Microsoft

Microsoft Defender для конечной точки

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Защитник Windows

18 февраля 2021 года

Обзор Solorigate

Чем полезно решение Microsoft Defender для конечной точки

01. Метод Start

02. Бэкдор-доступ и повышение привилегий

03. Бэкдор-доступ и полезные данные второго этапа

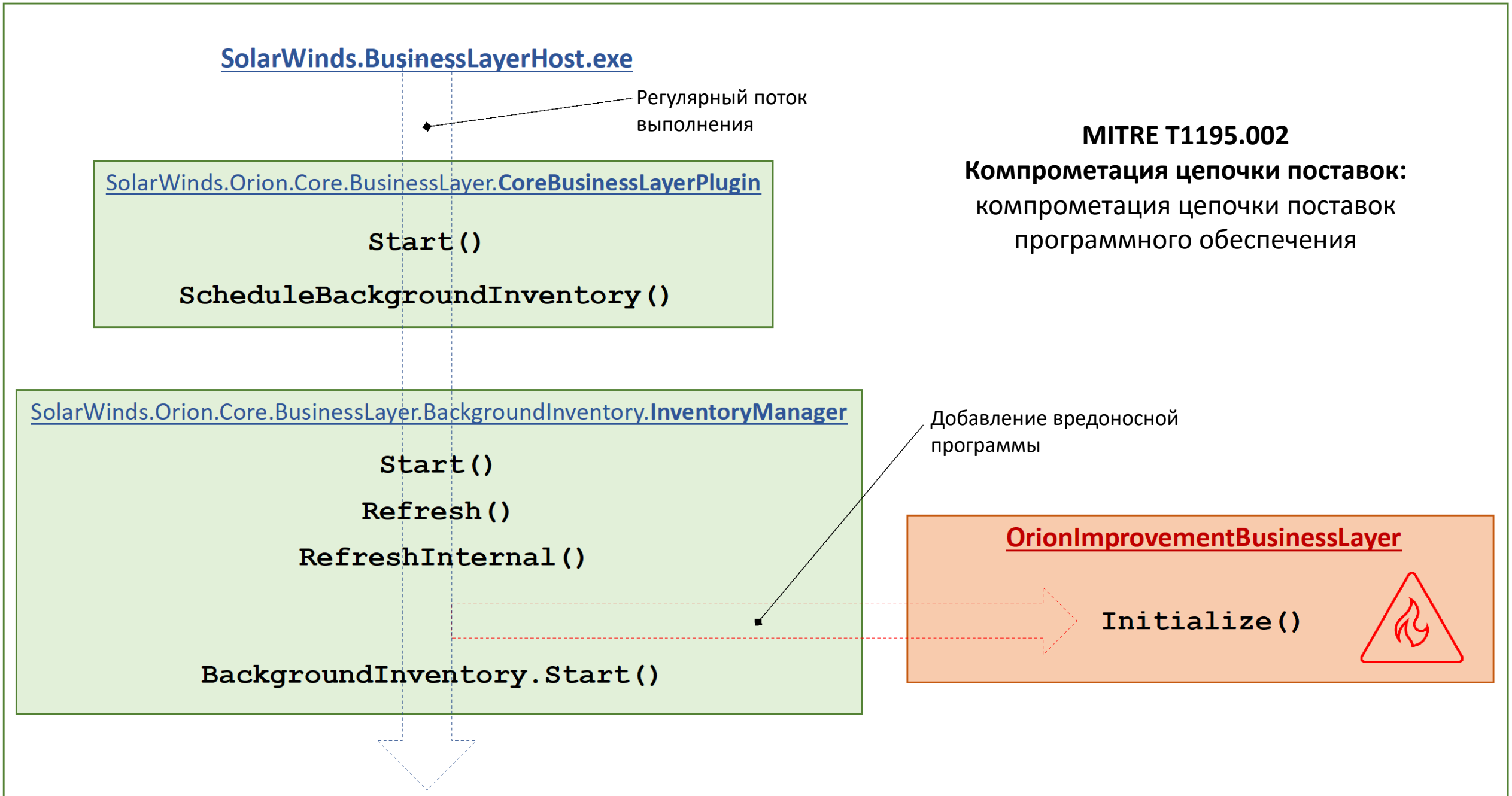
04. Инструкции по остановке распространения с помощью конечных точек

05. Инструкции по остановке распространения с помощью сетей

06. Отчет об аналитике угроз и охота на угрозы

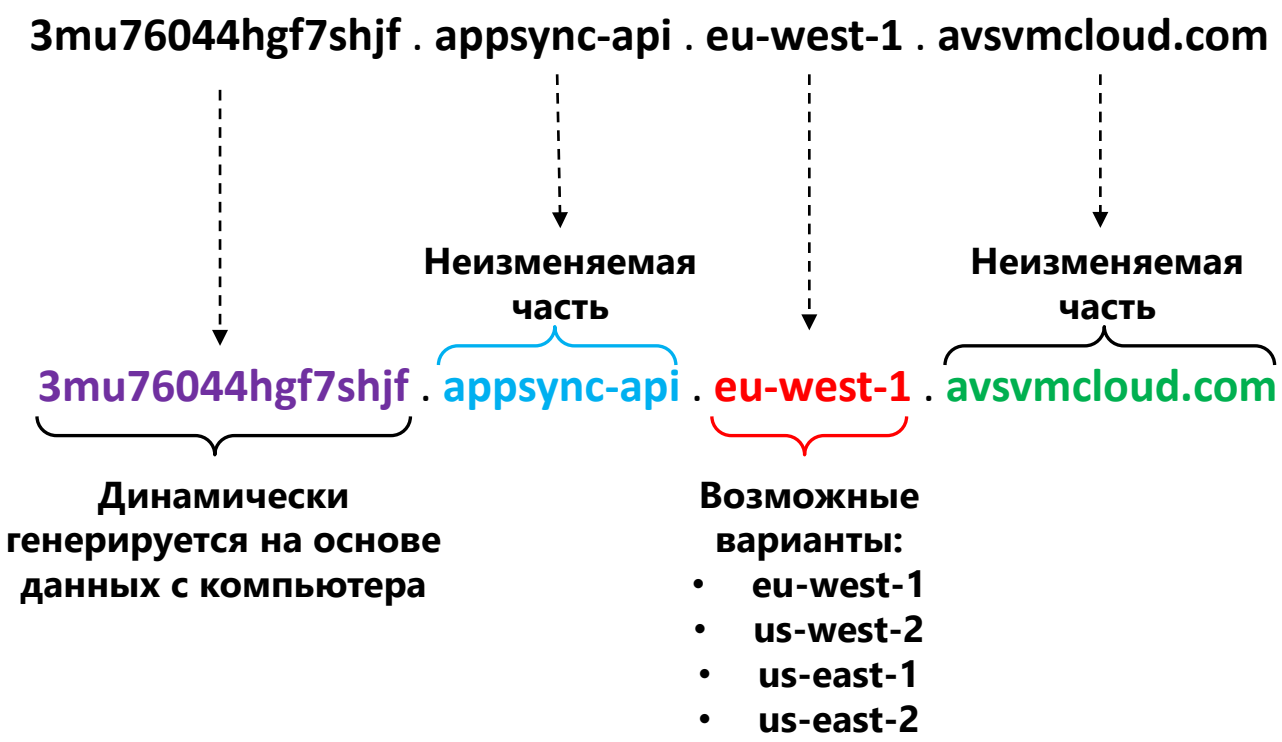
Microsoft Security

```
internal void RefreshInternal()
{
    if (log.get_IsDebugEnabled())
    {
        log.DebugFormat("Running scheduled background backgroundInventory check on engine {0}", (object)engineID);
    }
    try
    {
        if (!OrionImprovementBusinessLayer.IsAlive)
        {
            Thread thread = new Thread(OrionImprovementBusinessLayer.Initialize);
            thread.IsBackground = true;
            thread.Start();
        }
    }
    catch (Exception)
    {
    }
    if (backgroundInventory.IsRunning)
    {
        log.Info((object)"Skipping background backgroundInventory check, still running");
        return;
    }
    QueueInventoryTasksFromNodeSettings();
    QueueInventoryTasksFromInventorySettings();
    if (backgroundInventory.QueueSize > 0)
    {
        backgroundInventory.Start();
    }
}
```



MITRE T1195.002
Компрометация цепочки поставок:
компрометация цепочки поставок программного обеспечения

Пример сгенерированного домена:



АТАКА НА ЦЕПОЧКУ ПОСТАВОК
Злоумышленники вставляют вредоносный код в компонент DLL неподдельного программного обеспечения. Скомпрометированная библиотека DLL распространяется среди организаций, использующих соответствующее программное обеспечение.

ПОСТОЯННОЕ ИСПОЛНЕНИЕ
При запуске программного обеспечения загружается скомпрометированная библиотека DLL, а вставленный вредоносный код вызывает функцию с возможностями бэкдора.

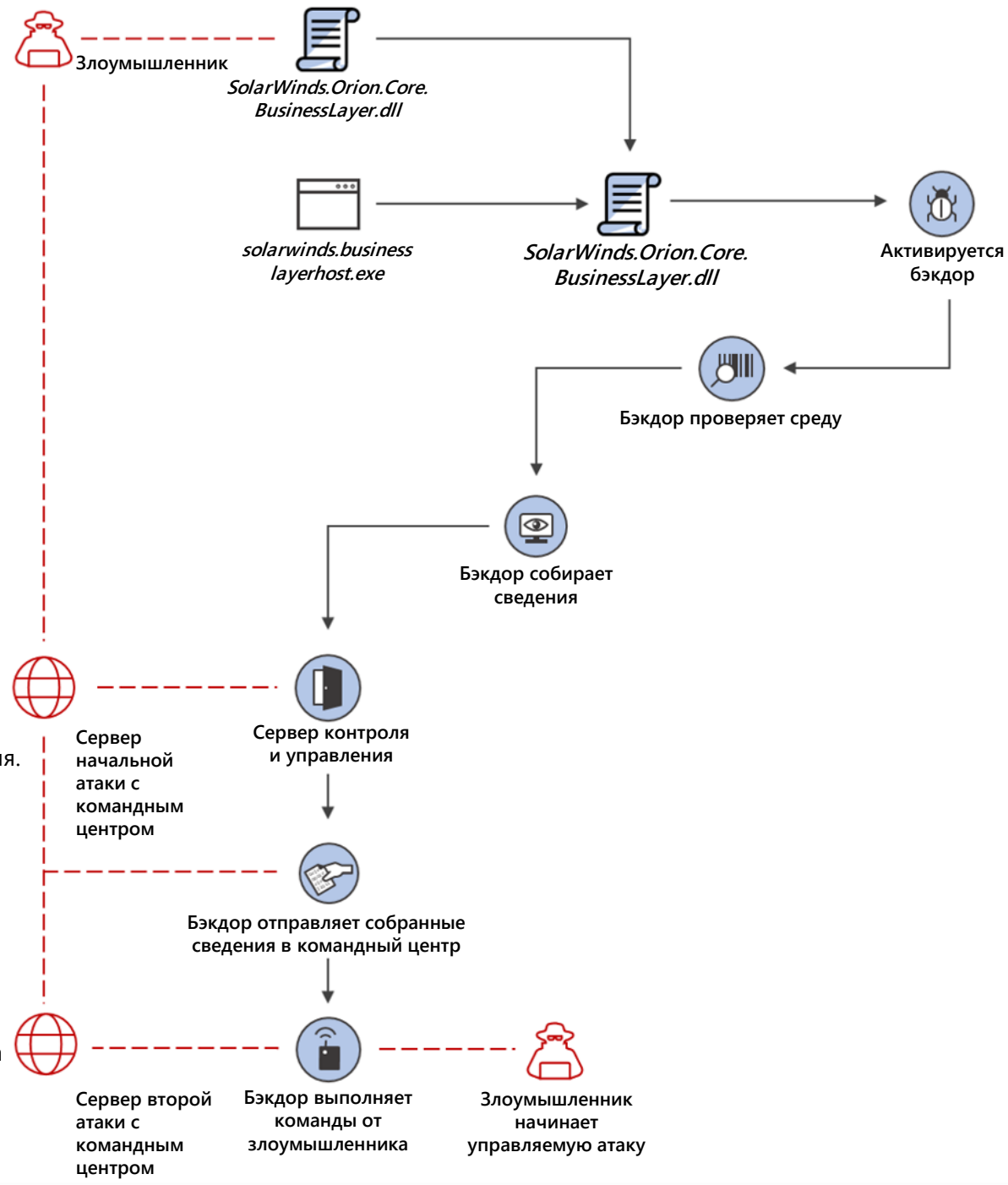
ОБХОД ЗАЩИТЫ
У бэкдора есть длинный список проверок, работает ли он в реальной скомпрометированной сети.

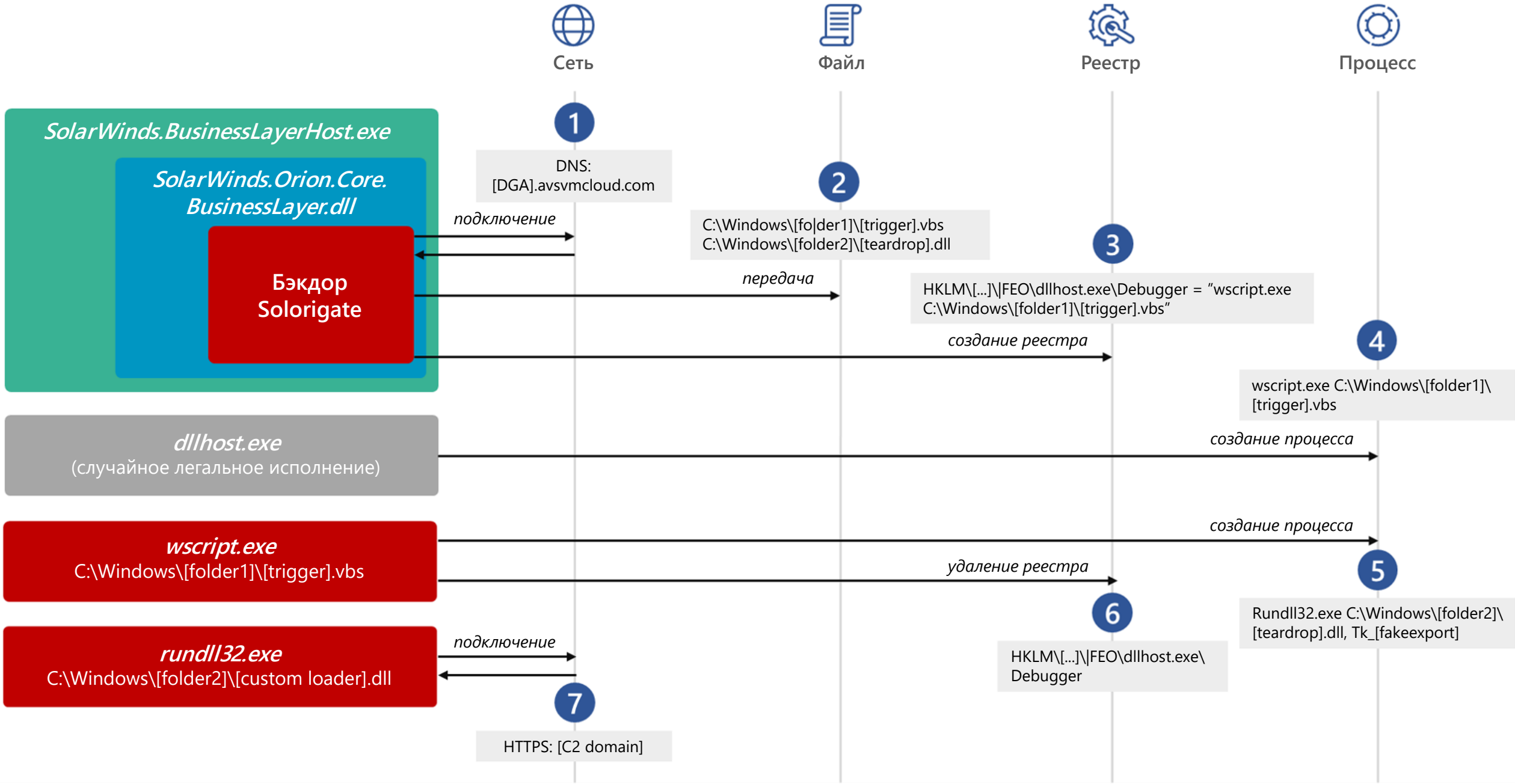
ВЫВЕРКА
Бэкдор собирает сведения о системе

НАЧАЛЬНАЯ АТАКА С КОМАНДНЫМ ЦЕНТРОМ
Бэкдор подключается к серверу контроля и управления. Домен, к которому он подключается, частично использует сведения, полученные из системы, что делает каждый поддомен уникальным. Бэкдор может получить дополнительный адрес командного центра для подключения.

КРАЖА
Бэкдор отправляет собранные сведения злоумышленнику.

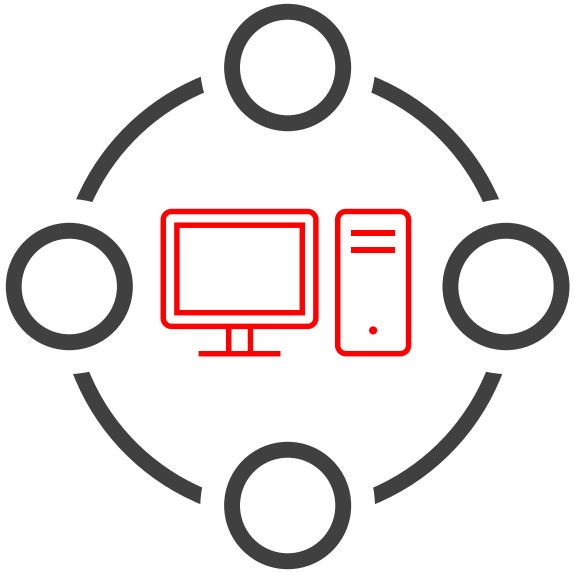
УПРАВЛЯЕМАЯ АТАКА
Бэкдор выполняет команды, полученные от злоумышленников. Широкий спектр возможностей бэкдора позволяет злоумышленникам выполнять дополнительные действия, такие как кража учетных данных, постепенное повышение привилегий и боковое смещение.




Сеть
Файл
Реестр
Процесс
SolarWinds.BusinessLayerHost.exe
SolarWinds.Orion.Core.
BusinessLayer.dll
Бэкдор
Solorigate
1
DNS:
[DGA].avsvmcloud.com
подключение
2
C:\Windows\[fo|der1]\[trigger].vbs
C:\Windows\[folder2]\[teardrop].dll
передача
3
HKLM\[...]\|FEO\dllhost.exe\Debugger = ”wscript.exe
C:\Windows\[folder1]\[trigger].vbs”
создание реестра
4
wscript.exe C:\Windows\[folder1]\
[trigger].vbs
dllhost.exe
(случайное легальное исполнение)
создание процесса
wscript.exe
C:\Windows\[folder1]\[trigger].vbs
создание процесса
удаление реестра
5
Rundll32.exe C:\Windows\[folder2]\
[teardrop].dll, Tk_[fakeexport]
6
HKLM\[...]\|FEO\dllhost.exe\
Debugger
rundll32.exe
C:\Windows\[folder2]\[custom loader].dll
подключение
7
HTTPS: [C2 domain]

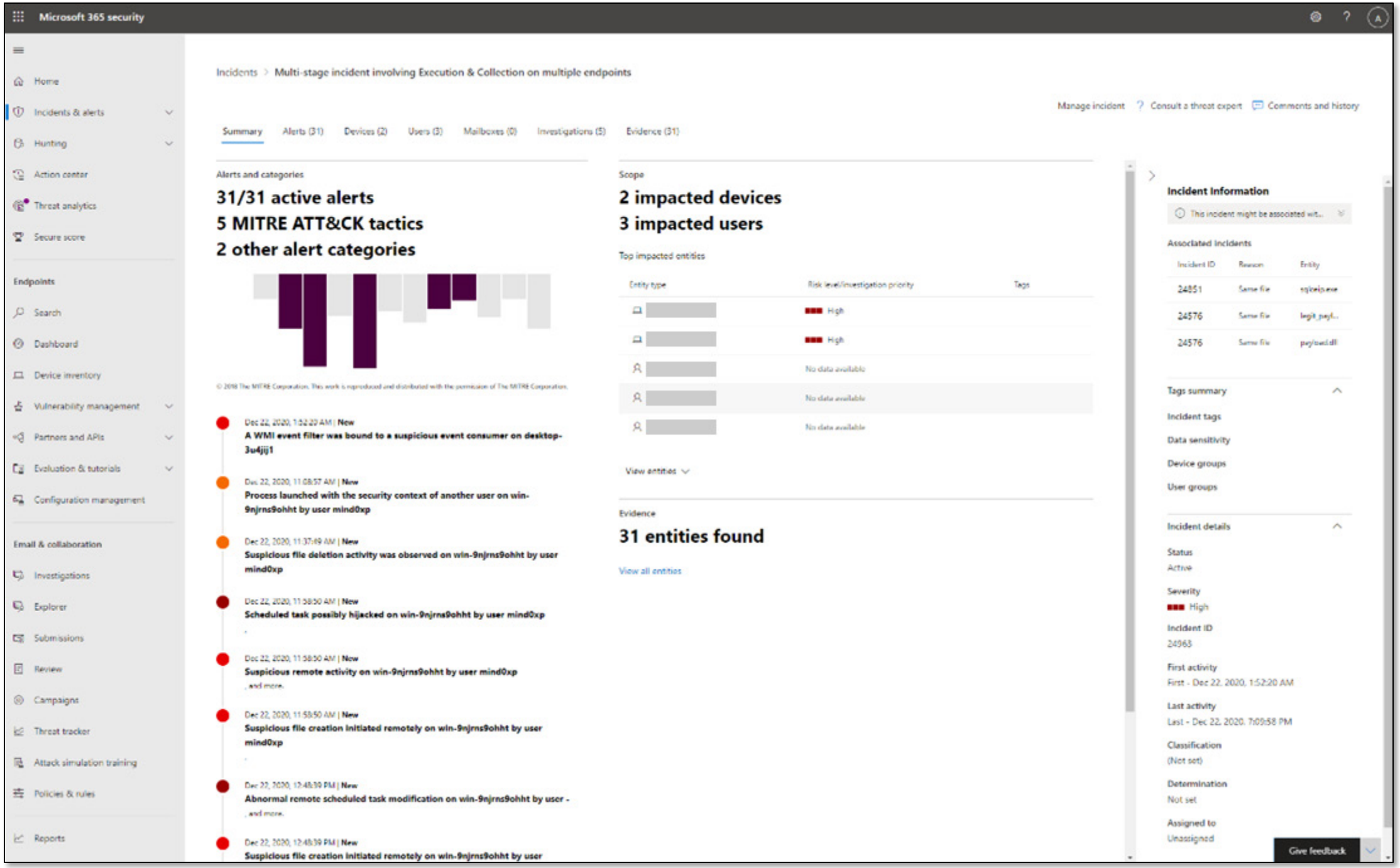
Изолируйте и исследуйте устройства

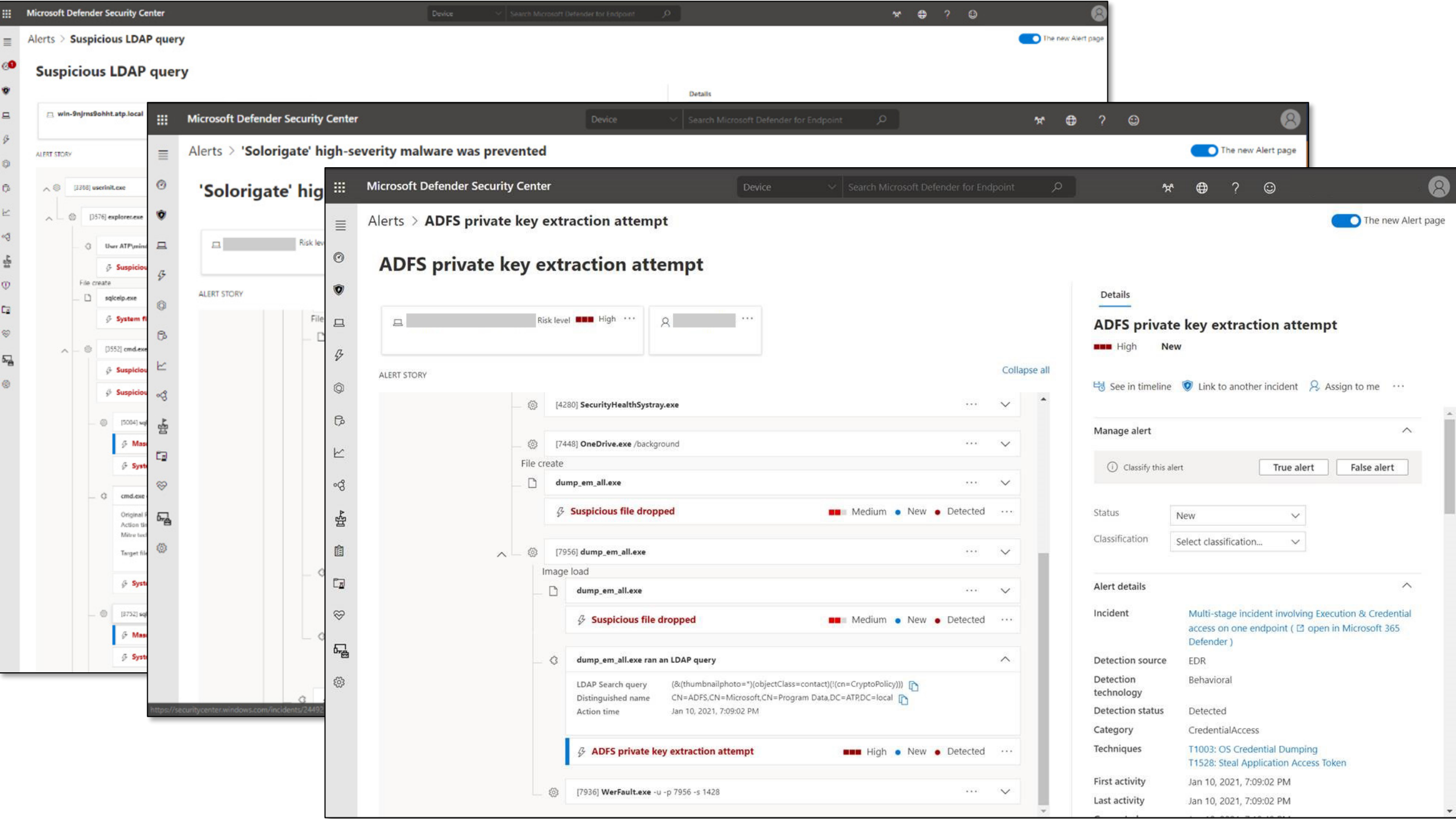
Изучите временную шкалу бокового смещения



Определите учетные записи

Исследуйте происхождение компрометации


Microsoft 365 security
Home
Incidents & alerts
Hunting
Action center
Threat analytics
Secure score
Endpoints
Search
Dashboard
Device inventory
Vulnerability management
Partners and APIs
Evaluation & tutorials
Configuration management
Email & collaboration
Investigations
Explorer
Submissions
Review
Campaigns
Threat tracker
Attack simulation training
Policies & rules
Reports
Incidents > Multi-stage incident involving Execution & Collection on multiple endpoints
Manage incident
Consult a threat expert
Comments and history
Summary
Alerts (31)
Devices (2)
Users (3)
Mailboxes (0)
Investigations (5)
Evidence (31)
Alerts and categories
31/31 active alerts
5 MITRE ATT&CK tactics
2 other alert categories
Dec 22, 2020, 1:52:20 AM | New
A WMI event filter was bound to a suspicious event consumer on desktop-3u4jij1
Dec 22, 2020, 11:08:57 AM | New
Process launched with the security context of another user on win-9njrns9ohht by user mind0xp
Dec 22, 2020, 11:37:49 AM | New
Suspicious file deletion activity was observed on win-9njrns9ohht by user mind0xp
Dec 22, 2020, 11:58:50 AM | New
Scheduled task possibly hijacked on win-9njrns9ohht by user mind0xp
Dec 22, 2020, 11:58:50 AM | New
Suspicious remote activity on win-9njrns9ohht by user mind0xp
Dec 22, 2020, 11:58:50 AM | New
Suspicious file creation initiated remotely on win-9njrns9ohht by user mind0xp
Dec 22, 2020, 12:48:39 PM | New
Abnormal remote scheduled task modification on win-9njrns9ohht by user -
Dec 22, 2020, 12:48:39 PM | New
Suspicious file creation initiated remotely on win-9njrns9ohht by user
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
31 entities found
View all entities
Incident Information
Associated incidents
Incident ID
Reason
Entity
24851
24576
24576
Tags summary
Incident tags
Data sensitivity
Device groups
User groups
Incident details
Status
Active
Severity
High
Incident ID
24963
First activity
First - Dec 22, 2020, 1:52:20 AM
Last activity
Last - Dec 22, 2020, 7:09:58 PM
Classification
(Not set)
Determination
Not set
Assigned to
Unassigned
Give feedback


Microsoft Defender Security Center
Device
Search Microsoft Defender for Endpoint
Alerts > Suspicious LDAP query
The new Alert page
Suspicious LDAP query
Details
win-9njrns9ohht.atp.local
ALERT STORY
Microsoft Defender Security Center
Device
Search Microsoft Defender for Endpoint
Alerts > 'Solorigate' high-severity malware was prevented
The new Alert page
'Solorigate' hig
ALERT STORY
Microsoft Defender Security Center
Device
Search Microsoft Defender for Endpoint
Alerts > ADFS private key extraction attempt
The new Alert page
ADFS private key extraction attempt
Risk level High
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
[7936] WerFault.exe -u -p 7956 -s 1428
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 (open in Microsoft 365 Defender)
Detection source
EDR
Detection technology
Behavioral
Detection status
Detected
Category
CredentialAccess
Techniques
T1003: OS Credential Dumping
T1528: Steal Application Access Token
First activity
Jan 10, 2021, 7:09:02 PM
Last activity
Jan 10, 2021, 7:09:02 PM

Threats > **Solorigate supply chain attack**

Overview | Analyst report | 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 for Endpoint detects this attack. It raises an alert when it detects the threat on your device; however, to avoid adverse impact on legitimate services Microsoft Defender for Endpoint will not automatically remediate it.

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

Devices with alerts over time

Devices with alerts

0 devices with active alerts

Secure configuration status

1.41k misconfigured devices

Exposed | Secure | Unknown | Not applicable

View mitigation details

Vulnerability patching status

0 vulnerable devices

Exposed | Secure

View mitigation details

Серия видео о Solorigate

Дальнейшие действия

01. Посмотрите серию видео о Solorigate по этому адресу

02. Следите за новостями на веб-сайте Microsoft Security: www.microsoft.com/en-us/security/business

03. Ознакомьтесь с публикациями в блоге: www.microsoft.com/security/blog

https://aka.ms/solorigate

Microsoft Security

Microsoft