

Lazy Management of a Secure Gateway

System Administration Miniconf Tuesday, 25th January 2010 LCA2011, Brisbane, Australia

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Overview

Prefer going to great effort to reduce overall energy expenditure? That's my kind of Laziness. Add some Perl-ish Impatience and Hubris and you have a good description of my current workplace.

This talk is a "How we do things" walk-through of my workplace with most of the focus on what works for us, minus some detail to keep the security people onside ;)

My workplace is a secure gateway for a large government client. It has many different types of devices all forming part of a managed response to the risks we face in connecting to the world.

Of course, I'll mention the Wiki that I presented on last year but this time with more about how it fits into our workplace and almost nothing on the wiki itself.



Click to add an awesome title

• Click to add an awesome outline



Lazy Management?

Laziness is the quality that makes you go to great effort to reduce overall energy expenditure. It makes you write labor-saving programs that other people will find useful, and document what you wrote so you don't have to answer so many questions about it.

http://c2.com/cgi/wiki?LazinessImpatienceHubris



Secure Gateway?

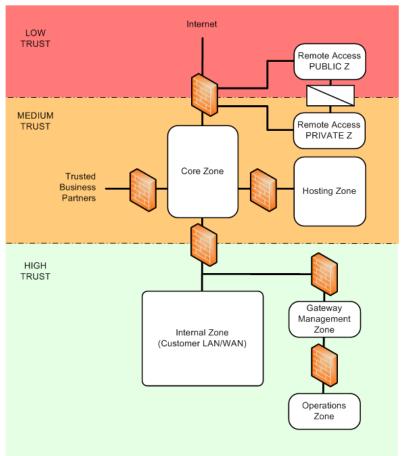
- Government Client
- Large internal network
- Many B2B links
- Let people work with protection and audit.
- PSM / ISM / IRAP





High Level Architecture

- Primary and Secondary Sites
- Over 200 pieces of kit
- Multiple redundant traffic paths
- Single point of entry/exit
- Extensive Monitoring





Customer Common Services

- Web Browse, including content filtering
- Internet Email (SMTP), including anti-spam
- DNS: Public, Gateway, Business Partners, etc
- Business Partner Connections
 - 20 + links to Business Partners
 - Specific data requirements
 - Failure closes borders (Airports and Cruise Ships)
- Secure File Transfer (drop box w/ automation)
- Remote Access VPN Solutions (collect them all!)



What we do (1/2)

- Firewall Administration
 - Multiple Vendors
- IDS/IPS Administration
- Router/Switch Administration
- Linux Administration (DNS, NTP, Logging, etc)
- Log Analysis
 - Including Anomaly Detection
- System Monitoring and Reporting

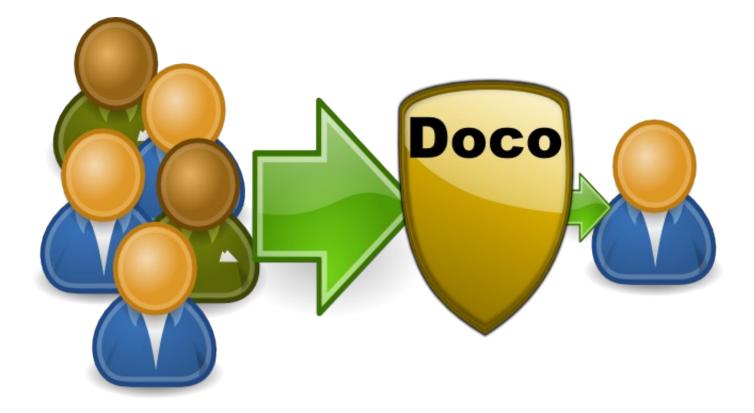


What we do (2/2)

- Incidents, Problems and Changes
- External Hosting Infrastructure
 - Reverse Proxies
 - SSL Decryption
 - Anti-virus Checking
- Web (XML) Messasging Gateways
- Documentation
- Certification



Documentation







- Very good relationship with customer
- Saves a huge amount of time – e.g., B2B "Link Documents"
- Un-needed secrecy hurts Security



Firewall Rulesets

- Live Rules
- Exports into Subversion (web viewable)
- Wiki versions of B2B "Link Documents"



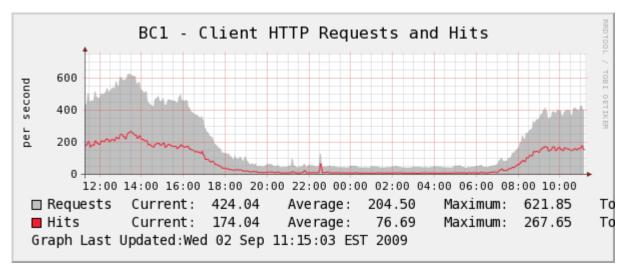
Naming and Addressing

- IP Plan
- Multi-split DNS
- Public space but with many "private" ranges and a lot of NAT :(



Web Browse: what we use

- Blue Coat ProxySG Appliances
- SSL Intercept aka "Man in the Middle"
- Blue Coat Web Content Filtering
- Blue Coat Anti-virus appliances



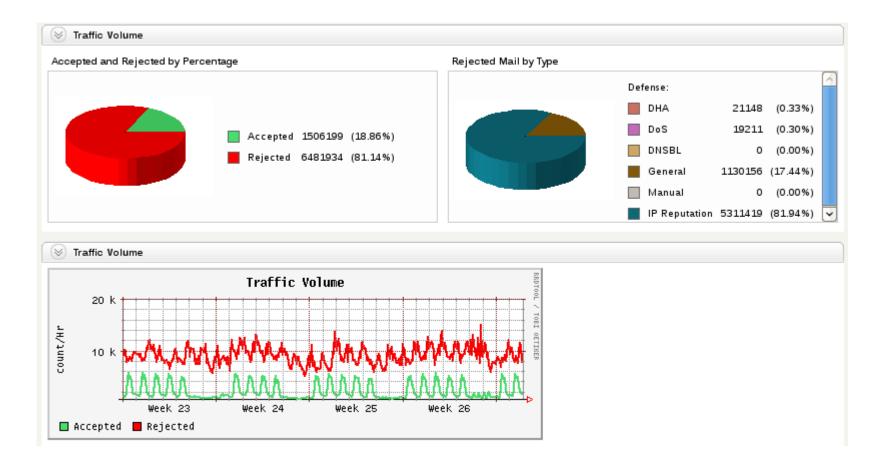


Email: what we use

- Axway Mailgate SMTP Appliances
- Very strong tagging/policy capability
- Anti-spam
 - IP Reputation Filtering
 - SMTP checks (good behaviour)
- Approx 100,000 legitimate emails per day
- About 7% spam count (user web-based digests)
- > 80% connections rejected



Email: Anti-spam







- Many different types of devices
- Many of each type of device
- Separate credentials per trust zone
- One central KeePassX file



Monitoring (1/2)

- Cacti Capacity Planning
- Nagios Everything okay right now?
- NetFlow historical "tcpdump"



Monitoring (2/2)

- SourceFire IPS/IDS
- Logs syslog-ng /archive/yyyy-mm-dd/
- ArcSight SIEM



		16		Search Notes	<u>Knowledge Base</u> Help / Feedback Logout
Account matching "xxxx02" 2011-01-23 15:20					
IDs: Name: Email: Section: Floor: Phone: Desktop:	xxxx02 / 12345 / 6789 / 60000007 Joe Citizen or CITIZEN, Joe joe.citizen@immi.gov.au Unisys Contractors Level 1 - Thynne Street, 9 Thynne Street Dunlop Court Fernhill Park, Bruce 0-02-6225-8067 or 0-0411-262-316 Directory pc00042 (192.0.2.42) Remote- C drive- Home- Profile Digipass Go3, serial 12-3456789-4	SD0000259 SD0000278 SD0000240 SD0000210 SD0000227 IM000708 IM000771 IM000789 IM000780 IM000707	Jan 13 Jan 13 Nov 26 Nov 22 Nov 10 Sep 21 Sep 19 Sep 17 Sep 16 Sep 04	 C System 42 Outage - State C Request to speak to Brace C [IM000711] - Status Update C LAN Account Locked C Protect Drive - unlock C pc00042 - no longer light C Laptop - reimage required C PC - Requesting version 4 C Unable to log into pc0004 C Access to Deakin IDC 	ate ly managed d 12
Expiry:	2011-01-23 15:19 (0.0 days ago) <mark>Logs</mark>	xxxx02 ->	pc00042	2 -> Dell OptiPlex 42 (xxxxxx 2 -> Dell 19.4 inch (Dxxxxxx 2 -> Dell 19.4 inch (Dxxxxxx	xxxxS)

<u>#</u>1 <u>Name</u> Notes 8532 <u>GR-Important-Group</u> Tom citizen is the authorising officer. Harry citizen is the authorising officer.

8532 <u>GR-Other-Group</u>

+3s





This presentation is at http://zwitterion.org/talks/

