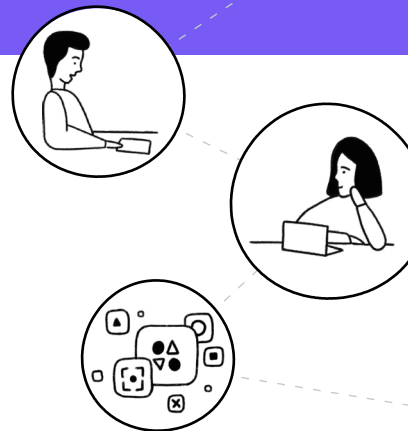




2020

BUSINESSES@WORK (from Home)



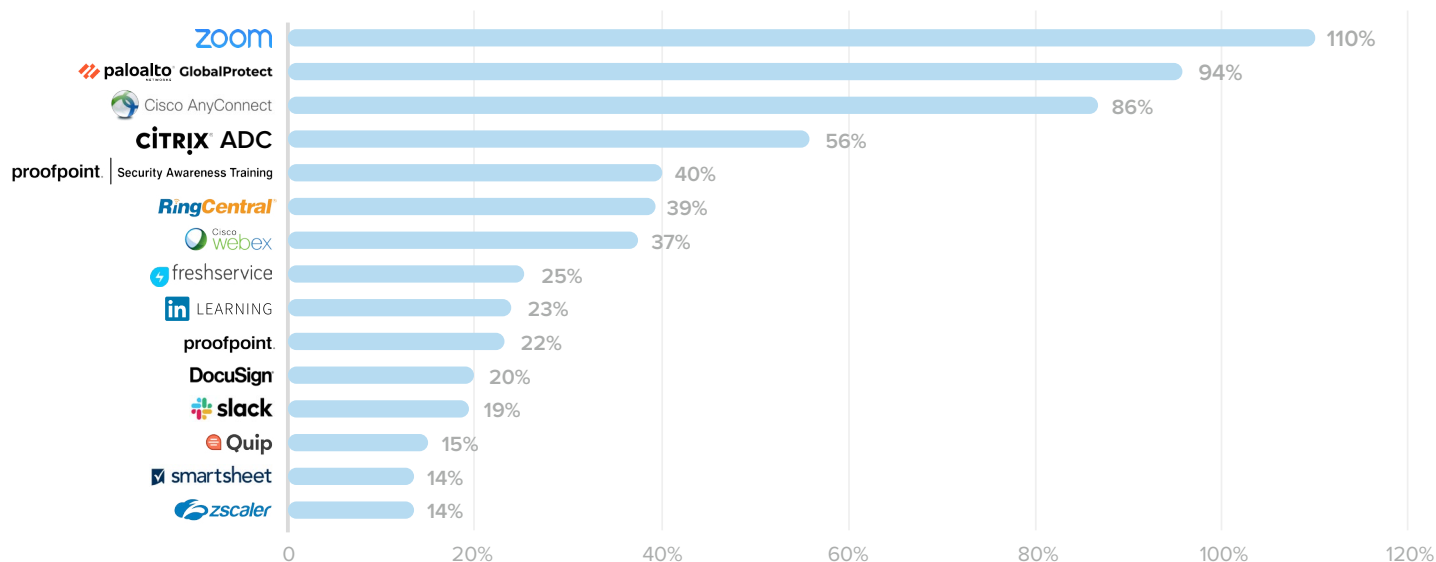
THE WORLD HAS CHANGED

The COVID-19 pandemic has created unprecedented challenges for organizations around the world. With millions of people suddenly working from home for the first time, companies need ways to ensure productivity, connectivity, and security—quickly.

Educators and administrators have had to face a raft of new challenges. First, they have had to quickly onboard new remote learning and instructional tools. They also needed to provide unified access to core learning tools. And, they have been required to secure remote access for everyone within the educational community. All the while, they have tried to use technology to minimize the disruption caused by the impact of this crisis on our educational system.

This mid-year update to Businesses @ Work looks at the data from the Okta Integration Network (OIN) to understand how organizations are employing new apps and increasing adoption of existing technology to improve productivity and secure their remote workforce during this unique crisis. Our network now includes nearly 8,000 customers and over 6,500 integrations with cloud, mobile and web apps, and IT infrastructure providers. In the educational sector, Okta primarily serves students and staff of higher education, as well as the staff of a few Kindergarten-12 schools. This version of the report has been customized specifically for the education space.

Fastest Growing Apps and Tools by Unique Users across All Industries



Percentage Growth, March over February 2020

WFH: MORE APPS AND TOOLS, MORE COMFY PANTS

Each month we see an overall uptick in the number of apps deployed as companies adopt more tools to get work done. Other than a typical dip in December around the holidays, our total number of unique users tends to uptick steadily as well. Between this February and March, that uptick grew substantially as more users adopted new functionality. We see growth in two major areas across our network: collaboration tools, especially video conferencing apps, and network security tools such as VPNs that extend secure access to remote workers.

Our fastest growing apps were determined by the percentage increase in the number of unique users who logged in at least once during a 30-day period ending March 31 compared to a 30-day period ending February 29. Note that our data looks primarily at workforce usage.

Video conferencing has suddenly become pervasive in our lives: not only do home-based workforces need it to be productive, but families are using video conferencing to stay in touch, friends are scheduling get-togethers, and both educational and extra-curricular classes are moving online. So it will probably come as no surprise that three of our top seven fastest growing apps across our overall network are video conferencing tools. Zoom was the fastest growing app in the OIN with an amazing 110% growth in unique workforce users in March over February, 2020. (For comparison, Zoom grew only 6% during that same time period in 2019.) RingCentral ranks at #6 with 39% growth, and Cisco Webex takes #7 with 37% growth in that same month-over-month period.

Network security and performance tools share the spotlight. Palo Alto Networks GlobalProtect showed 94% growth in March over February, compared to 20% for that same period in 2019. Cisco AnyConnect was close behind with 86% growth. These VPN tools provide security and ensure business continuity as organizations move workforces to the cloud at scale. Citrix ADC, which accelerates application performance and secures apps from attacks, had 56% month-over-month growth in that same period.

Proofpoint Security Awareness Training was the fifth fastest growing app, with 40% growth in March over February, indicating that companies aren't just scrambling to get everyone up and running remotely—they are taking the extra step to protect the organizations' notoriously weakest link, human error. Proofpoint also appeared at #10 with 22%

growth, representing the increased usage of their Proofpoint Protection Server, Proofpoint Secure Share, and ProofPoint Threat Insight Dashboard products.

An unexpected transition to working and learning from home often requires a new set of problem-solving skills. Many users are turning to Freshservice for their cloud-based IT service desk solution: between February and March of 2020, the number of unique users grew 25%. And LinkedIn Learning experienced 23% month-over-month growth, showing us that users are expanding their skill sets and possibly using this time to invest in themselves.

EDUCATION: FASTEST GROWING APPS BY UNIQUE USERS

Zoom: **668%**

Cisco Webex: **491%**

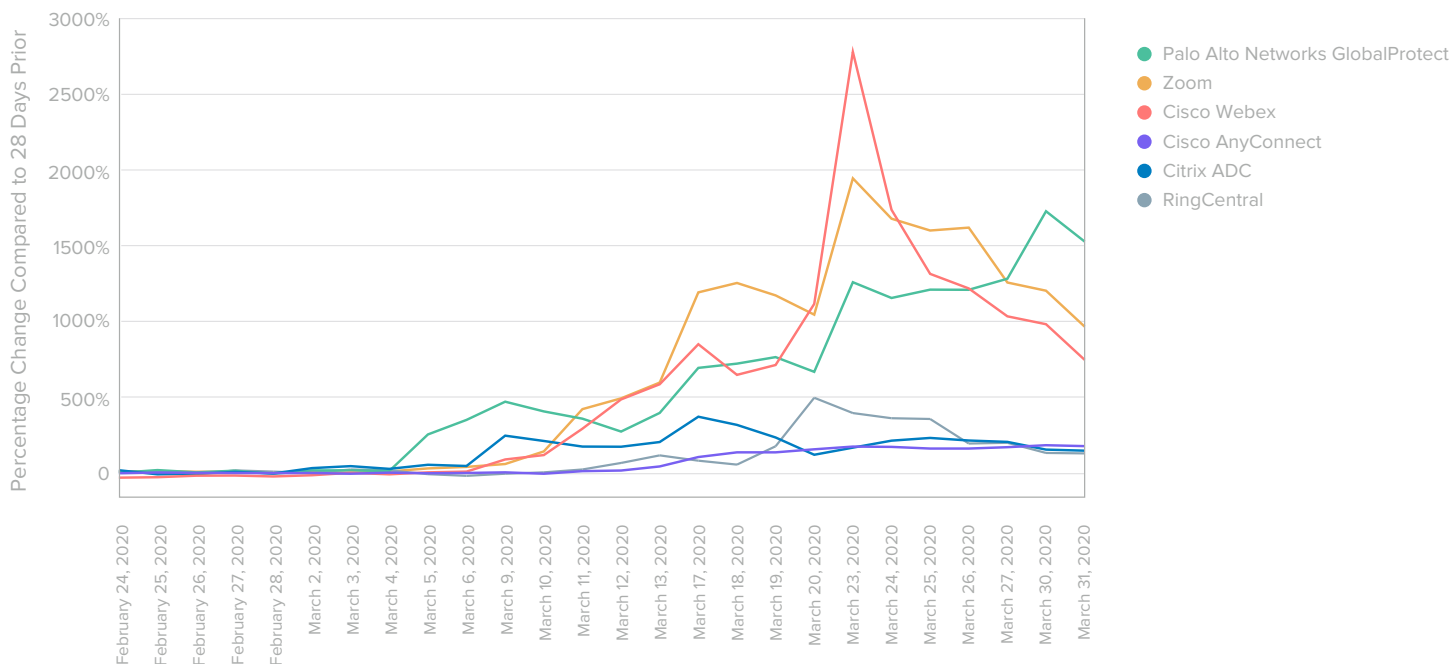
Atlassian Product Suite: **27%**

Note that these numbers show a percentage increase in unique users over a 30-day period.

As schools sent educators and students home, thousands of unique users who previously hadn't needed video conferencing tools rushed to Zoom and Webex to stay connected.

The Atlassian Product Suite, including Confluence, Jira, and Bitbucket, helps technology teams collaborate and support remote learning.

Percentage Change in Education Sector Unique Users Accessing Apps



We took a closer look at our fastest growing apps and tools to see how the percentage growth of unique users changed day by day from late February through March, looking for a correlation between the growing impact of the pandemic and users' behavior. We used a 28-day comparison to ensure weekdays are always compared to weekdays.

Looking at typical weekday login cycles across all industries, we estimate that Friday, March 6, 2020 was the last day of "normal" app usage, before user activity was affected by the pandemic. Across our network, looking at all industries, we see a general upward trend beginning on Monday, March 9, 2020 for many apps.

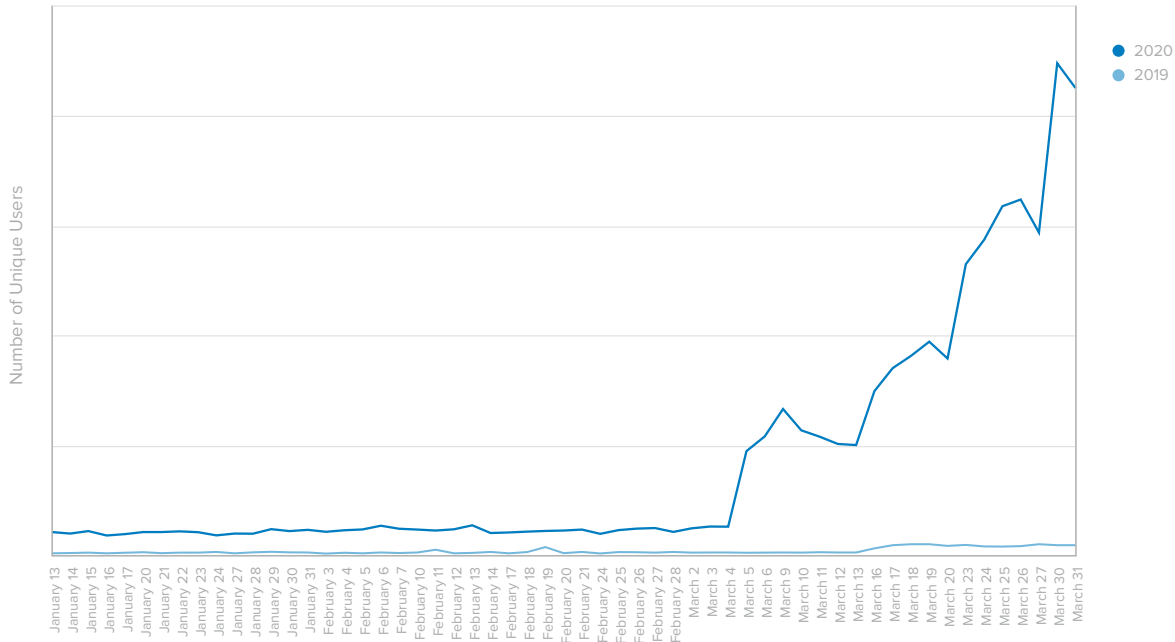
In the education sector, the second half of March saw the percentage of growth of unique users consistently in the *thousands* for GlobalProtect, Zoom, and Webex. This astounding growth is significantly more than we've seen in any other sector. On March 23, the video collaboration tools Webex and Zoom had their biggest peak in increases in unique users: Webex reached 2775% growth and Zoom reached 1941% growth compared to 28 days prior. GlobalProtect also reached a peak of 1256% that same day, but went on to reach a higher peak of 1724% on March 30. Other apps and tools reached impressive heights as well. On March 20, the collaboration platform RingCentral reached a peak of 494% growth. By the end of the month, growth was cooling but still amazingly high for GlobalProtect (1524%),

Zoom (963%), Webex (744%), AnyConnect (175%), Citrix ADC (145%), and RingCentral (127%).

Many factors have impacted the number of logins during this period of time, but we noticed that specific moments in time, such as government-issued social distancing directives, correlated to jumps in usage. By Monday, March 16, many European countries had announced lockdowns; [UNESCO](#) data shows the number of students affected by school closures jumped to 44% percent of the world's enrolled learners in primary through tertiary education—over 770 million students. We saw a corresponding sharp increase in unique user logins across our entire network compared to the previous Monday. On Friday, March 20, California began a shelter-in-place directive, and New York asked non-essential businesses to close. By the time the UK announced lockdowns on Monday, March 23, 61% of the world's total enrolled learners—over 1 billion students—were studying remotely, and the increase in Webex and Zoom users reached its peak.

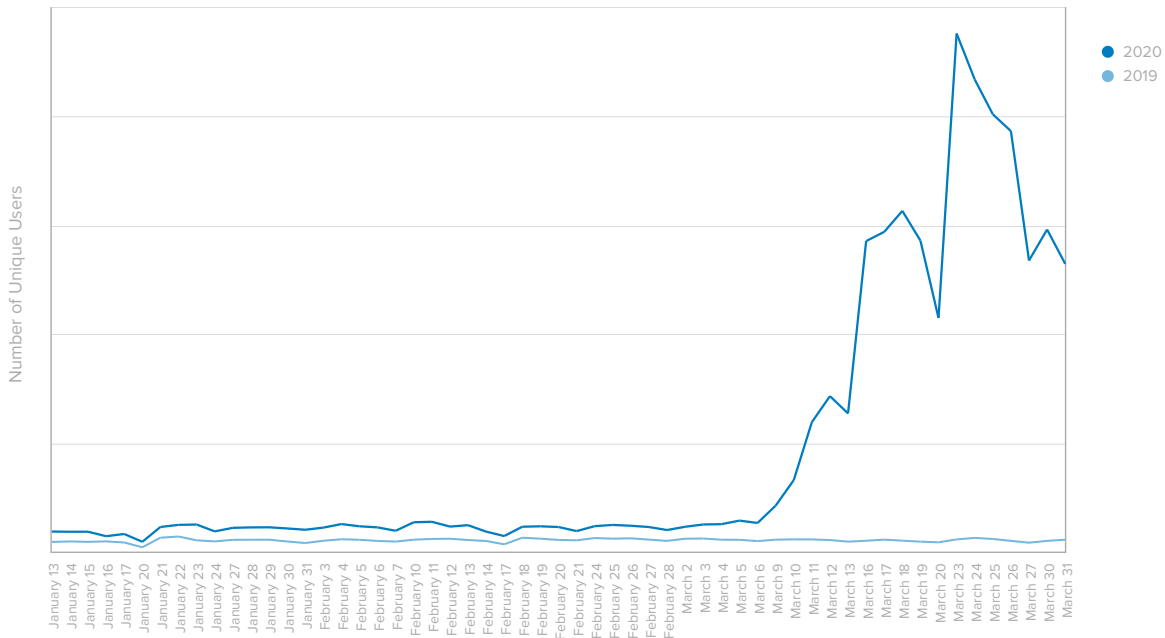
After seeing the significant change in the percentage of unique users accessing these apps each day, we were interested in "double clicking" on the number of daily logins for the three top apps: GlobalProtect, Zoom, and Webex. We compared the data from January 13 through March 31, 2020, against the same period in 2019. All three apps had similar trend lines, with steep growth after March 13.

Education Sector Logins to Palo Alto Networks GlobalProtect



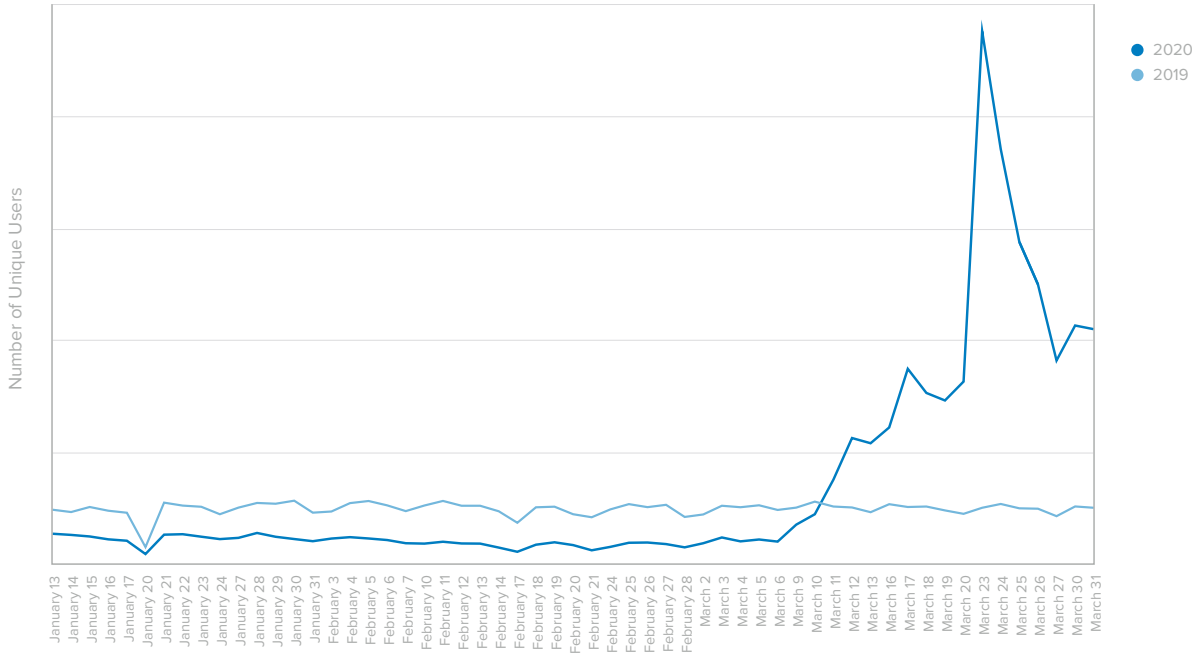
As educational institutions onboard large numbers of administrators and staff to work remotely with uninterrupted access and a seamless user experience, rapidly scaling secure remote access capacity is key. GlobalProtect extends network security to endpoints to protect an institution’s mobile workforce, regardless of location.

Education Sector Logins to Zoom



Zoom had already surpassed Cisco Webex to become the top video conferencing tool in our overall network by 2018, and the app showed a meteoric rise in our [2020 Businesses @ Work report](#). Zoom has evolved from its role as a go-to tool for remote workforces to become a mission-critical tool for education. Many people are turning to Zoom as a way to maintain relationships and commitments outside of school as well.

Education Sector Logins to Cisco Webex



The education sector has shown it values multiple video collaboration tools. Remote learners have flocked to Webex. When the educational community is required to work remotely, Webex helps users connect, communicate, and collaborate.



SECURITY: NOW MORE THAN EVER

Attackers are trying to take advantage of the chaos around the COVID-19 pandemic by launching a flood of phishing and identity attacks. Barracuda researchers have observed a [667% increase](#) in spear-phishing attacks since the end of February, 2020. Even the FBI has [issued a warning](#) about an increase in fraud schemes due to the pandemic. Next Caller [reports](#) that about 32% of 1,000 surveyed Americans believe they've already been targeted by fraud or scams related to COVID-19, and the company predicts “a second wave of fraud will leverage broadscale confusion and the sheer volume of activity...to prey on desperate individuals and overwhelmed businesses.” Add in a nation waiting for stimulus checks, and opportunities abound for deception. Education institutions, already the target of [more phishing attacks](#) than any other industry, need to protect their students and staff more than ever.

Evolving attacks leverage fears and changes in behavior

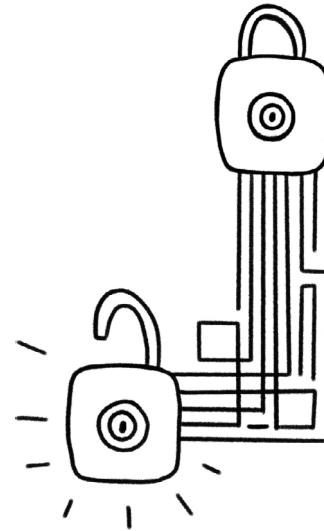
Proofpoint, an Okta partner, has observed the rapid rise of COVID-19 lures. Threat actors are actively using COVID-19 social engineering themes to try to take advantage of remote workers, health concerns, stimulus payments, trusted brands, and more. As the pandemic has occurred over a number of weeks, and remains an area of concern worldwide, the overall collective volume of lures only continues to increase.

This winter, attackers have shifted very quickly from holiday-based lures to COVID-19 lures. Attacks come in many forms. For example, in a business email compromise, the sender may request “urgent” help under the guise that the sender’s town is locked down. Attachment threat emails may look like an internal office email with instructions to download an attachment about how to stay safe from the disease. URL-based threats also may look like an internal office email requesting employees fill out a survey about disease awareness, or register for a “mandatory” seminar. COVID-19 was used in conjunction with well known brands and entities such as financial institutions and technology companies, as well as more specific brands such as the World Health Organization (WHO).

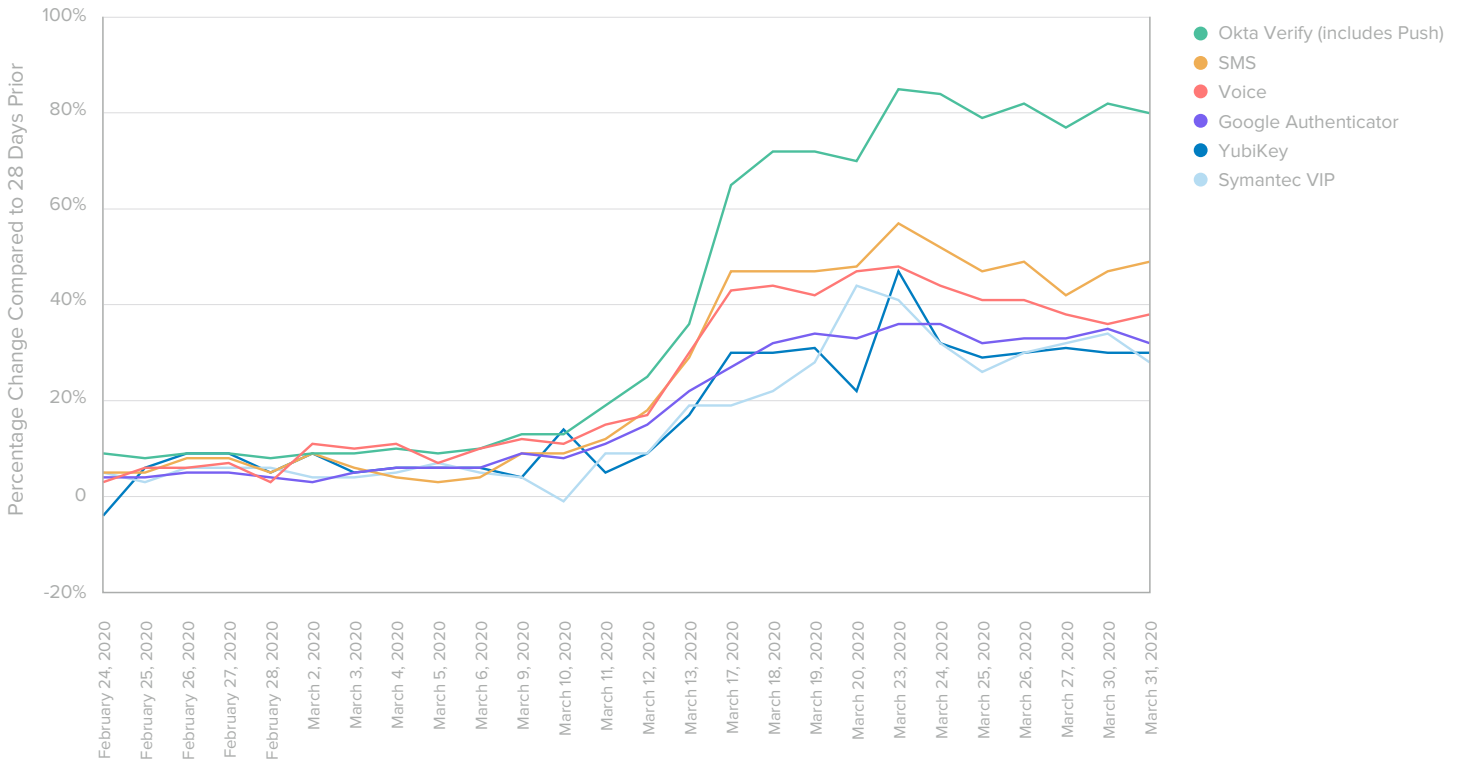
As we have seen in data from the OIN, video conferencing adoption as a whole has increased considerably, so it’s no surprise attackers are trying to leverage these top apps. Since March 27, 2020, Proofpoint researchers have observed

an increase in video conferencing company-themed attacks seeking to steal credentials and distribute malware. These attacks do not leverage or attack video conferencing software directly: threat actors are using the names and brands of these video conferencing companies as themes in their social engineering lures, which lead to the theft of various account credentials, malware distribution, or credential harvesting for these spoofed video conferencing accounts.

While all industries have been targeted, Proofpoint has seen specific targeting of healthcare, education, manufacturing, media, advertising, and hospitality organizations in certain attack campaigns.



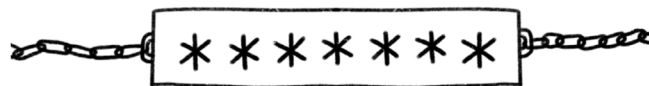
Percentage Change in Unique Users Authenticating with Each Factor



Users ramp up Multi-Factor Authentication for protection

As more and more people work from home, organizations are using Multi-Factor Authentication (MFA) to ensure their remote workforce has secure access to company data. In the past month, we've seen especially large upticks in certain factors network wide. Okta Verify (including Okta Verify with Push notifications) has shown the most growth in the

percentage of unique users per day, hovering around an 80% increase over 28 days prior. SMS, voice, Google Authenticator, Symantec VIP, and YubiKey have all had a roughly similar growth trajectory. Our customers are reacting quickly and implementing factors that are easiest to deploy—"some MFA is better than none." Our annual [Businesses @ Work](#) data tells us that many customers, especially newer customers, will migrate to using fewer but stronger factors.

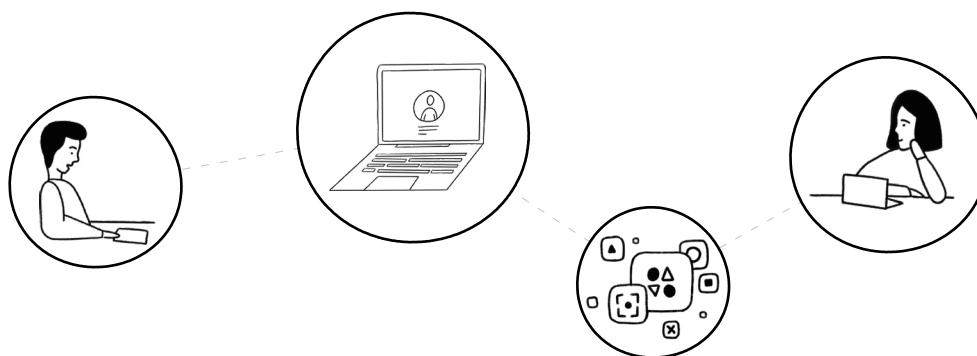




NOW, AND LOOKING FORWARD

Our customers from educational institutions around the world have reacted to the pandemic quickly, rolling out remote communication apps, extending VPNs, and adding MFA to ensure the productivity, connectivity, and security of their (now) remote workforces. This first phase of evolution enables remote work so the institutions and their students can thrive.

Once the dust settles, we believe educational institutions will be ready to face a second phase of evolution, adding apps and tools that will not just enable remote productivity, but enhance what will likely become a “new normal” of dynamic learning.



Tips for Enabling Secure Access for a Remote Workforce

okta.com/secure-remote-workforce

METHODOLOGY

To create our Businesses @ Work reports, we anonymize Okta customer data from our network of thousands of companies, applications, and IT infrastructure integrations, and millions of daily authentications and verifications from countries around the world. Our customers and their employees, contractors, partners, and customers use Okta to log in to devices, apps and services, and leverage security features to protect their sensitive data. Our customers span every major industry and vary in size, from small businesses to enterprises with hundreds of thousands of employees or millions of customers. As you read this report, keep in mind that this data is representative of Okta's customers, the applications we connect to through the Okta Integration Network, and the ways in which users access these tools through our service.

We have worked carefully to standardize our data. Unless otherwise noted, this report presents and analyzes data from January 13, 2020, to March 31, 2020. When looking at daily trends, we look at data from week days, excluding weekends.

This report looks at apps deployed for corporate and personal use. Unless otherwise specified, the data included in this report is limited to Okta customers that have deployed at least one app through the Okta Integration Network.