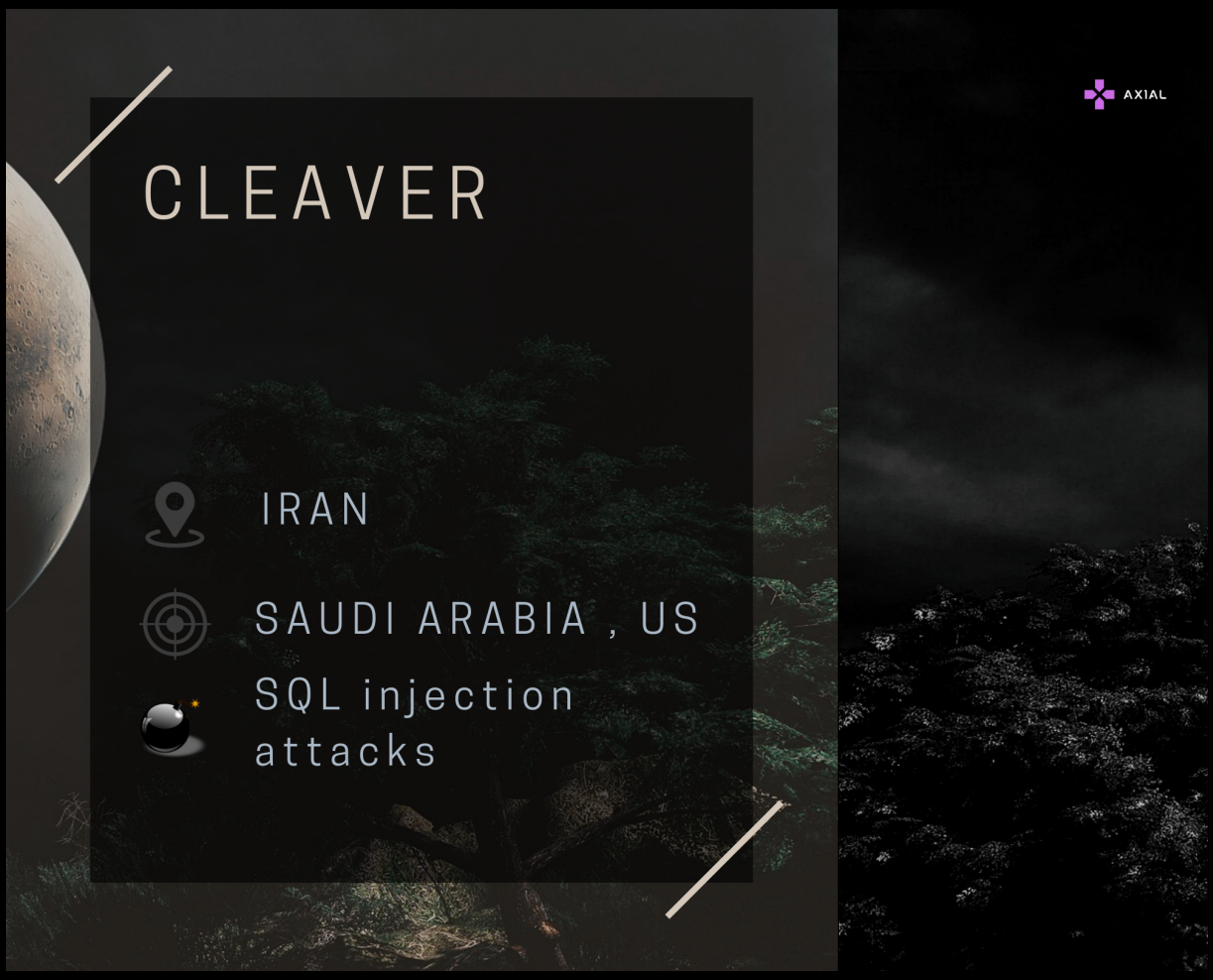
CLEAVER



HAWK BASE
HOME FOR APT RESEARCHERS

AXIAL

A SURVEY ON CLEAVER: ABOUT , WEAPON OF CHOICE , TECHNIQUES & ENGAGEMENTS

-NERDS OF AX1AL

I. INTRODUCTION

A group of cyber actors utilizing infrastructure located in Iran have been conducting computer network exploitation activity against public and private U.S. organizations, including Cleared Defense Contractors (CDCs), academic institutions, and energy sector companies. This threat actor targets entities in the government, energy, and technology sectors that are located in or do business with Saudi Arabia.

II. TARGETS

This threat actor targets governments and private sector entities for espionage and sabotage purposes. It is believed to be responsible for compromising U.S. Navy computers at the Navy Marine Corps Intranet in San Diego, the U.S. energy company Calpine Corporation, Saudi Aramco, Pemex, Qatar Airways, and Korean Air

III. METHODS USED

The threat actors behind the Operation Cleaver uses a mix of off-the-shelf SQL injection attacks and exploits for several Microsoft vulnerabilities, including MS08-067 was also used by hackers in the popular Red October campaign.The hacker adopted TTPs similar to the ones used by other APTs operating for foreign governments, including China and Russia. The Operation Cleaver crew also have customized tools in its arsenal that have been discovered by investigators. Customized tools allow data exfiltration, syphoning of victim's credentials, network sniffing, keylogging and backdooring of targets.

IV. CAMPAIGNS

- **2014** : Security firm Cylance released a detailed report on the hacking Operation Cleaver that was run by state-sponsored hackers linked to the Iran. The Iranian hackers targeted critical infrastructure worldwide, ten of which are located in the United States.

- Experts at Cylance are cautions regarding the motivation behind the attacks on SCADA systems networks, they propend for a retaliation for Stuxnet and other campaign that hit the country. The exfiltrated data could be used by hackers to run further attacks for sabotage.

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V. IOCS

MD5 Hashes

01606d42c64e4d15ea07d4e1fbd0c40d
0405adfc8739025ba88c746c8edebfb8
04fdf5b757764af8bc7ef88e0f8fe8c1
0512c5a8807e4fdeb662e61d81cd1645
0593352cadb2789c19c2660e02b2648b
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C2's and Domains

88.150.214.168
microsoftactiveservices(dot)com
95.211.241.249,
88.150.214.166173.192.144.68
188.227.180.213
192.111.145.197
50.23.164.161
64.120.128.154
64.120.208.74
64.120.208.75
64.120.208.76
64.120.208.78
64.120.208.154
66.96.252.198
78.109.194.114
doosanjob(dot)com
downloadsservers(dot)com
drivercenterupdate(dot)com
easyresumecreatorpro(dot)com
googleproductupdate(dot)com
googleproductupdate(dot)net
kundenpflege.menrad(dot)de
microsoftactiveservices(dot)com
microsoftmiddleast(dot)com
microsoftonlineupdates(dot)com

TTP's

INITIAL COMPROMISE
SQL Injection
The attackers would enable xp_cmdshell:
Then connect outbound via anonymous FTP:
Spear-Phishing Campaign
PRIVILEGE ESCALATION & PIVOTING
Cached Credential Dumping

VI. References / Sources

https://github.com/lukaszbb/apt-analysis/blob/master/reports_txt/2014/Cylance_Operation_Cleaver_Report.txt
https://securityaffairs.co/wordpress/30734/intelligence/operation-cleaver-iranian-hackers.html
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