KODZO AGBEDANU

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EXECUTIVE SUMMARY

LTE/IMS, Cisco, and Red Hat certified engineer with over 13 years of technical expertise in wireless (End to End), network design, and Implementation.

Specialties: 4G LTE/IMS, Cisco Networking, Red Hat 7 Linux, Red Hat OpenStack, Red Hat OpenShift, VoLTE, Radio Access Network (RAN/EPC), and NSN IMS Core.

CERTIFICATIONS

- Red Hat **RHCSA** Certified
- Cisco **CCIE** Written (CCIE Lab Expected 2021)
- Cisco **CCNP** Certified
- Cisco **CCNA** Certified

EDUCATION

Master of Engineering in Electrical Engineering
Tennessee State University
Graduation Date: December 2010

Bachelor of Science in Electrical Engineering
University of North Texas
Graduation Date: August 2008 (*Minor in Mathematics*)

Associate Degree in Telecommunication Science
Multinational School of Telecoms (ESMT-Senegal)
Graduation Date: August 2003

TELECOM/LTE/IMS/VOLTE SKILLS

- **LTE**: eNB, MME, SGW, PGW, AAA, HSS, OneNDS, PCRF, iECCF.
- **IMS/VoLTE**: P-CSCF, I-CSCF, S-CSCF, MGW, MRF, ENUM.

CLOUD/VIRTUALIZATION SKILLS

- **COMPUTE**: DELL R610/R630/R640
- **VIRTUALIZATION**: Red Hat OpenStack, Red Hat OpenShift, VMware EXSI
- **COMPUTE OS**: Red Hat Linux 6/7/8, CoreOS, Window
- **STORAGE**: NetAPP A300/A700

NETWORKING SKILLS

- **IP ROUTING**: RIP, EIRP, OSPF, BGP.
- **MPLS**: LDP, RSVP, MP-BGP, L2VPN, L3VPN, VPLS, MPLS-TE.
- **LAN SWITCHING**: Ethernet 802.3, ARP, VLAN, VTP, Spanning Tree (STP, RSTP, MST), LACP, HA (HSRP, VRRP, GLBP).
- **WAN PROTOCOLS**: PPP, MLPPP, DHCL.
- **MULTICAST PROTOCOLS**: PIM-SM/DM/SSM, IGMP, MLD, AUTO-RP, BSR and MSDP.
- **ROUTERS**: Cisco CRS-1/CRS-3/CRS-X, 12K, ASR9k/1k, Cisco Catalyst 7600, Cisco 7200/3945/3845
- **SWITCHES**: Cisco Nexus 7k/5k/2k, Cisco Catalyst 6500, Catalyst 3750/3560/3550, Arista 7010/7280/7508, Nokia 7750, HP5900, HP5930, Dell4048
- **TRAFFIC GENERATOR**: IXIA XM 12, Spirent Test Center
- **NETWORK OS**: Cisco IOS, Arista EOS, Nokia XR OS, ISO-XR, IOS-XE

EMPLOYMENT HISTORY

June 2016 to Present   **Verizon Wireless**   **Westlake TX**
   Architect Network, OpenStack/OpenShift Maintenance Engineering

- Installed an OpenStack Cloud infrastructure using Red Hat TripleO methodology (Undercloud and Overcloud).
- Installed an OpenShift Cloud environment (master/workers) nodes.
- Designed OpenStack Network architecture (layer 2 and layer3)
- Designed, engineered and administered 250 OpenStack nodes.
- Managed HP 5930 from a layer 3 perspective.
- Created Tenant space in OpenStack.
- Created Users in OpenStack.
- Created tagged and untagged neutron (OVS) networks in OpenStack.
- Created Flavors in OpenStack.
- Managed Cisco 7K Nexus from a layer two and three perspective.
- Managed Cisco CRS-3 routers and created route policy configuration.
- Created volumes using OpenStack cinder service.
- Uploaded images using glance OpenStack services.
- Instantiated virtual machines (workloads) using nova.
- Automated virtual machines installation and automation using heat service.
- Troubleshoot end-to-end network connectivity issues in neutron OVS and SRIOV.
- Managed and Adjusted OpenStack quotas.
- Proficient with OpenStack Services such nova, neutron, cinder, glance, ceilometers, and keystone.
- Managed Dell R630 computes and Idrac interface.
- Administered Dell 4048 leafs and 6000 spines.
- Configured Big Switch controllers, and mapped them to leafs, spine, and border leaf.
- Configured Idrac and provisioned vlans for PXE and ironic bare-metal provisioning.
- Installed Red Hat OpenStack undercloud and Overcloud.
- Managed OpenStack pacemaker and Galera services.
- Proficient with bash scripting.

June 2012 to June 2016   **Verizon Wireless**   **Westlake TX**
   Senior Network Engineer LTE/IMS Maintenance Engineering

- Created Machine-to-Machine Vwmare Exsi transport design. Installed, configuration, and integrated Machine-to-Machine nodes.
- Installed and configured VMware Exsi and vCenter.
- Troubleshoot end to end LTE call flow from an S1ap, GTPV2, diameter, and SIP.
- Designed and engineered new network infrastructures using multi-vendor (Lucent, Cisco, Ericson, Nokia, etc.), and multi-protocol platforms Diameter, SIP, GTPV2 and IP, for a variety of application such as voicemail, E911, SMS, Surepay, Prepay, SIMOTA, IMS, and LTE.
- Involved in complex troubleshooting of a variety of layer 2 and layer 3 issues.
- Understand Cisco switches and routers - 7200, 3750, 2600, 6500, 4500, 3500, 2900, 1900, ASR1006, Nexus 7010.
- Configured VLANs and port allocations on Access Nexus 7010.
- Contributed in developing a fully functioning 4G/LTE lab environment.
- Developed (internal) training curriculums for LTE attach, IMS registration, and volte call flow.
- Coordinated the deployment of LTE/IMS elements such as HSS, AAA, OneNDS, CSCF, PCRF, MME, SGW, PGW, and eNB.
- Integrated policy control rule function (PCRF) in Westlake Lab. Performed save state on MRA, MPE and CMP.
- Completed HP CSCF integration in the Lab.
- Created static routes on aggregation routers (Nexus-7010) pointing to layer 3 firewall on a different VRF.
- Advertised Network/Host subnets via BGP from aggregation routers (Nexus-7010) to CRS/PE.
- Well versed with CRS1 and 3, ASR9K, Nexus 3-7K, UBR10K, Catalyst 7600/6500, and ASR1K.
- Built transport configuration for several platforms such as PCRF, Iphone, and BMC servers.
- Troubleshoot latency issues using Wireshark from eNB, 7705, 7750, CRS, 8216, SGW, and PGW.

- Performed DNS changes for SRV, AAAA, NAPTR, CNAME, and host records.
- Installed and integrated Wireshark server in order to collect end to end traces.
- Performed health checks on all elements in the IMS core such as CSCF, HSS, and AAA.
- Allocated Ip addresses using IpControl in the CDS pod.

December 2010 to June 2012   **Verizon Wireless**   **Southlake TX**
4G LTE Engineer National Network Operation (NNO)
- Responsible for performing advanced installation, operation, and maintenance of National data network elements to ensure network integrity and quality.
- Maintained NSN (Nokia Siemens elements) such as HSS, AAA, CSCF, and OneNDS. Applied MOPs and reviewed solaris logs in to identify CPU, hardware, and user or system daemons issues.
- Understand and troubleshoot LTE attach, IMS registration, and VoLTE to VoLTE issues.
- Used Linux system daily to run snoop on HSS, AAA, and CSCF.
- Have a clear understanding of several protocols such as diameter, radius, LDAP, and SIP.
- Monitored the IMS platform using performance monitoring tools such as @com, NetScout, Brix, Iris View, SevOne, and RTT.

August 2008 to November2010   **Verizon Wireless**   **Nashville TN**
System Performance Engineer
- Used proprietary tools (Real Time Tool, Sane, Zite, ROPAnalyst, NCWS) to monitor and Troubleshoot network impacting issues such as IAs/LCs, FCAs, and DCs.
- Excellent knowledge of CDMA/EVDO network.
- Used SANE to troubleshoot and mitigate DS1s/CCUs/CBRs/TFUs issues.
- Created Macro in Visual Basic to run (CFCQ 2.104 and CFCQ 2.106) reports minimizing hand down and coverage issues in the network.
- Participated in carriers add, hand down, and handoff configuration using SANE, neighbor list tool, and DataPro diagnostic Monitor (DPDM).

January 2008 to July 2008   **Verizon Wireless**   **Southlake TX**
Co-Op System Performance Engineer
- Learned CDMA technology, the engine for the Verizon Wireless network.
- Designed and simulated new cell sites using the GeoPlan application.
- Conducted and processed drive test data.
- Retrieved, analyzed, and reviewed cell sites performance data.

November 2006 to October 2007   **Game stop/PSSI**   **Denton TX**
X-Box System Technician
- Troubleshoot and resolved laser, power supply, fan, and video card issues.
- Used proprietary software to troubleshoot hardware problems.
- Used digital multi-meters, oscilloscope, and signal generator to troubleshoot hardware issues.

AWARD

- National Science Foundation Scholarship 2007-2009.
- Dean's list at the University of North Texas.