



**ENTRUST**

SECURING A WORLD IN MOTION

# 5 Reasons to Invest in Your PKI Today



# Introduction

Public Key Infrastructures (PKIs) are essential<sup>1</sup> to trusted communication, and their importance is growing.<sup>2</sup> With so much at stake, it's worth giving your PKI some attention to be sure it's optimized and ready to scale with your organization's needs. Here are five compelling reasons why you should consider investing time and resources in your PKI today.

1. The rise of the Internet of Things (IoT)
2. An exploding number of new use cases
3. Continuing migration to the cloud
4. PKIs drive many of today's critical applications
5. It's already in place; optimize it!

<sup>1</sup><https://blog.entrust.com/2019/04/pki-why-its-as-relevant-today-as-it-was-10-years-ago/>

<sup>2</sup><https://blog.entrust.com/2020/10/the-bedrock-of-it-security-whats-next-for-pki/>



# 1

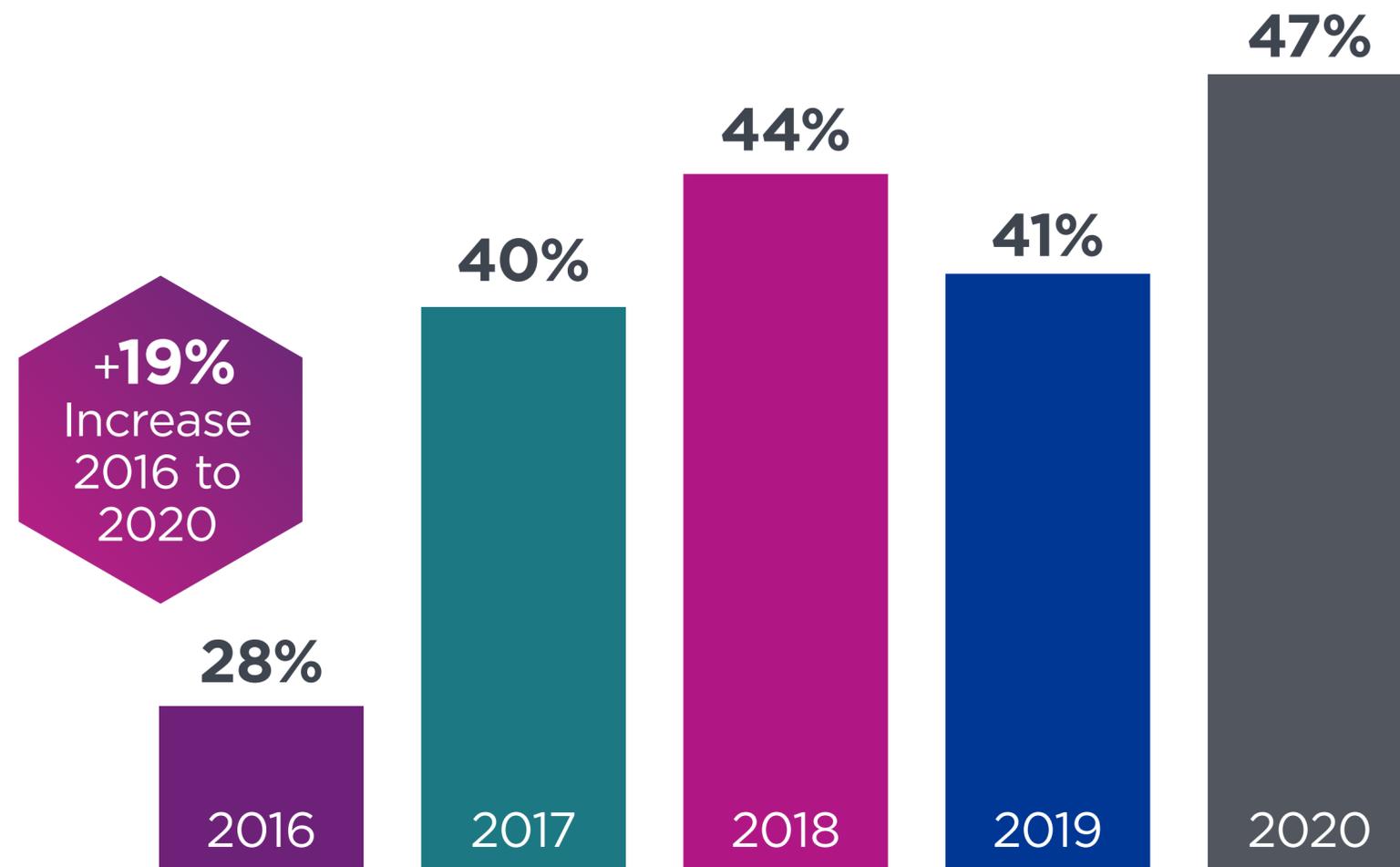


## The rise of the Internet of Things

[Statista](#) predicts there will be 38.6 billion IoT devices installed worldwide by 2025, and an astounding 50 billion by 2030. But dependence on the services delivered by IoT devices means we must first trust the devices, the data they collect, and the decisions they make for us as consumers of their services.

[And what do you need to ensure this trust?](#) PKIs.

The IoT is the fastest growing trend driving the deployment of applications that use PKI, as shown in the graph opposite.



Source: 2020 Global PKI and IoT Trends Study, Ponemon Institute and Entrust

# 2

## An exploding number of new use cases

As enterprises continue to realize the benefits of digitization, PKI use cases will continue to emerge, according to experts at [Market Research Future](#). The volume of devices and applications that require digital identities is growing exponentially and in areas that are still under the radar to many. Traditional drivers for PKI growth have been e-commerce, internet banking, and confidential email. But other rapidly growing market segments include health care, life sciences, manufacturing, automotive, government and defense, and even agriculture.

Even if you don't work in these sectors, there's a good chance that new connected devices and applications will soon impact you on a daily basis.



### Consider:

- Contact lenses that can sense and analyze tears to provide patients' health-state information to doctors
- Autonomous self-healing systems in manufacturing that enable physical assets to fix their problems without the need for human involvement
- [Smart locks](#) that replace traditional entry systems, enabling you to provide access to your house to only those people you choose

We can only imagine what other examples will follow but, to be trustworthy, these new devices and applications will first need to be authenticated.

# 3

## Continuing migration to the cloud

According to [IDG's 2020 Cloud Computing Study](https://www.idg.com/tools-for-marketers/2020-cloud-computing-study/),<sup>3</sup> the vast majority of organizations are running applications or a portion of their computing infrastructure in the cloud. With so much reliance on cloud applications, they have become the major consumers of PKI credentials today, so it's a good idea to ensure that your infrastructure can handle more growth.

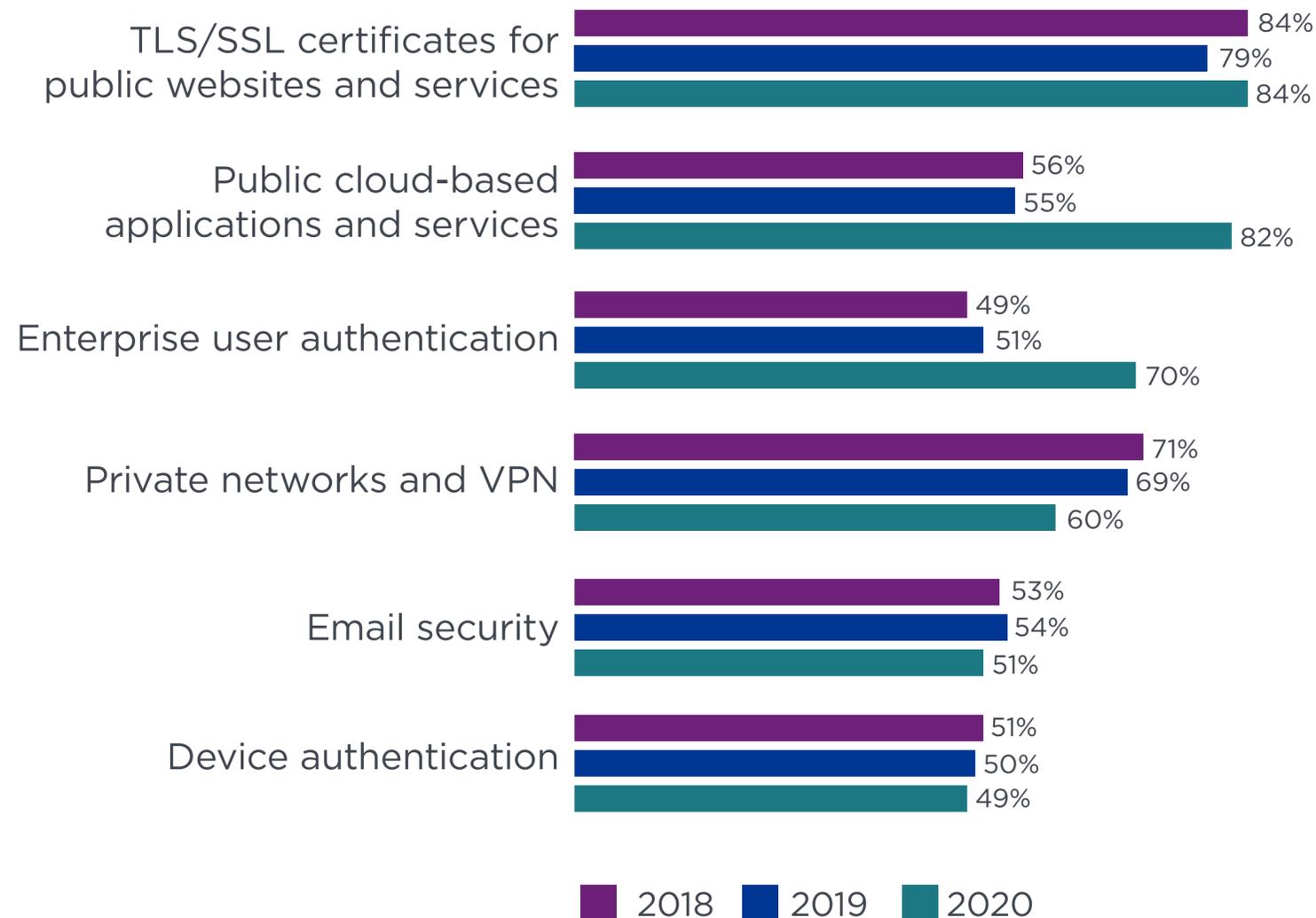
<sup>3</sup><https://www.idg.com/tools-for-marketers/2020-cloud-computing-study/>



# 4

## PKIs drive many of today's critical applications

### What Applications Use PKI Credentials in Organizations?



Source: 2020 Global PKI and IoT Trends Study, Ponemon Institute and Entrust

While the rise of IoT and continued migration to the cloud are driving the trends, many well-established, critical business applications depend on a robust PKI, including:

- Authenticating users and devices accessing private networks
- Email security
- TLS/SSL certificates for e-commerce/online banking
- Device authentication

Effective and efficient management of user and application credentials will continue to be a foundational need into the future, so be sure your PKI is built for the long haul.

# 5

## It's already in place; optimize It!

Enterprises typically add more applications to their existing PKIs as use cases continue to expand. Indeed, the average PKI now handles more than eight distinct applications. Unfortunately, this will get you only so far.<sup>5</sup>

Getting your PKI to peak performance might be as simple as a quick [healthcheck](#) to spot inefficiencies or potential areas of concern. Or it might entail upgrading some components to be sure the system can take on additional demand. And for some organizations it might be time to stand up a new PKI, so you can properly scale your operations without a negative impact on the systems that rely on your PKI to ensure trust in your digital communications.

Whatever your PKI requirements are, the experts at Entrust are here to help. Visit our website [Entrust.com](https://www.entrust.com) to learn more.

<sup>5</sup>2020 Global PKI and IoT Trends Study, Ponemon Institute and Entrust



For more information  
on our digital security  
solutions, including PKI  
and HSMs, go to  
[entrust.com/digital-security](https://entrust.com/digital-security)

## ABOUT ENTRUST CORPORATION

Entrust keeps the world moving safely by enabling trusted identities, payments, and data protection. Today more than ever, people demand seamless, secure experiences, whether they're crossing borders, making a purchase, accessing e-government services, or logging into corporate networks. Entrust offers an unmatched breadth of digital security and credential issuance solutions at the very heart of all these interactions. With more than 2,500 colleagues, a network of global partners, and customers in over 150 countries, it's no wonder the world's most entrusted organizations trust us.

Learn more at  
[entrust.com](https://entrust.com)



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