

KIOSK **ENGINEERING** SERVICES



INTRODUCTION

The Global Kiosk Industry is going through a shift. Kiosk manufacturers are now building products and solutions keeping consumers at centre and are focused on building customers centric product strategies with aim to provide trouble-free experience to the users.

HCL works on New Product Development, Product Sustenance, Regulatory and Compliance, New Technology Adoption (IoT, Mobile Apps, Cloud Enablement) and more.

As a product engineering, sustenance and regulatory partner of choice to 2 of the top 10 Kiosk manufacturers & 2 of the top 10 Printer manufacturers, HCL delivered innovation at a predictable cost model



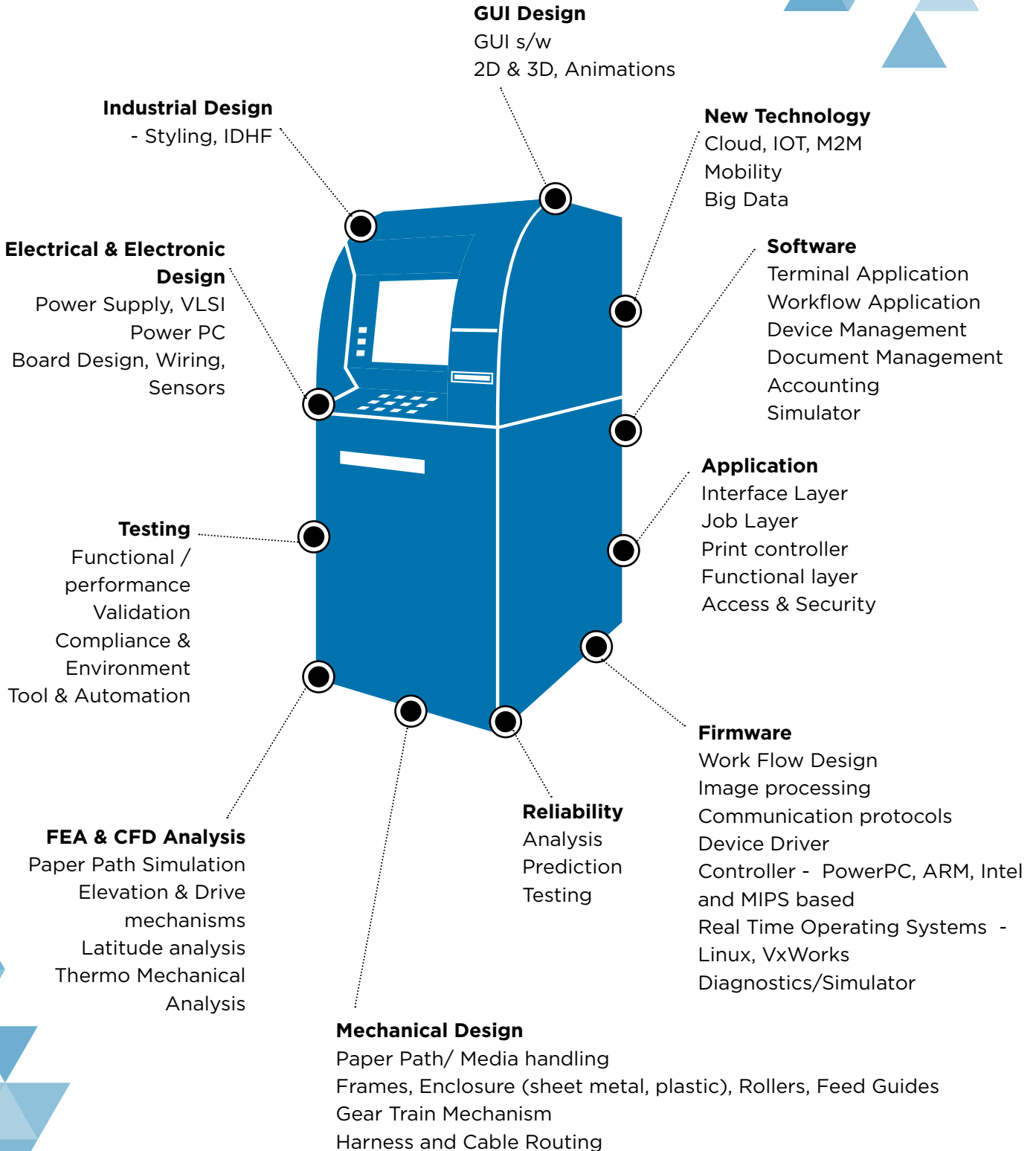
HCL'S RELEVANT EXPERIENCE

HCL'S KIOSK PRACTICE HAS EXTENSIVE EXPERIENCE AND EXPERTISE OF WORKING ON VAST ARRAY OF COMPLEX ELECTRO- MECHANICAL DEVICES



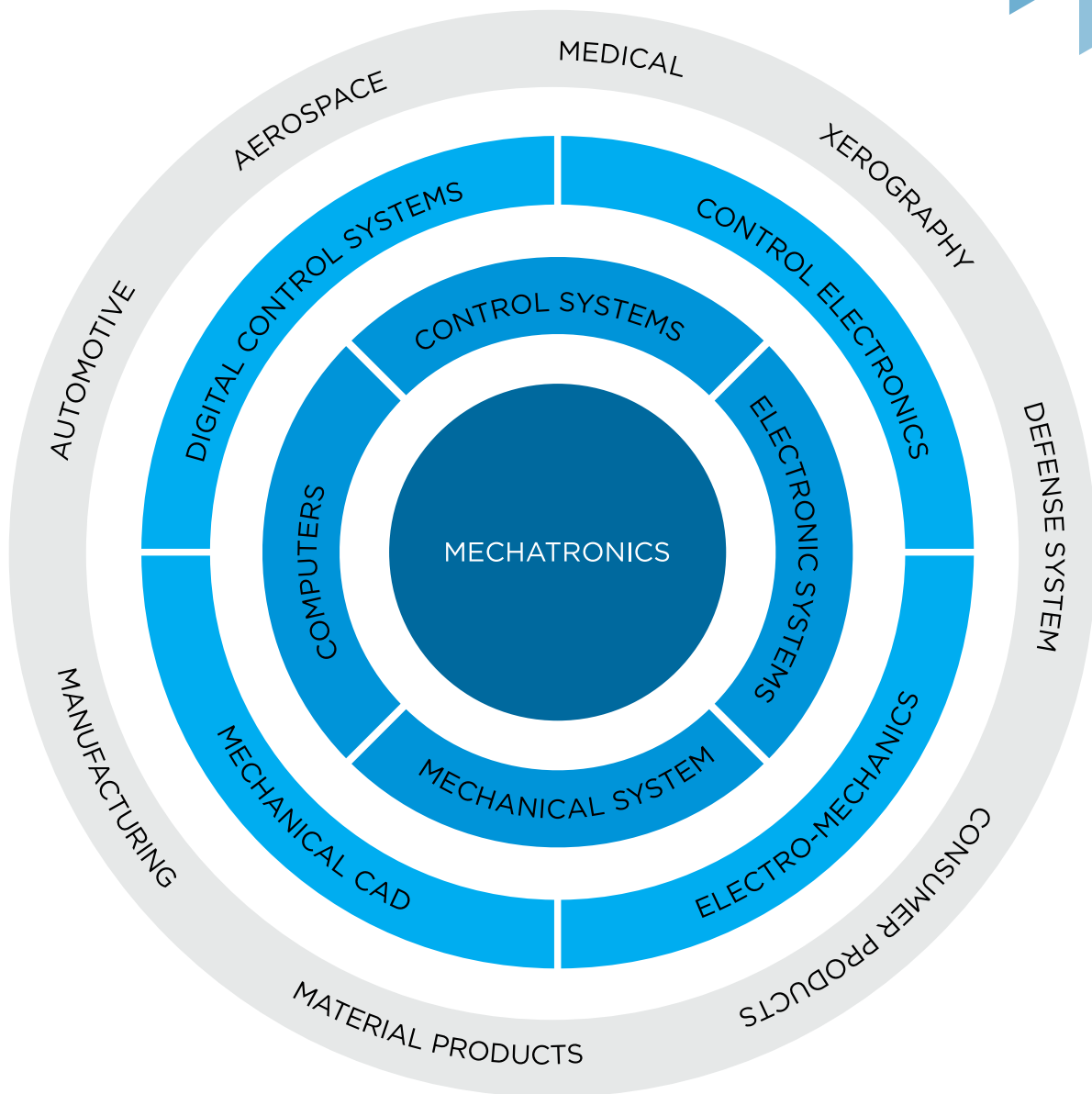
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- Design and Development Experience - Relevant experience highlights
 - ATM Module design (Cash Handlers/Dispensers/Transporters/Collectors/Acceptors)
 - Receipt and Printer Modules for ATM / Self Checkouts
 - Independent printers / Multifunction Printers / label printers
 - Costing and Value Engineering of Printer and POS
 - Reliability Analysis for Cash Products / Printers / POS

DOMAIN COMPETENCE

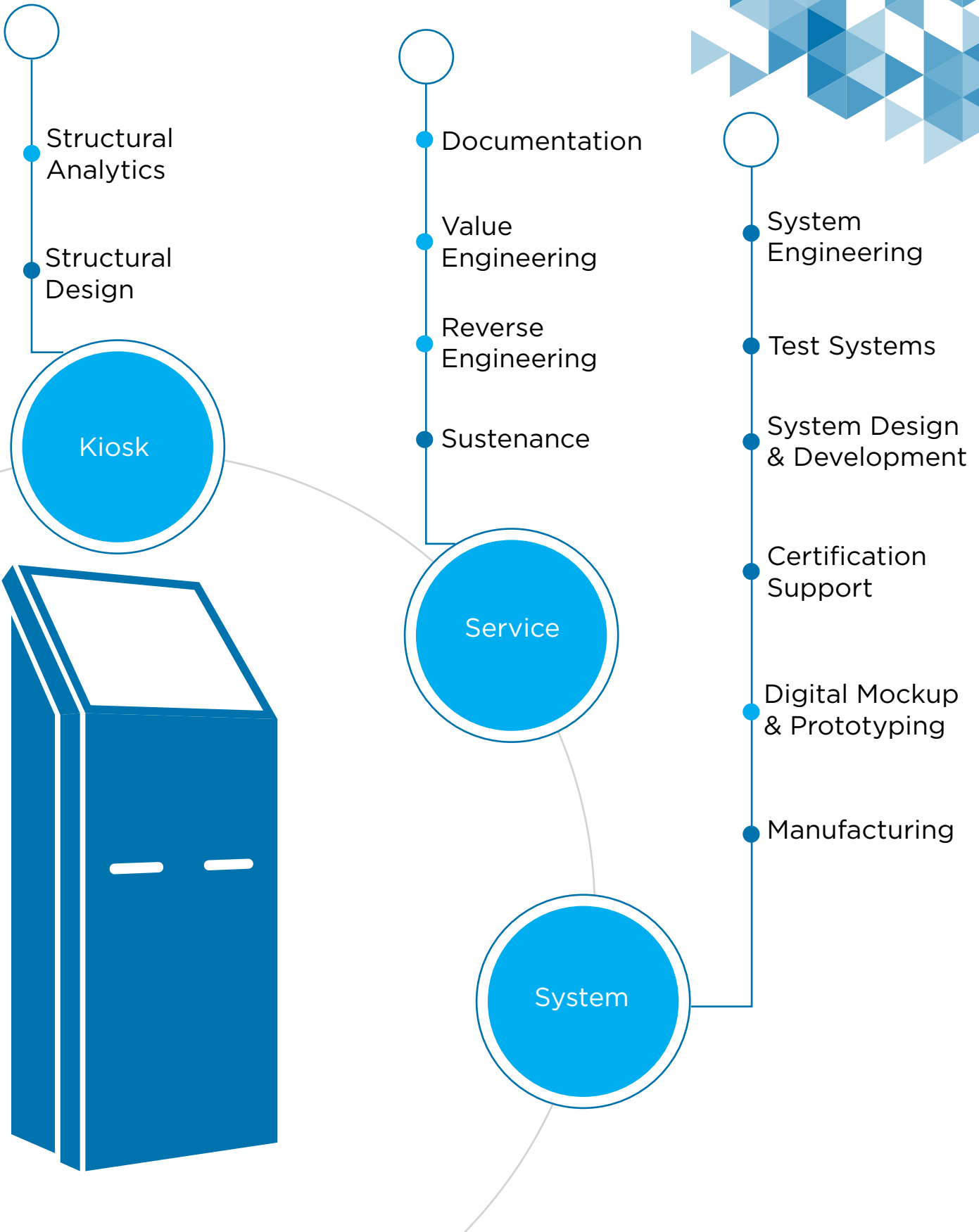
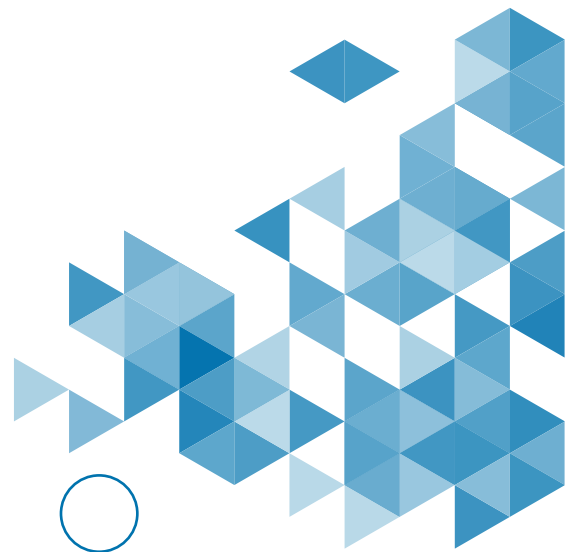


MECHATRONICS SYSTEMS EXPERTISE AREAS

HCL HAS VAST EXPERIENCE IN END TO
END PRODUCT DEVELOPMENT WITH
SERVICES IN MECHANICAL ENGINEERING,
EMBEDDED SOFTWARE ENGINEERING,
PRODUCT ENGINEERING & TESTING AND
PLM, ENGINEERING & MANUFACTURING
APPLICATIONS



HCL KIOSK MECHANICAL SERVICE OFFERING



CASE STUDY #1 : CASH DISPENSING SYSTEM DEVELOPMENT

SCOPE

Firmware and XFS Interface Development for next generation cash dispensing system.

CLIENT

Leading ATM Manufacturer

HCL APPROACH

- Leveraged the Paper Path Expertise @ HCL
 - Firmware team comprises of UML trained engineers
 - Solution Design comprises of expert in Electro-mechanical system.
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TECHNOLOGY/TOOLS HIGHLIGHT

- Free scale K60, MSP430
- uVelocity
- Rhapsody for C++ model centric development
- GHS Multi



HCL SOLUTION

- Multi Currency dispensing feature
- USB packet structure
- Picker, CashUnit, Flow and Channel handling the currency movement
- Diagnostic module
- Cassette unlock feature

CASE STUDY #2 : RIDERSHIP & VENDING DEVICE SOFTWARE DEV & SUSTENANCE

CLIENT: U.S. BASED GLOBAL CORPORATION THAT PROVIDES INFORMATION TECHNOLOGY SERVICES AS WELL AS BUSINESS PROCESS OUTSOURCING SOLUTIONS TO BUSINESSES, GOVERNMENT AGENCIES, AND NON-PROFIT ORGANIZATIONS.

BUSINESS PROBLEM

- Transition to a reliable offshore vendor to improve productivity and time to market

REQUIREMENT

- To provide ridership device software support for New and Existing Products
- To provide Fare Vending Device software support for new and existing products
- New feature Development, enhancements, maintenance
- UI and Database Design and Implementation
- Performance Optimization and Tuning

HCL SCOPE

- Transition all projects using capable engineers in defined time
- Development and sustenance, Feature enhancements across platforms
- Testing of the application across platforms

KEY FEATURES

Transition from various teams like system engineering, features development & sustenance were done ahead of desired timeframe

Took ownership of ridership device software in 1 month with minimal KT and successful releases on time

Took ownership of Fare vending device software support in 3 month with minimal KT and successful releases on time

CAPABILITIES

- Domain experience in ridership software for Transit and Regional Rail stations
- Integration of ridership software with different type of cards like septa key cards, DSM, PATCO, Limited Use media(LUM), barcode tickets
- Payment domain experience on Pay pass, EMV, Apple Pay, Samsung Pay, Android Pay
- Experience in PLC firmware to control and monitor the access & authorization gate hardware like Turnstile and Rotary Gate
- Development of embedded application in real time to control the rotary gate, turnstile gates, ADA gates, On board processor and Ticket validation unit



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HCL