

In the Boxing Ring

Network Box Technical News

from Mark Webb-Johnson

Chief Technology Officer, Network Box

Welcome to the December 2018 edition of In the Boxing Ring

This month, in our feature article, Network Box's Managing Director, Michael Gazeley, talks about an optional new service that we will be offering soon, as part of our Managed Security Services, **Dark Web Monitoring**. Most people are unaware that only 4% of the Internet is publicly searchable, the other 96% is closed off, and is made up of the Deep Web, and the Dark Web. Whenever there is a major hack or data breach, that personal data usually ends up on the Dark Web. There are currently over 5.6 billion sets of hacked credentials already posted, and the number is growing fast. This is discussed in further detail on pages 2 to 3.

On page 4, we highlight the features and fixes to be released in this month's patch Tuesday for Network Box 5.

In other news, Network Box Hong Kong was at the University of Hong Kong, to give a cybersecurity awareness seminar. In addition, Network Box Singapore's Managing Director, Jan Van Leersum, was at the SCCCI to give a talk about managing cybersecurity risks. Furthermore, Network Box USA's CTO, Pierluigi Stella, was at the business development workshop organized by the Greater Houston Partnership. Finally, Network Box was in various media outlets: the SCMP and RTHK News.



Mark Webb-Johnson
CTO, Network Box Corporation Ltd.
December 2018

In this month's issue:

Page 2 to 3 Dark Web Monitoring

The Dark Web is the natural habitat of hackers. When there is a data breach, the information that is compromised is often posted, by hackers, on the Dark Web. Thus, in today's heightened security threat landscape, the monitoring of such posts, and taking affirmative action to let people know what's happened, is now so important. On pages 2 to 3 this is discussed in further detail.

Page 4 Network Box 5 Features

The features and fixes to be released in this month's patch Tuesday for Network Box 5.

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Dark Web MONITORING

by **Michael Gazeley**
Managing Director
Network Box

Most people are very surprised to discover, that only about 4% of the Internet is publicly searchable, using what we might call 'normal' search engines. This is known as the Surface Web. Any part of the Internet which can be discovered, indexed, and retrieved, by search engines such as Google, Yahoo, or Bing, is part of the Surface Web.

The other 96% of the Internet, is made up of the Deep Web, and the Dark Web.

It is important not to mix up these two terms:

The Deep Web

There is nothing intrinsically bad about the **Deep Web**. The vast majority of people, companies, and organizations, do not want all their data to be publicly discoverable, for good reason.

Company accounts, product designs, and customer data, are just some examples of the types of information, which need to be actively protected. This is what makes up the Deep Web.

It consists of all the data which is kept from open public view.



The Dark Web

The Dark Web, on the other hand, is the deliberately hidden part of the world wide web, which cannot be accessed without specialist knowledge, and specific software tools.

Perhaps the most famous such tool is TOR (The Onion Router), which was developed by the United States Naval Research Laboratory, to help protect U.S. intelligence traffic which was being sent over the public Internet. Different tools, are used to access different Dark Nets, which in turn make up parts of the Dark Web, all with the primary goal of everyone involved remaining anonymous.

The Dark Web is not only about criminality; political dissidents (for example) often communicate using the Dark Web to protect themselves; but there is no doubt that this part of the Internet constitutes its hidden underbelly.

While not everything that happens on the Dark Web is criminal in nature; without doubt, almost everything that is criminal, and happening online, is happening on the Dark Web. Drugs. Sex. Firearms. Even murder for hire. If people are willing to pay, then it can almost certainly be found, somewhere on the Dark Web.

So why is Network Box soon going to offer Dark Web Monitoring, as an optional part of its Managed Cyber-Security Services?

Because, quite simply, the Dark Web is also the natural habitat of hackers.

Whenever a major hack is carried out somewhere, typically resulting in a massive data breach, that personal data usually ends up on the Dark Web. There are currently over **5.6 billion** sets of hacked credentials already posted, and the number is growing fast.

In the last few weeks alone, Cathay Pacific, American Express, HSBC, and Marriott, have announced successful attacks against their networks, resulting in huge numbers of their clients having their information stolen.

Full Names, Birthdates, Mobile Phone Numbers, Physical Addresses, Bank Account Numbers, Credit Card Numbers, ID Card Numbers, Passport Numbers, Medical Records, Travel Itineraries, Children's Information, Personal Photos and Videos; as more and more people become repeat victims of such third-party breaches, the ability of hackers to splice each person's data into a comprehensive digital identity that can be used for high quality identity theft, grows.

While it is very hard to track people by name – think how many 'John Smiths' there are in the world – it is easy to track people by their email address. By definition, there is (usually) only one person using each email address. That is why when you want to reset your password, as an example, most websites offer to email you a clickable link to do so.



More and more identifiable email addresses from Network Box protected organizations and email domains, are now part of increasing numbers of third-party data breaches, which have been posted on the Dark Web by hackers. Because of this, monitoring such posts, and taking affirmative action to let people know what's happened, is now so important.

If for example, the Marriott/Starwood data breach makes its way onto the Dark Web, there will be half a billion additional sets of stolen credentials, which could be used to commit various crimes, in both the cyber and physical worlds.

Network Box will soon be launching Dark Web Monitoring, as part of our Managed Security Services. This optional new service will monitor the Dark Web, and notify our customers, if their information has been posted there.

Network Box

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NEXT GENERATION MANAGED SECURITY

On Tuesday, 4th December 2018, Network Box will release our patch Tuesday set of enhancements and fixes. The regional SOC's will be conducting the rollouts of the new functionality in a phased manner over the next 14 days.

Network Box 5 Features December 2018

This month, for Network Box 5, these include:

- Support for new SOC IP address ranges
- Minor bug fix for 'no link' image display in admin web portal
- Performance optimisations and improvements in scan dispatcher (with the biggest improvement for URL categorisation and content filtering)
- Improvements to service-proxy GMS sensor, to report the number of connections alive
- Improvements to mailserv GMS sensor
- Enhanced support for POP3 scanning, when the 'TOP' command (rather than 'RETR') is used by some mail clients to retrieve email and the entire message is returned
- Support for maintaining the http connection keep-alive state when handling response error codes 300 through 399
- Minor improvements to SOC and infrastructure systems



In most cases, the above changes should not impact running services or require a device restart. However, in some cases (depending on configuration), a device restart may be required. Your local SOC will contact you to arrange this if necessary.

Should you need any further information on any of the above, please contact your local SOC. They will be arranging deployment and liaison.

Network Box ISO 9001 / ISO 20000 / ISO 27001 certified Security Operations Centre, ensures that customers' networks are protected against cyber threats, 24x7x365.



Network Box Hong Kong

The University of Hong Kong (HKU) - Cybersecurity Awareness Seminar

Network Box Hong Kong was invited by the **Information Technology Services (ITS) of HKU**, to hold an information security awareness seminar for HKU staff and students, alongside Ernst & Young. Network Box's talk was titled, "10 Cyber Security Facts (that you need to know)."



Network Box Singapore

Digitalisation for SMEs - Cybersecurity Risks Seminar

Network Box Singapore's Managing Director, Jan Van Leersum, was at the SCCC to talk about, "Managing Cybersecurity Risks," during the **Digitalisation for SMEs** event.



Network Box Media Coverage

South China Morning Post
 HSBC e-payment app PayMe under fire over 'way too easy' user ID verification after unauthorised transactions
 LINK: <https://bit.ly/2E9foXj>

rthk NEWS
 Government crackdown needed on data breach firms: Expert
 LINK: <https://bit.ly/2QbLwjC>

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Network Box USA

Greater Houston Partnership - Business Development Workshop



Network Box USA's CTO, Pierluigi Stella, was at the recent Business Development Workshop organized by the **Greater Houston Partnership** titled, "Content Strategy for a New Marketing Age."

