

# Two Factor Authentication

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**Abstract**—Verifying a person is an always present topic in our society in terms of information security. This paper deals with the problems of Single Factor Authentication, such as wrong choices for passwords, phishing, social engineering and evaluates methods for enhancing the security, both in theory, by describing the possible combinations of known Authentication methods, but also in practice with examples from leading companies in the world. A perspective for the future is posed to alert the awareness for insecure Authentication methods.



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## 1 INTRODUCTION

In den vergangenen Jahren ... Lim [?] id est laborum.

## 2 AUTHENTICATION FOR USERS

### 2.1 User Authentication Factors

2.1.1 *Something You Know*

2.1.2 *Something You Have*

2.1.3 *Something You Are*

### 2.2 Single Factor Authentication

2.2.1 *Weak Authentication*

2.2.2 *Problems*

## 3 TWO FACTOR AUTHENTICATION

### 3.1 Via mobile phones

3.1.1 *Google*

Yet this example is for Google.

3.1.2 *Github*

This one for Github.

3.1.3 *airbnb*

This one for airbnb.

### 3.2 Via TAN

In the bank area this is used.

### 3.3 Via Yubikey?

Maybe?

### 3.4 Biometric

Maybe?

### 3.5 Evaluation

## 4 SUMMARY

Clearly, there are certain pros and cons for the use.

## 5 CONCLUSION

Finally, ...

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