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Security Reimagined

Regional Advanced Cyber Threat Report
Europe, Middle East & Africa 1H2015

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Executive Summary

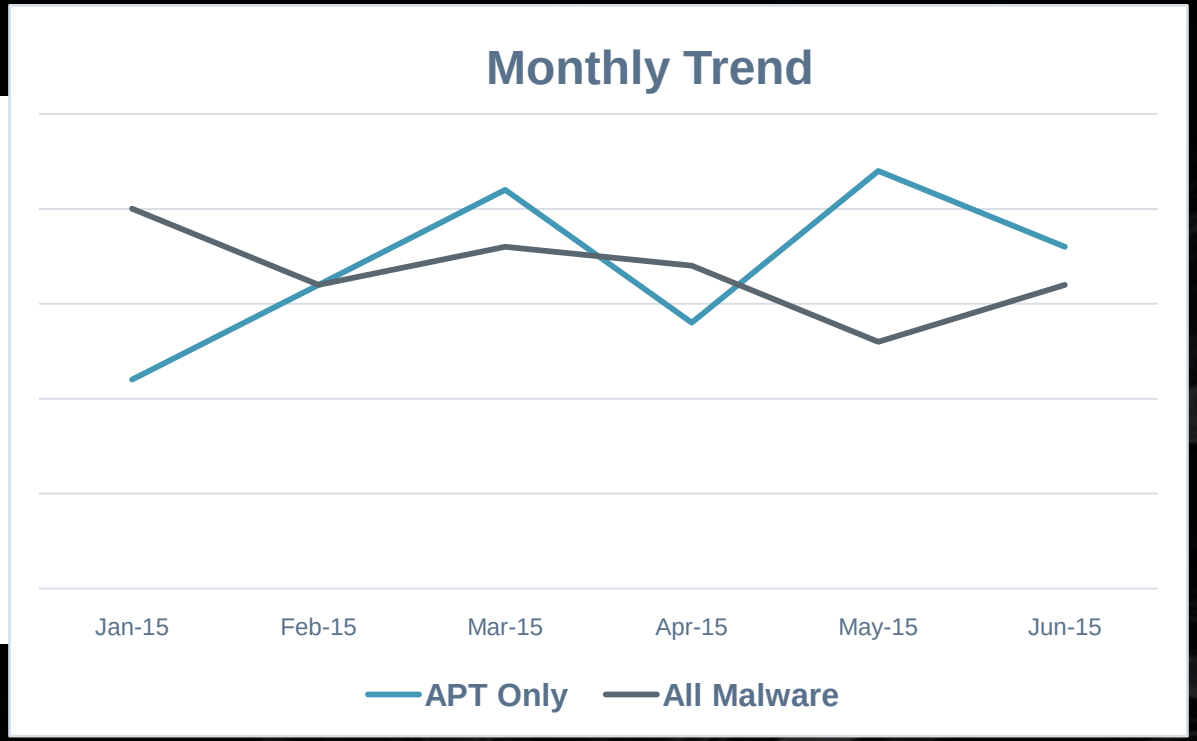
- FireEye Advanced Threat Report for Europe, Middle East & Africa overview of the APT targeting computer networks that were discovered by FireEye during half of 2015 (June 30th, 2015)

- Cyber threat actors are evolving rapidly the level of sophistication to
  - Steal Personal Data & business strategies
  - Gain competitive advantage
  - Degrade operational reliability

Executive Summary

- Report shows:
  - Blurring of the lines – Different cyber threat actors sharing tools, techniques and procedures that lead to numerous and updated indicators of compromise threats.
  - Israel, Saudi Arabia , Spain, UK & Germany are the most targeted countries
  - Energy, Oil & Gas, Government, Aerospace were the most targeted verticals.

Crimeware Trend



- The number of unique infections has been growing steadily in EMEA.
- The number of crimeware attacks has been steady month after month demonstrating the persistency of cyber criminal threat actors.

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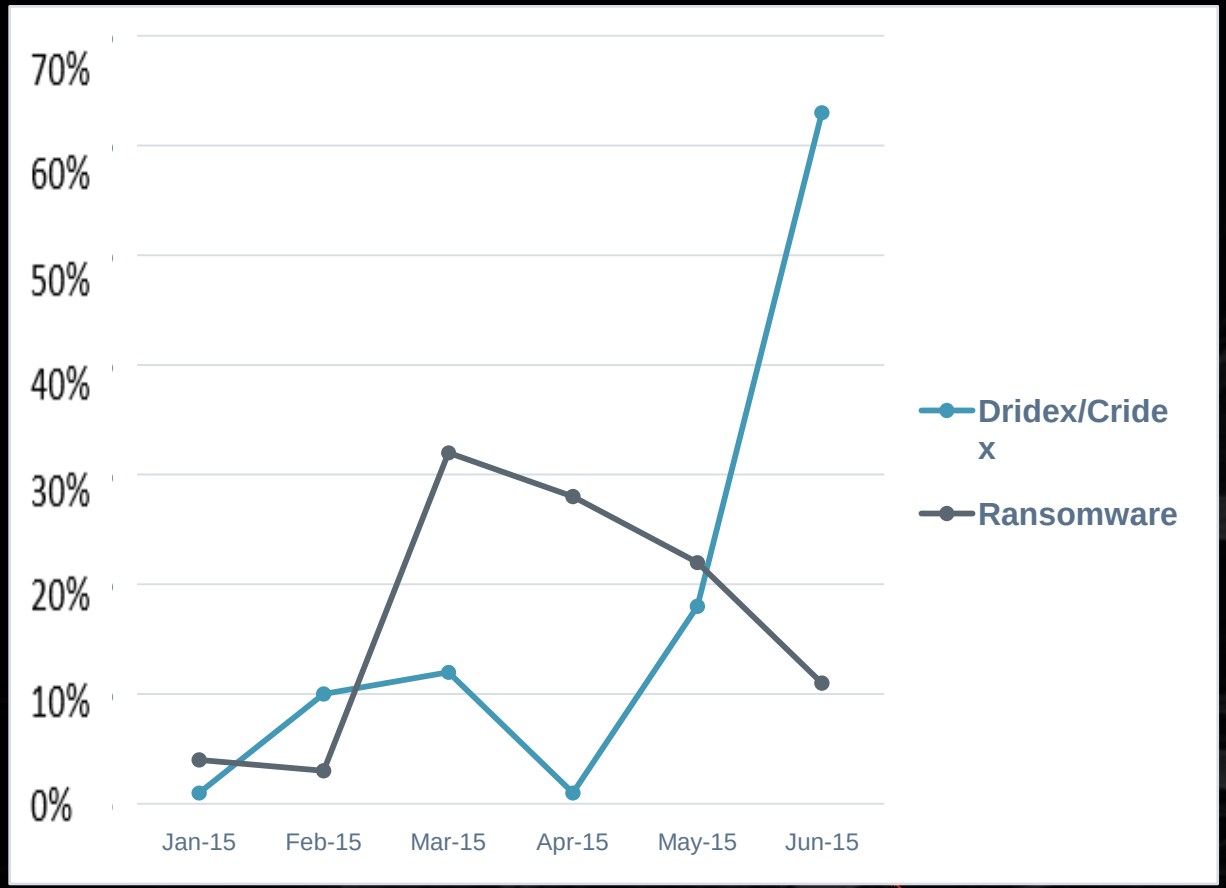
Crimeware Trend



- The graph show the trend of 2 popular crimeware campaigns:
  - Dridex/Cridex.
  - Ransomware
- Dridex/Cridex have considerably grown over time.
- Ransomware going down month after month.
- 60% of Dridex/Cridex unique infections in June 2015.
- Cybercriminals are adapting very rapidly to the new tools, techniques & procedures

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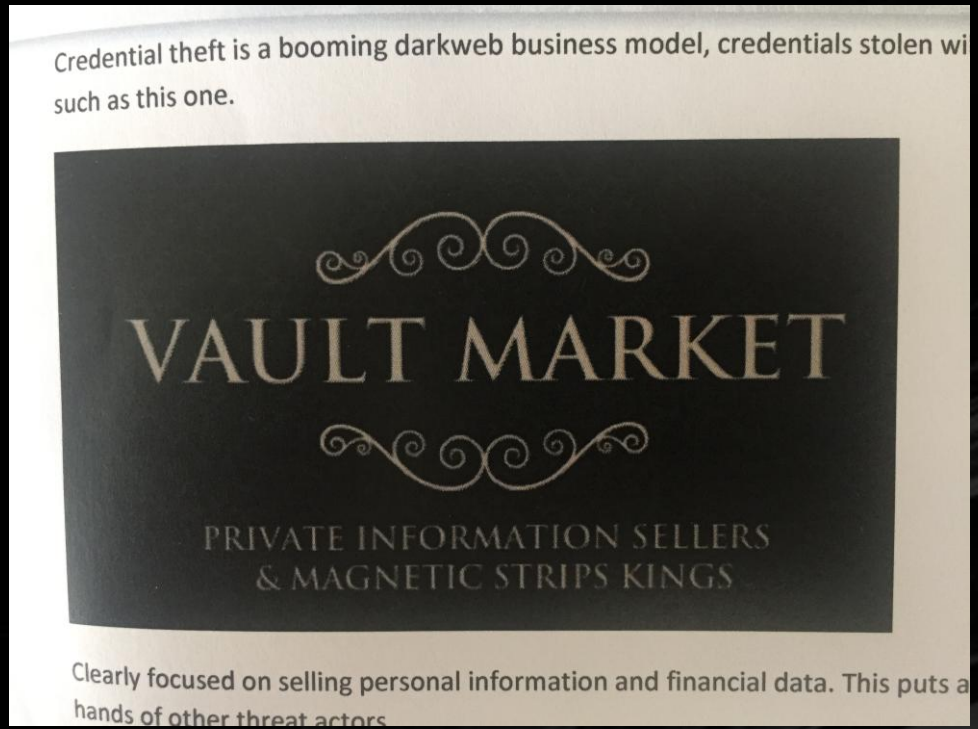
Top Crimeware Trend – Dridex/Cridex

- Dridex is the new variant of the malware previously known as Cridex/Emotet, Feodo or Bugat that are credential theft trojans.
- Mainly Targeting financial institutions websites but threat actors can configure to capture data from submission to webmail, social networks or file sharing sites.
- Malware distribution through spam emails containing a malicious XLS or DOC attachment.
- Macro in the attachment file that instructs the compromised system to download a malicious executable.
- Communication with the command and control (C2) servers.
- Invoke the use of macros utilizing social engineering methods (pop up boxes)

Top Crimeware Trend – Dridex/Cridex



- Credential theft is a booming business model. Credentials stolen will often end upon darkweb markets such as Vault Market.
- Vault Market is focused on selling personal information and financial data which put them in the hands of other cyber threat actors.

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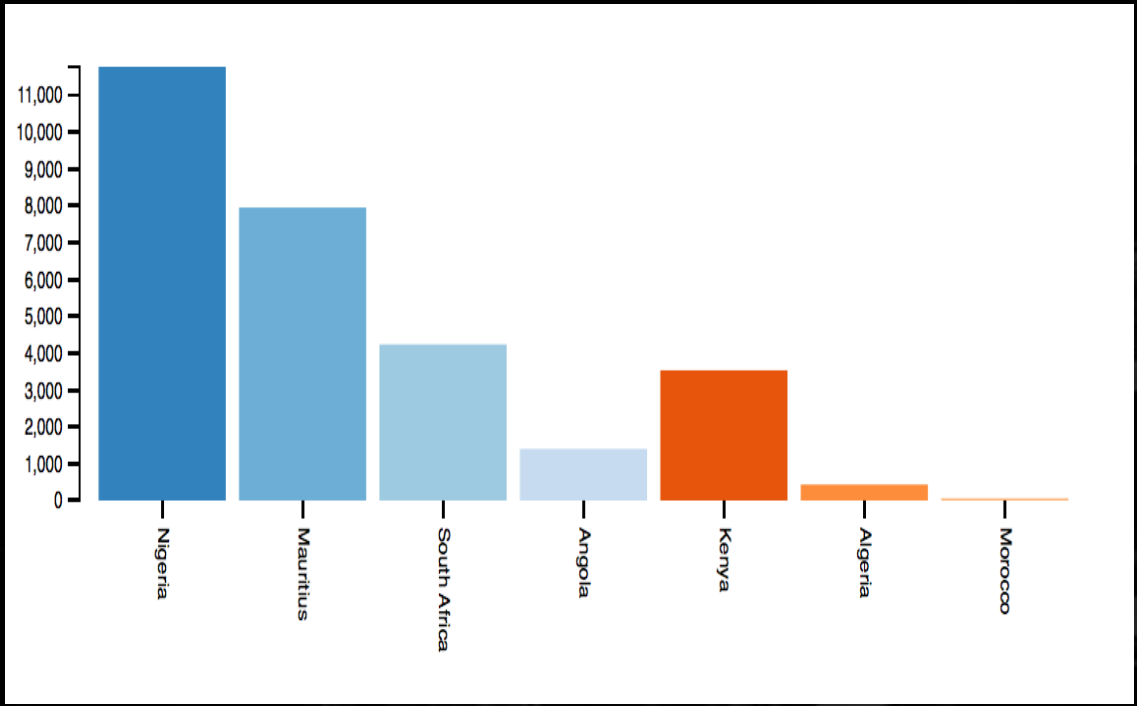
Country Analysis

The highest number of APT malware detected in EMEA 1H 2015:

- Israel (11%)
- Saudi Arabia (11%)
- Spain (10%)
- Germany (10%)
- United Kingdom (9%)
- Italy (9%)
- Denmark (6%)
- Turkey (6%)
- Norway (5%)
- Russia (5%)

Africa Report – Across 6 Countries



5107 Average no of confirmed Call Backs to CnC Servers across 30 customers

South African & Nigerian Financial Institutions under attack Mauritius Cyber risk at Government Level

Kenya more cyber aware yet System lack as mainly alert drive technologies deployed

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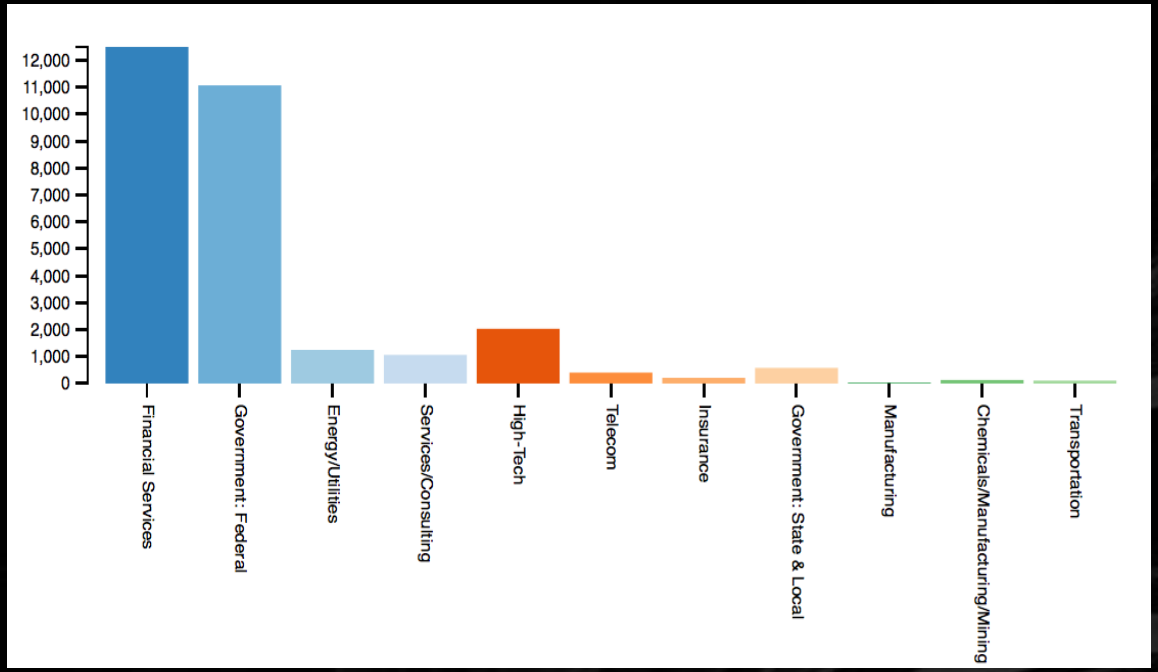
Africa Report – Across 30 Customers



- Financial Institutions & Government most targeted sector
- Threat tactics mapped to Russian & Chinese Threat Actors
- APT 28 Group active in Financial Sector
- Telco Industry data “light” as only 3 telco’s evaluated – evidence suggests this sector is highly targeted

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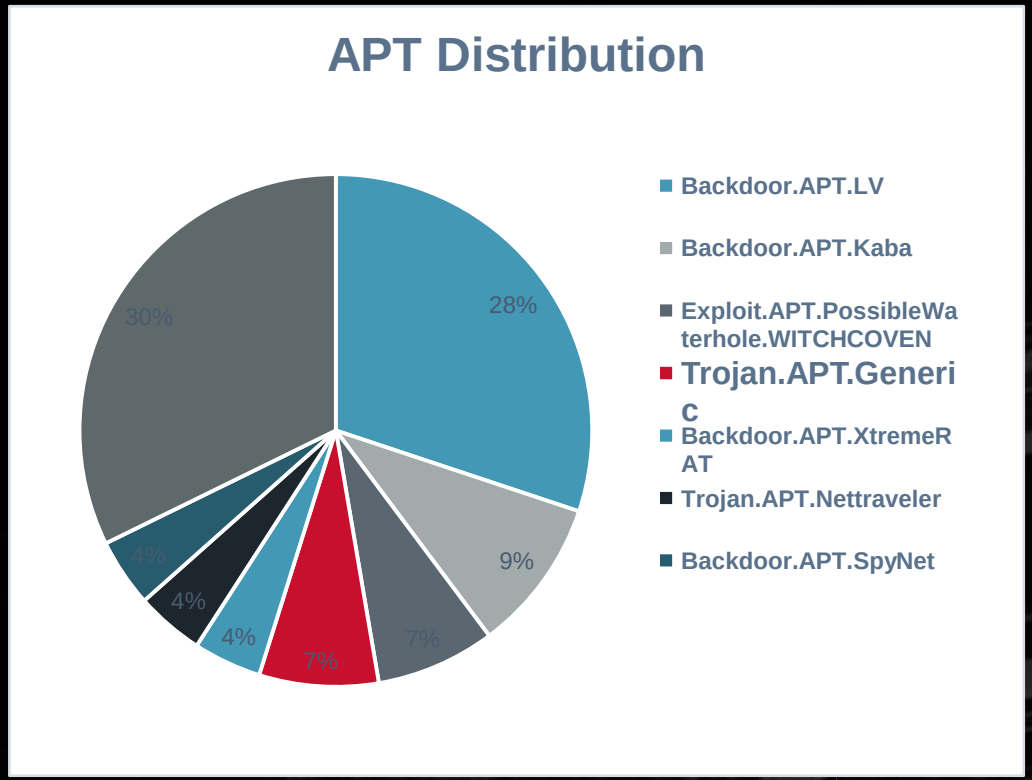
APT Malware Families



- Link specific malware use to cyber threat actors or threat types.
- Then you will aid in the attribution and more effective response strategy.
- APT.LV was the most voluminous tools used.

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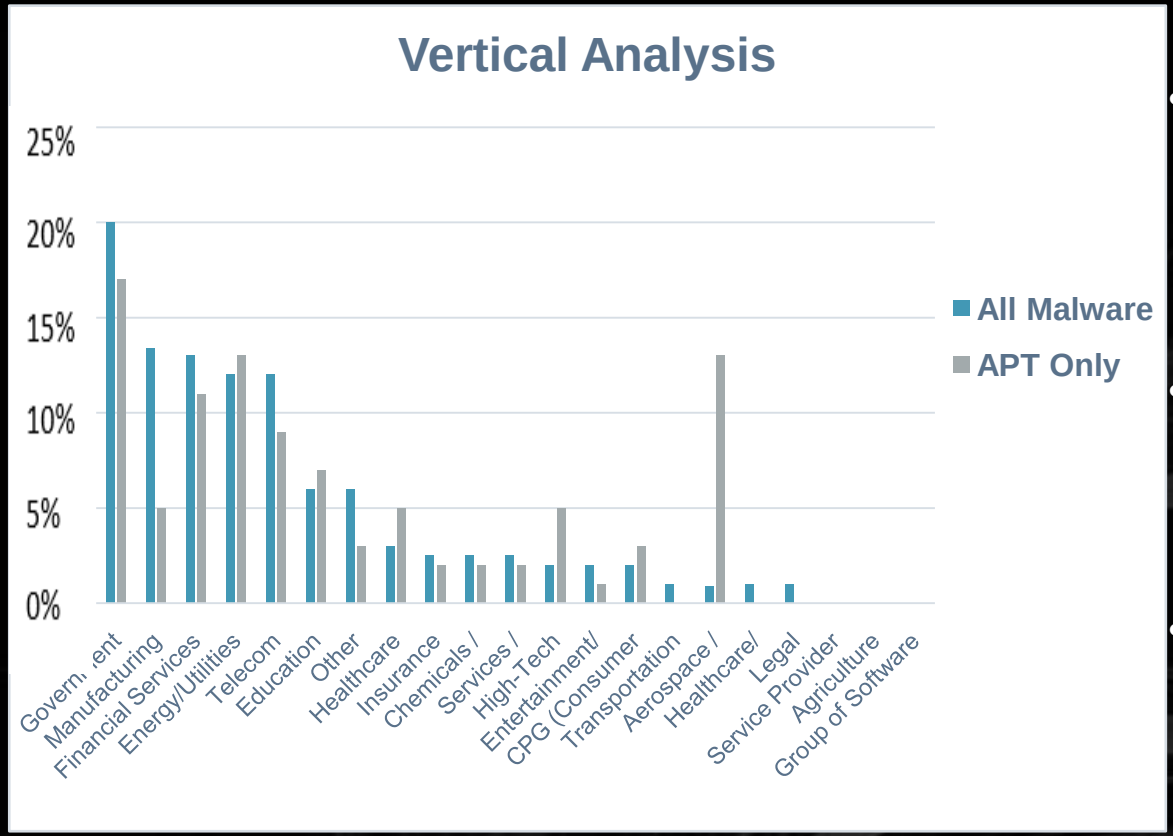
Vertical Analysis



- Energy/Utilities, Healthcare, High Tech, Consumer, & Aerospace and Defense have higher volumes of APT.
- Manufacturing vertical most impacted by crimeware malware as oppose to APT.
- Government, Aerospace & Defense, Financial Services and Telecom verticals represent >50% of total APT detection.

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Vertical Deep Analysis - Government

- Continue facing threats from financially motivated cyber threat actors looking for personal or sensitive data. (citizens data, revenue data, and other)
- Cyber espionage risks from state-sponsored cyber threat actors.
- Middle East with its political volatility and large oil and mineral reserves will employ cyberespionage capabilities to monitor their economic, political and military interest.
- Cyber threat actors are moving laterally for an initial compromise at a financial institution and gain access to the networks of other departments in the government.
- APT. Kaba is the most prevalent threat within the government sector:
  - Preferred tool for many Chinese inferred APT groups
  - AKA APT.plugX, Backdoor.APT.DestruRat, Trojan.APT.PlugX, Backdoor.APT.SOGU , FE_APT_Choiceguard_Kaba
  - Malware is capable of file upload and download
  - Implement custom protocol to provide C&C server with graphical access to the victim system

Vertical Deep Analysis - Government

- APT. Kaba is the most prevalent threat within the government sector:
  - Backdoor provides threat actors with SQL data base querying capabilities using HTTP POST request or custom binary requests.
  - Backdoor delivered through web compromise and phising emails.
  - This backdoor is currently actively used by Chinese based APT groups : APT9, APT10, APT17, APT20, APT22, APT26 & APT27.
- APT.RunBack
  - Targeting Turkish intelligence entities
  - Attribution has been leveled at a ME Country

Vertical Deep Analysis – Financial Services

- China based APT actors seeking to support economic reforms and reach state goals.
- Financial threat actors seeking financial gain through direct theft of funds. .
- Disruptive threat actors and hacktivists seeking publicity, divert bank's attention and demonstrate political motive.
- APT. LV is the most prevalent threat within the financial services sector:
  - Malware publicly available NjRAT capable of keystroke logging, credential harvesting, reverse shell access, file uploads and downloads and file and registry modifications.
  - Allow threat actors to create new variants based on configurations of C&C servers, specified filenames, options to spread via USB and othe customization options.
  - Middle Eastern and African threat actors are using this malware

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Vertical Deep Analysis – Aerospace/Defense

- Threat actors affiliated with nation state and motivated by military and economic interests.
- Steel intellectual property and proprietary information.
- Damage or disrupt the function of critical technologies and systems
- Used in a war scenarios that would likely deny the adversary the use of the affected military systems.
- APT. NS01 is the most prevalent threat within the Aerospace/Defense sector:
  - Proxy aware tool
  - Employ several evasion techniques
    - Specifies fake properties pretending to be Google or MSFT
    - It is 41MB is size and the cyber investigator will be discouraged from taking a closer look.

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Conclusion & Recommendations

- Assume your organization is a target and your security controls are compromised
- Establish a cyber risk framework with board level sponsorship.
- Establish an IR service in a SOC/CIRT team to detect and react to APT events quickly.
- Enhance your visibility with external cyber threat intelligence.
- Bring in the right technology that could identify APT.