Welcome
Welcome to the September 2012 edition of ‘In the Boxing Ring’.

This month, on pages 2 and 3, we give a detailed report on and announce the next stage of S-SCAN for both the NBRS-3 and NBRS-5 platforms.

Back in September 2011, we introduced S-SCAN to the world, as our state-of-the-art high speed web content filtering system, designed to help organisations block undesirable web content from reaching their users. It covered the core 16 categories of undesirable content and did not attempt to address the productivity categories.

For the past two years, Network Box content filtering teams, as well as our partners, have been hard at work expanding the coverage of S-SCAN to 57 categories. We’ve taken S-SCAN from approximately 3.5 million signatures back in 2011, to more than 7 million signatures today.

Page 4 details the features and fixes to be released in this month’s patch Tuesday for NBRS-3.0. We continue to develop, and will continue to support, NBRS-3.0 for the foreseeable future (several years), and this page will be used to keep you informed as to what is happening with our core product.

Mark Webb-Johnson
CTO, Network Box Corporation
September 2012

You can contact us here at HQ by eMail (nbhq@network-box.com), or drop by our office next time you are in town. You can also keep in touch by several social networks:

Twitter:  http://twitter.com/networkbox
Facebook:  http://www.facebook.com/networkbox
           http://www.facebook.com/networkboxresponse
LinkedIn:  http://www.linkedin.com/company/network-box-corporation-limited
Google+:  https://plus.google.com/u/0/107446804085109324633/posts

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S-SCAN has won both critical and user acclaim, winning both the IT Pro Corporate Choice and Computerworld awards. Here, we announce the next stage of S-SCAN and our expanded categories for content filtering.

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ISACA visit
Network Box welcomed ISACA to our headquarters in Hong Kong. Michael Gazeley, Network Box’s Managing Director, gave an update on the latest cyber attacks happening globally and gave them a small introduction to our soon to be launched Network Box Version Five Anti-DDoS Web Application Firewall technology.

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August 2012 Features
The features and fixes to be released in this month’s patch Tuesday for NBRS-3.0. We continue to develop, and will continue to support, NBRS-3.0 for the foreseeable future (several years), and this page will be used to keep you informed as to what is happening with our core product.
Back then, S-SCAN covered the core 16 categories of undesirable content (Adult, Criminal, Gambling, Offensive, Malware, etc) but did not attempt to address the productivity categories. The reasons for this were that (a) for most organisations, the core categories are what count the most, and (b) the core categories are those that can be most accurately categorised (with less room for gray areas). For those organisations that required tighter control of the productivity categories, we offered the SurfControl/WebSense contentfiltering engine with its 52 categories.

Since then, S-SCAN has won both critical and user acclaim, winning both the IT Pro Corporate Choice and Computerworld awards. Customers love it, and the fact that we won in ‘customer voting’ awards and we beat the ‘big name’ content filtering providers is very satisfying. We also won a significant number of new customers to Network Box because of it.

We’re now ready to announce the next stage of S-SCAN for both the NBRs-3 and NBRs-5 platforms.

For the past two years, Network Box content filtering teams, as well as our partners, have been hard at work expanding the coverage of S-SCAN to 57 categories. We’ve taken S-SCAN from approximately 3.5 million signatures back in 2011, to more than 7 million signatures today. How many web sites do those 7+ million signatures categorise? Well, as one signature can cover anything up to several thousand websites, it is hard to say. But, based on the average browsing activity of our customer base, we estimate more than 190 million websites are categorised by S-SCAN today. Please note that those are websites, not web pages, the number of web pages would be an order of magnitude greater than that.

As you should know by now, here at Network Box, we believe in having clear, comparable, system metrics. We believe it is only by measuring something, to industry standard metrics, that you get an appreciation for how good (or bad) it is, and how things are changing for the better (or worse) over time. We therefore recently spent quite some time measuring the performance of S-SCAN, and here is what we found.

We compared our S-SCAN engine, to our SurfControl engine, for the 5 data sets below:

- **alexa10k**: The top 10,000 websites visited by global Internet users.
- **alexa100k**: The top 100,000 websites visited by global Internet users
- **alexa1m**: The top 1 million websites visited by global Internet users
- **nbcp-snapshot-1**: 691,229 websites popular with our customers
- **nbcustdom**: A list of specific domains owned by our customers
The results of the comparison between our S-Scan engine and our SurfControl engine, were extremely encouraging:

<table>
<thead>
<tr>
<th>Data Set</th>
<th>URLs</th>
<th>S-Scan</th>
<th>Surf Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>alexa10k</td>
<td>10,000</td>
<td>98.2%</td>
<td>92.7%</td>
</tr>
<tr>
<td>alexa100k</td>
<td>100,000</td>
<td>98.7%</td>
<td>73.9%</td>
</tr>
<tr>
<td>alexa1m</td>
<td>1,000,000</td>
<td>65.5%</td>
<td>50.8%</td>
</tr>
<tr>
<td>nbcp-snapshot-1</td>
<td>691,229</td>
<td>63.8%</td>
<td>50.3%</td>
</tr>
<tr>
<td>nbcustdom</td>
<td>270</td>
<td>93.0%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

S-SCAN specifically targets highly popular websites, and the S-SCAN coverage figure of 98.7% of the top 100,000 websites (as measured by Alexa) is to be expected. Note that Alexa is not a perfect test set, as a number of garbage spammed websites make it into the rankings- if we were to remove those unreachable and uncategorisable websites from the Alexa list, the S-SCAN coverage would be 100%.

Now, the purpose of these tests is not to denigrate SurfControl/WebSense. Their engine is among the leading content filtering engines available in the market today. We continue to be impressed by the engine’s performance every day, WebSense continue to be our partner and we will continue to offer their engine.

The purpose of S-SCAN is to offer both an alternative and an addition to the SurfControl/WebSense offering by Network Box. S-SCAN is focusing on accurate classification of:

- Our customers’ own websites
- The top websites visited by the global Internet audience
- The top websites visited by our customers
- The websites visited by most of our customers most often that were uncategorised (the uncategorised feedback loop)

We are now conducting final preparations for the release of the new S-SCAN engine to our customers (both NBRs-3 and NBRS-5). We expect to be able to release the new engine code and service offerings in the October 2012 Patch Tuesday release cycle. At that time, we will be offering a choice of service package, either (a) S-SCAN only, (b) SurfControl only, or (c) a combination of both SurfControl and S-SCAN engines. We also expect to be able to offer migration options for existing customers (mid-contract).

S-SCAN category list

The list below is of our full S-SCAN Extended list. The basic 14 categories available on S-Scan Core is highlighted in red.

- 0. Uncategorised
- 19. Hacking
- 38. Real Estate
- 1. Adult/Sexually Explicit
- 20. Health & Medicine
- 39. Reference
- 2. Advertisements & Popups
- 21. Hobbies & Recreation
- 40. Religion
- 3. Alcohol & Tobacco
- 22. Hosting Sites
- 41. Ringtones/Mobile Phone Downloads
- 4. Arts
- 23. Illegal Drugs
- 42. Search Engines
- 5. Blogs & Forums
- 24. Infrastructure
- 43. Sex Education
- 6. Business
- 25. Intimate Apparel & Swimwear
- 44. Shopping
- 7. Chat
- 26. Intolerance & Hate
- 45. Society & Culture
- 8. Computing & Internet
- 27. Job Search & Career Development
- 46. Spam URLs
- 9. Criminal Activity
- 28. Kids Sites
- 47. Sports
- 10. Downloads
- 29. Motor Vehicles
- 48. Spyware
- 11. Education
- 30. News
- 49. Streaming Media
- 12. Entertainment
- 31. Peer-To-Peer
- 50. Suspicious URL
- 13. Fashion & Beauty
- 32. Personals & Dating
- 51. Tasteless & Offensive
- 14. Finance & Investment
- 33. Philanthropic & Professional Orgs.
- 52. Travel
- 15. Food & Dining
- 34. Phishing & Fraud
- 53. Violence
- 16. Gambling
- 35. Photo Searches
- 54. Virus/Malware Infected
- 17. Games
- 36. Politics
- 55. Weapons
- 18. Government
- 37. Proxies & Translators
- 56. Web-based E-mail

N.B. Please note the difference between 'unknown' and 'uncategorised'. A result of 'unknown' indicates that the category of the URL cannot be determined by the engine. A result of ‘uncategorised’ indicates that the category of the URL is explicitly being returned as uncategorisable by the engine.
September 2012 Features

On Tuesday, 4th September 2012, Network Box will release our patch Tuesday set of enhancements and fixes. The regional NOCs will be conducting the rollouts of the new functionality in a phased manner over the next 7 days. This month, these include:

- Enhancements to various internal NOC systems
- Enhancements to the box health check system, regarding anti-virus engines
- Support for the upcoming enhancements to the S-SCAN content filtering engine
- Further support for NBRS-5.0 in Box Office systems
- Various (mostly internal) enhancement yo Box Office and support 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 NOC will contact you to arrange this if necessary.

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

NETWORK BOX I

ISACA visits Network Box Headquarters

Network Box welcomed ISACA® (www.isaca.org) to our headquarters at the end of last month. With more than 100,000 constituents in 180 countries, ISACA® is a leading global provider of knowledge, certifications, community, advocacy and education on information systems (IS) assurance and security, enterprise governance and management of IT, and other IT-related risk and compliance.

Their China Hong Kong chapter visited our HQ Security Operations Centre, Michael Gazeley, Network Box's Managing Director, gave a presentation on network security and updated them on the latest cyber-attacks happening globally. They were also given a brief introduction to our soon to be launched Network Box Version Five Anti-DDoS Web Application Firewall Plus technology.

Overall, it was a successful and invaluable get-together for both parties. Network Box Hong Kong plans to hold more of these seminars with the possibility that these invitations may lead to future projects and collaborations.