



#### January 15, 2017

Prepared by Solution Center, Check Point Software Technologies

Prepared for ABC Corp Industry Finance Company size 500 - 1000 Employees Country USA Analysis duration 7 days Analysis network Internal network Security gateway version R80 Security device Check Point Appliance 4800

Traffic inspected by the following Check Point Software Blades: Application Control, URL Filtering, IPS, Anti-Bot, Anti-Virus,

Threat Emulation, DLP



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#### SOFTWARE-DEFINED PROTECTION

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The following Security Checkup report presents the findings of a security assessment conducted in your network.

The report uncovers where your organization is exposed to security threats, and offers recommendations to address these risks.

To assess risk, network traffic was inspected by Check Point to detect a variety of security threats, including: malware infections, usage of high risk web applications, intrusion attempts, loss of sensitive data, and more.

#### **Malware and Attacks**

287 computers infected with bots



communications with C&C\* sites

\* C&C - Command and Control. If proxy is deployed, there might be additional infected computers.

known malware downloaded by



new malware downloaded



Indicates potential attacks on computers on vour network.

unique software

vulnerabilities were

attempted to be exploited

New malware variant is a zero-day attack or

malicious code with no known anti-virus signature.



**Data Loss** 



potential data loss incidents



sensitive data categories

Indicated information sent outside the company or to unauthorized internal users. Information that might be sensitive.

#### **High Risk Web Access**



high risk web applications



96.2GB

Potential risks: opens a backdoor to your network, hides user activity, causes data leakage or malware infections.



high risk web sites



Potential risks: Exposure to web-based threats and network infection. Examples: Spam, malicious, phishing web sites.



cloud applications



12.5GB

Risk of data loss and compliance violations. Examples: Dropbox, Google Drive, OneDrive.



## **Key Findings**



#### **MACHINES INFECTED WITH BOTS**

A bot is malicious software that invades your computer. Bots allow criminals to remotely control your computer to execute illegal activities such as stealing data, spreading spam, distributing malware and participating in Denial of Service (DOS) attacks without your knowledge. Bots play a key role in targeted attacks known as Advanced Persistent Threats (APTs). The following table summarizes the bot families and number of infected computers detected in your network.

#### Top Bot Families (Top 10 Malware)

Malware Family *	Infected Computers **	Communications with Command and Control Center	Destination Country
Sality	61 Computers	1,453	Mexico ■ United States ◆ Canada
Zeroaccess	57 Computers	684	China United States United Kingdom Canada Mexico
Zeus	54 Computers	546	
Pushdo	41 Computers	307	Russian Federation
Scar	32 Computers	115	<ul><li>Mexico</li><li>United States</li><li>Canada</li></ul>
Virut	23 Computers	97	■ ■ Italy ■ Russian Federation
Rustock	18 Computers	66	■ Italy ■ France ■ United States ■ Canada
Conficker	15 Computers	50	Germany Sweden Spain
Koobface	4 Computers	13	Spain ■ Italy
Total: 10 Malware Families	287 Infected Computers	4,596	13 Countries

#### **Command & Control Locations**



<sup>\*</sup> Check Point's malware naming convention: <malware type>.<operating system>.<malware family>.<variant> For more details on specific malware, search the malware name on <a href="https://www.threat-cloud.com">www.threat-cloud.com</a>

<sup>\*\*</sup> The total number of infected computers (sources) presents distinct computers.



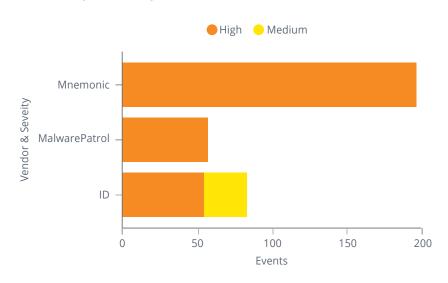
#### **EXTENDED MALWARE INCIDENTS (CHECK POINT THREATCLOUD INTELLISTORE)**

Malware threats were detected by extended security intelligence feeds (via Check Point ThreatCloud IntelliStore\*).

#### Top Threats by Feed

Feed	Threat	Severity	Source	Feed Detection Engine
Mnemonic	Malicious domain.bqzei	High	52 Sources	😭 Anti-Bot
	C&C domain.utqzy	High	43 Sources	😉 Anti-Bot
	Adware domain.qzf	High	20 Sources	😉 Anti-Bot
	Adware domain.qaf	High	17 Sources	😉 Anti-Bot
	C&C domain.uteuu	High	25 Sources	Anti-Bot
	C&C domain.vaoek	High	19 Sources	😉 Anti-Bot
	Malicious domain.bqtmg	High	7 Sources	😉 Anti-Bot
	C&C domain.uxqcw	High	10 Sources	😉 Anti-Bot
	C&C domain.umzgw	High	3 Sources	😭 Anti-Bot
	Adware domain.qbm	High	2 Sources	😉 Anti-Bot
	Total: 10 Threats	High	198 Sources	1 Engine
MalwarePatrol	URL hosting a malware executable file.dkgoh	High	57 Sources	Anti-Bot Anti-Virus
	Total: 1 Threat	High	57 Sources	2 Engines
ID	ExploitKit Nuclear.lkfo	High	24 Sources	&Anti-Virus
	ExploitKit Nuclear.rqdx	High	32 Sources	&Anti-Virus
	MalwareDownload Generic.bpkp	Medium	15 Sources	<b>⊗</b> Anti-Virus
	ExploitKit Angler.bcncr	Medium	7 Sources	&Anti-Virus
	Total: 4 Threats	High	78 Sources	1 Engine
Total: 3 Feeds	15 Threats	High	333 Sources	2 Engine

#### Feeds by Severity



<sup>\*</sup> For more information on Check Point ThreatCloud IntelliStore please refer to <a href="http://www.checkpoint.com/products/threatcloud-intellistore/">http://www.checkpoint.com/products/threatcloud-intellistore/</a>



#### MACHINES INFECTED WITH ADWARE AND TOOLBARS

Adware and toolbars are potentially unwanted programs designed to display advertisements, redirect search requests to advertising websites, and collect marketing-type data about the user in order to display customized advertising on the computer. Computers infected with these programs should be diagnosed as they may be exposed to follow-up infections of higher-risk malware. The following table summarizes the adware and toolbar malware families and the number of infected computers detected in your network.

#### **Top Malware Families**

Adware Name*	Infected Computers**
Adware domain.pzf	3 Computers
Adware domain.qaf	2 Computers
Adware domain.qbm	1 Computer
Adware.Win32.MyWay.A	1 Computer
Adware.Win32.Staser.A	1 Computer
Adware domain.iqp	1 Computer
Total: 6 Adware	570 Computers

<sup>\*</sup> Check Point's malware naming convention: <malware type>.<operating system>.<malware family>.<variant> For more details on specific malware, search on <a href="https://www.threat-cloud.com">www.threat-cloud.com</a>

<sup>\*\*</sup> The total number of infected computers (sources) presents distinct computers



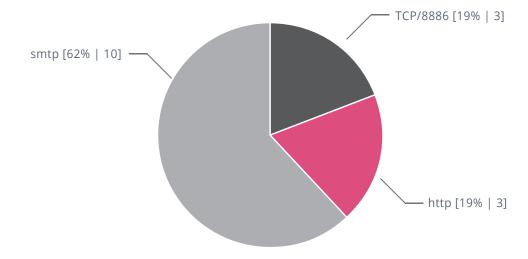
#### MALWARE DOWNLOADS (KNOWN MALWARE)

With the increase in sophistication of cyber threats, many targeted attacks begin by exploiting software vulnerabilities in downloaded files and email attachments. During the security analysis, a number of malware-related events which indicate malicious file downloads were detected. The following table summarizes downloads of known malware files detected in your network and the number of the downloading computers. Known malware refers to malware for which signatures exists and therefore should be blocked by an anti-virus system.

#### Top Malware Downloads (Top 10 Malware)

Infected File's Name	Downloaded Computers	Protocol
wire.zip	3 Computers	smtp
Tranfer.xlsx	3 Computers	smtp
tasknow.exe	3 Computers	TCP/8886
Proforma Invoice.Doc	2 Computers	smtp
DF4325.Skm	2 Computers	http
Invitation.pdf	1 Computer	smtp
Your_order.pdf	1 Computer	smtp
RH2221.cgi	1 Computer	http
Total: 8 Infected Files	10 Computers	3 Protocols

#### **Downloads by Protocol**





#### **DOWNLOADS OF NEW MALWARE VARIANTS (UNKNOWN MALWARE)**

With cyberthreats becoming increasingly sophisticated, advanced threats often include new malware variants with no existing protections, referred to as "unknown malware." These threats include new (zero-day) exploits, or even variants of known exploits with no existing signatures and therefore are not detectable by standard solutions. Detecting these types of malware requires running them in a virtual sandbox to discover malicious behavior. During the security analysis, a number of malware-related events were detected in your network. The table below summarizes downloads of new malware variants detected in your network.

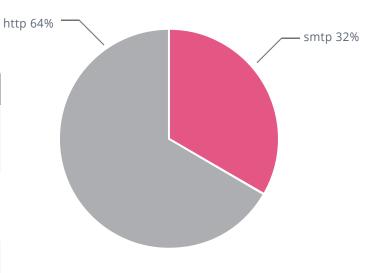
18.5K 2°

total files scanned total malware found

#### Downloads of New Malware Variants (Top 5 Malware)

Infected File Name	Malicious Activity	Downloads	MD5*	Protocols
wire.zip	Behaves like a known malware (Generic. MALWARE.3d0e ) Malware signature matched (Trojan.Win32. Generic.T.kbvx ) Unexpected Process Crash	2	09831c2420848703 26865966037ea68f	smtp
0802_41.xls	Behaves like a known malware (Generic. MALWARE.6c6c ) Malicious Filesystem Activity Malicious Registry Activity Unexpected Process Creation	2	289221d50d705238 6379f79358fc547a	http
image0png.zip	A new process was created during the emulation The module creates a suspended process The module executes files or commands The module loads API functions from a DLL dynamically 5 more malicious activities	1	6b5dbd65c284c950 fb3fa98c0ac8e924	smtp
Invoice0245.zip	Behaves like a known malware (Generic. MALWARE.84ef )	1	1efeb7e73eaa0f4dd b8be34e70c36bf6	http
o.swf	Malicious Registry Activity Unexpected Process Termination	1	388151bde0f98d7fc 1efb0c3925b6740	http
Total: 21 Infected Files	16 Activities	9 Downloads	8 MD5	2 Protocols

#### Download by Protocol



<sup>\*</sup> You can analyze suspicious files by copying and pasting files' MD5 to VirusTotal online service at <a href="https://www.virustotal.com">www.virustotal.com</a>



#### **ACCESS TO SITES KNOWN TO CONTAIN MALWARE**

Organizations can get infected with malware by accessing malicious websites while browsing the Internet, or by clicking on malicious links embedded in received email. The following summarizes events related to sites known to contain malware.

#### Top Accessed Sites Known to Contain Malware

Malicious URL *	Number of Sources	Number of Hits
10ensalud.com	3	3
0i7.ru	2	2
00xff.net	1	1
002dh.com	1	1
17ta.com	1	1
Total: 5 Infected Files	8 Sources	8 Hits

**42 emails** received with link to malicious site

 $<sup>\</sup>hbox{$^*$ You can analyze suspicious URLs by copying and pasting them into VirusTotal online service at $\underline{www.virustotal.com}$ \\$ 



#### ATTACKS AND EXPLOITED SOFTWARE VULNERABILITIES

During the security analysis, attacks and exploited software vulnerabilities on servers/clients were detected. Such incidents might indicate intrusion attempts, malware attacks, DoS attacks or attempts to bridge security by exploiting software vulnerabilities. The following summarizes these events.

#### Attacks on Clients (Top 10 Attacks)

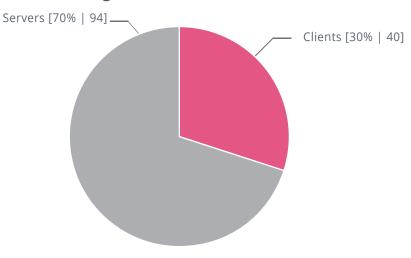
Attack Name	CVE	Attacked Computer	Attackers	Severity	Number of Attacks
Adobe Flash Player SWF File Buffer Overflow (APSB13-04)	CVE-2009-0520	32	43	High	3,342
Adobe Reader TTF CVT Buffer Overflow (APSB10-09)	CVE-2010-2883	31	12	High	1,232
Internet Explorer ActiveX Navigate Handling Code Execution (MS08-073)	CVE-2008-0078	14	523	High	32
Microsoft Access Snapshot Viewer ActiveX Control Arbitrary File Download	CVE-2008-2463	13	12	Medium	265
Total: 5 Attacks		94 Attacked Computers	594 Attackers		4,884 Attacks

#### Attacks on Servers (Top 10 Attacks)

Attack Name	CVE *	Attacked Computer	Attackers	Severity	Number of Attacks
Microsoft SCCM Reflected Cross-site Scripting (MS12-062)	CVE-2012-2536	13	56	Medium	4,765
Joomla Unauthorized File Upload Remote Code Execution	CVE-2012-2902	12	33	Medium	2,543
Web Servers Malicious HTTP Header Directory Traversal	CVE-2002-0440	7	123	High	126
ImageMagick GIF Comment Processing Off-by-One Buffer Overflow	CVE-2005-0191	3	4	Medium	24
PHP Php-Cgi Query String Parameter Code Execution	CVE-2012-1823	2	2	High	10
Oracle Database Server CREATE_TABLES SQL Injection	CVE-2009-1991	2	2	Low	5
Total: 9 Attacks		40 Attacked Servers	265 Attackers		7,182 Attacks

<sup>\*</sup> For more information on specific CVE, search on MITRE's CVE search page (www.cve.mitre.org/cve/cve)

#### **Attacked Targets**





#### **DDOS ATTACKS**

Denial-of-service (DoS) attacks target networks, systems and individual services flooding them with so much traffic that they either crash or are unable to operate. This effectively denies the service to legitimate users. A DoS attack is launched from a single source to overwhelm and disable the target service. A Distributed Denial-of-service (DDoS) attack is coordinated and simultaneously launched from multiple sources to overwhelm and disable a target service. During the security analysis, DDoS attacks were detected. The following summarizes the events.

Summary

attack types

14 70.4K 13.3MB

total attacks bandwidth utilization

#### Top 5 DDoS Attacks

Attack Name	Severity	Source	Destination	Events
Network flood IPv4 UDP	Critical	59 Sources	■ 7 attacked ■ 4 attacked	6.4K
Network flood IPv4 TCP-SYN	Critical	2 Sources	13 attacked 21 attacked 4 attacked	5.0K
TCP Scan (horizontal)	High	3 Sources	■ 2 attacked	15.55K
TCP Scan (vertical)	High	3 Sources	13 attacked 15 attacked 5 attacked	1.6K
TCP Scan	High	12 Sources	21 attacked 18 attacked 17 attacked 7 attacked 2 attacked	1.0K
Total: 14 Protections	Critical	118 Sources	64 Destinations	70.4 K

#### **Top Source Countries**

Sou	urce Country	Attacks
0	Mexico	41.4K
	United Kingdom	5.9K
	United States	5.7K
	Poland	2.1K
	France	1.3K
	Sweden	156
*0	China	24
ធា	Serbia	19
=	India	18
+	Canada	18
=	Netherlands	14
C:	Singapore	5
*	Vietnam	3
	Trinidad and Tobago	2
	Kuwait	2
Tot	tal: 16 Countries	56.6K



#### **USAGE OF HIGH RISK WEB APPLICATIONS**

Web applications are essential to the productivity of every organization, but they also create degrees of vulnerability in its security posture. Remote Administration applications might be legitimate when used by admins and the helpdesk, but please note that some remote access tools can be used for cyber-attacks as well. The following risky web applications were detected in your network, sorted by category, risk level and number of users.

#### Top High Risk Web Applications (Top 5 Categories)

Application Category	Application Name	Source	Risk Level *	Traffic
Proxy Anonymizer		7 Sources	5 Critical	23 GB
	🔥 Hola	4 Sources	5 Critical	354 MB
	Ultrasurf	4 Sources	5 Critical	239 MB
	Hide My Ass	3 Sources	5 Critical	120 MB
		1 Source	5 Critical	32 MB
	Total: 7 Applications	16 Sources		26 GB
P2P File Sharing	⑤ BitTorrent Protocol	24 Sources	4 High	23 GB
	<b>₹</b> SoulSeek	22 Sources	4 High	22 GB
	Xunlei	19 Sources	4 High	12 GB
	<b> ॐ</b> iMesh	13 Sources	4 High	456 MB
		8 Sources	4 High	56 MB
	Total: 6 Applications	73 Sources		61 GB
File Storage & Sharing Applications	Dropbox	132 Sources	4 High	6 GB
5.1a	Hightail	54 Sources	4 High	3 GB
	Mendeley	9 Sources	4 High	123 MB
	Zippyshare	5 Sources	4 High	55 MB
	Sendspace	1 Source	4 High	3 MB
	Total: 5 Applications	201 Sources		9.2 GB
Total: 3 Categories	18 Applications	290 Sources		96.2 GB

#### 96.2 GB total high risk web applications traffic

#### **Top Categories**

Application Category	Traffic
Proxy Anonymizer	26 GB
P2P File Sharing	61 GB
File Storage & Sharing Applications	9.2 GB
Total: 3 Categories	96.2 GB

<sup>\*</sup> RIsk level 5 indicates an application that can bypass security or hide identities. Risk level 4 indicates an application that can cause data leakage or malware infection without user knowledge.



#### **ACCESS TO HIGH RISK WEB SITES**

Web use is ubiquitous in business today. But the constantly evolving nature of the web makes it extremely difficult to protect and enforce standards for web usage in a corporate environment. To make matters more complicated, web traffic has evolved to include not only URL traffic, but embedded URLs and applications as well. Identification of risky sites is more critical than ever. Access to the following risky sites was detected in your network, organized by category, number of users, and number of hits.

#### Top Risky Websites (Top 5 Categories)

Site Category	Site	Number of Users	Number of Hits
Phishing	wsq.altervista.org	7 Users	59
	applynow. mwexoticspetsforsale.com	4 Users	45
	login.marlktplaats.com	4 Users	21
	masternard.com	3 Users	5
	pro-update.com	1 User	3
	Total: 7 Sites	16 Users	135
Spam	bgeqwre.com	24 Users	65
	bgvlidf.com	22 Users	55
	buogbvd.com	19 Users	19
	br46cy78son.net	13 Users	7
	dq4cmdrzqp.biz	8 Users	1
	Total: 6 Sites	73 Users	153
Spyware / Malicious Sites	100footdiet.org	132 Users	66
Sites	0scan.com	54 Users	33
	050h.com	9 Users	5
	123carnival.com	5 Users	5
	0hm.net	1 User	3
	Total: 9 Sites	254 Users	121
Total: 3 Categories	22 Sites	343 Users	409

#### Access to sites containing questionable content

Site Category	Browse Time (hh:mm:ss)	Traffic Total Bytes
Illegal / Questionable	1:16:00	15.1MB
Sex	2:42:00	8.9MB
Gambing	13:11:00	7.4MB
Hacking	00:01:00	56.0KB
Total: 4 Categories	17:10:00	31.5MB

Access to non-business websites or to sites containing questionable content can expose an organization to possible productivity loss, compliance and business continuity risks.

#### **DATA LOSS INCIDENTS**

Your company's internal data is one of its most valuable assets. Any intentional or unintentional loss can cause damage to your organization. The information below was sent outside the company, or to potentially unauthorized internal users. This information may potentially be sensitive information that should be protected from loss. The following represents the characteristics of the data loss events that were identified during the course of the analysis.

#### Summary

74.3K total emails scanned

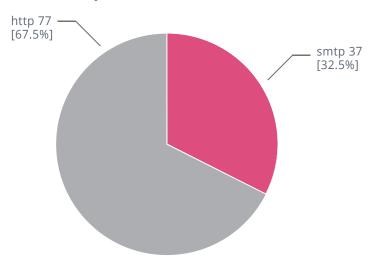
**7** emails with data loss incidents

**114** web data loss incidents

#### Top Data Types (Top 10 Categories)

Data Type	Users	Events	Services
Credit Card Numbers	7	54	http
Business Plan	5	32	smtp
Financial Reports	2	12	http
Source Code	1	9	http
Pay Slip File	3	5	smtp
U.S. Social Security Numbers	1	2	http
Total: 6 Data Types	19 Users	114 Events	2 Services

#### **Incidents by Protocol**



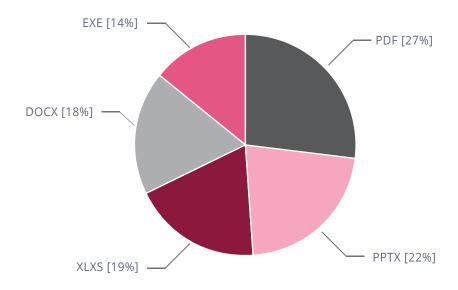
#### FILES UPLOADED TO CLOUD BASED WEB APPLICATIONS

One of the greatest characteristics of Web 2.0 is the ability to generate content and share it with others. This capability comes with significant risk. Sensitive information can get into the wrong hands by storing confidential financial files on cloud-based file storage and sharing services. The following table provides an overview of the types of files uploaded from your organization and the respective file storage and sharing applications used.

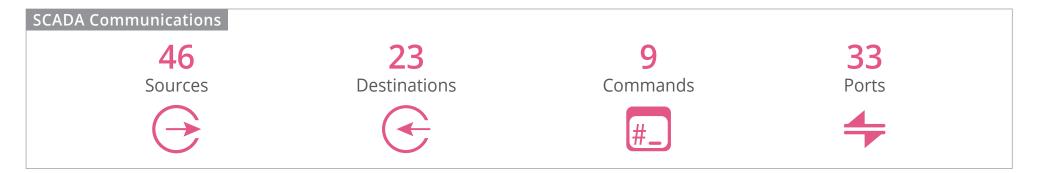
#### Cloud-Based Web Applications (Top 5 Categories)

Site / Application Category	Site / Application	Uploaded Files	Number of Users	File Type
File Storage & Sharing Applications	Dropbox	7 Files	59 Users	.EXE, .PPTX, .PDF
Аррисацииз	Hightail	4 Files	45 Users	.DOCX, .PPTX
	Mendeley	4 Files	21 Users	.PDF, .XLXS
	Google Drive-web	3 Files	13 Users	.EXE, .PDF
	Mega	3 Files	6 Users	.EXE
	Total: 7 Sites	24 Files	163 Users	
P2P File Sharing	BitTorrent Protocol	24 Files	65 Users	.DOCX, .PPTX
	SoulSeek	22 Files	55 Users	.PDF, .XLXS
	FileMp3.org	16 Files	43 Users	.PDF, PPTX
	P2P-Radio	9 Files	22 Users	.XLXS
	Sharebox	3 Files	10 Users	.PDF, .XLXS
	Total: 6 Sites	76 Files	201 Users	
Share Files	Facebook	132 Files	66 Users	.DOCX, .PPTX
	FreeWire	42 Files	23 Users	DOCX.
	Total: 2 Sites	174 Files	89 Users	
Total: 3 Categories	15 Sites	274 Files	453 Users	

#### File Types



SCADA (Supervisory Control and Data Acquisition) is a type of industrial control system (ICS) that monitors and controls industrial processes. It operates with coded signals over communication channels to provide control of remote equipment. SCADA networks are usually separated from the organizational IT network for security purposes. SCADA protocols detected on the IT network might indicate a security risk with a potential for a security breach. The following SCADA protocols were detected on your network.



#### Top SCADA Protocols & Commands (Top 20)

Protocol & Command	Transactions	Traffic
BACNet Protocol (Building Automation and Control Networks)	38	4.3GB
DNP3 Protocol - freeze and clear	21	123MB
EtherNet/IP	16	2.2GB
OPC UA - secure conversation message	2	71.0MB
DNP3 Protocol - immediate freeze	2	513MB
DNP3 Protocol	2	1.6GB
DNP3 Protocol - write	1	1.7GB
DNP3 Protocol - ware restart	1	57MB
DNP3 Protocol - select	1	321MB
Total: 9 Protocols & Commands	84 Transactions	10.885GB



The following Security Checkup report presents the findings of a security assessment conducted in your network. The report focuses on mobile threats and uncovers where your organization is exposed to them, and offers recommendations to address these risks.

To assess risk, network traffic was inspected by Check Point to detect a variety of security threats, including: mobile malware infections, usage and downloads of high risk mobile apps, download of malicious mobile applications, outdated mobile operating systems, and more.



**547** Android devices



**433** iOS devices



**979GB** total mobile traffic

Mobile devices detected on corporate network (number of devices is based on source IP addresses).



cloud mobile apps



high risk mobile apps



high risk web sites



19GB traffic



**9GB** traffic

High risk mobile apps are apps that might be used by attackers to monitor and control mobile devices or cause data loss.



855 hits

Examples: Spam, malicious, botnets and phishing web sites. Potential risks: Exposure to web-based threats and network infection.



downloads of malicious apps and malware



infected devices

Download of malicious content such as malicious apps, malware and adware and infected devices communicating with Command and Control servers.

Examples: Dropbox, Google Drive, OneDrive.

Risk of data loss and compliance violations.

#### MOBILE DEVICES INFECTED WITH MALWARE

Mobile malware are malicious software which invade your mobile device. Mobile malware allow criminals to steal sensitive information from a device, take control of its sensors to execute keylogging, steal messages, turn on the video camera, and all this without your knowledge. Mobile malware play a key role in targeted attacks known as Advanced Persistent Threats (APTs). The following table summarizes the mobile malware detected in your network.

#### Bot infections (top 20 bots)

Malware*	Infected Devices	Communications with Command and Control Center
Plankton	5 devices	1,453
Xinyin	5 devices	1,265
AndroRAT	4 devices	684
BatteryBot	2 devices	587
Bosua	3 devices	45
HummingBad	2 devices	33
SMS-Agent.A	2 devices	26
SmsThief	1 device	7
SMS-Agent.B	1 device	3
Total: 9 malware families	13 infected devices	4,103

#### **Command & Control locations**



<sup>\*</sup> For more information on specific malware, search on www.threat-cloud.com

#### **DOWNLOADS OF MALICIOUS APPS AND MALWARE**

With the increased in sophistication in mobile cyber threats, many targeted attacks begin by embedding malware in downloaded apps and files. During the security analysis, a number of malware-related events which indicate malicious file downloads were detected. The following table summarizes downloads of malware by mobile devices.

#### Malware downloads (top 20)

Malware*	Downloaded by	Downloads	MD5
MobileConf.apk	21 devices	3	582e74467fd100622871fd9cc4dc005c
com.android.senscx.apk	13 devices	3	048b145948a07ab93e24a76dafda8bb7
org.blhelper.vrtwidget.apk	8 devices	3	76745ce873b151cfd7260e182cbfd404
SystemThread.apk	7 devices	3	b9484ae3403c974db0f721b01bd6c302
com.android.systemUI.apk	3 devices	3	f8645efd5ea2b802d68406207000d59b
Pornclub.apk	2 devices	2	6fa0ffc80d7796748238ad5f1ef3fd71
Settings Tools.apk	2 devices	1	29dc63afd068dad7a589c680896e5e86
MainActivity.apk	1 device	1	f3867f6159ee25ebf90c8cc0220184ed
clean.apk	1 device	1	eeb6777ce814c6c78e7b9bce9f8176e6
Total: 9 malware files	58 devices	20 downloads	

<sup>\*</sup> For more information on specific malware, search on www.threat-cloud.com

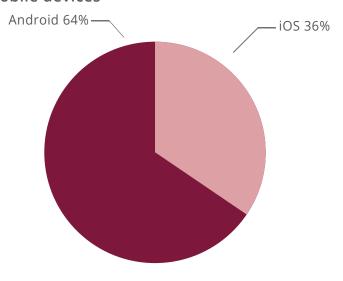
#### **USAGE OF HIGH RISK MOBILE APPS**

Mobile apps are essential to the productivity of every organization, but they also create degrees of vulnerability in its security posture. Remote Administration apps might be legitimate when used by admins and the helpdesk, but when used maliciously, they can allow potential attackers to steal sensitive information from a device, take control of the sensors to execute keylogging, steal messages, turn on video camera, and more. The following risky apps were detected in your network.

#### Top high risk mobile apps

App Category	App Name*	Risk Level	Devices	Traffic
Spyware	Mspy	4 High	24	5 GB
	Spy2Mobile	4 High	22	2 GB
	Bosspy	4 High	19	1 GB
	Mobile Spy	4 High	11	456 MB
	Shadow Copy	4 High	5	350 MB
	My Mobile Watchdog	4 High	3	120 MB
	MobiStealth	4 High	2	59 MB
	TalkLogV	4 High	1	56 MB
Total: 1 category	18 apps		87	9 GB

#### Mobile devices



<sup>\*</sup> For more information on specific app, search on <a href="http://appwiki.checkpoint.com/">http://appwiki.checkpoint.com/</a>

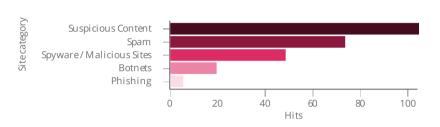
#### **ACCESS TO HIGH RISK WEB SITES**

Web use is ubiquitous in business today. But the dynamic, constantly evolving nature of the web makes it extremely difficult to protect and enforce web usage in a corporate environment. Identification of risky sites is more critical than ever. Access to the following risky sites was detected in your network, organized by category, number of users, then number of hits.

#### Top high risk web sites (top 10 sites per category)

Site Category	Site	Mobile Users	Hits
Suspicious Content	ad.pxlad.io/ad an.tacoda.net/an/atids.html bam.nr-data.net/1/92a411bc23 beacon.securestudies.com/scripts/beaco cdn.applight.mobi/applight/2015 down.onowcdn.com/testapk dxcnd.cn fbhpadmax.com file1.updrv.com/soft/2012/drivethelife5_s 19 more Sites	81 Mobile Users	104
Spam	a0.awsstatic.net adx.adform.net/adx aptrk.com/g c.ffctdbtr.com cj-cy.com clk.apxadtracking.net/iclk/redirect.php comerciointernacional.com.mx delightfulmotivation.com dl7wen29y4h7i03edf6pm3s6h7nt5oxgpoe. dreamingofgalleries.me 16 more Sites	61 Mobile Users	73

#### High risk web sites by category



#### Access to sites containing questionable content

Category	Browse Time (hh:mm:ss)	Traffic Total Bytes
Sex	21:24:00	3.9GB
Illegal / Questionable	3:59:00	910.8MB
Gambling	0:10:00	11.4MB
Hacking	0:01:00	64.0KB
Total: 4 Categories	25:34:00	4.8GB

Web Access to non-business websites or to sites containing questionable content can expose an organization to possible productivity loss, compliance and business continuity risks.



## **343** total endpoints detected

#### **Endpoints Involved in High Risk Web Access** and Data Loss Incidents



running high risk applications



accessed high risk websites



users accessed questionable, non-business related websites



users involved in potential data loss incidents

#### **Endpoints Involved in Malware and Attack Incidents**



infected with malware



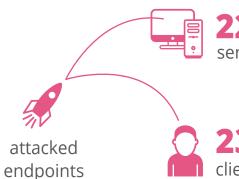
downloaded malware



received email containing link to malicious site



accessed a site known to contain malware



servers attacked

clients attacked



#### **BANDWIDTH UTILIZATION BY APPLICATIONS & WEBSITES**

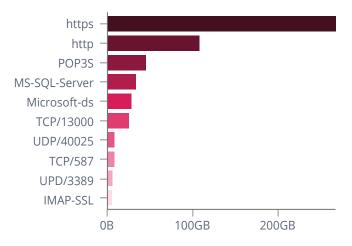
An organization's network bandwidth is usually utilized by a wide range of web applications and sites used by employees. Some are business related and some might not be business related. Applications that use a lot of bandwidth, for example, streaming media, can limit the bandwidth that is available for important business applications. It is important to understand what is using the network's bandwidth to limit bandwidth consumption of non-business related traffic. The following summarizes the bandwidth usage of your organization sorted by consumed bandwidth.

#### Top Applications/Sites (Top 30)

Application/Site	Category	Risk Level	Sources	Traffic
YouTube	Media Sharing	2 Low	151 Sources	13.6GB
Office 365-Outlook	Email	1 Very Low	363 Sources	10.9GB
Microsoft SQL Server	Business Application	2 Low	189 Sources	6.4GB
Windows Update	Software Update	1 Very Low	623 Sources	4.7GB
Server Message Block (SMB)	Network Protocols	1 Very Low	491 Sources	3.7GB
Skype	VoIP	3 Medium	475 Sources	2.3GB
bestday.com	Travel	- Unknown	232 Sources	2.3GB
SMTP Protocol	Network Protocols	3 Medium	248 Sources	2.2GB
Google Services	Computers / Internet	2 Low	437 Sources	1.9GB
Microsoft Dynamics CRM	Business Application	1 Very Low	3 Sources	1.7GB
Facebook	Social Network	2 Low	226 Sources	1.6GB
oloadcdn.net	Computers / Internet	- Unknown	3 Sources	1.5GB
Server Message Block (SMB)-write	Network Protocols	1 Very Low	33 Sources	1.2GB
Gmail	Email	3 Medium	55 Sources	1.1GB
Outlook.com	Email	3 Medium	280 Sources	1.0GB
ds.pr.dl.ws.microsoft.com	Computers / Internet	- Unknown	1 Source	958.6MB
Jabber Protocol (XMPP)	Network Protocol	2 Low	391 Sources	872.6MB
Total: 254 Applications/Sites	34 Categories	4 Risks	2,049 Sources	539.8GB

539.8GB total traffic scanned

#### Traffic by Protocol





# Software-Defined Protection

Enterprise Security Blueprint

In a world with high-demanding IT infrastructures and networks, where perimeters are no longer well defined, and where threats grow more intelligent every day, we need to define the right way to protect enterprises in the ever changing threat landscape.

There is a wide proliferation of point security products; however these products tend to be reactive and tactical in nature rather than architecturally oriented. Today's corporations need a single architecture that combines high performance network security devices with real-time proactive protections. A new paradigm is needed to protect organizations proactively.

Software-defined Protection is a new, pragmatic security architecture and methodology. It offers an infrastructure that is modular, agile and most importantly, *SECURE*.

Such architecture must protect organizations of all sizes at any location: headquarters networks, branch offices, roaming through smartphones or mobile devices, or when using cloud environments.

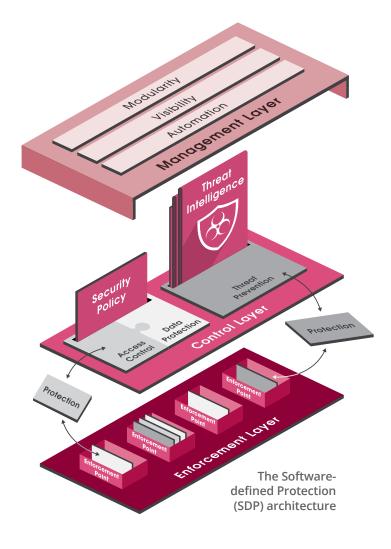
Protections should automatically adapt to the threat landscape without the need for security administrators to follow up manually on thousands of advisories and recommendations. These protections must integrate seamlessly into the larger IT environment, and the architecture must provide a defensive posture that collaboratively leverages both internal and external intelligent sources.

The Software Defined Protection (SDP) architecture partitions the security infrastructure into three interconnected layers:

- ▶ An Enforcement Layer that is based on physical, virtual and host-based security enforcement points. It segments the network as well as executes the protection logic in high-demand environments.
- ▶ A Control Layer that analyzes different sources of threat information and generates protections and policies to be executed by the Enforcement Layer.
- ▶ A Management Layer that orchestrates the infrastructure and brings the highest degree of agility to the entire architecture.

By combining the high performance Enforcement Layer with the fast-evolving and dynamic softwarebased Control Layer, the SDP architecture provides not only operational resilience, but also proactive incident prevention for an ever-changing threat landscape.

Designed to be forward-looking, the SDP architecture supports traditional network security and access control policy requirements as well as the threat prevention needed by modern enterprises that embrace new technologies such as mobile computing and Software-defined Networks (SDN).



## Check Point Software-Defined Protection

Check Point provides all the right components needed to implement a complete SDP architecture with the best management and the best security.

Check Point software-defined protections provide the flexibility needed to cope with new threats and embrace new technologies. Our solutions generate new and updated protections for known and unknown threats and proactively distribute this knowledge through the cloud. Implementing Check Point security solutions based on sound architectural security design empowers enterprises to embrace leading-edge information system solutions with confidence.



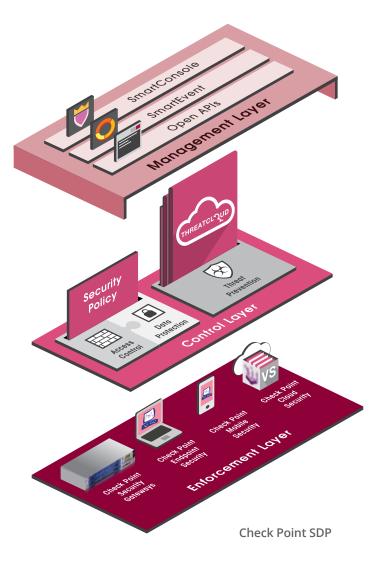
To secure the boundaries of each segment, Check Point offers a wide range of enforcement points. These include high-performance network security appliances, virtual gateways, endpoint host software and mobile device applications (Check Point Capsule) which enables you to extend security from the corporate network, and apply it to your mobile devices. Check Point provides enterprises with all the building blocks needed to engineer segmented, consolidated and secure systems and networks.



Check Point SDP control layer is based on Check Point Software Blade Architecture that provides customers with flexible and effective security solutions to match their exact needs. With a choice of over 20 Software Blades, the modular nature of the Software Blade Architecture allows customers to build a relevant security solution per enforcement point and to expand their security infrastructure over time.

#### **NEXT GENERATION THREAT PREVENTION**

Check Point efficiently delivers controls to counter many of the known and unknown threats. The Check Point Threat prevention solution includes: Integrated Intrusion Prevention System (IPS) to proactively prevent intrusions, network based Antivirus to identify and block malware, Anti-bot to detect and prevent bot damage, Threat Emulation malware sandboxing to detect and block unknown and zero-day attacks. Check Point built a unique cloud-based threat intelligence, big data and protection generator, Check Point ThreatCloud™. Check Point ThreatCloud enables a collaborative way to fight cybercrime, delivering real-time security threat intelligence converted into security indicators to the control layer.



### NEXT GENERATION FIREWALL AND SECURE WEB GATEWAY

Check Point access control is based on multiple software blades which enable a unified context-based security policy: Firewall to securely control access to clients, servers, applications and connection types; Application Control to control usage of Web 2.0 applications and prevent high-risk applications usage; URL Filtering to control access to millions of websites and prevent access to websites hosting malware; and Identity Awareness for granular visibility of users, groups and machines and creation of accurate, identity-based policies.

#### **NEXT GENERATION DATA PROTECTION**

Next Generation Data Protection solutions encompass all facets of protecting content from getting into the wrong hands. Data Loss Prevention (DLP) is an integral part of a data protection solution helping businesses to pre-emptively protect sensitive information from unintentional loss, educating users on proper data handling policies and empowering them to remediate incidents in real-time. DLP controls sensitive information from leaving the company and it also inspects and controls sensitive emails between departments with Microsoft Exchange support. In addition, Check Point provides protection for data at rest and in storage with encryption technologies. These technologies

can be implemented on all enforcement points protecting sensitive documents and confidential data from being accessed or transferred to removable media or by unauthorized users.

## CHECK POINT CAPSULE: EXTENDING CORPORATE SECURITY POLICY TO MOBILE DEVICES

Check Point Capsule enables you to extend Check Point's security from the corporate network, and apply it to your mobile devices. This way both

your network and your employees' mobile devices enforce the same protections against internal and external threats. With Check Point Capsule you are able to access corporate email, documents, as well as internal directories and assets from within a secure business environment. Personal data and applications are segregated from business data, enabling secure use of business assets while protecting employees' personal information and applications. Business documents are protected everywhere they go with Check Point Capsule. Security is established at document creation and travels with the document everywhere it goes, ensuring that corporate security guidelines are always enforced.



All Check Point protections and enforcement points are managed from a single unified security management console. Check Point security management is highly scalable, providing the ability to manage tens of millions of objects while maintaining super-fast user interface response times.

## CHECK POINT MODULAR / LAYERED POLICY MANAGEMENT

Check Point Security Management supports enterprise segmentation, allowing administrators to define security policy for each segment while enforcing segregation of duties with a new concept called Layers and Sub Layers.

Policies can be defined for each segment. Access control policies can be defined using separate layers, which can be assigned to different administrators. Multiple administrators can then work on the same policy simultaneously.

#### **AUTOMATION AND ORCHESTRATION**

Check Point Security Management provides CLIs and Web Services APIs that allow organizations to integrate with other systems such as network management, CRM, trouble ticketing, identity management and cloud orchestrators.

## VISIBILITY WITH CHECK POINT SMARTEVENT

Check Point SmartEvent performs big data analysis and real-time security event correlation. It provides consolidated and correlated views of incidents based on multiple sources of information. Security event analysis creates actionable intelligence in the form of threat indicators that can be distributed via ThreatCloud to block threats in real-time.

Learn more about Check Point Software-defined Protection and how it can help your security infrastructure keep pace with today's rapidly changing threat landscape.

Visit:

www.checkpoint.com/sdp

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#### **About Check Point**

Check Point Software Technologies' mission is to secure the Internet. Check Point was founded in 1993, and has since developed technologies to secure communications and transactions over the Internet by enterprises and consumers.

Check Point was an industry pioneer with our FireWall-1 and our patented Stateful Inspection technology. Check Point has extended its IT security innovation with the development of our Software Blade architecture. The dynamic Software Blade architecture delivers secure, flexible and simple solutions that can be customized to meet the security needs of any organization or environment.

Check Point develops markets and supports a wide range of software, as well as combined hardware and software products and services for IT security. We offer our customers an extensive portfolio of network and gateway security solutions, data and endpoint security solutions and management solutions. Our solutions operate under a unified security architecture that enables end-to-end security with a single line of unified security gateways, and allow a single agent for all endpoint security that can be managed from a single unified management console. This unified management allows for ease of deployment and centralized control and is supported by, and reinforced with, real-time security updates.

Our products and services are sold to enterprises, service providers, small and medium sized businesses and consumers. Our Open Platform for Security (OPSEC) framework allows customers to extend the capabilities of our products and services with third-party hardware and security software applications. Our products are sold, integrated and serviced by a network of partners worldwide. Check Point customers include tens of thousands of businesses and organizations of all sizes including all Fortune 100 companies. Check Point's award-winning ZoneAlarm solutions protect millions of consumers from hackers, spyware and identity theft.

www.checkpoint.com

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