This journey must be started soon if Availability is to be improved in the near future.

The C-suite needs to be fully engaged in this process as the cost of doing nothing can be millions of dollars. Executives must understand the risks to both the bottom line and the brand of not being an Always-On Enterprise and become active sponsors of the drive to deliver the Always-On experience users demand.

With this support, IT departments have to challenge legacy, status quo attitudes within the data center. Traditional backup and recovery solutions will take one so far, but they are not appropriate for the evolving digital business and are definitely not able to provide the 24/7/365 levels of immediacy reported in this study.

Simply put, enterprises need to ask themselves one question: Do I want to prosper in this new, digital economy, or fade away into extinction?

Appendix:
Scope of research/
methodology

---

vee.am/availability16

Research methodology

Veeam commissioned independent technology market research specialist Vanson Bourne to undertake the research upon which this report is based. During late 2015, 1,140 interviews were conducted with senior decision makers in the IT departments (referred to as ITDMs or respondents) of businesses with at least 1,000 employees, split as follows:
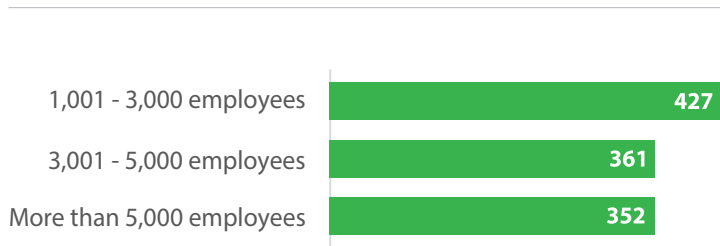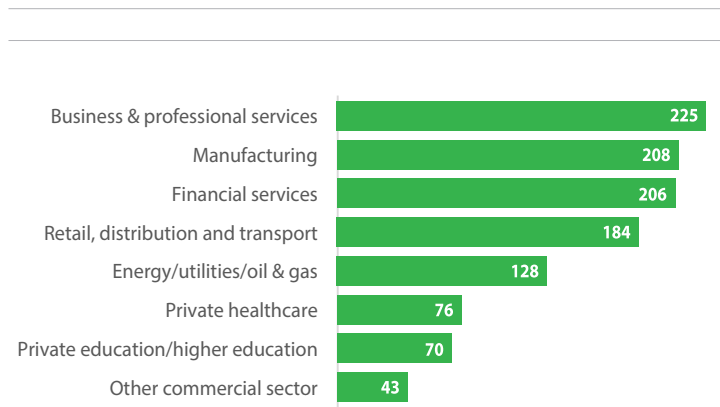
Figure D1

- 1,001 - 3,000 employees — 427
- 3,001 - 5,000 employees — 361
- More than 5,000 employees — 352

Figure D2

- Business & professional services — 225
- Manufacturing — 208
- Financial services — 206
- Retail, distribution and transport — 184
- Energy/utilities/oil & gas — 128
- Private healthcare — 76
- Private education/higher education — 70
- Other commercial sector — 43

Interviews were carried out in 24 countries:

- US - 150 interviews
- China - 120 interviews
- France, Germany, UK - 100 interviews each
- Argentina, Australia/New Zealand, Brazil, Czech Republic, Hong Kong, Italy, Japan, Malaysia, Mexico, Netherlands, Nordics, Poland, Russia, Saudi Arabia, Singapore, South Africa, Spain, Switzerland, UAE – 30 interviews each

Interviews were conducted online using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate. Unless otherwise indicated, results discussed are based on the total sample.

By comparison, in mid-2014, 760 ITDMs in 10 countries were interviewed for a similar questionnaire:

- US - 200 interviews
- France, Germany, UK - 100 interviews each
- Australia, Brazil, Netherlands, Italy - 50 interviews each
- Singapore, Switzerland - 30 interviews each

When compared with the 2014 results, the 2015 results usually comprise of the 630 ITDMs from the corresponding countries in 2014: US, UK, France, Germany, Italy, Netherlands, Brazil, Australia, Singapore and Switzerland.

Figure D1:
"How many employees work in your organization?" Asked to all (1,140 respondents)

Figure D2:
"In which sector would your organization be categorized?" Asked to all (1,140 respondents)

About Veeam

About Veeam Software:
Veeam® recognizes the new challenges companies across the globe face in enabling the Always-On Enterprise™, a business that must operate 24/7/365. To address this, Veeam has pioneered a new market of *Availability for the Always-On Enterprise*™ by helping organizations meet recovery time and point objectives (RTPO™) of less than 15 minutes for all applications and data, through a fundamentally new kind of solution that delivers high-speed recovery, data loss avoidance, verified protection, leveraged data and complete visibility. Veeam Availability Suite™, which includes Veeam Backup & Replication™, leverages virtualization, storage, and cloud technologies that enable the modern data center to help organizations save time, mitigate risks, and dramatically reduce capital and operational costs, while always supporting the current and future business goals of Veeam customers.

Founded in 2006, Veeam currently has 37,000 ProPartners and more than 183,000 customers worldwide. Veeam's global headquarters are located in Baar, Switzerland, and the company has offices throughout the world. To learn more, visit www.veeam.com/enterprise.

About Vanson Bourne:
Vanson Bourne is an independent specialist in market research for the technology sector. Our reputation for robust and credible research-based analysis is founded upon rigorous research principles and our ability to seek the opinions of senior decision makers across technical and business functions, in all business sectors and all major markets. For more information, visit www.vansonbourne.com.