

**RSA[®]CONFERENCE
C H I N A 2012
RSA信息安全大会2012**

**THE GREAT CIPHER
MIGHTIER THAN THE SWORD
伟大的密码胜于利剑**



智能电话安全性赢家与输家

Cesare Garlati

移动安全副总裁

Trend Micro, Inc.



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RSA信息安全大会2012

“在未来 10 年中，消费化将成为影响 IT 行业的最重要趋势”

Gartner

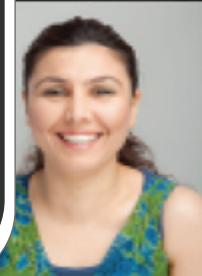
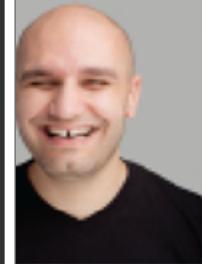
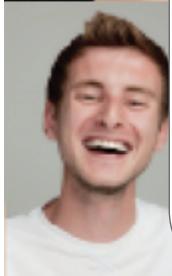
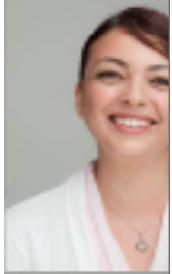


- 新技术首先在消费市场中出现，然后经员工引入，传入商业组织内
- 由于人们在处理工作事宜和个人事务时依赖相同的设备和应用程序，IT 和消费型电子产品开始融合。
- 势不可挡的消费型技术浪潮冲击着企业，IT 经理使出浑身解数，通过实施策略保持控制力

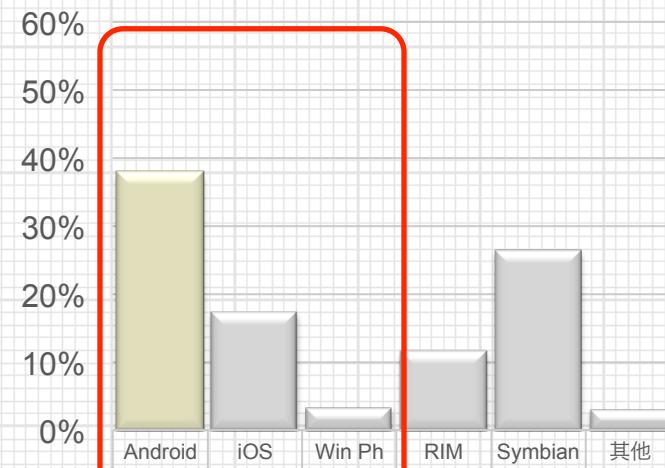
在 2001 年 CSC 前沿论坛上，D. Neal 和 J. Taylor 首先提出了消费化这一术语。

消费化报告

RSA CONFERENCE
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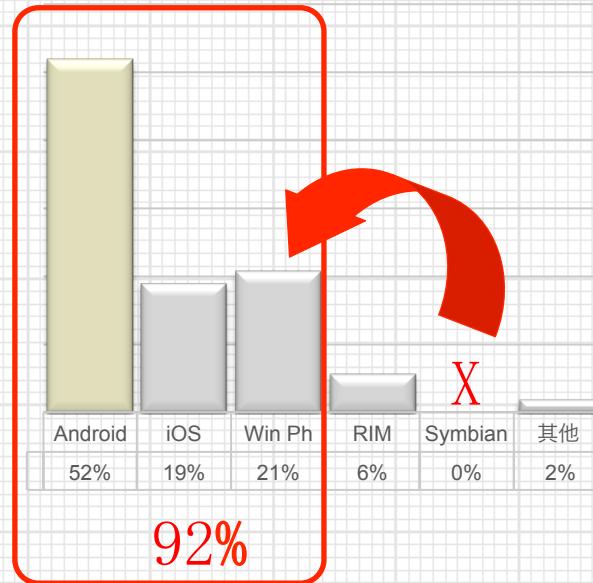


2011 年第四季度客户群比例



59%

2015 年客户群比例*



92%

到 2012 年底，Android 和 iOS 销售额将占智能电话的 70%。到 2013 年 Microsoft 将超过 Research In Motion，上升至全球操作系统排名榜上的第三名。

信息来源：Trend Micro 基于 Gartner、Forrester 和 IDC 所提供市场数据进行的内部分析—2012 年 2 月 28 日更新



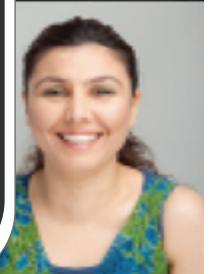
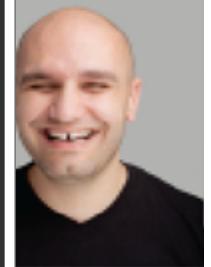
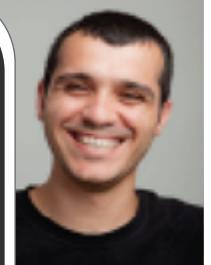
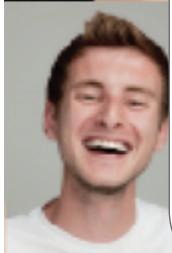
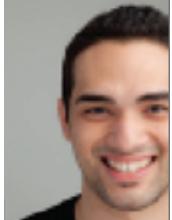
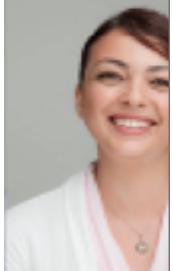
ConsumerizationReport[®]



RSA 信息安全大会 2012

消费化报告

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BYOD
(自带设备)
比例

否
23%

是
76%

“贵公司允许雇员使用个人移动设备处理工作事宜吗？”

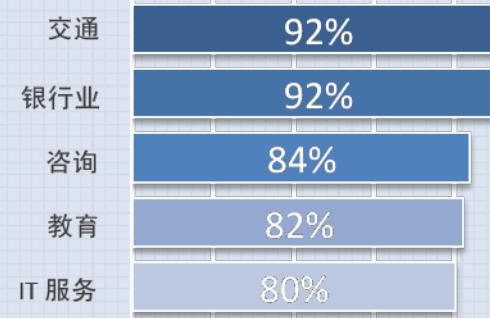
不同公司规模的 BYOD 比例



不同国家/地区的 BYOD 比例



不同行业的 BYOD 比例 – 前 5 名



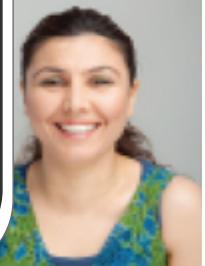
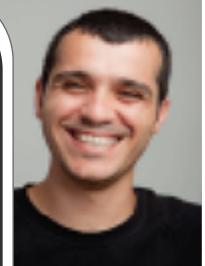
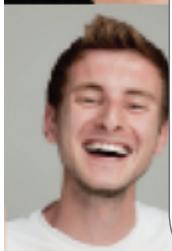
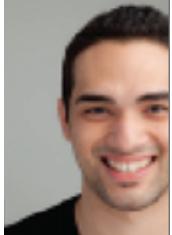
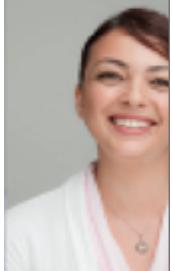
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“您的 BYOD 策略允许使用哪种移动平台？”



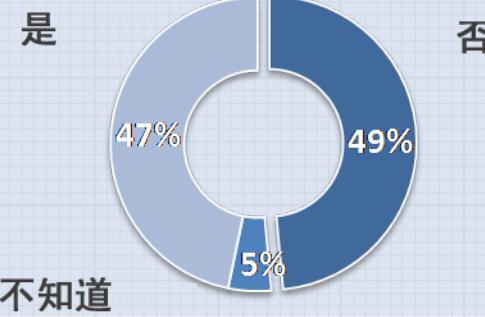
“每种手机操作系统的安全性和可管理性排名”



BYOD 需要解决的前五个首要问题



“您的公司是否曾因为使用 BYOD 遭受过安全漏洞的威胁？”



ConsumerizationReport[®]



RSA信息安全大会2012

如何实现安全性和可管理性？

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Raimund Genes

Trend Micro 首席技术官

<http://trendmicro.com/our-contributors/raimund-genes>



Chris Ilg

Altimeter Group 行业分析师

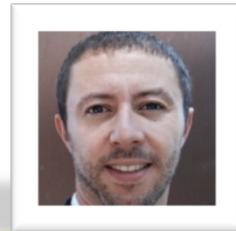
<http://www.altimetergroup.com/about/team/chris-silva>



Nigel Stanley

Bloor Research 实践部领导

<http://www.bloorresearch.com/about/people/nigel-stanley.html>



Philippe Winthrop

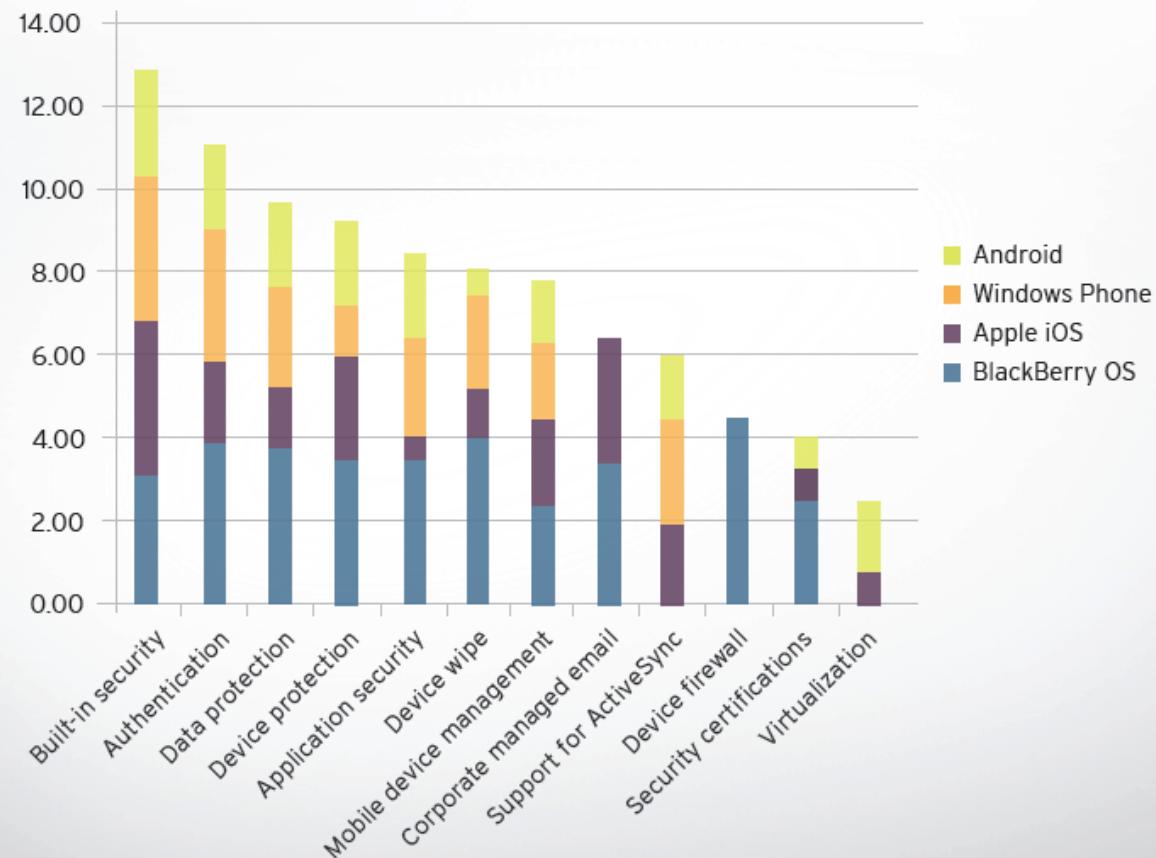
Enterprise Mobility Foundation 常务董事

<http://www.ge.com/index.html>



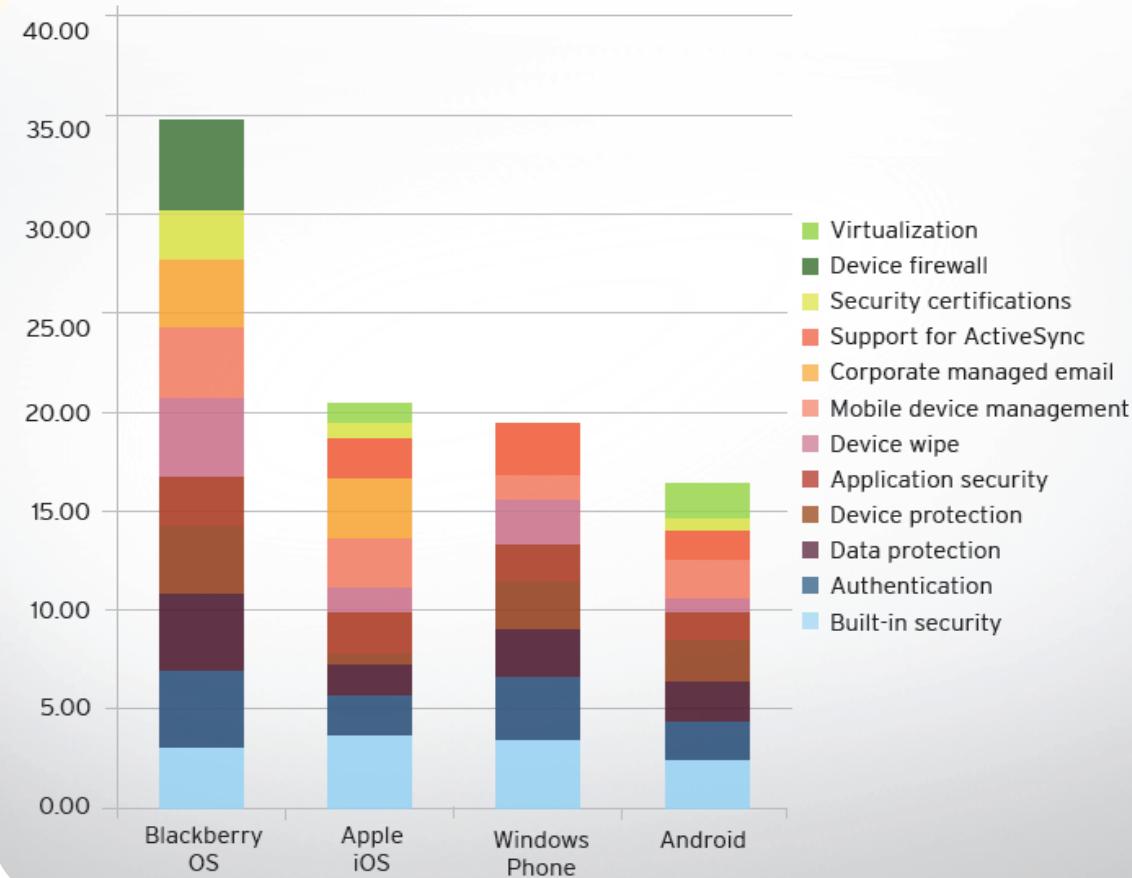
按类别评级

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按移动平台评级

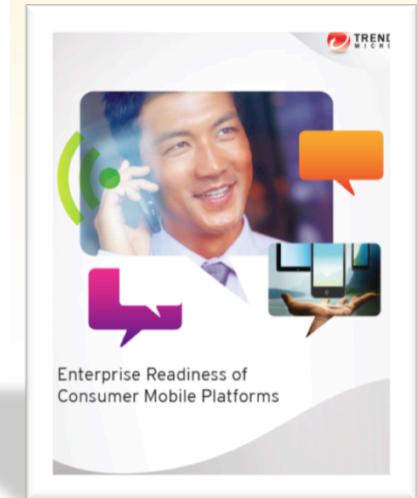
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安全性和管理标准

RSACONFERENCE
C H I N A 2012

ID	ATTRIBUTE	BB 7.0	IOS 5	WP 7.5	ANDROID 2.3
1.00	Built-in security	3.13	3.75	3.50	2.50
1.10	Code signing	5.00	5.00	5.00	5.00
1.20	Keychain	2.50	5.00	0.00	0.00
1.30	Buffer overflow protection	2.50	2.50	4.50	2.50
1.40	Stack overflow protection	2.50	2.50	4.50	2.50
2.00	Application security	2.44	2.06	1.88	1.44
2.10	Centralized app signing	4.50	2.50	0.00	1.00
2.11	Developer app signing	4.50	2.50	4.50	1.50
2.20	Centralized application testing	3.50	2.50	4.00	1.00
2.30	User "allow" model	4.50	5.00	2.50	4.00
2.40	Anti-malware built in	2.50	4.00	4.00	2.00
2.41	Anti-malware support via open APIs	0.00	0.00	0.00	2.00
2.50	Web reputation built in	0.00	0.00	0.00	0.00
2.51	Web reputation via APIs	0.00	0.00	0.00	0.00
3.00	Authentication	3.90	2.00	3.20	2.00
3.10	Power-on authentication	2.50	2.50	4.50	2.50
3.20	Inactivity time out	5.00	2.50	4.50	2.50
3.30	SIM change	2.50	0.00	0.00	0.00
3.40	Password strength requirements	5.00	2.50	4.50	2.50
3.50	Protection from too many log in attempts	4.50	2.50	2.50	2.50



安全性和管理标准

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ID	ATTRIBUTE	BB 7.0	iOS 5	WP 7.5	ANDROID 2.3
4.00	Device wipe	4.00	1.25	2.25	0.63
4.10	Local wipe – after too many failed login attempts	4.50	2.50	4.50	0.00
4.20	Remote wipe – over IP	3.50	2.50	4.50	2.50
4.21	Remote wipe – over SMS/cellular	3.50	0.00	0.00	0.00
4.30	Selective wipe	4.50	0.00	0.00	0.00
5.00	Device firewall	4.50	0.00	0.00	0.00
5.10	Over Internet Protocol (IP)	4.00	0.00	0.00	0.00
5.20	Over Short Message Service (SMS)	5.00	0.00	0.00	0.00
6.00	Data protection	3.80	1.50	2.40	2.00
6.10	Data at rest – encryption	5.00	2.50	4.50	0.00
6.20	Data in use – file separation	0.00	2.50	2.50	2.50
6.30	Data in motion – VPN, 802.1X	5.00	2.50	5.00	5.00
6.40	Remote backup services prevention – iCloud	4.00	0.00	0.00	2.50
6.50	Removable media – SD/USB SIM	5.00	0.00	0.00	0.00
7.00	Device protection	3.50	0.63	2.38	2.00
7.10	Jail breaking/Rooting	1.50	0.00	3.00	0.00
7.20	Patching – OS/Apps	3.00	0.00	4.50	3.00
7.30	Over-the-air (OTA) updates of the OS	5.00	2.50	2.00	5.00
7.40	Block access to untrusted certificates – SSL	4.50	0.00	0.00	0.00



安全性和管理标准

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ID	ATTRIBUTE	BB 7.0	IOS 5	WP 7.5	ANDROID 2.3
8.00	Corporate managed email	3.42	3.00	0.00	0.00
8.10	Remote account removal	2.50	3.00	0.00	0.00
8.20	Email forwarding prevention	4.50	3.00	0.00	0.00
8.30	Cross-in-box email move prevention	0.00	3.00	0.00	0.00
8.40	Applications use preclusion	4.50	3.00	0.00	0.00
8.50	Cut and paste preclusion	4.50	3.00	0.00	0.00
8.60	S/MIME email authentication and encryption	4.50	3.00	0.00	0.00
9.00	Support for ActiveSync	0.00	2.00	2.50	1.50
9.10	Number of policies supported – latest ActiveSync	0.00	2.00	2.50	1.50
9.20	Number of policies supported – legacy ActiveSync	0.00	2.00	2.50	1.50
10.00	Mobile device management	3.50	2.50	1.25	2.00
10.10	Richness of the API	2.00	2.50	0.00	1.50
10.20	Vendor-provided server	5.00	2.50	2.50	2.50
11.00	Virtualization	0.00	0.83	0.00	1.67
11.10	Virtual native OS	0.00	2.50	0.00	0.00
11.20	Virtual native apps	0.00	0.00	0.00	5.00
11.30	Split-user profile	0.00	0.00	0.00	0.00
12.00	Security Certifications	2.50	0.83	0.00	0.67
12.10	Federal Information Processing Standard (FIPS) 140-2	2.50	2.50	0.00	2.00
12.20	Evaluation Assurance Level (EAL) 4	5.00	0.00	0.00	0.00
12.30	FDA approval	0.00	0.00	0.00	0.00
OS Average Score		2.89	1.70	1.61	1.37



最近出现的一些漏洞

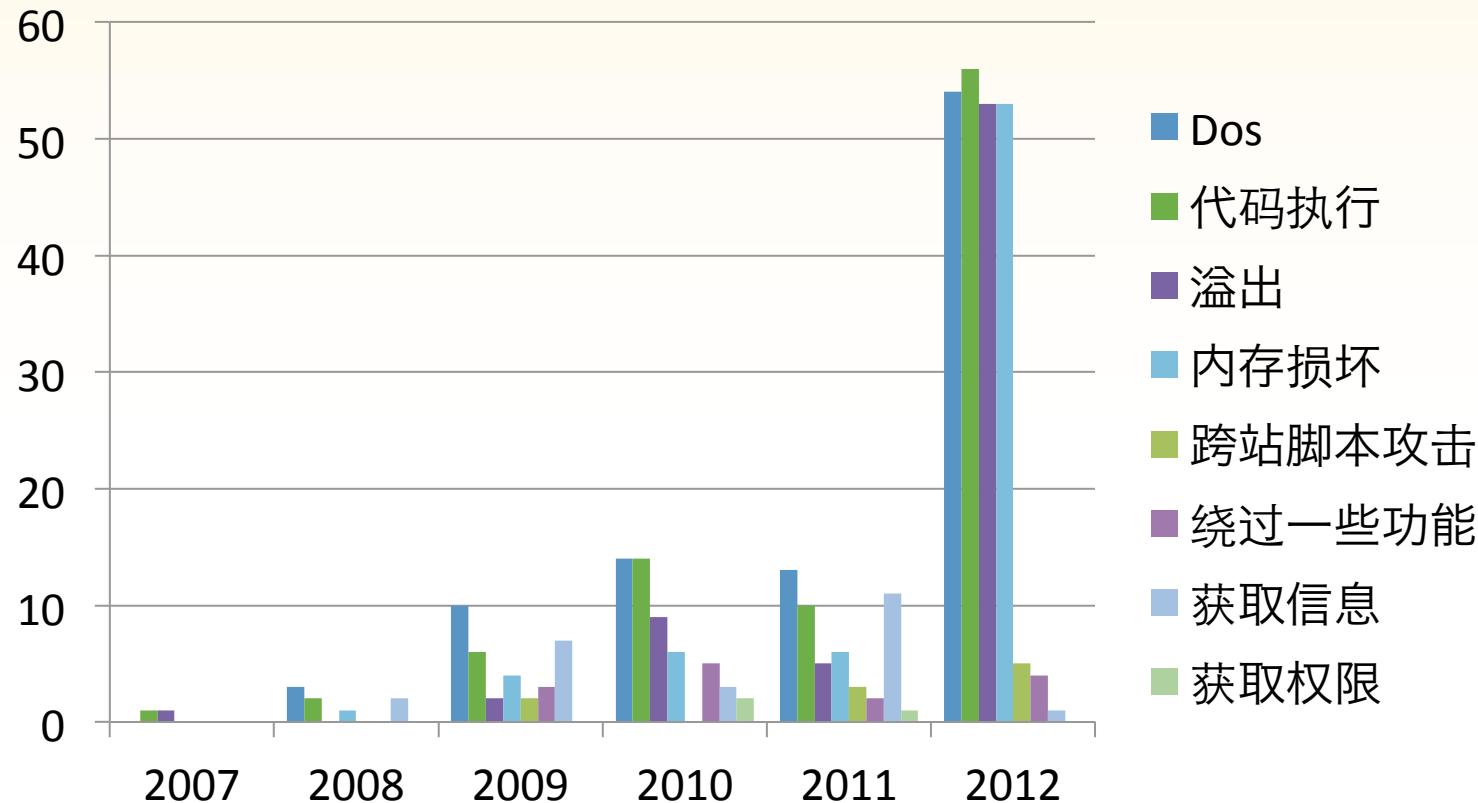
Android

- CVE-2011-3874 — 缓存溢出允许代码执行
- CVE-2011-1823 — 本地代码执行与 root 权限 (**Gingerbreak**)
- CVE-2011-1149 — 绕过沙盒与权限升级 (**KillingInTheNameOf**)
- 大量 Adobe Flash 漏洞

Apple iOS

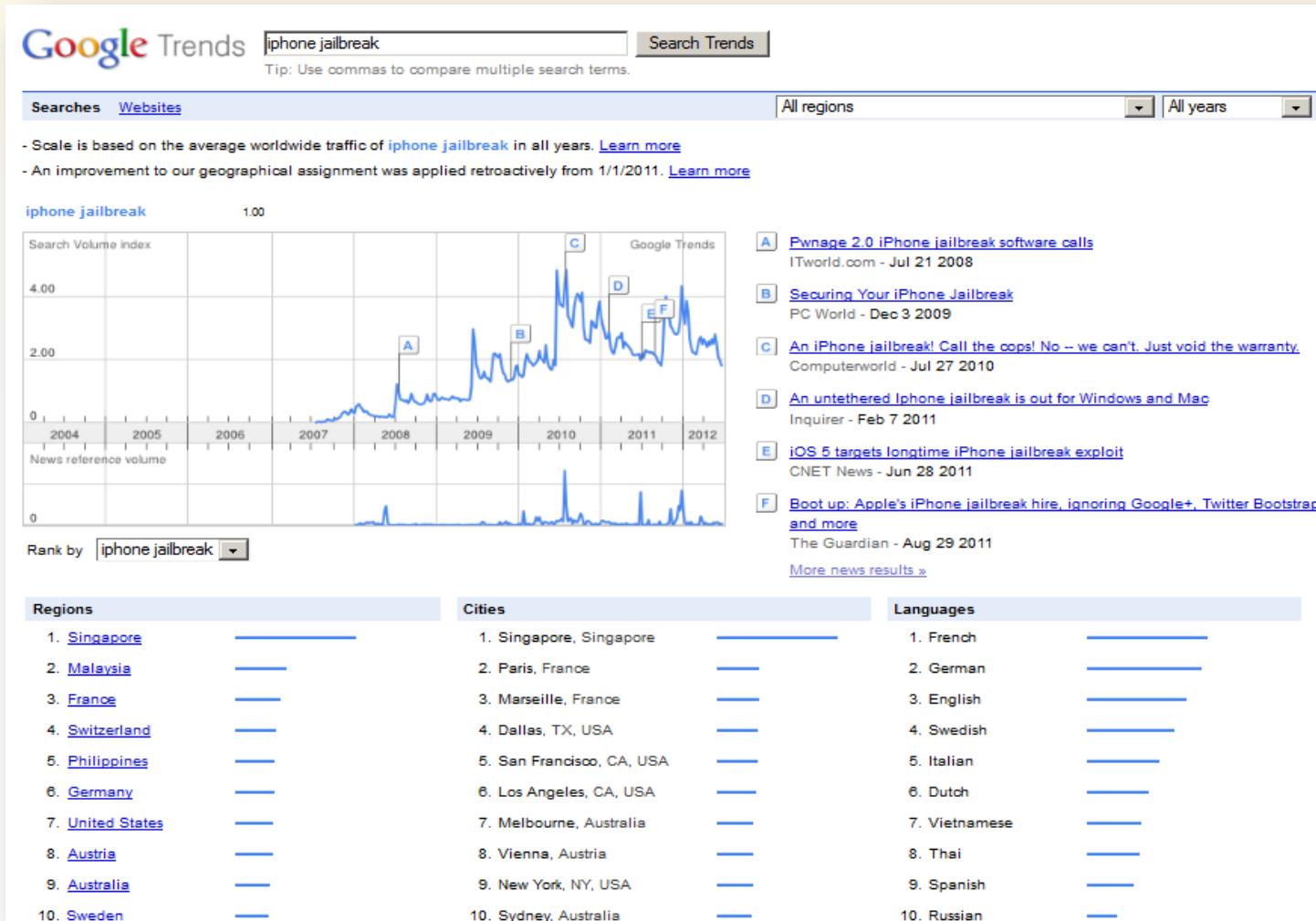
- CVE-2011-3246 — 恶意 URL 披露敏感信息
- CVE-2011-3439 — 恶意字体导致任意代码执行
- CVE-2011-3442 — 绕过代码签名检查的能力
- CVE-2011-3255 — Apple ID 和密码可能会被安装的应用程序拦截

没有平台能够幸免：Apple iOS 详情

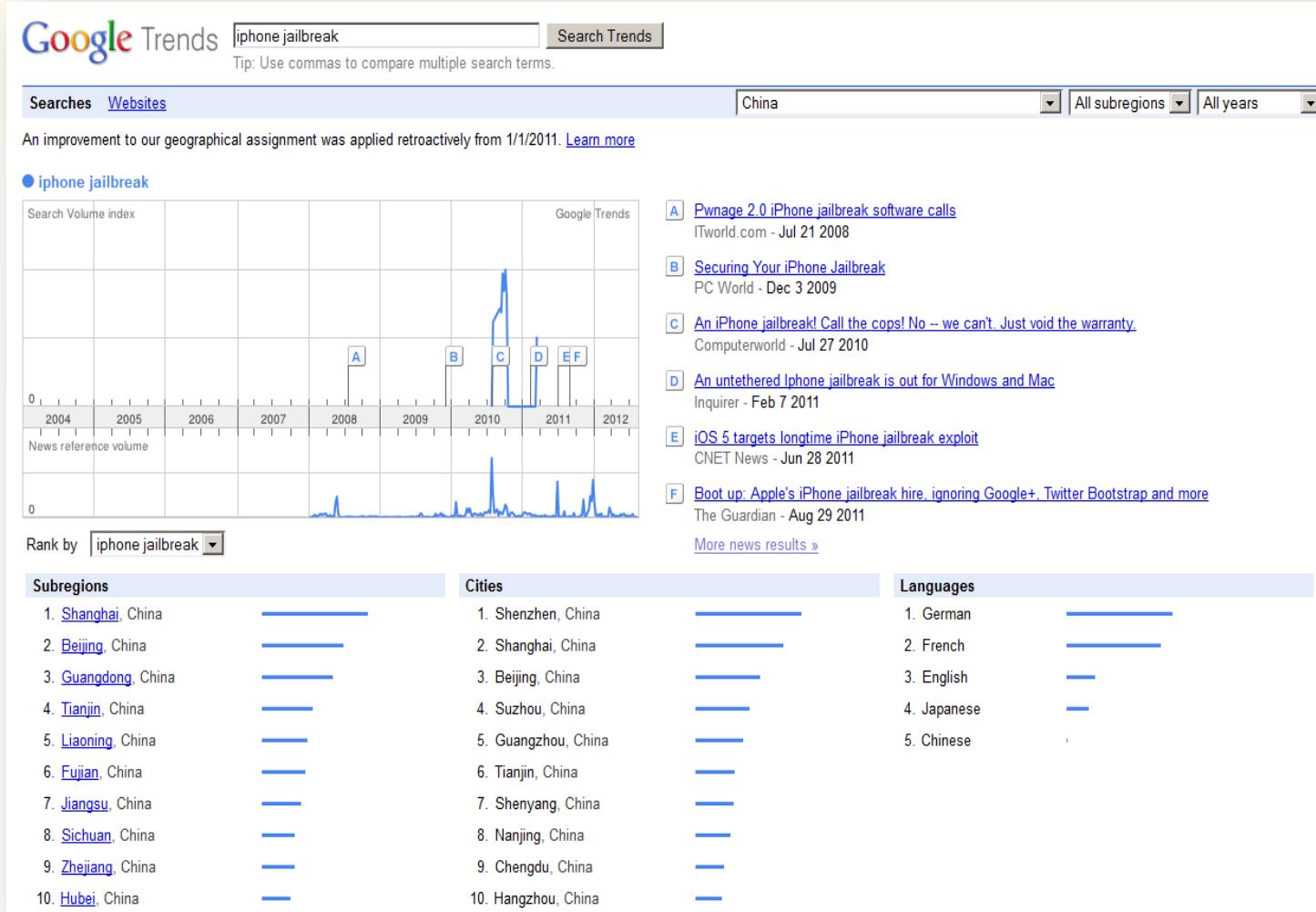


信息来源：通过 CVEDetails.com 发布的国家漏洞数据库 — 截止 2012 年 6 月 20 日

越狱动态



越狱动态 – 中国详情



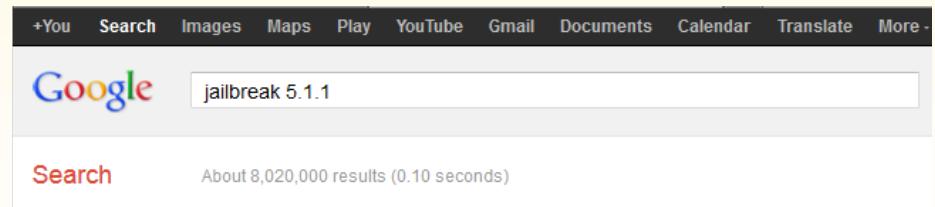
如何越狱 iOS 5.1.1

下载链接

Xxxx v2.0.4 MacOSX (10.5, 10.6, 10.7)

Xxxx v2.0.4 Windows (XP/Vista/Win7)

Xxxx v2.0.4 Linux (x86/x86_64)



如何使用 Xxxxx 2.0 :

1. 在 iTunes 中备份您的设备（在“设备”菜单下，右键单击设备名称，然后单击“备份”）。
2. 打开 Xxxxx 并确保您的设备仍通过 USB 电缆与计算机连接。
3. 单击“越狱”并耐心等待...请不要断开设备连接。
4. 越狱结束后，返回 iTunes 并恢复先前的备份。

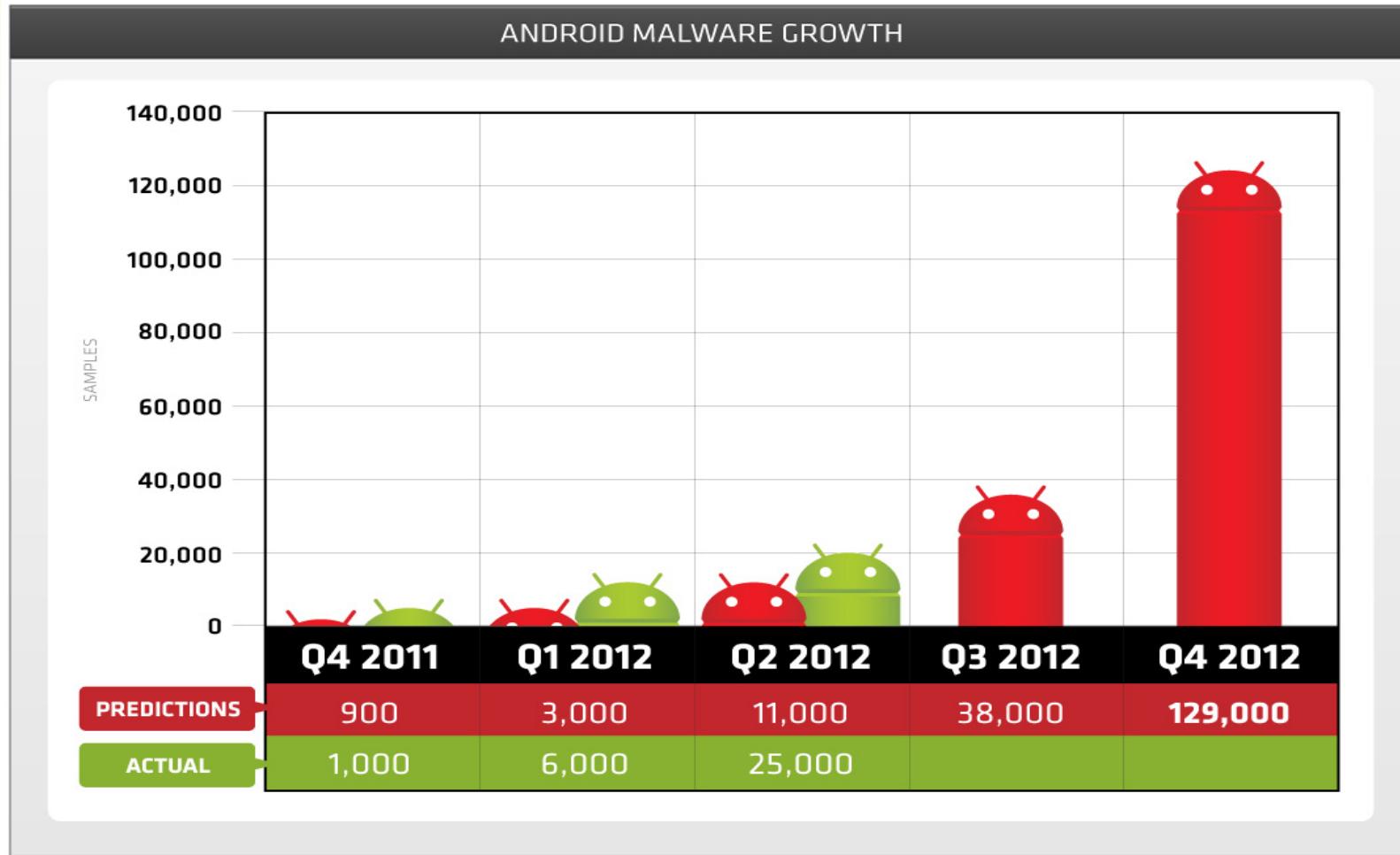
Xxxxx 2.0 支持 5.1.1 上的以下设备：

iPad 1、iPad 2、iPad 3 (现在 Xxxxx 2.0.4 也支持 iPad2)

iPhone 3GS、iPhone 4、iPhone 4S

iPod touch 第三代、iPod touch 第四代

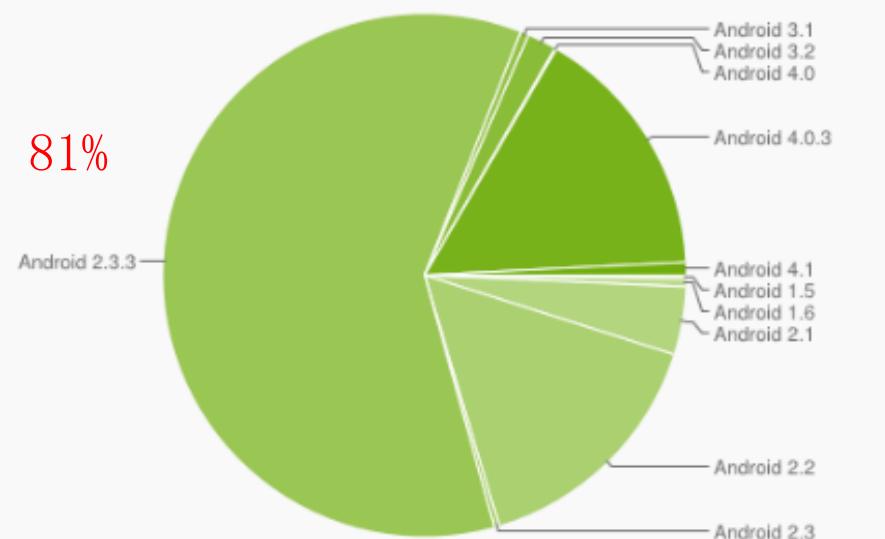
Android 是针对的目标



信息来源：Trend Micro Inc. 公司 Trend 实验室结果 — 截止 2012 年第二季度

Android 版本分布情况

Version	Codename	API Level	Distribution
1.5	Cupcake	3	0.2%
1.6	Donut	4	0.5%
2.1	Eclair	7	4.2%
2.2	Froyo	8	15.5%
2.3 - 2.3.2	Gingerbread	9	0.3%
2.3.3 - 2.3.7		10	60.3%
3.1	Honeycomb	12	0.5%
3.2		13	1.8%
4.0 - 4.0.2	Ice Cream Sandwich	14	0.1%
4.0.3 - 4.0.4		15	15.8%
4.1	Jelly Bean	16	0.8%



Data collected during a 14-day period ending on August 1, 2012

信息来源：Google <http://developer.android.com/resources/dashboard/platform-versions> — 截止 2012 年 8 月 1 日

正规卖场中的恶意应用程序

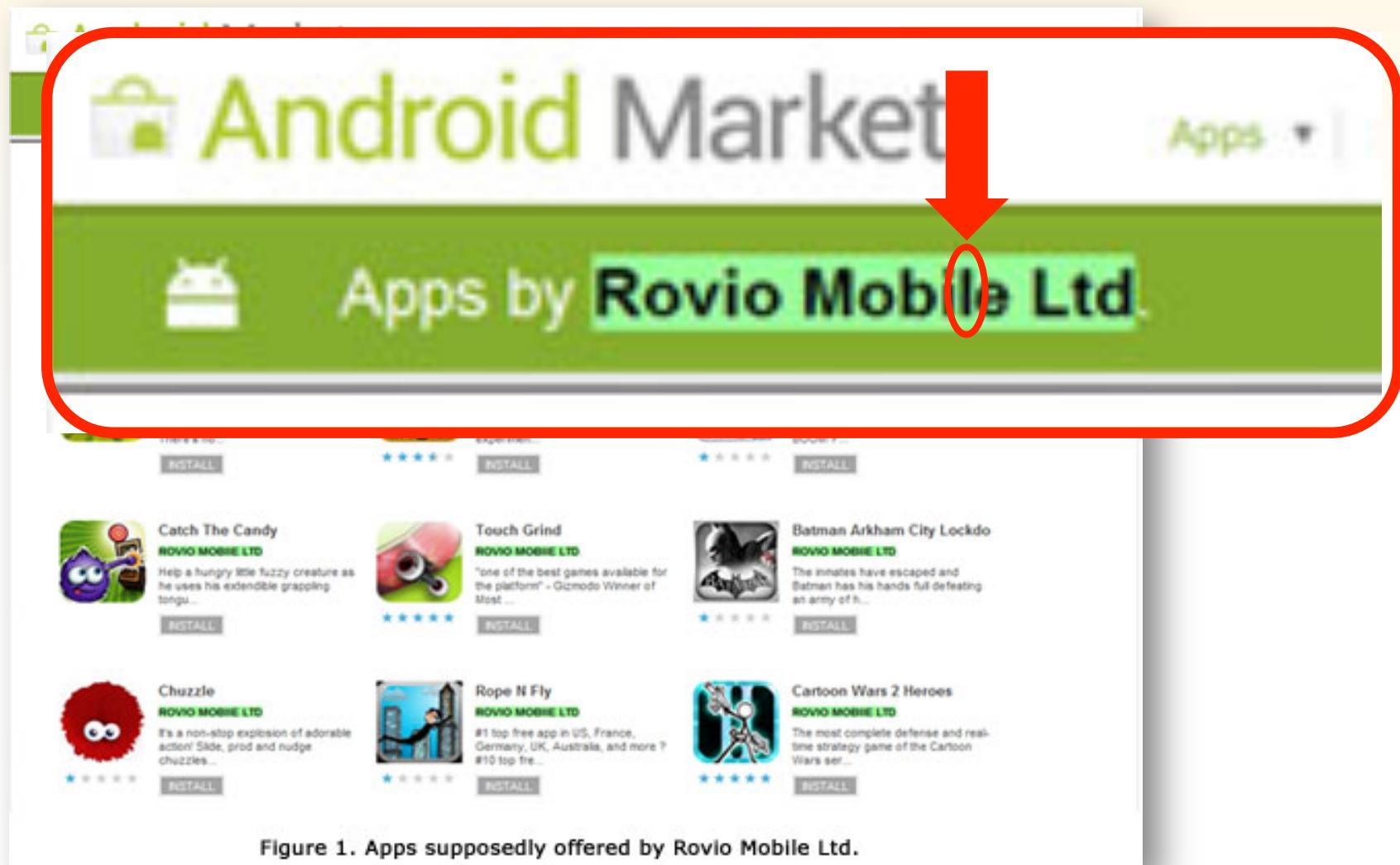


Figure 1. Apps supposedly offered by Rovio Mobile Ltd.

正规卖场中的恶意应用程序

The screenshot shows a blog post titled "17 Bad Mobile Apps Still Up, 700,000+ Downloads So Far" from May 3, 2012. The post discusses 17 malicious mobile apps found on Google Play, including those using AirPush and Plankton malware. It includes a table of app details and social sharing links.

Malware Blog > 17 Bad Mobile Apps Still Up, 700,000+ Downloads So Far

May 3 2012 2:53 pm (UTC-7) by Bob Pan (Mobile Security Engineer)

[Share](#) [Recommend](#) 97 [Tweet](#) 76 [+1](#) 22

We've [reported previously](#) that malicious apps were discovered in the official Android app store, which is now known as [Google Play](#). While those reported apps were removed, more malicious apps have been seen in the official marketplace and appear to be still victimizing users. This is just one of the important reasons why we feel that a technology like our [Trend Micro Mobile App Reputation](#) is crucial in users' overall mobile experience and security.

In total, we have discovered 17 malicious mobile apps still freely downloadable from [Google Play](#): 10 apps using [AirPush](#) to potentially deliver annoying and obtrusive ads to users and 6 apps that contain [Plankton](#) malware code.

Application Name	Package Name	App Developer	Brief Behavior Description
Spy Phone PRO+	com.spinXbackup.backupApp	Krishan	Sends out GPS location, SMS and call log
微笑的小工具	com.antonio.smiley.free	Antonio Tonev	Connects to C&C server and waits for the command
应用程序货架	com.antonio.wardrobe.apps.lite	Antonio Tonev	Connects to C&C server and waits for the command

Emerging Mobile Threats

- Trend Micro Fix Tool for Malicious Library File Found on 48 Utility Apps
- Library File in Certain Android Apps Connects to C&C Servers
- Are You Protecting the Data Packets in Your Pocket?
- ZTE Score M Scores a Backdoor Vulnerability
- Beta Version of Spytool App for

Android 间谍应用程序

Figure 2.

Spy Phone PRO+
Krishan
★★★★★ (5)
INSTALL

More from developer
Call Blocker
KRISHAN
★★★★★ (5)
Free

PDA SPY.com
cell phone spy software

cell PHONE spyware,
COMPLETELY UNDETECTABLE
MONITOR KIDS CELL USE

Welcome, abccccc, (id 8532701)
Logout

Call: 0 SMS: 2 GPS: 0

Download FREE app
Extend account

Menu

- Call History
 - Incoming
 - Outgoing
 - Missed
- SMS History
 - Incoming
 - Outgoing
- GPS History

SMS

	Type	Number	Message	Time	Action
		135545655112	hi	05.04.2012 9:32:15	Read

Delete selected

Figure 3. Screenshot of a web site that tracks devices

小结

- 消费型移动技术正在入侵企业，您无法阻止它的脚步
- 消费型技术不能达到企业的安全性和管理要求
- 即使有些平台比其他平台更加安全，但是无一能够幸免于难



1

拥抱消费化

2

了解各种平台上的风险情况

3

部署新的安全性和管理工具



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MICRO™

谢谢大家 !

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<http://BringYourOwnIT.com>

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