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

EXECUTIVE POSITIONING

Narayanan Subramaniam is a Technology Transformation Executive and CTO with 30+ years of experience building, scaling and evolving complex distributed technology platforms across enterprise technology, digital infrastructure, electric mobility and energy systems.

His experience spans deep technology, enterprise platforms, product and platform strategy, architecture and large-scale engineering leadership. He combines technical and architectural depth with the ability to shape technology direction, align engineering and operational organisations, and translate strategic ambitions into reliable, scalable and economically sustainable operating platforms.

Across his career, he has repeatedly worked at the intersection of technology, operations and business: bringing coherence to complex systems, building organisational and architectural structures that enable scale, and aligning technology investments and execution with commercial and operational priorities.

His leadership approach balances architectural integrity, engineering execution, investment priorities and operating economics while preserving adaptability for continuous innovation.

Alongside executive leadership and strategic engagements, he is pursuing independent research into Intelligent Energy Platforms and Mission-Aware Energy Systems, exploring how energy is evolving from a utility-management function into an operational decision-making capability in increasingly electrified and automated industries.

VALUE CREATION SNAPSHOT

Platform Scale

- 130,000+ connected battery-swap electric vehicles
- 2,000+ distributed swap-EV infrastructure assets
- 250,000–300,000 daily battery-swap transactions
- Architected for 10,000 stations and 1 million battery-swap electric vehicles

Operational & Economic Outcomes

- 99.9% uptime and swap readiness across swap-EV infrastructure
- ~30% reduction in swap-EV control-infrastructure deployment costs per asset
- ~3× swap-EV platform capacity expansion through clustering
- ~8× faster field-ticket resolution using AI workflows

Technology, Innovation & Leadership

- 22+ patents across US & India at DELL, Infinera & SUN Mobility
- Dell India Inventor of the Year
- 100+ engineers led globally at Nutanix
- Technology and engineering budget responsibility at Nutanix and Eugenie.ai

SIGNATURE LEADERSHIP PHILOSOPHY

Creating Structure Without Slowing Innovation

Large-scale transformation succeeds less through technical authority and more through collaborative alignment across business, operations and engineering organizations.

A. Business and Technology Alignment

- Align technology strategy, architecture & engineering priorities with business objectives
- Translate strategic ambitions into executable technology and operating roadmaps
- Balance investment priorities, resource allocation and long-term platform economics

B. Architecture and Systems Thinking

- Treat architecture as an adaptive capability rather than a fixed target state
- Create coherence across software, hardware, infrastructure, data and operations
- Design platforms for reliability, scalability, resilience and evolution

C. Engineering and Organisational Leadership

- Build and align multidisciplinary engineering organisations
- Establish governance and operating structures that improve execution
- Create clarity of accountability without introducing unnecessary bureaucracy

D. Innovation and Operational Scale

- Preserve agility while introducing the structure required for enterprise scale
- Bridge emerging technology and production operations
- Operationalise complexity while maintaining reliability and economic sustainability

His leadership differentiator lies in creating coherence across technology, engineering, operations and business priorities - establishing the structure needed for scale while preserving the adaptability required for innovation. He views architecture, governance and organisational alignment as enablers of business outcomes, not ends in themselves.

SIGNATURE CASE STUDY

SUN Mobility & Indofast Energy

Scaling One of India's Largest Battery Swapping Ecosystems

Leadership Challenge

Transform a rapidly expanding EV ecosystem into a reliable, scalable nationwide operating platform, integrating heterogeneous vehicles, batteries, swap stations, cloud platforms and field operations while sustaining service continuity.

Transformation Led | Chief Architect

Brought software, hardware, distributed infrastructure and field operations into a coherent operating platform. Evolved the architecture to support scale, reliability and operational efficiency through:

- **Platform architecture:** Integrated connected EVs, battery assets, swap stations, IoT and cloud infrastructure
- **Scalability:** Introduced clustering to expand platform capacity
- **Deployment economics:** Optimised control infrastructure to reduce deployment costs per asset
- **Operational intelligence:** Applied AI workflows to accelerate field-ticket resolution

Scale & Outcomes

Dimension	Outcome
Ecosystem scale	130,000+ connected EVs across 2,000+ operational infrastructure assets
Transaction volume	250,000–300,000 daily battery-swap transactions
Production reliability	99.9%
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 readiness	Architected for 10,000 stations and 1 million EVs

Why This Matters

This transformation required aligning software, cloud infrastructure, batteries, hardware systems, field operations, manufacturing partners, deployment teams and executive leadership while sustaining uninterrupted business operations.

It demonstrates Narayanan's ability to bring coherence to a complex cyber-physical ecosystem, translate architectural and product strategy into operational capability, and align technology execution with reliability, scalability and business economics.

REPRESENTATIVE TRANSFORMATION ENVIRONMENTS

Organisation	Leadership Role	Transformation & Contribution
Infinera	Senior Technical Leadership	Optical networking embedded systems, deep technology development and innovation
Dell Technologies	Distinguished Engineer	Scalable server infrastructure architecture, technology innovation and patented engineering contributions
Cisco	Principal Engineer	Enterprise voice & video conferencing, scalable distributed systems and operational intelligence
SUN Mobility	Chief Architect	Distributed EV platform architecture, systems integration and operational scale
Nutanix	Senior Director, Engineering	Global engineering leadership, scalable HCI platform modernisation and technology investment
Eugenie.ai	CTO	Industrial AI for steel manufacturing, technology strategy and engineering leadership
VaNaShRi	Founder & CTO	Strategic technology engagements in EV & Climate-Tech, intelligent energy platforms and independent research

ECOSYSTEM LEADERSHIP

Selected ecosystem engagements:

- **National Technology & Innovation Ecosystem:**
    - Technology Mentor – MANTHAN-UTTHAN, Office of PSA, Government of India
    - Anchor Mentor – IIT Palakkad Technology Innovation Hub Foundation (IPTIF)
- **Deep-Tech and Startup Ecosystem**
    - Jury Member – NASSCOM DeepTech Emerge 50
    - Jury Member – Karnataka ELEVATE & ELEVATE-NXT
- **Research and Professional Community**
    - Session Chair, Reviewer and Contributor – IEEE SPACE

INDEPENDENT RESEARCH

Intelligent Energy Platforms & Mission-Aware Energy Systems

- Energy as an operational decision-making capability
- Mission-aware energy systems
- Coordination of operational intent, energy systems and external context
- Customer discovery across ports, industrial operations, logistics and related sectors

EDUCATION

Academic Qualifications

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

Executive Education & Specialised Programmes

- Chief Digital Officer – Indian School of Business
- AI & ML – University of Texas Austin, USA
- Advanced Certification in Space Technologies – IISc Bangalore, India

REPRESENTATIVE EXECUTIVE ROLES & OPPORTUNITY AREAS

Primary executive roles

- Chief Technology Officer
- Chief Product & Technology Officer
- Technology Transformation Executive
- Chief Platform Officer

Strategic and selective roles

- Enterprise Transformation Leader
- Technology Operating Partner

Narayanan's work centres on translating complex technology ambitions into reliable, scalable and economically sustainable operating platforms. His experience across enterprise technology, distributed infrastructure, electric mobility and emerging energy systems positions him to lead technology transformation and platform scale-up in organisations navigating significant technological and operational change.