



Communication Technologies
can be complex, We simplify them...

TELECOM & NETWORKING

HCL ENGINEERING AND R&D SERVICES

Industry Outlook

Networking players, telecom operators and communications providers perhaps utilize the most complete array of engineering solutions in one of the most dynamic marketplaces. Some of the hottest trends in convergence, mobility, digitization, cloud, delivery platforms and social media are placing unprecedented demands on companies to win in a new communications landscape. In this environment, companies are dovetailing engineering strategies into their processes to help them gain a competitive edge.

Telecom and Networking Capabilities



VAS

- 2G to 4G
- HSPA
- CDMA
- WiMax
- LTE
- NodeB
- Home gateway
- DSLAM



Switching and Routing

- Collaboration
- Voice/message/video/multimedia
- Application Integration
- End Devices



IMS

- Protocols, solutions, integrations for multimode devices



OSS/BSS

- Traffic mediation
- Analytics

- Mobile Internet
- Messaging

Wireless and Fixed Access



- IP/ MPLS
- Carrier Ethernet

- ATM Multiple OS/ HW platforms

- System Engineering

Unified Communications



- Session Control Module

- Authorization & Authentication

Mobile Devices Expertise



- Billing Solution
- Rating

- Fulfillment
- Provisioning

- Mediation

Services and Solutions



VLSI design Services

- Customer's Idea
- System Modelling
- RTL Coding
- Functional Verification & Simulation
- FPGA prototyping
- Synthesis and timing analysis
- Physical Design
- Package/Test/ Assembly
- Engineering Samples and PSV



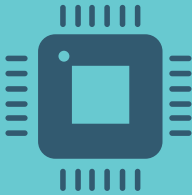
ASIC

- Die size 18mmx18.4mm
- Technology 65/45/40/32*/28* nm
- 21 embedded processors in one die
- Complexity Design upto 20Mgates, Verification up to 25Mgates
- Clocks 8/Chip, 720 MHz
- I/O's 1150



FPGA

- Complexity design upto 6Mgates
- I/O High speed SERDES DDR2
- Speed 8Gbps
- Clocks 8Clock,domains, 311MHz
- Processors ARM, NIOS, Power PC, Micro Blaze



Service Line Units



Acceleration

- Platform Acceleration Suite
- Innovation Platform Enablement

Value

- Accelerated Functional Testing
- Performance Engineering
- App Test Factory
- Interoperability Testing
- eDAT
- VAVE
- Intelligent Tech Support
- Intelligent Sustainance Engineering

Technology

- Product Intelligence

HCL in Telecom & Networking



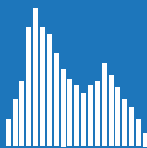
Established Quality framework with adherence to TL9K, ISO 9001:2000 standards



Customers including 3 of the top 7 Fortune 500 CSPs, 5 out of top 7 OEMs, top 4 handset manufacturers, top 3 VAS solution providers



High Customer satisfaction score(CSAT) – 38% growth in CSAT YoY



Centre of excellence for micro verticals and horizontals including Wireless, UC, OSS/BSS etc

*%
PROFIT*

\$15 Mn+ investment in Lab Infrastructure for our customers in the areas equipment testing



Investments in future growth areas – IMS, UC, LTE/4G, Core Networking, Content Delivery, Analytics

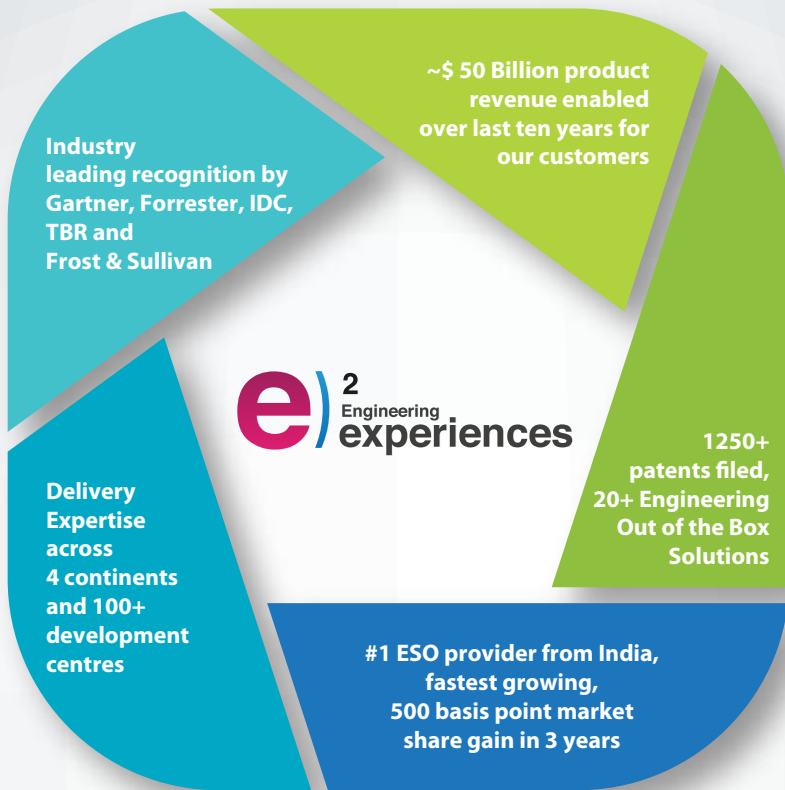
Experiences Engineered for our customers (Case Studies)

- 1 Transform the ownership of regression testing of Core, Edge, Access routers/switches and security products for development for a leading OEM
- 2 Regression testing including lab build out leading to total value of national savings on FRE of \$370K
- 3 Re-architecture of a key product to integrated MPLS-TP including Control plane extension, Fast path extension, CLI/SNMP enhancement for a leading telecom infrastructure provider
- 4 Sustenance 2G/3G Protocol Stack (Radio Test Solution) including layer1 for a leading wireless equipment testing company
- 5 Development and Testing of 3GPP GUP compliant User Profile Provisioning system for an IMS environment for a European global telecom OEM



Look here





Hello, I'm from HCL's Engineering and R&D Services. We enable technology led organizations to go to market with innovative products and solutions. We partner with our customers in building world class products and creating associated solution delivery ecosystems to help bring market leadership. We develop engineering products, solutions and platforms across Aerospace and Defense, Automotive, Consumer Electronics, Software, Online, Industrial Manufacturing, Medical Devices, Networking and Telecom, Office Automation, Semiconductor and Servers & Storage for our customers.

For more details contact: ers.info@hcl.com

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