



Sangfor Endpoint Secure 3.2.22

Chapter 2 Installation and Deployment

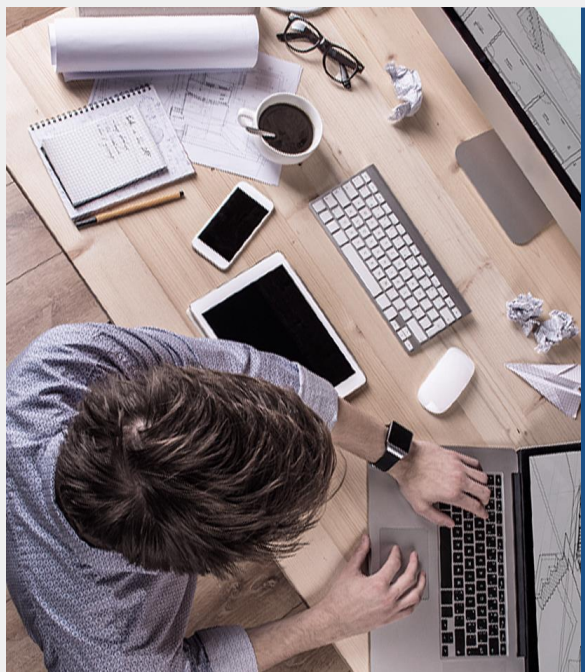




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1 Product Architecture

2 Deployment Preparation

3 Management Platform Deployment

4 Agent Deployment

5 Agent Uninstallation

1. Product Architecture



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General Architecture

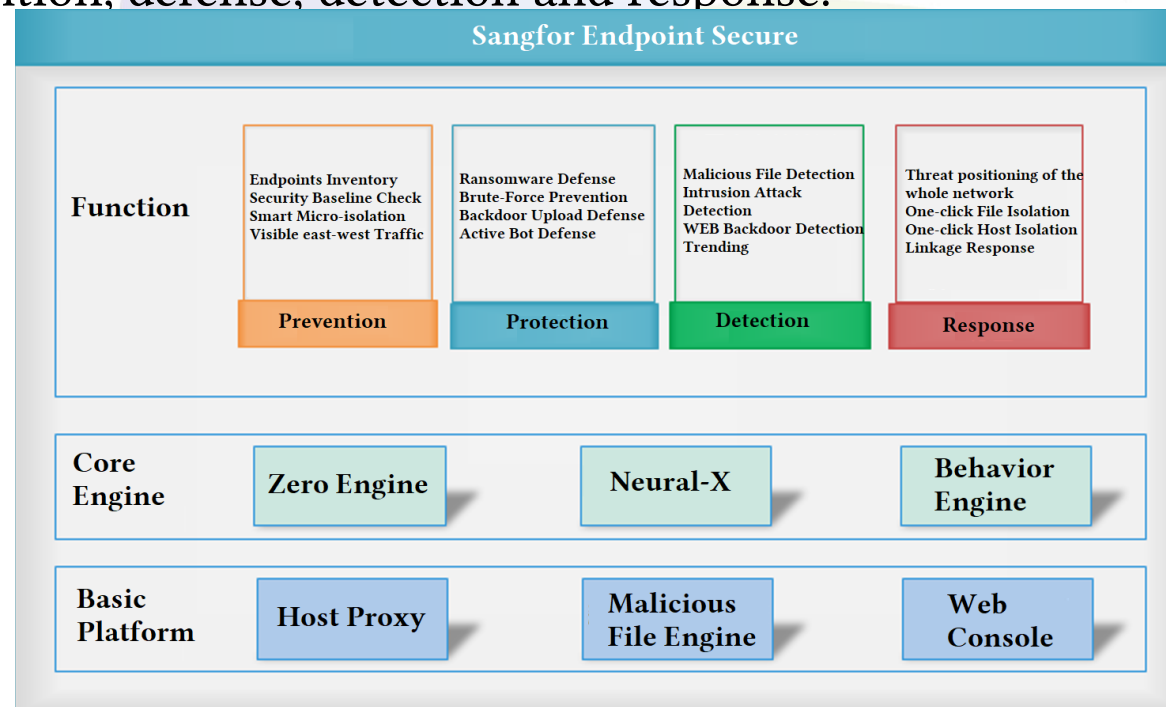


Endpoint Secure is divided into three layers in terms of system architecture: the basic platform layer, the core engine layer and the functional presentation layer.

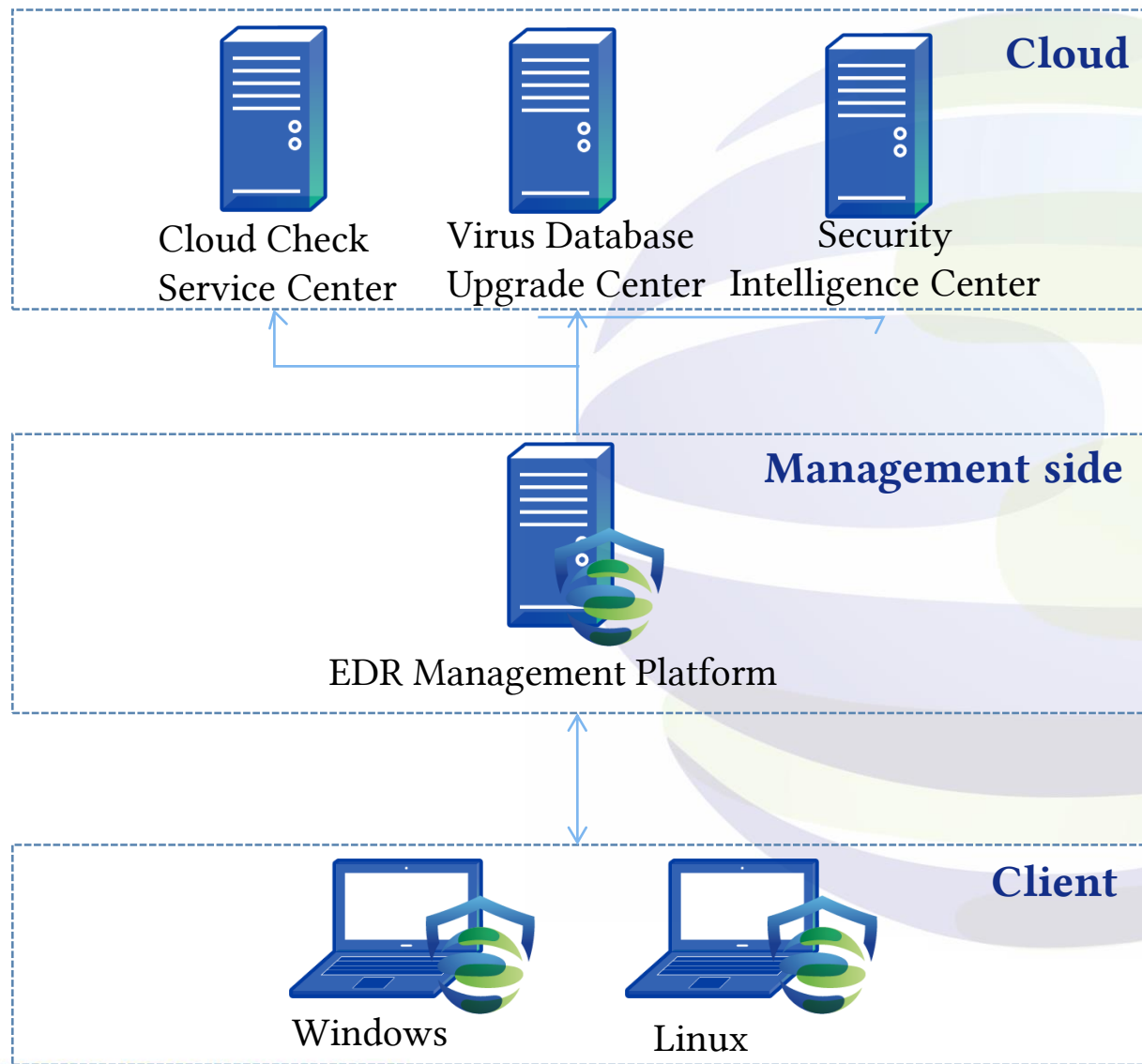
Basic platform layer: responsible for providing centralized control, cloud checking and the basic capability of host agent function.

Core engine layer: responsible for providing virus detection, threat analysis and behavior detection capabilities.

Function presentation layer: It provides a comprehensive security protection system from four aspects, including prevention, defense, detection and response.



Deployment Structure



Endpoint Secure is divided into cloud, management (MGR) and client (Agent) in terms of deployment structure.

Cloud: including virus database upgrade, cloud-based check and kill service center, and security intelligence center.

Console: Responsible for maintaining and managing all Agent clients.

Client: Software installed on the terminal to provide security to the terminal.

2. Deployment Preparation

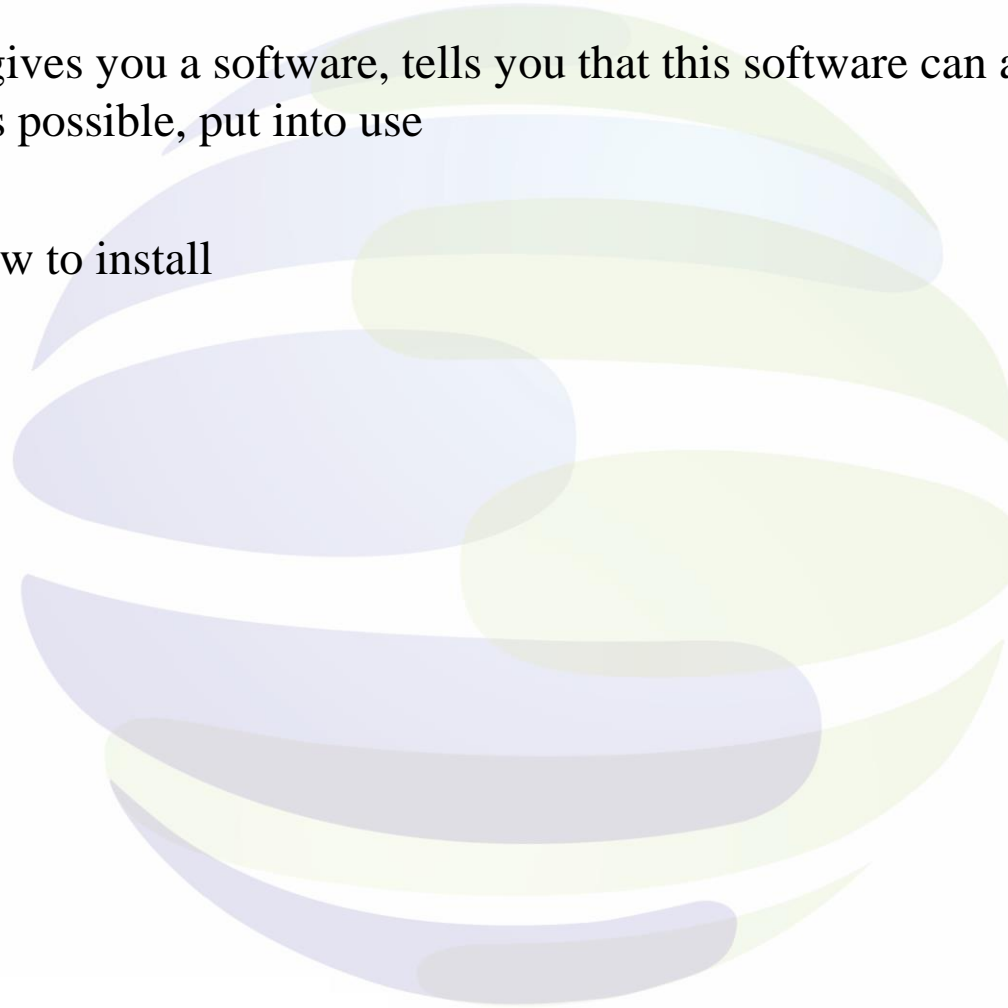


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Reflections

Scenario: The company leader gives you a software, tells you that this software can achieve certain functions, you need to install on as soon as possible, put into use

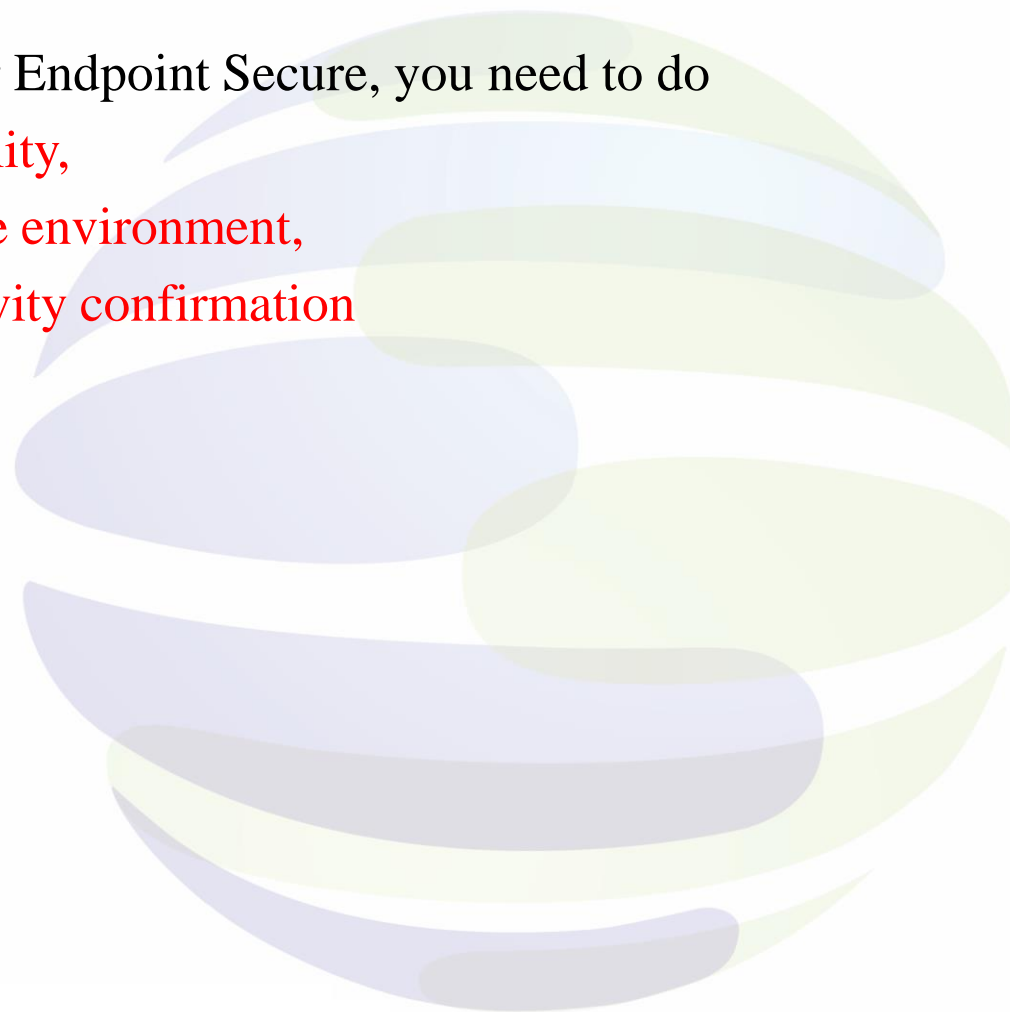
Think: what do you need to know to install



Deployment Preparation

Before installing and deploying Endpoint Secure, you need to do

confirmation system compatibility,
confirmation hardware resource environment,
confirmation network connectivity confirmation



System compatibility confirmation



Agent Client

Endpoint Secure MGR

Browser	Mgr Console
IE10	Y
IE11	Y
Edge	Y
Chrome	Y
Firefox	Y
Safari	Y
360	Y
Search Dog	Y
Operating system (64-bit)	Mgr Console
Centos7+	Y
Ubntul16+	Y

Operating system type	Operating System
User PC terminal	win vista x86
	win vista x64
	win xpSP3
	win7 x86
	win7 x86
	win8 x86
	win8 x64
	win8.1 x86
	win8.1 x64
	win10 x86
	win10 x64
windows server terminal	win server 2003sp2 x86
	win server 2003sp2 x64
	win server 2008sp2 x86
	win server 2008sp2 x64
	win server 2008R2 x64
	win server 2012 x64
	win server 2012R2 X64
	win server 2016 x64
	win server 2019 X64

Operating system type	Operating System
linux server terminal	Debian 6 x86
	Debian 6 x64
	Debian 7 x86
	Debian 7 x64
	Debian 8 x86
	Debian 8 x64
	Debian 9 x86
	Debian 9 x64
	RHEL 5 x86
	RHEL 5 x64
	RHEL 6 x86
	RHEL 6 x64
	RHEL 7 x64
	suse 11
	suse 12
	suse 15
	oracle Linux 5 x86
	oracle Linux 5 x64
	oracle Linux 6 x86
	oracle Linux 6 x64
	oracle Linux 7 x64

System compatibility confirmation



Agent Client

Operating system type	Operating System	Operating system type	Operating System
linux server terminal	Centos5 x86	Homemade	Neokylin 5.0x86 (client version)
	Centos5 x64		Neokylin 6.0x86 (client version)
	Centos6 x86		Neokylin 7.0x86 (client version)
	Centos6 x64		Galaxy Kirin 4.0x64 (client version)
	Centos7 x64		Ubiquitous 18.0
	Ubuntu 10 x86		
	Ubuntu 10 x64		
	Ubuntu 11 x86		
	Ubuntu 11 x64		
	Ubuntu 12 x86		
	Ubuntu 12 x64		
	Ubuntu 13 x86		
	Ubuntu 13 x64		
	Ubuntu 14 x86		
	Ubuntu 14 x64		
	Ubuntu 16 x86		
	Ubuntu 16 x64		
	Ubuntu 17 x64		
	Ubuntu 18 x64		

Hardware resource environment confirmation



Both the physical and virtualized environments need to meet the following hardware resource requirements

Number of terminals	CPU (Pentium Dual Core)	Memory	Disks
1 to 50	2 cores	2G	100G
50 to 500	4 cores	4G	250G
500 to 2000	4 cores	8G	500G

Note: If the MGR server is used as a vulnerability patch server, the recommended disk size configuration is 1T

Network connectivity confirmation



Network connectivity between client and management platform

The client (Agent) uses TCP:443, TCP:8083, and TCP:54120 ports to communicate with the management platform (MGR). Ensure port connectivity.

Port 443: https service port, used for management platform page access, upgrade package patch package download, remote script download.

Port 8083: IPC communication port for end and MGR communication.

Port 54120: Escape port, emergency situation and Agent communication port. Complete Agent restart, uninstall and script execution command issuance.

Network connectivity confirmation



Management platform and cloud-based network connectivity

(Neural-X) Vulnerability patch related: <https://upd.sangfor.com.cn>

(Cloud Brain) Access to Cloud Brain License: <https://auth.sangfor.com.cn>

(Cloud Brain) Cloud Check Server: <https://analysis.sangfor.com.cn>

(Cloud Brain) Cloud Security Program: <https://clt.sangfor.com.cn>

(CDN) Vulnerability patches, rules, and virus libraries at <http://download.sangfor.com.cn>

3. Management Platform Deployment



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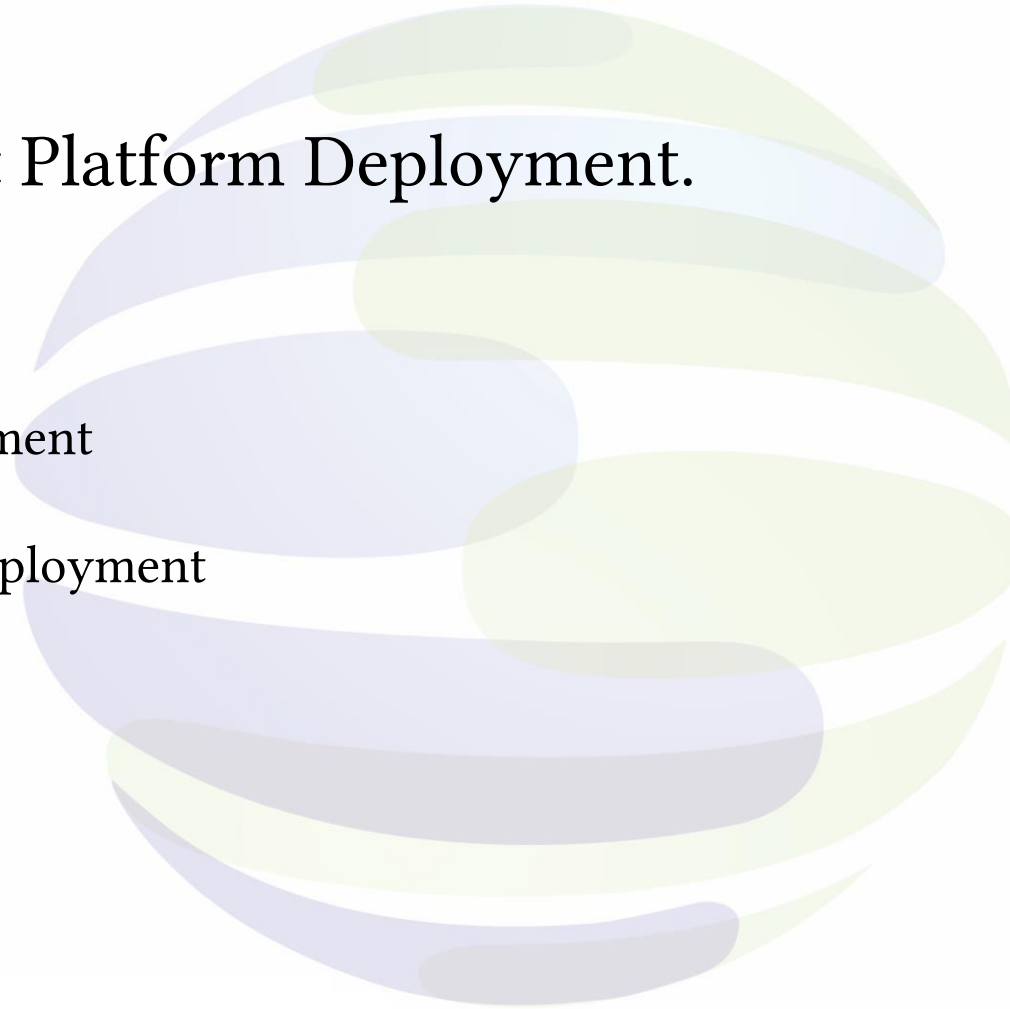
Management Platform Deployment



MGR Management Platform Deployment.

Software Deployment

- ISO image deployment
- OVA Template Deployment



ISO image deployment



ISO image deployment is based on CentOS system image with embedded MGR installation package, i.e. MGR is automatically deployed after installing the ISO.

Advantage.

Simplified installation steps. The ISO is customized based on the latest CentOS package with embedded mgr installation package, which can be installed only once, eliminating the need for the original mgr separate deployment process.

Higher security. The ISO has undergone multiple penetration scans prior to release, installing the latest system patches to eliminate security issues introduced by customers using vulnerable third-party systems (older, unmaintained Linux systems). Both physical and virtualized environments support installation

OVA Template Deployment



OVA template deployment is based on CentOS installation image with embedded MGR installation package, which is automatically deployed in virtualized environment by importing OVA template.

Advantage.

- Simplified installation steps. This OVA template is customized based on the latest CentOS package with embedded MGR installation package, which can be installed in just one time, eliminating the need for the original MGR separate deployment process.
- Higher security. The systems in this template have been scanned for multiple penetrations and installed with the latest system patches prior to release, eliminating security issues introduced by customers using vulnerable third-party systems (older, unmaintained Linux systems).

4. Agent Deployment



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Client Agent Deployment



Deployment methods (5 types): installation package deployment, web promotion deployment, IAM(IAG) correlated deployment, virtual machine template deployment, domain control scenario deployment

Special Note: Endpoint Secure Agent is fully compatible with the following security software. Computers with security software other than the following are supported to install Endpoint Secure Agent in compatibility mode, but the real-time file monitoring function will not work properly.

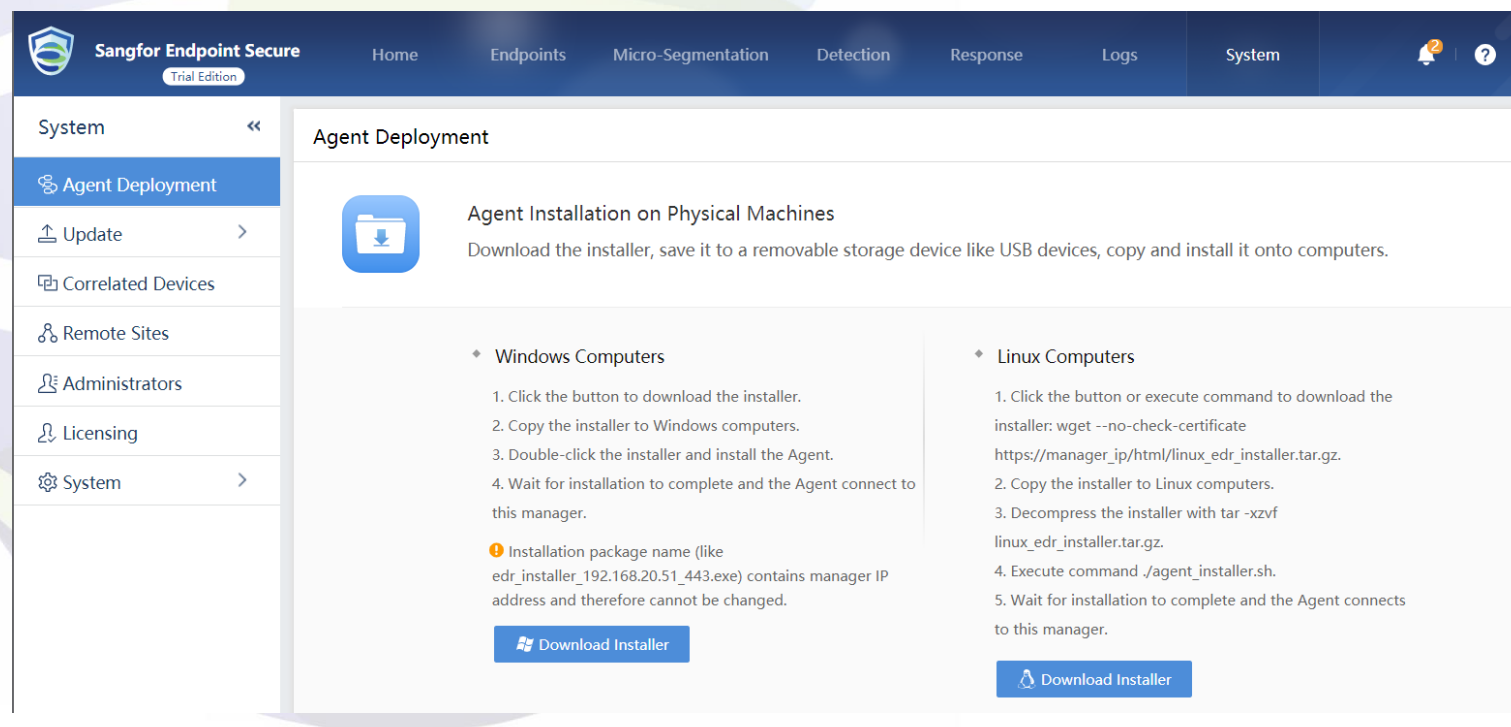
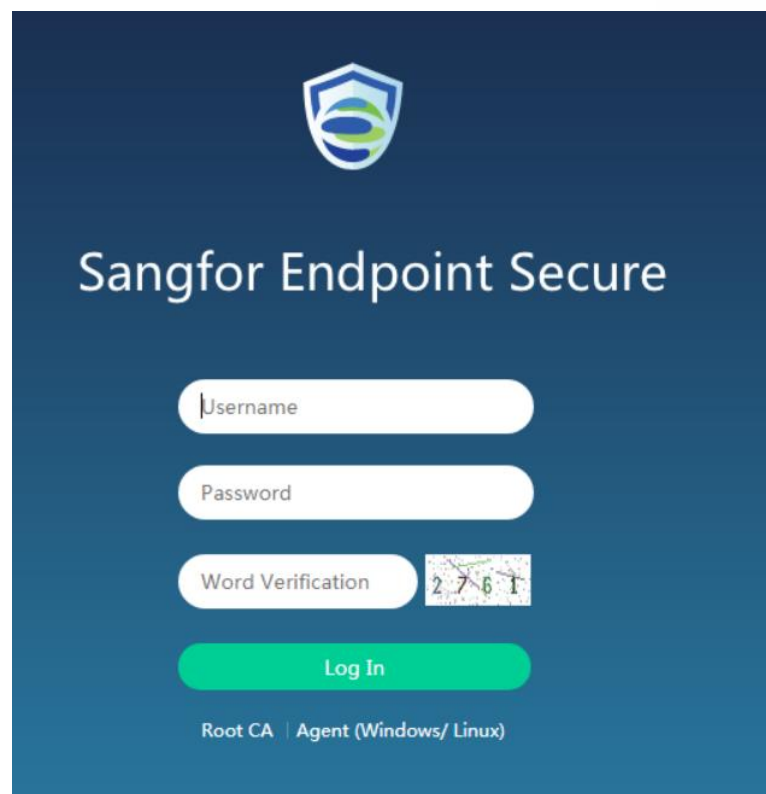
Endpoint Secure Agent supports the installation and use of 10 security software compatible with Kingsoft Antivirus, Flint (Personal Edition), QQ Butler, Rising Star Personal Edition, Qi'anxin Tianquan, 360 Antivirus, 360 Security Guard, Trend Deep Security, Trend office scan, Symantec

Installation package deployment



Applicable scenarios.

The administrator downloads the agent installation package and imports it into the terminal for installation and deployment via mobile media such as USB flash drive, the most direct deployment method




Web Promotion Deployment

Applicable scenarios.

The administrator will publish the web page of the deployment notice, send the link of the publishing page to the terminal via email, OA, etc., and the end user will download the agent installation package for installation and deployment.

Agent Deployment




Agent Installation on Physical Machines

Download the installer, save it to a removable storage device like USB devices, copy and install it onto computers.

Windows Computers


1. Click the button to download the installer.
2. Copy the installer to Windows computers.
3. Double-click the installer and install the Agent.
4. Wait for installation to complete and the Agent connect to this manager.

⚠ Installation package name (like `edr_installer_192.168.20.51_443.exe`) contains manager IP address and therefore cannot be changed.

 Download Installer

Linux Computers

1. Click the button or execute command to download the installer: `wget --no-check-certificate https://manager_ip/html/linux_edr_installer.tar.gz`.
2. Copy the installer to Linux computers.
3. Decompress the installer with `tar -xzf linux_edr_installer.tar.gz`.
4. Execute command `./agent_installer.sh`.
5. Wait for installation to complete and the Agent connects to this manager.

 Download Installer


IAM(IAG) correlated Deployment



Applicable scenarios.

For customers who have purchased IAM(IAG) at the same time, Endpoint Secure and IAM(IAG) are linked, and when users open the web page, they are redirected by IAM(IAG) to the Agent installation page as shown below, until the Agent is successfully installed on the terminal.

Agent Deployment





Agent Installation on Physical Machines

Download the installer, save it to a removable storage device like USB devices, copy and install it onto computers.

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 Installation package name (like `edr_installer_192.168.20.51_443.exe`) contains manager IP address and therefore cannot be changed.

 [Download Installer](#)

Linux Computers

1. Click the button or execute command to download the installer: `wget --no-check-certificate https://manager_ip/html/linux_edr_installer.tar.gz`.
2. Copy the installer to Linux computers.
3. Decompress the installer with `tar -xvf linux_edr_installer.tar.gz`.
4. Execute command `./agent_installer.sh`.
5. Wait for installation to complete and the Agent connects to this manager.

 [Download Installer](#)

Virtual Machine Template Deployment



Applicable scenarios.

Suitable for desktop office environments or virtualized environments, administrators can prepare virtual machine templates with Endpoint Secure Agent in advance in the virtualization platform, and generate other virtual machines as needed.

Domain Control Scenario Deployment

Applicable scenarios.

The terminal is unified managed by Windows AD domain control and can deploy software installation package in bulk for silent installation through domain control group policy.

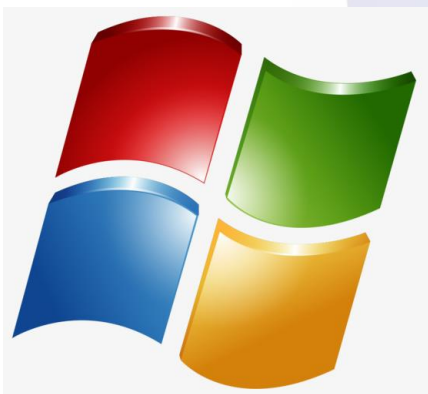
5. Agent Uninstallation



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Client Agent Uninstallation

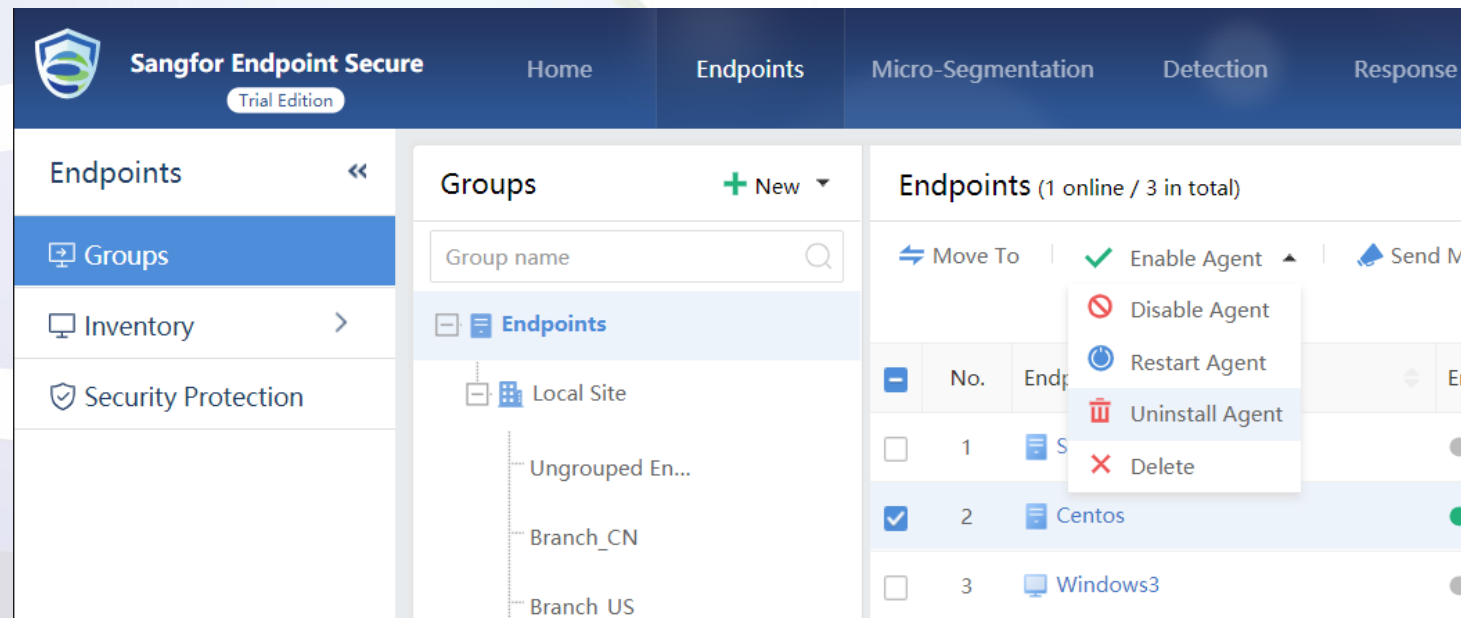
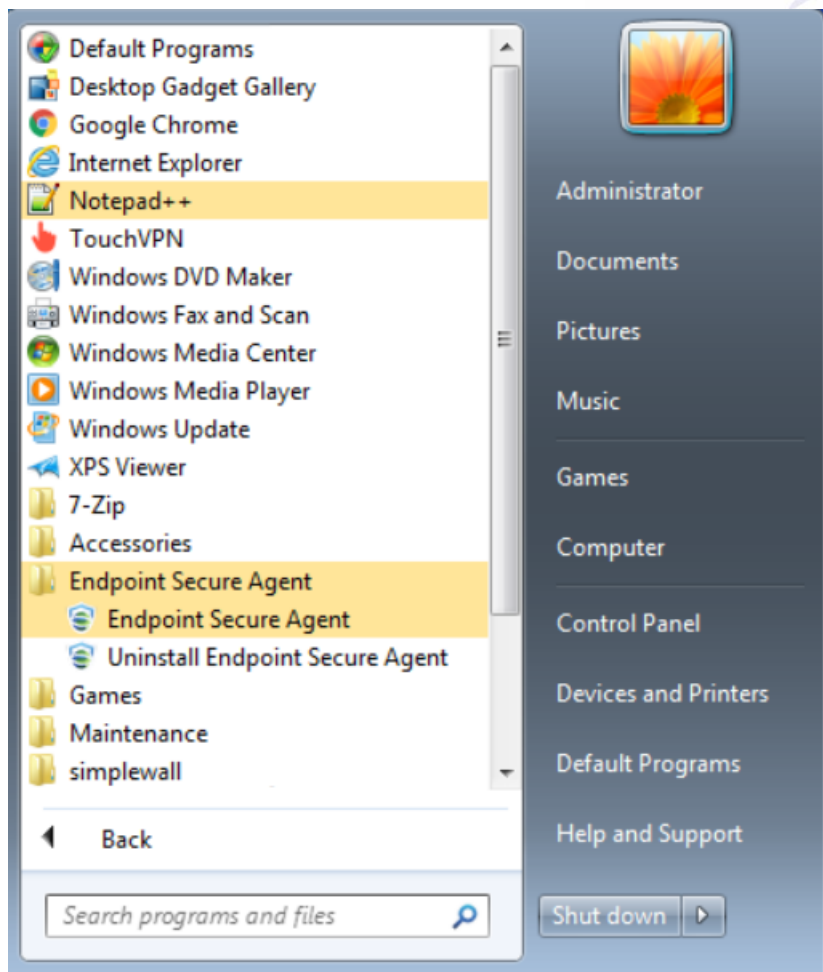
Agent uninstallation includes Windows client uninstallation and Linux client uninstallation



Windows client uninstall



There are two ways to uninstall the Windows client: terminal uninstallation and MGR management platform uninstallation



Windows client uninstall



In order to prevent the terminal from being unsecured due to malicious uninstallation of the client, it is necessary to obtain the anti-uninstallation password when uninstalling the Agent from the terminal (the anti-uninstallation password is set by the administrator in the management platform).

A Windows-style dialog box titled "Endpoint Secure Agent" with the subtitle "Ultimate Security in a Lightweight Client". The dialog has a blue header bar with the Sangfor logo. Below the header, there is a password input field consisting of six square boxes, the first of which contains a vertical line. Below the input field, the text "Enter the uninstallation password obtained from Sangfor Endpoint Secure admin." is displayed. At the bottom, there are two buttons: a blue "OK" button and a white "Cancel" button with a grey border. The dialog box has standard Windows window controls (minimize, maximize, close) in the top right corner.

Linux client uninstallation



There are two ways to uninstall the Linux client: terminal uninstallation, MGR management platform uninstallation

```
[root@hbz ~]# cd /sangfor/edr/agent/bin/
[root@hbz bin]# ls
abs_deployer      edr_agent          eps_uninstall.sh  isolate_area_set  sfavsrvcleaner    stop_pre.sh
abs_monitor       edr_monitor        epsxtest          isolate_area_set.1 loader             uninstall_agent_ipc.1
abs_monitor.lock  edr_sec_plan       flux_app          lloder            sf_isolate_encry  webshell_first_scan_flag
agent_list        eps_app            get_appversion    luadb             sfupdate           wfplog.1
agent_list.1      eps_delay_clean.sh ipc_probe         post_script       sfupdatemgr       start_pre.sh
blscan.sh         eps_services       ipc_probe.1       resmon_export.sh  start_post.sh     stop_agent_ipc.1
cfg_dump.lua      eps_services_check.sh ipc_proxy         rwini             setsyslog          stop_post.sh
cpulimit          eps_services_ctrl  iptables          sfaucfg.ini      stop_pre.sh
download_limits.sh eps_services_ctrl.lock iptables.1        stop_post.sh

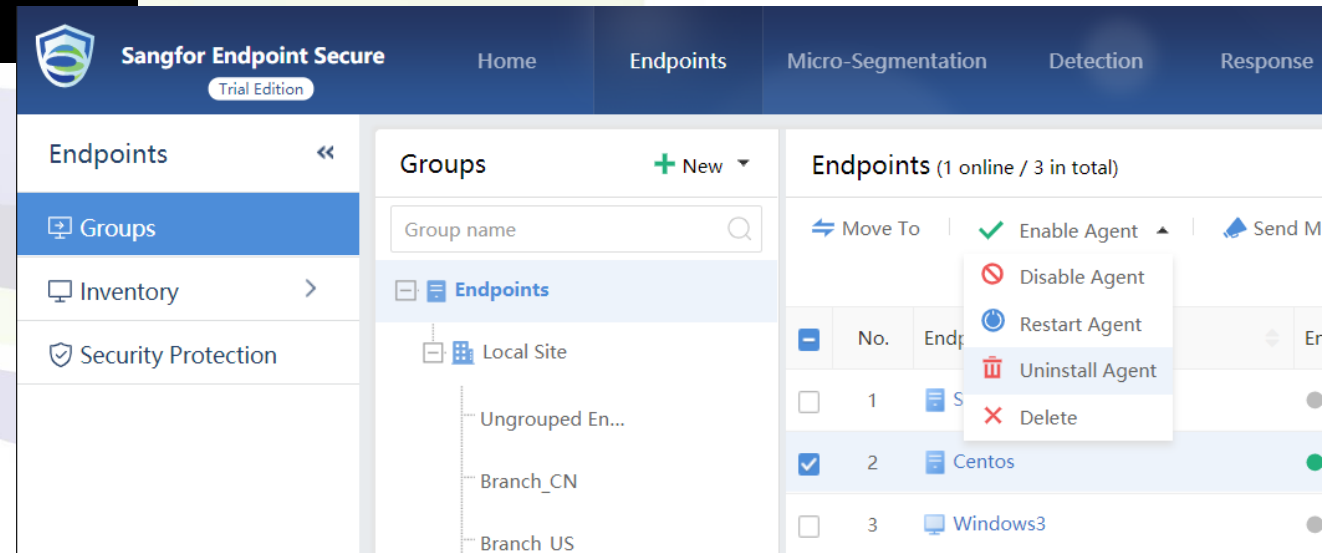
[root@hbz bin]# ./eps_uninstall.sh
start uninstall eps agent
start stop eps_services
uninstall
edr stop success
start clean file
edr agent uninstall success!!

*****
* [Warning] Please reboot your server now. *
*****

you have new mail in /var/spool/mail/root
[root@hbz bin]#
```

The Linux terminal is GUI-less.

Therefore, no uninstall password is required for uninstallation from the Linux terminal or from the MGR management platform.



Thank you !

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