Ponemon Institute is pleased to present an executive summary of the findings of the *2020 Global PKI and IoT Trends Study*, sponsored by nCipher Security, an Entrust company.

According to the findings, digital certificate use is growing rapidly for cloud applications and user authentication. Additionally, the rapid growth in the use of IoT devices[1] is having an impact on the use of PKI technologies and there is realization that PKI provides important core authentication technologies for the IoT.

The PKI research is part of a larger study published in April 2020 involving 6,157 respondents in 17 countries.[2] In this report, Ponemon Institute presents the findings based on a survey of 1,934 IT and IT security who are involved in their organizations' enterprise PKI in the following 17 countries: Australia, Brazil, France, Germany, Hong Kong, India, Japan, Mexico, Middle East (which is a combination of respondents located in Saudi Arabia and the United Arab Emirates), Netherlands, Russian Federation, Southeast Asia (which is a combination of respondents from Indonesia, Malaysia, Philippines, Thailand, and Vietnam), South Korea, Sweden, Taiwan, United Kingdom, and the United States.

The report tabulates the responses to the survey and draws some limited conclusions as to how best practices are reflected in observed practices, as well as the influence of cloud computing, the Internet of Things, and other important industry trends. All participants in this research are

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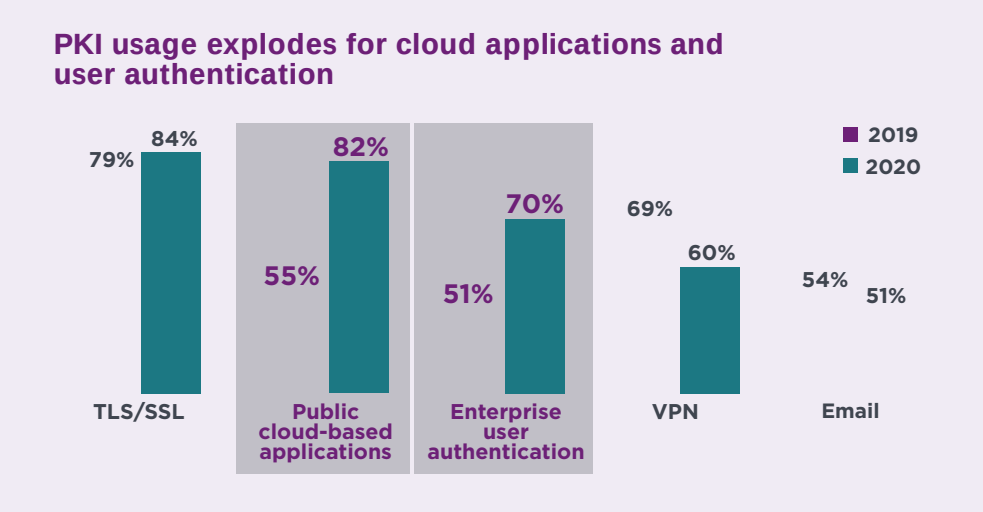
55 82 . Eighty-four percent of respondents say the application most often using PKI credentials is TLS/SSL certificates for public-facing websites and services. The use of public cloud-based applications and services increased significantly from 55 percent to 82 percent of respondents. Private networks and VPN using PKI credentials decreased from 69 percent in 2019 to 60 percent of respondents in 2020. These are the basic building blocks of the modern enterprise IT system and digital certificates have become much like storage, a commodity component of the system, no longer an exotic add on.



W PKI? The most cited method for deploying enterprise PKI is through an internal corporate certificate authority (CA) or an externally hosted private CA – managed service, according to 60 percent and 43 percent of respondents, respectively.

Externally hosted private CAs, after a decline from 2015 to 2017, have increased in usage. Since 2015, more companies have deployed PKI using a private CA running within a public cloud, an increase from 9 percent to 22 percent of respondents.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