

**BALA VENKATA TEJA ATLA**

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**Azure Cloud & DevOps Engineer**

## **SUMMARY:**

- Azure Cloud Engineer with over 2.10 years' experience in managing server Infrastructures and network administration.
- Azure experience – working knowledge in cloud service, IaaS, PaaS, AKS, ACL, Vnet, Application Gateway, API Management, Traffic Manager, MySQL, Azure Active Directory, Storage Account, Recovery Service Vaults. Configured NSGs for three tier applications. Configured VNETs and subnets as per the project requirement. Configure Azure blob storage and Azure file servers. Configured private and public facing Azure load balancers etc.
- Enterprise-level experience - Working with large teams and involved in architecture of highly scalable, secure, distributed applications, aligned with company standards, process, methodologies, and best practices.
- Extensive hands on experience in designing, building and automating cloud infrastructures on Azure.
- Well-versed in DevOps principles and Agile software development practices.
- Installation, Configuration and Management of RDBMS and NoSQL tools such as MySQL, MongoDB.
- Experienced on deploying multiple versions of Java with Tomcat, Apache web servers on Azure cloud platform.
- Experienced with configuration and automation tool such as ansible, to automate a broad range of Services.
- Experience working on version control system tools like GIT and also having strong knowledge on source Control concepts like Branches, Masters, Merges and Tags.
- Experience with deployment and build management tools like Jenkins and Maven.
- Hands on experience on development of utilities using shell scripting to automate processes.
- Work experience in ansible and Docker, Writing Docker files for different Environments and Creating Docker Containers.
- Used Kubernetes to orchestrate the deployment, scaling and management of Docker Containers.
- Experience in building and deploying java applications and troubleshooting the build and deploy failures.

## **Technical Skills:**

Cloud Technologies	: Microsoft Azure, Knowledge on AWS.
Cloud Services	: IaaS, PaaS, VM Migrations, AKS, ACL, Vnet, Application Gateway, API Management, Traffic Manager, MySQL Azure, Active Directory, Storage Account, Recovery Service Vaults and other services.
Monitoring tools	: Site 24x7.
Automation and Build	: Maven, Ansible, Jenkins, Nexus.
Scripting	: Shell Scripting.
Version Control System	: GIT.
Operating Systems	: Windows & Linux.
Programming Languages	: Core Java.
Container Technologies	: Docker
Container orchestration	: Kubernetes.
Container Security	: Qualys Container Security

## **PROFESSIONAL EXPERIENCE**

### **Project-1:**

Project Name: **Personalized Incentives Engine Home**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

### **Description:**

Ford Direct provides digital marketing and advertising solutions to Ford and Lincoln dealers, giving them the platform to drive more sales. It is using or experimenting with nearly every Azure service to develop, test, build, and run its most critical workloads. Ford Direct is using Azure as central part of its technology strategy.

### **Project Description:**

Personalized Incentives Engine project deals with display of incentives in merchandising and retailing process. There are three categories of incentives available for Ford Motor Company, they are Public Incentives (Available to all), Qualified Incentives (Available to some e.g. Military Discount) and Direct Incentives (Available to individuals e.g. Private Offer -\$500 Coupon).

### **Responsibilities:**

- Designed 3-Tier Architecture with Apache Web Server, Application Server and Database Server with MongoDB and MySQL. Integrated them with ModJK Connector and JDBC Connection.
- Designed and configured Azure IaaS virtual machines (VMs), Virtual Networks (VNets), subnets and Application Security Groups (ASG).
- Exposed Virtual machines and cloud services in the VNets to the Internet using Azure API Management Service.
- Implemented high availability to the servers with Azure Recovery Service Vaults.
- Designed Network Security Groups (NSGs) to control inbound and outbound access to network interfaces (NICs), VMs and subnets.
- Setup Azure Virtual Appliances (VMs) to meet security requirements as software-based appliance functions.
- Designed User Defined Routes with custom route tables for specific cases to force tunnelling to the Internet via on premise network and control use of virtual appliances in the customer's Azure environment.
- Worked with IAM to manage the users and groups using IAM by assigning individual policies and roles to each users and group as per requirements.
- Used Azure Monitor for monitoring Azure cloud resources and the applications that deployed on Azure by creating new alarm, enable notification service.
- Worked on CI/CD tools Jenkins and GIT version control system for continuous smooth code release process.
- Extensive experience using MAVEN as build tool for the building of deployable artifacts (jar, war) from source code
- Integrated Jenkins with Bitbucket private repositories, build Automation tool (Maven), and Artifact repository (Nexus) for pushing successful build code.
- Working experience with OS upgrade and resolving tomcat issues.
- Hands on experience of end to end infra by successful completion of Disaster Recovery.

## **Project-2:**

Project Name: **Dealer Services**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

### **Project Description:**

Dealer services is micro-services architecture to support a common platform for multiple integrations across the enterprise. Multiple services exposed currently under Dealer Services Umbrella are auth-service, image-service (DIG, DLR & CGI).

### **Responsibilities:**

- Designed Microservices Architecture with API Management service, Application Gateway, Application Insights, CDN profile, Container registry, Event Hubs Namespace, Log Analytics Workspace, Key vault, Kubernetes service, Storage account, Route Table and Nginx ingress Controller.
- Designed Network Security Groups (NSGs) to control inbound and outbound access to network interfaces (NICs), VMSS and subnets.
- Created Application Gateway subnet in the same Vnet of Kubernetes to access the Kubernetes services by using Ingress IP.
- Configured Application Gateway IP as the backend to the API Management.
- Integrated Azure CDN to the APIs for speed responsiveness.
- Setup Azure VM as Jump Server that has only access to the Kubernetes Cluster.
- Configured Nginx ingress controller that route traffic to different services.
- Configured Continuous Integration in Jenkins for pulling the code and building the docker images.
- Configured Continuous Deployment in Jenkins for pushing the docker images to the Kubernetes.
- Configured Ansible and Helm in the CD pipeline of Jenkins for deploying the images to the Kubernetes cluster.
- Created the app user in the Dockerfile for abrogating the root level access to the pods in the cluster.
- Integrated Azure Container Registry to the Qualys Container security for scanning of the docker images.
- Kubernetes Cluster is also integrated with qualys in order to check the runtime vulnerabilities in the cluster level.
- Troubleshooting the Application Gateway issues like Backend Health as unhealthy.
- Migrated the Kubernetes cluster from helm2 to helm3 by removing the tiller component in the cluster which has cluster admin privileges.
- Configuring the CDN caching rules and purging the data when the VIN's got sold.
- Troubleshooting the failed API calls by checking application insights telemetry and analysing the logs in the log analytic workspace with respect to the failed API calls.
- Managing the IP whitelisting at the product level of API management in order not to expose services to the outside world.
- Managing the fail-over environment in a passive mode for disaster recovery in PROD.
- Involved in load testing of API's using Apache JMeter and validating the CPU and MEM of application gateway and also checking the stats of Horizontal Pod Autoscaling (hpa) of the Kubernetes services.
- Troubleshooting the network connectivity issues by spinning up the busybox container in the respective namespace.
- Hands on experience of end to end infra by successful completion of Disaster Recovery.

### **Project-3:**

Project Name: **Renewal Management Tool**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

#### **Project Description:**

The Renewal Management Tool (RMT) is a Ford Credit provided system that dealer can access to view manifest lists of expiring lease, retail, and commercial customers. Dealers access RMT via a Ford Credit web portal. While they can download the manifest lists within it via Excel.

#### **Responsibilities:**

- Configured cluster of MongoDB database servers that implements master-slave (primary-secondary) replication.
- Installed the tomcat server and configured the mongodb replicaset configuration in application.properties.
- Configured Continuous Integration in Jenkins for building the war file using MAVEN as build tool and storing the war file in the Nexus private repository.
- Configured Continuous Deployment in Jenkins for deploying the war file in webapps directory.
- Working experience on resolving the tomcat PermGen issues.
- Experience on updating pfx certificates to the application gateway for secure https connection.
- Implemented Azure Update Management solution to manage updates and patches for virtual machines (VMs).
- Implemented high availability to the servers with Azure Recovery Service Vaults.
- Designed Application security groups (ASGs) for grouping the virtual machines in the NSG's.
- Experience in OS upgrade, tomcat upgrade and mongodb upgrades.
- Hands on experience of end to end infra by successful completion of Disaster Recovery.

### **Project-4:**

Project Name: **Ford Pass Rewards**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

#### **Project Description:**

The Ford Pass Rewards (FPR) is a Ford Credit provided system that dealer can access to view manifest lists of redeem points, retail purchases, and benefits. Dealers access FPR via a Ford Credit web portal.

#### **Responsibilities:**

- Integrated Application Gateway with on-premises servers to route traffic to the APIs that are deployed in on-premises.
- Used Check-Point firewall to route traffic between Azure cloud and on-premises using IPsec.
- Designed route tables in the check point firewall that allows traffic from the firewall with encryption.
- Experience in troubleshooting the application gateway backend health issues.
- Integrated Azure virtual network with the firewall network in azure using azure Vnet peering.
- Configured Continuous Integration in Jenkins for pulling the code and building the docker images.

- Configured Continuous Deployment in Jenkins for pushing the docker images to the Kubernetes.
- Configured Ansible and Helm in the CD pipeline of Jenkins for deploying the images to the Kubernetes cluster.
- Experience in troubleshooting the Jenkins build issues.
- Restricted Kubernetes API server with IP whitelisting.
- Experience in writing the dockerfile and scanning them via Qualys Container Security.

## **Project-5:**

Project Name: **Melissa Data**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

### **Project Description:**

Melissa is a company that provides data to verify email, phone number and postal address in the U.S. and around the world with the industry-leading real time verification.

### **Responsibilities:**

- Maintaining the Melissa data in the azure file share and have backups of fileshare in the azure recovery service vaults.
- Configured separate node pool with taints enabled on the VMSS machines to process Melissa data.
- Experience in troubleshooting the mount issues in Kubernetes pods.
- Configured CI/CD process for building and deploying the Melissa email, phone number and postal address service in Kubernetes.
- Maintaining and troubleshooting the failed calls by using log analytics workspace and Application Insights.
- Monitoring the APIs in the Site 24x7 and notifying the team with the alerts in case of any issue.

## **Project-6:**

Project Name: **California Consumer Privacy Act (CCPA)**

Client: Ford Direct, Dearborn, MI, USA June 2018 Current

Role: Azure Cloud & DevOps Engineer

### **Project Description:**

The California Consumer Privacy Act (CCPA) is a law that will give California consumers new rights relating to companies' use and management of their personal information (PI). The law was passed on June 28, 2018. It becomes effective on January 1, 2020. Consumer has right to request for access my Personal Information, don't sell my personal information and Remove my Personal Information.

### **Responsibilities:**

- Experience in the designing the unique CIDR ranges in the Azure Cloud.

- Configured CI/CD process for building and deploying the GET (access my PI), OPTOUT (Do not Sell my PI) and DELETE (Remove my PI) services in Kubernetes.
- Exposing the API's to outside world using API Management.
- Hands on experience in shell script for purging the CDN logs in the SFTP Server.

**Achievements:**

Certification - Implementing Microsoft Azure Infrastructure Solutions (70-533).

**Experience Summary:**

Working as Azure Cloud & DevOps with ITC Infotech, Bangalore from May 2018 to till now.

**Educational Qualification:**

Bachelor of Technology in ECE (Electronics and Communication Engineering) from JNTU ANATAPUR.

**Declaration:**

I, hereby declare that all the details furnished above are true to the best of my knowledge and belief.

**DATE:**

(A.BALA VENKATA TEJA)

**PLACE:** Bangalore