RedIRIS's Works in progress

francisco.monserrat@rediris.es

FIRST TC, Buenos Aires, 5 Oct 2005

- PGP related stuff
- Malware recollecting

Gpg aliases

http://www.rediris.es/app/pgplist

- Small script to setup GPG Mailing from /etc/aliases
  - Sender verification is done from the PGP key instead of the mail address, posting is could be only done from members
  - Incoming mail must be encrypted & signed to the mailing list address
  - Outgoing mail is encrypted in separate mails to each of the list members
- All the configuration is handled from a separate file so, it's quite easy to have separate mailing list in the same server
- Current uses:
  - Password and sensible information distribution
- Future work: Integrate with crypto-card to store private key

Firmaweb / Web signing

http://www.redris.es/pgp/firmaweb

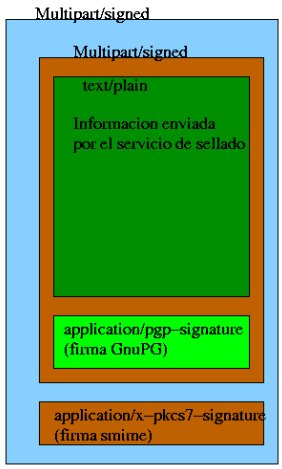
- Why sign a web page ?
- Allow to publish information that could be checked against modification after browsing
- User can download the pages and check if the text, (HTML) has not been modified. Wget -O - http://www.rediris.es/cert | gpg
- The idea was to build a page, and use the remarks feature of HTML to store the signature.
- Most of IRIS-CERT, http://www.rediris.es/cert are PGP signed, you can browse the code to see how it was done
- Currently integrated in our web publishing system
- Future Work: Automatic verification (FireFox plugin ?)

Using SMIME & GnuPG

Problem: How to employ S/MIME and PGP signed messages at the same time.

- Needed for a document registering system , mail notary placed at RedIRIS , http://www.rediris.es/app/sellado

- Solution, Use Multipart/MIME messages, with both kind of signatures:
  - SMIME enabled clients would process the signature and show it
  - PGP/MIME messages are processed only in PGP enabled clients
  - You can use old common PGP plain signed messages instead of PGP/MIME



Verification was tested and works:

- Netscape (SMIME)
- Netscape + Old plug-in (PGP)
- EXMH (PGP)

..

And other Unix programs for PGP

red.es Recollecting Malware

New generation honepots ?:

- http://www.mwcollect.org (Unix/ cygwin)
- Multipot, http://labs.idefense.com (Windows)

Simulate vulnerabilities in common windows services (445, etc)

Simulate a common exploit

Got the shellcode and compare with a database of them

Parse the information and download the binary

Very good to obtain bots and worms trying to attack your network

Problem: recollect attacks directed only to the IP address of the sensor

red.es Work in progress

•We have most of the NetBIOS traffic blocked at the backbone , so no worm is attacking the collector

• Why not redirect all the traffic (AS766) to this collector ?

This could be useful to know the different bots and also detect new shellcodes and exploits

Now::

Redirecting traffic from one of connections (Spanish Exchange Traffic) to our office network only (3 C classes)

Result

- More than 1000 worms /bots downloaded every day
- Most of the files are the same MD5 checksum

Work in progress

Evolution

- Redirect the traffic:
  - From all our external links
  - To all the IP adresses in AS766 network (~ 20 different B class)
- Set up a automatic (new binaries) notification
- coordination with binaries analyzing project