Summary

Experienced Systems Engineer with storage solutions, networking, and cloud expertise.

* Recent experience implementing POC (proof-of-concept) storage solutions and performance benchmarking.
* Knowledge of Lustre, Ceph, Gluster, Openstack, Networking Protocols, Python, Java, Virtualization, Data Center Applications

Operating Systems & Software

* Linux (Redhat, Centos, Ubuntu), Cisco IOS/XR, IXIA, Ceph, Gluster, Openstack, Openshift, Kubenetes, Lustre HPC, Hadoop, Graphana, Ganglia, Proxmox, NFV, Ansible, Cosbench, FIO, IOR, MDT, BeeGFS, Ansible, Numa, Jenkins, AWS.

Programming Languages

* C, Python, Java, Bash, Perl, Tcl, Assembly 6800/80x86.

Experience

**L3Harris Technologies**

Sr. Spec Systems Engineer Oct 2020 - Present

* Responsible for the Software defined storage and compute architecture, research and

development of prototypes for the next generation of ISR platforms.

* + Platform HW Infrastructure Spec selection and quoting with external vendors.
  + Integration of Ceph as a backend storage with Kubenetes and Calico.

**Luna Design Consulting**

Redhat Ceph Consultant Engineer May 2020 – Present

**Supermicro**

Sr. Systems Engineer  Feb 2015 – May 2020

* Architected, developed, and supported storage solution proof-of-concepts for external vendors. These solutions consisted of architectural design of servers, JBODs, and networking appliances to provide the best performance benchmarks and high availability in the industry.
  + BeeGFS FS Metadata performance benchmark with all Flash NF1 systems.
  + Lustre open source community, LUTF framework for lnet features testing.
  + Proof of Concept HPC storage solution all Flash NF1 server wih NVMEof.
  + Led the design and deployment of Lustre HPC solutions based on openZFS,

deployments with Lustre Community releases, and OpenZFS. This reduced

customer storage costs by up to 90%.

* + Software-defined storage targets using cost effective high density JBODs enclosures configured with OpenZFS raidz2 targets. High throughput was achieved through 10Gb/sec SAS3 and Intel Omnipath Interconnects of up to 100Gb/s.
  + Redhat Openshift integration with SMC hardware (Master, Infra, App, Storage) Nodes.
  + Clusters deployment with Ansible for Ceph, Openstack, Openshift
  + Engaged in pre-sales and post-sales activities by providing content for RFP responses and giving technical presentations to potential customers.
  + Led the deployment and support of Lustre HPC storage solutions to key customers which include Uber, BGI, Siemens, KSAU, and NCHC.
  + Contributed to development and validation of Ceph Storage Solutions with a Redhat engineering team. An end result was the joint publishing of white papers pertaining to Block/Object storage performance and scale-out benchmarks.
  + Contributed to the Redhat Openstack Deployment Proof of Concept with Supermicro Hardware; a joint (Redhat/Synnex/Supermicro) technical white paper published for our distributors.
  + Built HPC storage POC solutions consisting of Lustre, Ceph, and BeeGFS.

**Cisco Systems** San Jose, California

Sr. Software Engineer Dec 2010 – Jan 2015

* Responsible for the development and testing of the Service Module in the Agile Scrum methodology. Implemented and tested a suite of end-to-end VOD use cases for Comcast.
* The test platform consisted of a UCS VMware-based clustered virtual network with features such as High-Availability.
* Fine-tuned a CI/CD pipeline which built and deployed applications written in Node.JS.
* Automation of the Service Module Restful APIs tests in python ATS framework.

Sr. Systems Engineer Feb 2008 – Dec 2010

* Led the Common OS Linux Service Infrastructure Initiative. Championed the idea, process and development of COSTF framework to support to support Common OS linux Infrastructure.
* Provided support to pre-sales engineers in the deployment and system level testing of 3G GGSN & 4G LTE Mobile Gateway solution at Verizon Lab.
* Coordinated System Level testing with Spirent as a Vendor of choice for Mobile IP, key deliverable requirement for the Mobile Gateway to handle 500 mobile handsets at an average call rate of 5 cps at EFT stage.
* Automation of the Conductor End-to-End solution via Selenium.

Systems Engineer April 2000 – Feb 2008

* Responsible for the integration testing of the Cisco multi-chassis core router key features: OSPF, BGP, Multicast, ISSU, SMUs on IOS-XR platform.
* Hands-on system integration of the MGX8260, MGX8880 and ASR1000 voice gateways for the Carrier/Enterprise Packet Voice market.
* Defined requirements for key customers, British Telecom. Drove ETSI standards, network architecture and product requirements with industry partners Ericson, Fujitsu and Alcatel.
* Successfully led the product team through Packet Cable Certification, a MUST requirement in

the cable Service Provider market. Engaged with Cable Labs architects through the process.

**Intel Corp** Santa Clara, California

Product Engineer Jul 1994 – Apr 2000

* Developed Embedded C test programs for functional/structural on Schlumberger ATE

for Mem algorithmic tests, this resulted in test time reduction for parallel testing. Design for Testability on Boundary Scan and BIST.

Education

* B.S Computer Engineering, **University of California Santa Cruz**
* Project Management**, Stanford University**

Publications/White Papers

<https://www.redhat.com/cms/managed-files/st-ceph-storage-datasheet-inc0399312lw-201605-en.pdf>

<https://www.supermicro.com/solutions/datasheet_Ceph.pdf>

<https://www.supermicro.com/solutions/Lustre.cfm>

<https://www.supermicro.com/solutions/Software_Defined_Storage.cfm>

<https://builders.intel.com/docs/storagebuilders/Deploying-Red-Hat-ceph-storage-clusters-based-on-Supermicro-storage-servers.pdf>

<https://www.supermicro.com/solutions/Solution-Brief_RedHat-OpenShift.pdf>

Certifications

* Redhat Ceph Storage | Openshift
* Cloud Deployment with Red Hat Openstack Platform 13 Director
* Redhat Ceph Integration with Openstack
* Intel Lustre HPC Specialist
* Image Classification with DIGITS
* Accelerating Data Science Workflows with RAPIDS
* Image Segmentation with TesnsorFlow
* Agile Fundamentals
* Ninja Security

LinkedIn Contact

<https://www.linkedin.com/in/a-asraoui-b905b8b0/>

US Citizen

Interim Secret Clearance