# Supercharging **5G and beyond**



5G is no longer a technology for the future. 5G is here and is disrupting industries like never before. Advancements in 5G technology are unlocking new possibilities for creating value across multiple industry verticals and market segments.

To realize this potential, enterprises are increasingly investing in 5G innovation and research to address business challenges. At HCLTech, we are at the forefront of this 5G revolution with our solution-driven approach, technology depth and domain expertise.

We are accelerating the 5G revolution by converting today's most pressing 5G challenges into opportunities, and creating new monetization avenues for telecom and cloud service providers, and enterprises across industries.

#### Supercharging 5G revolution with HCLTech

We have a unique, ecosystem-driven 5G Engineering strategy that helps capture new revenue streams, deliver mission-critical solutions, and create immersive experiences, for the entire 5G ecosystem that includes: Telecom Service Providers (TSPs), OEMs, Hyperscalers, Semiconductor & Device Manufacturers, and Enterprises.



Product Engineering services

vRAN, 5GC design and development

Hardware Engineering (Embedded/ FPGA / RF)

RF board /Antenna design & development

Professional Services for Vendors, TSPs, Hyperscalers

Converged Network Elements (SDN, Converged Access) Development

**Engineering Labs** 



Private networks & Enterprise 5G

Consultancy Services

Network design to deployment services

Managed services for enterprises

Use Case development and System Integration



Solution Engineering & SI services

5G System Integration Framework (5G SF)

CI/CD/CT

xNF Onboarding & Certification

Device Certification & Onboarding

Predictive Analytics & Service Assurance

Slice Management Solution

Day-0, Day-1, Day-2 Automation



Open RAN
(Open-Source Community Contribution)

Non-RT RIC / SMO / ONAP integration and Hardening

Nr RT RIC OSC contribution, hardening and integration

xAPP / rApp development



Multi-vendor, Multi-domain experience



Investments in 5G labs with 10+ Partners



CoE with practitioners to scale for 5G



Investments in products (SON), Open source

### Our 5G Solutions – Accelerating the 5G revolution

Our portfolio of transformative 5G solutions and accelerators are tailored to leverage the full benefits of 5G and play a crucial role in the entire lifecycle of industry transformation.

## 5G SF (System Integration Framework)

Automate and accelerate Network Function onboarding, testing and validation, network abstraction, slice management, Service assurance and analytics

#### **5G NOX**

Support onboarding, Interoperability testing/ validation and certification of multi-vendor 5G Network Functions & 5G Devices

## 5G service assurance & analytics solution

Enables operators and enterprises to improve network service quality and user experience

#### **TURBO**

Intelligent 5G Test automation and orchestration platform, to manage, schedule, and monitor test case execution

## Augmented Network Automation (ANA)

Self-Organizing Networks (SON) that leverages ML and Analytics across multiple layers to automate mobile networks, and reduce costs

## 5G Network in a box

Managed service solution for use case design, development, deployment, operation, management of Enterprise 5G solutions

## Creating impact across industies and value chains

#### For a leading Hi-Tech OEM



- Performed Open RAN interoperability testing, validation and re-certification services
- Successfully executed Radio Integration & System Testing, Radio Conformance Testing

#### For a Tier-1 Telecom Operator



- Designed and implemented Multi-cloud based MEC orchestrator to orchestrate xNF ordering and deployment
- Enhanced end-customer experience by developing an SD-WAN/SASE monitoring function for vendor systems

#### For a Tier-1 Electronic Manufacturer



- Implemented a 5GC Location Management Function (LMF) to monitor personnel movement and provide real-time alerts
- Mission critical Enterprise 5G application for human safety, ensuring 99% safety compliance

#### Our Credentials

**45+ years of Engineering and R&D service expertise:** Supercharging Progress across 10+ industry verticals.



Rich customer base: 63 out of 100 Top R&D spenders are our customers, many of whom have been our strategic partners for over a decade

Investments in 5G Labs:

State-of-the-art network centric and use-case specific Labs for testing, integration & PoC development



Partnership-driven approach towards 5G: Collaborating with 20+ partners in a myriad of ways to co-create and develop services tailored to meet diverse industry and enterprise needs

A uniquely positioned partner in the Open RAN space: Active participant and Key contributor in O-RAN Alliance & Telecom Infra Project (TIP) communities Investment across entire value-chain:

Aligned to customer imperatives and driven by automation, optimization, cloudification, and containerization

#### **Analyst Recognitions**



Leader in
5G Engineering Services
PEAK Matrix® Assessment
2021



Zinnov

Leader in
Zinnov Zones For
Digital Engineering Services
2022

Everest Group

Leader in

Digital Product Engineering Services

PEAK Matrix® Assessment

2022

ISG

ISG Provider Lens™ Digital Engineering Services
Connected and Intelligent Operations
Discrete Industries, U.S.

2022

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