

M365 Defender

Корина Фюерщайн

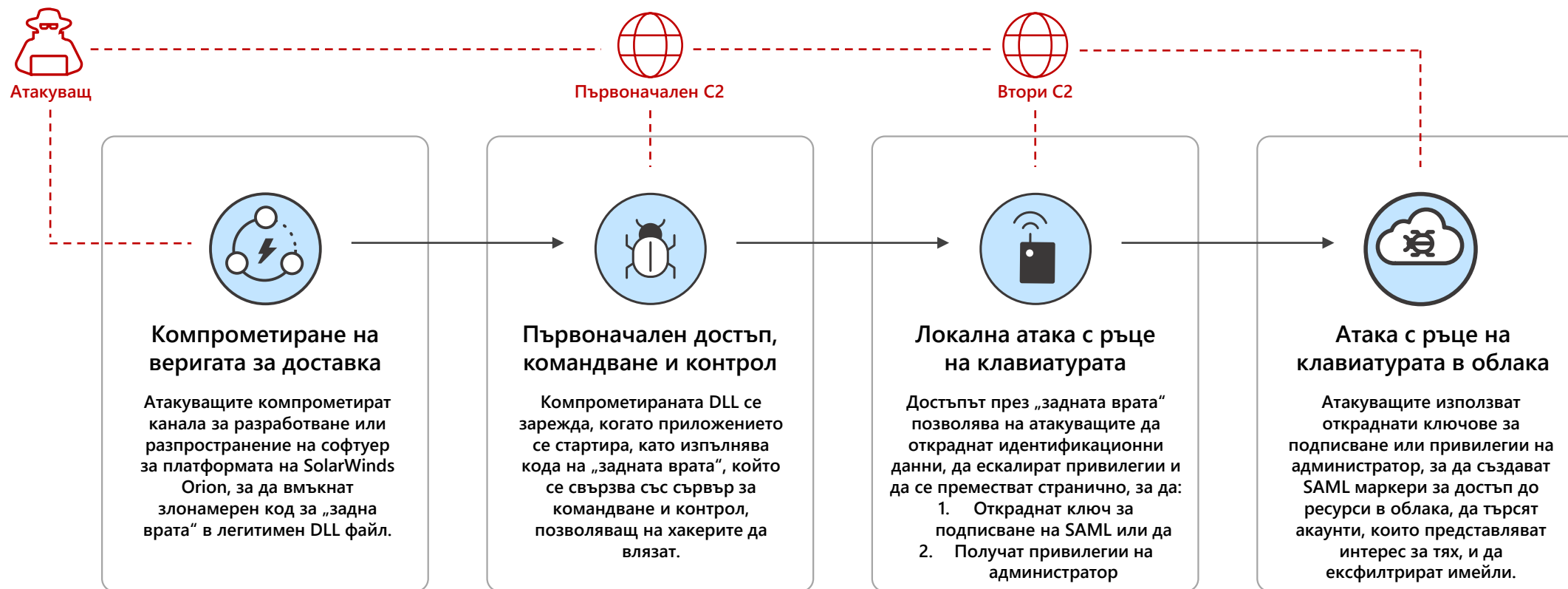
Ръководител за управление на програмите
M365 Defender

18 февруари 2021 г.

Използване на Microsoft 365 Defender за откриване, защита и възстановяване

1. Как се случи атаката Solorigate
2. Откриване и блокиране на локална дейност на крайна точка
3. Откриване на компрометиране на самоличности и прехвърляне към облака
4. Откриване и реагиране на съмнителни действия в приложения в облака
5. Разбиране на излагането на риск на организацията и намаляване на риска с помощта на набор анализи за заплахи
6. Проактивно търсене в различни домейни с Microsoft 365 Defender

Общ преглед на Solorigate



Злонамерена комуникация с C2, блокирана от MDE

Network traffic to domains associated with a supply chain attack

Part of incident: Multi-stage incident involving Execution & Command and control on one endpoint [View incident page](#)

win-9njrns9ohht Risk level High

NT AUTHORITY\SYSTEM

ALERT STORY

Collapse all

9:25:48 AM

[2244] SolarWinds.BusinessLayerHost.exe

Network connect

(oo) Outbound connection from 10.10.50.242:49669 to 10.10.50.199:443

Remote IP address10.10.50.199

Remote port443

Local port49669

Action timeJan 3, 2021 9:25:50 AM

Resolved Domain 3mu76044hgf7shju.appsync-api.eu-west-1.avsvmcloud.com

9:25:50 AM

[2644] cmd.exe /c pause

Network traffic to domains associated with a supply chain attack High Detected New

Process id2644

Creation timeJan 3, 2021 9:25:50 AM

Image file pathC:\Windows\SysWOW64\cmd.exe

Image file SHA1e2ead0993b917e1828a658ada0b87e01d5b8424f

Image file creation timeOct 13, 2020 11:37:56 PM

Execution detailsToken elevation: Default, Integrity level: System

User NT AUTHORITY\SYSTEM

PE metadata cmd.exe

9:25:50 AM

Suspicious process launched using cmd.exe Low Detected New

cmd.exe script interpreter process was created by SolarWinds.BusinessLayerHost.exe

Network traffic to domains associated with a supply chain attack

High Detected New

Classify this alert

True alert

False alert

Alert state

ClassificationAssigned to
Not SetUnassigned
[Set Classification](#)[Assign to me](#)

Alert details

CategoryCommand and controlMITRE ATT&CK Techniques-

Detection sourceEDRDetection statusDetected

Detection technologyBehavior,NetworkGenerated onJan 3, 2021 9:28:57 AM

First activityJan 3, 2021 9:25:50 AMLast activityJan 3, 2021 9:25:50 AM

Alert description

A process has attempted to connect to domains known to serve trojanized versions of auto-update software. Connections to these domains can indicate that the machine has received a malicious update and might be under attacker control.

Recommended actions

A. Validate the alert.
1. Check the process that initiated the connection

Microsoft 365 Security

10.10.2019 10:08:00 Risk level ■■■ High ...

ALERT STORY

[Collapse all](#)

[4284] WmiPrvSE.exe -secured -Embedding

[3340] rundll32.exe rundll32 c:\windows\legit_payload.dll EntryPoint

Suspicious behavior by a svchost.exe was observed

Medium New Detected

Process launched with the security context of another user

Low New Detected

rundll32.exe was invoked remotely

Execution typeWmi

Source machine name

Mitre techniquesT1047: Windows Management Instrumentation

Source machine ip a...

10.10.10.10

Suspicious Remote WMI Execution

Medium New Detected

rundll32.exe process was created from a remote machine 'WINDOWS10-ATP-X' using Windows Management Instrumentation (WMI)

Suspicious WMI process creation

Medium New Detected

rundll32.exe process was created from a remote machine 'WINDOWS10-ATP-X' using Windows Management Instrumentation (WMI)

Execution sourceRemote

Remote machine Ne...

Remote machine FQ...

Action timeDec 22, 2020, 6:14:58 PM




Mitre techniquesT1047: Windows Management Instrumentation

Details

Suspicious Remote WMI Execution

Medium **New**

New

 See in timeline  Link to another incident  Assign to me ...

Automated investigation 27604 triggered by this alert is: No threats found

Manage alert

ⓘ Classify this alert

True alert

False alert

Status New

New

Classification

Select classification

Alert details

Incident Multi-stage incident involving Execution & Collection on multiple endpoints ([🔗 open in Microsoft 365 Defender](#))

Detection source

EDR

Detection

Behavioral, Network

technology

Detection status	Detected
------------------	----------

Category

LateralMovement

Techniques

T1047: Windows Management Instrumentation

First activity

Dec 22, 2020, 6:14:58 PM

Last activity

Dec 22, 2020, 6:14:58 PM

Generated on

Dec 22, 2020, 6:25:50 PM

Assigned to


Automation


**Компрометиране на ADFS чрез кражба
на SAML ключа за сертификат или
промяна на гарантите за федериране**

Подозрителен достъп до ключове в ADFS

Alerts > ADFS private key extraction attempt


ADFS private key extraction attempt


 Windows 10-ATP-DX-ATP-Local Risk level ■■■ High ...

 atp.mind0xe ...


ALERT STORY


[Collapse all](#)

 [4280] **SecurityHealthSystray.exe** ... ▾

 [7448] **OneDrive.exe** /background ... ▾

File create

 **dump_em_all.exe** ... ▾

 **Suspicious file dropped** ■■■ Medium ● New ● Detected ...





 [7956] **dump_em_all.exe** ... ▾

Image load


 **dump_em_all.exe** ... ▾

 **Suspicious file dropped** ■■■ Medium ● New ● Detected ...

 **dump_em_all.exe ran an LDAP query** ^


LDAP Search query

(&(thumbnailphoto=*)(objectClass=contact)(!(cn=CryptoPolicy)))



Distinguished name

CN=ADFS,CN=Microsoft,CN=Program Data,DC=ATP,DC=local



Action time

Jan 10, 2021, 7:09:02 PM

 **ADFS private key extraction attempt** ■■■ High ● New ● Detected ...

Details

ADFS private key extraction attempt

■■■ High New

[See in timeline](#) [Link to another incident](#) [Assign to me](#) ...

Manage alert

 Classify this alert

True alert

False alert

Status New ▾

Classification Select classification... ▾

Alert details

Incident [Multi-stage incident involving Execution & Credential access on one endpoint \(!\[\]\(8aa05b4b06c05d58ddd90cdbf335b307_img.jpg\) open in Microsoft 365 Defender \)](#)

Detection source EDR

Detection technology Behavioral

Detection status Detected

Category CredentialAccess

Techniques [T1003: OS Credential Dumping](#)

**Използване на фалшиви SAML
маркери, за да останат в облака,
да имат достъп до ресурси в
облака и да ексфилтрират имейли.**


Необычайна манипуляция на OAuth приложение, открыто от MCAS


Alerts >  **Unusual addition of credentials to an O...** 12/28/20 6:32 AM PREVIEW


+36

MEDIUM SEVERITY

 Unusual addition of credentials to an OAuth app

 Office 365

 User Name

 1.1.1.1

Resolution options:

User Name









Close alert

Description

The user User Name (username@domain.com) performed an unusual addition of credentials to App Name. This usage pattern may indicate that an attacker has compromised the app, and is using it for phishing, exfiltration, or lateral movement. The user added a credentials of type Password, where an application is using a clear text password to authenticate.

- Important information**
- Administrative activity was performed for the first time in 180 days by this user.
 - Office 365 (Default) was used for administrative activity for the first time in 180 days by this user.
 - 1.1.1.1 was used for the first time in 180 days by this user.

Activity log

1 - 3 of 3 activities ⓘ							<div>Investigate in Activity log</div>	<div></div>	<div></div>
Activity	User	App	IP address	Location	Device	Date ▾			
 Update service principal: application App Name; ...	User Name	 Office 365	 1.1.1.1	 India	—	Dec 28, 2020, ...			
 Update application configuration: application Ap...	User Name	 Office 365	 1.1.1.1	 India	—	Dec 28, 2020, ...			

Отчет за Solorigate на набора анализи за заплахи



Threats > Solorigate supply chain attack

- Overview
- Analyst report
- Related incidents
- Impacted assets
- Prevented email attempts
- Mitigations

Microsoft security researchers recently discovered a sophisticated attack where an adversary inserted malicious code into a supply chain development process. A malicious software class was included among many other legitimate classes and then signed with a legitimate certificate. The resulting binary included a backdoor and was then discreetly distributed into targeted organizations. This attack was discovered as part of an ongoing investigation.

Cybercriminals target supply chains and look for weaknesses they can exploit to discreetly enter another target environment. In this case, attackers targeted the SolarWinds Orion Platform to infiltrate the supply chain that helps businesses manage networks, systems, and information technology infrastructure. This attack leveraged the trust associated with the supplier and certificate to insert targeted code to use in a larger campaign.

Based on research, this attack represents nation-state activity at significant scale, aimed at both the government and private sector. The actor is known to be focused on high value targets such as government agencies and cybersecurity companies.

Microsoft Defender Antivirus protects against this threat. It blocks the known malicious SolarWinds binaries associated with this threat on your device.

[Read the full analyst report](#)

Related incidents ⓘ

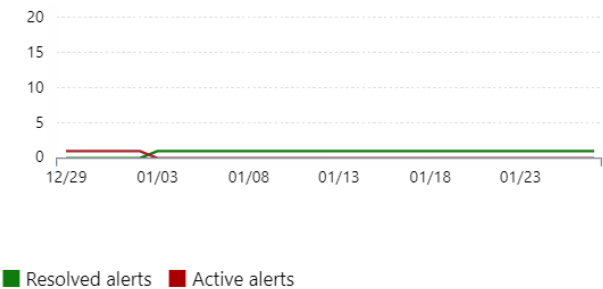
0 related alerts in your org

Incidents severity

■ High ■ Medium ■ Low ■ Informational ■ No active incidents

[View all related incidents](#)

Alerts over time ⓘ



Prevented email attempts ⓘ

Secure configuration status ⓘ

1.43k misconfigured devices

Report details

Report type	Published	Last updated
Attack campaigns	12/14/20, 7:59 AM	12/21/20, 9:38 AM

Impacted assets ⓘ

0 impacted devices

Devices 0 / 1

Mailboxes**

** Access needed. Contact a global administrator to access Office 365 data.

■ Assets with active alerts ■ Assets with resolved alerts
■ Assets with no alerts

[View all impacted assets](#)

Vulnerability patching status ⓘ

0 vulnerable devices

Отчет за Solorigate на набора анализи за заплахи

Threats > Solorigate supply chain attack

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Secure configuration status ⓘ

1.43k misconfigured devices



Exposed Secure Unknown Not applicable

Vulnerability patching status ⓘ

0 vulnerable devices



Exposed Secure

Mitigation details

Secure configuration

Vulnerabilities

Product/Component

Vulnerability IDs

Exposed devices

orion_user_device_tracker

TVM-2020-0002

0

highavailability_orion_plugin

TVM-2020-0002

0

orion_netflow_traffic

orion_improvement

orion_core_services

orion_network_performance

orion_network_configuration

Security recommendations

solarwinds orion

Security recommendation	OS platform	Weaknesses	Related component	Threats	Exposed devices	Status	Remediation type
Update Solarwinds Orion Network Performance Monitor	Windows	2	Solarwinds Orion ...	⚠️ ⚠️	7 / 8	Active	Software update
Update Solarwinds Orion Core Services	Windows	1	Solarwinds Orion ...	⚠️ ⚠️	4 / 12	Active	Software update
Update Solarwinds Orion Network Configuration Manager	Windows	1	Solarwinds Orion ...	⚠️ ⚠️	1 / 6	Active	Software update

ИД на уязвимост:
TVM-2020-0002

Update Solarwinds Orion Network Performance Monitor

Open software page Remediation options Exception options

Description
Update Orion Network Performance Monitor to a later version to mitigate 2 known vulnerabilities affecting your devices.

Vulnerability details
Number of vulnerabilities: 2
Exposed devices: 7 / 8
Exposed operating systems: Windows Server 2016, Windows Server 2012 R2
Exploit available: No
Impact: <0.01

Нови данни за Azure AD и приложения в облака в „Разширено проактивно търсене“

Microsoft 365 Security



Advanced hunting

Schema

Alerts

- AlertInfo
- AlertEvidence

Apps & identities

- IdentityInfo
- IdentityLogonEvents
- IdentityQueryEvents
- IdentityDirectoryEvents
- AppFileEvents
- CloudAppEvents
- AADSpnSignInEventsBeta
- AADSignInEventsBeta

Timestamp
Application
ApplicationId
LogonType
ErrorCode
CorrelationId
SessionId
AccountDisplayName
AccountObjectId
AccountUpn
IsExternalUser
IsGuestUser
AlternateSignInName
LastPasswordChangeTimestamp
ResourceDisplayName
ResourceId

Get started

Query

Run query

+ New

Save

Share link

```
1 //Look for throttled mailboxes which indicates excessive mail access over a short period of time
2
3 let starttime = 2d;
4 let endtime = 1d;
5 CloudAppEvents
6 | where Timestamp between (startofday(ago(starttime))..startofday(ago(endtime)))
7 | where ActionType == "MailItemsAccessed"
8 | where isnotempty(RawEventData["ClientAppId"]) and RawEventData["OperationProperties"][1] has "True"
9 | project Timestamp, RawEventData["OrganizationId"], AccountObjectId, UserAgent
```

Export

Timestamp RawEventData.OrganizationId AccountObjectId UserAgent

No results found in the specified time frame.

AADSignInEventsBeta

Description

Information about Azure Active Directory (AAD) sign-in events either by a user (interactive) or a client on the user's behalf (non-interactive)

Columns

Fields in this table:

Timestamp

Date and time when the record was generated

Application

Application that performed the recorded action

ApplicationId

Unique identifier for the application

[View all](#)

Sample queries

[Sign-ins to disabled accounts](#)

[Users signing in from multiple locations](#)

CloudAppEvents
/където Application == „Office 365“

[See full documentation](#)

Проучване на свързани със Solorigate известявания и инциденти в Microsoft 365 Defender

Incidents > Multi-stage incident involving Execution & Collection on multiple endpoints

[Manage incident](#) [?](#) [Consult a threat expert](#) [Comments and history](#)

Summary Alerts (50) Devices (2) Users (3) Mailboxes (0) Investigations (6) Evidence (154)

Alerts and categories

50/50 active alerts
7 MITRE ATT&CK tactics
2 other alert categories



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Dec 22, 2020, 1:52:20 AM | New

A WMI event filter was bound to a suspicious event consumer on Desktop

Dec 22, 2020, 11:08:57 AM | New

Process launched with the security context of another user on

by user

Dec 22, 2020, 11:37:49 AM | New

Suspicious file deletion activity was observed on `win-9a1ms90nfr` **by user** `win-9a1ms90nfr`

Dec 22, 2020, 11:58:50 AM | New
Scheduled task possibly hijacked on win-90jms0chm: by user mind0sp

Dec 22, 2020, 11:58:50 AM | New













Suspicious remote activity on `win-90jms00n1` **by user** `wind00p`
, and more.

Dec 22, 2020, 11:58:50 AM | New
Suspicious file creation initiated remotely on [redacted] by user [redacted]

Scope

2 impacted devices
3 impacted users

Top impacted entities

Entity type	Risk level/investigation priority	Tags
 	 High	
 	 High	
 	No data available	
 	No data available	
 	No data available	

View entities

Evidence

154 entities found

Evidence remediation status

[View all entities](#)

Incident Information

(i) This incident might be associated w...

Associated incidents

Incident ID	Reason	Entity
24851	Same file	sqlceip.exe
24576	Same file	legit_payl...
24576	Same file	payload.dll

Tags summary

Incident tags

Incident details

Status

Active

Severity

High

Incident ID

24963

First activity

First - Dec 22, 2020, 1:52:20 AM

Last activity

Last - Dec 28, 2020, 3:04:12 PM

Classification

Not set

Determination

Not set

Поредица от видеоклипове за Solorigate

Следващи стъпки

- 01.** Гледайте поредицата видеоклипове за Solorigate на това място
- 02.** Посетете Microsoft Security за още актуализации: www.microsoft.com/en-us/security/business
- 03.** Прочетете публикациите в блога на адрес:
www.microsoft.com/security/blog

<https://aka.ms/solorigate>

