

Length Extension Attack

Vulnerable : All Merkle-Damgård-based hash functions so MD5, SHA-I and SHA-2 (but not SHA-3)



Flickr's API Signature Forgery Vulnerability

Thai Duong and Juliano Rizzo

Date Published: Sep. 28, 2009

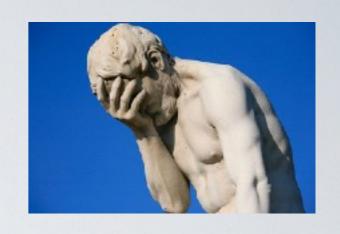
Advisory ID: MOCB-01

Advisory URL: http://netifera.com/research/flickr_api_signature_forgery.pdf

Title: Flickr's API Signature Forgery Vulnerability

Remotely Exploitable: Yes

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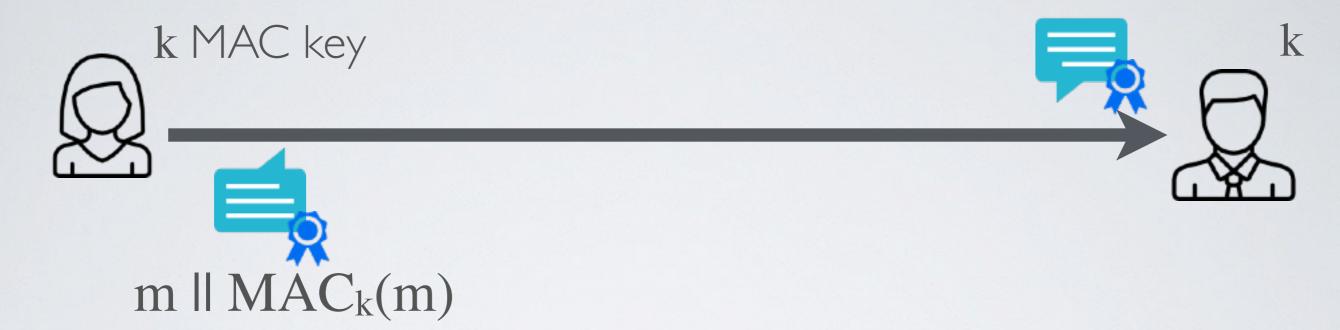
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Good HMAC



Alice an Bob share a key k

→ Option I : envelope method

 $MAC_k(m) = H(k \parallel m \parallel k)$

→ Option 2 : padding method (i.e. HMAC standard)

 $HMAC_k(m) = H((k \oplus opad) || H((k \oplus ipad) || m))$