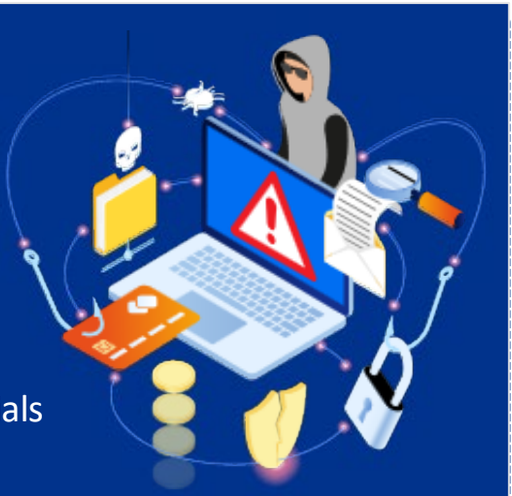
KPMG Cyber Threat Intelligence Platform

Cuttlefish Malware – Exploiting Routers and Sniffing Cloud Credentials



Cuttlefish, a sophisticated packet-sniffing malware, targets small office/home office (SOHO) routers. Active since at least July 27, 2023, with a possible earlier start, it employs a stealthy zero-click method to stealthily capture data from users and devices. Cuttlefish primarily focus their attacks on Turkey, with a limited number of victims extending to satellite phone providers and data center services in the USA.

While the initial access vector infecting routers remains unclear, it likely involves exploiting vulnerabilities or brute-forcing credentials. After gaining access to a router, a bash script collects host data (directory listings, running processes, active connections, mounts) and uploads it to an actor-controlled domain. The script downloads and executes the Cuttlefish payload (".timezone"), loading it into the tmp directory and deleting the uploaded file. Upon execution, a packet filter detects specific data and performs actions based on rulesets from the attacker's C2 server. HTTP and DNS hijackingis used for private IP connections, remaining dormant until activated by predefined rules. Its packet sniffer captures authentication data, focusing on public cloud-based services. The payload establishes a secure RSA-encrypted connection to the C2 for rule updates, configuring parameters, managing heartbeats, and monitoring network traffic. After intercepting traffic, the threat actor creates a VPN or proxy tunnel to the compromised router to weaponize stolen tokens and access cloud data, gaining a foothold in the cloud ecosystem. Once a log file of filtered traffic reaches a specified size, Cuttlefish exfiltrates it to the C2 server using a peer-to-peer VPN (n2n) or proxy tunnel (socks_proxy).

Cuttlefish's targeting of cloud-based authentication material ensures long-term persistent access to compromised systems, highlighting the urgent need for effective mitigation strategies.

What should you do?

- Monitor Indicators of Compromise (IoCs) in your environment to identify anomalies.
- Ensure your Windows environment is patched to the brim and is protected with multi-factor authentication.
- Conduct a comprehensive, full spectrum, threat assessment exercise to uncover blind spots and improvement areas.

The KPMG Cyber Threat Intelligence Platform is an industry defining, research-based capability for enhanced visibility into cyber threats.

Our machine ingestible feeds and analysis are the result of automated, sensor-based intelligence metrics with dedicated, expert insights of each threat to provide you the appropriate context on a timely basis in industry standard formats such as STIX/TAXII/MISP.

These feeds are additionally co-related with our industry partners and independent research for additional context. The intelligence obtained is then curated from strategic, tactical and operational perspective to give you a wide-ranging view of cyber threats.

We also assist you with our renowned cyber incident response and threat hunting services in case you identify an active threat in your environment.

We offer a wide-range of services, including:
Strategic threat intelligence report
Machine ingestible threat intelligence feeds
Threat intelligence driven pre-emptive threat hunting exercise
Cyber Incident Response Services

Contact us:

KPMG in India Cyber Response Hotline : +91 9176 471 471

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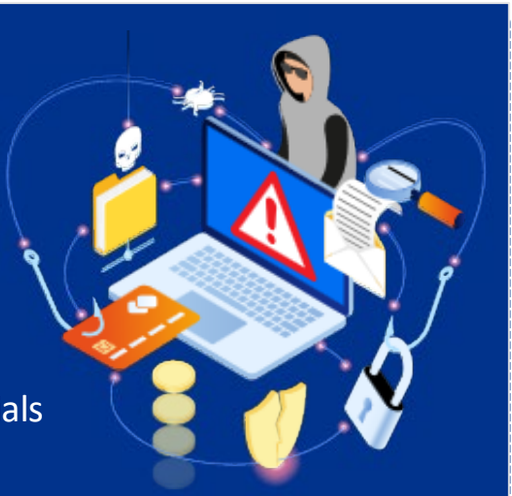

Indicators of Compromise: IP Addresses	
198.98.56[.]93	107.189.28[.]251
209.141.49[.]178	205.185.122[.]121

Indicators of Compromise: **Domains**
kkthreas[.]com

Indicators of Compromise: Hashes
2abe840c10755c2571bddf2abea537f2
b2ca9e24000c6b5846ffecd70083a850
c123c4426418dd329d6f306582ac9dd5
9b7a35a728924ca782e77a68d281c777
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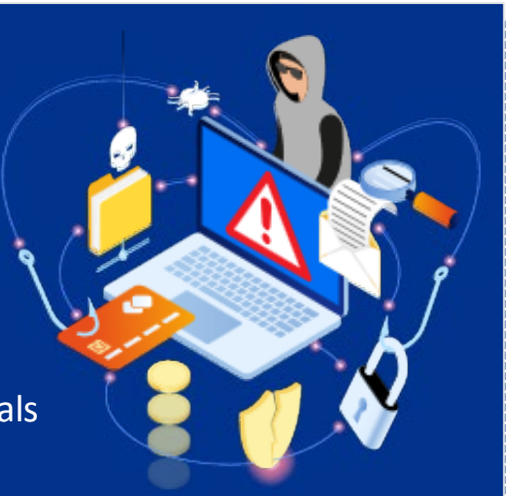

Indicators of Compromise: Hashes
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