LEADERSHIP FOR IT SECURITY & PRIVACY ACROSS HHS

HHS CYBERSECURITY PROGRAM

OFFICE OF INFORMATION SECURITY

COVID-19 Related Nation-State and Cyber Criminal Targeting of the Healthcare Sector

5/14/2020

Report #: 202005141030

Agenda

- Recent Activity
- Sophisticated Cyber Campaigns
- Disinformation
- Mitigation Techniques
- Questions

Slides Key:

Non-Technical: managerial, strategic and high-level (general audience)

Technical: Tactical / IOCs; requiring in-depth knowledge (sysadmins, IRT)

Recent Activity

Cybersecurity and Infrastructure Security Agency (CISA) Alert (AA20-099A) COVID-19 Exploited by Malicious Cyber Actors (April 8, 2020)

APT groups are using the COVID-19 pandemic as part of their cyber operations:

- Masquerade as trusted entities
- Use coronavirus-themed phishing messages or malicious applications
- Their goals and targets are consistent with long-standing priorities such as espionage and “hack-and-leak” operations.

Cybercriminals are using the pandemic for commercial gain, deploying a variety of ransomware and other malware.

Recent Activity Continued

CISA Alert (AA20-099A) APT Groups Target Healthcare and Essential Services (May 5, 2020)

APT actors are targeting organizations involved in national and international COVID-19 responses.

Targeting organizations in order to collect bulk:

- personal information
- intellectual property
- intelligence that aligns with national priorities

Actors view supply chains as a weak link that they can exploit to obtain access to better-protected targets.

Sophisticated Cyber Campaigns

Early February, Unknown Cyber Actors Target Companies' Logistics

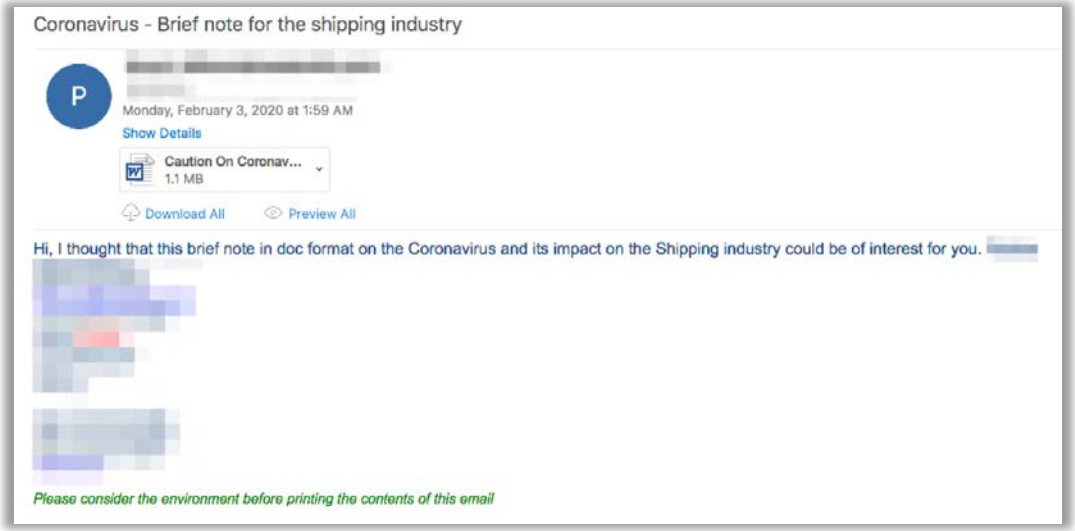
AZORult phishing campaign targeting Japanese-speakers originating from Russia or Eastern Europe.

The attackers were not an APT but, "clearly understand the economic concerns surrounding the Coronavirus."

The campaign exploited a two-and-a-half-year-old vulnerability and targeted industries "particularly susceptible to shipping disruptions".

Those industries in order of most targeted are:

1. Manufacturing
2. Industrial
3. Finance
4. Transportation
5. **Pharmaceutical**
6. Cosmetic Companies



Sophisticated Cyber Campaigns (cont.)

Mid-February Russian APT 28 (Fancy Bear) linked, Hades group Targets Ukraine

1. Emails containing malicious attachments appearing to be Coronavirus information from the Center for Public Health of the Ministry of Health of Ukraine to targets in Ukraine.
2. Mass Coronavirus-themed spam email campaign targeted Ukrainian citizens
3. Social media accounts spread “scaremongering” messages that the virus had reached the country.

In March, Russian Linked Cyber Criminals Target Biotech Firm

Evil Corp infected the U.S.-based biotech firm, 10x Genomics with the Sodinokibi aka REvil ransomware.

10x Genomics is “part of an international alliance sequencing cells from patients who’ve recovered from the Coronavirus, in an effort to fuel the discovery of potential treatments.”

Disinformation

Intent

- Create a lack of trust by U.S. citizens in their government
- Russian disinformation campaigns are used over the long-term to create a larger political impact
- “Russia’s intent is to sow discord and undermine US institutions and alliances from within, including through covert and coercive malign influence campaigns,”

Historical

- Blamed the United States Government (USG) for the creation of the AIDs, SARs, and Ebola epidemics
- Disinformation referenced as fact today
- Victim Beliefs:
  - Targeted by the USG because of their race
  - Used as “guinea pigs” for the USG’s furtherance of developing vaccines for the ailment they were infected with

Disinformation

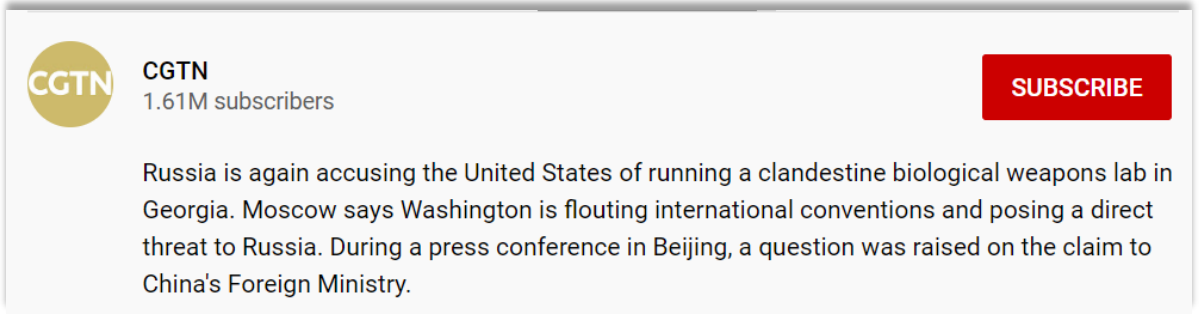
Current

- Effort to identify COVID19 disinformation
- Suspect news sources and legitimate Russian owned news running stories that place the blame for the Coronavirus on the USG
- Stories “amplified” in social media by Russian-based accounts reposting and commenting on the disinformation
- Russian COVID19 Message: Portraying “American officials as downplaying the health alarms and thus posing serious threats to public safety.”

Disinformation (cont.)

Operation INFEKTION

The opening salvo of the AIDS disinformation campaign was fired on 17 July 1983, when an obscure newspaper in India, the *Patriot*, printed an anonymous letter headlined "AIDS may invade India: Mystery disease caused by US experiments." The letter, allegedly written by a "well-known American scientist and anthropologist" in New York, claimed that "AIDS…is believed to be the result of the Pentagon's experiments to develop new and dangerous biological weapons." It went on to state that the United States was about to transfer these experiments to sites in Pakistan, where they would pose a grave threat to neighboring India.



Then **Now**

[Russian Social Media] Posts reportedly included claims that the virus was a bid to "wage economic war on China," that it was a bioweapon engineered by the CIA, and that it was fostered "to push anti-China messages."

Disinformation (cont.)

Chinese Propaganda News Amplifies U.S.

Conspiracy Theorist

GLOBAL TIMES

HOME CHINA SOURCE WORLD OPINION LIFE ARTS SCI-TECH ODD SPORT METRO

HOME >> CHINA

US urged to release health info of military athletes who came to Wuhan in October 2019

By Leng Shumei and Wan Lin Source:Global Times Published: 2020/3/25 0:48:40

US urged to release military athlete info

TruthLeaks - Investigative Journalist George Webb
@GeorgWebb

March 23rd, 2020. Origins of CoronaVirus - Metadata Says Ft. Detrick youtu.be/PIF8HBFWMyU via @YouTube

9:26 PM · Mar 23, 2020 · Twitter Web Client

124 Retweets **149** Likes

TruthLeaks - Investigative Journalist George Webb
@GeorgWebb

Replying to @abask_cat

Yes, I am trying to get to what killed people in the CoronaVirus-like deaths in the US for vaping deaths in Sept 2019. Ft Detrick also was closed for sloppy Bioweapon handling in Aug 2019. Maatje Benassi may have contracted Corona at Ft Belvoir Comm. Hospital where she works.

6:17 AM · Mar 28, 2020 · Twitter for iPhone

An American journalist claimed one US military athlete in the delegation could be patient zero of the deadly new disease.

George Webb, an investigative journalist in Washington, DC claimed in recent videos and tweets that he believes Maatje Benassi, an armed diplomatic driver and cyclist who was in Wuhan in October for the cycling competition in the Military World Games, could be patient zero of COVID-19 in Wuhan.

In a report by the US Department of Defense official website on October 25, Maatje Benassi has participated 50-mile cycling road race in Wuhan.

Mitigation Techniques

The following actions could mitigate the risk posed by APTs and cybercriminals:

1. An understanding of APT and associated cybercriminals tactics, techniques, and procedures (TTPs) to include, historical attacks and targeted vulnerabilities.
2. Keep systems updated with the most recent patches and prioritize patching for the most at risk systems based on the TTPs identified in bullet “1”.
3. Increase the identification and ingestion of APT and associated cybercriminal unit IOCs.
4. Have and practice an incident response plan.

General understanding of historical disinformation campaigns:

- Simplistic scapegoating
- Endless repetition
- Mixing of lies and half-truths with undeniable facts

AIDS may invade India

Mystery disease caused by US experiments

NEW YORK:

AIDS, the deadly mysterious disease which has caused havoc in the US, is believed to be the result of the Pentagon's experiments to develop new and dangerous biological weapons.

Now that these menacing experiments seem to have gone out of control, plans are being hatched to hastily transfer them from the US to other countries, primarily developing nations where governments are pliable to Washington's pressures and persuasion.

Some American experts believe that Pakistan may become the next proving ground for these experiments. If this happens, there will be a real danger that AIDS may rapidly spread to India with the grave consequences to the people of the country.

WHO representatives point out that AIDS may soon become problem number one, since so far there are no effective cures to fight it.

The British mass media has pointed to the blood plasm imported from the US as the cause of AIDS, which is spreading in the British Isles where more than 15 patients have been hospitalized, with half of them now dead.

As a result, France and Holland, which use large quantities of American blood donations, have stopped importing such blood. Britain, the Federal Republic of Germany and Denmark are now considering similar measures.

In recent months, there has been a marked increase in the incidence of this hitherto unknown disease, the so-called Acquired Immune Deficiency Syndrome (AIDS). It is caused, or so scientists suspect, by a new highly pathogenic virus which ravages the immune system of a human being, making him practically defenceless against any infection. Once the AIDS virus penetrates the human organism, it does not become the "killer" but rather acts like a time bomb. The immune system destroyed by it can no longer resist diseases even such as the virus flu. As a result, any [illegible]

A well-known American scientist and anthropologist, in a letter to Editor, Patriot, analyses the history and background of the deadly AIDS which started in the US and has now spread to Europe. The writer, who wants to remain anonymous, has expressed the fear that India may face a danger from this disease in the near future.

forms and in most cases leads to death.

AIDS has recently been registered inasmany as 16 countries, primarily in those which import American blood donations. For some of the countries the disease has already become extremely dangerous.

The first signs of AIDS appeared in 1978 with an outburst of this disease in New York among immigrants from Haiti. At that time, however, no one seemed to bother to pay any serious attention both on the part of the local authorities and the US public at large. In 1980 there was another sign of AIDS and again in New York. This time in addition to Haitian immigrants the disease struck local Americans, primarily drug addicts and homosexuals. By February 1983, AIDS had affected large sections of the American population and had been registered in 33 states. New York accounted for 49 per cent of all the cases that had been officially registered in the US by that time.

Concerned American citizens and organisations began to wonder why does AIDS, just like some other previously unknown diseases such as bizarre pneumonia or the so-called Legion-

continued on page 7 col. 2

PATRIOT * magazine

SUNDAY, JULY 17

Guerillas And Gorillas

Understanding the reasons why even after a century of political independence the Latin American countries have both their politics deformed and their economy distorted will help to have a better idea of the problems which any post-colonial society faces, writes M. P. Kavalam.

Ramdan In Dubai

Perhaps at no time of the year does Dubai come to the fore as a Muslim city than at Ramdan. For the Arabs, the months of fasting apart from being a deeply religious occasion assumes almost a festive air, writes Rashmi Taneja.

OTHER FEATURES : Public View, Nostalgia, Encounters, Thinking One-dimensionally, Short Story by Bandana Majumdar, Education, Mirros/Windows, Film-focus, Culture Watch, Sports...

Reference Materials

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Questions

Questions

Upcoming Briefs

- Web Shell Malware Threats and Mitigations
- Maze Ransomware

Product Evaluations

Recipients of this and other Healthcare Sector Cybersecurity Coordination Center (HC3) Threat Intelligence products are highly encouraged to provide feedback to **HC3@HHS.GOV**.

Requests for Information

Need information on a specific cybersecurity topic? Send your request for information (RFI) to **HC3@HHS.GOV** or call us Monday-Friday, between 9am-5pm (EST), at **(202) 691-2110.**

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HC3 works with private and public sector partners to improve cybersecurity throughout the Healthcare and Public Health (HPH) Sector

Products

Sector & Victim Notifications

Directed communications to victims or potential victims of compromises, vulnerable equipment or PII/PHI theft and general notifications to the HPH about currently impacting threats via the HHS OIG

White Papers

Document that provides in-depth information on a cybersecurity topic to increase comprehensive situational awareness and provide risk recommendations to a wide audience.

Threat Briefings & Webinar

Briefing document and presentation that provides actionable information on health sector cybersecurity threats and mitigations. Analysts present current cybersecurity topics, engage in discussions with participants on current threats, and highlight best practices and mitigation tactics.

Need information on a specific cybersecurity topic or want to join our listserv? Send your request for information (RFI) to HC3@HHS.GOV or call us Monday-Friday, between 9am-5pm (EST), at (202) 691-2110.

Contact

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