APWG phishing activity trends reports for Q3'19 raise alarm

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For a long period of time phishing is one of the major cyber threats in cyberspace. Phishing is the fraudulent attempt to obtain sensitive information such as usernames, passwords and credit card details by disguising oneself as a trustworthy entity in an electronic communication. For past few years we have noticed a rise in the phishing attack in all part of the globe. Anti Phishing Working Group (APWG) provide us with quarterly report for phishing activity trends which shows an alarming status for Q3, 2019. Founded in 2003, the Anti-Phishing Working Group (APWG) is a not-for-profit industry association focused on eliminating the identity theft and frauds that result from the growing problem of phishing, crime ware, and email spoofing. Membership is open to qualified financial institutions, online retailers, ISPs, solutions providers, the law enforcement community, government agencies, multi-lateral treaty organizations, and NGOs. There are more than 2,000 enterprises worldwide participating in the APWG. As reported to the APWG by their member companies & Global research partners through its website and e mail, the APWG Phishing Threat Trends Report analyzes phishing attacks and other identities theft methods. Through drawing on studies from member companies and industry experts, APWG tests the growth, prolife and dissemination of identity stealing methods.

The major findings of APWG Phishing Activity Trend Report of Q3'2019 are:

• During the third quarter of 2019, the number of phishing attacks grew to a high level not seen since the end of 2016.

• 40% of Business Email Compromise (BEC) attacks use fraudulent domain names, a tactic used to trick unwanted victims.

• SSL authentication is used by more than two thirds of all phishing sites. This is the highest proportion since monitoring began at the beginning of 2015 and is a clear sign that users cannot rely solely on SSL to understand whether or not a site is safe.

• The target webmail and software-as a-service (SaaS) users has remained the largest phishing target segment.

• In South America, too, phishing rocked upwards.

In the third quarter of 2019, APWG observed 266387 phishing sites, up 46 percent from 182465 recorded throughout Q2, nearly double that of 138328 registered in Q4 2018.

	July	August	September
Number of unique phishing Web sites detected	93,194	86,908	86,276
Number of unique phishing e-mail reports (campaigns) received by APWG from consumers	35,530	40,457	42,273
Number of brands targeted by phishing campaigns	444	414	425

Figure 1: Total Phishing in Q3'19

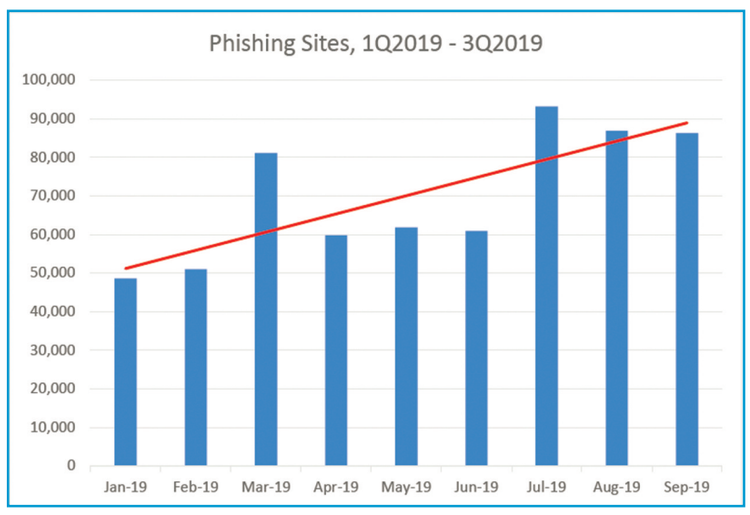

Figure 2: Rise of phishing Q3'19

"This is the worst period for phishing that the APWG has seen in three years, since the fourth quarter of 2016," said Greg Aaron, APWG Senior Research Fellow and President of Illumintel Inc. In the fourth quarter of 2016, the APWG registered 277,693 attacks.

The number of brands targeted in Q3 has rose significantly in addition to the rise in phishing volume; attacks against more than 400 different brands (companies) per month in Q3, versus an average of 313 per month in Q2. The amount of unique phishing data submitted to APWG at 3Q 2019 stood at 122,359, relative to 112,163 in the second quarter.

Figure 3: The amount of unique phishing data

SaaS and Webmail were the main targets of phishing in the third quarter of 2019 followed by payment, financial institutions.

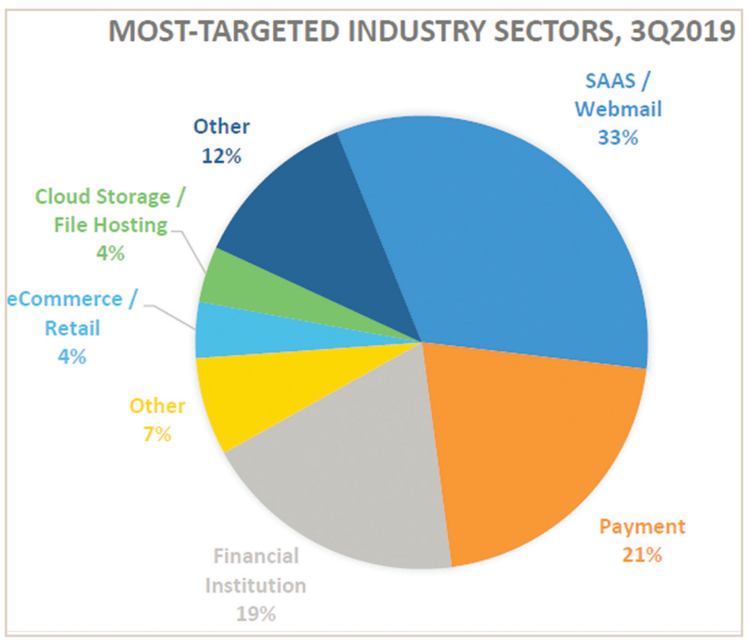

Figure 4: Most Targeted Industry Q3'19

More than two thirds (68 percent) of all phishing sites used SSL in Q3 2019. The previous quarter the figure was 54%. John LaCour, PhishLabs Founder and CTO said "This is the highest number of phishing sites using SSL since we began tracking it in early 2015, and a clear indicator that users can't rely on SSL alone to indicate whether or not a site is safe."

To order to compile its data set, APWG contributor Agari analyzed thousands of BEC attack reported to Q3. Agari defines BEC as any response-based spear phishing assault involving the impersonation of a trustworthy party to make financial transactions or to submit sensitive material to a target. Agari estimated that during the third quarter

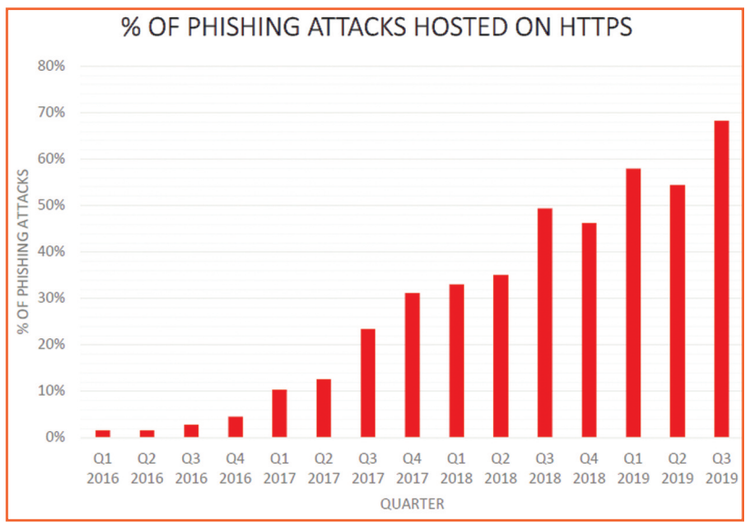

Figure 5: Phishing attacks hosted on HTTPS Q3'19

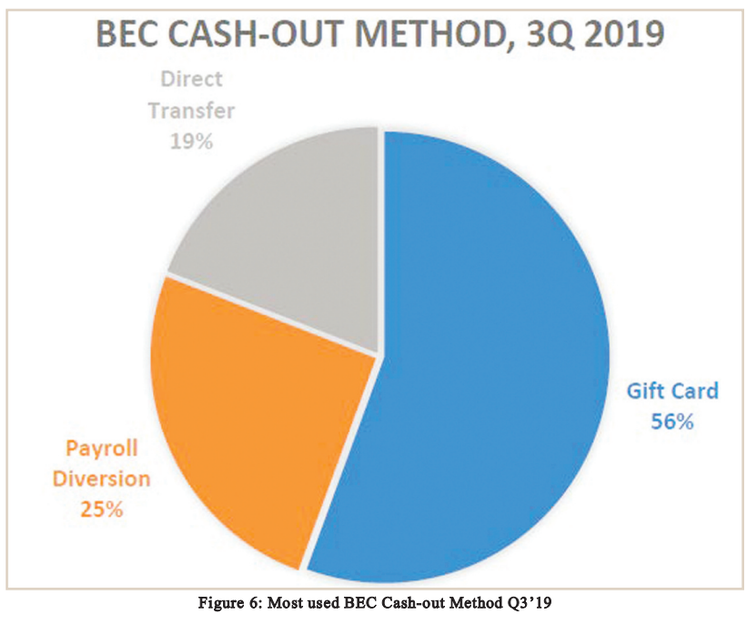

Figure 6: Most used BEC Cash-out Method Q3'19

in 2019, scammers demanded funding in form of gift cards from 56% in Q3, which was 65% in Q2. Around 25% of attacks sought a diversion of the payroll and 19% requested direct bank transactions.

Recent statistics indicate that Phishing attackers are focused on banks and financial institutions, social media and gaming sites.

Initially targeting general consumers, phishing attacks are now evolving into high-profile targets that seek to steal intellectual property, corporate secrets and information, such as national safety.

Phishing scams are sadly in constant development and it is difficult to identify each. It is therefore essential for organizations and governments to coordinate safety education programs in order to keep employees and the general public knowledgeable of the hazards of phishing attacks.

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Antarctica's most dangerous glacier is melting

Warm ocean water has been discovered underneath a massive glacier in West Antarctica, a troubling finding that could speed its melt in a region with the potential to eventually unleash more than 10 feet of sea-level rise, reports from news agencies.

The unprecedented research, part of a multimillion-dollar British and U.S. initiative to study the remote Thwaites Glacier, involved drilling through nearly 2,000 feet of ice to measure water temperatures in a narrow cavity where the glacier first connects with the ocean. This is one of the most difficult-to-reach locations on Earth.

At a region known as the "grounding line," where the ice transitions between resting on bedrock and floating on the ocean, scientists measured water temperatures of about 0 degrees Celsius (32 degrees Fahrenheit). That is more than 2 degrees warmer than the freezing point in that location, said David Holland, a New York University glaciologist. He performed the research with Keith Nicholls of the British Antarctic Survey.

"That is really, really bad," said Holland. "That's not a sustainable situation for that glacier."

Scientists already knew that Thwaites was losing massive amounts of ice — more than 600 billion tons over the past several decades, and most recently as much as 50 billion tons per year. And it was widely believed that this was occurring because a layer of relatively warmer ocean water, which circles Antarctica below the colder surface layer, had moved closer to shore and begun to eat away at the glaciers themselves, affecting West Antarctica in particular.

But that had not been directly confirmed because Thwaites is gigantic (larger than the state of Pennsylvania) and exceedingly difficult to reach.

"The biggest thing to say at the moment is, indeed, there is very warm water there, and clearly, it could not have been there forever, or the glacier could not be there," Holland said.

Thwaites is the most worrying glacier in Antarctica because of its size — it is unusually wide, presenting a 75-mile front of ice to the ocean, without any rocks or mountains to hem it in. This means very large volumes of ice could break off and flow uninhibited through this region into the sea.

Even worse, Thwaites gets deeper and thicker from its ocean-front region back into its interior in the heart of West Antarctica. This is known to be an unstable configuration for a glacier, because as the ocean continues to eat away at its base, the glacier becomes thicker, so more ice is exposed to the ocean. In turn, that ice flows outward faster. Scientists call this "marine ice sheet instability."

Researchers believe that as recently as some 100,000 years ago, West Antarctica was not a sheet of ice at all — but rather, an open ocean that later converted to glacier. The fear is that the melting now taking place could lead to a return to open ocean.

Granted, it would still take a very long time to melt all of that ice, but there's a fear that it could begin in a substantial way in our lifetimes, worsening sea level rise.

Because Thwaites is so vast, the measurements were confined to a region known as its eastern ice shelf, where a floating part of the glacier is 600 meters (nearly 2,000 feet thick) and underlain by just 40 meters (about 130 feet) of water.

Scientists drilled through the ice using a technique known as hot-water drilling, and then extended an instrumented cable to take measurements in the ocean cavity.

They also detected turbulent water in the area, suggesting that saltwater and freshwater are swirling together as the ice melts. This process may draw the warm water in toward the glacier and speed the losses.

"The key here is that they drilled very close to the grounding line," said Eric Rignot, a researcher with NASA and the University of California who also studies Thwaites closely and commented on the findings. "We do not know much about ocean-ice interaction in that narrow part of the cavity, yet this is the crucial part for ice dynamics, glacier stability, fast retreat."

"Is the water moving around and releasing heat to the ice efficiently, is it stagnant instead?" Rignot continued. "Our sense from remote sensing is that it is not stagnant but very actively melting ice. So having temperature measurements in that narrow part is essential."

Rignot said the water is probably even warmer in other regions of Thwaites, which could retreat even faster than the spot where the measurements were taken.

Nicholls of the British Antarctic Survey said in an email from Antarctica that the relatively warm water they discovered was actually "associated with low (for the area) melt rates because of the low currents." Still, he too affirmed the water was more than warm enough to melt ice.

Climate change is believed to be shifting winds around Antarctica, which in turn are connected to a warming of the tropics and shifting patterns of atmospheric circulation. The winds drive ocean currents, and the change has meant that the warm offshore layer, called circumpolar deep water, has been pushing in closer to shore, where it can melt ice.

Scientists say there is much more to learn about this process, but the most important fact is clear — warm water is causing Thwaites to melt and retreat.

"This is the first verification ever of warm water at a grounding zone on the Thwaites Glacier, arguably the most important one in West Antarctica," said Holland. "So the pieces fit."