Lab Project,
Final report

Group 5
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Abstract

Introduction

The web could be argued to be one of the most important infrastructures in the world.

1 Discussions from the lab

2 Specific questions from the lab

2.1 Q1

Comment on security related issues regarding the cryptographic algorithms used to generate and sign your groups web server certicate (key length, algorithm, etc.).

For the web server certificate, the signature algorithm were chosen as SHA1 with RSA encryption, with a public-key length of 2048 bits. At the current time, RSA laboratories (creators of the RSA algorithm) recommends a 2048 bits key size for extremely valuable keys, and 1024 bits key size for corporate use [2].

2.2 Q2

Explain what you have achieved through each of these verications. What is the name of the person signing the Apache release?

2.3 Q3

What are the access permissions to your web servers conguration les, server certicate and the corresponding private key? Comment on possible attacks to your web server due to inappropriate le permissions.

2.4 Q4

Web servers oering weak cryptography are subject to several attacks. What kind of attacks are feasible? How did you congure your server to prevent such attacks?

2.5 Q5

What kind of malicious attacks is your web application (PHP) vulnerable to? Describe them briey, and point out what countermeasures you have developed in your code to prevent such attacks.

Conclusion

References

[1] ITEM, *Part 3 - Design and implementation of a resource allocation service.* NTNU, 2013. http://www.item.ntnu.no/fag/ttm4120/current/lab/lab3spread.pdf, downloaded Feb 27th 2013.

[2] RSA Laboratories, *How large a key should be used in the RSA cryptosystem?* http://www.rsa.com/rsalabs/node.asp?id=2218, downloaded Mar 8th 2013.

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