

# Investigation of Personal Firewalls Project Proposal Updated

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# Investigation of Personal Firewalls Project Proposal

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## **1.0 Project Overview**

### **1.1 Client**

Institute of Technology, Blanchardstown, Dublin 15

### **1.2 Project Manager**

John Rowe

### **1.3 Project Supervisor**

Aoife Fox.

### **1.4 The Project**

Today, there are a vast range of personal firewalls available, either freely or at a cost. It can be a minefield trying to differentiate one from another, and harder still to establish the effectiveness of these products. This project will do a thorough investigation of the most popular personal firewalls available and come to specific conclusions about them.

### **1.5 Goal**

Investigate the effectiveness of various Personal Firewalls such as Zone Alarm against virus and malware attacks. While there are quite a substantial number of reviews on a substantial number of similar firewall products, many are

linked to product sellers and don't always give an unbiased view of how they perform.

This project will give a completely impartial view on the most popular of these products. The outcomes of this will also be based on thorough testing using standard attacks and will introduce some new modified attacks.

### **1.6 Research Questions**

What are the main features of these products?

Will they perform as intended?

Are the free products necessarily better values than the pay versions?

How difficult are they to configure?

How will they perform against recognised virus and malware attacks?

How will they react to a non standard attack where the signature has been modified.

### **1.7 Benefits**

- Providing in depth documentation on all aspects of the project, including installation, configuration and testing will enhance any users understanding of personal firewalls.

- Being able to provide test data will provide detailed information on the effectiveness on these products.

## **2.0 Technical Requirements and Feasibility**

### **2.1 Products**

It is envisaged to test some of the following products.

- Comodo
- Kapersky
- Norton
- Zone Alarm
- Bit Defender

This will entail acquiring some of the free products available on the web and it is envisage purchasing one or two of the more popular pay products.

### **2.2 Technical requirements**

The technical requirements for the first part of this product should not cause any major problems. This only entails the installing, setting and standard configuration of the products. The next phase of doing standard testing should also not cause any problems.

However, the next part of the project, which involves modified versions of standard attacks, will pose some technical difficulties. As the in-depth technical knowledge is not currently available, it will have to be acquired.

### 2.3 Software Development Process

The model which best suits this project is the parallel model. Based on the fact that a number of different firewalls will have to be analysed in the course of the project, a number of parallel tasks will have to be completed before moving on to the next stage.

For example, research will have to be done on a number of products. Each one will have to be analysed, configured and then compared. All these tasks will have to be completed before moving to the next stage, which will be researching the various attacks.

Following on from that, each product will have to be tested in turn. So at each stage of the project a number of similar, but different tasks will have to be completed before moving on to the next phase.



### **3.0 Scope**

#### **3.1 Deliverables:**

- To provide an in-depth analysis of some of the leading brands of personal firewalls available today.
- Test the effectiveness of each of these firewalls against standard virus and malware attacks
- Test the effectiveness of laboratory modified virus and malware attacks.
- Provide documentation for any laboratory testing that takes place.
- Come to a satisfactory conclusion about the effectiveness of these products.

#### **3.2 Success Factors:**

- Provide proper test data available on these personal firewalls
- Provide laboratory test data on effectiveness of modified attacks.
- Be able to effectively reproduce any laboratory tests when required.

#### **3.3 Success Measures:**

- Weekly reporting to project supervisor providing up to date information on status of project and receiving feedback on whether targets are met.
- Lab tests and documented data can be verified by independent scrutinisers.

- All deadlines will be met.

### 3.4 Deadlines:

There are 2 deadlines for the successful completion of this project.

- First part of the project must be delivered by December 2011. This will include the in-depth analyses of the leading firewalls.
- Second part of the deadline will include completion of the project as well as all laboratory testing and associated documentation.

## 4.0 Risk Analysis

### 4.1 Time Frame:

Due to the heavy work schedule of the group members and the need to develop extra skills for completing the project, some delays might occur.

### 4.2 Solution

Time management, forward planning and sharing of tasks will be vital to the completion of this project on time. It is proposed to continue with our regular meetings to discuss progress and deploy tasks appropriately.

#### **4.3 Availability of Resources**

Currently, some personal firewalls are freely available on the web. Some other firewalls will incur a financial cost. This may prohibit a thorough testing of some the most used or available products.

#### **4.4 Solution**

To provide a thorough testing of freely available software.

#### **4.5 Project Members Skill Set**

The group have limited skills and knowledge in the area implementation and testing of personal firewalls.

#### **4.6 Solution**

Some up skilling will be essential to the successful completion of this project.

#### **4.7 Interpersonal**

There may be differences of opinions on how to best approach the testing of the different software.

#### **4.8 Solution**

Tasks and outcomes established at the start of project and firmly adhered to for the project duration.

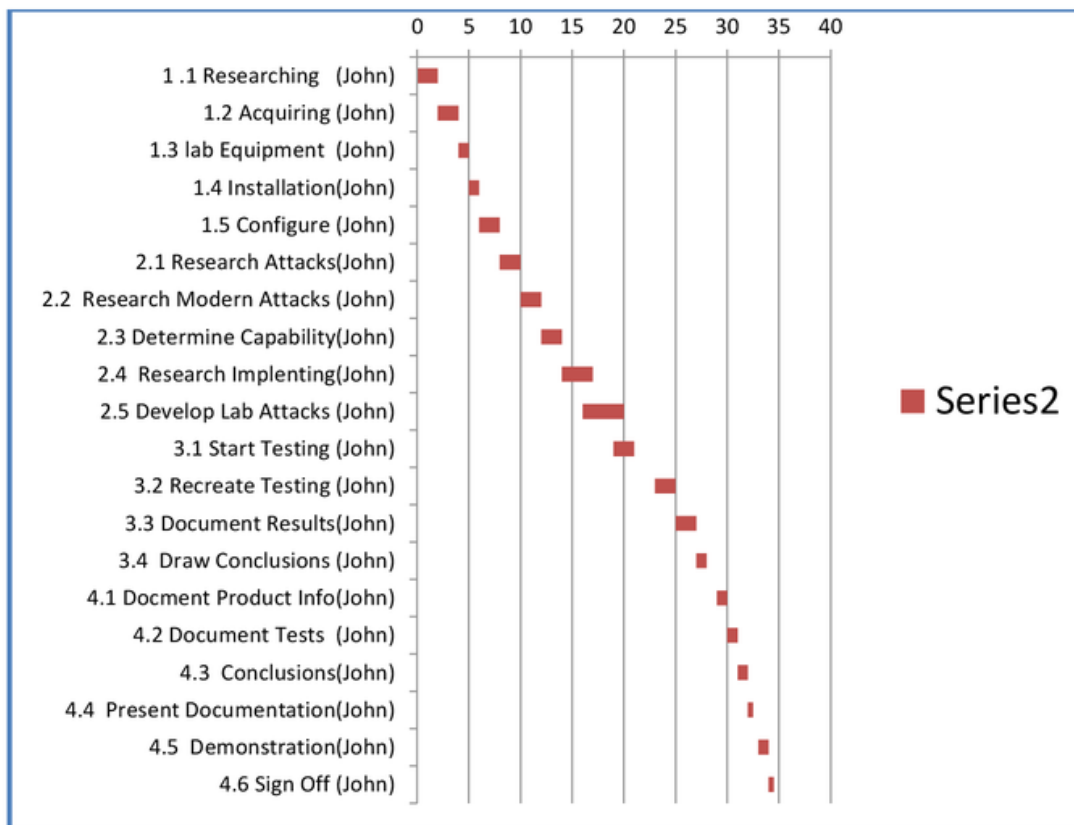
#### **5.0 Obstacles**

The main obstacles to the project providing a thorough investigation of personal firewall products, is the cost incurred in obtaining some of these products.

#### **6.0 Visibility Plan**

The project leader will continue to meet with the project supervisor on a regular basis to discuss further developments and progressions. Currently, this consists of one meeting a week. Subsequent updates will be communicated via email or phone.

## 7.0 Preliminary Project Plan



**Figure 1.0 Work Based Structure Ghant Chart**

Task	Timescale	Duration	Owner
1.1 Researching	0	2	John
1.2 Acquiring	2	2	John
1.3 lab Equipment	4	1	John
1.4 Installation	5	1	John
1.5 Configure	6	2	John
2.1 Research Attacks	8	2	John
2.2 Research Modern Attacks	10	2	John
2.3 Determine Capability	12	2	John
2.4 Research Implementing	14	3	John
2.5 Develop Lab Attacks	16	4	John
3.1 Start Testing	19	2	John
3.2 Recreate Testing	23	2	John
3.3 Document Results	25	2	John
3.4 Draw Conclusions	27	1	John
4.1 Document Product Info	29	1	John
4.2 Document Tests	30	1	John
4.3 Conclusions	31	1	John
4.4 Present Documentation	32	0.5	John
4.5 Demonstration	33	1	John
4.6 Sign Off	34	0.5	John

**Table 1 Work Schedule**

## **8.0 Expected Results**

As has been mentioned earlier in this project plan, the main outcomes of this project will determine the effectiveness of these firewall products. There are many views and reviews available online, but this study will endeavour to give a very detailed view of these products using all available data collected during the course of this project.

## **9.0 Conclusion**

In conclusion, the main topics will be researched. Configurations of firewalls, effectiveness against standard attacks, value for money and effectiveness against non standard attacks.

Based on the information available at this time and presented in this project proposal study, it has been agreed that this is a viable project. A decision on whether or not to proceed will be made at a future date.

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GENERAL COMMENTS

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