Product tutorial: Eliminating referral sites and ads from GFI WebMonitor's surf time reports



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## Intentional vs. unintentional web activity

One of the biggest challenges IT admins face as they try to monitor and measure web activity is distinguishing between direct (intentional) web browsing activity requests and indirect (unintentional) requests.

Take the following as an example. There is a difference between a user browsing to www.facebook.com and a user who goes to a work-related business site like www.techcrunch.com which embeds code that invokes social media content such as 'liking', 'sharing' or 'commenting'.

Welcome to Facebook - Lo × +	↔ _ □ <mark>×</mark>
https://www.facebook.com	マ C 🗧 - Google P ☆ 自 🖡 🎓 🚍
facebook	Email or Phone Password Log In Keep me logged in Forgot your password?
Connect with friends and the	Sign Up It's free and always will be.
See photos and updates from friends in News Feed.	First name     Last name       Email or mobile number
Share what's new in your life on your Timeline.	Re-enter email or mobile number New password
Find more of what you're looking for with Graph Search.	Birthday Month V Day Vear V Why do I need to provide my birthday? Female Male
	By clicking Sign Up, you agree to our Terms and that you have read our Data Use Policy, including our Cookie Use.

Figure 1: An example of a direct (intentional) web request to a social media platform.

The Internet Is The Best Th ×		- 🗆 🗙
← → C n ⊡ techcrunch	.com/2014/11/21/the-internet-is-the-best-thing-ever-to-happen-to-songwriters/	☆ 😫 🖭 🛡 ≡
	FEATURED IMAGE: RON MILLER         1,272       144       712       23       46       0       347         SHARES       f Share       ¥       tim Share       8 <sup>+</sup> tim Share       8 <sup>+</sup> tim Share       F       ≦	Social Stats
	Accommended For Youby GravityImage: Strain	Recommendations
	Singapore Will Introduce New Regulations ForPrizm Automatically Plays Music You Like ToMicrosoft Updates How The Surface Pro 3	
	GREAT IDEA FOR AN APP? Appster Click here	Adverts
Social Comments	Add a comment            Add a comment             Adso post on Facebook             James McLendon · S Follow · ★ Top Commenter · Manager at Geomize.com             Mark as Spam             https://www.youtube.com/watch?v=Xz7_3n7xyDg             Reply - Like · Follow Post · 3 hours ago                  Pacebook social plugin	UP NEXT FCC Expects Cable Companies To Fight Back Over Net Neutrality Posted 15 hours ago CrunchBoard Job Listings
techcrunch.com/2014/11/21/the-internet-	is-the-best-thing-ever-to-happen-to-songwriters/	Enterprise Database Manager Foundation Center Programmer

Figure 2: An example of an indirect (un-intentional) web request to social media platform.

From the end user's point of view, one might argue that he or she did not go to www.facebook.com or engage in direct Facebook activity. However, technically, when one looks under the hood, the nature of dynamic sites and embeddable content does indeed generate requests to social sites. This embedded content generally takes the form of components which appear on pages as 'Share' buttons, 'Like' buttons, 'Comment' sections, as well as adverts etc.

Moreover, sites which embed social media content such as Facebook login cookies generally load additional content to enhance the web experience for that user. Such an example would be the Facebook 'Like' button, or a comments section also displaying the picture of the currently logged in user etc. The reality is that while the user is interested in the main content, dynamic embedded content requests do occur. Administrators need a solution whereby they can differentiate between 'noise' requests such as advertisement and social media platform referrals and intentional site visits initiated by users.

### How does GFI WebMonitor solve this problem?

Out of the box, GFI WebMonitor ships with web filtering policies which enable IT admins to discover, manage and secure all activity. GFI WebMonitor gives administrators options to exclude these advertisement and social media referrals from loading in a website and in terms of reporting:

Firstly, you can configure GFI WebMonitor to totally block access to an entire category of web ads content found under 'Web Advertisements'. You can manage your policies by:

1. Clicking on 'Manage' and then 'Policies' in the main configuration

	ome										- ■ Q ☆
<b>₩ GFI Web</b> Monitor <sup>®</sup>						🔒 Home	🗠 Dashb	oards 📄 Manage	III Reports	٨	•
	Status Overview					SFI Web	Monitor 201	Policies			
		3 Notifications	Ω	6 Active policies				Remote Policies			
				19 Inactive policies	22	<b>S</b>	2	Agents			
	Manage notifications	Ø	Manage policies	0	Update Lic	ense		🖌 Tools			

2. Here you can either edit an existing policy or create a new one

* GFI WebMonitor		🔒 Home	₩ Dashboards	Manage	LL Reports	٠	٠	0
Q Search policies Add Policy WHITELIST / BLACKLIST	Policy: Limit access to websites affecting productivity						Edi	t
Blacklist	Summary							
Whitelist 2	This policy will limit access to websites known for productivity loss, allowing 10 minutes / hour (i.e. Facebook, etc.)							
POLICIES Block access to low reputatio	Policy Type Custom Block		ባ	Status Inactive				

3. In the 'Websites' section, either type in 'Web Advertisements' or select its icon from the website category list.

V Websites	● ^ ×
Categories	Remove all
URLs / IPs Categories Categories	
Social Network 🕺 Dating 🖄 Games 💥 Pay to Surf 🖄	
	4 5 1
URL Scanning	

Select Website Categories		0
	Actions  Q bearch for items	Category Filters
Religion	Philosophy and Political Advocacy	Security  Legal Liability
So Society	Ki Kids	Productivity Loss Potential Productivity Loss 20
In Internet Portals	Web Advertisements	Bandwidth control  Questionable / Legal Issues 7
	Cd CDNs	Human Resources Issues General Interest II Resources 5
Dy Dynamic Content	Ab Abortion	Business Oriented B Others 4
		Cancel Add To Policy

By blocking this category alone, users will be not have web advertisement content, such as the below presented to them. We do not recommend blocking CDNs as this might cause many websites to load incorrectly.



Figure 3: An example of embedded web advertisement content which can be blocked.



Figure 4: AOL advertisement has been blocked for the user

This not only prevents the advertisement content from loading on the website, but correctly categorizes the content as 'Web Advertisements' or 'CDNs' thus giving more accurate surf time reports.



Date	Domain	Category	Surf Time	First Hit
24/11/2014	chartbeat.net	Computer and Internet Info	22 mins	14:03
	google.com	Search Engines	20 mins	14:10
	127.0.0.1	Private IP Addresses	11 mins	14:15
	aolcdn.com	Computer and Internet Info	8 mins	14:03
	facebook.com	Social Network	7 mins	14:03
	google.com.mt	Search Engines	6 mins	14:15
	simplereach.com	News and Media	5 mins	14:03
	chartbeat.com	Business and Economy	4 mins	14:03
	atwola.com	Business and Economy,News and Media	4 mins	14:03
	wp.com	Search Engines	3 mins	14:03
	wordpress.com	Personal Sites and Blogs	3 mins	14:03
	twitter.com	Social Network	3 mins	14:03
	techcrunch.com	Computer and Internet Info	3 mins	14:03
	scorecardresearch.com	Computer and Internet Info	3 mins	14:03
	reddit.com	Personal Sites and Blogs,News and Media	3 mins	14:03
	linkedin.com	Social Network	3 mins	14:03
	grvcdn.com	CDNs	3 mins	14:03
	gravity.com	Computer and Internet Info	3 mins	14:03
	flipboard.com	Society	3 mins	14:59
	facebook.net	Social Network	3 mins	14:03
	aolcdn.com	Unavailable	3 mins	14:03
	aolcdn.com	CDNs	3 mins	14:03

Figure 5: GFI WebMonitor Surf report listing the AOL advertisement as a CDN.

You can then edit your reports to exclude CDNs and Web Advertisements as shown below:

1. Click on 'Reports' in the main configuration

₩ Reports ×						_ 0	x
← → C □ 127.0.0.1:1007/Reports/Reports						Q	☆ =
<b>₩ GFI Web</b> Monitor <sup>®</sup>	🔒 Home	M Dashboards	🗐 Manage	L Reports	•	٠	?

2. Select your desired report and click on the pen 'edit' icon

🕸 GFI WebA	1onitor <sup>-</sup>		🔒 Home	₩ Dashboards	🗎 Manage	L Reports	٠	٠	?
Templates	Generated	all All 34			Actio	ns + Q Searc	h reports	Î	
All	34	*							
Starred		accee UNSCHEDU	Activity	- All Activity				S	
Bandwidth		14,000 14,92 4,432 7,424 10,424 10		in: N/A Generate					
Activity	30								

3. Click on the 'Data' tab, exclude the 'CDNs' and 'Web Advertisement' web categories and hit save.

ocherai	Data		Schedule	Output		Output		Distribution	8
Data Filters	Specify which	h data group	to include and exclu	ude.					
Users/IPs	User Groups	Websites	Web Categories	Applications	Policies				
Include:									
All									
			_						
Exclude:									
Exclude: CDNs	Web Adv	rertisement	s X						
Exclude: CDNs	Web Adv	rertisement	s X						
Exclude:	Web Adv	rertisement	- X						
Exclude:	Web Adv	rertisement							

Figure 6: Excluding CDNs and Web Advertisements from reports.

Secondly, you can enable 'Full URL Logging' in GFI WebMonitor to determine what URLs are being accessed and exclude them from your reports accordingly.

To enable full URL logging, follow these steps:

1. Open the GFI WebMonitor configuration and go to Manager > Policies

# Home Page ×												- 0
← → C 🗋 127.0.0.1:1007/Home/He	ome											Q
						🔒 Home	🗠 Dashb	oards 🗎	Manage	L Reports	٠	•
	Status Overview					SFI Webl	Monitor 201	🗐 Policie	C 5			
			0	24				🗏 Remot	te Policies			
		3 Notifications		6 Active policies 19 Inactive policies	22			Agents	8			
	Manage notifications	Ø	Manage policies	O	Update L	icense		🖌 Tools				

2. Here you can either edit an existing policy or create a new one

		🔒 Home	₩ Dashboards	🗎 Manage	LL Reports	٠	٠	0
Q Search policies Add Policy WHITELIST / BLACKLIST	Policy: Limit access to websites affecting productivity						Edi	t
Blacklist 1	Summary This policy will limit access to websites known for productivity loss, allowing 10 minutes / hour (i.e. Facebook, etc.)							
POLICIES Block access to low reputatio	Policy Type Custom		Ģ	Status Inactive				

3. Scroll to the bottom of the policy editing screen and select the 'Enable full URL logging' box:

		2 ^ X
Logging has been configured for this policy	Enable full URL logging	

With full URL logging, IT administrators get granular visibility into each URL that is being accessed. If simple URLs like facebook.com, or profiles\*.facebook.com are reported, this means that a user typed in Facebook and logged on (an intentional action). Other URLs having cdn\* usually represent Facebook resources such as 'Like', 'Share' and 'Comment' content embedded in any website, even work-related. Once these URLs are identified, administrators can tweak their reports to only include the basic (intentional) URLs above. For example, administrators can add "ads.google\*" or simply "ads\*" to the reporting exclusion lists. The reports will then only list intentional activity such as loading the main page of Facebook and logging on.

To edit reports to add these exclusions, follow these steps:

1. Open the GFI WebMonitor configuration and go to Manager > Policies

₩ Reports ×						_ 0	x
← → C 🗋 127.0.0.1:1007/Reports/Reports			Q	ය =			
<b>₩ GFI Web</b> Monitor <sup>™</sup>	🔒 Home	₩ Dashboards	🗐 Manage	L Reports	٠	٠	0

2. Select your desired report and click on the pen 'edit' icon

- <b>₩ GFI</b> WebN	1onitor <sup>-</sup>		🔒 Home	₩ Dashboards	🗐 Manage	L Reports	٠	٠	?
Templates	Generated	all All 34			Action	ns = Q Searc	h reports	<b>i</b>	
All	34	*						-	7
Starred		20.000 UNSCHEDU	Activity	- All Activity				0	
		14,000 1 Apr 4 Apr 7 Apr 10 Apr 13		in: N/A Generate					
Activity	30								

3. Click on the 'Data' tab and edit accordingly:

General	Data	Schedule	Output		Distribution	8
Data Filters	Specify which dat	a group to include and ex	clude.			
Users/IPs	User Groups W	Vebsites Web Categories	s Applications	Policies	Content Types	
Include: Type in a web	site or url					+
All						
Exclude:						
Type in a web	site or url					+
ads.* ×						

Figure 7: Excluding advertisement content from reports

4. If needed, entire content from applications can be excluded as well:

General	Data	Schedule	Output	Distribution	0
Data Filters	Specify which dat	a group to include and excl	lude.		
Users/IPs U	lser Groups We	bsites Web Categories	Applications	Policies	
Include:					
All					
Exclude:					
AUL AUS					
				Cancel	Save

Figure 8: Excluding entire web applications from reports

Modern applications usually load content from HTML, asp(x), flash movie and other pages so administrators can further filter the report to only include those resources (while still allowing that content to be browsed). Same applies to Javascript and flash objects which are not movies.

### Conclusion

Administrators need a solution whereby they can differentiate between 'noise' web requests such as advertisement and social media platform referrals and intentional site visits initiated by users. In order to achieve this, administrators must first be able to get a sense of what content is being loaded, from where and how. GFI WebMonitor enables administrators to easily discover, monitor and differentiate between web requests by leveraging its powerful and granular web filtering engine. Once administrators gain indepth insight into what undesired content is being presented to users, and reported, they can leverage GFI WebMonitor to manage and secure all activity by blocking undesired web content as well as refining their business reports accordingly.

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