Product Review



Mobile Security

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Introduction

Smartphones are enjoying ever-increasing popularity today. The integration of new technologies, previously only found on personal computers, has led to Smartphones becoming real powerhouses. This process has also brought some risks with it. Smartphones are being used more and more frequently to surf the Internet, transfer data, and serve as company data stores. This increases the risk, not only of malware infecting the phone, but also phishing and concentrated attacks on data. In the era of Beetaggs, QR and Datamatrix, phishing attacks are easy to start.

Almost everyone has a security program on their home PC. The use of such programs on smart phones is not widespread, however, although many people store important personal data, private photos and sometimes even business data on their mobile phones.

As Smartphones are small and very expensive, they are exposed to an additional risk: they are an attractive target for thieves. It is important to make it difficult to access confidential data on stolen Smartphones; the attractiveness of stealing mobile phones must be removed. Without mobile-phone security, thieves have an easy time. They can swap the SIM card, meaning that the phone is out of reach of the owner. Alternatively, they can make calls at the owner's expense, or even use the phone for further criminal activity.

To avoid such scenarios, modern security products for mobile phones employ various different features.

Theft protection

A very useful feature is theft protection for Smartphones. If the phone is stolen or lost, the owner can lock, wipe or locate it. For the latter, the owner has to send a text message from any other mobile phone to his or her own Smartphone, containing the appropriate code and password, and then receives a return text with the GPS coordinates of the lost or stolen phone.

This feature is very useful, but can be misused to locate a person without their knowledge. It is possible to install security software on someone else's phone, or to give them a phone with the product already installed.

Firewall

Like the firewall on a PC, a Smartphone firewall allows the user to define which applications are allowed to make and receive connections, and which are blocked.

Virus protection

With the help of malware protection, Smartphones can be searched for malicious software, which is then deleted or quarantined. For this feature to function efficiently, the virus protection software needs to be kept fully up to date. One needs to be careful when abroad, so as not to incur excessive roaming charges.

The products in this review were tested on the Windows Mobile and Symbian Smartphone operating systems. Which other platforms are supported can be seen in the feature list of each product.

Our report gives details about the products of the leading mobile security providers.



ESET Mobile Security

ESET now includes in its range a mobile security suite called ESET Mobile Security for Smartphones and Pocket PCs. Modern security features such as theft protection and a firewall are integrated. The user interface is ar-



ranged in a very simple and clear manner, it is easy to use.



Installation

The installation of ESET Mobile Security ran quickly and smoothly via the phone (only 0.5 MB were downloaded). After installation, the product had to be manually activated.

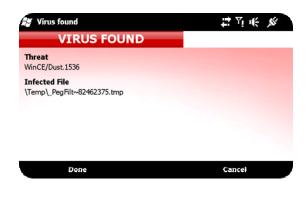
Starting the program

ESET Mobile Security can be started directly from the desktop of the Smartphone. It is not necessary to enter a password. The user can manually assign a password, e.g. to control access to the theft protection settings.

Real-time protection

When the real-time protection is activated, ESET Mobile Security functions as a constant guard, i.e. any files being opened, executed or saved are checked in real time for viruses. The real-time protection is activated by default, and does not produce any noticeable drop in performance.

In order to test the real-time protection, we attempted to load a virus onto the Smartphone. ESET Mobile Security blocked it immediately and showed the following alert:



Spam Filter

The spam filter allows the user to filter his or her SMS and MMS messages. By using blacklists and whitelists, telephone numbers to be blocked or allowed can be defined.

Theft protection

ESET also integrates theft protection measures. This allows a remote wipe of the Smartphone, and the sending of a text message in the event

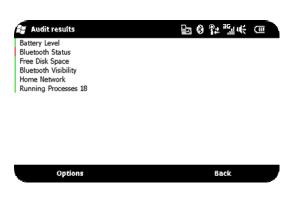


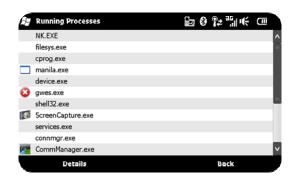


that the SIM card is changed. It was good to see that ESET activates the theft protection by default, and allows for a second trusted SIM card to be defined, which will not activate a warning if swapped for the original SIM.

Security check

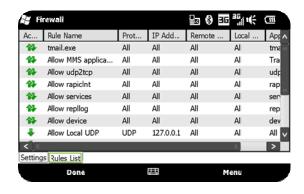
ESET Mobile Security integrates a security check procedure, which constantly checks elements such as battery status, Bluetooth status and running processes. The results are compared with customisable threshold values and then displayed in colour-coded form. Any value the wrong side of the threshold level is shown in red with option for user to make corrections.





Firewall

Like similar products from other manufacturers, ESET Mobile Security enables network traffic to be allowed, blocked, or regulated on a user-defined basis.



Uninstalling the product

The software can easily be removed using Windows Mobile's Remove Programs function. In order to avoid unauthorised removal, the ESET Mobile Security password is required.

Conclusion

ESET Mobile Security is a straightforward security solution that can be used easily by any user. ESET have found an elegant solution for users who use multiple SIM cards but don't want to go without theft protection.

In terms of price, ESET Mobile Security is at the lower end of the spectrum. However, it doesn't include location or encryption. As ESET is new to this market, these features may be included in later releases.





F-Secure Mobile Security

The mobile security software from F-Secure has a clear optical design. On our test phone, The HTC Touch Pro 2, the software buttons were large enough to use with a finger rather than having to use the stylus. The user interface



is easy to understand, saving any need to read the manual. It is good to note that F-Secure Mobile Security contains the most up-to-date protection mechanisms (virus protection, firewall and theft protection).



Installation

One possible means of installation is to download the software directly from the Smartphone. This would be expensive for users without Internet access included in their tariff (the download is nearly 3 MB). The other way to install the software is to download it onto a PC and then use ActiveSync to push it out to the Smartphone.

In our test, the software was downloaded directly from the phone. Protection starts as



soon as installation completes, but the phone has to be restarted in order to activate the firewall. Installation is a very simple process.

Starting the program

On completion of the installation, the program can be started via a link on the desktop. There is no password.

Virus protection

The virus protection is activated by default after the installation. The program recommends running a scan for malicious software; finally the user has to define how updates should be downloaded.

There are three possibilities. Firstly, updates should always be downloaded. A mobile phone tariff with flat-rate Internet access is recommended here.



The next option is only to download updates when connected to the home network, in order to avoid roaming charges. Finally, updates can be completely deactivated.

In our test we loaded two viruses onto the phone, which were instantly recognised by F-Secure Mobile Security and put into quarantine.

In order to test the browser protection, a phishing page was opened in Internet Explorer, and this was identified as a threat. The warning page is illustrated below:





Firewall

After the installation, the firewall security level is set to "Normal". Each security level includes groups of rules, such as "Block all", "High", "Allow all" and "Custom". In a rule group, specific services such as DNS, DHCP, SMTP and HTTP can be blocked or allowed.

Theft protection

F-Secure Mobile Security's theft protection integrates four useful features.

Location

This service allows the location of the mobile phone to be determined. The user can use any text-capable phone to send a message to his/her lost mobile. The message must contain a special codeword (#locate#) followed by a security code, which the user has already entered in the theft protection settings. If the phone is successfully located, the user will receive the GPS co-ordinates of the lost phone. If a GPS signal cannot be obtained, as is the case in some buildings/areas, the software will use Cell-ID instead, and produce an approximate location from this.

Remote reset

Using this service, the user can remotely wipe the Smartphone. This deletes all data on the phone. The service also uses a text message, this time with the codeword #wipe# and the security code.



Remote Lock

With the help of this feature, the user can remotely lock his/her Smartphone if it is lost or stolen. This service has to be configured before it can be used; the phone can then be locked by texting the codeword #lock# and the security code.

When a Smartphone has been locked by F-Secure Mobile Security, calls to the emergency services can still be made, unlike with some other products. This complies with EU guidelines, which state that locked phones should still be able to make emergency calls.

SIM card change alert

This service aims to prevent circumventing theft protection measures by changing the SIM card. Once the SIM card is changed, the Smartphone can no longer be reached on the original number, meaning that the locking/wiping/locating services could no longer be used. However, if the user has activated the "SIM card change alert" service, a text message is sent to a pre-arranged number with the phone number of the new SIM, meaning that the phone can then be located, locked or wiped using the number of the new SIM.

A small weakness in F-Secure Mobile Security is that this service is not activated by default, and that the user is not actively encouraged to set it up, meaning that if the phone is stolen, it is too late to use the feature.



Uninstalling the product

To uninstall F-Secure Mobile Security, the Remove Programs feature of Windows Mobile was used. In just a few seconds, the software was successfully removed from the phone.

Security useless unless phone locked

Once the required protection settings have been entered, the user is largely protected. In our test, however, it was possible to change the code for the theft protection of the Windows Mobile client, without having to put in the existing code. In fact, all settings for F-Secure Mobile Security could be changed without putting in a password, as long as the phone had not been locked. This would allow a thief to deactivate F-Secure Mobile Security within a maximum of 24 hours of stealing the phone even if the lock command has been received. This depends on the user settings. F-Secure has promised to fix this flaw, and send it to all Windows Mobile users on release. Simply passwordprotecting the settings of the software would make it much harder for a thief to access the data on the Smartphone.

Conclusion

F-Secure Mobile Security protects your Smartphone from thieves and malware. The user interface is clear and easy to use. Combination of antitheft, antivirus, firewall and browsing protection enables secure usage of the phone. The price is, relative to the competition, fairly high. 12 months' protection for one Smartphone cost nearly 40 Euro, although we have seen it in the OVI online store for only 10 Euro.





Kaspersky Mobile Security

In the field of mobile security, Kaspersky is already producing the 9th version of its Mobile Security suite. It consists of a multitude of applications, which appear to have



reached a mature stage of development. Protection features include antivirus, theft protection, privacy protection, encryption, anti-spam, parental controls and a firewall. The user interface is clearly laid out and easy to understand. A big plus point is the information management. If the user wants to (e.g.) activate the SMS block, he/she will immediately see a tooltip. This feature is not found in the competing products. The Protection Status feature shows an overview of the current settings of Kaspersky Mobile Security 9.

Installation

The installation of Kaspersky Mobile Security 9 from the CD was unproblematic. The setup program guides the user easily through the setup process. After activation, a security code has to be entered, which must be entered when the program starts. Kaspersky monitors the code and informs the user if an invalid code is used.

Starting the program

When installation is complete, the program can be started via a link on the Desktop. The user is prompted for the security code which was defined during setup.



Virus protection

Virus protection is activated by default, although no automatic system scan is carried out. Kaspersky allows a scheduled scan to be set up, though this has to be manually configured. By default, virus definitions are downloaded weekly. "Update while roaming" is the standard setting.



When we tried to infect the Smartphone with a virus, Kaspersky only gave a strange acoustic warning to inform the user that a threat had been found. The standard setting when a virus is found is to put it in quarantine. Other options are deleting or logging.



Firewall

The firewall has 4 modes: "Off", "Minimal Protection", "Maximum Protection" and "Block All". The standard setting is "Off", meaning that all connections are accepted. Switching between modes is simple, and a useful description informs the user of the firewall's behaviour. A minor shortcoming is the inability to set rules, e.g. to allow exceptions.



Theft protection

Like the other mobile security products, Kaspersky Mobile Security 9 integrates 4 theft protection mechanisms, which are deactivated by default.



SMS Lock

With the help of SMS Lock, the user can remotely lock his/her Smartphone. A text message with the word "Lock" followed by the security code is sent to the Smartphone to be locked. A message to the thief/finder can be defined.



When the phone has been locked by text message, it cannot call even emergency numbers. Kaspersky need to improve this, due to EU regulations stating that even locked phones should be able to dial numbers for the emergency services.

SMS Clean

Users of Kaspersky Mobile Security 9 can define folders that can be deleted by text message. The folder is added to the list of "Folders to be deleted". The user can then activate or deactivate folder deletion and the deletion of personal data.





SIM-Watch

SIM Watch enables the user to have a message sent to a phone number or email address when the SIM card has been swapped, giving the new phone number. This means that the user can then send a text message to the new number, in order to locate, lock or wipe the phone.

SIM Watch also has the option of blocking the phone and displaying a pre-defined message as soon as the SIM card is changed.

SIM-Watch SIM-Watch SIM-Watch Aktivieren Neue Nummer senden Telefonnummer: E-Mail-Adresse: E-Mail-Adresse: Gerät blockieren Text beim Blockieren Text beim Blockieren: Das Gerät wurde blockiert! Bitte geben Sie es dem Besitzer zurück. Telefonnummer des Besitzers:

GPS Find

If GPS Find is activated, the mobile phone can be located by text message. Having sent the appropriate text to the lost/stolen phone, the user receives an email (sent to a preconfigured address) with a link to Google Maps, showing the position of the phone.



Privacy protection

This component allows sensitive information to be hidden. This includes personal contact details, which may be stored on the SIM card or the phone's own internal storage. Messages and phone call records can also be hidden. Adding an individual to the "private sphere" means that this person will not appear in the address book or message records.



Encryption

Kaspersky Mobile Security 9 allows the encryption of non-system folders. Similarly to the privacy protection, folders can be added to a list of items to be encrypted. A time can be set, after which the encryption of the folders starts (depending on the power-saving settings of the phone).





Parental controls

Using the parental controls, rules for making outgoing calls and sending text messages can be defined. Kaspersky Mobile Security 9 gives a choice of two modes, Whitelist and Blacklist. Whitelist allows only those numbers on the list to be contacted (calls only, SMS only, or both). Blacklist allows calls and texts to all numbers except those on the list.



Uninstalling the program

Removing the program was not quite simple, as some components such as Privacy Protection, which had been activated, needed to be deactivated first. The uninstall routine informs the user which services need to be deactivated, however. We were pleased to note that the password has to be entered to uninstall the product, thus preventing unauthorised removal.

Usability

The interface for the configuration has been well designed, and tool tips provide assistance. These are easy to understand and do not require any specialist knowledge.

Conclusion

Kaspersky Mobile Security 9 is the ideal solution for responsible end users, and includes a variety of well-thought-out services at a very reasonable price. Twelve months' protection only cost 25 Euro.

There is one small minus point relating to performance. If all the security services are activated, the Smartphone does react a little more slowly.





Trend Micro Mobile Security

Trend Micro's Mobile Security is already available in version 6.5. The application is well structured works reliably in the background. It integrates the most security important



components, such as theft protection, parental controls, anti-spam for text messages, browser protection and firewall.



Installation

The installation of Trend Micro Mobile Security was carried out with the help of ActiveSync. The installation file was loaded onto the device and run. The product was successfully installed in a matter of seconds.

Starting the program

The Trend Micro user interface can be started from the home screen of the Smartphone. It is not necessary to enter a password.

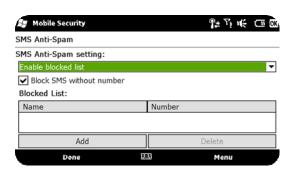
Firewall

By default, the firewall is set at "Normal" level, which allows outgoing Internet traffic, but blocks incoming. There are two other levels, "Low" and "High", the details of which are shown in an information area of the program window.



SMS Anti-Spam

The SMS anti-spam component is deactivated by default, but can easily be activated and configured by the user. Trend Micro Mobile Security uses the principle of blacklists and whitelists, which can be defined by the user. In the case of a blacklist, the user decides which numbers to block; in the case of the whitelist, all numbers are blocked except those on the list.





WAP Push Protection

The WAP Push Protection component can be used to create a list of trustworthy senders who are allowed to send WAP push messages to the Smartphone. If the phone receives such a message from a sender not on the trusted list, Trend Mobile Security will inform the user, giving him/her the opportunity to accept or reject the message.



Web Reputation

Web Reputation blocks websites that Trend Micro has deemed to be "dangerous", and protects against other online security threats. Depending on the security level chosen, the user can be protected against Pharming, phishing and so on. Again there are three security levels to choose from.



If Web Reputation is activated and the user visits a phishing site which is successfully identified by Trend Micro, the following warning will be shown:



In order to test the virus protection feature of Trend Micro Mobile Security, an attempt was made to infect the Smartphone. The virus was immediately blocked and quarantined, and the following warning was shown:



Parental Controls

The Parental Controls feature allows the user to prevent children from seeing specific websites, using the three security levels "Low", "Medium" and "High".

- "Low" blocks violent, pornographic and dangerous websites
- "Normal" blocks websites that are unsuitable for children and teenagers
- "High" blocks websites that are unsuitable for children under 13 years old

To activate the parental controls feature, the user has to enter a password, which is then required to make changes to both this feature and the theft protection.





Theft protection

The theft protection adds two security features to your Smartphone. Firstly SIM Watch, and secondly SMS Remote Wipe.



SIM Watch

SIM Watch locks the phone if the SIM card is removed or swapped, and informs the owner. This is done by sending a text message to a trusted phone number, which is defined by the owner when setting up SIM Watch.

SMS Remote Wipe

When enabled, SMS Remote Wipe allows the user to wipe the Smartphone and storage card remotely by sending a text message with the word "wipe" and a pre-defined security code.

Uninstalling the program

The software can easily be removed using the Remove Programs feature in Windows Mobile. The Trend Micro Mobile Security password must be entered, to prevent unauthorised removal of the product.

Conclusion

Trend Micro Mobile Security is clearly laid out, easy to use, and simple to customise to one's individual requirements. It integrates the most important current security features, although it does not have a location service.

Trend Micro is also the only mobile security product that includes a version for the iPhone (albeit with much-reduced functionality).





Conclusion

These days, nobody who uses a Smartphone should go without security software. This is not only because of the risks found on the Internet, but especially down to other threats such as theft and the possibility of confidential data falling into the wrong hands. Every Smartphone should be protected, whether it is used privately or for business.

Due to the good processor performance in modern devices, reduction in performance and battery life is as good as unnoticeable.

All the products we have tested served their purpose, although deciding which product is best suited for a particular type of user is difficult.

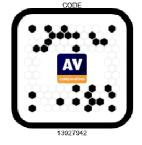
ESET Mobile Security is a straightforward security product that can be used easily by any user. ESET have found an elegant solution for users who use multiple SIM cards but don't want to go without theft protection.

With **F-Secure Mobile Security** your Smartphone is protected against thieves and malware, as it contains all the currently import security components. It can be downloaded and installed very simply, directly from the manufacturer's website.

Kaspersky Mobile Security is the ideal solution for responsible end users, and includes a variety of well-thought-out services at a very reasonable price.

Trend Micro Mobile Security is clearly laid out, and a version is available for the iPhone. The Web Reputation component protects your Smartphone by blocking dangerous websites before they can be opened.

We recommend that you consider carefully which protection elements are most important to you before deciding on a mobile security product. Almost all the manufacturers offer a free test version. We would definitely recommend that for effective protection, any product you choose should have antivirus, firewall, phishing filter and remote lock features.







Particular care needs to be taken with the use of tag readers. We are seeing more and more frequent abuse of these at events. Especially at mass events such as rock concerts, illegal Beetagg, QR-Code and Datamatrix tags can be found, which link to phishing and malware websites. A good phishing filter is the best technical protection.



Feature List Mobile Security						
	Windows Mobile					
Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security		
Supported OS versions	Windows Mobile 5.0-6.5	Windows Mobile 5.0-6.5	Windows Mobile 5.0-6.5	Windows Mobile 5.0-6.5		
Supported Program languages	English	English, Arabic, Simplified Chinese, Traditional Chi- nese, Danish, Spanish, Finnish, French, German, Bahasa Indonesia, Italian, Japanese, Bahasa Malaysia, Dutch, Norwegian, Polish, Brazilian Portuguese, Portu- guese, Russian, Swedish, Tagalog, Thai, Turkish, Korean	English, Russian, German, French, Italian, Polish, Spanish, Portuguese, Danish, Norwegian, Finnish, Swedish, Simplified Chinese, Traditional Chinese, Arabic, Turkish, Czech, Dutch	English, German, Spanish, French, Russian, Traditional Chinese, Dutch		
Locking Features						
Lock Contacts	-	YES	YES	-		
Lock Images/Files	-	YES	YES	-		
Lock SMS/MMS	-	YES	YES	YES		
Lock SIM	-	YES	YES	-		
Anti Spam Features						
Whitelist/Blacklist calls	-	-	YES	-		
Whitelist/Blacklist SMS	YES	-	YES	YES		
Whitelist/Blacklist MMS	YES	-	-	YES		
Block known SMS/MMS spam	YES	-	-	YES		
mark as spam with one click	-	-	YES	-		
White- and Blacklisting with wildcards	-	-	YES	-		
Block attachments/applications/file extensions	YES	-	-	-		
Parental Control						
Pay Number locking	-	-	YES	-		
SMS Find (Localization of the Smartphone)	-	YES	YES	-		
Log visited URLs	-	-	-	YES		
Firewall Features						
Real-Time protection of inbound/outbound Traffic	YES	YES	YES	YES		
App Whitelisting/Blacklisting	YES	-	-	-		
Learning features	YES	-	-	-		
Different protection level	YES	YES	YES	YES		
Different rule sets	YES	YES	-	YES		
WiFi / Bluetooth protection	YES	YES	YES	-		
Activity log	YES	YES	-	YES		
Protection log	YES	YES	YES	YES		
Customizable firewall rules	YES	YES	YES	YES		
Stateful packet inspection (conditional rules)	YES	YES	-	YES		
Remote Features						
Remote wipe of a stolen Smartphone	YES	YES	YES	YES		
Remote wipe with Exchange Server 2007/2010 / Outlook Web Access / ActiveSync	YES	Through the management portal and device management	-	-		
Remote GPS localization	-	YES	YES	-		
SIM Watch (changing the SIM)	YES	YES	YES	YES		



Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security
Remote installation	-	Through device manage- ment or through F-Secure Mobile Services portal	in the enterprise version	YES
Remote configuration	-	Through device management	in the enterprise version	YES
Remote updates	YES	YES	-	YES
Remote encryption	-	-	-	YES
Encryption Features				
File System encryption	-	Through partner solution	YES	YES
Password protected encryption	-	Through partner solution	YES	YES
Encryption by data types (Outlook, Word, Excel, PDF, etc.) and by data location (on device, attached, memory card, etc.)	-	Through partner solution	only by data location	YES
Admin decrypting option without password	-	Through partner solution	-	YES
Authentication				
Policy controlled authentication	-	-	-	YES
Access & encryption control	-	-	YES	YES
Port control: USB, Memory Cards, Bluetooth, WiFi	-	YES	-	YES
Resource Access control: IR, Camera, voice recording	-	-	-	YES
Password policy: strength, length, etc.	-	YES	YES	YES
Maximum number of failed attempts	-	YES	-	YES
Grace period	-	YES	YES	-
Lock Screen with password protection	-	YES	YES	YES
AV Features				
File protection	YES	YES	YES	YES
Network protection	YES	YES	-	YES
SMS/MMS Scanner	YES	YES	YES	Partial, Blacklist/Whitelist & Attachment Scan
Email Scanner	YES	YES	YES	-
Different Update profiles	YES	YES	in the enterprise version	YES
Own roaming update profile	YES	YES	YES	YES
Scan inside archives	YES	YES	YES	YES
Prevent access to harmful web sites (malware and phishing sites)	-	YES	-	YES
Anti-Theft Features				
Report thief's location at SIM change	-	YES	-	YES
Report thief's phone number by SMS	YES	YES	YES	YES
Possibility to receive calls while locked	=	YES	-	YES
Possibility to make emergency calls while locked	=	YES	-	YES
Support				
Email Support	YES	YES	YES	YES
Online Help	YES	YES	YES	YES
Online Help (special URL designed for browsing with the phone)	-	YES	YES	YES
User manual	YES	YES	YES	YES
User Forum	-	-	YES	YES
Online Chat	-	-	-	YES
Support over Telephone	YES	YES	YES	YES
Supported languages (of support)	all	all	all	all



Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security
Price (depends from channels etc.)				
Price 1 phone / 1 year	25 EUR	35 EUR	25 EUR	25 EUR
Price 3 phones / 2 years	61 EUR	180 EUR	150 EUR	150 EUR
Various				
Direct Install on Device through Download-Link	YES	YES	YES	YES
PC Management Software	-	-	-	YES
Central Management Software	-	Through F-Secure Mobile Services portal available for the administrators	in the enterprise version	YES
Synchronizing	YES	-	-	-
PC Application Install	YES	Possible through ActiveSync	YES	YES
Updates thru PC	YES	Possible through ActiveSync	Possible through ActiveSync	YES
Offline activation	-	-	-	YES
No SIM activation	YES	YES	YES	YES
Updates (Auto/On-Demand)	YES	YES	YES	YES
Quarantine	YES	YES	YES	YES
Blocking roaming data	YES	-	YES	-
SIM Matching	YES	-	-	YES
Statistics	YES	YES	in the enterprise version	YES

Symbian				
Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security
Supported OS versions	S60 3rd/5th edition (Symbian 9.1-9.4)	S60 3rd/5th edition (Symbian 9.1-9.4)	S60 3rd/5th edition (Symbian 9.1-9.4)	S60 3rd/5th edition (Symbian 9.1-9.4)
Supported Program languages	English	English, Arabic, Simplified Chinese, Traditional Chinese, Danish, Spanish, Finnish, French, German, Bahasa Indonesia, Italian, Japanese, Bahasa Malaysia, Dutch, Norwegian, Polish, Brazilian Portuguese, Portuguese, Russian, Swedish, Tagalog, Thai, Turkish, Korean	English, Russian, German, French, Italian, Polish, Spanish, Portuguese, Danish, Norwegian, Finnish, Swedish, Simplified Chinese, Traditional Chinese, Arabic, Turkish, Czech, Dutch	English, German, Spanish, French, Russian, Traditional Chinese, Dutch
Locking Features				
Lock Contacts	-	YES	YES	-
Lock Images/Files	-	YES	YES	-
Lock SMS/MMS	-	YES	YES	-
Lock SIM	-	YES	YES	=
Anti Spam Features				
Whitelist/Blacklist calls	-	-	YES	-
Whitelist/Blacklist SMS	YES	-	YES	YES
Whitelist/Blacklist MMS	YES	-	-	-
Block known SMS/MMS spam	YES	-	-	YES
mark as spam with one click	-	-	YES	-
White- and Blacklisting with wildcards	-	-	YES	-
Block attachments/applications/file extensions	YES	-	-	-
Parental Control				
Pay Number locking	-	-	YES	-
SMS Find (Localization of the Smartphone)	-	YES	YES	-
Log visited URLs	-	-	-	YES
Firewall Features:				
Real-Time protection of inbound/outbound Traffic	YES	YES	YES	YES



Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security
App Whitelisting/Blacklisting	-	-	-	-
Learning features	-	-	-	-
Different protection level	YES	YES	YES	YES
Different rule sets	YES	YES	-	YES
WiFi / Bluetooth protection	YES	YES	YES	-
Activity log	YES	YES	-	YES
Protection log	YES	YES	YES	YES
Customizable firewall rules	YES	YES	YES	YES
Stateful packet inspection (conditional rules)	YES	YES	-	YES
Remote Features				
Remote wipe of a stolen Smartphone	YES	YES	YES	YES
Remote wipe with Exchange Server 2007/2010 / Outlook Web Access / ActiveSync	YES	Through the management portal and device management	-	-
Remote GPS localization	-	YES	YES	-
SIM Watch (changing the SIM)	YES	YES	YES	YES
Remote installation of the Security System	-	Through device manage- ment or through F-Secure Mobile Services portal	in the enterprise version	YES
Remote configuration	-	Through device management	in the enterprise version	YES
Remote updates	YES	YES	-	YES
Remote encryption	-	-	-	YES
Encryption Features				
File System encryption	-	Through partner solution	YES	YES
Password protected encryption	-	Through partner solution	YES	YES
Encryption by data types (Outlook, Word, Excel, PDF, etc.) and by data location (on device, attached, memory card, etc.)	-	Through partner solution	only by data location	YES
Admin decrypting option without password	-	Through partner solution	-	YES
Authentication				
Policy controlled authentication	-	-	-	YES
Access & encryption control	-	=	YES	YES
Port control: USB, Memory Cards, Bluetooth, WiFi	-	YES	-	-
Resource Access control: IR, Camera, voice recording	-	-	-	-
Password policy: strength, length, etc.	-	YES	YES	YES
Maximum number of failed attempts	-	YES	-	YES
Grace period	-	YES	YES	-
Lock Screen with Password protection	-	YES	YES	YES
AV Features				
File protection	YES	YES	YES	YES
Network protection	YES	YES	-	YES
SMS/MMS Scanner	YES	YES	YES	Partial, Blacklist/ Whitelist+ Attachment Scan
Email Scanner	YES	YES	YES	-
Different Update profiles	YES	YES	in the enterprise version	YES
Own roaming update profile	-	YES	YES	YES
Scan inside archives	YES	YES	YES	YES
Prevent access to harmful web sites (malware and phishing sites)	-	YES	-	YES
Anti-Theft Features				
Report thief's location at SIM change	-	YES	-	YES
Report thief's phone number by SMS	YES	YES	YES	YES
Possibility to receive calls while locked	-	YES	-	YES
Possibility to make emergency calls while locked	-	YES	-	YES
Support				
Email Support	YES	YES	YES	YES
zman sapport				



Product name	ESET Mobile Security	F-Secure Mobile Security	Kaspersky Mobile Security	Trend Micro Mobile Security
Online Help (special URL designed for browsing with the phone)	-	YES	YES	YES
User manual	YES	YES	YES	YES
User Forum	-	-	YES	YES
Online Chat	-	-	-	YES
Support over Telephone	YES	YES	YES	YES
Supported languages (of support)	all	all	all	all
Price (depends from channels etc.)				
Price 1 phone / 1 year	25 EUR	35 EUR	25 EUR	25 EUR
Price 3 phones / 2 years	61 EUR	180 EUR	150 EUR	150 EUR
Various				
Direct Install on Device through Download-Link	YES	YES	YES	YES
PC Management Software	-	-	-	YES
Central Management Software	-	Through F-Secure Mobile Services portal available for the administrators	Possible through ActiveSync	YES
Synchronizing	YES	-	-	-
PC Application Install	YES	Possible through PC suite	YES	YES
Updates thru PC	YES	Possible through PC suite	in the enterprise version	YES
Offline activation	-	-	-	YES
No SIM activation	YES	Yes. The functionality depends on the variant	YES	YES
Updates (Auto/On-Demand)	YES	YES	YES	YES
Quarantine	YES	YES	YES	YES
Blocking roaming data	YES	-	YES	-
SIM Matching	YES	-	-	YES
Statistics	YES	YES	in the enterprise version	YES
PW protection of uninstallation	YES	-	YES	YES

	Android	Android7	iPhone
Product name	F-Secure Mobile Security	Trend Micro Mobile Security Suite	Trend Micro SmartSurfing
Supported OS versions	Android 1.6 and above	Android 2.x	iOS 3.1 and above
Supported Program languages	English, Arabic, Simplified Chinese, Traditional Chinese, Danish, Spanish, Finnish, French, German, Bahasa Indonesia, Italian, Japanese, Bahasa Malaysia, Dutch, Norwegian, Polish, Brazilian Portuguese, Portuguese, Russian, Swedish, Tagalog, Thai, Turkish, Korean	English	English
Locking Features			
Lock Contacts	YES	-	-
Lock Images/Files	YES	-	-
Lock SMS/MMS	YES	-	-
Lock SIM	YES	-	-
Anti Spam Features			
Whitelist/Blacklist calls	-	YES	-
Whitelist/Blacklist SMS	-	YES	-
Whitelist/Blacklist MMS	-	YES	-
Block known SMS/MMS spam	-	YES	-
mark as spam with one click	-	-	-
White- and Blacklisting with wildcards	-	-	-
Block attachments/applications/file extensions	-	-	-
Parental Control			
Pay Number locking	-	-	-
SMS Find (Localization of the Smartphone)	YES	-	-
Log visited URLs	-	YES	YES



Product name	F-Secure Mobile Security	Trend Micro Mobile Security Suite	Trend Micro SmartSurfing
Firewall Features	,	•	
Real-Time protection of inbound/outbound Traffic	-	-	
App Whitelisting/Blacklisting	<u>-</u>	<u>-</u>	-
Learning features	-	<u>-</u>	-
Different protection level	-	-	
Different rule sets	-	-	-
WiFi / Bluetooth protection	-	-	
Activity log	-	-	-
Protection log			
Customizable firewall rules			
Stateful packet inspection (conditional rules)	-		-
,	-	-	<u>-</u>
Remote Features	VEC		Contains musciided
Remote wipe of a stolen Smartphone	YES	-	System provided
Remote wipe with Exchange Server 2007/2010 / Outlook Web Access / ActiveSync	Remote wipe is enabled through the management portal	-	System provided
Remote GPS localization	YES	-	<u>-</u>
SIM Watch (changing the SIM)	YES	-	-
Remote installation of the Security System	Through device management or through F-Secure Mobile Services portal	-	-
Remote configuration			System provided
Remote updates	YES	-	-
Remote encryption	-	-	-
Encryption Features			
File System encryption	Through partner solution	-	System provided or vault
Password protected encryption	Through partner solution	-	System provided
Encryption by data types (Outlook, Word, Excel, PDF, etc.) and by data location (on device, attached, memory card, etc.)	Through partner solution	-	-
Admin decrypting option without password	Through partner solution	-	-
Authentication			
Policy controlled authentication	-	-	System provided
Access & encryption control	-	-	System provided
Port control: USB, Memory Cards, Bluetooth, WiFi	-	-	System provided
Resource Access control: IR, Camera, voice recording	-	-	System provided
Password policy: Strength, length, etc.	Partially. Antitheft uses system locking functionalities.	-	System provided
Maximum number of failed attempts	YES	-	System provided
Grace period	YES	-	System provided
Lock Screen with Password protection	YES	-	System provided
AV Features			
File protection	YES	YES	-
Network protection	YES	-	-
SMS/MMS Scanner	-	-	-
Email Scanner	The attachments are scanned on the memory card.	-	-
Different Update profiles	YES	YES	-
Own roaming update profile	YES	YES	-
Scan inside archives	YES	-	-
Prevent access to harmful web sites (malware and phishing sites)	YES	YES	YES
Anti-Theft Features			
Report thief's location at SIM change	YES	YES	-
		-	-
Report thier's phone number by SiviS	YES		
Report thief's phone number by SMS Possibility to receive calls while locked	YES	YES	-



Product name	F-Secure Mobile Security	Trend Micro Mobile Security Suite	Trend Micro SmartSurfing
Support			
Email Support	YES	YES	YES
Online Help	YES	YES	YES
Online Help (special URL designed for browsing with the phone)	YES	YES	YES
User manual	YES	YES	YES
User Forum	-	YES	YES
Online Chat	-	YES	YES
Support over Telephone	YES	YES	-
Supported languages (of support)	all	all	all
Price (depends from channels etc.)			
Price 1 phone / 1 year	35 EUR	N/A	free
Price 3 phones / 2 years	180 EUR	N/A	free
Various			
Direct Install on Device through Download-Link	YES	YES	YES
PC Management Software	-	-	-
Central Management Software	Through F-Secure Mobile Services portal available for the administrators	-	-
Synchronizing	-	-	-
PC Application Install	From PC user can install using e.g. HTCSync and also using adb that comes with the development tools.	YES	YES
Updates thru PC	-	-	-
Offline activation	-	YES	YES
No SIM activation	Yes. The functionality depends on the variant	-	-
Updates (Auto/On-Demand)	YES	YES	-
Quarantine	-	-	-
Blocking roaming data	-	-	-
SIM Matching	-	-	-
Statistics	YES	YES	-
PW protection of uninstallation	-	-	-



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