

Davide Guerri

PRESENTAZIONE

Experience:

- Led high-performing teams to mitigate security risk for Google and Meta, on a global scale.
- Managed a portfolio of third-party security solutions worth millions of dollars and represented Meta in public forums, and in forums with other hyperscaler companies.
- Designed and implemented a cutting-edge provisioning system for IoT devices that has been patented and is used globally for Facebook's Gizmo project. In the same period, I have also patented an AI model to detect application issues from screenshots (based on NN classifier).

Skills:

- Cybersecurity, risk management and vulnerability management
- Leadership and team management
- Large-scale infrastructure

Career highlights:

- "Redefined expectations" at Facebook, for the leadership contribution to the global Vulnerability Management program.
- Coached and mentored over 300 Production Engineer disciplines
- Founded and led the OpenStack User Group Italia, coordinated talks, and ensured its success
- Envisioned and Developed OpenWISP, an open-source suite for the implementation of wireless infrastructure, which is used to implement public and free Wi-Fi connectivity projects.

ESPERIENZA LAVORATIVA

Security Engineer

Google Italy SRL [11/09/2023 – Attuale]

Città: Roma

Paese: Italia

Vulnerability Management at Google Scale

Security Engineering Manager

Google UK [22/08/2022 – 10/09/2023]

Città: Londra

Paese: Regno Unito

I worked to ensure that Google's global production infrastructure was secure by default and insecure by exception by developing and enforcing solutions that provided the strongest security risk assurance levels, at scale,

My main focus was on mitigating lateral movement and privilege escalation threats across the global Google fleet, by using both state of the art and innovative security solutions developed by my teams.

Additionally, I worked within the Google Trusted Partner Cloud (TPC) program to support the migration of internal security infrastructure and telemetry tools.

Engineering Manager, Cybersecurity

Facebook UK (Meta) [10/11/2015 – 15/07/2022]

Città: Londra

Paese: Regno Unito

As a Cybersecurity Manager at Meta, I oversaw the direction and execution of the company's vulnerability management program, as well as the authentication processes and infrastructures for employees. I managed a portfolio of third-party security solutions worth millions of dollars, serving as the main point of contact for these engagements. I also represented Meta at the Hyperscale Vulnerability Management Forum, collaborating with the top hyper-scaler companies in the industry.

Prior to this role, I supported teams in developing CI/CD infrastructure and establishing industry-leading standards for large-scale, distributed build infrastructure. These systems enable Facebook developers to build hyperscale software in the cloud and test their code on complex and massive environments.

As a Production Engineer, I designed and implemented a cutting-edge provisioning system for IoT devices that incorporated advanced cryptographic protocols, mechanisms, and devices. This provisioning system has been patented (US10929147) and has disrupted Facebook's traditional provisioning strategies, now being used globally for the Gizmo project, a leading smart office solution.

In addition to my other responsibilities, I also designed and created a proof-of-concept for an innovative issues detection system using artificial intelligence (specifically, artificial neural networks). This system has been patented (US10489238).

I have also led the migration of internal IT tools to 802.1x, as well as the migration of Facebook's video conferencing infrastructure to ILA (Identifier-Locator Addressing, <https://tools.ietf.org/html/draft-herbert-intarea-ila-00>).

In addition to my technical expertise, I have also served as a coach and mentor, conducting over 300 interviews on various Production Engineer disciplines.

Throughout my career, I have supported and mentored my team, new hires, and interns, providing guidance on high-performing teams on Facebook's culture and technologies.

Senior System/Software Engineer

Hewlett Packard Enterprise [11/11/2013 – 01/09/2015]

Città: Bristol

Paese: Regno Unito

As a System/Software Engineer at Hewlett Packard, I played a crucial role in the deployment of an internal Configuration Management Database (CMDB). This involved participating in the design of the production infrastructure for the CMDB, as well as developing Chef cookbooks for large-scale deployment and maintenance of internal instances of MongoDB, RabbitMQ, Keepalived, and HaProxy.

I also designed and implemented a front-end interface to display CMDB data related to datacenter assets. This interface was created to address feedback from capacity engineers and replaced an excel-based solution. Additionally, I developed a number of large-scale production automations using Jenkins Jobs.

In this role, I also gave a presentation on automating systems and services deployment with Ansible, an innovative tool that has since been acquired by Redhat and gained widespread usage. I also designed and developed a solution for large-scale baremetal provisioning using OpenStack deployed with ansible.

Finally, I made contributions to various OpenStack projects, including Horizon, Neutron, Ironic, and Shade, a comprehensive library that makes OpenStack easier to use.

OpenStack User Group Founder

Openstack Foundation [2013 – 2014]

Città: Roma

Paese: Italia

As the founder of the OpenStack User Group Italia, I was responsible for establishing and leading the group in Rome. This involved coordinating talks, contacting key individuals, securing venues, and chairing discussions on OpenStack. I also played a crucial role in bootstrapping the group and ensuring its success.

Director

Romawireless [01/03/2013 – 01/10/2013]

Città: Roma

Paese: Italia

As a director for Romawireless, a not-for-profit consortium with the mission of spreading a wireless network throughout Rome, I played a key role in achieving this organization's goals and initiatives. My responsibilities included overseeing the deployment and maintenance of the wireless network and working to ensure that it covered a wide area of the city.

OpenWISP CTO and Director

CASPUR [01/2010 – 10/2013]

Città: Roma

Paese: Italia

As the CTO and Director of OpenWISP, an open-source suite for the implementation of wireless infrastructure, I was responsible for the creation and development of the software suite, as well as serving as the technical lead for the core team. OpenWISP is a comprehensive software platform that can be used to implement a full Wi-Fi service, featuring five applications derived from tools used in the Provinciawifi project that currently power numerous public and free Wi-Fi connectivity projects.

Head of R&D

Unidata SpA [01/02/2012 – 01/09/2013]

Città: Roma

Paese: Italia

As the Head of R&D at Unidata, I led the design and development of an open-source enterprise virtualization infrastructure based on LibVirt/KVM. I also oversaw the design and development of public and private cloud infrastructures, including the integration with pre-existing software (CRM and billing) and the development of a set of web applications for cloud customers using Ruby on Rails. This public cloud infrastructure was based on OpenStack and included OpenWISP as a SaaS, all managed through the Puppet configuration management system.

Engineer

CASPUR [01/04/2006 – 01/01/2012]

Città: Roma

Paese: Italia

During my almost six years as an engineer at CASPUR, I gained a diverse range of experience, starting as a network engineer before moving into security and software engineering roles, eventually transitioning to a technical lead position. As CTO for the Provinciawifi and Free ItaliaWiFi projects, I led one of the most successful

free and open WiFi projects in Europe, ProvinciaWiFi, managing a team of five people and developing the OpenWISP software suite that has been adopted by numerous Italian government and private institutions. I gave numerous interviews and presentations, including one at <https://www.garr.tv/stream/5ec38df0a70eb0001c065dbc?playlist=5ec39bac10853c001b6fbb3e&fbclid=IwAR0WIPedJ3mIldtChGSGRnkMeEmI9z6L6ypvmFSfIYhhxLgOo4mCTrelcVo>.

The core of the OpenWISP software suite, which I had the honor of designing, is still thriving more than five years later, even though the team maintaining it has changed.

In my role as a security engineer, I also led a team of three in performing a penetration test for the Presidency of the Council of Ministers, finding one severe security issue and several average and minor issues through a combination of automated and manual probing. The team was praised for our work.

Consultant

CNIPA (National Centre for IT in the Public Administration) [02/2005 – 02/2006]

Città: Rome

Paese: Italia

As a Consultant at CNIPA (National Centre for IT in the Public Administration), I served as the coordinator for the R&D department, providing expert guidance and direction for projects and initiatives. In addition to this role, I also worked as an information security consultant, applying my knowledge and experience to ensure the integrity and protection of data and systems. As a software developer specializing in biometric systems, I was responsible for designing and implementing solutions that utilized advanced technologies and techniques to enhance security and efficiency.

ISTRUZIONE E FORMAZIONE

Executive Master of Business Administration - EMBA

Quantic School of Business and Technology [01/01/2020 – 01/03/2021]

Città: Londra

Paese: Regno Unito

Sito web: <https://quantic.edu/>

Master di I livello in Sicurezza dei sistemi e delle reti informatiche per l'impresa e la Pubblica Amministrazione

La Sapienza, Università di Roma [2006 – 12/02/2008]

Città: Roma

Paese: Italia

Sito web: <https://www.di.uniroma1.it/it/didattica/offerta-formativa/master>

Master's degree Computer Science (Laurea in Informatica, vecchio ordinamento)

La Sapienza, Università di Roma [01/09/1996 – 29/09/2004]

Città: Roma

Paese: Italia

Sito web: <https://www.di.uniroma1.it/>

COMPETENZE LINGUISTICHE

Lingua madre: **Italiano**

Altre lingue:

English

ASCOLTO C2 LETTURA C2 SCRITTURA C2

PRODUZIONE ORALE C2 INTERAZIONE ORALE C2

COMPETENZE DIGITALI

Cybersecurity / Vulnerability Management / Offensive Security / Large Scale Systems / Technical Coaching / Management / Large Scale Programs / Public Speaking / Application security

PUBBLICAZIONI

OpenWISP, una soluzione open source originale per la diffusione di servizi Wi-Fi

[2012]

ISBN 978-88-905077-3-1

The article (Italian only) presents an original solution developed to easily and flexibly disseminate even technologically complex WiFi access networks over non-dedicated and heterogeneous connectivity. The tools and strategies used have enabled the implementation of several significant WiFi network dissemination projects for the public, mainly promoted by Italian Public Administrations. The article also proposes a strategy for the simple and rapid installation of access points for the international roaming service Eduroam in sites with limited technological resources.

ProvinciaWiFi: a 1000 hotspot free, public, open source Wi-Fi network.

[2012]

IEEE XPlore - ISBN number: 978-1-4673-1391-9

The diffusion of smartphones and tablets established a clear need for broadband connections in public areas in our cities and Wi-Fi technology has proved itself to be a powerful instrument for public administrations seeking to create Internet access points in urban settings. This article reports the history and the facts of the biggest free Wi-Fi network in Europe developed and promoted by public administrations and the choices (the adoption of an open source infrastructure above all) made during the project.

CAPWAP-based solution for frequency planning in large scale networks of WiFi Hot-Spots.

[2011]

Computer Communications · Jul 15, 2011

We present the results of the experimental work we carried out to test a solution for frequency planning developed for the Provincia di Roma network of WiFi Hot-Spots. This work is both an example of how the Control And Provisioning of Wireless Access Points (CAPWAP) protocol may help in addressing the issues that arise in the deployment and control of large scale, possibly heterogeneous, wireless networks and a real-world test of our open source implementation of the CAPWAP protocol. Simulations and experimental tests confirm that the proposed technical solution is effective in improving network performance.

Il WiFi Open Source: Un progetto di successo del CASPUR

[2011]

Scrivi qui la descrizione...The CASPUR Open Source WiFi project has now become a national success. Originally developed for the Province of Rome, it has been adopted by both the Region of Sardinia and the Province of Prato and will soon be used by other Italian public administrations to provide their citizens with a free network access service. Open Source WiFi is a software created by CASPUR with funding from the Province of Rome, freely downloadable and usable, and also open to contributions from external developers. The success of WiFi initiatives for citizens among public administrations has prompted both the Province of Rome and CASPUR to launch the Free Italy WiFi project for the federation of users of various public networks, and for the magazine Wired to launch the 150 WiFi squares initiative to bring 150 WiFi points to 150 municipalities in Italy for free, to promote free access to the network for citizens on the occasion of the 150th anniversary of Italian unity.

PATENTS

US 10489238 - Analyzing screenshots to detect application issues

[26/11/2019]

A client management server manages client devices deployed throughout an enterprise facility that may be used for various applications such as wayfinders and internal and external meeting room computers. The client

management receives screenshots from the client devices and applies a classifier to classify an operating state of each device as corresponding to a normal operating state or an error state. If the operating state is classified as corresponding to the error state, a remedial action is triggered. The classifier may be a machine trained model that is trained using supervised or unsupervised learning, including by simulating errors on the clients.

US 10929147 - Management of a stateless device environment

[06/02/2018]

A computing environment includes multiple client devices that may each be configured to serve a particular function within the computing environment. The client devices are each coupled to a client management server that communicates with and manages functions of the client devices. When a client device first boots, the client management server communicates with the client device over a network in order to provision the client device with an enrollment image. Using the enrollment image, a client device can become enrolled with the client management server. Once enrolled, the client management server can provision the client device with a functional operating system image. The functional operating system image can support device applications that require a restricted number of runtime states within the client device. A new functional operating system image is downloaded from the client management server and installed on the client device each time the device is rebooted.

CERTIFICATIONS

ISECOM OPST - OSSTMM Professional Security Tester

[03/2009]

Scrivi qui la descrizione...

Clavister CCE - Clavister Certified Engineer

[03/2007]

TryHackMe - Offensive Pentesting Learning Path

[11/2021]

Credential ID THM-YIAEOS3F4U

TryHackMe - CompTIA Pentest+ Learning Path

[11/2021]

Credential ID THM-REUDUCOZPI

TryHackMe - Red Teaming Learning Path

[01/2023]

Credential ID THM-C8FFF4YBBE

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".