Andrew B Orellana

**Summary**

Experienced Solution Architect with a proven track record in designing and implementing complex networking solutions, specializing in InfiniBand 400G NDR | 800G XDR networks. Proficient in assessing business requirements, architecting scalable solutions, and providing technical leadership throughout the project lifecycle. Adept at collaborating with cross-functional teams to deliver innovative and cost-effective solutions that meet clients' needs and exceed expectations.

**Security Clearance and Access**

DoD Security Clearance - Holds a Department of Defense (DoD) security clearance (Navy).

Access - Authorized to access Colocations and Military bases with high-level clearance requirements.

Essential Employee - Vaccinated essential employee, commitment to security and safety protocols.

**Honors and Awards**

Strathmore’s Who’s Who - Outstanding Professional in Information Technology

Dell, Inc. - Exceptional Performance Award in Data Center development and support.

F5 Networks - Exceptional Nomination Award in Development Lab and support.

Cisco Systems - Exceptional Performance Award in Data Center development and support.

**Education**

Harvard Business School (2018-2019)

Business Negotiations Certificate

Stanford University (2013-2015)

Stanford Advanced Computer Security Certificate

Cisco Network Academy (July 2000)

CCNA – Routing and Switching

UC Davis (1997-1999)

Undergraduate Certificate in Network Administration and Management

Undergraduate Certificate in Routing and Switching

**Scripting: Automation**

Ansible, Python and Bash

**Automation Proficiency:**

Ansible Automation - Utilized Ansible to automate repetitive tasks, including IP reservations and DNS configurations on Firewalls, as well as network scripts.

Terraform Automation - connect to AWS or Azure Cloud to automate repetitive tasks, including IP reservations and DNS configurations on Firewalls, as well as network scripts.

Vendor-Specific Automation - Developed automation solutions for various vendors, such as Dell, Cisco, Arista, Mellanox and Palo Alto Networks.

**Professional Experience:**

**Network Engineer | Network Optics Qualification Lab | Multi-Vendor Optics**

**Oracle (Sept 2024 – Current) (Contract)**

* Design, deploy, and test 100G, 200G, 400G, and 800G optical transceivers (Accelight, Eoptolink, Finisar) on Arista, Cisco, Juniper, and InfiniBand platforms for Oracle Cloud Infrastructure. Execute automated test plans in KIWI TCMS, troubleshoot multi-vendor optics, and validate performance against Oracle standards.
* Leverage JIRA for tracking, Netbox for inventory management, and Confluence for documentation. Automate test workflows using Python and JSON, contribute to vendor selection, and ensure strict compliance with Oracle’s security and regulatory requirements. Create cutsheets, topologies and test run logs.

**Sr Network Engineer | Automation / Orchestration | Multiple Data Centers**

**Cisco Systems (January 2024 – Aug 2024) (Contract)**

* Within the Cisco NSO Orchestration Development team, offer L1, L2, and L3 network support across multiple networking vendors such as Cisco, Juniper, Extreme, Nokia, and Ericsson. Create elevation diagrams, topologies, and Visio diagrams and PowerPoint presentations. Deploy fiber, ethernet cabling, and transceivers. provide console and management connectivity. Troubleshoot connectivity including VLANs, subnets and handle configuration tasks regarding routing protocols including OSPF, BGP, EIGRP, Telnet and SSH.
* Undertake the design, deployment, and maintenance of Source of Truth implement Net box, Ansible/Python automation, monitoring via Cacti, DNS/DHCP management with Infoblox, ticketing through JIRA, and utilize Rest API and JSON. Deploy Red hat Tower for Ansible Playbooks. connected AWS, Azure clouds to our MX AWS routing table.
* Provide comprehensive support for all vCenter and vSphere operations, managing thousands of UCS C220 and UCS C240 installations. Perform Linux OS installations on both bare metal and virtual machines. Configure proxies, networks, SSH, v-switches, netplan, proxies, python3, java, and pip for all Linux VMs.

**Sr Systems Engineer | Edge Platforms | Colocations**

**Dell Technologies (October 2023 – December 2023) (Short Term Contract)**

* Responsible for driving and deploying the technical sales strategy for DELL VxRail products and services in assigned customer accounts to accelerate the adoption of DELL EMC products and services.
* As a member of a field account team, provide expert datacenter design and architectural design sessions to provide companies with options using Dell Technologies.
* Requisitions and Invoices – Put together proposals, requisitions and Invoices or Enterprise Customers to purchase Dell Technologies hardware and software.

**Sr Network Engineer | InfiniBand Development | Hyperscale Data Centers**

**Quanta Computer (May 2023 – Oct 2023) (Contract)**

* Design and deploy 800G XDR InfiniBand Networks for Microsoft and Facebook datacenters, including network configurations and rack setups. UFM, RDMA, InfiniBand, RoCE, MOFED, OFED.
* Deploy and upgrade Mellanox InfiniBand QM9700 (64-Port XDR Leaf) and QM9790 (128-Port XDR200 Spines) Connecting 11 x OSFP 400G split to 22 x Quanta Servers per rack using 200G Connect-X HBA per Rack for a total of 220 QuantaGrid, QuantaPlex, QuantaMicro, and QuantaEdge Servers in 10 x Racks.
* Supported 100G Juniper backbone, and Evpn / Vxlan Centrally Routed Bridged Vxlan Architecture Uses tools such as Git, and Ansible.
* Tightened AWS IAM role/group access, conducted traffic analysis using VPC flow and lockdown the security group access, configured VPN gateway between the corporate office and AWS cloud, secured S3 bucket access, enabled logging/alerting using (SNS), configured VPC flow, monitored CloudWatch/ CloudTrail logs, conduct log analysis using the Athena MX960, and QFX, EX evpn/vxlan hardware.
* Deploy Cisco Catalyst 3650 Top of Rack Switches for MGMT and Arista 780R3 for Data. Create elevation diagrams, connection sheets, blueprints, whitepapers, and best practice documentation for design and connectivity purposes.

**Sr Network Engineer | Cisco ACI development | Multiple Data Centers**

**Cisco (May 2022 – April 2023) (Contract)**

* Design and implement integration solutions between Cisco ACI and InfiniBand networks to enable seamless communication and interoperability.
* Server Deployment and Management - Proficiently deploy Cisco UCS, APIC, and SE-NODE servers. Install ESXi/CentOS, update firmware and drivers. Configure IP Address on CIMC, Deploy Linux OS on Virtual Machines.
* Planned, and tested, develop Evpn / Vxlan Architecture for Next Generation data center - Juniper Qfx, and MX, Palo Alto Firewall deployment; migrate infrastructure to new backbone, and data center, used Juniper's CRB, ERB, and hybrid EVPN / Vxlan Architecture.
* Cisco (ACI) - Deploy/Cable/Configure APIC Controllers, Leaf/Spine switches, Application Network Profiles (ANP), End Point Group (EPG), Contracts, Policies, Tenant, Application Profiles, Virtual Port Channels (vPC), Virtual Routing and Forwarding (VRF), External networks, Network Profiles.

**Sr Network Engineer | Production | Campus networking**

**NVIDIA (November 2021 – April 2022) (Contract)**

* Served as network engineer providing support for entire Campus Endeavor. Provide comprehensive support for the Nvidia Campus Network, managing Cisco Meraki, and Juniper Mist Wireless Controllers in the cloud and Wireless Access Points on-prim. Network support for all GPU Development Labs.
* Troubleshoot and support for Cisco Catalyst 9400-10R modular chassis across multiple floors and IDF closets. Troubleshoot Latency, Connectivity, and configuration issues to employee cubes.
* Designed the GCP Infrastructure by creating custom mode VPC network and creating firewall rules on Google VPC network.
* Designed connectivity of networks with Google Cloud VPN using static routes and also using cloud router (dynamic routes).
* Created load balanced managed instance group on google cloud platform. Protected VPC resources with Cloud Armor. Optimized websites using cloud CDN on Google cloud.
* Deployed resources with Google Cloud Deployment Manager. Monitored the network with VPC flow logs, firewall rule logs, cloud monitoring.
* Install network devices, including routers, switches, and firewalls, and update design documents to accurately reflect the as-built conditions in Netbox.

**Data Center Consultant | LAFO Production | Campus and Colocation**

**Laborers Funds Administration Office (February 2021 – October 2021) (Contract)**

* Served as a Network Consultant for the Laborers Trust Fund, contributing to various aspects of network deployment, migration, and administration.
* Key responsibilities included managing the deployment of hp, IBM and Dell PowerEdge Servers, configuring IP addresses, and providing remote connectivity.
* Installed, configure, and support for Dell, hp and IBM servers in new Colocation and executed a seamless migration of VMs and applications using VMware HCX.

**Data Center Engineer | Self Driving development | Factory Datacenter and colocations**

**TESLA (August 2020 – January 2021) (Contract)**

* Networking and SD-WAN - Implemented Juniper Contrail SD-WAN for cloud-ready connectivity across multiple data centers and colocations.
* Configured and supported network equipment from Arista, Mellanox, Juniper, and Cisco. Implemented Arista Big Switch BMF into Tesla data centers and colocations.
* Implemented SDN technologies, including Big Switch (BMF/BCF), Cumulus, Pluribus. Deploy Dual VMware Edge 2000 on each site.

**Solution Architect | InfiniBand | Multiple Datacenters and colocations**

**NVIDIA (August 2019 – July 2020) (Contract)**

* Participate in meetings during Acquisition of Mellanox InfiniBand. Assist with the design and implementation of POCs for InfiniBand 400G networks, ensuring high performance, scalability, and reliability.
* Collaborate with sales teams to understand client requirements and develop tailored solutions that align with business objectives.
* Conduct network assessments and feasibility studies to identify technical constraints and propose suitable architectures InfiniBand vs Ethernet.

**Data Center Engineer | Firewall development | Data Center and Colocation**

**F5 Networks (February 2019 – July 2019) (Contract)**

* Design and implement high-performance data center networks, utilizing InfiniBand, Ethernet, Cisco ACI and Fibre Channel technologies in F5 Networks Environment.
* Global Services Support - Part of the Global Services Team, providing worldwide support services to customers. Addressed and troubleshooted L1, L2, and L3 issues for GS lab engineers through Service Now tickets.
* Server Support – Deploy Apple M2 Ultra, Dell PowerEdge, hp ProLiant and Inspur Servers into DC and create connectivity. Troubleshoot server issues, utilize management port IDRAC, ILO, BMC to identify issues.

**Sales Engineer | DellEMC products | Customer sites**

**DellEMC (August 2018 – January 2019) (Fulltime)**

* Sales Collaboration - Collaborated closely with Account Executives to drive sales efforts for Dell EMC Data Center products. Acted as a supportive partner in the sales process, contributing to the overall success of the team's sales objectives.
* Sales Quota Achievement - Played a significant role in meeting quarterly and annual quota objectives by effectively selling Data Center Products. Contributed to revenue generation by actively participating in the sales process and assisting in closing deals.
* Value Addition - Added value throughout the sales process by actively engaging in requirements gathering and analysis. Provided support in crafting responses to customer inquiries and addressing their needs effectively.

**Solutions Architect | Networking/Compute/IOT | Solutions Center Datacenter**

**Dell Technologies (October 2015 – September 2018) (Fulltime)**

* Led IOT briefings, technical deep dives, and POCs for enterprise clients, partners, and sales teams. provide the networking, VR/AR/MR, IOT, and Server briefings, architectural design sessions and POCs.
* Led the Dell Networking portfolio for campus, data center and converged architectures. Deployed PowerConnect InfiniBand switch into Modular units M1000e and MX7000.
* Deployed 3rd party SDN networking solutions, big switch, cumulus, pluribus, SONIC, IP Infusion, Midokura. Deployed Open Networking and Bare Metal OS9/OS10 on Dell S and Z Series switches into datacenter.

**Network Development Engineer | Network development | Development Lab**

**Dell (July 2012 – September 2015) (Fulltime)**

* Designed rack elevations and network topologies for Santa Clara Network Development Lab. Utilized IXIA and Spirent traffic generators for comprehensive network testing and analysis.
* Installed, configured, and provided support for all network infrastructure components in the Network Development Lab, including Dell S-Series and Z-Series switches.
* Managed installation, configuration, and support of Fiber-Channel infrastructure (Brocade M6505, DCX8510) encompassing zoning, zone aliasing, WWN, Trunking, and FC-FC routing.