

# MOORTHY C

## Information Technology Engineer

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### SUMMARY

IT Infrastructure Engineer with 12+ years of experience designing, managing, and supporting enterprise IT environments across government, research institutes, academic, and large institutional settings. Expertise in Windows and Linux server administration, Active Directory, VMware ESXi/vSphere, and enterprise networking, with working knowledge of Microsoft Hyper-V. Proven experience implementing and supporting security technologies including firewalls, endpoint protection, monitoring, backup and recovery solutions, high availability, and business continuity frameworks. Strong background in data centre operations, virtualization, storage, and infrastructure resilience, ensuring security compliance, operational stability, and high availability of mission-critical systems.

### EDUCATION

M.C.A. (Computer Applications) - 2011, Bharathidasan University, T.N, India.  
B.Sc. (Computer Science) - 2008, Bharathidasan University, T.N, India.

### EXPERIENCE

11.2022 - Present Technical Engineer-II, NCSCM, Chennai, India  
05.2022 - 10.2022 Project Associate-I, Anna University, Chennai, India  
07.2014 - 04.2022 System Specialist, Anna University, Chennai, India  
12.2012 - 02.2014 Project Associate, IIT Madras, Chennai, India

### CORES SKILLS

- **Server Administration**-Windows Server 2016/2019/2025, Active Directory (AD), Group Policy Objects (GPO), PowerShell scripting & automation, Linux Server (Ubuntu, CentOS, RHEL, Oracle Linux).
- **Virtualization**-VMware vSphere/ESXi (VMware vMotion), Microsoft Hyper-V (Live Migration, Failover Clustering), SCVMM, Proxmox VE.
- **Networking**-LAN/WAN networking, TCP/IP, Routing and Switching (L2/L3), VLANs, Trunking, STP, NAT, VPN (Site-to-Site, Remote Access, IPSec, SSL), DNS, DHCP, SNMP, SSH, MAC Address filtering/binding, Firewall rules/ACLs.
- **Security**-FortiGate (Fortinet), Firewall Configuration & Management, SIEM solutions, FortiClient endpoint protection, OPNsense firewall.
- **Storage**-SAN, NAS, DAS, NetApp, EMC, QNAP, iSCSI Configuration and LUN Management, Quota Management, Backup & Restore, DRP.
- **Monitoring**-Nagios, Zabbix.

## Technical Engineer-II

### National Centre for Sustainable Coastal Management

01/11/2022 - Present      Chennai, India

#### Network Administration

##### Network Infrastructure Management:

- Configuring and managing virtual networks in the VMware environment, including virtual switches, network adapters, and other network components.
- Maintaining, implementing, and managing the institute network infrastructure, including LAN, WAN, WLAN, and VPN connections.
- Maintaining, implementing, and managing the institute networking protocols, technologies, and architectures, including TCP/IP, DNS, DHCP, VLANs, routing, and switching.
- Ensure network reliability, performance, and security through the implementation of best practices and industry standards of NCSCM.
- Monitoring network traffic, analyze data, and implement optimizations to improve efficiency and resource utilization.

##### Network Security:

- Implementing and maintaining security measures, including firewalls, intrusion detection/prevention systems, and endpoint protection solutions, to safeguard against cyber threats and unauthorized access in compliance with Group rules.
- Participate to regular security audits, vulnerability assessments, and penetration testing, under the governance of NCSCM and with the help of our NDC (National Data Center) to identify and address potential vulnerabilities and weaknesses in the network infrastructure.

#### System Administration:

- Managing & maintaining windows server infrastructure including installation, configuration & troubleshooting of Windows server operating Systems.
- System administration tasks, including server deployment, configuration management, and troubleshooting (Windows, and Linux).
- Administering and maintaining servers, storage systems, and virtualization environments, ensuring optimal performance, availability, and security
- Perform routine maintenance tasks, such as patches and updates, to minimize downtime and mitigate security risks.

## **Server Administration**

- **Enterprise Server Management:** Oversee the design, deployment, and maintenance of enterprise-grade server infrastructure, including physical and virtual servers, to ensure optimal performance, reliability, and scalability.
- **Server Troubleshooting:** Investigate and resolve server-related issues, including performance degradation, hardware failures, software glitches, and connectivity problems, utilizing advanced troubleshooting techniques and diagnostic tools.
- **Server monitoring and Performance Tuning:** Implement server monitoring tools and performance monitoring solutions to proactively monitor server health, analyze system performance metrics, and identify opportunities for optimization and improvement.
- **Patch Management and Security:** Manage server patching and software updates, ensuring timely application of security patches and firmware updates to mitigate vulnerabilities and protect server assets from cyber threats and security breaches.

## **VMware Administration**

- **Installation and Configuration:** Installing and configuring the VMware software and infrastructure components, including servers, databases, and applications.
- **Virtual Machine Management:** Managing virtual machines and their delivery in the VMware environment. This includes creating, configuring, and managing virtual machines, templates, and snapshots.
- **Performance Monitoring and Optimization:** Monitoring the performance of the VMware infrastructure, identifying performance bottlenecks, and optimizing the infrastructure for better performance.
- **Security Management:** Ensuring the security of the VMWare infrastructure, including implementing security policies, configuring firewalls and other security settings, and conducting security audits.
- **Troubleshooting and Problem Resolution:** Identifying and resolving technical issues in the VMware environment, including server failures, virtual machine crashes, and other issues.
- **Virtualization Technologies:** Implementing and managing virtualization platforms, such as VMware vSphere, Microsoft Hyper-V, or Citrix XenServer, to optimize server resource utilization, facilitate workload migration, and improve system flexibility and efficiency.

**Microsoft Hyper-V Administration**

- Installing, configuring, and maintaining Microsoft Hyper-V roles on Windows Server for production and non-production environments.
- Creating and managing virtual machines, including OS deployment, CPU/memory allocation, and virtual hard disk (VHD/VHDX) management.
- Configuring and administering virtual switches (External, Internal, Private) to ensure secure and efficient VM networking.
- Performing full VM lifecycle management, including provisioning, checkpoints/snapshots, cloning, migration, and decommissioning.
- Implementing high availability and resilience using Hyper-V Failover Clustering (where applicable).
- Managing storage integration with SAN/NAS solutions for Hyper-V workloads, including CSV and SMB storage.
- Monitoring performance and conducting capacity planning for Hyper-V hosts and virtual machines.
- Applying security hardening, role-based access control, and patch management for Hyper-V hosts and guest VMs.
- Executing backup and restore operations for Hyper-V virtual machines using enterprise backup solutions.
- Troubleshooting Hyper-V host, VM, storage, and network-related issues.
- Managing Hyper-V infrastructure using System Center Virtual Machine Manager (SCVMM), including host groups, VM templates, libraries, and fabric resources.
- Utilizing Microsoft Windows Admin Center for centralized management, monitoring, updates, and day-to-day administration of Hyper-V hosts and clusters.
- Maintaining comprehensive documentation for Hyper-V architecture, configurations, standards, and operational procedures.

**Data Center Administration:**

- Managing data center servers, rack-mounted systems, blade servers, and related hardware components, ensuring proper installation, configuration, and connectivity within the data center environment.
- Designing and implementing network infrastructure to support the needs of the organization, including data center networking, virtualization, and cloud computing.
- Configuring and managing network devices such as routers, switches, and firewalls.
- Implementing network security measures to protect the organization's data and ensure compliance with security policies and regulations.

**Data Center Administration:**

- Troubleshooting network issues and performing regular maintenance and upgrades to the network infrastructure.
- Staying up to date with the latest trends and technologies in network engineering and implementing new tools and techniques as necessary.
- Developing and maintaining relationships with vendors and partners to ensure the smooth operation of the network infrastructure.
- Manage virtualized environments using VMware vSphere or Microsoft Hyper-V, including VM provisioning, performance monitoring & troubleshooting.
- Lead server deployment projects including planning, provisioning & configuring new Servers.
- Configuring & managing Active directory services, including accounts, group policies & organization units.
- Perform regular maintenance tasks such as applying patches on Windows & Linux Servers.
- Managing server's Backup using backup software.
- Collaborating with IT teams to ensure seamless integration of network infrastructure with other systems and applications.

**Storage Administration**

- **Storage Implementation:**  
Install, configure, and deploy storage systems, including SAN (Storage Area Network), NAS (Network-Attached Storage), and object storage platforms.
- **Storage Solutions:**  
Configuring and managing storage systems, including SAN (Storage Area Network), NAS (Network Attached Storage), and DAS (Direct Attached Storage), to ensure adequate storage capacity, performance, and data availability for enterprise workloads.
- **Storage Infrastructure Design:**  
Designing and architecting storage solutions that meet the organization's performance, scalability, and availability requirements.
- **Data Migration:**  
Planning and executing data migration projects, ensuring seamless movement of data between storage systems while minimizing disruption.
- **Storage Performance Optimization:**  
Monitoring storage performance and proactively optimize storage resources to meet performance demands.
- **Storage Security:**  
Implementing and maintaining storage security measures, including access controls, encryption, and data retention policies.

**Backup and Disaster Recovery:**

- Developing and maintaining backup and disaster recovery strategies for server environments, including data backup procedures, recovery point objectives (RPOs), and recovery time objectives (RTOs), to ensure data protection and business continuity.
- Implementing and managing backup and disaster recovery solutions for the VMware environment, ensuring the availability and integrity of critical data and applications.
- Designing and implementing data backup and recovery strategies to ensure data integrity and availability in case of system failures or disasters.
- Storage Management: Managing storage resources and configuring storage policies for virtual machines in the VMware environment.
- Storage Monitoring: Set up and maintaining storage monitoring systems to promptly identify and address potential storage-related problems.
- Capacity Planning: Analyze storage utilization and forecast future storage needs to facilitate capacity planning and avoid storage shortages.
- Troubleshooting and Issue Resolution: Diagnosing and resolving storage-related issues, such as disk failures, connectivity problems, or performance bottlenecks.
- Backups: Ensure backup (servers and network) and regularly test our backup solutions.

## Project Associate

### Anna University

📅 10/05/2022 – 31/10/2022 📍 Chennai, India

- Assist in the design and implementation of school centralized IT infrastructure setup supporting academic requirements.
- Assist on IT related issues like setting up of computers, troubleshooting, planning for IT resources, support event on IT and AV matters.
- Manage information technology and computer systems, which includes, but is not limited to, installation, maintenance, troubleshooting computer hardware and software, and Linux server administration.
- Administering computer, telecommunications, audio & video (AV), and information systems.
- Ensure security of data, network access, and backup systems.
- Identify problematic areas and implement strategic solutions in time. Where required, liaise with Anna University CSRC, vendors, and contractors to identify root causes identify control measures, and implement solutions.
- Audit systems and assets and propose improvement measures where required.
- Maintain current and accurate inventory of technology hardware, software, and resources.
- Plan, design, implement, manage and maintain the server, storage and visualized infrastructure deployed in the data centre.
- Perform network maintenance and system upgrades including service packs, patches, hot fixes and security configurations.
- Provide end user computing support for staff and faculty in centre including software deployment and troubleshooting.
- Responsible for the maintenance, configuration, and reliable operation of computer systems, network servers, and virtualization.
- Install and upgrade computer components and software, manage virtual servers, and integrate automation processes.
- Troubleshoot hardware and software errors by running diagnostics, documenting problems and resolutions, prioritizing problems, and assessing impact of issues.
- Provide documentation and technical specifications for planning and implementing new or upgrades of IT infrastructure.
- Perform and monitor regular backup operations and implement appropriate processes for data protection, disaster recovery, and failover procedures.

## System Specialist

### Anna University

📅 07/07/2014 – 30/04/2022 📍 Chennai, India

- Install, configure, and maintain Windows/Linux operating systems and related software.
- Monitor system performance, troubleshoot issues, and ensure high availability and reliability of Linux-based infrastructure.
- Collaborate with cross-functional teams to design and implement Linux-based solutions that meet business needs.
- Implement and maintain security measures to protect Linux systems from unauthorized access and ensure compliance with industry regulations.
- Perform regular system backups and disaster recovery procedures to minimize data loss and maintain business continuity.
- Manage user accounts, permissions, and access controls to ensure proper system security and data integrity.
- Install, configure, and maintain network services, including DNS, DHCP, and LDAP.
- Collaborate with software developers and system analysts to troubleshoot and resolve software compatibility issues on Linux platforms.
- Evaluate and recommend hardware and software upgrades to improve system performance and scalability.
- Installing and configuring Windows/Linux servers or workstations.
- Maintaining patching, security, and other endpoint management functions of Windows servers and workstations.
- Analyzing functional and performance issues associated with use of technology collaborate with peers on possible solutions and implement corrective actions in a timely manner.
- Analyzing functional and performance issues with Windows systems and service environments, and working with peers and senior staff on possible solutions.
- Maintaining core service technology in infrastructure, research, or instructional systems, including service oversight and ownership as needed.
- Planning and maintaining patching, security, and other endpoint management functions of Windows servers and workstations.
- Designing and implementing networking for Windows systems to allow network connectivity and access to network resources.
- Planning and implementing major system upgrades and refreshes, including acquisition of new hardware, applications, and licensing need.

**Project Associate****Indian Institute of Technology Madras**

📅 14/12/2012 – 28/02/2014 📍 Chennai, India

- Manage the implementation, operation, maintenance, and performance monitoring of campus-wide IT infrastructure, including computer labs, servers, networks, and associated software systems.
- Ensure the security of data, software, and hardware by implementing appropriate cybersecurity controls, firewalls, endpoint management tools, and access policies.
- Plan and manage IT procurement by identifying requirements, preparing specifications, coordinating with vendors, and overseeing installation and deployment.
- Upgrade and maintain departmental IT infrastructure from a software and systems perspective, including server configurations, user account management, and application inventory.
- Review and enforce password policies, access controls, and user permissions; create unique, non-privileged user accounts; and maintain comprehensive inventories of hardware, software, network configurations, and device ownership.
- Diagnose and resolve technical issues across systems, networks, hardware, and software; provide Tier I and Tier II technical support to staff and faculty.
- Provide IT support for workshops, conferences, and institutional events, including system setup, troubleshooting, and on-site assistance.
- Configure, deploy, and document new systems and technologies; develop and maintain IT documentation and procedures.
- Deliver day-to-day desktop and end-user support, including system installations, upgrades, application support, printing solutions, and user training.
- Conduct training sessions for IT team members and university staff; provide regular reports to university officials on IT infrastructure performance and status.
- Serve as a backup IT resource during staff absences and respond to IT emergencies as required.

## PROGRAMMING SKILLS

Programming	C, C++, Java, Php
Databases	MySQL, MS-SQL Server
GUI	Visual Studio 2012/2010/2008/2005
Web Related	AJAX, Web Services, IIS, HTML, JavaScript, AngularJS
Administration	Windows Server, Linux, Server, DNS, DHCP, Mail
Web/App Server	Apache, Tomcat

## AWARDS AND HONORS

Under graduate – First Rank award for COBOL Programming, 2007

Under graduate – First Rank award for Computer Graphics, 2007

Under graduate – First Rank award for Applied Physics, 2007

## CAREER PROJECTS

### Website for CEST

Website designed for the Centre for Energy Storage Technologies.

- Designed website for CEST, Anna University.
- Implemented features to enhance user experience and information delivery

### Website for Director

Website designed for the Director, Centre for Sponsored Research and Consultancy.

- Designed website for the Director at Anna University.
- Created a platform to facilitate information dissemination.

## DEGREE PROJECTS

Masters	Web Development for Glisten technologies	April 2011
Masters	Insurance Management System	July 2009
Bachelors	E Banking and Mobile Banking	April 2008

## TECHNICAL EXPERTISE

### Server Administration

- Windows Server 2019 / 2025
- Microsoft Active Directory Architecture
- Group Policy Management and PowerShell
- RAID Configuration
- Linux Servers: Fedora, Oracle Linux, CentOS

### Firewall & VPN

- FortiGate, FortiClient, OPNsense
- Check Point Firewall Security
- Firewall Security Policy Management
- VPN Policy, Internet Access Policy
- Threat Prevention Policy and NAT Policy

### Network Security

- Network Device Backup and Recovery, Firewall, Antivirus
- Email Security Gateways, VPN Gateways, Proxy Servers
- Network Access Control (NAC)
- Network Load Balancer
- Unified Threat Management (UTM)

### Cyber Security

- Application Security
- Network Security
- Information Security
- Disaster Recovery Planning
- End-User Security

### Virtualization

- VMware ESXi, VMware vSphere
- Microsoft Hyper-V
- Proxmox

### Routers & Switches

- Cisco L2/L3 Switch Configuration
- Firmware Management, MAC Address Binding
- Port Security, SNMP Configuration
- Telnet and SSH Configuration
- VLAN Configuration
- Trunk Configuration

**IT CONFERENCE/FDP/WORKSHOP/SEMINAR/ TRAINING DETAILS**

1. Completed IT Professional Certification course in LAMP (Linux, Apache, MySQL, Php) organized by Bharathidasan University, Tiruchirappalli from 4<sup>th</sup> January 2010 to 31<sup>st</sup> April 2010.
2. Attended a four days' workshop on "Computer Hardware, software and secured social media aspects in Office Automation" held during 3<sup>rd</sup>-6<sup>th</sup> February 2016 in the Department of Information Technology, Sponsored by CEG, Anna University, Chennai.
3. Participated in the seminar on "An Overview of Internet of Things" organized by EMMRC, Anna University, Chennai on 6<sup>th</sup> January 2018.
4. Participated in the one-day workshop cum hands on session "Cloud based network management using MERAKI" organized by Anna University, Chennai on 3<sup>rd</sup> December 2018.
5. Participated in first International Conference on "Software Defined Networking" on 9<sup>th</sup>&10<sup>th</sup> April 2019 at Anna University, Chennai.
6. Completed Online Training course in Game Development using PyGame organized by Guvi, IITM, Chennai on 10<sup>th</sup> July 2020.
7. Completed micro learning course in Python for Data Science organized by Board Infinity on 12<sup>th</sup> July, 2020.
8. Completed online course in Network Security Fundamentals Organized by BitDegree on 15<sup>th</sup> July, 2020.
9. Attended the webinar on "Web Security" Organized by IEEE Computer Society, Kerala on 18<sup>th</sup> July, 2020.
10. Completed online course in Python on 21<sup>st</sup> July, 2020.
11. Completed online course in SQL fundamentals on 21<sup>st</sup> July, 2020.
12. Participated in the webinar on "Data Science" Organized by Panasonic on 25<sup>th</sup> Jul, 2020.
13. Attended the webinar on "Fighting Fraud – Cyber Security" Organized by IEEE Computer Society, Kerala on 27<sup>th</sup> July, 2020.
14. Attended the webinar on "COVID scams, state-sponsored scans, and app bans: Recent developments in Cyber Security" Organized by IEEE Computer Society, Kerala on 29<sup>th</sup> July, 2020.
15. Participated in 6 hours' online program on "Virtualization and Cloud computing" organized by National Institute of Electronics & Information Technology, Calicut during 28<sup>th</sup> July, 2020 -30<sup>th</sup> July, 2020.
16. Completed 2 weeks' online certificate course on "Python Programming" organized by National Institute of Electronics & Information Technology, Chennai during 20<sup>th</sup> August, 2020 -7<sup>th</sup> September, 2020.
17. Participated in the webinar on "Industrial Internet of Things (IoT)" organized by Anna University Chennai on 8<sup>th</sup> August 2020.

18. Attended in a webinar “Virtual Labs for Communications Systems using MATLAB & Simulink” organized by MathWorks on 20<sup>th</sup> August 2020.
19. Participated in the AICTE sponsored online short term training programme on “AICTE Sponsored STTP-Internet of Things (Everything)-Future” organized by B.S.Abdur Rahman, Crescent Institute, Chennai from 24<sup>th</sup> August, 2020 - 29<sup>th</sup> August, 2020.
20. Participated in the webinar on “Career Opportunities in Linux and Open Source Software” organized by B.S.Abdur Rahman, Crescent Institute, Chennai on 25<sup>th</sup> August, 2020.
21. Participated in the national webinar on “Interface between Artificial Intelligence and IPR in India” organized by Department of Legal Studies, University of Madras on 26<sup>th</sup> August, 2020.
22. Participated in a two days’ webinar on “IoT Security” organized by C-DAC, Hyderabad and Society for Electronic Transaction and Security, India, Chennai on 28<sup>th</sup> and 29<sup>th</sup> August, 2020.
23. Participated in the webinar on “Cyber Security Simplified” organized by School of Computer Information and Mathematical Sciences, B.S.Abdur Rahman, Crescent Institute, Chennai on 11<sup>th</sup> September 2020.
24. Completed 10 days training program on “Network and Networking Security” organized by Prompt Infotech, Coimbatore from 11<sup>th</sup> September 2020 to 20<sup>th</sup> September 2020.
25. Participated in the webinar on “Challenges of Emerging Pollutants in Water Management” organized by Nanyang Technological University, Singapore on 17<sup>th</sup> September 2020.
26. Participated in the webinar series on “Math for Data Science” organized by School of Computer Information and Mathematical Sciences, B.S.Abdur Rahman, Crescent Institute, Chennai on 19<sup>th</sup> and 20<sup>th</sup> September 2020.
27. Attended in a webinar “Teaching Artificial Intelligence with MATLAB” organized by MathWorks on 22<sup>nd</sup> August 2020.
28. Participated in the AICTE sponsored online FDP programme on “Internet of Things” organized by Thiagarajar College of Engineering, Madurai from 19<sup>th</sup> October 2020 to 23<sup>rd</sup> October, 2020.
29. Participated in the AICTE sponsored online FDP programme on “Design Challenges in VLSI and Embedded System for IOT Applications” organized by IIT, Tiruchirappalli from 23<sup>rd</sup> November 2020 to 27<sup>th</sup> November 2020.
30. Participated in the AICTE sponsored online FDP programme on “Cyber Security” organized by Sri Venkateshwara College of Engineering, Sriperumbudur, Tamil Nadu from 30<sup>th</sup> November 2020 to 4<sup>th</sup> December 2020.
31. Participated in the AICTE sponsored online FDP programme on “Cyber Threat Intelligence and Digital Forensics” organized by Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat, India from 19<sup>th</sup> July 2021 to 23<sup>rd</sup> July 2021.

32. Participated in the online Short Course on “Relational Database Management Systems” organized by National Institute of Technical Teachers Training & Research, Chennai from 11<sup>th</sup> October 2021 to 13<sup>th</sup> October 2021.
33. Participated in the AICTE sponsored online FDP programme on “Advances in Cryptography using Quantum Computing” organized by Department of Information Science and Technology, CEG Campus, Anna University, Chennai, India from 22<sup>nd</sup> November 2021 to 26<sup>th</sup> November 2021.
34. Attended the webinar on “Types of Attacks in the Cyber World” Organized by C-DAC, Hyderabad on 13<sup>th</sup> July, 2023.
35. Participated in the two days state level awareness workshop on “e-Governance standards and Guidelines” organized by C-DAC, Pune, STQC, Chennai from 18<sup>th</sup> & 19<sup>th</sup> August, 2023.
36. Participated in the ISEA sponsored FDP programme on “AI-Powered cybersecurity” organized by Anna University, Chennai from 6<sup>th</sup> January 2025 to 10<sup>th</sup> January 2025.
37. Participated in the Government Officer Training-Advanced on “Software and Network Security Fundamentals” organized by C-DAC Hyderabad from 3<sup>rd</sup> March 2025 to 7<sup>th</sup> March 2025.

## REFERENCES

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References available upon request.

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