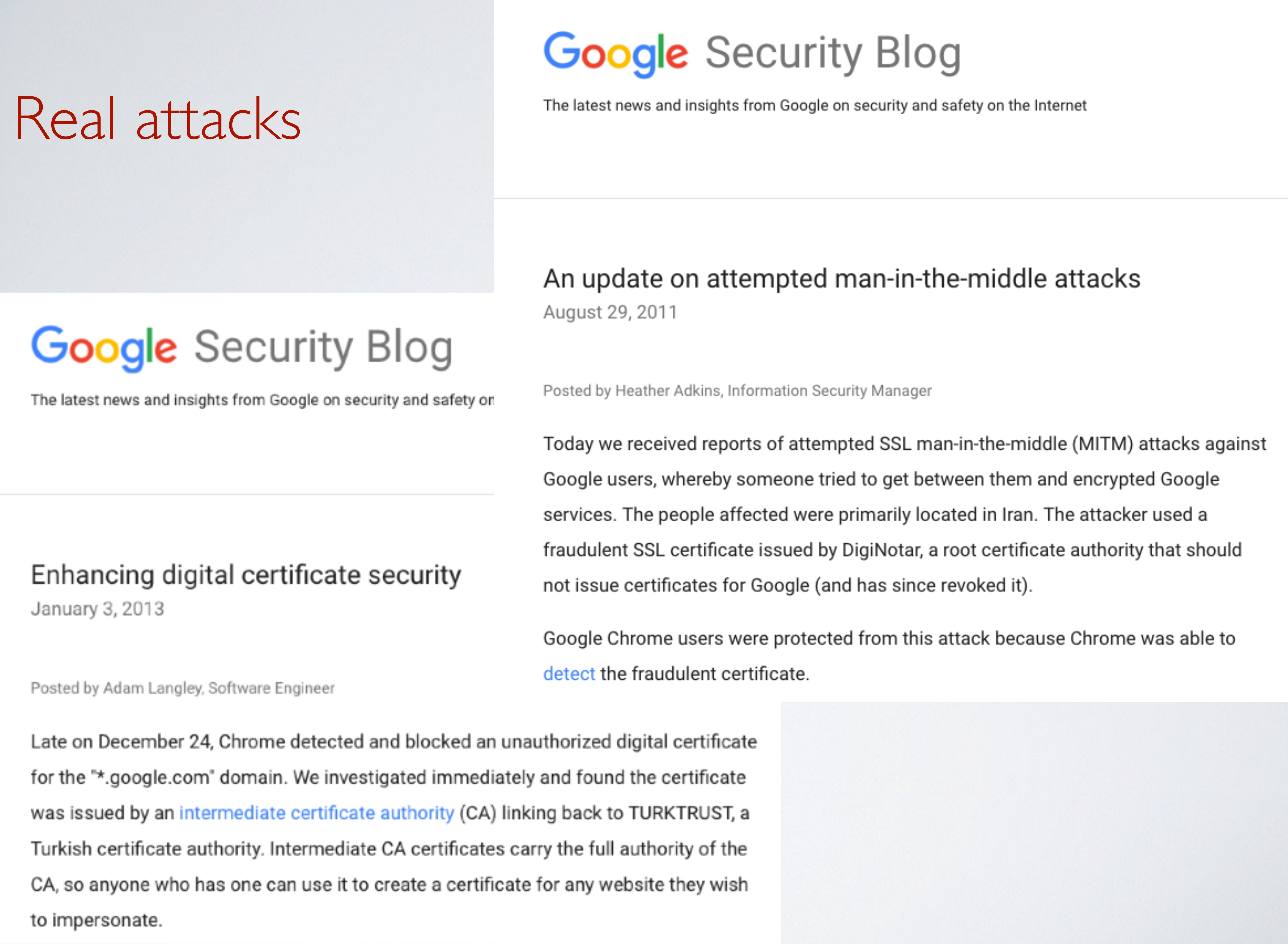
Real attacks



Google Security Blog

The latest news and insights from Google on security and safety on the Internet

An update on attempted man-in-the-middle attacks

August 29, 2011

Posted by Heather Adkins, Information Security Manager

Today we received reports of attempted SSL man-in-the-middle (MITM) attacks against Google users, whereby someone tried to get between them and encrypted Google services. The people affected were primarily located in Iran. The attacker used a fraudulent SSL certificate issued by DigiNotar, a root certificate authority that should not issue certificates for Google (and has since revoked it).

Google Chrome users were protected from this attack because Chrome was able to detect the fraudulent certificate.

Google Security Blog

The latest news and insights from Google on security and safety on

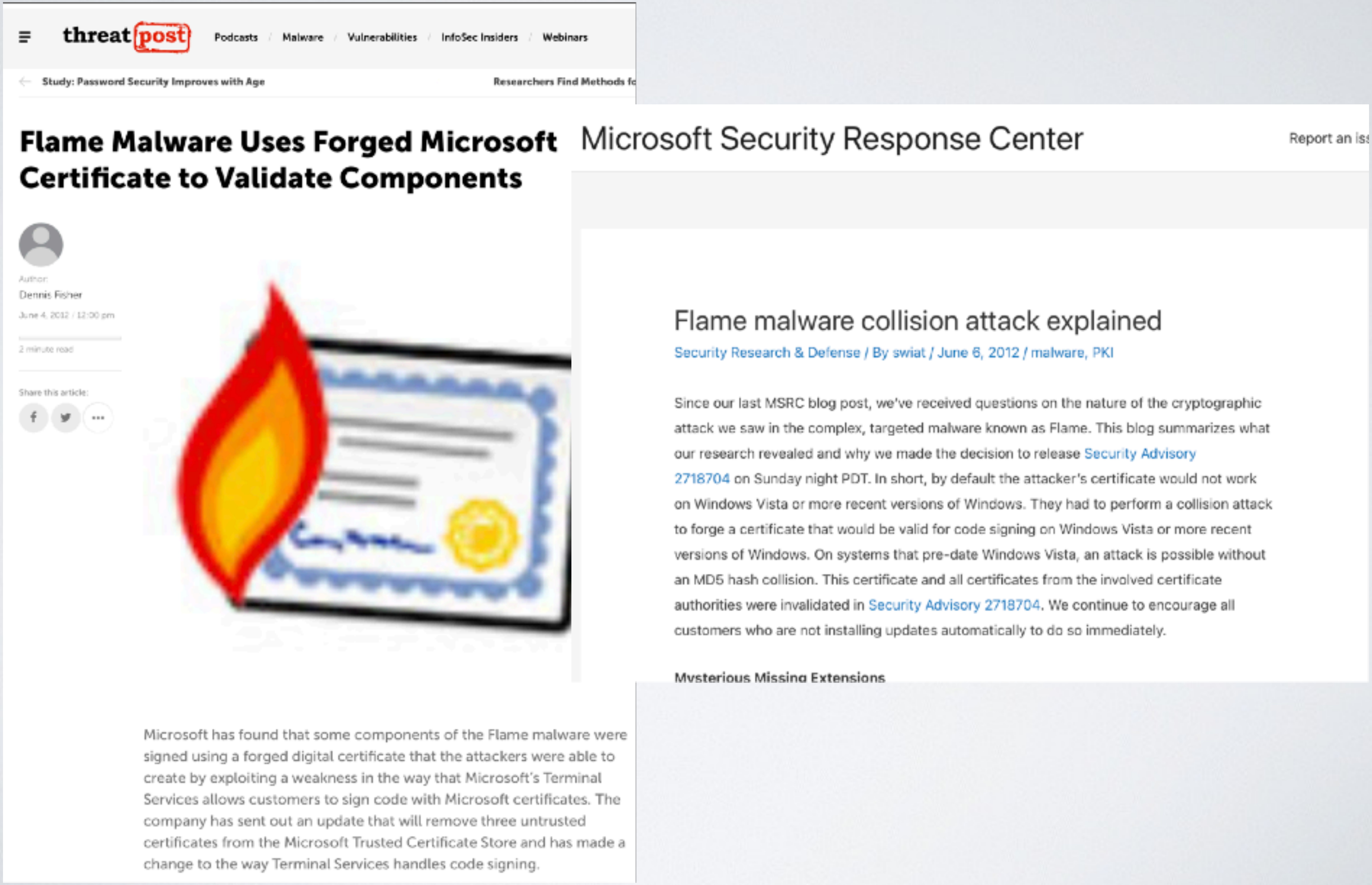
Enhancing digital certificate security

January 3, 2013

Posted by Adam Langley, Software Engineer

Late on December 24, Chrome detected and blocked an unauthorized digital certificate for the "*.google.com" domain. We investigated immediately and found the certificate was issued by an intermediate certificate authority (CA) linking back to TURKTRUST, a Turkish certificate authority. Intermediate CA certificates carry the full authority of the CA, so anyone who has one can use it to create a certificate for any website they wish to impersonate.

Real attacks



Flame Malware Uses Forged Microsoft Certificate to Validate Components

Author:
Dennis Fisher
June 4, 2012 / 12:00 pm

2 minute read

Microsoft has found that some components of the Flame malware were signed using a forged digital certificate that the attackers were able to create by exploiting a weakness in the way that Microsoft's Terminal Services allows customers to sign code with Microsoft certificates. The company has sent out an update that will remove three untrusted certificates from the Microsoft Trusted Certificate Store and has made a change to the way Terminal Services handles code signing.

Microsoft Security Response Center

Flame malware collision attack explained

Security Research & Defense / By swiat / June 6, 2012 / malware, PKI

Since our last MSRC blog post, we've received questions on the nature of the cryptographic attack we saw in the complex, targeted malware known as Flame. This blog summarizes what our research revealed and why we made the decision to release Security Advisory 2718704 on Sunday night PDT. In short, by default the attacker's certificate would not work on Windows Vista or more recent versions of Windows. They had to perform a collision attack to forge a certificate that would be valid for code signing on Windows Vista or more recent versions of Windows. On systems that pre-date Windows Vista, an attack is possible without an MD5 hash collision. This certificate and all certificates from the involved certificate authorities were invalidated in Security Advisory 2718704. We continue to encourage all customers who are not installing updates automatically to do so immediately.

Mysterious Missing Extensions