

Mariano Spadaccini

e-mail: mariano at marianospadaccini.it

web: <http://www.marianospadaccini.it>

Personal information

Name: Mariano Spadaccini

Birth: January, 30th 1981 - Chieti - Italy

Address: Via Sulmona n° 70 - 66100 Chieti Scalo - Italy

e-mail: mariano at marianospadaccini.it

web: <http://www.marianospadaccini.it>

Today

I am involved in the *internet* and *intranet network* and *system management* of the University of Chieti.

I am a student of electronic engineer of the University of L'Aquila; I expect to finish *June 2010*.

Study Background

- I am an electronic engineer student and expect to discuss my thesis in *June 2010*.
- I received a diploma in "*Perito commerciale e Programmatore*" from *ITCP "R. De Sterlich"* in Chieti Scalo with a final grade point of 96/100 in 1999.

Working experience

01/2006 to date - CINECA Consulting – I am still involved in the network and system management of the University *G. d'Annunzio* of Chieti: my main function is to assure the proper functioning of the systems and infrastructures. Mainly:

Firewall: IP/MAC accounting was introduced through IPFIX/NetFlow collectors (flow records).

Server Log: A main server log was implemented to centralize switches, routers and servers logs.

Backup: A server was implemented with *logical volume management* for email/web/databases backups with daily *snapshot* (disk storage system of 1.5TB). The backup is also stored on tape library (software Open Source).

Captive Portal: one older (*NoCat*) for wireless lan area, the newer (*ChilliSpot*) for another WLAN and some laboratories.

Antispam: in order to improve the antispam service, it's been used *greylisting* system and *DCC (Distributed Checksum Clearhouse)*.

Monitoring: in order to improve the monitoring, it was implemented through:

- *ghosd* for notifications on work screen display;
- *sound alarm* (beside server farm);
- *SMS* (for core routers and servers).

new building: in order to use the redundant optic fibres, it's been adopted *RSTP (Rapid Spanning Tree Protocol)*.

At the same time:

Oncology unit: collaboration to create a parsing tool (PDB and Bond data)

DKIM: SMTP proxy was implemented with *DomainKeys Identified Mail* for a high volume MTA (large email sender with 10^5 emails per day $\pm 15\%$);

HPC: a cluster with 24 nodes (each one 2 processors Xeon 2.4GHz - 4GB) was implemented using Oscar distribution.

10/2004-12/2005 PDA Communication srl – *PDA Communication srl* offered internet and networking services to small and medium enterprises. In association with *CINECA*¹ provided network and server infrastructures and support for the University *G. d'Annunzio* of Chieti under an outsourcing contract. From July 2004 to December 2005 (when the contract expired) following results were achieved:

¹CINECA - Bologna, Italy - <http://www.cineca.it>

Monitoring: a monitoring system was implemented in order to constantly check the status of the core routers and servers and, in case of failure, initiate proper action.

Firewall: three key firewalls were implemented from scratch using a combination of *bridging* and *routing* firewalling technologies, always built on top of *Open Source* (Linux-based) components.

Trouble-ticketing: a *trouble ticketing system* was implemented in order to track user request while, simultaneously distributing these request to network operators.

server re-engineering: the whole email infrastructure was completely redesigned and re-implemented. On September 11th, 2005 2072 mailboxes were migrated from the old *MBOX* format (*sendmail based*) to a new *MDIR* format (*postfix based*) with a *MySQL* data repository. The migration involved all the user folder (4195) and messages (1,861,934). Soon thereafter, an antivirus service and an antispam service (*SpamAssassin based*) were added to the platform.

network re-engineering: in order to permit the implementation of bandwidth consuming streaming applications, the existing network infrastructure was partially redesigned introducing *VLAN technology* and *VLAN-aware firewall*.

During this period, my main activities were:

1st level support: an activity with direct contact with user and their problems.

2nd level support: an online activity in order to resolve users problems.

junior systemist: maintenance activity for *key servers* (Linux based);

junior network systemist: maintenance and troubleshooting network/networking problem of the clients.

10/1999-05/2001 ITCP “R. De Sterlich” – Student tutor activity in the schools computer laboratory.

Courses

Parallel Computing: I have attended *Parallel Computing School* in Computing Center of CINECA since 9th to 20th July 2007.

Technical skills

GNU/Linux OS: profound knowledge of Linux system administration in medium/large installations

networking - layer 3 and higher: strong knowledge of technologies built on *IP* (mainly *TCP* and *UDP*) and several services built on this protocols (*HTTP*, *FTP*, *SMTP*, *POP3*, *IMAP4*, *TELNET/SSH* and *DNS*)

networking - layer 2 and smaller: working knowledge of *Ethernet* technologies, including *VLAN* and its applications

Perl: I have written numerous script for various applications (*web*, *DBI*, *SNMP*, *Curses*, etc.)

PHP: I have developed some applications with PHP language

other programming languages:

dialogue/interactive: *Expect*

general purpose: *C++*, *C*

shell scripting: *BASH*

web: *Javascript*, *Java*

meta-languages: *Octave*, *Matlab*

assembler: *MIPS*, *AS11X*

others: *Pascal*, *Cobol*, *Basic*

web server: *Apache*

dbms: *MySQL*

software modeling: *UML* (Unified Modeling Language), *ER* (Entity-Relationship model)

data presentation: (X)HTML and CSS, *L^AT_EX*, SGML/DocBook

favorite editor: *vim*

favorite software: *Free Software*

Online presence

PerlMonks – http://www.perlmonks.net/?node_id=512223

PerlMonks is a community of developers who works in *Perl*; every user has a *credential* which increases (or decrease) through scores assigns by other community users. In the *PerlMonks* community, each level is assigned a title similar to those used in religion organizations. Presently I have reached the 10th level (*Hermit*).

MacAddressLocator – <http://savannah.nongnu.org/projects/mal>

Savannah is a famous repository of heterogeneous scripts/programs/documentation; my project is **MacAddressLocator**, which has the objective to visualize informations concerning localization of mac address.

switchTraf – actually my personal page

It has the objective to visualize load traffic of switch interfaces (*Curses*).

Known languages

- Italian, mother tongue
- Working knowledge of English