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The State of On-Prem: Modern Solutions for a Traditional Problem
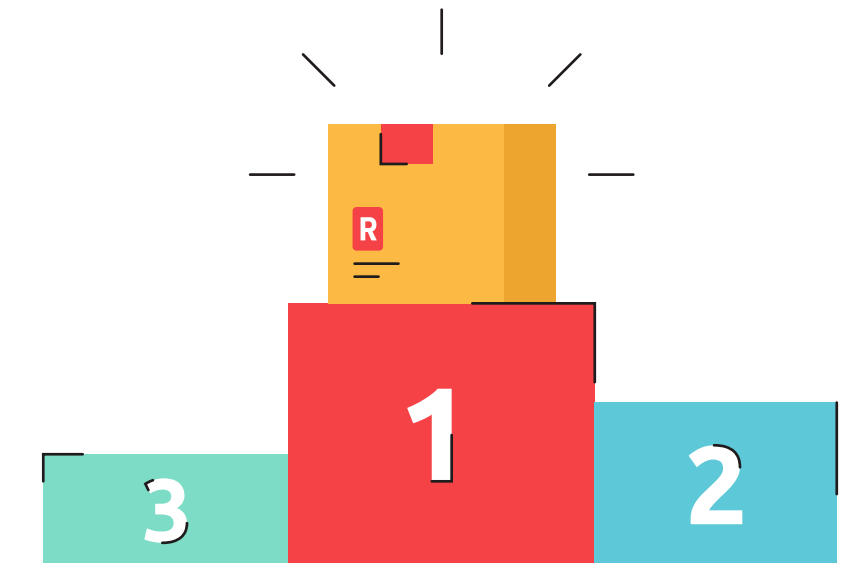
On-prem software, and the parallel rise of Kubernetes

Introduction

With the dawn of cloud and Software as a Service (SaaS) and the rapid adoption among enterprises, there's one thing that may come as a surprise: the demand for and implementation of on-premises software is rising, and modern software companies are offering more enterprise delivery options than ever before.

This whitepaper presents new survey data from Dimensional Research, sponsored by Replicated, highlighting the missed business opportunities for software vendors not offering an on-prem version. The report provides detailed insights around the current use, need, and challenges for on-premises software and its installation, configuration, and management. This whitepaper will also take a closer look at the parallel rise in the adoption of container-based applications and the use of Kubernetes.

Avoiding on-premises = leaving money on the table

While it may be popular to believe that "cloud is king" and SaaS is the best and most in-demand modern enterprise software, data shows that demand for on-premises software is equally as strong. It's the smart choice for customers operating under security, regulatory, and compliance requirements; many organizations cannot allow their customer data to be shared in multi-tenant environments. Additionally, software companies that do not currently provide an on-premises solution to customers leave money on the table and miss a significant business and competitive opportunity.

The recent survey from Dimensional Research includes feedback from 405 business and technology professionals at executive and manager seniority levels, representing software companies of all sizes around the world. The qualified survey participants were asked a series of questions about their company's software delivery options and use of containers with the goal of better understanding the current use, need, and challenges for on-premises software delivery, as well as investigate the adoption of container-based applications and the use of Kubernetes.

Key findings and results at-a-glance:

- **On-Premises Software Continues to Grow to Meet Customer Needs**
    - **92%** of companies indicate on-premises software sales are growing
    - Customer demand for on-premises software equals that for public cloud
    - **91%** of customers are satisfied with the on-premises software

- **Container-Based Deployments Are the Norm**
    - **90%** of companies use containerized applications in production environments
    - **95%** currently offer or plan to offer their software in containers
    - **86%** use Kubernetes for their on-premises software

- **On-Premises Software Deployments are Challenging and Slow**
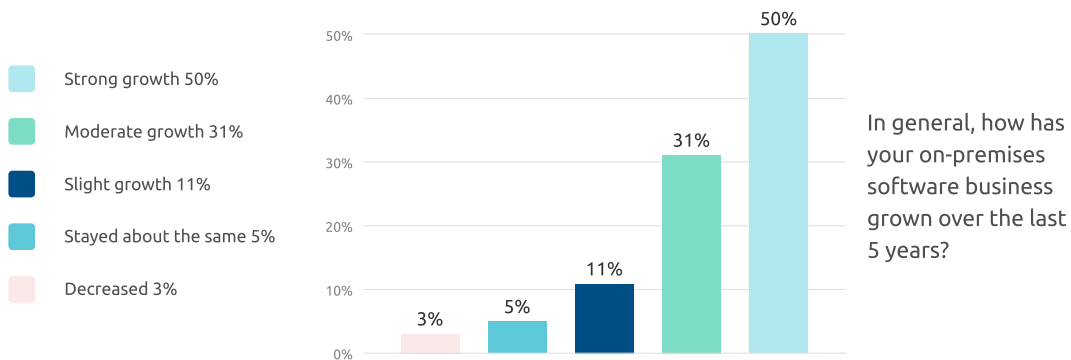   - **85%** of customer still need help with container-based applications
    - Numerous roles dedicated to ensuring customer success
    - Only **16%** of companies can deploy on-premises software in under a week

On-premises software continues to grow to meet customer needs

Of the companies surveyed, 92 percent indicated that their on-premises software business has grown over the past five years, with 50 percent reporting strong growth. Conversely, only three percent of companies reported that their on-premises software sales have decreased over that same time. This illustrates that not only are on-premises solutions still in demand but have prominently grown as more options for delivery become available.

92% of companies indicate on-premises software sales are growing

- Strong growth 50%
- Moderate growth 31%
- Slight growth 11%
- Stayed about the same 5%
- Decreased 3%

3%   5%   11%   31%   50%

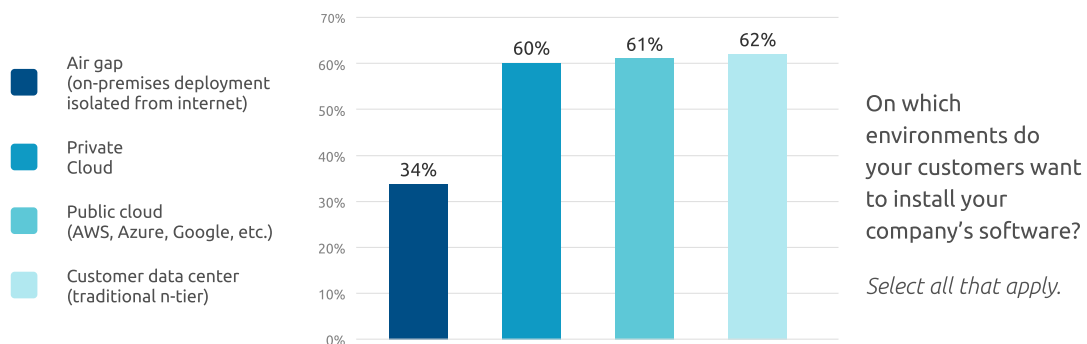In general, how has your on-premises software business grown over the last 5 years?

Respondents also reported that customer demand for on-premises software equaled that of public cloud offerings. Customer data center and private cloud deployments were requested at the same volume as public cloud options (AWS, Azure, Google Cloud, etc), and 34

percent confirmed they also shipped air gapped deployments, further demonstrating the demand for data security and strict governance with security-sensitive customers. Additionally, among those running on-premises software, 91 percent noted proven customer satisfaction.

Customer demand for on-premises software equals public cloud

Air gap (on-premises deployment isolated from internet)

Private Cloud

Public cloud (AWS, Azure, Google, etc.)

Customer data center (traditional n-tier)

Air gap: 34%
Private Cloud: 60%
Public cloud: 61%
Customer data center: 62%

On which environments do your customers want to install your company's software?
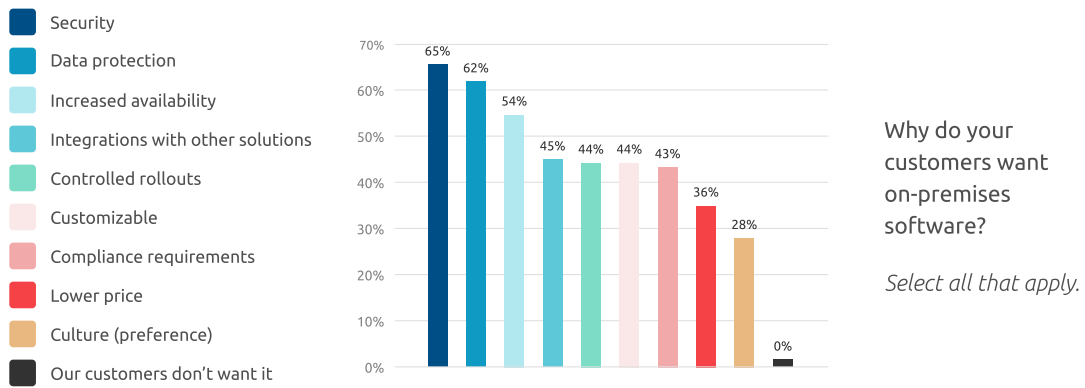
Select all that apply.

These responses are significant in that on-premises software was often thought to be more challenging to maintain and update, but with modern solutions, much of the friction has been removed and automation has made it easier than ever to meet customer needs before an issue arises. With that, nearly ALL of the companies surveyed have expanded their business and increased revenue streams with on-premises offerings. They're also getting just as much business from customers needing on-premises options as they are cloud, and with that offering, customer satisfaction is high.

To further support this, one of the most telling pieces of data from the survey is that over 50 percent of respondents' revenue came from on-premises software deployments, and 54 percent noted that over half or more of all software sales were deployed using on-premises solutions.
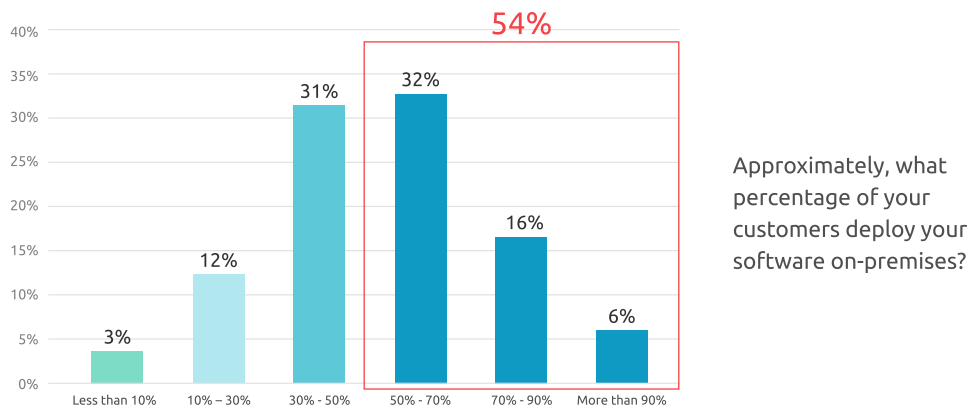
This is not to say cloud isn't the right choice for some or is even going out of style, instead, this is further proof that foregoing an on-premises solution for your software automatically decreases your total addressable market, especially with security and data governance top of mind for so many customers.

Security, Data Protection, and availability top customer drivers of on-premises software

Security
Data protection
Increased availability
Integrations with other solutions
Controlled rollouts
Customizable
Compliance requirements
Lower price
Culture (preference)
Our customers don't want it

Chart values: 65%, 62%, 54%, 45%, 44%, 44%, 43%, 36%, 28%, 0%

Why do your customers want on-premises software?

Select all that apply.

54% shared that half or more of all software sales are deployed on-premesis

Chart values: Less than 10% — 3%, 10% – 30% — 12%, 30% - 50% — 31%, 50% - 70% — 32%, 70% - 90% — 16%, More than 90% — 6%

54%

Approximately, what percentage of your customers deploy your software on-premises?
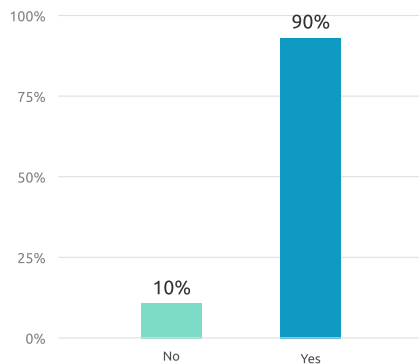
Container-based deployments are the norm

One of the primary challenges of on-premises software is managing deployment. Conventional on-prem deployments take months of engineering time and require a significant amount of work. The rise of containerization and Kubernetes, which can help complete deployments in days or even hours, have helped span that gap, and this survey's results hammer that point home. In fact, a staggering 90 percent of respondents reported that they are using containerized applications in their own production environments.

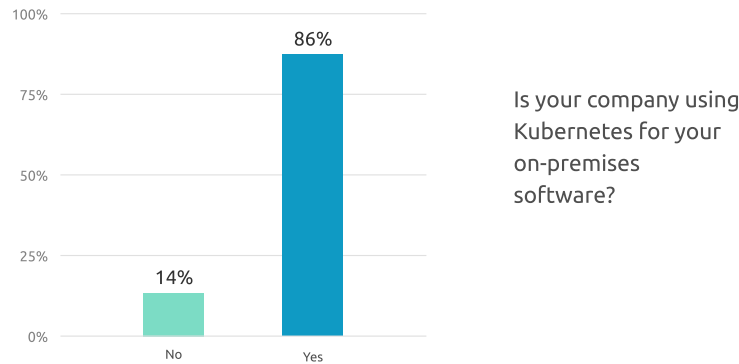## 90% of companies are using containerized applications in production environments

To the best of your knowledge, are your customers using containerized applications in their production environments?

Sticking with that trend, 95 percent of companies reported that they are currently, or planning to, offer containerized versions of their software to customers. The de facto leader of container orchestration systems is unsurprisingly Kubernetes, with 86 percent of survey participants reporting that their companies are utilizing Kubernetes for their on-premises software.

86% use Kubernetes for their on-premises software

R

100%

86%

75%

Is your company using
Kubernetes for your
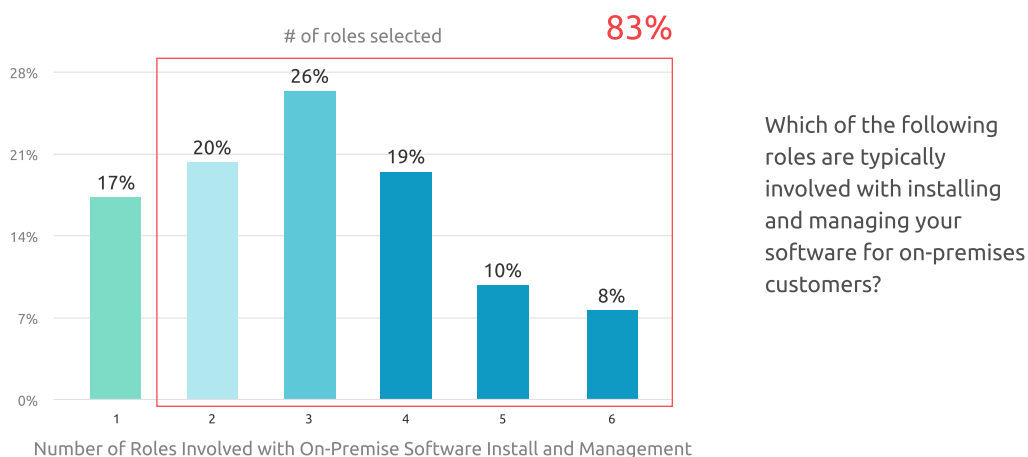on-premises
software?

50%

25%

14%

0%

No

Yes

For context, Kubernetes, or K8s, has experienced increased popularity among the developer community over the past few years and has been a widely embraced evolutionary step in application architecture. Reasons for its quick and broad adoption include the move from infrastructure as code (JS, Ruby, Python, etc) to infrastructure as data, specifically YAML, ensuring every resource in K8s (pods, configs, deployment, etc) is expressed in YAML files. Changes like these vastly reduce the time and resources necessary to build and deploy maintainable software and promote best practices for inter-organizational collaboration through processes like GitOps. K8s is also open source, updated 3-4 times a year, and managed by the Cloud Native Computing Foundation (CNCF) to ensure a sustainable, long-term ecosystem.

On-premises software deployments are challenging and slow

While on-premises software delivery via Kubernetes is the clear answer, the data also highlighted another challenge: many of the companies surveyed still struggle with the tedious and time-consuming complexities that accompany building modern on-premises software: 85 percent of respondents stated that their customers require support with container-based applications, and 83 percent of those surveyed said they are dedicating multiple roles to the installation and management of their customers' software.

83% require teams to install and manage their customers' software

of roles selected

83%

Which of the following roles are typically involved with installing and managing your software for on-premises customers?

Number of Roles Involved with On-Premise Software Install and Management
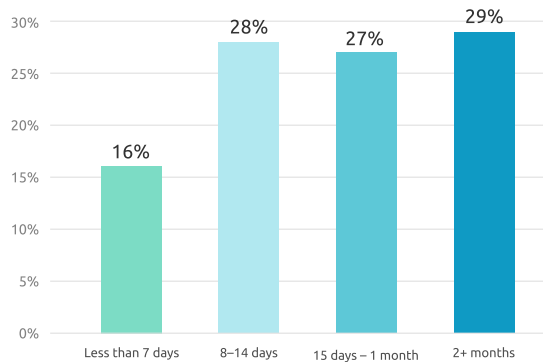
Confirming the process of installing and configuring on-premises software is complex, only 16 percent of respondents reported that their company can deploy on-premises software in under a week. These

difficulties led some of the survey participants to respond that their company does not provide an on-prem option for this reason, and of those who said they don't offer an on-premises option, 57 percent reported that they are losing business as a result.

Only 16% of companies can install and configure on-premises software in under a week

For your company's on-premises software, what is the typical timeframe to have the software installed and configured in your customers' production environment?

While the software industry has made a concerted shift to embracing the benefits of modern on-premises solutions, they still require a deep understanding of new tooling and libraries that bottleneck and set support engineering teams back. Until these delivery options become as simple to provide as SaaS, vendors will struggle to provide customers with solutions quickly.

The Solution

While there are still hurdles for some companies including complexity and time, the benefits of providing on-premises software still outweigh the challenges when it comes to enterprise growth, revenue, and customer base. This report has shown that the demand for on-premises solutions is prevalent across all verticals of the software industry. The need for safe, secure, and manageable delivery of enterprise software will only grow as security threats evolve and strict data governance becomes table stakes.

For some companies with the infrastructure and resources, this will mean building and maintaining a solution in-house with engineering and customer service teams. For others, it could mean finding a third-party solution for their software's on-premises delivery needs. One thing is clear, though: Offering an on-premises solution for enterprise software is no longer a "nice-to-have", it's a growth and revenue opportunity.

Looking Forward

With the support of this new data, it's clear that leading companies understand what was originally thought of as archaic in the face of SaaS and the public cloud has proven to be highly scalable and provides unparalleled security for enterprises. On-premises software delivery that used to take months and hundreds of thousands of dollars in engineering time, can now be done in a few days. By providing on-premises software delivery options, either in-house or vendor-based, enterprise growth and revenue opportunities will continue to increase for the foreseeable future and provide a competitive advantage.

This new data has also demonstrated that leveraging container orchestration systems such as Kubernetes further increases that competitive advantage. Kubernetes has cemented itself as a mainstay in the container world due to its portability and flexibility, multi-cloud capabilities, and open source nature. Increased developer productivity due to workflows like GitOps has catapulted it to market leader status, where it remains the clear choice in the management of container-based deployments.

Bottom line, on-premises software never went away and is a growing part of the modern enterprise. There are many instances where SaaS and the public cloud are the right answer for a customer, but with this current data, we see another proven way to deliver software that helps expand the enterprise customer base, meet their needs, and increase sales.

For more information download the survey from Replicated.

About Replicated

Replicated is the modern way to ship on-prem software. Replicated gives software vendors a container-based platform for easily deploying cloud-native applications inside customers' environments to provide greater security and control. Learn more at Replicated.com.

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