

Mr HEITOR Emile
Born 17.06.1974
French nationality
Married, no children
Location: Paris
Email: imil@NetBSD.org
Website : <http://imil.net>
LinkedIn profile: <http://www.linkedin.com/in/imilh>

Chief Technology Officer / OpenSource Infrastructures Expert

Professional Experience

- **NBS System**

CTO and co-owner - December 2009, still in position

- **Board** active member
- Operation teams **management**: 20 members, 4 departments
- **Network design**: highly available network architecture, from edge routers (BGP, Juniper) to switching (Foundry / Brocade) and load balanced services (VRRP, IPVS)
- **Cloud platform design**: fully elastic Virtual Private Servers based on the Xen hypervisor
- **Critical services** design: DNS, Mail, LDAP backends
- Strategic **partners relationship**: network operators, hardware resellers, managed services
- **Pre-sales**: key accounts follow-up

- **NetCentrex - Comverse**

Technical Manager - May 2006 to November 2009

- OpenSource and technical expertise: **under my leadership**, the Operations Services support have brought a technical expertise to the Professional Services. Due to my involvement in the OpenSource community, my expertise has often been requested regarding Free Software integration into NetCentrex's Solutions.
- Platform deployment design: NetCentrex VoIP platform is composed of many **SIP registrars, call routing engines, load balancers, customer care XMLRPC/HTTP(s) services, distributed databases and LDAP servers**. These complex platforms are deployed and monitored using an infrastructure I designed. Around **800 servers** were installed using our mechanism, thus considerably reducing delivery time to customers like Orange France Telecom, Tiscali Italy or AOL Germany.
- Member of the transversal security team: in collaboration with Comverse's security department, I was, along with 3 others architects, responsible of NetCentrex **platforms hardening**.

- **Dolphian**

I.T. Manager - February 2004 to April 2006

- IP services filtering solution design and early implementation
- R&D and Operations services **management**
- Pre-sales reinforcement

- **Cable & Wireless - isdnet**

vISP Development team leader - June 2002 to January 2004

- Virtual ISP system design and development, these systems were made of shared mail, webmail, web hosting, news, dns, rbl and ftp servers for about **4M users**. They were deployed on approximately **100 BSD UNIX** (FreeBSD) servers dispatched over 3 datacenters.
- Design and development of a modular LDAP to SQL gateway, the goal was to migrate services to LDAP without changing the SQL backend system. See <http://imil.net/authd> for details.
- Cable & Wireless european accounts migration. About **1M user accounts** were transparently migrated under my leadership to our LDAP/SQL information systems.

- **Cable & Wireless isdnet**

R&D project manager - February 2001 to June 2002

- Merge isdnet and Cable & Wireless hosted services. Unify Web services to Apache, DNS services to Bind and secure shell with OpenSSH. These solutions were functional for FreeBSD, GNU/Linux and Sun Solaris.

- **Cable & Wireless isdnet**

Unix system engineer - July 2000 to February 2001

- System and network administration, participation in the design of the vISP infrastructure and managed services.
- Secure backup over **SSL VPNs**
- Development of a SMTP blacklisting system based on DNS queries (relay blackhole modification)
- Development and deployment of an NSS LDAP-like plugin for systems lacking this feature, see <http://imil.net/eldap> for details.

- **European Internet Center (C.I.E)**

Unix system and network administrator - November 1997 to July 2000

- System and network infrastructure installation, administration and maintenance for this internet service provider.
- Various perl, php, shell script and C developments to fully automate recurrent tasks, like DNS updates, vhost creation and some mail-related administration.
- Full network administration, from users RTC backends to shared RNIS, specialized lines and WAN link to our operators, UUnet and Olean France Telecom.

Contributions

Well known OpenSource projects (see details at <http://imil.net>)

- The NetBSD Project

- pkgsrc: many packages, some docs and tutorials
- userland: pkg_select, pkgse, wimon, nos-tun, ftpd-tls, pkg_notify
- network drivers: pf 3.4 port, ral driver port for NetBSD 2 & 3, initial port of NDIS for NetBSD
- The NetBSD LiveKey project
- [pkg_select presentation at pkgsrcCon'2006](#)
- [Pkgin](#)
- OpenLDAP, docs, patches (back-sql)
- UnixODBC, patches (autoconf)
- nss_ldap, docs, patches (FreeBSD 4 port)
- The FreeBSD Project, ports, docs
- Wine / Winex / Cedega, patches
- [The BeastieBox Project](#)

Papers and tutorials (in french, see <http://imil.net/docs/>)

- Writing BSD Makefiles
- BSD UNIX brief history and comparison
- Using the NDISulator with FreeBSD 5.2.1
- Transparent migration of a HTTP service to a jailed environment
- Configuring sendmail + spamassassin on a NetBSD system
- The Sexy FreeBSD HOWTO
- List manipulation using queue.h
- Live USB Key creation with NetBSD
- Various documents about virtualization (<http://imil.net/wp/?cat=Virtualisation>)
- Articles published in GNU/Linux France Magazine
 - Hors Serie 29 - NetBSD dans la poche (embedded NetBSD in an USB key)
 - Hors Serie 30 - Diskless NetBSD
 - GLMF 94 - Jugamos a la Fonera (hacking the "La Fonera" wireless router)
 - GLMF 100 - Adminspotting: Zone0, le serveur parfait (Xen based server, LDAP unified services)
 - GLMF 102 - 88 Miles à l'heure ! (Running and configuring 2.11BSD with a PDP11 emulator)
 - Hors Serie 36 - Zone0: Le serveur presque parfait (Day-to-day operations on a Xen based server)
 - GLMF 105 - Developpement de LKM sous NetBSD (NetBSD Kernel Module programming)
 - GLMF 108 - Mise en place d'un réseau Wifi ouvert (Open Wireless architecture setup)
 - GLMF 118 - Un pkgin sec pour la 6 (Package management software programming)
 - GLMF 119 - À la découverte de NetBSD (NetBSD Operating System history)

Technical Knowledge

Hardware platforms

- x86 and x86_64 based servers and workstations
- UltraSPARC based servers and workstations
- MIPS based embedded devices and servers
- ARM based embedded devices

Operating systems

- Unix : NetBSD, FreeBSD, DragonFlyBSD, OpenBSD, BSDi, SunOS/Solaris, Minix,

2.11BSD.

- GNU/Linux : Debian and clones, Gentoo, Slackware, RedHat and clones, LRP.
- Routers : Cisco, Foundry, 3Com, Zyxel, Telebit.
- Load Balancers / Web accelerators : Foundry, F5 Networks, Redline Networks
- Others : AmigaOS, GEM, Windows.

System and Network

- Networking : Ethernet, LS, ISDN, RTC, Cable, ADSL, WiFi, various tunneling methods
- Protocols : IPv4, IPv6 since 2000, WAP, 802.11, IP Routing, Transport protocols (ppp, frame-relay)
- VoIP: SIP, H323, IAX2, Centrex and residential solutions (Registrar, SoftSwitch, SBC).
- Virtualization technologies: Xen (paravirtualized and hvm), KVM, QEMU, VirtualBox, VMware since 1999, Parallels/Linux
- Firewalling / Filtering : Cisco & Foundry ACL, BSD : ipf, ipfw, pf, GNU/Linux : ipfwadm, ipchains, iptables
- Nat : BSD : ipf / ipnat, GNU/Linux : ipnatadm, ipport, ipnat
- Well Known Services : Bind (4, 8, 9), Asterisk, Sendmail, Postfix, OpenLDAP(*), Apache, Lighttpd, Roxen, Net-SNMP(*), UW/qpopper pop3 servers, UW & Courier imap4 servers, OpenBSD/FreeBSD/ProFTPd ftp servers, OpenSSH, CVS, BSD/Linux/Sun NFS, Squid, ircd, inn, IPsec/vtun/PPTP VPN systems, rsync, MySQL, Postgres, DHCP, Kannel...

Programming Languages : C, Perl, Python, Pike, PHP, SQL, TCL, HTML, RXML, Shell script

Education

- E Series Baccalaurat
- Industrial Systems BTS
- AFNIC Technical Training

Languages

- Spanish : speak, read, write (mother tongue)
- English : speak, read, write
- French : speak, read, write (native tongue)

Complementary Information

- **NetBSD Developer**, member of The NetBSD Foundation
- **Founder** of the GCU-Squad association, a Free Unices advocacy and support group: <http://GCU-Squad.org>
- Involved in various Open Source projects
- Open Source conventions organization and participation
- Other hobbies : Electronic music, DJ'ing, drawing, wireless architectures...