

Curriculum vitae

Pietro Bertera

Personal details

- **place and date of birth:** August 26th 1981, Como (Italy)
- **nationality:** Italian
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About

I'm IT professional with more than 15 years of experience about Linux, Cloud platforms, Virtualization, Containers and Containers orchestration. I'm working as a Senior Technical Account Manager at Red Hat helping customer on the path of OpenShift adoption on public and private environments.

I have a strong experience as network and system engineer specialised in VoIP systems and network management.

Specialities: - VoIP and communication technologies - Networking - Virtualisation - Containers and microservice adoption

Technical skills and competencies:

- *Containers orchestration:* Kubernetes, Red Hat OpenShift, Docker, Podman, CRI-O
- *GitOps, DevOps & CI/CD:* Tekton, Jenkins, ArgoCD, Red Hat ACM
- *VoIP:* VoIP networks, Good experience in managing of complex and distributed VoIP infrastructures. Cisco CUCM (6.x - 7.x - 8.x), Cisco CM Express, Asterisk, OpenSIPS. Deep knowledge in snom products: phones and PBX (snom ONE).
- *Programming:* Excellent knowledge of the language Python, PHP and Unix Shell languages, System Unix programming, GNU/Make; very good knowledge of automation in system administration.
- *VCS Systems:* Project managing with Subversion, CVS, git, Trac, Jira.
- *Database:* MySQL, PostgreSQL, MSSQL, SQLite.
- *Networking:* In-depth knowledge of network protocols and issues, daily use of Cisco devices (IOS, PIX), Vyatta appliances and network softwares (OpenVPN, Openswan, iproute2, iptables, vlan, bridge, VRF), excellent knowledge in issues relating to VoIP protocols.
- *Virtualization:* Good knowledge in virtual infrastructure management, planning and migration to virtual systems. VMWare (GSX - ESX - VSphere), KVM. Integration of virtual systems with backup and disaster recovery.
- *Systems:* management integration of systems: GNU/Linux (Red Hat, Debian, Ubuntu), Postfix, Bacula, Apache, Bind, PowerDNS, MySQL, PostgreSQL, dhcpd, NFS, OpenSSH, OpenLDAP, Radius, OpenSSL, Windows NT/2000/XP/2003, Zimbra, Nagios, Samba with integration in Windows networks.

- *Other:* active in several communities and open source projects, maintainer of software and various projects at <http://www.bertera.it> and <https://github.com/pbertera>.

Work experience

November 2019 - Now: *Senior OpenShift Technical Account Manager at Red Hat*

Duties and responsibilities:

- Helping enterprise customers in their path through the Red Hat OpenShift adoption
- Post sales technical support
- Guiding and providing best practices
- Acting as a customer trusted advisor within Red Hat

Projects:

- CNI Passthrough: a “fake” CNI plugin acting just as a passthrough plugin, useful to troubleshoot SND and containers networks. Project
- OCP SMB FlexVolume: a Kubernetes FlexVolume for SMB/CIFS suitable for OpenShift 4. Project
- OCP Entitlement Operator: an Ansible Operator to entitle an OpenShift cluster through a custom resource. Project
- oc-wlogin: oc plugin and a companion web app allowing using the browser to login on an OpenShift cluster. Project

Publications:

- Augmenting OpenShift CLI with Plugins
- Painless services: implementing serverless with rootless Podman and systemd
- A Guide to Customizing Red Hat Enterprise Linux CoreOS
- Providing Multi-Tenancy and Network Isolation to the Edge

July 2015 - November 2019: *Head of global support and training at Snom Technology AG*

Duties and responsibilities:

- 3rd level support for major customer
- debugging and issue triaging for the software development department
- support and training team coordination
- organising, managing and conduction certification classroom courses and online trainings

Projects:

- SPLiT: “SIP Phone Learning Tool” Python self-contained tool used during the training, the code is free software hosted on github
- Helpdesk migration: managed the migration of the company helpdesk from Kayako to Freshdesk, tickets migration (more than 1000 tickets) was automated coding a tool which interacts between the Kayako SQL database and the Freshdesk REST APIs. I also coded some Freshdesk plugins to tailor at the best the Freshdesk integration with some other company tools (JIRA, Trello, etc..)
- Snom IO: designed and implemented the Snom IO documentation website based on Mkdocs, Python, Docker and GitHub pages.

- Snom IO training: designed and deployed a new classroom training with hands-on based on a public GitHub repository
- Training: reviewed and applied globally a new training and certification program for VARs and resellers.

November 2011 - July 2015: *Technical and certification manager at Snom Technology AG*

Duties and responsibilities:

- support manager for VARs and partners through email and ticketing system
- training manager for all Snom partnership programs.
- classroom teacher in snom certification programs.
- IT manager for the local Snom datacenter

Projects:

- SIPping: a flexible and easy to use SIP Packets forging tool, the project is hosted on GitHub
- SnomPnPd: a multicast Plug&Play provisioning daemon, this tool is written in Python and hosted on GitHub
- VQ-Collector: a SIP RTP-XR (RFC 6035) voice quality collector daemon, the tool is hosted on GitHub

January 2011 - November 2011: *Freelance consultant*

Duties and responsibilities:

- IT and Opensource Consultant
- virtualization, networking, security, backup and disaster recovery systems
- VoIP Specialist

December 2005 - November 2010: *Senior sysadmin and Network architect at Xsec S.r.l.*

Duties and responsibilities:

- Management and administration of servers and network devices.
- Design and management of migration to open source infrastructures.
- Design and implementation of networks, VPN and remote access systems.
- Systems virtualization and consolidation, migration to virtual infrastructures and clusters.
- VoIP infrastructure management in complex environments (Cisco and Asterisk).
- Management and implementation of enterprise monitoring systems.

January 2001 - December 2005: *Freelance consultant and developer*

Duties and responsibilities: Sysadmin and developer

- Development of web applications (Apache, PHP, *SQL)
- System Administrator
- Design and development of video surveillance platforms based on GNU/Linux
- Teacher in business courses about GNU/Linux, PHP, UML courses

- Development of Web Sites and tourism portals.

Language and education

Mother Tongue: Italian **Other Languages:** English, French

- **2001 - 2008:** *Politecnico of Milan: IT Engineering*
- **1995 - 2000:** *ITIS - E. Mattei, Sondrio: Electrical Engineer*