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FinSpyPC 4.51 (HotFix for 4.50)

Release Notes



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Release information

Version	Date	Author	Remarks
1.0	2010-05-27	ah	Initial version
1.1	2010-05-31	ht	Add change log
1.2	2010-06-28	ht	New format
1.3	2011-11-13	lh	FinSpy 3.10 Release
1.4	2012-02-15	lh	FinSpy 4.00 Release
1.5	2012-03-26	Lh	FinSpy 4.01 Hot Fix Release
1.6	2012.06.16	Lh	FinSpy 4.10 Release
1.7	2012.07.28	Lh	FinSpy 4.11 Hot Fix Release
1.8	2012.08.10	Lh	FinSpy 4.20 Release
1.9	2012.09.13	Lh	Complete the release notes for 4.20 Release.
1.10	2012.10.24	Lh	FinSpy 4.21 Hot Fix Release
1.11	2013.02.26	Lh	FinSpy 4.30 Release
1.12	2013.02.28	Lh	Review and Update the 4.30 Release Notes
1.13	2013.04.24	lh	FinSpy 4.31 Hot Fix Release
1.14	2013.05.16	Lh	FinSpy 4.32 Hot Fix Release
1.15	2013.09.02	lh	FinSpy 4.40 Release
1.16	2013.12.22	Lh	FinSpy 4.50 Release
1.17	2014.04.14	Lh	FinSpy 4.51 Hot Fix Release



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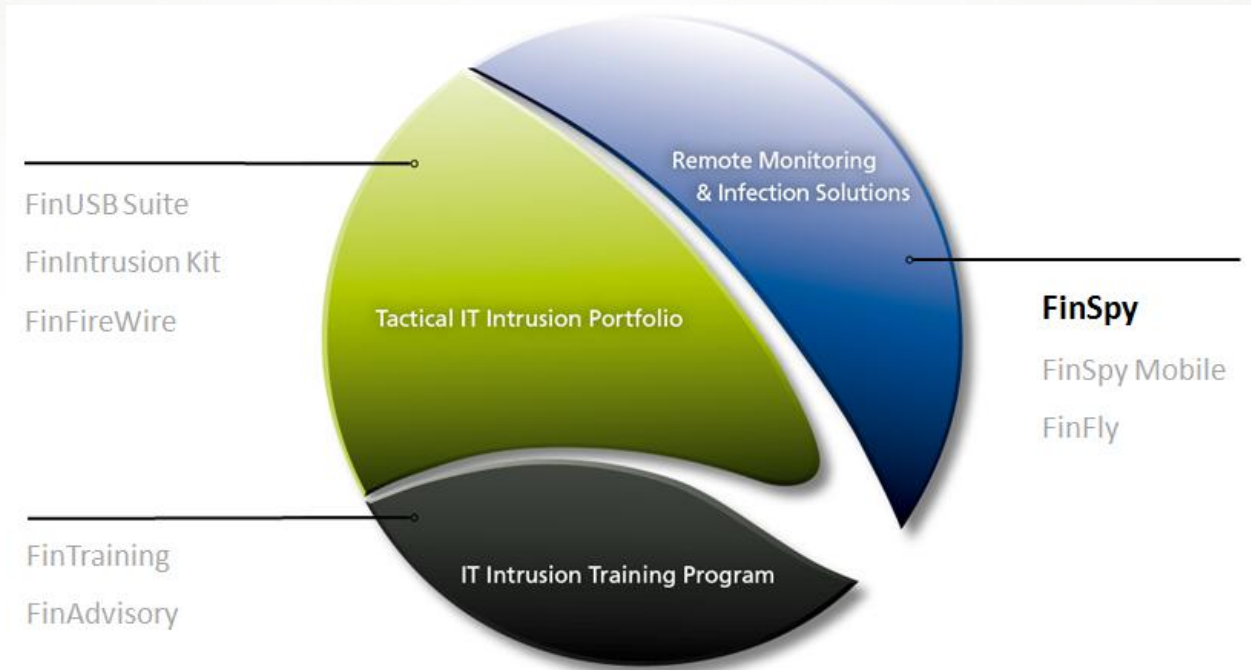
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1 OVERVIEW




FinSpy is designed to help Law Enforcement and Intelligence Agencies to remotely monitor computer systems and get full access to:

- **Online Communication:** Skype, Messengers, VoIP, E-Mail, Browsing and more
- **Internet Activity:** Discussion Boards, Blogs, File-Sharing and more
- **Stored Data:** Remote access to hard-disk, deleted files, crypto containers and more
- **Surveillance Devices:** Integrated webcams, microphones and more
- **Location:** Trace computer system and monitor locations





2 SUPPORTED PLATFORMS

Platform		Supported Version	Latest Version on the Market
	Windows 32/64bit	Windows XP Windows VISTA Windows 7 Windows 8/8.1	Windows 8.1
	Linux 32/64 bit	Ubuntu 10.x – 13.x Debian 5.x 6.x 7.x Fedora 15 – 20 Suse 12.1 – 13.1 <i>other linux flavours *</i>	Ubuntu 13.10 Debian 7.3 Fedora 20 Suse 13.1
	Mac OS X 64bit	10.6.x – 10.9.x	10.9.2



3 CHANGELOG

Version 4.50 (HotFix for 4.51)		
Component	Change	Description
FinSpy PC WindowsTarget	Rootkit (enhancement)	Adapt the Trojan installer to avoid Security Essential and Avast AntiVirus detection.
FinSpy PC Windows Target	Skype Module enhancement	Make the appropriate modifications to avoid the popup Skype brings when the Trojan Skype module injects code into Skype.
FinSpy PC Windows Target	WiFi Module (new data collection module)	Collects information about the Wireless Networks in the area. The module can be configured to turn on the Wireless Network card installed in the system if it's turned off, collect the data and turn it off again. If configured on the Master, the core system can make online lookups to associate the collected Wirelesses Network information with Polar coordinates and display them on the map.
FinSpy PC Windows Target	VoIP Module/VoIP Lite Module (enhancement)	Provide support for live streaming when a VoIP conversation is in progress. The master will automatically record the conversation and the Agent has the option to tap into and live listen the communication
FinSpy PC Windows Target	Recorded Evidence (enhancement)	Add extra information about the target to the meta information which are generated together with the evidence collection: <ul style="list-style-type: none"> - Machine SID - Harddisk Serial Number/System Volume Serial Number - Windows Product ID - CPU ID - MAC Addresses of installed network cards
FinSpy PC Windows Target	Screen Module (enhancement)	Automatically record the second screen if the system is displaying information on dual displays.
FinSpy PC Linux Target	Rootkit (enhancement)	Binary encryption for the Linux Target Components. All the Target components are kept on the disk encrypted and they are decrypted in target machine's memory upon loading.



<p>FinSpy PC Linux Target</p>	<p>Email Module (new data collection module)</p>	<p>In charge with the collection of the incoming and outgoing emails from the target system. Currently the module support email collection from the Mozilla Thunderbird email client. The module offers advanced filtering capabilities.</p>
<p>FinSpy PC Linux Target</p>	<p>WiFi Module (new data collection module)</p>	<p>Collects information about the Wireless Networks in the area. The module can be configured to turn on the Wireless Network card installed in the system if it's turned off, collect the data and turn it off again. If configured on the Master, the core system can make online lookups to associate the collected Wireleses Network information with Polar coordinates and display them on the map.</p>
<p>FinSpy PC Linux Target</p>	<p>Recorded Evidence (enhancement)</p>	<p>Add extra information about the target to the meta information which are generated together with the evidence collection:</p> <ul style="list-style-type: none"> - Host Name - Harddisk Serial Number - DBus ID - CPU ID - MAC Addresses of installed network cards
<p>FinSpy PC Linux Target</p>	<p>Communication (enhancement)</p>	<p>Support HTTP Tunneling if configured in the Core System and if the target system has configured a HTTP Proxy in Firefox.</p>
<p>FinSpy PC Mac OS X Target</p>	<p>Email Module (new data collection module)</p>	<p>In charge with the collection of the incoming and outgoing emails from the target system. Currently the module support email collection from the Mozilla Thunderbird and Apple Mail email clients. The module offers advanced filtering capabilities.</p>
<p>FinSpy PC Mac OS X Target</p>	<p>WiFi Module (new data collection module)</p>	<p>Collects information about the Wireless Networks in the area. The module can be configured to turn on the Wireless Network card installed in the system if it's turned off, collect the data and turn it off again. If configured on the Master, the core system can make online lookups to associate the collected Wireleses Network information with Polar coordinates and display them on the map.</p>
<p>FinSpy PC Mac OS X Target</p>	<p>Recorded Evidence (enhancement)</p>	<p>Add extra information about the target to the meta information which are generated together with the evidence collection:</p> <ul style="list-style-type: none"> - Model Identifier - Hardware UUID - System Serial Number - Memory Serial Numbers - MAC Addresses of installed network cards



<p>FinSpy PC Linux Mac OS X</p>	<p>Communication (enhancement)</p>	<p>Support HTTP Tunneling if configured in the Core System and if the target system has configured a HTTP Proxy in Firefox and/or in the system settings.</p>
<p>FinSpy PC Mac OS X Target</p>	<p>Root Kit (enhancement)</p>	<p>Support for Mac OS X Mavericks.</p>
<p>FinSpy PC Mac OS X Target</p>	<p>Target Core (enhancement)</p>	<p>Support for Target Offline Configuration. Like in the case of Windows and Linux the user can configure the target when it is offline and the configuration will be pushed by the Master to the Target once it comes online.</p>



4 LIMITATION

This chapter covers current known limitations within the FinSpy Software.

Component	Operating System / Language	Description
FinSpy Generic	All	Full Anti-Virus/Anti-Spyware bypassing cannot be guaranteed due to regular changes in these products
FinSpy Target / Rootkit	Windows Vista Windows 7	Symbolic links cannot be opened or downloaded in "File Access" Module.
FinSpy Target / Rootkit	All Windows - Chinese	The logging of the "wordpad.exe" key strokes work only with 1 out of 3 provided IMEs (Input Method Editor).
FinSpy Target / Rootkit	All Windows - Arabic	Keylogging of digits are logged in Latin-1 instead of Arabic.
FinSpy Target / Rootkit	All Windows	The VoIP Module does not generate a valid recording for MSN Messenger voice conversation if the parties are not talking (no sound is made in microphones).
FinSpy Target/Rootkit	Windows 8 – Metro Skype	The Metro Skype is not supported. However the Skype Desktop is supported also on Windows 8.
FinSpy Target/Rootkit	Windows VISTA 64bit – WiFi Module	If the Target is installed in Admin or MBR Mode on a VISTA 64bit operating system due to operating system limitations the WiFi Module is not capable of collecting any data.
FinSpy Target / Rootkit	Windows 7 and Windows 8 64 bit with Comodo	The infection will be completed and the heartbeats will be sent only after the target machine rebooted.



<p>FinSpy Target/Rootkit</p>	<p>Linux – Changed/Accessed/Deleted Files Modules</p>	<p>The operating system limits the number of files/folders a process can access in parallel. This value can vary from Linux flavour to Linux flavour and cannot be controlled from within the target code. Due to this reason the user should limit the range of the locations and folders which should be monitored for changed, accessed and deleted files.</p>
<p>FinSpy Target/Rootkit</p>	<p>Linux – Core System</p>	<p>Due to changes in the rootkit suffered by the Linux Target 4.50 the systems which have installed the Linux Target 4.40 or older version cannot be updated to version 4.50 or later. This limitation applies also to the new functionalities developed in 4.50. They will not be available for installation to a target with version 4.40 or older.</p>
<p>FinSpy Target/Rootkit</p>	<p>Linux – Core System</p>	<p>Due to changes in the rootkit the following limitation apply for updating from version 4.50, to update from version 4.50 to 4.51:</p> <p>After a successfully update from 4.50 to 4.51 the Trojan will go offline until the user logs in again or the system is rebooted.</p>
<p>FinSpy Target/Rootkit</p>	<p>Mac OS X – Changed/Accessed/Deleted Files Modules</p>	<p>The operating system limits the number of files/folders a process can access in parallel. This value cannot be controlled from within the target code. Due to this reason the user should limit the range of the locations and folders which should be monitored for changed, accessed and deleted files.</p>
<p>FinSpy Target/Rootkit</p>	<p>Mac OS X– Core System</p>	<p>Due to changes in the rootkit suffered by the Mac OS X Target 4.50 the systems which have installed the MAC OS X Target 4.40 or older version cannot be updated to version 4.50 or later. This limitation applies also to the new</p>



		functionalities developed in 4.50. They will not be available for installation to a target with version 4.40 or older.
FinSpy Target/Rootkit	Mac OS X- Core System	<p>Due to changes in the rootkit the following limitation apply for updating from version 4.50, to update from version 4.50 to 4.51:</p> <p>To update the 4.50 to 4.51 the user has first to remove all the installed modules, then update the trojan core to 4.51 and then upload back the updated 4.51 modules.</p>
FinSpy Target/Rootkit	Mac OS X – WiFi Module	The WiFi Module under Mac OS X is not capable to record Wireless Networks with hidden SSID.
FinSpy Target/Rootkit	Mac OS X – HTTP Tunnelling	HTTP Tunnelling on Mac OS X is highly dependent on the HTTP proxy environment and is known not being stable in slow environments.
FinSpy Target/Rootkit	Mac OS X – Skype Module	<p>On Mac OS X 10.9.x system which has installed Skype 6.14, Skype module has the following behaviour:</p> <ul style="list-style-type: none"> - When the Trojan is active and injecting into Skype, a notification appears in the Skype telling that a Skype module is installed. - Skype Conversation Recordings sub-module records for the incoming calls only sound from the conversation partners and NOT from the Skype logged in user.
FinFly USB / Infection ISO Image	<p>FinFly USB Infection Dongle - Bootable Mode</p> <p>Infection ISO Image</p>	If the user chooses in the target creation wizard to generate a bootable FinFly USB dongle the infection stored for the bootable functionality will have none of the selected modules. This limitation is mandatory due to the limited space in the MBR.

<p>FinFly USB / Infection ISO Image</p>	<p>FinFly USB Infection Dongle - Bootable Mode Infection ISO Image</p>	<p>The FinFly USB dongle and the Infection ISO Images can infect the MBR of the system in one of the following situations:</p> <ul style="list-style-type: none"> ▪ The installed OS is unencrypted ▪ The installed OS is encrypted with TrueCrypt ▪ The installed OS is encrypted with BitLocker
<p>FinFly USB / Infection ISO Image</p>	<p>FinFly USB Infection Dongle – Remove Infection Infection ISO Image</p>	<p>The FinFly USB Infection Dongle in bootable mode can be used to remove the infection from a target only if the target is infected with the MBR Trojan.</p> <p>After this type of removal the Trojan will not heartbeat anymore and will stay in the offline list and has to be moved manually to the Archived list by selecting “Remove Infection” in the FinSpy Agent.</p>
<p>Target Installer</p>	<p>Infected Microsoft Office Documents</p>	<p>The infection will be installed only if the infected Microsoft Office documents are opened with Microsoft Office.</p>
<p>FinSpy Agent</p>	<p>.NET 4.5 is a prerequisite for the Agent.</p>	<p>To access new system features and to overcome the previous .NET platform bugs the Agent v4.50 software was built against the .NET 4.5 platforms.</p> <p>To be able to install the new Agent version and take advantage of its new features the user has to update the .NET platform to 4.5 or later on the Agent laptops.</p>
<p>FinSpy Master/Proxy/Relay</p>	<p>HTTP Tunnelling Support</p>	<p>This is not necessarily a limitation but will be kept of the Limitation list for the next few releases for information purposes.</p> <p>For the target to be able to use the HTTP tunnelling connection the Relay to which the target heartbeats should behave like a regular website meaning that it has to listen on port</p>



		<p>80. This means that the target also has to be configured to connect to port 80 on the Relay in discussion.</p>
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