Welcome

Welcome to the August 2008 edition of 'In The Boxing Ring'. An old curse is often quoted as saying 'may you live in interesting times' and this past month has certainly proved interesting.

Early in the month, the Internet was rocked by the announcement of a vulnerability in most implementations of the core DNS (Domain Name System) protocol. I'll discuss this further on page 3 of this newsletter.

As you may be aware, Network Box is headquartered in Hong Kong. With the exception of Antarctica, we provide service and support on all the major continents of the world, but our headquarter systems and global ticketing system (known as Box Office) is based in Asia. While connectivity is generally excellent, high traffic load and intermittent Internet issues have sometimes affected access to our global web-based systems (particularly from Europe and USA). We are now concluding a revamp, and beta test, of a new Box Office customer ticketing and inventory management system, and are ready to launch local mirrors in Americas, Europe and Asia. This will form the basis for the Network Box Customer Portal (an ongoing project based on Box Office). Page 2 of this newsletter provides details on this project.

I would also like to take this opportunity to discuss the upcoming release of Google Safe Browsing and Google Safe Searching in the Network Box NBRS-3.0 product. This will enter global beta-testing during August 2008, and is scheduled for release in the next month.

As usual, if you have any feedback, or comments, it is always appreciated. You can contact us here at HQ via email (nbhq@network-box.com). Or, drop by our office next time you are in town.

Mark Webb-Johnson
CTO, Network Box Corporation
August 2008
**Network Box Office**

**The Performance Problem**

Customers from the USA and Europe have been reporting random performance issues when accessing the Network Box Office system for ticketing and inventory control.

Although not necessary for all our customers, a key requirement for most of you is a single global ticketing system (so you can control a group of boxes, geographically distributed, from a single system). This key requirement does significantly complicate the problem, and is the reason it has taken us some time to resolve this. We now have a solution, and will be deploying this globally during August 2008. Thank you for your patience.

**Network Box Office Mirrors**

On Monday 11th August 2008, at 00:00 GMT, Network Box will switch our main portal to a new set of distributed mirrors. The main portal will then redirect to the global portal at:

- [https://global.boxoffice.network-box.com](https://global.boxoffice.network-box.com)

From there, at login, you will be redirected to your local mirror, which will be one of:

- [https://ap.boxoffice.network-box.com](https://ap.boxoffice.network-box.com)
- [https://eu.boxoffice.network-box.com](https://eu.boxoffice.network-box.com)
- [https://us.boxoffice.network-box.com](https://us.boxoffice.network-box.com)

We suggest that the ‘ap’ mirror be used by customers in Asia-Pacific, ‘eu’ by customers in Europe/Africa, and ‘us’ by customers in the Americas.

We will pre-set your Box Office account with the mirror we recommend that you use, but there are two ways you can customize this:

1. You can use the “My Account” option within Box Office to choose your preferred mirror. At login (to the global main portal), you will be redirected to the mirror of your choice.

2. Enter the url for the Box Office mirror you require directly into your browser. Only the ‘global...’ mirror will redirect, while the regional ones won’t (to allow you to specify ‘ap’, ‘eu’ or ‘us’ directly).

We have chosen to use this manually-specified system, rather than a geographic IP based system, to allow you more control over which mirror you use.

**Other Performance Improvements**

In addition to the deployment of three regional mirrors (in addition to the global main portal), we have made several other performance improvements, including work on:

- Compression of web traffic (should your browser support it) to allow up to a 10 times improvement in bandwidth utilization.

- Optimizing of complex database queries, and custom queries, for search speed improvement.

**Multi-Language Support**

The new Box Office system uses the UTF-8 character set, and includes support for Simplified Chinese, Traditional Chinese and Korean languages (as well as the standard English). You can choose your language in two ways:

1. From the top TAB bar, select the language you want - your choice will last for the current login session.

2. From the “My Account” option within Box Office, you can choose your preferred language - your choice will take effect the next time you login.

**New Functionality**

This release of Box Office is primarily a foundational release, intended to add multi-language support and improve global performance. You will notice that a new SURVEYS tab has been added (for feedback surveys, as well as standardized information gathering).

You will also see that the “My Account” module has now become a tab (to allow for faster and easier access to your account preferences).

The OVERVIEW tab has been improved to give you a single overview of all events requiring your attention, as well as an overview of recent activity.

**Future Work**

Over the coming months, a series of major enhancements will come out for Box Office, as it expands into a full Customer Portal. This will include:

- Box health information (from the Network Box global network of health monitoring systems).
- Box utilization information (including charts and statistical reports).
- Contract / licensing and alert information.
- Links for access to my.network-box.com administrative web interfaces.

Customers with more than one box (in particular, geographically distributed) should particularly appreciate this work.

**Conclusion**

This release of the global and three regional Network Box Office mirrors is primarily intended to provide performance improvements and multi-language support. However, it lays the foundation for future releases and migration to the Network Box Customer Portal system (which will provide utilization, health and contract/licensing information for multiple boxes in a single portal).

The new mirrors will be formally launched on Monday 11th August 2008. They are, however, now live - you can directly login to them today (to familiarize yourself with the new system, as well as to take advantage of the improvements made).
Google Safe Browsing

Network Box will offer an optional content filtering engine which uses Google’s safe browsing (GSB) system to check URLs against Google’s constantly updated blacklists of suspected phishing and malware pages.

The engine supports two categories; one for GSB Phishing and the other for GSB Malware. These categories will be added to the surfcontrol-core filter set on Tuesday 5th August 2008, and can then be configured on a per-box basis. The standard ‘Policy Block’ web page indicates Google Safe Browsing blocks with a special custom warning message.

Google Safe Searching

Google, as well as some other search engines, supports ‘Safe Searching’ options. These are intended to filter search results to only return safe links for those who want to search the Internet while reducing the risk of inappropriate material being viewed. No search filter can replace parental supervision when it comes to children on the internet, but every little bit helps.

The Network Box implementation acts as a filter on Google search engine searches, and can optionally transparently enable ‘safe searching’ on such searches.

Beta Test and Schedule

Beta tests of both technologies will be launched in August 2008. If you would like to participate in this beta test, please contact your local NOC for details.

We anticipate being able to release this technology, globally, during September 2008.

DNS Attacks

A ‘surprise’ (for most) announcement for Microsoft’s July patch to the ‘id’ numbers present in the reply (which provides a basic level of security and allows the reply to be matched to the original request).

What about Network Box?

Network Box NBRS-3.0 includes a full recursive DNS server, and that server (like all such servers) may be vulnerable to this issue. Although we have several mitigations in place (including restricted access, traffic filtering, and spoof protection), on 11th July 2008, Network Box released an out-of-cycle patch to our DNS software to protect our customers against this problem.

Am I vulnerable?

If you are running a recursive DNS server, and have not yet applied patches from your vendor, you are most likely vulnerable. There are tools available to test your server, but we recommend contacting your DNS server vendor to determine vulnerability.

The Computer Emergency Response Team recommends several steps you can take to limit exposure to this vulnerability. These include basic security measures such as:

- Apply a patch from the vendor
- Restrict access to DNS server
- Filter traffic at network perimeter
- Run a local DNS cache
- Disable recursion
- Implement source port randomization

Conclusions

Network Box has already addressed this issue for you, so long as you are using Network Box's secure DNS services.

If you are running your own DNS servers, but have problems with handling this, it is possible to point your DNS servers / clients to Network Box’s secure DNS server (running at the gateway) and rely on Network Box protection. This will be most secure and effective if your DNS servers are running in a separate secure DMZ. Please feel free to contact your local Network Box NOC for further advice or recommendations regarding this issue.
**August 2008 Features**

On Tuesday 5th August 2008, we will release the following features and enhancements, for all NBRS-3.0 Network Boxes. These will be deployed, globally, and made available to all our customers, early in August 2008.

- A standardized mechanism for periodic syncing of Microsoft Active Directory groups (and their members) to Network Box Web Proxy Policy groups (and users). This will allow groups and their members to be maintained in active directory, and automatically synced to the Network Box web proxy policy system (via the LDAP protocol).

- A fix to the IPSEC service within Network Box, to better support recovery from link and negotiation mismatch faults, as well as other IPSEC VPN link / service errors.

- Enhancements to the Web Proxy URL categorization system to support the beta of Google Safe Browsing, as well as other planned new features.

- Various other NOC support and maintenance enhancements (which should not affect customer devices).

In addition, on Monday 11th August at 00:00 GMT, the new Network Box Office mirrors will be globally launched, and [https://boxoffice.network-box.com](https://boxoffice.network-box.com) changed to point to the new system.

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

**Patch Tuesday**

Network Box has moved to a patch Tuesday form of software enhancement release mechanism. This is to allow the NOCs and our customers to release, and install, new software and enhancements in a globally co-ordinated manner. All NOCs will operate to the same patch Tuesday schedule. This does not affect the normal real-time PUSH updates, and is for new features and enhancements only.

For Network Box, patch Tuesday is the first Tuesday of every month, and the first was Tuesday 1st July 2008.

While critical software patches, signatures and other such day-to-day (or minute-by-minute) releases will still occur out of cycle, throughout the month, we will usually release new software features and enhancements on patch Tuesday; and conduct a phased deployment to all customer boxes early in each month.

For our customers, this “In The Boxing Ring” newsletter is used to keep you informed as to what we have been doing for you, and what you can expect in the upcoming patch Tuesday monthly feature / enhancements release.

**Conclusions**

Thank you for your support of Network Box, and the continuedentrustment of your network security to our managed service. I hope you find this communication useful – if you have any suggestions, they are most appreciated, and should be directed towards your local NOC or account manager; please don't hesitate to contact us for assistance.

Mark Webb-Johnson
CTO, Network Box Corporation
August 2008

**JULY 2008 NUMBERS**

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