



OTTAWA

PC NEWS

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PRODUCT REVIEW

GlassWire *by Chris Taylor*

The Windows firewall since XP Service Pack 2 does the basics of what is most needed in a computer firewall; allowing all outbound traffic (so you can access web sites, email, Skype with friends, etc.), and blocking all connections from the Internet that you didn't initiate.

There is a threat that such a *one-way* firewall can't protect against. If you have malware on your computer, it almost always connects to the Internet, either to communicate with a *command and control* server for instructions on what malicious action to do, or to send your data/files to the attacker. Because the traffic is coming from your computer, the Windows firewall will happily allow the traffic.

To respond to such threats, *two-way* firewalls can not only block the connections from the Internet that you didn't initiate (as with a one-way firewall) but can additionally block outbound traffic. There are a few freemium two-way firewalls, ZoneAlarm probably being the best known.

A two-way firewall has to allow *good* outbound traffic or you may as well unplug from the Internet! There are several ways it can decide if outbound traffic should be permitted. The most common is to pop up and ask you if you want program xyz to access the Internet. And therein lies the problem with two-way firewalls – at some point you are going to be asked if something should be allowed to access the Internet and you will have no idea what the

right answer is! I hate that.

I recently came across an interesting firewall product called GlassWire. The freemium version is more of a monitoring program. It works with the Windows firewall to provide reporting capabilities. The premium versions can do more. More on that later.

GlassWire can provide a wealth of information. In this example (*see Screenshot 1 on p.6*), GlassWire's *Graph* option is detailing the following for my selected period of 24 hours; a list of the programs that sent/received data over the network and a graph showing data volume and alerts. The box near the centre shows where I clicked on an alert to get details.

You can pause the scrolling chart; useful for short time intervals such as 5 *Minutes*. Clicking a program name will change the graph to only display traffic for that program. You can take a snapshot to have a permanent record.

The *Usage* option (*see Screenshot 2 on p.6*) shows overall traffic volume, with columns for *Apps*, *Hosts*, and *Traffic Type*. Clicking on a program brings up details; where it is installed, version number, name of the publisher, hosts it has accessed, and more. Clicking on a host shows details of the traffic to/from that host, programs that have accessed it, and its IP address.

All of the above I found to be interesting. But, quite frankly, I am not about to have the GlassWire window open at all times so I can monitor network traffic!

One feature really interested me. When a program first accesses the network, GlassWire pops up a toast notification at the system tray. If you don't recognize the program, you can investigate to find if it is a normal process or perhaps something malicious.

One problem is that toast notifications disappear after a few seconds so you might miss something important. The system tray icon for GlassWire is badged (numbers are added to the icon), so you can see if there are alerts you may have missed and you can go to GlassWire's *Alerts* section to see them. It would be nice if GlassWire could optionally use the Windows 10 *Action Centre* to keep the alerts front and centre longer. Another option might be to make them available by right-clicking on the system tray icon.

Up to this point, I was still a bit iffy on the usefulness of the program. Alerts might help me find out if I have something malicious on my computer, albeit

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PIZZA Night & eWaste Event—WEDNESDAY, June 13th, 2018

Coming Up...

We are still at the **Canada Aviation and Space Museum** (main theatre)

Wednesday, June 13th, 2018

Annual Pizza Night & eWaste event, followed by a presentation.

5:30 - 7:00 pm: eWaste Event (<http://opcug.ca/public/history/eWaste/2018/eWaste.html>)



Ontario Electronic Stewardship

Once again, the OPCUG will have its annual eWaste collection on June 13th. If you have electronic items that you no longer need, please bring them to the tent in front of the museum; they will be taken to a processing plant and properly disposed of safely and responsibly with respect to OES guidelines. The eWaste event will be from 5:30pm to 7pm near the tent beside the Canada Aviation and Space Museum, 11 Aviation Parkway.

6:00 - 7:30 pm: Annual Pizza Night (free for members and their guests)
The pizza is served outside the museum under the big tent.

7:30 pm: Presentation

Speakers: David Smith and Colin Smith
(The Surface Smiths, <http://www.surfacesmiths.com/>)

Topic: Podcasting

The *Universal Windows Podcast* is a show about the Microsoft Surface and related technologies including Windows, Windows Mobile, Xbox and more. The Surface Smiths (David Smith & Colin Smith), hosts of the Universal Windows Podcast, will speak on podcasting and host a live recording of Episode 77 at the June meeting of the Ottawa PC Users' Group.



Be a part of the Podcast!

At the June meeting of the OPCUG, the Surface Smiths will be recording an episode of the Universal Windows Podcast. If you have a Windows OS or Surface related question, you are encouraged to use the Podcast recording link at <http://www.surfacesmiths.com/rantorrave/> to record and submit your question so our guests can edit them into their podcast production. There will also be a microphone at the event for anyone in the audience not too shy to forge their 15 seconds of fame.

June Raffle

The June raffle prize is an **iCAN 15.6" Laptop Trolley Backpack**.

Tickets are \$1 for one, \$2 for three, or \$5 for ten.



This is the last newsletter and meeting before the summer hiatus. Enjoy your summer and see you in September!

2018 CALENDAR

Meetings	Date	Time and Venue
OPCUG General Meeting	Wednesday, February 14 th	7:30 p.m. in the main Mauril Bélanger Theatre of the Canada Aviation and Space Museum , 11 Aviation Parkway. http://casmuseum.techno-science.ca/en/index.php
Q&A Session	Wednesday, February 14 th	Immediately following the OPCUG General Meeting.
Beer BOF (Wing SIG East)	Wednesday, February 14 th	10:00 p.m. (after the Q&A) at Liam Maguire's, Southeast corner of St. Laurent Blvd. and Innes Rd.

CLUB LIFE

The Pub is Shutting Down!

The PUB will be shutting down and all services moved to external hosting. The first phase will eliminate the conference areas and associated mailing lists.

The conference areas *General Messages*, *Announcements*, and *NewsletterPDF*, and the associated mailing lists are being replaced by Google Groups. You need to switch over to our new system – before we pull the plug on The PUB!

All members should subscribe to the *OPCUG-Announcements* forum on Google Groups in order to ensure you get important notices from the Board of Directors

If you receive your electronic copy (PDF file) of *Ottawa PC News*, our club's monthly newsletter, by E-mail, you need to subscribe to the *OPCUG-Newsletter* forum on Google Groups.

Finally, if you take part in the discussions that currently happen in the *General Messages* conference area, or through the *General* mailing list, you need to sign up for the *OPCUG-Member-Forum* on Google Groups.

Full details and specific instructions on how to sign up for the Google Groups are posted on the club's web site at: <http://opcug.ca/GoogleGroups>. The same information is on [page 4](#) of this newsletter.

If you need any further information, we will be holding a special **Q&A Session at our June 13th meeting**. So, join us in the classroom at 9 pm, immediately following the main presentation, and we will demonstrate how to subscribe to all of the club's Google Groups, and answer all of your questions about the new system!

On the Lighter Side

Submitted by Jeff Dubois

Customer: "What's your WiFi password?"

Server: "You need to buy a drink first."

Customer: "Okay, I'll have an orange juice."

Server: "Is mango-tangerine okay?"

Customer: "Sure, that's fine, what do I owe you?"

Server: "\$4."

Customer: "Great. There you go. So what's the WiFi password?"

Server: "youneedtobuyadrinkfirst... all lower case."



Reminder

This June issue of *Ottawa PC News* is the last one to appear in print. You can subscribe to receiving the electronic (PDF) format by email. The instructions are on [page 4](#) of this newsletter and on our website at <http://opcug.ca/public/GoogleGroups.html>. You can also download the latest issue from our home page at <http://opcug.ca> or back issues from <http://opcug.ca/newsletter>.

Brigitte Lord
Newsletter Editor

Special Event: Residential MicroGrid Tour

Saturday, June 9th, 2 pm - 5 pm

The April meeting of the OPCUG featured keynote speaker Art Hunter, who outlined his Energy Freedom Project and the challenges surrounding the underlying technology to manage a sustainable residential microgrid.

Because a number of individuals had expressed an interest in observing the project in action, Art Hunter has kindly offered demonstration tours of his "residential laboratory" and can accommodate small groups of five who may wish to make an on-site visit.

Tours are scheduled for Saturday, June 9th, 2018 beginning at 14:00. Each tour will take approximately 60 minutes. Questions can extend the visit duration. The laboratory is located at 5660 Mahogany Harbour Lane, Manotick, Ontario and there are many coffee shops, eateries and restaurants conveniently located nearby for those wishing to make the event an outing.

If you are interested in participating in this extracurricular event, please send an email to junetour@opcug.ca so we can organize small groups of give to tour Art's energy lab. If you already have a small group, let us know and we'll accommodate your small group.



NEW: OPCUG GOOGLE GROUPS

Since October 1988, the OPCUG has run its own server (<http://opcug.ca/public/Articles/8810o.PDF>) to provide online services to members through the PUB (for **PC Users' Group Bulletin Board**). Over the years we have been well-served by hosting our own services. However, recently, it has become apparent that switching to use external hosting services will be much more cost-effective. (See the 1988 article on *The PUB's opening* on [page 7](#).)

Aug 1988 – The club buys its own computer: AT Clone, 640K memory, 1.2MB floppy, Hercules card and monitor, 72MB hard drive, Digiboard with 4 channels serial interface and three 2400 modems for about \$10 000 (information obtained from the [OPCUG History page](#)). (According to a Bank of Canada inflation calculator, \$10,000 in 1988 would be \$18,877.84 today!)

Three services currently provided by the PUB need to be replaced with external services; conference areas with mailing list functionality, email, and web site.

This will be done in stages, beginning with replacing the conference areas and associated mailing lists with the following Google Groups:

- *OPCUG-Announcements* – a “read only” group replacing the PUB’s *Announcements* conference area/ mailing list and used to post upcoming meeting details. Anyone from the public can join.
- *OPCUG-Newsletter* – a “read only” group replacing the PUB’s *NewsletterPDF* conference area/ mailing list and used to post the newsletter each month. Anyone from the public can join.
- *OPCUG-Member-Forum* – a forum for any member of the OPCUG to read and post anything of general interest to other members. Only members of the OPCUG will be authorized to access the group. This will replace the PUB’s *General Messages* conference area/ mailing list.

All members should to sign up for the *OPCUG-Announcements* and *OPCUG-Newsletter* groups to ensure you are kept informed of what’s happening in the club. Additionally, members are encouraged to sign up for the *OPCUG-Member-Forum* if you want to partake in the online discussions currently taking place in the *General Messages* conference area on the PUB.

There are many ways of signing up for and accessing Google Groups. If you are familiar with those processes, feel free to “go your own way”. Otherwise, the sign-up processes detailed below will allow you to access the OPCUG Google Groups either via the web or through your email address.

Google Account required

Because web access to Google Groups requires authentication, everything is far simpler if you have a Google Account before you start the process to sign up for groups. Gmail is already a Google Account, so if you have Gmail, and are happy with postings from the OPCUG groups arriving in your Gmail account, you can use your existing Gmail as your Google Account. You can then skip the next instructions on creating a Google Account.

Creating a Google Account

Any valid email address can be used as a Google Account. Pick an email address you want to use and browse to **accounts.google.com**. Click *Create account* and follow the instructions. One thing worth noting; when you create a Google Account, although you are using an existing email address, there is no real link between the two. You do not need to, *and perhaps should not*, give the Google Account the same password as you use to access the email.

Make sure your new Google Account is functioning properly by going to **accounts.google.com** and signing in.

Signing up for the OPCUG Google Groups

Browse to **groups.google.com**. If you are not signed into your Google Account, click the *Sign in* button at the top.

1. In *Search for groups or messages*, enter OPCUG. The top of the search results will show *Groups matching OPCUG*. Click on *See all 3*.
2. Click on *OPCUG-Announcements*, then click the *Join group* button. In the resulting dialog box, you can opt to change some preferences, such as;

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OPCUG Google Groups *(Continued from page 4)*

- a. If *My display name* shows as your email address you can change this to something like *firstname lastname*
 - b. Email preferences can be changed to only send daily summaries or not email you at all when new postings are made (meaning you must manually check at the web site to see if there are any new postings)
3. Click the *Join this group* button.
 4. You will then see the list of postings that have been made to the group. Click on any entry to see the actual posting.
 5. A handy feature is to click the star just below the name of the group to make it a favourite. Then, when you browse to Google Groups, your favourites are listed in the left column and you can jump to one by clicking its entry.

Join the OPCUG-Announcements group

My display name:



[@charlie...@gmail.com](#) [edit](#)

☐ Link to my [Google profile](#) and show my photo on posts [?](#)

Email used for your membership: [charlie...@gmail.com](#)

Email delivery preference: **Notify me for every new message (fewer than 1 per day)** ▾

☒ Automatically subscribe me to email updates when I post to a topic

Other members of this group can find your email address. Anyone who knows your email address could discover your Google Profile. [Learn More](#)

Join this group

Cancel

By clicking "Join this group", you are agreeing to the [Google Groups Terms of Service](#).

Click the red *Groups* near the top of the left column to return to the main Google Groups page and repeat the above steps to join the *OPCUG-Newsletter* group.

Joining the *OPCUG-Member-Forum* is a little different because only members of the OPCUG can join.

1. Click the red *Groups* near the top of the left column to return to the main Google Groups page, search groups for *OPCUG* and select *OPCUG-Member-Forum* from the results.
2. Click on *Apply for membership*. You will get a dialog box that presents all the options you had for the other groups. An additional edit box asks you for either your email address the OPCUG has on file for you or name, address, and membership number. This information is required to verify your membership in the OPCUG prior to granting you access to the group.
3. Click *Apply to join this group*.

Once membership is verified, you will get an email letting you know that your request to join *OPCUG-Member-Forum* has been approved.

You can then read messages posted to the group, respond to existing posts, as well as post new items in the group by browsing to the group and clicking on *NEW TOPIC*.

You can also post to the group by sending an email to the group address, which is OPCUG-Member-Forum@googlegroups.com. You can reply to any message from the group and your reply will go back to the group and be re-distributed to other members of the group.

The footer of every email sent out by the groups includes information about how to post, how to unsubscribe, and a link to visit the group in your web browser.

Implementation

There will be a transition period where the PUB's conference areas/mailling lists will remain. We expect to shut down the PUB's conference areas and mailing lists at the end of June.

GlassWire (Continued from page 1)

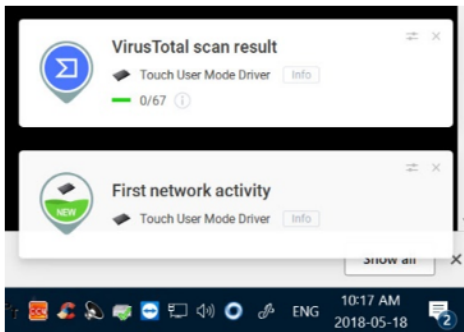
after the fact. As well, there are times I want to see details about my network traffic. But overall, I thought it required a bit too much of my attention.

Also, it did not fundamentally deal with the problem I mentioned before – the inability to always know if something should be allowed to access the network or not.

For example, GlassWire alerted that *Touch User Mode Driver* accessed the network for the first time. I never (knowingly) installed something called *Touch User Mode Driver*. I could Google for it and try to determine if this was something malicious. I had just plugged in my Wacom drawing tablet, so it was probably related to that. GlassWire does make it easier to see some of the details about the program. Clicking on the alert gave the name of the executable, version number, where it's installed, and the publisher (Wacom Technology Corporation). So, it looked like it should be okay.

Then GlassWire added a killer feature; when programs first access the network, GlassWire can automatically check them at the Google-owned VirusTotal web site, which checks the program with a huge number of anti-malware programs. Try it yourself at <http://virustotal.com>.

The feature is off by default. To turn it on, click the *GlassWire* menu in the top



left, *Settings*, then *VirusTotal*. As you can see in the example, the toast notification told me that *Touch User Mode Driver* accessed the network for the first time, was checked at VirusTotal, and 0 of 67 antimalware programs found a problem with it.

I may not know what *Touch User Mode Driver* is, but I'm not particularly worried because *none* of 67 antimalware

programs found it malicious!

One thing I would like to see changed; if even a *single* antimalware engine at VirusTotal thinks something GlassWire has uploaded is malware, I would like some kind of high-priority alert. As it is, these alerts are treated just like any other informational alert.

GlassWire is a *freemium* product. It installs as the full *Elite* product. After 7 days it goes into reduced functionality mode. All the features I have mentioned so far will remain for free. It is a great product even in this reduced functionality mode. But there are some nice additional features you get if you are willing to pay.

When a new program tries to access the network, you can have GlassWire ask you if it should be allowed or not. You can easily flip any program's status between allowed and blocked. You can even put GlassWire in *lock down* mode, where all outbound traffic is blocked.

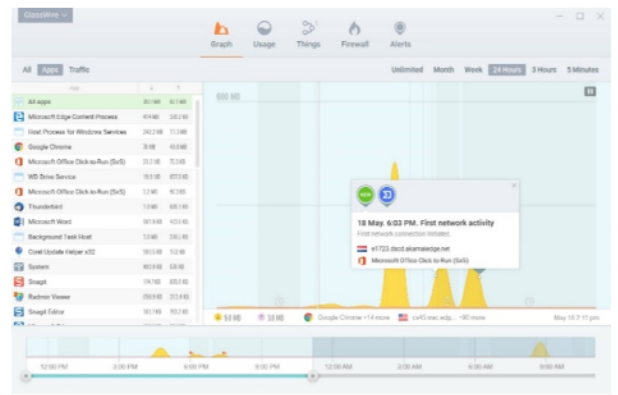
A *mini-graph* mode lets you have a small window open all the time showing activity. You can size it, set it to *always on top*, and adjust transparency of the window.

You can see what devices are on your network and be notified as devices join or leave. *WiFi Evil Twin* notifies you if a new access point shows up with your network name.

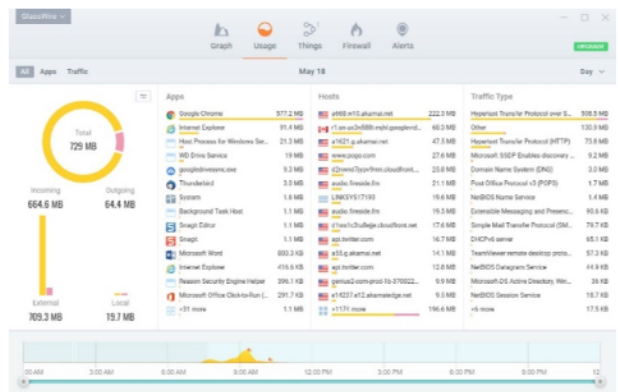
If you have limited bandwidth, you can have GlassWire warn you when approaching the limit.

Firewall profiles allow different settings in the program depending on your situation, such as home vs. public WiFi. Or perhaps for a special circumstance, you want to block all but one application.

There are many more alert types available such as *while you were away*, changes to DNS, suspicious hosts, and much more.



Screenshot 1: Chart option



Screenshot 2: Usage option

Prices for the premium version range from US\$39 for one PC to US\$99 for 10 PCs. Higher-priced versions also allow longer history retention.

As I was wrapping up my review I contacted GlassWire with a few questions. I had been using an older version of the product that did not start out with all premium features. They answered my questions and provided me with a complimentary *Elite* license that permitted me to test the features in the premium offerings. Thank you GlassWire.

Bottom line:

GlassWire from SecureMix LLC:
www.glasswire.com

Version reviewed: 2.0.105

Prices:

Free: (some features limited)

Basic: US\$39 for one PC

Pro: US\$69 for three PCs

Elite: US\$99 for 10 PCs

Android version: free

System requirements:

Windows 7/8.1/10, 1 GB RAM

BLAST FROM THE PAST—October 1988

OPCUG's new bulletin board

The PUB opens for business

It's here, the PC User's Group Bulletin Board or 'PUB' for short. The PUB is an electronic board established to serve the needs of the club's expanding membership.

The PUB will provide members with information on the club and its meeting and other events, offer an electronic message exchange centre for members and a file transfer system.

The system driving the PUB is 'The Bread Board System' (TBBS), a multi-line communications program that can handle up to 16 simultaneous calls. TBBS also supports a variety of terminal types, baud rates, plus XMODEM and YMODEM file transfer protocols. The PUB will operate on an AT clone with 100 Mb hard disk and three 2400 baud Sportster modems by U.S. Robotics.

The PUB has been split into different function areas such as: club information, message areas, the club library, file areas plus a user profile/PUB information area. TBBS also has a handy HELP feature if you run into problems.

Members wanting to sign on should not experience any problems if they're using any of the popular communications programs like TELLY, PCTALK, Procomm, etc. The PUB's communications setting are: 300, 1200 or 2400 baud; 8 data bits; 1 stop bit; no parity.

When TBBS answers your call, you'll be greeted with a sign-on message. You'll be asked for your first and last names and then TBBS will search its files to discover if you are a valid user. Once validated, you'll be asked for your password. If you're not validated, you'll be asked a series of questions and given limited access to the

PUB. Validation will take one or two days. A note about passwords. Unlike some programs, TBBS does distinguish between UPPER CASE and lower case letters. Because of this feature, members are asked to enter their passwords in UPPER CASE characters.

After you gain access to the PUB, you'll be told of any public or private messages waiting for you followed by the main menu.

All menu options are selected by pressing the character enclosed in brackets '< >'. Some of the main commands are: <C> Club News and Information - meeting announcements, information for new members, names and phone numbers of the OPCUG's executive plus general club notices; <M> Message Sections -private and public messages from and

to members, a buy and sell area, and messages for the SYSOP (SYSTEM Operator).

Other menu items are: <L> Library Section - listing of both Disk of the Month and speciality library disks and What's New; <F> File Section-general upload / download file area covering such interests as programming, applications, DOS and utilities, communications, graphics, fun and games and recent uploads. There's also an area for OPCUG newsletter submissions.

In addition to the current commands, users can also enter 'global' options from any command prompt. These are: / = return to main menu; , = user profile/PUB information; : = context-sensitive help; " = PUB menu map; ~ = goodbye menu; . = return to next higher menu level.

PUB's global options

/ = Return to main menu

, = User profile / PUB information

: = Context-sensitive help

" = PUB map

OTTAWA PC NEWS

Ottawa PC News is the newsletter of the Ottawa PC Users' Group (OPCUG), and is published monthly except in July and August. The opinions expressed in this newsletter may not necessarily represent the views of the club or its members.

Member participation is encouraged. If you would like to contribute an article to Ottawa PC News, please submit it to the newsletter editor (contact info below). Deadline for submissions is three Sundays before the next General Meeting.

Group Meetings

OPCUG meets on the second Wednesday in the month, except July and August, in the main **Mauril Bélanger Theatre** of the **Canada Aviation and Space Museum**, 11 Aviation Parkway, Ottawa. <http://casmuseum.techno-science.ca/en/index.php>
Meetings are 7:30–9:00 p.m. followed by a Q&A Session until 10 p.m.

Parking is available at the museum for a flat fee of \$4 after 5pm.

Details at <http://opcug.ca/meetings>

OPCUG Membership Fees: \$25 per year
Mailing Address: 3 Thatcher St., Nepean, Ontario, K2G 1S6
Web address: <http://opcug.ca>
Bulletin board—The PUB (BBS) <http://opcug.ca/default.htm>
Follow us on Facebook: <https://www.facebook.com/opcug>
Follow us on Twitter: <https://www.twitter.com/opcug>

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How to get the OTTAWA PC News by e-mail

Create a Google Account

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 - a. If *My display name* shows as your email address you can change this to something like *firstname last-name*
 - b. Email preferences can be changed to only send daily summaries or not email you at all when new postings are made (meaning you must manually check at the web site to see if there are any new postings)
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