

cristian seceleanu

Infrastructure Architect

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My area of expertise and preference is building, operating, monitoring, managing, securing and scaling infrastructure at all layers (physical, virtual, network, storage, platform, software, human) however that has not stopped me from touching other areas like software development, security and networking. I have worked under many hats such as Linux Engineer / Admin, SRE, Infra Architect, Network Engineer, Security Analyst, Software Developer, Project Manager, Consultant and have done so for both startups and well-established companies and after all these years I still love IT, I still learn new tricks and skills and I still cannot decide on a particular field (so I will keep sharpening my skills in as many IT areas as I can).

For me IT is not just work, it's also a hobby. I have my own personal lab (10 physical machines, >150 VMs or so) with nodes in public cloud (AWS and Oracle for now), my garage (openstack, kubernetes, ceph) and colo where I tend to experiment with whatever crazy idea comes to mind and test new tech. I have over 24 years of experience in the IT Industry (with more than 10 owning a business and leading a team of specialists) so if you need someone that gets things done then I'm your guy.

Willing to relocate to: London - Maidenhead - Reading

Personal Details

Highest Level of Education: Master's

Work Experience

Infrastructure Architect

World Host Group-Reading

June 2024 to November 2024

I was invited to join the World Host Group team of engineers to work on taking the existing infrastructure to the next level by making it more resilient, more secure, more scalable, more performant and more efficient in order to provide the best service to customers.

Within a couple of months from starting I was promoted to Platform Development Lead (leading a team of 3 highly skilled Infrastructure Architects).

A few projects I've been involved in during my first few months at WHG: fixing and stabilising a ceph platform hosting virtual machines then migrating to a new cluster, migration of a separate VMWare platform to Proxmox, work on the global DNS platform (hybrid AWS and on-prem) and work on core internal VM provisioning system, improve existing solutions (filesystems, DDOS protection, upgrade and improve Proxmox environments), fix and optimise clusters to improve scalability, improving internal processes like patch management and configuration management, DNS migrations and consolidations and improving the internal server provisioning API.

A few keywords that me and my team use on an average Tuesday at WHG: coffee, automation, tooling, configuration management, monitoring and visibility, more coffee, patch management, devops mindset, agility, brainstorming, quality of service, migration, resilient infrastructure, customer satisfaction, tea, new cluster, scalability, security, backend API, testing new solution, deploy, AWS, backup and restore, etc.

Senior Principal Security Analyst

Oracle-Reading

October 2021 to June 2024

I joined Oracle's Ethical Hacking Team in Oct 2021 as a Senior Principal Security Analyst. My main responsibilities as part of this team were to facilitate the transition to the cloud (OCI) for several workloads, to assess existing solutions and provide technical expertise on new projects and to work with the team on security assessments (security research). As expected I cannot provide details about the day to day activities but I can say that I've been involved in a few projects involving software assurance and security assessments and vulnerability research (massive CDN, custom linux distribution, internal tools), the OCI cloud architecture I was managing had a yearly budget of close to £2.5m (bare metal, virtual machines, GPU workloads, databases, Kubernetes, logging, backups) and have been learning a few new tricks (in context of IT security) not to mention I've also been training some of my more junior colleagues.

A fun fact in this context: the job was advertised as a Senior Systems Administrator and I applied to it by mistake ... after going through the interview I found out that it was really about joining the Ethical Hacking Team in Oracle and working in security research

Senior Systems Architect

Godaddy-Slough Trading Estate

July 2017 to September 2021

GoDaddy is one of the big players when it comes to domains, web sites hosting, dedicated and virtual servers. The company owns a number of datacenters around the world and I was working from the one that they operated in Slough, UK. My responsibilities covered managing, (re)designing and deploying complex systems so that they scaled properly (from both service & storage perspective as well as network perspective), migrations from one system/platform to another, virtualisation and containerisation environments, configuration management, change management, automating deployments, change management, CI/CD pipelines, building custom packages when needed, assisting with security assessments and vulnerability patching, documentation, training my team and the occasional grilling of candidates that applied for open positions in our team. When I started my impact / reach was roughly 5k systems (metal and virtual), close to 1mil customers and apx £25mil yearly revenue ... over time that grew to over 25k systems and a few orders of magnitude in terms of customers and yearly revenue (spread across multiple datacenters in EU and US and platforms - GoDaddy's cpanel platform, wordpress platform, billing platform in EMEA and a few bespoke localised ones which needed to be aligned from a tech point of view with the global ones)

My main role here was to design and improve complex systems, manage the on-prem cloud infrastructure and be an escalation point for my team. I was constantly improving my skills and my team, always exploring new ideas and technologies and always trying to improve the services and platforms to make sure customers get the best possible service while at the same making sure we were as efficient as possible in the process.

My day to day to do list exposed me to thousands of machines (physical and virtual) in the local datacenter - part of my day to day ops + order of tens of thousands of machines in other parts of the business where I've been asked to assist with various issues and projects; complex storage solutions(distributed, clustered), SANs; a wide variety of local file systems(ext2/3/4, xfs, zfs, btrfs, ntfs) on raw disks or LVM as well as network filesystems (nfs, cephfs, ocfs); a wide variety of Unix/Linux operating systems (RHEL, Ubuntu, Gentoo) and a few Windows machines (apx 100); highly available setups, load balancers (hardware and software); virtualized environments (XEN, KVM, Virtuozzo, Parallels, Hyper-V, LXC, a bit of docker); shared and dedicated hosting environments (cpanel, plesk, bespoke solutions, etc); networking on Juniper & Cisco equipment as well as virtual routers (vyos, pfSense, etc) on top of copper and fiber networks (bonding, bridging, OSPF, BGP, vpn, ECMP routing, networking at 1G/10G/40G/80G etc); bare metal and virtual provisioning (cobbler / kickstart / pxe) plus custom image building and the occasional custom rpm package for a special kernel or a service that needed to have a zero day patch applied before it was actually made available upstream; configuration management (puppet, ansible), patch management(in house), SOX and PCI compliant environments, change management (servicenow), centralized logging (generic, audit and security logs - graylog - ELK stack) and monitoring (nagios, check_mk, sensu, icinga, zabbix, grafana, uchiwa, site247); scripting (PHP, Perl, Python, bash) and working with a ton of internal APIs (wrote some myself) and repos (SVN & GIT) ... you know ... the devops way (me and a colleague of mine worked on introducing Jenkins pipelines to the environment to take over some of the processes like releasing some custom kernel packages, testing the integration and deployment of some internal applications, etc); software as a service (implemented and created various APIs to allow us to provision services on demand like mysql or email services etc), infrastructure as code (scripting switch configurations and deployment of physical and virtual machines - Virtuozzo, KVM, Xen, LXC containers, etc);

Given that the company was using AWS to run some of its workloads and that it was planning on moving more workloads to public cloud I started getting some training with AWS (using the materials they shared on their website, what I found on pluralsight and O'Reilly and some internal workshops) and I've also been "playing" with its interface and API (by that I mean I have been using it to run some testing and personal workloads like dns, ntp, www and cache, running small tests like spinning up VMs using the API, attaching storage, etc)

I have been involved by my manager in the recruitment process (grilling new candidates to determine if they are a match for my team), been assisting with planning, leadership, management, I've also prepared documentation for various processes (like backup and upgrade) as well as for platforms and services.

I cannot mention specifics about projects I've been involved in but can say that most of them have been about clusters and distributed storage (think big data), migrations from one platform to another and software patching/dev when/where needed, automation, software as a service, platform as a service and infrastructure as code, internal audits

Every time I'm involved in a project I try to simplify it, make sure: it has the config management layer, it is as automated as it can be, it is as secure as it can be, it is documented as well as it can be and my team knows how to operate and manage it.

Achievements so far - I redesigned a complex shared hosting platform to use high performance shared storage (ceph), improved the cloud hosting platform making it use 25% less energy and be able to cope with more load by redesigning several components and services, I introduced multiple layers of High Availability to it and other project we run, I led the migration of our virtualization platform (more than 2000 nodes) from XEN to KVM and densified the platform by 50% in the process, I managed to get my team to be more united and better prepared for day to day tasks by training and by involving them in a variety of projects, I have redesigned and improved several existing platforms which were reaching their limits, currently working towards achieving several migrations to one common platform for a few of our products (migrating some bespoke hosting solutions to the global hosting platform at GoDaddy).

A few fun facts in this context: 1) I originally applied for a "Senior Systems Administrator" role and after I passed the interview I was offered the "Senior Systems Architect" role; 2) my initial manager (the head of infrastructure) used to call me a "sage" which I later found out that by that he meant an old wise man :); 3) my role internally was mapped to SRE level 4 and before I left the company was ready to offer me a promotion to SRE level 5 (principal);

Project Manager / Software Architect

Self Employed(2007) - Bluepink Software SRL(2013)-Constanta, Romania

September 2013 to July 2017

Started working in 2007 on software projects (Self Employed) and a few years after (in 2013) I started BluePink Software because I was unable to cope with the workload (had to start hiring software developers)

In short, I designed online applications and their databases (php, mysql, bootstrap, etc) then coordinated a team of specialists (software developers, web developers and web designers) including myself to build and deliver the application to our customers.

Day to day activities included: management, team leadership, agile methodologies, software architecture, infrastructure design and implementation, continuous integration and deployment, migrations, acquisitions and procurement, documentation, scripting, coding, systems administration, configuration management, automation and a lot of coffee. (average workday 12 - 14h)

In this context I worked with CI/CD (jenkins), virtualisation (KVM and docker containers), configuration management (puppet), Linux (Gentoo / RHEL) and Windows, databases (MySQL, PostgreSQL, SQLite), scripting languages (PHP, Perl, HTML, JS) and actual programming languages (Java, VB .NET), this is where I learned about agile and scrum methodologies which I've used with my team since the beginning, version control (SVN / GIT), web APIs (some RESTful based on json and soap, others old school XML based),

Accomplishments: (1) designed and built our own app framework with which we built all customer software, (2) designed and built an online reservation system for hotels, transfers, activities and flights (it involved integrating soap/xml apis from suppliers like gta, hotelbeds, tourico holidays, abreu, hotusa, serhs, etc), (3) designed and built a hosting panel together with the infrastructure for the hosting services, (4) designed and built an online job portal, (5) designed and built an online hr management solution and many more

Systems Administrator

Self Employed(2007) - Bluepink Software SRL(2013) - Constanta, Romania-Constanta, Romania

2007 to July 2017

Started working in 2007 as a Self Employed entity managing the infrastructure of a single client, after about 1 - 2 years i started having a few more customers and a few years later (2013) i started BluePink Software and hired a few more sys admins to help with the increasing number of customers.

I managed our internal infrastructure of about 70 servers and vms (distributed in 2 datacenters) and our customer infrastructures (around 150 servers and vms in total) and from time to time I am invited to design small datacenters, failover solutions for existing infrastructures, big data infrastructures and custom server setups (ex. one of our customers was running an online payment gateway and needed

a fully redundant infrastructure which was pci-dss compliant, another customer wanted a secure and encrypted storage solution that would prevent data loss and theft, etc).

During this time I've been involved in the documentation processes for several solutions that were designed for some of our big customers (one of them - a payment gateway - also needed to be PCI-DSS certified and I helped with the design of the infrastructure and the procedures for this part of the certification), configuration management was a must (having to deal with so many systems would not have been possible without it), same goes for automation (software updates, deployment, provisioning, failover and load balancing) designed and implemented many highly available and fault tolerant services (email, dns, www, storage, etc) and as usual i was the last escalation point for my team and customers.

Technology stack I was exposed to includes: virtualisation (KVM, Xen, Vmware, LXC, docker), configuration management (puppet), kickstarting nodes over network, firewalls (netfilter, cisco), networking (routing with cisco and quagga - OSPF, BGP, bridging, vlans, bonding), various Linux distributions (RHEL, Gentoo, Ubuntu, Debian), scripting (php, perl, bash), version control (svn, git), monitoring (nagios, munin, zabbix, sar, rrdtool, cacti with local agents and SNMP), baremetal provisioning as well as virtual (both local and remote via APIs or simple interfaces), shared hosting solutions (cpanel, plesk, webmin with its hosting module), local and network filesystems (xfs, reiserfs, ext2/3/4, ntfs, NFS, glusterfs, cephfs, ocfs), web servers (apache, nginx), email (exim, dovecot, postfix), dns (bind9, powerdns) and more

Systems Administrator

Top Labs-Buzau

2003 to 2007

My day to day activity involved monitoring system status, looking for ways to improve performance, install & configure new equipment, design and integrate new services for the hosting platform. I designed the whole hosting platform from ground up including the backend scripts and APIs.

Accomplishments: (1) reverse proxy that made it possible to host 3 times more websites using same hardware, (2) customized a cpanel installation, integrated it with another hosting panel xpanel and later on migrated from it to our own hosting panel, (3) backend development and service integration for our custom hosting panel, (4) configured the datacenter from zero, (5) migrated the services from the US dc to the RO dc

It's been a while since then but I remember in this context that I was exposed to your normal hosting provider tech stack (cpanel and all associated packages like apache, mysql, exim, php, etc) but I also remember here that we were reaching the limits of the hardware so this is where at the time I had to use squid as a reverse proxy cache server (today this is easy with the help of apache caching or varnish but then squid was pretty much your only option or something you built in house)

Project Manager

Ideas-Constanta, Romania

2002 to 2003

I was involved in the development of several online projects that were meant to help users register their websites with search engines and increase their page rank in organic searches (it was interesting for that time) together with the infrastructure required to run them. Was leading a team of about 10 technical individuals at that time.

It has been too long since then but I remember working with Java and Visual Basic for some of the projects, not to mention PHP/HTML/MySQL.

Tech Support

SC RCS&RDS SA-Constanta, Romania

2001 to 2002

My role was to provide level 1 tech support to the customers and help the field teams to identify and troubleshoot network problems. Here I learned a great deal about linux, networking, routing and customer support. In this context I was exposed to a lot of networking gear (cisco mostly) but then CATV networks (broadband routers) as well as dialup, linux and windows, monitoring (nagios and some in house solutions), SNMP

Systems Administrator

Lei Co Ltd-Constanta, Romania

2000 to 2001

I was managing a network of about 10 workstations and 2 servers. My role was to install, configure and optimize the workstations (this was an internet cafe), keep the server updated and maintain the network infrastructure in good shape (cabling & switches). At that time it was pretty expensive to get a good Internet connection and for me this was a great opportunity to learn a lot about computers, networking and software development.

Education

Master's in Data Science and Advanced Computing

University of Reading - Reading

September 2021 to October 2023

Mathematician & Software Developer in Computer Science, Mathematics

Ovidius University, Mathematics & Informatics Faculty - Constanta, Romania

2000 to 2004

Analyst - Programmer in Computer Science, Mathematics

International Computer Highschool of Constanta - Constanta, Romania

1996 to 2000

Skills

- DevOps
- noc engineer
- Cisco & Juniper & Mikrotik & SMC & Dell networking equipment
- SVN
- bash scripting
- Cloud architecture
- Vault
- GitLab
- Javascript
- sqlite
- Change Management
- redmine
- Network Security
- Security Research
- mysql cluster, mariadb galera
- infrastructure as code
- Git
- Machine learning / Data Science - R, knime, tensorflow, pytorch
- clustering and distributed file systems (drbd, glusterfs, ceph), high availability storage (NFS)
- AWS
- elasticsearch, kibana, logstash, filebeat, graylog
- Software Development

- Oracle Cloud
- Project Management
- JQuery
- php
- webservers apache, nginx
- cisco routers - ios, cisco asa, juniper routers, juniper stacked switches, mikrotik routers, virtual routers - vyos, pfsense
- linux firewall iptables, firewallld, csf
- Management
- filesystems - ext2/3/4, reiserfs, xfs, NTFS, FAT, ZFS, BTRFS
- ServiceNow
- Hadoop
- Bare metal provisioning - PXE, Cobbler, kickstart
- hosting panels - cpanel, plesk, xpanel and some custom in-house built
- software architect
- Jira
- windows - nt, 2000, xp, 2007, 8, 8.1, 10
- Vulnerability research
- high availability (haproxy, nginx, corosync, pacemaker)
- routing - static, rip, ospf, eigrp, bgpv4
- Solution Architect
- active directory / domain controller linux samba openldap sssd ipa
- Sql Server
- infrastructure architecture
- Networking - 1G/10G , copper, fiber, bonding LACP, bridgin, VLAN
- Configuration Management - puppet, ansible
- ms office - word, excel, powerpoint, visio, access
- Information security
- msaccess
- virtualisation - xen, kvm, proxmox, openvz, virtuoizzo, vmware, esxi, virtualbox, docker, kubernetes, LXC, openstack, opennebula
- System security
- openvswitch
- IDS - Tripwire, AIDE
- vpn - pptp, l2tp, ipip, ipsec, openvpn, strongswan
- security assessments
- site reliability engineer
- SQL
- IT management
- Network architecture
- mssqlserver

- mysql
- Linux
- database design
- HTML
- systems engineer
- encryption (luks, pgp, openssl)
- windows server - 2000, 2003, 2012
- perl
- Python
- observability / monitoring - zabbix, munin, nagios, sensu, icinga (with agent or via SNMP), prometheus, telegraf, influxdb, grafana, librenms
- Patch Management
- postgresql
- software assurance
- Terraform
- CI/CD - jenkins
- XML
- linux - gentoo, slackware, centos, ubuntu, debian, fedora, opensuse, alma, rhel, cloudlinux, kernelcare

Languages

- Romanian - Expert
- English - Fluent
- French - Beginner
- Turkish - Beginner

Links

<http://cristian.seceleanu.co.uk>

<https://www.linkedin.com/in/cristian-seceleanu/>

<https://www.facebook.com/sclinux>

Certifications and Licenses

LPIC-3

December 2020 to December 2025

This is the LPIC certification.

To validate it you will need the following:

<https://www.lpi.org/verify>

LPI000442302 / 4c5363a64p

Oracle Cloud Infrastructure 2021 Certified Architect Professional

February 2022 to February 2024

Oracle Cloud Infrastructure 2021 Architect Professional certification is the Professional level OCI Architect certification that serves as the next level of credential for those who have already earned an OCI Architect Associate title. You must have already earned the Associate level certification to qualify for this certification. An Oracle Cloud Infrastructure 2020 Certified Architect Professional has demonstrated hands-on experience and knowledge required to plan, design, implement and operate solutions on OCI.

The abilities validated by this certification include:

Plan and design solutions, implement and operate solutions, Design, implement and operate databases, Design for hybrid cloud architecture, Migrate on-premises workloads to OCI, Design for Security and Compliance Up-to-date training and field experience are recommended.

Additional Information

I've been working in the IT industry for over 24 years and I still like it enough to say I never really worked a day in my life.

In my free time I "play" with IoT (internet of things), openstack, kubernetes and ceph (my garage cluster), public cloud (AWS, Oracle Cloud, GCP, Azure, Alibaba) and Linux (I tend to customize linux distros to get more performance out of my setups or deploy applications in mixed environments to see how they break, work and scale).

My hobbies include but are not limited to: Listening to trance & techno music, camping as wild as I possibly can, gardening and having barbecues as often as I can ... also I never say no to a free ride or a meal and I consider that money should be earned by working.