

# SneakyChef espionage group targets government agencies with SugarGh0st and more infection techniques

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- Cisco Talos recently discovered an ongoing campaign from SneakyChef, a newly discovered threat actor using SugarGh0st malware, as early as August 2023.
- In the newly discovered campaign, we observed a wider scope of targets spread across countries in EMEA and Asia, compared with [previous observations](#) that mainly targeted South Korea and Uzbekistan.
- SneakyChef uses lures that are scanned documents of government agencies, most of which are related to various countries' Ministries of Foreign Affairs or embassies.
- Beside the two infection chains disclosed by Talos in November, we discovered an additional infection chain using SFX RAR files to deliver SugarGh0st.
- The language used in the SFX sample in this campaign reinforces our previous assertion that the actor is Chinese speaking.

*Cisco Talos would like to thank the Yahoo! Paranoids Advanced Cyber Threats Team for their collaboration in this investigation.*

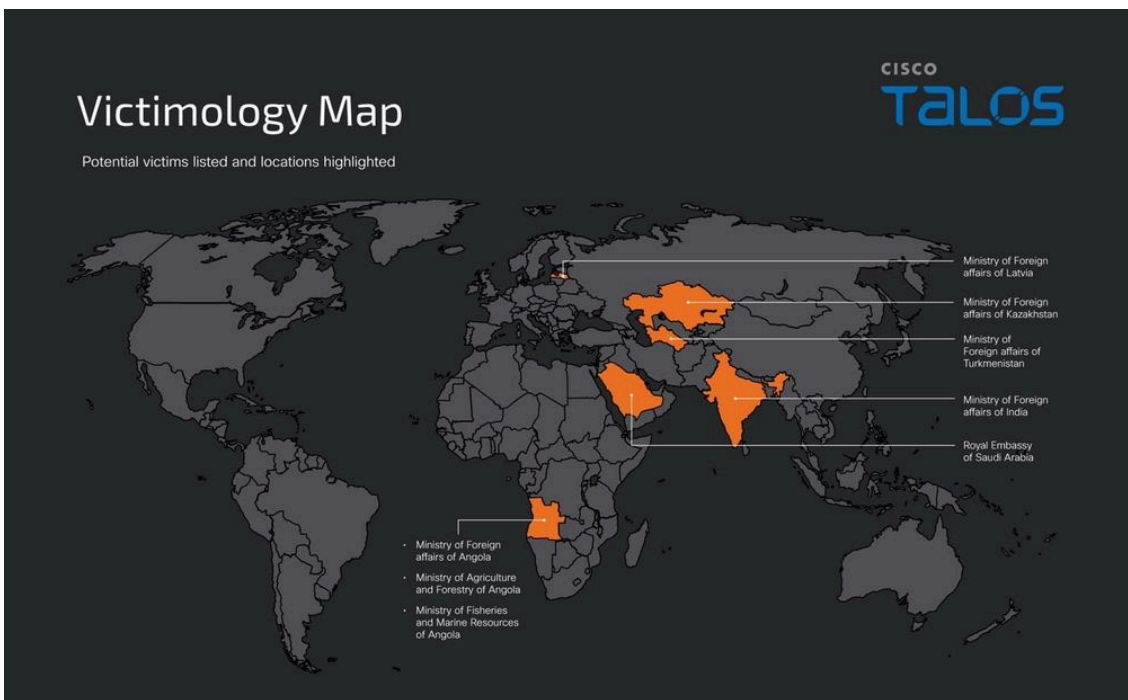
## SneakyChef actor profile

In early August 2023, Talos discovered a campaign using the [SugarGh0st](#) RAT to target users in Uzbekistan and South Korea. We continued to observe new activities using the same malware to target users in a wider geographical location. Therefore, we created an actor profile for the group and dubbed them “SneakyChef.”

Talos assesses with medium confidence that SneakyChef operators are likely Chinese-speaking based on their language preferences, the usage of the variants of Gh0st RAT — a popular malware among various Chinese-speaking actors — and the specific targets, which includes the Ministry of Foreign affairs of various countries and other government entities. Talos also discovered another RAT dubbed “SpiceRAT” used in the campaign. Read the corresponding research [here](#).

ACTOR PROFILE	
<b>SneakyChef</b>	
<b>Aliases</b>	Unknown
<b>Affiliations</b>	Chinese-Speaking actor
<b>Active since</b>	2023
<b>Goals</b>	Espionage and data theft
<b>Victimology</b>	Government entities and private sectors in EMEA and Asia
<b>Notable TTPs</b>	Spear-Phishing campaign, DLL Side-Loading, custom c2 communication protocol, abusing the legitimate applications
<b>Malware &amp; tooling</b>	SugarGh0st, SpiceRAT and plugin

## Targets across EMEA and Asia



Talos assess with low confidence that the following government agencies are the potential targets in this campaign based on the contents of the decoy documents:

- Ministry of Foreign affairs of Angola
- Ministry of Fisheries and Marine Resources of Angola
- Ministry of Agriculture and Forestry of Angola
- Ministry of Foreign affairs of Turkmenistan
- Ministry of Foreign affairs of Kazakhstan
- Ministry of Foreign affairs of India
- Embassy of the Kingdom of Saudi Arabia in Abu Dhabi

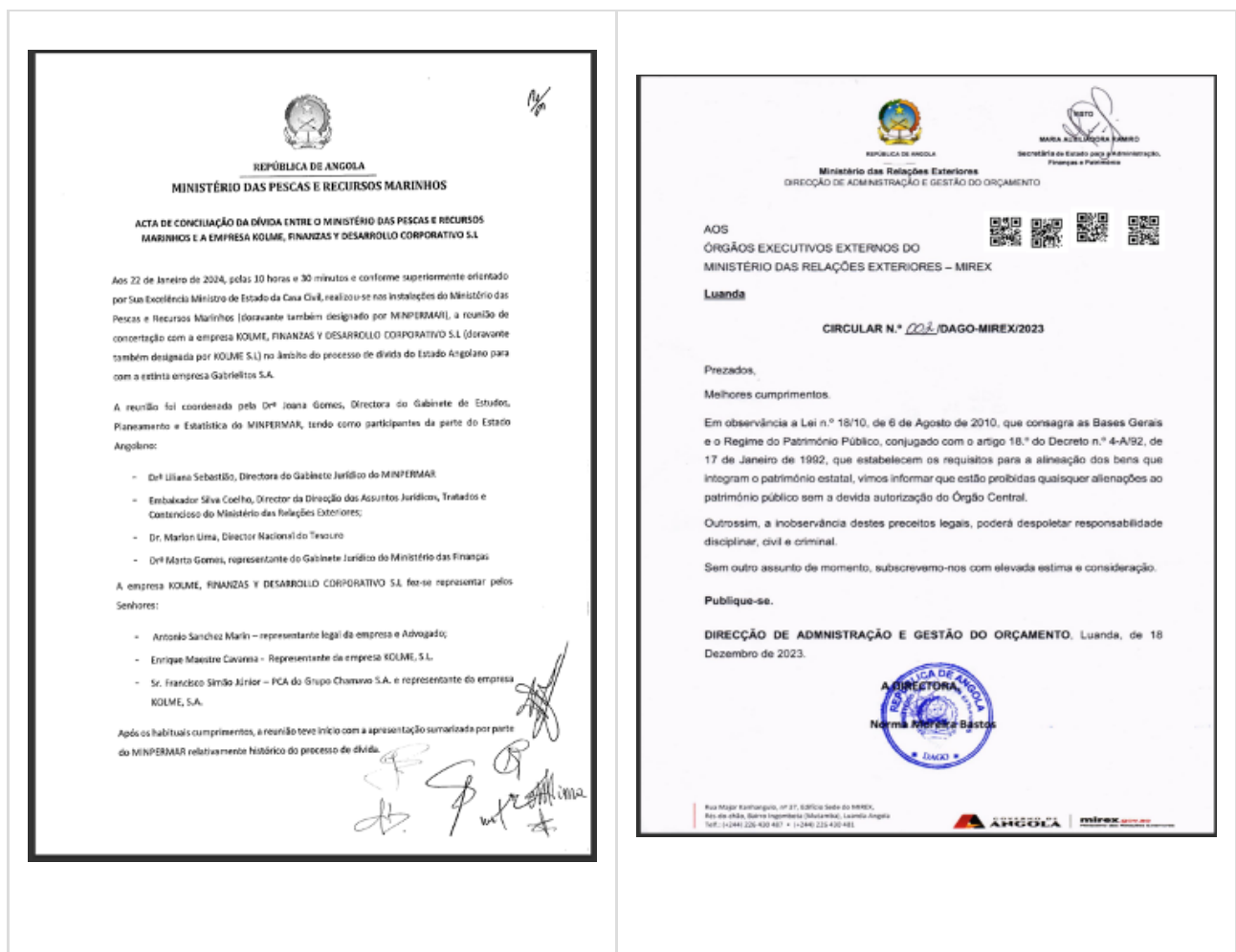
- Ministry of Foreign affairs of Latvia

Most of the decoy documents we found in this campaign are scanned documents of government agencies, which do not appear to be available on the internet. During our research, we observed and analyzed various decoy documents with government-and research conference-themed lures in this campaign. We are sharing a few samples of the decoy documents accordingly.

## Lures targeting Southern African countries

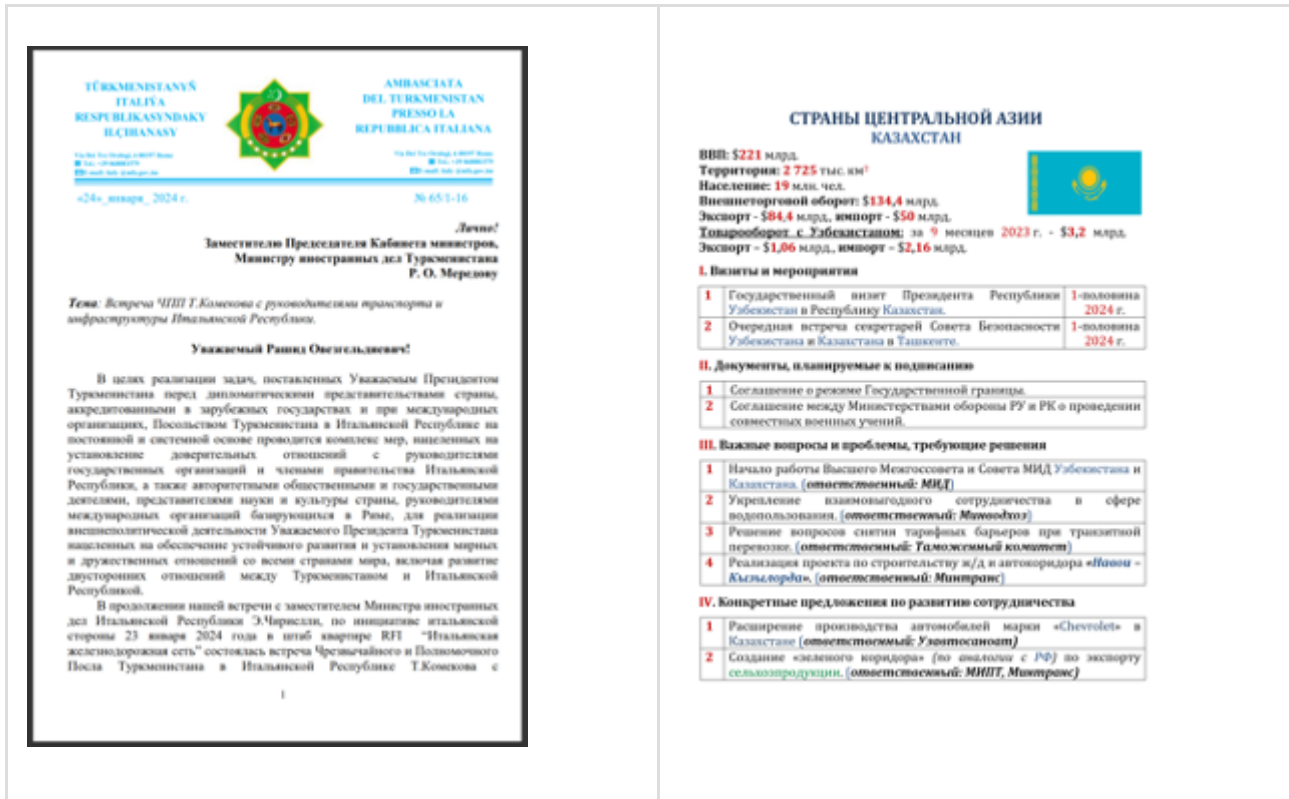
The threat actor has used decoy documents impersonating the Ministry of Foreign affairs of Angola. The lure content in one of the sample documents appeared to be a circular from the Angolan Ministry of Fisheries and Marine Resources about a debt conciliation meeting between the ministry authority and a financial advisory company.

Another document contained information about a legal decree concerning state or public assets and their disposal. This document appealed to anyone interested in legal affairs and public heritage regimes and was addressed to the Ministry of Foreign Affairs – MIREX, a centralized institution in Luanda.



## Lures targeting Central Asian countries

The decoy documents used in the attacks likely targeting countries in Central Asia were either impersonating the Ministry of Foreign affairs of Turkmenistan or Kazakhstan. One of the lures is related to a meeting organized with the Turkmenistan embassy in Argentina and the heads of transportation and infrastructure of the Italian Republic. Another document was a report of planned events and the government-issued list of priorities to be addressed in the year 2024 that includes a formal proclamation-signing event between the Ministry of Defense of Uzbekistan and the Ministry of Defense of Kazakhstan.



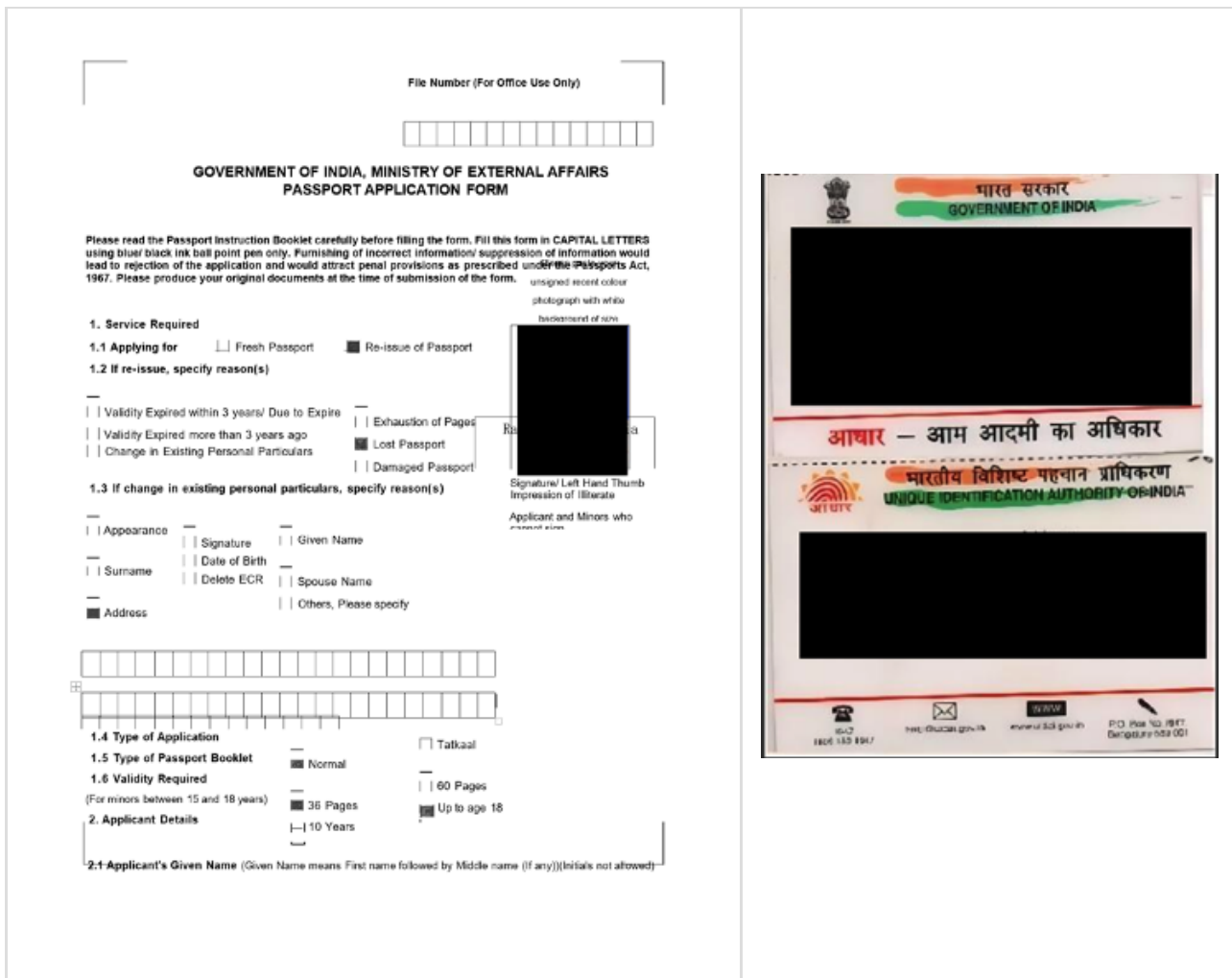
## Lures targeting Middle Eastern countries

A decoy document we observed in the attack likely targeting Middle Eastern countries was an official circular regarding the declaration of an official holiday for the Founding Day of the Kingdom of Saudi Arabia.



## Lures targeting Southern Asian countries

We found another sample that was likely used to target the Indian Ministry of Foreign Affairs. It has decoy documents, including an Indian passport application form, along with a copy of an Aadhar card, a document that serves as proof of identity in India.



One of the decoy Word documents we observed contained lures related to India-U.S. relations, including a list of events involving interactions between India’s prime minister and the U.S. president.

### **India-US Bilateral Relations – A Brief**

India and United States enjoy a comprehensive global strategic partnership covering almost all areas of human endeavor, driven by shared democratic values, convergence of interests on a range of issues, and vibrant people-to-people contacts.

#### **High-Level Exchanges**

2. Regular dialogue between the Leaders is an important element of the expanding bilateral ties. The outcomes of these visits have been instrumental in strengthening the multifaceted bilateral ties.

3. There is regular high-level interaction between Prime Minister Shri Narendra Modi and President Biden with regular meetings. Prime Minister also participated in virtual Summits convened by President Biden including Quad, I2U2 (India, Israel, USA and UAE), Summit for Democracy and other events.

#### **4. PM's interactions with President Biden:**

- G7 and Quad Leaders Summit, 20 May 2023 in Hiroshima, Japan
- Telephonic conversation on 14 February 2023
- Virtual Summit for Democracy on 29 March 2023
- Sidelines of G20 Summit in Bali on 15 November 2022
- G7 Summit in Germany on 27 June 2022.
- Quad Leaders' Summit in Tokyo, Japan on 24 May 2022 including a bilateral meeting.

5. PM Modi made his first State Visit to the US from 21-23 June 2023 at the invitation of President Biden. In addition to a bilateral meeting with President Biden, he addressed a Joint Meeting of US' Congress and interacted with business and thought leaders. PM Modi had visited the US in September 2021 for the first in-person Quad Leaders' Summit on 24 September 2021.

6. President Biden visited New Delhi from 7-10 September 2023 to attend G-20 Leaders' Summit. President Biden and PM Modi had a bilateral meeting on 8 September 2023. The two Leaders also co-hosted a group of G20 leaders on 9 September 2023 to accelerate investments in high-quality infrastructure projects and development of economic corridors through the India Middle East Europe Economic Connectivity Corridor and the Partnership for Global Infrastructure and Investment (PGI).

## **Lures targeting European countries**

A decoy document found in a sample likely targeting the Ministry of Foreign Affairs of Latvia was a circular impersonating the Embassy of Lithuania. It contained a lure document regarding an announcement of an ambassador's absence and their replacement.



No. (50.4.1.) SN90 - 21

The Embassy of the Republic of Lithuania to the Republic of Latvia presents its compliments to the Ministry of Foreign Affairs of the Republic of Latvia and Diplomatic Missions in Riga and has the honour to inform that H.E. Mr Valdas Lastauskas, Ambassador of the Republic of Lithuania to the Republic of Latvia, will be absent from the Republic of Latvia from February 25 till February 27, 2024.

During his absence Mr Vilijus Arlauskas, Third Secretary, will be acting as Chargé d' Affaires a.i.

The Embassy avails itself of this opportunity to renew to the Ministry of Foreign Affairs of the Republic of Latvia and Diplomatic Missions in Riga the assurances of its highest consideration.

Riga, 22 February, 2024.



To the Ministry of Foreign Affairs  
of the Republic of Latvia  
RIGA

c/c: Diplomatic Missions  
in RIGA

## Other targets

Along with the government-themed decoy document samples we analyzed, we observed a few other samples from these campaigns. These included decoys such as an application form to register for a conference run by the [Universal Research Cluster \(URC\)](#) and a research paper abstract of the ICCSE international conference. We also saw a few other decoys related to other conference invitations and details, including those for the Political Science and International Relations conference.



**UNIVERSAL RESEARCH CLUSTER**  
URC LISTNER REGISTRATION FORM

E-mail: info@universalconference.com  
Website: Universalconference.com

Payment of a registration fee covers the use of several all conference activities, e.g. free meals, conference reception and transport, and all London during the conference. An additional, such as registration and transport is required for the conference proceedings with URC. Please note that registration fee does not cover transportation to the accommodation for each conference location.

All questions and inquiries concerning registration and payment should be addressed to: [info@universalconference.com](mailto:info@universalconference.com)

Event Name	
Name of Host of the Event	
Date of Event	
University/Research Cluster (Below Size: 4)	

Full Name (Print, Mr, Ms, Mrs, etc.)		Highed Qualification
Address (Designation)		Nationality
Mailing Address		Age
City, Zip, Country		Passport Number
Mobile phone number (Country Number)		Email ID
Purpose to Attend the Conference		
Year/Stage of Research/Work		

PAYMENT INFORMATION				
Total Amount (USD)	Bank Name	Reference	Date	Ref. No.
	For online transfer	Bank ID/Transaction ID		

**Note: It is mandatory to provide a true copy of ID Proof/Passport along with the Registration form**

**ADDITIONAL INFORMATION**

- ☐ Will you present physical at the event? \_\_\_\_\_ [Y/N]
- ☐ No. of Persons accompanying you to the event? \_\_\_\_\_
- ☐ Will your Golds/IDs/Principal attending will attend the Event? \_\_\_\_\_ [Y/N]
- ☐ Total years of Experience (If any Academic and Industry) \_\_\_\_\_

Photo Here  
(the photo should be your Present)  
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**Declaration & Undertaking**

1. I/We acknowledge the benefits of the use of information distributed within or outside of the Institution, Firm, Office and during the use of the event, in any capacity during the event.

2. UNIVERSAL RESEARCH CLUSTER will not be responsible for any loss or damage to the data and device of the Event at any time.

3. The use of any information or materials distributed within or outside of the event, in any capacity, will be the responsibility of the user. UNIVERSAL RESEARCH CLUSTER will be responsible for any kind of financial loss due to data loss or corruption or any other hardware data loss or any system.

4. The User hereby declares that all the information given to him/her is true and if at any time it is found to be wrong or registration is found to be incorrect, UNIVERSAL RESEARCH CLUSTER will not be responsible for any loss or damage to the data and device of the Event at any time.

5. The Universal Research Cluster will not be responsible for any loss or damage to the data and device of the Event at any time.

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7. The Universal Research Cluster will not be responsible for any loss or damage to the data and device of the Event at any time.

8. I/We hereby undertake the procedure for profession, registration and attending the event. I have read all the rules and regulations at <http://universalconference.com> and I have declared that I have read and agree to the terms and conditions of the event.

## STUDY ON AUTOMOTIVE ENGINES AND DIESEL EQUIPMENT ALLOY FATIGUE OF PLASMA BEHAVIOUR YTTRIA-ZIRCONIA THERMAL SPRAYED

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**Abstract:** These instructions give you guidelines for preparing papers for the International Conference ICCSE. Use this document as a template if you are using Microsoft Office Word 4.0 or later. Otherwise, use this document as an instruction set. The electronic file of your paper will be formatted further at International Journal of Computer Theory and Engineering. Define all symbols used in the abstract. Do not cite references in the abstract. Do not delete the blank line immediately above the abstract; it sets the footnote at the bottom of this column.

**Keywords:** Aluminium Alloy, Plasma Spray, Thermal Barrier Coatings, Thermal Fatigue, Yttria Zirconia

### 1. INTRODUCTION

Compressive loads and more frequent thermal shock than their aircraft counterparts. In addition, many of these TBCs must cope with the contaminants found in lower-grade fuels. The difference between aircraft TBCs and diesel TBCs are often ignored by coating applicators. Thermal barrier coatings can be applied on gas turbines, automotive engines and diesel equipment. The use of TBC on diesel components such as valves, pistons and fire decks insulates the metal substrates from high-temperature oxidation and corrosive environments. As a thermal barrier, it reduces metal temperatures surface are to reduce the heat flux into the piston, to protect the piston from thermal stresses, oxidative attack due to fuel contaminants and reducing emissions. There are several applications of TBC in SI engines, showing improved performance and emissions. In SI engines, the top surface near the crevice is especially chosen as the place of TBC deposition. Choosing this area also enables to decrease the risk of knocking. The coating thickness has an TBC on diesel components such as valves, pistons and fire decks insulates the metal substrates from high-temperature oxidation and corrosive environments. As a thermal barrier, it reduces metal temperatures (Scientist G), Head of Mechanical Behaviour Group Defence Metallurgical Research Group Labia in a direction parallel to the ceramic-bond coat interface (horizontal cracks), which leads to coating delamination. The other typical TBC failure occurs by spalling of the ceramic top coat from the bond coat. Among the various causes of failure of TBC, oxidation and thermal mismatch are identified as two major factors affecting the life of the coating system. It is observed that the coating surface temperature increase with increasing the thickness in a decreasing rate. As for bond coat surface, increasing coating thickness, the normal stress decreases steadily and the maximum shear stress rises in a decreasing rate. Although diesel TBCs operate at lower temperatures than aircraft engines, they are subjected to much greater compressive loads and more frequent thermal shock than their aircraft counterparts. In addition, many of these TBCs must cope with the contaminants found in lower-grade fuels. The difference between aircraft TBCs and diesel TBCs are often ignored by coating applicators. Thermal barrier coatings can be applied on gas turbines, automotive engines and diesel equipment. The use of TBC on diesel components such as valves, pistons and fire decks insulates compressive loads and more frequent thermal shock than their aircraft counterparts. In addition, many of these TBCs must cope with the contaminants found in lower-grade fuels. The difference between aircraft TBCs and diesel TBCs are often ignored by coating applicators. Thermal barrier coatings can be applied on gas turbines, automotive engines and diesel equipment. The use of TBC on diesel components such as valves, pistons and fire decks insulates compressive loads and more frequent thermal shock than their aircraft counterparts. In addition, many of these TBCs must cope with the contaminants found in lower-grade fuels. The difference between aircraft TBCs and diesel TBCs are often ignored by coating applicators. Thermal barrier coatings can be applied on gas turbines, automotive engines and diesel equipment. The use of TBC on diesel components such as valves, pistons and fire decks insulates the metal substrates from high-temperature oxidation and corrosive environments. As a thermal barrier, it reduces metal temperatures ted in the oil- and water-cooling systems.

The performance of plasma sprayed based YSZ TBCs systems on aluminum alloys is a very important in the automotive industry. In the keeping view of applications of aluminum alloys in the automotive industry, the durability of 2024 AA with TBCs systems was studied for high temperature applications. This article investigate the thermal fatigue behaviour of plasma sprayed based YSZ TBCs systems for 2024 aluminum alloy (AA).

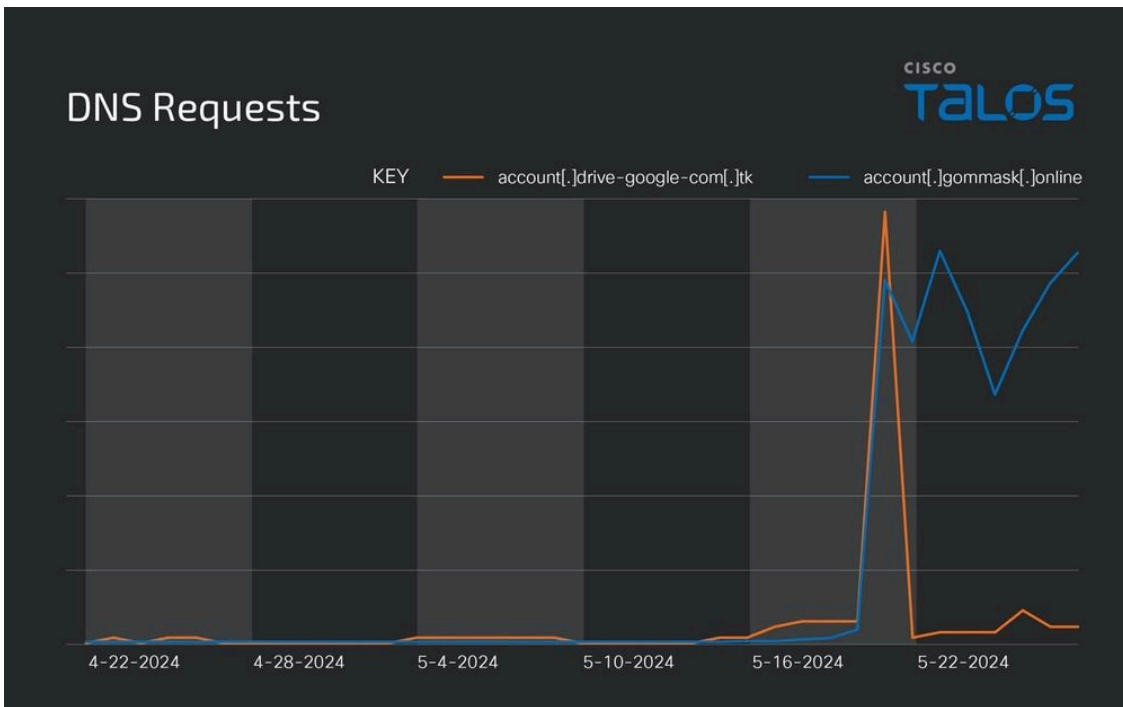
### 2. DETAILS EXPERIMENTAL

#### 2.1. Materials and Procedures

Recently, Proofpoint researchers reported a [SugarGh0st campaign](#) targeting an organization in the U.S. involved in artificial intelligence across academia, the private technology sector, and government services, highlighting the wider adoption of SugarGh0st RAT in targeting various business verticals.

## Threat actor continues to leverage old and new C2 domains

After Talos' initial disclosure of SugarGh0st campaign in November 2023, we are attributing the past attacks to the newly named threat actor SneakyChef. Despite our disclosure, SneakyChef continued to use the C2 domain we mentioned and deployed the new samples in the following months after our blog post. Most of the samples observed in this campaign communicate with the C2 domain account[.]drive-google-com[.]tk, consistent with their [previous](#) campaign. Based on Talos' Umbrella records, resolutions to the C2 domain were still observed until mid-May.

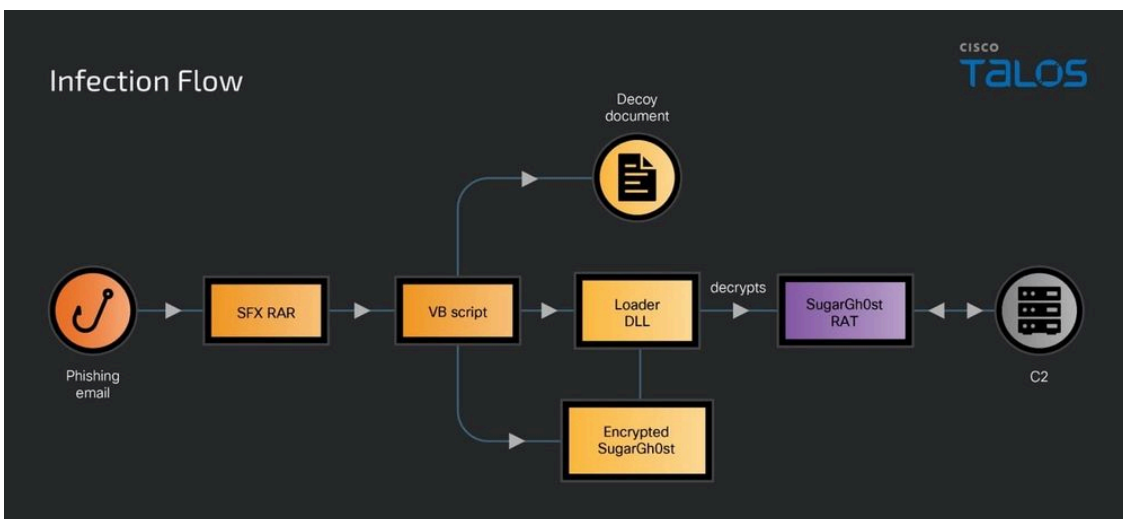


DNS requests for the SugarGh0st C2 domain.

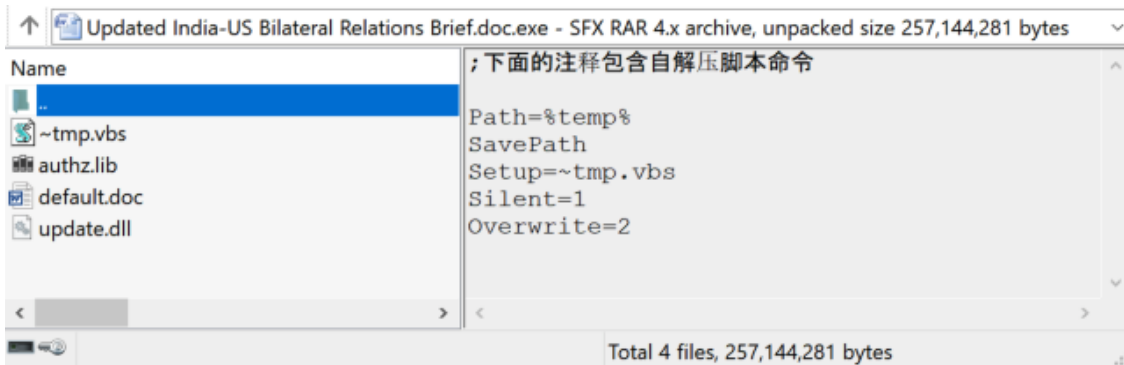
Talos also observed the new domain account[.]gommask[.]online, [reported by Proofpoint](#) as being used by SugarGh0st. The domain was created in March 2024, and queries were observed through April 21.

### Infection chain abuse SFX RAR as the initial attack vector

With Talos' first reporting of the [SugarGh0st](#) campaign in November, we disclosed two infection chains that utilized a malicious RAR with an LNK file, likely delivered via phishing email. In the newly observed campaign, in addition to the old infection chains, we discovered a different technique from a few malicious RAR samples.



The threat actor is using an SFX RAR as the initial vector in this attack. When a victim runs the executable, the SFX script executes to drop a decoy document, DLL loader, encrypted SugarGh0st, and a malicious VB script into the victim's user profile temporary folder and executes the malicious VB script.



The malicious VB script establishes persistence by writing the command to the registry key

`UserInitMprLogonScript` which executes when a user belonging to either a local workgroup or domain logs into the system.

HKCU\Environment\UserInitMprLogonScript	regsvr32.exe /s %temp%\update.dll
---	-----------------------------------

```
on Error Resume next
set obj=wscript.createObject("wscript.shell")
obj.RegWrite "HKCU\Environment\UserInitMprLogonScript","regsvr32.exe /s %temp%\update.dll"
obj.run "%temp%\default.doc",1
```

When a user logs into the system, the command runs and launches the loader DLL “update.dll” using regsvr32.exe. The loader reads the encrypted SugarGg0st RAT “authz.lib”, decrypts it and injects it into a process. This technique is same as that of the SugarGh0st campaign disclosed by the [Kazakhstan government](#) in February.

## Coverage

Cisco Secure Endpoint (AMP for Endpoints)	Cloudlock	Cisco Secure Email	Cisco Secure Firewall/ Secure IPS (Network Security)
✓	N/A	✓	✓
Cisco Secure Malware Analytics (Threat Grid)	Cisco Umbrella DNS Security	Cisco Umbrella SIG	Cisco Secure Web Appliance (Web Security Appliance)
✓	✓	✓	✓

[Cisco Secure Endpoint](#) (formerly AMP for Endpoints) is ideally suited to prevent the execution of the malware detailed in this post. Try Secure Endpoint for free [here](#).

[Cisco Secure Web Appliance](#) web scanning prevents access to malicious websites and detects malware used in these attacks.

[Cisco Secure Email](#) (formerly Cisco Email Security) can block malicious emails sent by threat actors as part of their campaign. You can try Secure Email for free [here](#).

[Cisco Secure Firewall](#) (formerly Next-Generation Firewall and Firepower NGFW) appliances such as [Threat Defense Virtual](#), [Adaptive Security Appliance](#) and [Meraki MX](#) can detect malicious activity associated with this threat.

[Cisco Secure Malware Analytics](#) (Threat Grid) identifies malicious binaries and builds protection into all Cisco Secure products.

[Umbrella](#), Cisco's secure internet gateway (SIG), blocks users from connecting to malicious domains, IPs and URLs, whether users are on or off the corporate network. Sign up for a free trial of Umbrella [here](#).

[Cisco Secure Web Appliance](#) (formerly Web Security Appliance) automatically blocks potentially dangerous sites and tests suspicious sites before users access them.

Additional protections with context to your specific environment and threat data are available from the [Firewall Management Center](#).

[Cisco Duo](#) provides multi-factor authentication for users to ensure only those authorized are accessing your network.

Open-source Snort Subscriber Rule Set customers can stay up to date by downloading the latest rule pack available for purchase on [Snort.org](#). Snort SID for this threat is 62647.

ClamAV detections are also available for this threat:

Win.Trojan.SugarGh0stRAT-10014937-0

Win.Tool.DynamicWrapperX-10014938-0

Txt.Loader.SugarGh0st\_Bat-10014939-0

Win.Trojan.SugarGh0stRAT-10014940-0

Lnk.Dropper.SugarGh0stRAT-10014941-0

Js.Trojan.SugarGh0stRAT-10014942-1

Win.Loader.Ramnit-10014943-1

Win.Backdoor.SugarGh0stRAT-10014944-0

Win.Trojan.SugarGh0st-10030525-0

Win.Trojan.SugarGh0st-10030526-0

## Orbital Queries

Cisco Secure Endpoint users can use [Orbital Advanced Search](#) to run complex OSqueries to see if their endpoints are infected with this specific threat. For specific OSqueries related to this threat, please follow the links:

- [SugarGh0st RAT file detected](#)

- [SugarGh0st RAT Registry key](#)

## Indicators of Compromise

Indicators of Compromise associated with this threat can be found [here](#)

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Source: <https://blog.talosintelligence.com/sneakychef-sugarghost-rat/>