NARAYANAN SUBRAMANIAM

Technology Transformation Executive | CTO | Digital Infrastructure, Electric Mobility Platforms & Energy Systems

Creating Coherence Across Complex Distributed Ecosystems

Enterprise Platforms • AI & Automation • Electric Mobility • Energy Systems

Systems → Platforms → Ecosystems → Enterprise Transformation

narayanan@vanashri.com | linkedin.com/in/cnsubramaniam | +91-9341969647

EXECUTIVE SUMMARY

Technology Transformation Executive and CTO with 30+ years of experience building, scaling and evolving complex technology platforms and distributed ecosystems across enterprise infrastructure, electric mobility, industrial AI and emerging energy systems. Combines deep technical and architectural expertise with large-scale engineering leadership and the ability to align technology strategy, platform architecture, operations and business priorities. Currently leading strategic technology engagements while pursuing independent research and customer discovery in Intelligent Energy Platforms and Mission-Aware Energy Systems.

CAREER HIGHLIGHTS

Platform Scale & Operational Outcomes

- Scaled systems supporting 130,000+ connected battery-swap electric vehicles
- Operated platforms across 2,000+ swap-EV infrastructure assets at SUN Mobility
- Supported 250,000–300,000 daily EV battery-swap transactions
- Achieved 99.9% uptime and swap readiness across the swap-EV infrastructure
- Reduced deployment costs of the swap-EV control infrastructure by ~30% per asset
- Shaped product strategy and expanded swap-EV platform capacity by ~3× via clustering
- Accelerated swap-EV field ticketing resolution time by ~8× using AI workflows

Technology & Innovation

- 22+ patents across US & India at DELL, Infinera & SUN Mobility
- Dell India Inventor of the Year

Engineering & Executive Leadership

- Led a global engineering organisation of 100+ engineers at Nutanix
- Technology and engineering budget responsibility at Nutanix and Eugenie.ai

CORE LEADERSHIP CAPABILITIES

- Global Engineering Leadership; Technology Transformation; Platform Strategy
- Distributed Infrastructure and Cyber-Physical Systems
- Enterprise Architecture and Systems Integration
- AI, Automation and Operational Intelligence

SIGNATURE TRANSFORMATION

SUN Mobility & Indofast Energy (joint-venture with Indian Oil Corporation)

Chief Architect | Technology Platform Transformation

Scaling One of India's Largest Battery Swapping Ecosystems

Leadership Challenge

Transform a rapidly expanding EV ecosystem into a reliable, scalable, nationwide operating platform capable of supporting future growth, while navigating the challenge of integrating heterogeneous vehicles, batteries, swap stations, cloud platforms and field operations with a high level of service continuity.

Systems Integration

Integrated software, batteries, electric vehicles, infrastructure, cloud platforms, analytics, and field operations into a unified operating system for the business.

- **Platform architecture and systems integration:** Integration of connected EVs, battery assets, swap stations, IoT, cloud platforms and field operations
- **Platform scalability:** Clustering architecture and capacity expansion to accommodate growing vehicle and transaction volumes
- **Deployment economics:** Optimisation of control infrastructure and reduction in deployment costs per asset
- **Operational intelligence:** AI-enabled workflows to accelerate field-ticket resolution and improve operational responsiveness

Outcomes

Dimension	Achievement
Connected EVs	130,000+
Distributed infrastructure assets	2,000+
Daily transactions	250,000–300,000
Production reliability	99.9% station uptime and swap readiness
Deployment economics	~30% reduction in control-infrastructure deployment costs per asset
Platform capacity	~3× expansion through clustering
AI-enabled operations	~8× faster field-ticket resolution
Future scale	Architecture designed for 10,000 stations and 1 million EVs

PROFESSIONAL EXPERIENCE

VaNaShRi Technology Consulting

Founder & CTO | Technology Transformation, Executive Advisory & Platform Scale-Up

2023 – Present | Bengaluru, India

1. Technology Transformation & Strategic Engagements

- Technology leadership and strategic advisory engagements across EV, climate-tech, and cyber-physical systems startups as part of NASSCOM and IIT Palakkad engagements
- Leading an independent technology research and customer discovery program focused on Intelligent Energy Platforms and Mission-Aware Energy Systems

2. SUN Mobility Re-engagement

- Re-engaged to stabilise and scale the battery-swapping platform, building on the foundational architecture originally developed during the 2017–2019 engagement
- Supported the platform's expansion to 130,000+ connected EVs and 2,000+ distributed infrastructure assets
- Expanded platform capacity through clustering and optimised control-infrastructure deployment costs
- Prototyped AI-enabled ticketing workflows, accelerating field-ticket resolution
- Contributed to 12 jointly filed patents in India, forming part of a portfolio of 22+ patents across the US and India

Eugenie.ai

Chief Technology Officer | Industrial AI

2022 – 2023 | Bengaluru, India

Scope
CTO for an industrial AI and decarbonisation platform serving heavy industrial customers, including steel manufacturing.

Representative Contributions

- Led technology strategy, platform architecture and engineering execution
- Led a 20-person engineering organisation across architecture, development and delivery
- Built API-first AI platforms integrating industrial IoT and satellite data
- Evolved the platform from customer pilots towards scalable SaaS delivery
- Supported AI platform pilots with a large steel manufacturer in India and a mining company in Brazil
- AI process-control algorithms resulted in a ~5% reduction in coke consumption and wastage in the sintering process for steel
- Contributed to technology leadership during the company's participation in the Google Climate Accelerator

Nutanix

Senior Director of Engineering & Principal Architect | Hybrid Cloud Management

2019 – 2022 | Bengaluru, India

Scope: Global hybrid-cloud management products supporting deployment and operations across enterprise and public-cloud environments.

Organisational Leadership

- Led a global engineering organisation of 100+ engineers across platform development and cloud management products
- Established alignment across global product, engineering and platform teams

Platform and Technology Transformation

- Modernised hybrid-cloud management architecture and platform capabilities
- Evolved architecture and operating models to support enterprise and public cloud environments
- Introduced AI, automation and observability capabilities

Business and Operational Outcomes

- Improved API throughput performance by 20% through platform architecture and performance enhancements
- Managed technology and engineering budgets
- Aligned engineering investment and execution with the product strategy for Nutanix Prism, its hybrid-cloud management platform

SUN Mobility

Chief Software & Systems Architect | Electric Mobility Infrastructure

2017 – 2019 | Bengaluru, India

Scope: Foundational battery swapping infrastructure platforms for distributed mobility systems.

Representative Contributions

- Architected the foundational battery-swapping platform from the ground up
- Designed the core software architecture spanning vehicles, batteries, swap stations and cloud systems
- Built unified IoT and edge-computing systems
- Established architecture across hardware, firmware, communications and cloud platforms
- Enabled deployments across buses, scooters and three-wheelers

Cisco

Principal Engineer / Architect | Webex Hybrid SaaS

2012 – 2017 | Bengaluru, India

Scope: Distributed SaaS voice-video platform operating at global scale.

Representative Contributions

- Improved reliability across globally distributed voice & video SaaS environments
- Built large-scale observability and operational intelligence systems
- Enabled data-driven operational decision-making and ML-driven anomaly detection
- Participated in global innovation and patent programs

Dell Technologies

Distinguished Engineer | Server & Systems Management

2006 – 2012 | Bengaluru, India

Scope: Enterprise infrastructure, systems management, and data center technologies.

Representative Contributions

- Data-centre management and provisioning architecture for 10K server deployments
- Data-centre infrastructure and embedded systems management innovation for 1-touch deployment, provisioning and lights-out management
- IPv6 and infrastructure transformation initiatives to support new US Federal business
- Patented technology contributions across IPv6, server security
- Dell India Inventor of the Year recognition

FOUNDATIONAL TECHNOLOGY LEADERSHIP (1994–2006)

Organisation	Period	Role	Technology / Contribution
Infinera	2003-2006	Staff Engineer	DWDM optical networking, embedded systems management, IP control planes and synchronisation
Ishoni Networks	2001-2003	Software Architect	DSL infrastructure provisioning and embedded management platforms
Hughes Network Systems	1997-2001	Principal Engineer	Broadband wireless and satellite network management
IBM	1995-1997	Software Engineer	Optical networking management platforms
Tata Elxsi	1994-1995	Software Engineer	Software engineering foundations

EDUCATION & EXECUTIVE EDUCATION

A. Academic Qualifications

- BTech, Electronics & Communication Engineering - IIT Madras, India
- MS, Electrical Engineering - University of Maryland, College Park, USA

B. Executive Education & Specialised Programmes

- Chief Digital Officer Programme - Indian School of Business
- Artificial Intelligence & Machine Learning - University of Texas at Austin, USA
- Advanced Certification in Space Technologies – IISc Bangalore, India

RECOGNITION

- 22+ patents across the US and India
- Dell India Inventor of the Year
- Cisco Excellence Award
- Senior Member, IEEE
- Senior Member, ACM

ECOSYSTEM LEADERSHIP

- Technology Mentor – MANTHAN-UTTHAN, Office of PSA, Government of India
- Anchor Mentor – IIT Palakkad Technology Innovation Hub Foundation (IPTIF)
- Jury Member – NASSCOM DeepTech Emerge 50
- Jury Member – Karnataka ELEVATE & ELEVATE-NXT
- Technical Program Committee Member, Reviewer & Session Contributor – IEEE SPACE