Ravi Chandran

Observability and Monitoring Specialist

Personal Information

Given name	Ravi Chandran	**Nationality**	Indian
Surname	Ganesh	**Phone number**	+91 8341 9060 62
Date of birth	30/10/1984	**Email address**	ravi.chandran.3084@gmail.com

Objective

My career objective is to leverage my 13+ years of experience in Observability and monitoring of IT infrastructure to make a positive impact on an organization's performance and capabilities. My ability to troubleshoot and problem-solve, as well as my ability to work effectively with cross-functional teams, allows me to provide valuable insights and solutions that can improve the overall performance of an organization. I am eager to continue learning and growing in this field, and I am confident that I can make a significant contribution to any organization in this field.

Professional Summary

- Conducted in-depth analysis, design, and documentation of Observability and monitoring architecture for IT infrastructure and applications
- Led team meetings and engaged in client discussions to gather requirements, providing updates on project progress and addressing challenges
- Leveraged AI technologies for efficient documentations and presentations
- Applied Python scripting for automation purposes, enhancing workflow efficiency and overall project effectiveness
- Experienced in ELK Stack setup, configuration and management
- Skilled in information retrieval using Elasticsearch
- Proven ability to design, build, and manage centralized log search engines
- Familiarity with Dynatrace architecture and installation/configuration
- Proficient in developing monitoring dashboards using Grafana
- Experienced in designing and implementing IT infrastructure monitoring solutions using IBM tools
- Strong knowledge of IBM Tivoli Monitoring (ITM), IBM Application Performance Management (IBM APM), and IBM Tivoli Netcool Suite
- Hands-on experience with Netcool probe rules, custom triggers, procedures, and monitoring situations/threshold managers
- Adept at integrating various tools and applications with monitoring solutions
- Developed monitoring solutions for various devices, appliances, and applications
- Strong troubleshooting and problem-solving skills
- Proven ability to work effectively with cross-functional teams to achieve project goals

Education

- **Master of Computer Application** (2007-2010) from Presidency School of Management & Computer Sciences, Hyderabad (affiliated to Osmania University) with an aggregate of 72%
- **Bachelor of Science** (2002-2005) in Mathematics, Statistics & Computer Science from Pragati Maha Vidhyalaya, Hyderabad (affiliated to Osmania University) with an aggregate of 58%

Work Experience

Organization	Role	Client	Location	Duration
DarkBlue DevOps	Sr. Principal Engineer	H3O Labs	Hyderabad, India	03/2024 - Present
Wissen Infotech	Senior Advisor, IT Architect	Dell IT	Hyderabad, India	06/2023 – 03/2024
Information Dynamics	Sr. Software Engineer	Saudi Payments, Dynatrace (POC)	Riyadh, Saudi Arabia	04/2021 – 01/2023
Jihat Al-Alamiah	Sr. Software Engineer	Saudi Customs, Saudi Payments	Riyadh, Saudi Arabia	10/2019 – 03/2021
Tech Mahindra	Sr. Software Engineer	Volvo Cars	Göteborg, Sweden Pune, India	01/2016 – 06/2019
MasterCom Technologies	Netcool Developer	Etisalat	Pune, India	11/2014 – 12/2015
Persistent Systems	Software Engineer	IBM SmartCloud Enterprise	Pune, India	03/2013 – 10/2014
i3 Software	System Engineer	APDRP	Dehradun, India	08/2012 – 02/2013
		1800Flowers.com	Hyderabad, India	03/2012 – 06/2012
		Ericsson	Delhi, India	03/2011 – 02/2012
		Nokia Siemens Networks	Noida, India	05/2010 – 01/2011

Skills

Technical Skills	Tools and Applications
Monitoring Tools	Dynatrace
	The ElasticStack
	IBM Tivoli Netcool Omnibus & Impact
	IBM Tivoli Monitoring & IBM Application Performance Management (APM)
Dashboards	IBM Dash
	Grafana
	Kibana
Centralised Logging	Log Stash
Cloud Technologies	AWS
Scripting	Shell, Python
Operating Systems	Windows
	Unix / Linux
Monitoring Integration	IBM MQ, Datapower, ServiceNow, Dell Storage, Kafka, Network Devices using SNMP

AWS Training and Self-Study

AWS Cloud

- Capable of creating and managing IAM policies, users, groups, and roles
- Competent in setting up AWS CLI on Windows and Linux systems
- Proficient in creating AMIs from running EC2 instances for backup and replication purposes
- Experienced in assigning Elastic IPs to EC2 instances for static public IP address assignment
- Familiar with configuring storage solutions for EC2 instances, including Amazon EBS and instance store volumes
- Developed foundational understanding of Amazon S3 storage services

Projects

H3O Labs *Hyderabad, India* *March 2024 – Present*	**Project Description** The Continuous Diagnostics and Mitigation (CDM) project at H3O Labs focused on developing training labs hosted on AWS cloud infrastructure. These labs were designed to educate personnel in cybersecurity practices by generating simulated data for training purposes and ingesting them into Elasticsearch instances.
Role *Sr. Principal Engineer*	**Responsibilities** • Utilized Python scripting to replicate Elasticsearch Index, data, spaces, and dashboards from a central Elasticsearch instance to Test and Development EC2 instances • Automated URL template generation for specific fields in designated data views through Python scripting post-replication • Established a test EC2 instance environment to facilitate project development and testing phases ➢ **Technologies** AWS Cloud, Elastic Stack ➢ **Scripting** Python
MSK *Hyderabad, India* *June 2023 – March 2024*	**Project Description** Implemented Observability and Monitoring at Memorial Sloan Kettering Hospital (MSK) for the Recovery Vault environment. The vault houses essential tools like Data Domain, PowerMax, Cyber Sense, Avamar, etc., isolated from external access. Custom Python scripts were crafted to execute API calls on these tools, retrieving crucial metrics. The gathered data is then seamlessly ingested into ElasticSearch indices, providing a comprehensive monitoring solution for the MSK Recovery Vault.
Role *Senior Advisor, IT Architect*	**Responsibilities** • Implemented Elasticsearch and Kibana to establish a robust monitoring framework • Analysed product-related API documentation to comprehend metrics and API call intricacies • Engineered Python scripts from scratch to extract metric data from diverse applications and seamlessly ingest it into Elasticsearch indices • Created comprehensive Observability dashboards in Kibana for enhanced visualization. • Orchestrated the integration between Elasticsearch and ServiceNow through Python scripting to facilitate incident creation • Provisioning of access to Elasticsearch • Produced detailed documentation encompassing script functionalities, implementation processes, and a user guide • Conducted regular client meetings to gather requirements and provide project progress updates • Facilitated client training sessions on Observability tools and the associated scripts ➢ **Technologies** Product related APIs, JSON ➢ **Monitoring Tools** The Elastic Stack ➢ **Scripting** Python ➢ **Operating System** RedHat Linux
Saudi Payments *Riyadh, Saudi Arabia* *October 2019 – January 2023*	**Project Description** The observability and monitoring project for Saudi Payments infrastructure aims to ensure operational efficiency by offering insights into the performance and availability of diverse payment methods. It encompasses deploying monitoring tools, custom dashboards, and alerts, along with stakeholder training. Additionally, it ensures

regulatory compliance and proactively identifies and resolves issues to maintain uninterrupted service for customers.

Role

Senior Software Engineer

Responsibilities

- Implementation, optimization, and upgrading of the Elastic Stack in a multi-node cluster environment
- Implemented data ingestion process to transfer data from various sources including MQ, Kafka, and log files to logstash, followed by exporting the processed data to Elasticsearch
- Development of Shell and Python scripting for data acquisition and ingestion into Elasticsearch
- Ingestion of data from RESTful API into Elasticsearch
- Management of Elasticsearch index
- Provisioning of access to Elasticsearch
- Implementation, optimization, and upgrading of Grafana
- Creation and management of user and team access to respective dashboards
- Configuration of IBM APM and Elasticsearch data sources
- Creation of dashboards for IBM APM and Elasticsearch data
- Configuration of email notifications for Elasticsearch graphs
- Import and export of dashboards in Grafana
- Implementation and configuration of IBM APM monitoring agents
- Development of custom Netcool Probe (EIF and SNMP) rules
- Development of custom Netcool Impact policies for event/alert enhancement
- Automation of email notifications through IBM Netcool Impact
- Implementation of a centralized log solution for the Operations Team

- **Monitoring Tools** Elastic Stack, Netcool Suite, IBM APM, Grafana
- **Database** Oracle
- **Operating System** RedHat Linux, AIX, Windows

Dynatrace (POC)

Riyadh, Saudi Arabia
March 2021 – April 2021

Project Description

DXC Technology conducted a proof of concept (PoC) to evaluate the feasibility of various observability and performance monitoring tools on the market. The PoC involved the implementation of the Dynatrace tool to demonstrate its effectiveness in providing real-time visibility into the internal state of an IT system, and its ability to proactively identify and resolve issues before they impact customers.

Role

Application Analyst

Responsibilities

- End-to-end implementation and configuration of Dynatrace APM
- Deployment of OneAgent and Active Gateway plugins
- Integrated and configured extended plugins for IBM MQ and Datapower to facilitate monitoring and analysis capabilities
- Implementation of synthetic HTTP monitors for monitoring the availability and response time of the targeted URLs
- Automated Alerting and notifications using Smartscape topology and AI-based root cause analysis
- Development of custom dashboards for real-time monitoring and analysis
- Documented the entire POC process and developed visual presentations to effectively communicate the Dynatrace architecture and its features

- **Observability Tools** Dynatrace
- **Operating System** RedHat Linux, Windows

Saudi Customs

Riyadh, Saudi Arabia
May 2020 – September 2020

Project Description

Saudi Customs seeks to provide integrated customs services to meet development requirements in the Kingdom of Saudi Arabia, and keep pace with the latest developments in the Information and Technology at local and international level.

Role

Senior Software Engineer

Responsibilities

- Implementation and optimization of IBM APM and monitoring agents
- Implementation and optimization of IBM Tivoli Netcool Suite
- Development of custom rules for EIF probe
- Development of SNMP rules utilizing MIB files
- Development of Netcool Impact policies for event enhancement
- Automation of email notifications through Netcool Impact
- Development of custom Netcool Probe (EIF and SNMP) rules for enhanced monitoring and alerting capabilities

- **Monitoring Tools** Netcool Omnibus Suite, IBM APM, IBM Jazz
- **Database** Oracle
- **Operating System** RedHat Linux, AIX, Windows

Volvo Cars

Göteborg, Sweden
Pune, India
January 2016 – June 2019

Project Description

The Centralized Monitoring Solution project at Volvo aimed to bring together the company's vast IT infrastructure, distributed across the globe, under a single and unified monitoring solution. The project entailed integrating various applications, databases, devices, and other IT assets in accordance with industry standard practices to improve visibility and control over the organization's IT environment. As a result, the project aimed to enhance efficiency and support Volvo's position as a leader in the transportation manufacturing industry.

Role

Senior Software Engineer

Responsibilities

- End-to-end deployment and configuration of IBM Tivoli Monitoring, IBM Tivoli Netcool Suite, and IBM APM
- Design and development of complex monitoring situations to meet specific customer requirements utilizing SNMP and other protocols
- Creation and implementation of SNMP rules to monitor various network infrastructure components such as routers, switches, and access points
- Integration of IBM Tivoli tools with other third-party monitoring solutions, such as SCOM, HP SIM, CISCO UCS, and SolarWinds, utilizing APIs and other integration mechanisms
- Integration of Netcool Omnibus with ServiceNow for incident management
- Development of advanced IBM Jazz dashboards utilizing APM data source and other data sources
- Configuration of Maintenance Window Management for devices under maintenance to prevent false alarms during maintenance windows
- Deployment and configuration of Dynatrace OneAgents and application-specific plugins to provide detailed performance monitoring of various applications
- Implementation of Dynatrace ActiveGate to enable private synthetic HTTP monitors for monitoring internal and external services
- Deployment and configuration of the ElasticStack for testing and exploration of capabilities such as log data analysis, real-time monitoring, and data visualization
- Configuration of LogStash to inject application logs to the ElasticSearch engine for log data analysis and visualization
- Deployment and configuration of Grafana for advanced data visualization utilizing ElasticSearch data source and other data sources
- Regular customer interaction to understand their requirements and provide the best solution utilizing various communication channels
- Providing training sessions to operators to handle IBM Tivoli tools and maximize monitoring capabilities utilizing various training methods
- Comprehensive documentation of the implementation of the centralized monitoring solution

- **Monitoring Tools** Netcool Suite, ITM, Netcool Impact, IBM Jazz

- **Observability Tools** Dynatrace, The Elastic Stack, Grafana
- **Database** Oracle
- **Operating System** RedHat Linux, AIX, Windows

Etisalat

Pune, India
November 2014 – December 2015

Project Description

The IBM Tivoli Monitoring Solution project at Etisalat aimed to unify the various monitoring solutions used by the company under the umbrella of IBM Tivoli solutions. The project entailed the deployment and configuration of IBM Tivoli Monitoring, IBM Tivoli Netcool Suite, and IBM APM. It aimed to improve the visibility and control over the organization's IT environment, enhance efficiency and support Etisalat's position as the largest telecommunication corporation in the GCC through various monitoring and integration techniques, rules development, dashboards creation, incident management integration, and operator training.

Role

Netcool Developer

Responsibilities

- Deployment of IBM Tivoli Netcool Omnibus for event management and data correlation
- Implementation of various IBM Tivoli Netcool probes such as SNMP, CORBA, SYSLOG, PING in a high availability architecture
- Development of probe rules using MIB files for monitoring devices and applications
- Development of advanced rules and policies for event enrichment and correlation utilizing various scripting languages
- Setting up gateways for integration with Remedy ticketing systems
- Comprehensive documentation of the implementation of the centralized monitoring solution

- **Monitoring Tools** Netcool Omnibus, Netcool Probes and Gateways
- **Operating System** RedHat Linux, AIX, Windows

SCE

Pune, India
March 2013 – October 2014

Project Description

The IBM SmartCloud Enterprise project is a cloud-based infrastructure solution that delivers agile computing capabilities as a service (IaaS). It provides organizations with quick access to an enterprise-class shared-cloud environment, ideal for running moderate-risk applications. The project includes the commissioning and decommissioning of IT infrastructure solutions, which allows organizations to enjoy a cost-effective cloud environment that meets their specific business needs.

Role

Software Engineer

Responsibilities

- Commissioning and decommissioning of IBM Tivoli Monitoring agents for various platforms and applications
- Deployment of IBM Tivoli Netcool Omnibus and associated probes for event collection and management
- Development of custom rules from the probe raw capture for advanced event processing and correlation
- Training interns and new team members about various monitoring solutions and best practices
- Documentation and presentation of monitoring solutions for the purpose of training and knowledge sharing within the organization

- **Monitoring Tools** Netcool Omnibus and Probes, ITM, ITNM
- **Database** IBM DB2
- **Operating System** RedHat Linux

APDRP

Project Description

Dehradun, India
June 2012 – February 2013

The Accelerated Power Development and Reforms Program (APDRP) is a government-run organization responsible for managing the electricity and power supply to the Indian state of Uttarakhand. To enhance the services provided to citizens, APDRP proposed to replace the older existing solutions with the latest monitoring solutions available in the market. The project aims to improve the reliability and efficiency of the electricity supply, and to provide the citizens with better monitoring, reporting, and control of the power distribution system.

Role

System Engineer

Responsibilities

- End-to-end implementation of IBM Tivoli Monitoring and IBM Tivoli Netcool Suite in a high-availability architecture and integration with IBM Tivoli Network Manager (ITNM)
- Installation and Configuration of DB2 as the monitoring system database
- Configuration of multi-tiered object server in a high-availability setup
- Remote deployment of IBM Tivoli Monitoring Agents
- Development of complex monitoring situations to meet specific customer requirements utilizing SNMP and other protocols
- Bi-directional integration of Tivoli Netcool Omnibus with IBM Tivoli Monitoring (ITM)
- Development of advanced probe rules using MIB files for monitoring devices and applications
- Development of Netcool Impact policies for automated incident response, email notifications, event suppression, and event enrichment
- Customization of probe rules for event correlation and deduplication
- Real-time network maps visibility with rich and customizable maps for monitoring and troubleshooting
- Development of custom dashboards and maps for advanced visualization
- Creation of users and assigning appropriate roles for access control and security.
- Comprehensive documentation of the entire implementation and preparation of User Acceptance Testing (UAT)
- Involvement in end-user training and ongoing post-release support
- Training of Network Operations Centre (NOC) and Enterprise Network Operations Centre (ENOC) users
- Demonstration and UAT support

- **Monitoring Tools** Netcool Omnibus Suite, ITM, ITNM
- **Database** IBM DB2
- **Operating System** RedHat Linux

1800Flowers.com

Hyderabad, India
March 2012 – May 2012

Project Description

The Monitoring Solution project at 1-800-Flowers.com, Inc. aims to enhance the online services and availability of the company by implementing a monitoring solution. This will enable the company to have real-time visibility and control over the performance of their e-commerce platform, logistics, and fulfilment operations. The project will include the deployment of monitoring software to track key performance metrics, identify and resolve issues quickly, and improve overall customer satisfaction. Additionally, the project will provide the company with the necessary data to make informed decisions on how to optimize their online operations and improve their competitiveness in the market.

Role

System Engineer

Responsibilities

- Implementation of ITM and Netcool Suite
- Implementation of OS, Database, WAS and MQ monitoring agents
- Configuring SNMP probe rules to process traps from network devices
- Enrichment of probe rules
- Development of email notification policy

- Development of dashboards

- **Monitoring Tools** IBM ITM, Netcool Omnibus and Probes, Netcool Impact
- **Database** IBM DB2
- **Operating System** RedHat Linux, Windows

Ericsson

Delhi, India
March 2011 – February 2012

Project Description

The Umbrella Monitoring Solution project at Ericsson was to implement a comprehensive monitoring solution for a client's local IT infrastructure. The project included deployment and configuration of a monitoring solution that provided real-time visibility and control over servers, networks, applications and other IT components, to improve performance and availability of the IT infrastructure and support the client's specific business needs.

Role

Associate System Engineer

Responsibilities

- End-to-end implementation of IBM Tivoli Monitoring and IBM Tivoli Netcool Suite in a high-availability architecture
- Installation and Configuration of DB2 as the monitoring system database
- Configuration of multi-tiered object server in a high-availability setup
- Development of complex monitoring situations to meet specific customer requirements
- Development of advanced probe rules using MIB files for monitoring devices and applications
- Development of Netcool Impact policies for automated incident response, email notifications, event suppression, and event enrichment
- Customization of probe rules for event correlation and deduplication
- Creation of users and assigning appropriate roles for access control and security
- Comprehensive documentation of the entire implementation and preparation of User Acceptance Testing (UAT)

- **Monitoring Tools** IBM ITM, Netcool Omnibus and Probes, Netcool Impact
- **Database** IBM DB2
- **Operating System** RedHat Linux, Solaris, Windows

Nokia Siemens Networks

Noida, India
May 2010 – January 2011

Project Description

The Centralized Monitoring Solution project at Nokia Siemens Networks aimed to improve visibility and control over the IT environment, by integrating various IT components, such as applications, databases, and devices, under a single, centralized monitoring solution, following industry standard practices. The project included the deployment and configuration of monitoring solution, developing advanced monitoring rules, dashboards, incident management integration and providing training to operators.

Role

Associate System Engineer

Responsibilities

- Implementation of Tivoli Netcool Suite in a high-availability architecture and integration with IBM Tivoli Network Manager (ITNM)
- Installation and Configuration of DB2 as the ITNM database
- Configuration of multi-tiered object server in a high-availability setup
- Bi-directional integration of Tivoli Netcool Omnibus with IBM Tivoli Monitoring
- Development of probe rules using MIB files for monitoring devices
- Advanced rules development for event enrichment and correlation
- Configuration of event flood protection in the environment
- Development of Netcool Impact policies for automated incident response, email notifications, event suppression, and event enrichment
- Customization of probe rules for event correlation and deduplication

- Real-time network maps visibility with rich and customizable maps for monitoring and troubleshooting
- Development of custom dashboards and maps for advanced visualization
- Creation of users and assigning appropriate roles for access control and security

➢ **Monitoring Tools**	Netcool Omnibus and Probes, ITNM
➢ **Database**	IBM DB2
➢ **Operating System**	RedHat Linux

Reference

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