

]HackingTeam[

RCS Exploit Package

Whitepaper

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Document Approval

Revision	Author(s)	Release Date
1.0		

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1 Overview

The majority of software applications contain a certain number of defects that can be *exploited* to take control of the software itself in order to install unwanted applications.

Relying on those flaws, it's possible to turn normal documents into installation vectors for RCS, adding a new way of starting investigations to the selection proposed by Hacking Team.

Hacking Team Exploits Package are included in a portal that, used together with the Remote Control System allows for easy embedding of RCS agents into most of the common file formats: *Adobe Pdf, Microsoft PowerPoint* and *Word documents*, just to give a few examples.

Once opened on the target computers, the document carrying the exploit will install an RCS agent.

2 The Portal

Exploits normally require a high skill level to be used, and that may not be readily available. Hacking Team combined its expertise in offensive security and software design to build a portal that simplifies the usage of exploits as installation vectors for RCS agents.

2.1 What is an exploit?

An exploit is a piece of code that can be injected into flawed software to take control of it.

In the layman view, exploits are seen as black magic: some obscure piece of code written by hackers and usable only by them.

2.2 Why a Portal?

Hacking Team, with the Exploit Portal, took away all of the difficult part of using exploits and made them easy.

Hacking Team Exploit Portal is a repository of client side exploits ready to be used. Each exploit available is selected by Hacking Team to be effective against common application software, such as web browsers and office applications.

The exploit repository resides on the end-user server and can be easily accessed from within the RCS Console.

The screenshot displays a web interface for the HT Exploit Library. At the top, it shows 'HT Exploit Library subscription details' with an expiry date of 2015-12-31 and a category level of 'zeroday'. Below this, there are filters for 'Platform' (WIN32), 'Format' (all), and 'Category level' (all). The selected exploit is 'Acrobat Reader 9.2/9.3 "authplay.dll" Code Execution Vulnerability'. The 'Params' field is set to 'URL'. Further down, it shows 'Category level: private' and 'HT code: HT-2010-031'. A detailed description follows, explaining the vulnerability in Adobe Reader and Acrobat. A note instructs users to provide an open HTTP web server. Additional metadata includes 'Platform: Windows', 'CVE ID: CVE-2010-1297', and 'Tested with: Windows XP sp3'. At the bottom, there are 'Create' and 'Close' buttons, and a status message: 'Successfully connected to the HT Exploit portal.'

Each time an operator access the Exploit Portal, the Console lists the available exploits and allows the creation of documents containing RCS agent.

2.3 Exploit Categories

Each of the available exploits is rated depending on a specific set of parameters.

RCS Exploit Portal organizes exploits in categories, each one specifying a different availability level of the exploit, and the related software flaw, among application vendors and security experts.

As an example, for exploits categorized as public the software flaw they base upon are known, probably already patched and the raw exploits code is publicly available. This means that probably the effectiveness of this kind of exploit is not the best, but they still work and probably are still common among users of the flawed application.

Hacking Team organizes exploits in four categories:

Category	Description
Social	This category of exploits do not rely on specific software flaws, but on the user errors in using the documents. For example, a user opens an executable file believing it's a PDF document, since the original file extension is hidden by Windows.
Public	For public exploits, the software flaw is known and maybe it's also patched for the latest versions of the application. The exploit code is publicly available on the Internet.
Private	The exploit is built relies on a known vulnerability, but there is no publicly available exploit code. Vendors may have patched the flaw but no technical information is available, so writing an exploit is a difficult task.
Zero-day	The exploit is built relies on an unknown vulnerability, not even by the vendor of the application, thus no exploit code is available. These are the most powerful exploits since even the latest versions of the software are flawed.

This categorization permits you to have a wide selection of usable exploits all the time targeting different software. Moreover, depending on the specific scenario you're confronting with, you may want to preserve private or zero-day exploits as last resorts, and feel free to use social and public with less concern.

The availability of new "zero day" Exploits relies on the discovery of new vulnerabilities, thus new Exploits.

As soon as new "zero day" Exploits are found and/or purchased on the market, we will inform our clients with the list and the cost.