Product Requirements Document for a Firewall for Smartphones



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im Auftrag von

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# Changelog

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# Purpose and Scope

Over the last couple of years smartphones started to play a constant increasing important role in digital communication.

The scope of the project is to develop a security solution for businesses which safely integrates mobile devices into the IT infrastructure of a company. It is the goal to make privately owned mobile devices of employees available for the use during their daily work without actually putting the IT infrastructure to a thread. The advantage for the employee is that he/she can use this private owned devices without changing it every day while the advantage for a business is that they don’t have to maintain a mobile device for every employee which is very expensive. Instead the IT of the business can focus on the maintenance and the development of the business related apps and their secure integration into the IT infrastructure. The solution should be very economic but still maintain certain high level of safety.

# Stakeholder Identification

# Market Assessment and Target Demographics

In the following a market assessment is performed. Potential competitors are analyzed in terms of company, products, functionality and IP rights. To give a consecutive overview of the functionality a comparison table finalizes the market assessment.

## Companies, Products and IP Protection

The company is analyzed in terms of company history, product range and business model. To find any IP protection rights a patent recherché is performed on <http://worldwide.espacenet.com/advancedSearch?locale=en_EP>.

### Avira

#### Company

Is a German based company.

#### Products

They offer a range of free and commercial security products. Their free security products are available for the following OS:

* Win
* MAC
* Android
* iOS

The commercial products are only available Windows platforms (that’s where the make money). They offer a desktop pilot solution where you can manage all your personal devices where Avira is installed.

#### IP Protection

There where three patents found, where one is considered to be relevant.

### AVG Antivirus

#### Company

AVG is Dutch based company

#### Products

AVG’s detection technology is based on several layers (<http://www.avg.com/de-de/avg-software-technology#mainFaqDiv-3382054907185018189-0>) which are:

* Signature based (detects known viruses)
* Polymorph based (detects anomalies)
* Heutristic based (analyzes the behavior of software in order to detect unknown viruses)
* Behavior based (patented technology – see IP protection)

AVG offers a range of products for mobile devices and tablets. For mobile devices and tablets the main product is an anti-virus scanner (free and commercial) for Android which can be used to check the system offline. For Windows, Android and iOS they offer different free and commercial products with functionality of synchronization, safe browser, and family safety.

#### IP Protection

AVG maintains several patents, but only one can be considered as kind of relevant.

### AVAST Security

#### Company

Is a Czech based company and was founded in 1988. It is strongly backed by venture capital

#### Products

For private users AVAST offers a free and a commercial product. The free product contains an offline virus scanner, a webshield for infected homepages (how does it work?), and a firewall functionality which is only working on rooted mobile phones. The commercial product contains functionality for remote access and control. As far as possible to see, only Android OS is supported.

#### IP Protection

No patents were found.

### Malware Bytes

#### Company

Is a US based company and was founded in 2004. It is strongly backed by venture capital

#### Products

Malwarebytes offers solution for private users under the brand name Norton. For business solutions

#### IP Protection

No patents were found.

### Symantec - Norton

#### Company

Is a US based company and was founded in 1982. Symantec is listed on the stock exchange.

#### Products

Malwarebytes offers solution for private users under the brand name Norton. For business solutions Symantec offers a product called BYOD (Bring Your Own Device).

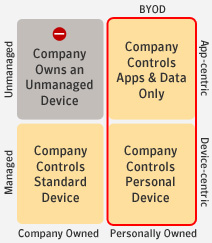


Figure 1 Sketch of the BYOD product

The basis for BYOD is the categorization of mobile device according it user (company or personally owned) and how it is managed (unmanaged or managed) (see Figure 1). The most expensive solution is the lower left one (Company controls standard device) while the most economic one is the right upper solution (Company controls apps & data only).

In order for a business to implement a mobile device strategy four areas are identified:

* User- and app-access
* Security for apps and data
* Device management
* Device security
* Safe data access

Each of this areas comes with its on technological solution (product – basically a combination of the single product solution of the competition) and must guarantee that everything the private traffic is clearly and safe separated from the business traffic. Their product range can be seen at <http://www.symantec.com/de/de/products-solutions/solutions/detail.jsp?parent=mobile&child=5_pillars_mobile>.

#### IP Protection

A patent search with the keywords “Symantec” & “mobile” resulted to 38 hits, where the most relevant (24) are examined where 8 can be considered of importance.

### McAfee

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

McAfee offers a mobile security solution for Android OS and iOS. There is a free and commercial version where the commercial is ad-free and with support. Additionally they offer products for identity management and data access. All products are market as standalone solutions.

#### IP Protection

xxxxx

### KaperskyLab

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

xxxx

#### IP Protection

xxxxx

### TrustGo Inc

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

xxxx

#### IP Protection

xxxxx

### NQ Mobile Security

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

xxxx

#### IP Protection

xxxxx

### IObit Mobile Security

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

xxxx

#### IP Protection

xxxxx

### Teebik Apps

#### Company

Is a US based company and was founded in 2004. In 2011 it became a subsidiary of Intel.

#### Products

xxxx

#### IP Protection

xxxxx

## Comparison Table for Functionality

## Patent Table

## Conclusion

Looking over the whole product floor today shows a few interesting points:

* No “real-time” protection available on mobile devices, mostly offline protection
* No business solution available, focus on private users
* No mentioning of multipathing protection

# Product Overview and Use Cases

# Requirements

## Functional Requirements

e.g. what a product should do

## Usability Requrements

## Technical Requirements

e.g. security, network, platform, integration, client

## Environmental Requirements

## Support Requirements

## Interaction Requirements

e.g. how the product should work with other systems

# Assumptions

# Constraints

# Workflow Plan

High level workflow plans, timelines and milestones (more detail is defined through a [project plan](http://en.wikipedia.org/wiki/Project_plan))

# Evaluation Plan and Performance Metrics