

EmpoweringUtilities for tomorrow

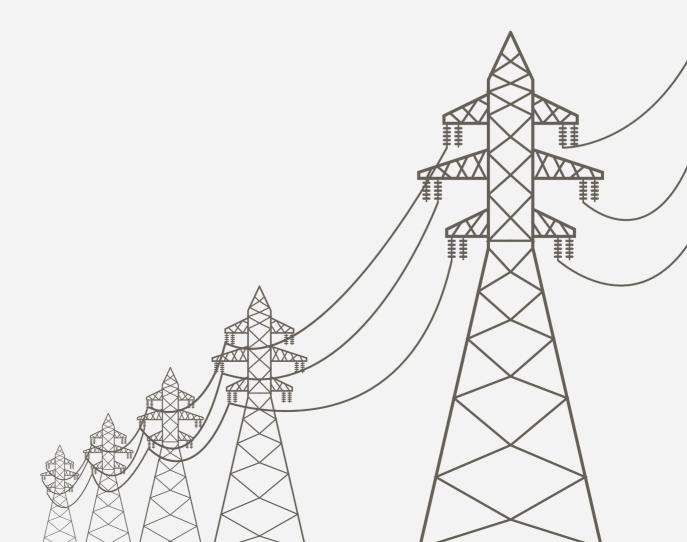
Utilities Book of Impact



Energy and Utilities

In the wake of ongoing digital transformation in the energy and utilities industry, organizations are striving to deliver and operate safe, secure, and reliable decentralized energy resources, generate data-driven business models, and drive the uberization of customer experience. To address these imperatives, utility of the future needs to strengthen the technical foundation and establish a digital core, which, in turn, leads to transforming grid operations, digital enablement of the workforce, and improving prosumers' experiences through various digital channels.

This booklet is a collection of success stories from HCL's Energy & Utilities practice—instances of collaboration with our clients, where we have delivered end-to-end differentiated services in transforming their business/IT in their overall digital transformation journeys.





HCL provided outcome-based fully integrated managed business process services for a leading utility

The Customer

One of the largest competitive and regulated retail energy providers for Gas and Electric services in North America, with products and offers available in 24 US markets and five Canadian provinces.

Business Objectives

The key objectives for the customer were to:



Overcome the siloed approach across business operations, applications, and infrastructure to deliver a completely integrated business strategy solution to enhance customer lifecycle support including Enrollment, Meter to Cash, Service Support, Tele-sales (reactive and outbound) and Field Sales Support



Deploy and support all the required infrastructure, applications, and business process execution, and align these with the customer's business strategy, goals, and KPIs



Deliver a business solution that is measured and paid for, based upon business KPIs



Implement Outcome-Driven operating model that ensures quality delivery and business continuity



Implement Integrated Governance model that ensures continuous alignment with client business strategy objectives



Implement Continuous improvement and innovation



Manage multiple lines of business: Regulated and Competitive business processes via this governance model



Enable full compliance with market regulations

- Fully integrated operating model focused on business outcomes and collaboration with the client
 - Center of Excellence (CoE) staffed with highly experienced business leaders across all
 phases of the customer lifecycle to ensure systems and processes are leveraged to
 maximize outcomes and the customer experience
 - Risk Management Office to conduct audits and manage controls
 - Change Management Office to drive and sustain the operating model change
 - Co-innovation council staffed to continually bring innovation business solutions
 - Diverse operating model deployed across four sites in separate geographies to assure business continuity across multiple departments such as voice and non-voice support call center services, sales and collections, sales support, billing, remittance processing and collection
 - Front-office, Back-office and Mid-office operations
 - A risk and reward-based engagement model based upon business performance
- Implemented and supported the fully integrated back-office solution including customer and billing solution powered by the SAP ISU platform along with CRM, SOLMAN, PI, BW, BOBJ, NetWeaver, GRC, Open Text Streamserve for correspondence and bill prints as well as the Exception Management Framework
- Implemented customer experience and digital analytics solutions including the integrated online account management solution, iOS-based Kiosk App for field sales and max analytics
- Implemented and supported the fully integrated Front Office including the Genesys IVR voice solution integrated with CRM, I-Care implementation on interaction center web services (ICWEB) and SAP campaign management
- · Provisioned and supported private cloud computing services, network, security and service desk
- Deployed end-to-end automation business process, application and infrastructure to deliver value and business continuity. For e.g. Third-Party Verification (TPV) automation for door-to-door /Kiosk enrollments, skip tracing process automation, automation of process for disconnect capacity management, automation of offline exception cases
- Deployed and delivered business strategy market regulations KPIs including invoicing accuracy, bill
 message and insert accuracy, enrollment processing, bill generation, market transaction processing
 accuracy, collections performance, correspondence and returns processing, returns and
 bankruptcy processing, and others





Results Delivered



100%

of bills generated within 3 days of meter read (best in class)



Customer acquisition improvements through support programs across business operations functions such as Kiosk sales, Reactive marketing, Outbound telemarketing, Saves program, Winback program



Best-in-class regulatory escalation rate



80%

of customer calls answered in 30 seconds or less



20%

IVR utilization rate



Y-o-Y improvement in customer satisfaction results



(94%

Right First Time (RFT) metric that measures the customers requiring a callback within 30 days



99.99%

system availability; 99% BW data load and reports published by 8 AM



100%

client control certification for key business processes/risks



99.77%

of all offine customer work cases resolved within 2 business days



87%

reduction in cases requiring manual touch for Third-Party Verification (TPV) processes



Business KPI-driven dashboards to provide insights on business operations and market regulations



A leading European utility company, which operates in over 30 countries and serves over 33 million customers.

Business Objectives

The customer embarked on a digital transformation program to create a differentiated offering and experience for its 33 million consumers across the customer journey on the B2C platform by 2020, as well as transform the B2B platform to boost lead generation and sales. The objectives of this digital technology transformation program were to:



Provision a centralized platform with content-rich web applications, focused on delivering a modern user experience, consistent branding, cross-channel campaigns, real-time analytics along with localization across multiple geographies



Increase revenue opportunities through digital transformation solutions to improve conversion rate through digital channels (Web and Mobile)



Accelerate time to market for new features and allowing them to attack their market in a targeted, fast, tested, and scaled agnostic manner



Enable personalized content delivery across channels with near real-time insights for campaign reach and optimization and a 360° customer view to run targeted promotions and campaigns with these digital solutions

Introduced a Cloud Native Digital Technology platform to address the needs of its 33 million customers and employees across the globe. It covers the entire digital technology ecosystem from the website, mobile, sales and marketing to payments, data reporting and analytics. The project was managed in a multi-vendor setup with full feature team ownership and clear governance. Key tenets of the solution are:

- Deliver a platform to transform the end-user experience leveraging personalized content delivery through consistent branding, cross-channel campaigns, real-time analytics, while integrating applications such as SAP, Salesforce, Boomi, and others through a microservices architecture
- Delivery based on scaled Agile and DevOps methodologies with 20+ cross-functional teams (AEM, SFDC, Data, and Full Stack) co-located and distributed across Germany, UK, Romania, and India
- Complex business rules engine and advance data harvesting to produce a single view of the customer and driving personalized customer communication through digital channels with relevant content via automated marketing campaigns
- Predictive analytics for Next Best Action across agent and customer platforms including cross-sell and upsell and enabling AI chatbots to learn and manage conversations
- Fast paced digital transformation leveraging HCL's FENIX model and introduced the Digital@scale and Dreyfus (Diamond staffing model) to fulfil resource requirements
- Seamless Integration and Data capture in Salesforce to enable multichannel connect and one-click outbound dialing
- Social media interaction management and automatic case creation

Results Delivered





A leading energy infrastructure company with over \$10 billion in revenue.

Business Objectives

Market conditions, business objectives, and technology risks drove the need to assess the enterprise technology capabilities and collaboratively develop a technology strategy aligned to the enterprise business strategy. This program had the following initial objectives to achieve:



Build differentiated capabilities to drive innovation and create a competitive edge



Reset the business architecture to build a modernized version of the same



Proactively identify and protect strategic assets through high-confidence cyber measures



Develop a new technology strategy to enable new delivery methods and governance structure



Address the process delays due to backlogs and higher number of manual tickets

HCL collaborated with the customer to build a business solution and an IT roadmap to fulfil the business strategy at hand through an in-depth assessment of the financials, business architecture, cybersecurity, portfolio planning, applications, infrastructure operations management, and service management. After the assessment, HCL delivered the following multifaceted business solution:

- Modernized the data center management based on a hyper-converged architecture and setup a new data center for enhanced DR capabilities
- · Modernized the network leveraging software-defined network technologies
- Implemented service management processes and tools based on the DRYiCE Gold BluePrint™ framework
- Enhanced end-user experience leveraging automation tools such as DRYiCE OptiBot™ and WorkBlaze™
- Implemented and enhanced monitoring for the infrastructure and applications, infrastructure management, and automation tools
- End-to-end management of infrastructure operations such as the data center, disaster recovery center, network operation center, security operation center, service desk, digital workplace, and cross-functional services

Results Delivered

80%



reduction in major incidents as a result of modernized business architecture with reduced technical debt

85%



reduction in vulnerabilities through a rigorous vulnerability management program and improved security posture

90%



□ □ reduction in downtime due to significant increase in stability

Mature IT service management processes



Enhanced end-user experience with significant increase in CSAT



A natural gas distribution company, headquartered in Washington, DC, serving more than 1.1 million customers in the District of Columbia, Maryland, and Virginia.

Business Objectives

The client's key objective was to modernize their Customer Information System (CIS), introduce best practices in customer data architecture for centralization, and fast track new regulatory requirement implementation using a common platform. This required:



An alternative to the legacy billing software that was using a huge workforce



Unaccounted revenue leakages because of an inefficient reconciliation process



Increasing the efficiency of reconciliation processes to mitigate unaccounted revenue leakages



Efficient integration of heterogeneous systems and integration partners



Reduction in maintenance and regulatory compliance costs



Consolidation of customer and billing applications

HCL implemented a legacy modernization solution. Key solution highlights included:

- SAP Customer Relationship and Billing (CRB) and Customer Relationship Management (CRM)
- HCL's iCARE Customer 360 Dashboard
- Content Management using OpenText Document Presentment Live
- SAP Market Process Management
- State-of-the-art appointment scheduling and workforce optimization through ClickSoftware and SAP Mobile workforce management
- Leveraging the analytical power of HANA and SAP's Business Intelligence Suite (BW/BOBJ)
- Integration/Transport Layer PI/ PO implementation of monitoring processes to track the health and execution of key business process transformation parameters
- Managing a multi-vendor environment with full ownership of project delivery, working closely with the current AMS vendor
- Hosting non-production system environments on Azure
- Complete transformation from legacy systems and methodologies like FoxPro and Excel reports
- Transformation of 87 utility industry business processes

Results Delivered



CIS Transformation to Digital Platform award by SAP



40%

increase in 360 degree view - Single view operational efficiencies



Revenue enhancement by identifying revenue leakages and financial reconciliations



Over 54%

increase in functional use case system adoption from 36% to over 90%



100%

capabilities

system uptime achieved

Self-service reporting



reduction in cost of service operations, post legacy application

modernization



7%

cost reduction Y-o-Y for support operations through co-innovation bi-annual workshops



A leading utility company that provides natural gas and electricity to over 6 million residents in the USA.

Business Objectives

The client's key business objectives were to:



Align IT services with business goals and strategies to evolve IT as a true business empowering platform



Remove the siloed organization that was preventing them from delivering on business KPIs at a lower total cost of ownership



Truly change the IT operating model from Application and Infrastructure teams to a business-aligned operating team structure



Run IT operations like a well-oiled machine to reduce the operational and maintenance costs, and reinvest resulting savings to fund the "Change the business" projects



Access effective IT demand management and a quality skills base

HCL provided complete Managed IT Services with end-to-end Application Support and Maintenance (ASM) services, Application Development (AD) projects as well as Infrastructure Support services. HCL also provided testing services to cater to all ASM services and AD projects. Key solution highlights included:

- Transformed the operating model to fit business-aligned operations. The operations team structure was aligned to the business processes. E.g., Meter to Cash, Asset Management, etc
- Measured IT performance against business KPIs parameters like invoicing accuracy, emergency order, etc
- Moved from a reactive monitoring process of IT components to a proactive monitoring process for business KPIs
- Improved the flexibility of IT managed services providing predictable pricing:
 - Ability of the delivery team to quickly ramp up and down
 - Ability to rapidly accommodate the constant business changes
- Transformed the business by implementing the projects like Gas Automated Meter Reading and **Smart Energy Projects**

SI WILL

Results Delivered



100%

automated rate change process with automated approval workflows



100%

of bills delivered to print by 4:00 AM, 96% of the time bills delivered to print before 1:30 AM



100%

of jobs caught up within the first week, post major outages



99.97% Invoice accuracy



78%

Runtime improvement in power plant property accounting jobs



99.5%

of the 'Emergency Orders Processed' occurred within 3 minutes



99%

of BW data loads were completed before 7:00 AM



Multiple business operations were streamlined through RPA automation



Over 50%

reduction in operational costs delivered over the baseline spend as a result of applying the managed services



Promoted self-service options for business to reduce dependency on IT





One of the largest utility service providers operating in the transmission, distribution, and retail space, serving 28 million customers across 100 square miles.

Business Objectives

The key objective was to improve utility revenue management by implementing a centralized, integrated system to reduce daily operational challenges. This required:



Consolidation of more than 20 systems of records



Base line aggregation of technical and commercial losses



Enablement of self-service capabilities for customers



Solution to management blind spots such as:

- Low visibility of assets and load profiling
- Billing and collection efficiency
- · Pockets of losses

HCL implemented an integrated system of Oracle Customer Care and Billing, Oracle WAM (Work Asset Management), MM (Maintenance Management), ArcGIS, ArcFM, meter data acquisition system, energy accounting system, and electrical network planning system. Key solution tenets included:

- Displacement of 20+ CIS and CSS systems with Oracle CC&B to serve 7 million customers
- Build IT infrastructure for 2,000+ end locations and connect them through MPLS cloud
- Asset lifecycle management by integrating Oracle MM, WAM, and warehouse apps
- Asset mapping and customer indexing of 70,000 line Km electrical distribution network of ArcGIS
- Integration of ArcGIS, Oracle WAM, and Oracle MM for an effective Outage Management System
- Integration with MDM, prepaid and Smart Meters to create an adaptive and inclusive system
- Energy accounting at every level of the electrical hierarchy for planning optimization

Results Delivered

7%



reduction in Aggregation Commercial (AT&C) losses reduction in Aggregate Technical and



Near real-time asset management tracking of 1,000 substations 75,000 transformers, 70,000 line Km, and 1.5 million poles



improvement in billing and collection efficiency

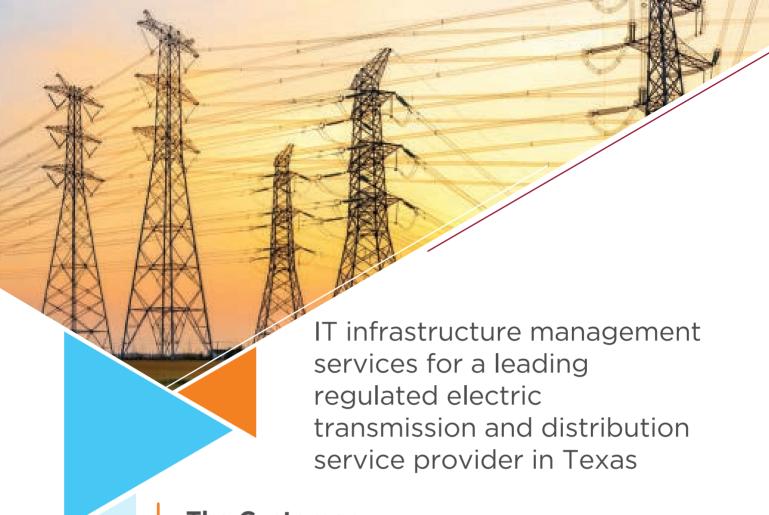


Improvement in customer satisfaction through reliable power and self-serving capabilities



Identification of loss pockets ≜ through energy accounting





The customer is a regulated electric transmission and distribution service provider that serves nearly 10 million customers across 410 cities and 120 counties in Texas. Using cutting-edge technology, more than 4,700 employees work to safely maintain reliable electric delivery service with the largest distribution and transmission system in Texas; made up of approximately 138,500 miles of lines and more than 3.6 million meters across the state.

Business Objectives:

The customer is on the path of transforming its IT operating model to modernize its ways of working and enhance customer experience by using Agile delivery practices. The client's key business objectives were to:



Optimize and consolidate the entire IT operating



Achieve cost savings and drive predictability in operations and responsiveness across all the business units



Optimize release cycles and further improve go to market timelines for critical initiatives



Define and executing a robust DR strategy for the infrastructure estate



Intelligent network traffic visibility and granular insight into network



Improve reliability of the RTU (remote terminal unit) network across the utility territory to ensure continuous BAU services to the end customer

- Fully owned, resource unit-based managed services for the customer production and non-production IT estate. 3,100+ servers (Windows, UNIX), management of data center infrastructure operations, onsite touch services, 1,000+DBs, 1.41PB of backup being managed, 5.6PB of storage
- Data center and voice network management, field services. 1,000+ N/W devices, 3,400+ voice mailboxes, 6,000+ lan ports, 5,000+ VPN users, 5,500+ PBX ports, and 600+ WAPs
- SLA and business outcome driven engagement with committed YoY improvement across operational metrics and core-flex team structures to ensure elastic capacity across service lines
- Overall operations in safe, Agile converged delivery model for OS, databases, backup, and storage solution towers ensuring lower dependency and higher agility in operations
- Risk Management Office to conduct audits and manage controls to reduce system vulnerabilities
- Change Management Office to drive and sustain operating model change, define robust and reusable SOPs to help users adopt and implement continuous process improvement in areas of EUC, smart grids, data centers, platforms, and network operations
- Robust DR strategy to ensure 100% availability of business-critical systems through a hybrid approach by ensuring an active-active and active-passive, load balancing approach complying to business SLAs
- Streamlined approach to ideation, innovation, and automation through HCL's value creation framework and portal

Results Delivered



reduction in critical incidents over 5 years leading to business disruptions



99.99%

availability achieved for highly critical infrastructure as servers, storage, emails, and network leading to faster GTM for critical applications and new projects/initiatives





BAU tasks automated across the client infrastructure operations estate: 100+ tasks automated and over 2,200 man hours of productivity savings achieved



(alert to incidents) ratio across the service lines



~85%

reduction in annual outage duration of critical infrastructure, thus ensuring higher availability of business critical applications over five years

50+



quality and cost saving ideas deliveredleading to cost avoidance worth more than \$20M across service lines over three years

96.3%



First contact resolutionfor all service desk contact points over the engagement duration

Improved application performance and enabled new applications/capabilities through remote site bandwidth upgrade initiatives



Successful adoption of global Agile delivery model leading to increase in flexibility, productivity, agility, and faster time to market across the service line operations for the scope managed



A leading utility company that provides natural gas and electricity to over 6 million residents in the USA.

Business Objectives

The customer had a vision of an optimized and automated service delivery for supporting their wide range of complex processes which would require zero manual support. The key objectives were to:



Reduce operational inefficiencies due to repetitive manual tasks across Accounts Receivables Business Unit - Tax Exemption, HR Service Center - Timesheets not entered, Lab Services -Documents merging and reporting processes



Eliminate waste, increase resource productivity, and leverage resource skillset in a more efficient manner



Mitigate manual errors leading to compliance issues across tax refunds and the HR department



Find an alternative to the IT team manually consolidating the reports from multiple sources which was leading to a higher processing time

- The HCL team leveraged Robotic Process Automation (RPA) and process mining techniques to improve end-to-end business processes in multiple areas across business and IT operations. Some of the examples are:
 - Automated sales tax exemption and refund process
 - HRSC timesheet non-compliance notification process
 - Daily health check scorecard for consolidating the report from multiple sources
 - Document merging
- The techniques leveraged included end-to-end process mining, event correction, activity mapping, and RPA
- A Blue Prism bot was implemented to improve efficiency, effectiveness, and experience
- RPA factory setup with a Blue Prism bot was done in the client landscape for creating and delivering their automation journey

Results Delivered



saved in 3 years by waste elimination through RPA implementation



Improved control and tracking of requests via SharePoint documentation and a consolidated single view for reporting



improvement in productivity





HCL helped Western Australia's largest electricity and gas provider reduce operational costs

The Customer

Western Australia's largest provider of electricity and gas to more than one million residential, business, and industry customers.

Business Objectives

The client had been striving for continued innovation to secure its position as an industry leader and deliver exemplary service to its customers by way of a complete digital transformation. The key objectives were:



Optimizing operating costs



Addressing the impending deregulation of the electricity retail market which would compromise their leadership position in that sector



Improving customer satisfaction and retention



Adopting an Agile operating model for quick delivery of business initiatives



Driving digital transformation across the business to help adopt more efficient practices in day-to-day operations



Improving intelligence around data/analytics

Our solution included application development and mainter business applications, digital applications, and the business highlights included:

- Application support and maintenance for over 100 busi BI/BW, Fiori, digital applications on Sitecore, .NET, Java integration platforms such as webMethods and SAP PI/ bespoke wholesale trading applications on .NET platfor maintenance COTS applications, and various bespoke a across the business
- Application development and enhancements in the digital business applications like Sitecore, full-stack development Salesforce) and webMethods platform integration for effective process.
- Testing services across projects and major/minor enhar test and release management cycles for the customer
- Supporting electricity generation as well as retail and wholesale trading systems under a ring-fenced support framework
- Adopting an application complexity-wise pricing approach to provide certainty and flexibility to the customer
- Delivery of over 20 critical projects for the retail business over the course of the engagement to enhance end-user experience using the digital platforms
- Regular workshops focusing on SAP license optimization, better usage of tools and frameworks, DevOps and Agile delivery adoption, and enterprise integration best practices

Results Delivered



Helped the customer achieve a record high net promoter score of +6.9



Y-o-Y reduction in application support costs





migration to the AWS Cloud Managed Services platform for a gas distribution company

The Customer

A leading UK gas distribution company that manages the distribution network of natural and green gas to 5.9 million homes.

Business Objectives

The client wanted to migrate diversified business and infrastructure services (over 60 in number) out of the existing data centers (DCs) to the AWS cloud platform-based infrastructure services. They also wanted to migrate, wherever appropriate, existing hosted Microsoft services to Office 365 Online services. The key objectives were to:



Enable the IT organization to scale and respond to the rapidly changing business needs with higher degree of innovation



Optimize Total Expenditure (TOTEX) for running infrastructure in existing DCs and managing end-of-life products



Handle complexity and inconsistency of the State-introduced cost and security challenges



Address the low degree of supplier and technology portability leading to delivery challenges, poor value, and constant conflict



Manage the impact on employees due to the ramp down and transfer of support responsibilities from the incumbent to new service providers



Manage heterogeneous database types (Oracle, SQL Server, Access, FoxPro Database) and large data volumes

Kev solution tenets included:

- Fully automated DevOps implementation to provide a zero-touch approach a zero-trust model for the non-production systems
- Application migration and deployment of customized COTS products like IBI Oracle e-Business Suite on to the AWS Managed Services (AMS) platform
- Delivery of an enterprise integration platform using iPaaS MuleSoft for API-b cloud-to-cloud and hybrid integrations
- Delivery of DevSecOps by automating static and dynamic assessment of app
- Integration with Splunk Cloud for central monitoring and analysis of applicat
- Implementation of the automated testing platform and development of the trelevant to the application using the HCL NextGen framework
- Utilization of AMS/AWS cloud features like auto-scaling and scheduling to accommodate the Recovery Time Objective (RTO) and Recovery Point Objective (RPO) needs of the business
- Scheduling intelligence built in to address summer lows and winter peak loads, thereby avoiding any business interruptions during the peak season
- Utilization of cross-region (the UK and Ireland) DR offerings from AMS/AWS cloud for seamless implementation of DR requirements of business-critical applications

Results Delivered

25%



effort reduction due to fully automated DevOps implementation providing zero-touch production and zero-trust non-production releases 60%



reduction in total infrastructure cost due to a 90% reduction of total footprint in the current data center

20%



reduction in integration license spend by adopting an enterprise integration platform using iPaaS MuleSoft for API-based cloud-to-cloud and hybrid integrations





'Please reach us on 'utilitiesgroup@hcl.com' to know more'.



HCL Technologies (HCL) empowers global enterprises with technology for the next decade today. HCL's Mode 1-2-3 strategy, through its deep-domain industry expertise, customer-centricity and entrepreneurial culture of ideapreneurship $^{\text{\tiny{M}}}$ enables businesses to transform into next-gen enterprises.

HCL offers its services and products through three lines of business - IT and Business Services (ITBS). Engineering and R&D Services (ERS), and Products & Platforms (P&P). ITBS enables global enterprises to transform their businesses through offerings in areas of Applications, Infrastructure, Digital Process Operations, and next generation digital transformation solutions. ERS offers engineering services and solutions in all aspects of product development and platform engineering while under P&P. HCL provides modernized software products to global clients for their technology and industry specific requirements. Through its cutting-edge co-innovation labs, global delivery capabilities, and broad global network, HCL delivers holistic services in various industry verticals, categorized under Financial Services, Manufacturing, Technology & Services, Telecom & Media, Retail & CPG, Life Sciences, and Healthcare and Public Services.



As a leading global technology company, HCL takes pride in its diversity, social responsibility, sustainability, and education initiatives. As of 12 months ending on June 30, 2020, HCL has a consolidated revenue of US\$ 9.9 billion and its 150,000 ideapreneurs operate out of 49 countries. For more information, visit