

Luci Stanescu

*Information Security Consultant  
Systems Architect*

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## SUMMARY

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Passionate, self-taught information security consultant and systems architect with extensive expertise, backed by experience in diverse projects comprising hands-on, liaison or coordination roles. A natural perfectionist balanced by a perceptive personality with a strong understanding of business requirements. Having a deep insight into the ultimate goals allows for a flexible application of the acquired and continuously-developed technical skills.

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## SKILLS

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PROJECT MANAGEMENT & COORDINATION	Management and coordination experience, coupled with extensive technical expertise, provides an ideal combination for a supervisory role on projects. Approachable and intuitive personality augments this, by: obtaining a good comprehension of the stakeholders' requirements and fostering trust; establishing a strong relationship with vendors and suppliers; and developing and mentoring colleagues to achieve self-sustainability.
DESIGN & DOCUMENTATION	From hybrid cloud architectures to information security policies, being proficient in laying a solid foundation, adapted to project targets and budgets, provides the environment necessary for business growth and continuity. By adhering to well-established standards, frameworks and best-practices, recognised by both industry and regulatory bodies, not only can compliance be ensured, but also the long-term viability of projects.
REVIEW & CONSULTATION	Ability to efficiently provide authoritative and definitive answers, backed by exhaustive explanations that promote a professional growth environment, on a wide range of topics. Aptitude to interpret and evaluate technical documentation provides a high level of assurance through the review of design documents, proposals, specifications or standards.
TRAINING	Excellent communication skills allowing the tailoring of content delivery according to the experience of the audience. The broad in-depth knowledge ensures the trainees feel comfortable expanding any topic and gain real understanding, satisfying newcomers and professionals alike.
AUDITING	The attention to detail and inquisitive nature result in comprehensive IT audits that establish the level at which the architecture, the technical implementation or the policies in place satisfy the business objectives and regulatory or industry compliance requirements. Subsequent recommendations enable a strategy of continuous improvement and risk management.

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## TECHNICAL EXPERTISE

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SYSTEMS ARCHITECTURE	All stages of projects involving systems architectures for high-availability, fault-tolerant network services, with a focus on security: requirements engineering, design, documentation, hardware, software and supplier selection and liaison, coordinating the implementation, testing, refinement, deployment and continuous maintenance.
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SOFTWARE DESIGN	<p>Focused on fault-tolerant software in high-availability, distributed systems for network services. Experience working closely with both stakeholders, as well as software engineers.</p>
SECURITY	<p>Solid understanding of information security (including UK and EU data protection regulations, recognised standards, frameworks, and best-practices), complemented by deep knowledge of cryptography and cryptographic protocols, security protocols (including IPsec), GNU/Linux security and network protocols security. Ability to produce security policies (from solid plans and strategies to clear procedures), perform security audits or risk assessments, provide recommendations, implement controls and train staff.</p>
NETWORK PROTOCOLS	<p>Expertise in tunnelling, network, transport and application layer protocols: L2TP and PPP; IPv4 and IPv6 (including multicast); UDP, TCP, SCTP; extensive experience with SIP 2 &amp; friends (including SIMPLE), HTTP, RADIUS, DNS (including DNSSEC), as well as solid understanding of various others.</p>
NETWORKING	<p>Juniper and Cisco configuration of switches, routers and firewalls with experience designing and implementing IPv4 and IPv6 networks (including QoS-enabled) using BFD, MPLS (LDP and RSVP), VRRP, OSPF, BGP and PPP over L2TP. Experience with SDN, using Open vSwitch under GNU/Linux.</p>
OPERATING SYSTEMS	<p>Extensive knowledge of GNU/Linux internals and system administration, experience with Debian and Ubuntu distributions (including packaging).</p>
PROGRAMMING	<p>Low-level programming in C under GNU/Linux, complemented by high-level programming with Python (standalone, with C extensions, as well as embedded). Ample experience with hybrid event-driven/multi-threaded/coroutine-based designs (including using lock-free data structures and eBPF).</p>
DATABASES	<p>Deployment, evaluation and integration of diverse database and storage solutions: relational database management systems (PostgreSQL, MySQL and SQLite), directories (OpenLDAP), document-oriented databases (MongoDB), key-value stores (DBM, BDB, CDB, memcached, Redis) and distributed object storage platforms (Ceph).</p>
VIRTUALISATION	<p>Application of different virtualisation and containerisation technologies, including Xen, KVM, LXC and Docker, in the context of increasing security, flexibility, availability, energy efficiency and computing density. Implementation of distributed filesystems (NFS, OCFS2, Ceph) and SDN technologies (Open vSwitch and OpenFlow).</p>
MISCELLANEOUS	<p>Data exchange (XML – including XSD and XSLT, JSON), web services (SOAP and REST), theoretical computer science (including machine learning); enterprise-grade server platforms (HP and Intel) for high-availability (hardware redundancy and live maintenance; out-of-band management).</p>

## PROFESSIONAL EXPERIENCE

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JAN. 2022–PRESENT

### **Information Security Consultant & Systems Architect** *Independent Contractor*

Leveraging over 15 years of professional expertise to provide clients with varied services which enhance their business processes in a dynamic environment aligned with their goals:

- Provided consultancy services on the implementation of various security controls according to industry best-practices.
- Implemented a comprehensive security policy for an online store, in compliance with GDPR and PCI DSS.
- Produced a functional specification for a complex network-oriented software component that forms part of a wider R&D project. Took a security-by-design and secure-by-default approach to ensure that the client's requirements are met.
- Held a training course for interns with a curriculum based on the Google Cloud Certified – Associate Cloud Engineer exam requirements.
- Produced an in-depth technical design for a software application critical to business continuity. The non-functional requirements included horizontal scalability, high-availability and eventual consistency in split-brain scenarios.

OCT. 2011–DEC. 2021

### **Systems Architect** **DevOps Coordinator** **SIP Developer & Engineer**

*iNet Telecoms Ltd (Voipfone), United Kingdom.*

Developed a comprehensive security policy and integrated it with the company's business processes. Implemented best-practice security controls throughout the organisation. Trained technical staff to follow security procedures and expanded the security awareness of all staff through a train-the-trainer model, according to the identified risk mitigation measures.

Designed the complete architecture for a state-of-the-art, in-house-developed platform to allow iNet Telecoms Ltd, a leading UK Internet Telephony Service Provider, to offer rich communication services to subscribers, in the form of a cloud-hosted virtual PBX, in addition to obtaining ISO 27001 accreditation.

Based on open standards, such as SIP SIMPLE, XCAP and HTTP/2, with secure communication using DTLS over SCTP, the platform was designed to achieve:

- high-availability via self-healing;
- security (including DoS and fraud detection and prevention);
- high interoperability with other carriers and diverse vendor CPEs;
- simple management by an operations team;
- future-proofing for PSTN retirement and yet-to-be-developed services.

Reported directly to upper management; liaised with support, operations and development departments to understand requirements; designed both the high-level architecture and low-level, detailed specifications; co-

ordinated the development team, alongside the manager, to produce the production-ready software; trained and provided support to the operations team, from induction to deployment and maintenance.

Took direct ownership for the design and implementation of mission-critical core building blocks of the architecture, including:

- inter-component communication framework for signalling and media packet forwarding, using DTLS over SCTP, with PKI and custom X.509 extensions for mutual authentication and authorisation;
- DDoS-resistant SIP signalling processing layer, mitigating potential resource exhaustion, eavesdropping, tampering or replay security weaknesses;
- stateless REST API framework enforcing a security model that mitigates potential vulnerabilities.

Designed a new end-user authentication policy based on current best practices, while balancing security with usability over various media (e.g. mobile applications, support calls, support emails); worked closely with the development team during the implementation.

Successfully deployed multiple mitigation measures that resisted concerted DDoS attacks that were volumetric, resource-exhaustive and application-targeted; developed a service using cloud computing to test for potential weaknesses by simulating DDoS attacks.

As DevOps Coordinator, performed software design and development, project management, team coordination and consultation as a technical expert, with projects including:

- Overseeing the integration with the BT IPEX platform and coordinating the software development required.
- Coordinating the project for integration with the BT WBMC platform for subscriber broadband access, including designing the infrastructure and back office systems.
- Provided the technical expertise necessary to achieve GDPR compliance, including analysis of the existing systems, performing security risk assessments, coordinating the development of upgrades and raised the awareness of data security through training and procedures with staff at all tiers: support, development and management.
- Evaluated the integration of the communications platform with an MVNA, in order to achieve mobile-PBX convergence.
- Trained technical staff on software development, information security, networking and VoIP.
- The design and implementation of the expansion of the network from one to three POPs without any single point of failure, using Juniper and Cisco products.
- Set up the development environment for the in-house development team, with processes for testing and in-production deployment and integration.
- Coordinated the integration of the back office systems with a centralised identity and access management system.
- Coordinated the deployment of a comprehensive monitoring system for all operations, combining both internal and external monitoring.
- Designed and coordinated the software implementation of upgrades to the telephony platform to improve scalability and fault-tolerance

through a distributed system architecture, suitable for a cloud service offering.

- Coordinated the implementation of a third-party status and incident communication system.
- Coordinated all system administration activity.
- Performed regular security reviews and audits.
- Designed and implemented a call-fraud detection system.

Maintained the relationships, as a main point of contact, with vendors and suppliers, ranging from hardware and software to services (such as datacentres, carriers or solution providers); negotiated contracts and service terms.

As the Technical Authority Expert, provided consultation to staff within all departments, including middle and upper management, on all areas of technical expertise, whether with regards to internal systems, third-party products and solutions, interoperability, different organisations' memorandums or technical standards and specifications.

MAY 2008–AUG. 2010

### **Software Designer**

*AG Projects*, Netherlands.

Software design, development and maintenance in Python, C and Cython. Most projects were centred on the company's offering of a Internet telephony infrastructure for communications providers or corporations, and as such included:

- **CallControl** – call control application with integration with the switching and billing systems for prepaid and postpaid subscribers; design and development.
- **OpenSIPS** – Open-source versatile SIP proxy; improvements and bug-fixes.
- **SIP SIMPLE client SDK** – Middleware library for SIP user-agents; design and development.
- **Blink** – Cross-platform, feature-rich SIP softphone.

Participated at international conferences for interoperability testing.

OCT. 2007–APR. 2008

### **System Administrator**

*Tomrad Communications*, Romania.

Linux servers and small network administration. Analysed the company's requirements and managed the procurement, installation, documentation and on-going maintenance of a small number of servers providing services for the office, including web applications, e-mail and data sharing.

JUL. 2005–AUG. 2007

### **Instructor and System Administrator**

*Cisco Networking Academy*, Romania.

CCNA and Fundamentals of Java Programming course instructor at Constanta's Cisco Regional Networking Academy. Also administered the Academy's network and Debian GNU/Linux servers. Held a short series of security-related seminars in Summer 2007.

SEP. 2008–JUN. 2011

**BSc Artificial Intelligence & Computer Science**

*University of Sheffield*, United Kingdom.

First-class honours degree. Mappin Medal for greatest distinction in the Department of Computer Science.

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**CERTIFICATIONS**

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FEB. 2023–FEB. 2026

**CASP+ (CompTIA Advanced Security Practitioner)**

*CompTIA*

JAN. 2008–JAN. 2011

**Cisco Certified Network Associate**

*Cisco Networking Academy*

JAN. 2008–JAN. 2011

**Sun Certified Java Programmer (Java 5.0)**

*Sun Microsystems*

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**LANGUAGES**

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ENGLISH

ILR Level 4+ – Full professional proficiency.

ROMANIAN

ILR Level 5 – Native.

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**REFERENCES**

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References are available on my [LinkedIn profile](#) and upon request.