# **Module 12 - Attacking Crypto**

### **Padding Oracle Attack**

 padding oracle attacks target CBC-mode decryption functions operating with PKCS7-mode padding.

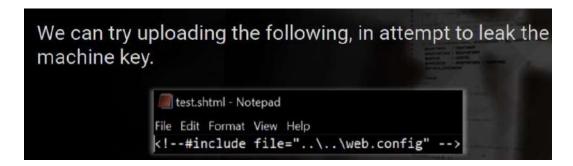
#### What is a padding oracle

Google it

## **Hash Length Extension Attack**

- algorithms like MD5, SHA-1 and most of SHA-2 that are based on the Merkle-Mamgard construction are susceptible to this kind of attack.
- Truncated versions of SHA-2, including SHA-384 and <u>SHA-512/256</u> are not susceptible, [4] nor is the <u>SHA-3</u> algorithm. [5] <u>HMAC</u> also uses a different construction and so is not vulnerable to length extension attacks. [6]
- Tool:
  - <a href="https://github.com/iagox86/hash\_extender">https://github.com/iagox86/hash\_extender</a>

## Leveraging machineKey



• here we didn't attack crypto, but we stole the crypto key through SSII.

Module 12 - Attacking Crypto 1