

HCL

Digital transformation success stories of global enterprises

With BPM-based solutions



Client description

A Swedish retail banking organization headquartered in Malmo that offers loans and savings accounts, and partners businesses, supplying sales, finance solutions to large retailers.

1. Business challenges

> The client wanted a customer service portal to handle its referral cases during onboarding and allow the customer's operations staff to review applications referred or refused by third-party decision-making systems and reverse these decisions when required.

> The customer required a digital platform to use Camunda workflows to regulate and monitor various steps in the loan processing process and to use digital imaging to remove the delays and inefficiencies associated with the handling of paper-based documents.

> Each loan application is monitored from the time it is entered into the system and tracked through various credit reviews, approvals, and closure steps. The client aimed to streamline this process.

2. HCL solution

Built the system flows for the entire product journey (credit card and loan processes).

- Used Camunda as an overall orchestration tool for 60 microservers (internal/external) and DMN and BPMN: REST API-based architecture for Nordic markets, Russia, and Germany, and the event-driven architecture for the UK.

- Streamlined the e-sign process handling the multiple geographies.

- Captured user-application data using country-specific systems.

- Established integration and aggregation of data of previous client interactions while enabling data extraction from credit bureaus following the market needs.

- Used iData integration to publish the required GDPR reports.

- Handled credit decisions, AML/KYC checks using a robust process engine, and also the electronic archival of documents (feature across countries).

- HCL has been working with the customer to develop a digital, multi-channel credit offering based on the Camunda BPM Platform.

- HCL is also assisting the client in their DevOps, SAFe, and Agile transformation.



3. Business impact

- HCL's initiatives helped the bank to reinvent the financing for its customer interaction and supported its sales and loan books.

- HCL's efforts in performing the direct debit checks, credit reference, anti-fraud checks, and more, helped the client to enable the business users for modifying the decision on the fly, using the Decision Model and Notation (DMN) features development governance.

Client description

A renowned worldwide investment banking firm with headquarters in Zurich, Switzerland. The client's operations span around 50 countries in emerging markets, with over 45,000 employees from more than 150 different countries

2. HCL solution

- Presented a single container application in which multiple users can perform the front-end and middle-office tasks.
- Undertook file archiving for digital files, master data for all static data such as currency, country, and FX rates, all of which are simple to integrate with Flowable.
- Developed distributed, complex, and scalable services based on Docker container technology using OpenShift.
- By using Splunk, HCL converted complex logs into visual graphs and reports that simplified analysis, reporting, and troubleshooting.
- Addressed the issue of productivity and speed by breaking down applications into manageable microservices.
- HCL has been engaged with the client to implement a centralized BPM platform. HCL is also assisting the bank with its DevOps, SAFe, and Agile transformation.



3. Business impact

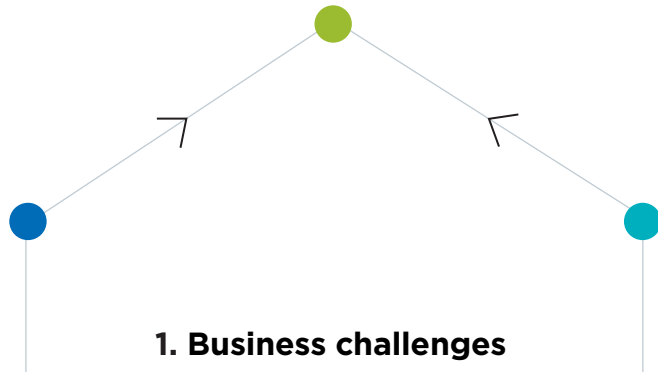
- More than 50 complex processes were onboarded to get consumed from distributed applications and B2E service points.
- Continuous consumption of process platforms from multiple B2B and Business-to-Employee (B2E) service desks helped in the reduction of FTE and the average processing time by up to 50% or more.

1. Business challenges

> The client wanted to host a centralized BPM platform by using microservices-based business processes to onboard medium/complex use cases requiring flexible onboarding and agility maintenance.

> The client wanted to integrate business KPI governance dashboards and advanced document management systems to keep process meta information and document search close to each other on the same platform.

> For a variety of business process orchestrations, the client needed to have a headless BPM platform and a front-end user experience platform.



Client description

An international financial institution based in London that uses investment as a tool to help build market economies. Initially focused on the countries of the former Eastern Bloc, it has expanded now to help development in over 30 countries ranging from Central Europe to Central Asia.

1. Business challenges

> The client needed a consolidated view of the party's relationship with the bank as well as the opportunities for upselling.

> The client wanted to improve the management information system (MIS) to assist them in making better decisions, as well as to improve transition assessment consistency across industries.

> The client aimed to align the project's investment, policy, and advising efforts throughout its existence.

> The client wanted to define and manage monitoring indicators at many levels using their objectives management solution.

> The client wished to leverage technology to simplify the end-to-end results management process and to develop business-enabling IT solutions that would enable them to seek well-defined workflows to assist the bank's business stakeholders in collaborating more effectively.

> The client's existing process lacked the needed automation, data quality, and data availability, as well as incurred a high maintenance cost. This prompted the customer to request agile delivery to minimize time to market, as well as a modular architecture that makes it easy to upgrade and interface with other systems.

> To increase usability and consistency for end-users, the client sought a more intuitive user experience.

2. HCL solution

• HCL leveraged its Operational Effectiveness and Efficiency (OE&E) program to help the client become a leaner and more effective organization, which was one of their three strategic priorities to strengthen their transition impact in its countries of operations.

• Redesigned the solution with Angular JS, Java, Activiti BPM. With OE&E, the project aimed to make the management of the bank's results (its transition impact, financial, and operational performance) more effective and efficient.

• Smart data capture, project assessment feature, and "Add or Update" counterparty information helped in finding potential counterparties for new projects (by banker or associate role).

• Automated the real-time computation of a project's Transition Impact (TI) score (based on characteristics such as transition quality, transition objectives, indicators, framework, and TC/non-TC assessment), resulting in a transparent TI Assessment.

• HCL's integrated workflow solution allowed for stage-by-stage communication and visibility between multiple roles (for example, between banker to directors, banker to credit officer).

• Role-based dashboard management enabled relevant bank staff to manage end-to-end project life cycle and transition from silos of implementation to platform model supporting the bank's business process.

• Monitored the project transition benchmark to assess the project's performance with the targets specified for standardized indicators.

• Based on feedback from the banker and credit officer, HCL initiated a counterparty credit review and completed a counterparty risk assessment.

• Tableau view of the corporate scorecard generated from the up-to-date data feed was drilled down to understand the impact and contribution of activities at different levels (i.e., corporate sector, country, counterparty).

• HCL's data model provided a unified view of counterparties and projects that may be expanded to include other parties (for example, sponsor, co-investor, donor, consultant, guarantors).



3. Business impact

• The client lowered their maintenance costs with the implementation of a lightweight BPM.

• Achieved faster time to market due to the agile way of working implementation.

• Reduced license cost.

• Reduced screen response time helped in improving the customer experience.

• Only the required BPM components were used, which resulted in simplifying the business process and expediting the overall processing time.



Client description

The client is one of Australia's major financial services companies, offering retail, and institutional banking, funds management, insurance, brokerage services, and financing company activities.

1. Business challenges

> The client wanted to reduce human intervention in business processes by replacing legacy applications with modern technology solutions.

> The client aimed to build and provide web services to members so they can transact without any manual involvement.

> The client wanted to create additional transaction opportunities for all members, such as end-to-end online insurance purchasing, electronic documents delivery, and greater web and SMS communication.

2. HCL solution

• Online Member Transactional Portal: HCL proposed an Online Member Transactional Portal built on IBM WebSphere Software to deliver an integrated online sale, service, and communications platform and automate the end-to-end online insurance purchasing, web communications, and other tasks.

• Online functionality: HCL unlocked web channels to be more flexible in meeting the self-service needs of clients in a secure environment.

• Consolidated portal: HCL offered single sign-on and a single view and channel for the customer.

• Integration services: HCL fulfilled client requests automatically and effectively by integrating with the backend system.

• Personalization services: HCL provided personalized content and collaboration services—click-to-chat, click-to-call, and more.



3. Business impact

• Delivered a single gateway to access applications for internal employees as well as various agents and customers.

• Unified branding for the customer for better visibility.

• HCL ensured superior customer service by providing a one-stop shop for all client interactions that are easy to use and secure.

• Improved operational and financial efficiency for the business.

• Reduced total cost of ownership (TCO) by leveraging existing IBM stacks.

• Enhanced customer experience due to improvement/automation of end-to-end transaction capability.

• Increased business opportunities due to the availability of online transactions for all the members.

Client description

A Swedish luxury automobile manufacturer with headquarters in Torslanda, Gothenburg. SUVs, station wagons, and sedans are all produced by the business. It is one of the world's largest automobile manufacturers, with operations in more than 100 countries.

1. Business challenges

> The client wanted to develop a system that could allow its customers and dealers to lease cars and execute contracts and seek on-call support using a digital commerce platform (DCOM).

> The client aimed at improving process effectiveness through standardization, providing transparency on processes in the value stream, and doubling the number of customers entering through e-platforms.

2. HCL solution

• HCL's solution is implemented using BPM and SOA technologies to provide the best user experience and improve agility.

- The main building blocks of this solution are:
 - Services Layer (legacy systems)
 - BPM Layer (for orchestration and process control)
 - Integration Layer (for integration and transformation of services)
 - User Interface Layer (to provide enhanced user experience)
 - Business Intelligence Layer (to provide insight into operational metrics)

• Used an agile product development process to incrementally deploy key features based on the client's business priorities.

• Provided support and enhancements to DCOM-based middleware applications.

3. Business impact

• Enhanced agility: The project made use of a stack of IBM and other leading technologies, as well as SOA patterns that enabled agility in the dynamic business scenario.

• Reduced cycle time: BPM aided in process automation, reducing total execution times, and shortening the development cycle time. availability of online transactions for all the members.



Client description

A global firm based in the United States that designs, manufactures, and sells airplanes, rotorcraft, rockets, satellites, telecommunications equipment, and missiles all over the world. The customer is one of the world's leading aerospace manufacturers, as well as the world's third-largest defense contractor and the US's largest exporter by dollar value.

1. Business challenges

> **Handling complex processes:** The client considers computational fluid dynamics (CFD) as one of the key areas of flight design and testing. Multiple service lines deal with CFD, which makes it too complex to be solved by one organization and requires continuous attention on priority.

> **Improving the time to market:** Existing processes contributed to delays in the design-to-manufacture cycle due to longer flight tests and evaluation procedures.

> **Improving visibility:** The process of tracking through various homegrown systems, Microsoft Excel sheets, and emails was slow, labor-intensive, and failed to provide adequate visibility.

> **Lack of a centralized knowledge system:** Information was distributed across various service lines/ departments.

> **Redundant tools and processes:** Duplicate tools and processes led to increased license costs while lacking a consistent way of doing things.

> **Lack of performance measurement:** There was an inability to measure and identify the bottlenecks.

> **Very labor-intensive, expert computer knowledge required:** Processes were largely people-dependent. The response to change was slow and new engineers took a long time to onboard.

> **Time-consuming operations:** Increased cycle time and redundant processes.

2. HCL solution

• In 18 months, HCL executed 40 sprints and addressed over 500 user stories with 30+ HCL BPM consultants, robust BPM COE, and innovative IP backed by an agile CoE.

• Undertook proactive automation of the test cases and UI creation.

• Allowed the processes to be efficient by integrating the systems to the processes and automating the work allocation and its routing.

• Created a centralized repository of processes.

• Facilitated collaboration via BlueWorks, process automation and reporting via TeamWorks, and UI customizations via JQuery Development, while sprints occurred simultaneously in two different tracks to expedite development.

• Created a web-based modern application with the latest open-source, low-cost technology stack, offering a process-driven platform for executing CFD uniformly across the company.



• Enabled a central data management system and offered knowledge management and analytical capabilities.

• Increased cross-leverage between CFD service lines, and allowed the CFD developers and users to collaborate.

• Established a common procedure that cuts across CFD boundaries for maximizing tool reuse and eliminating redundancy.



• Improved management visibility of work, optimization, and efficiency have resulted in customer benefits ranging from ~ \$ 8M to \$ 24M delivered as of now from the effort, and cost savings from the solution ranging from ~ \$ 3M per year for four years.

• Process reuse - 85% consolidation of systems in design/procurement.

• Cost reduction by:
- Implementing a standard and service-based architecture framework.
- Aligning with industry-standard formats and reusing existing assets.
- Minimizing operational and maintenance overheads.

3. Business impact

A standard CFD process was established across the enterprise.

• Ways of training/guiding novice users were improved to get up to speed to work on the plan and execution of CFD solutions and minimize dependency on the SMEs by the usage of the knowledge base system.

• Novice users were empowered with various supporting tools such as IM, email, knowledge base to perform better.

• A sprint stretch factor of less than 2%, a defect density of 2% (60% better than average), and shortened release cycles by 50% were the objectives.

• A collaborative and distributed environment was fostered.

• Reusing the existing information and application (wherever applicable) reduced development life cycle, management, and maintenance costs.

• Providing assistance on how to use the proper tool for the right task aided in the reduction of cycle time by -25 % to produce new designs, resulting in more efficient time and chances for R&D and customer value creation.

• Enhanced stakeholder satisfaction by:

- Reducing technical complexities: Encapsulating technical details
- Improving learning curve: Enabling the system to guide users through the knowledge management system with sufficient training materials and best practices to provide the right information at the right time

• Flexibility and performance enhancement:
- Reduced time-to-market: Enabled deployment effort of new process or changes

• Agility
- Exposing business processes as services and enabling reusability
- Ability to incorporate new changes and bug fixes easily

• Real-time dashboards that can deliver 40+ custom-built reports were created.

• Automation of tasks, system tasks for workflow automation, business rule-based allocation, and routing by tasks was implemented.

• Resource onboarding time was reduced to three days due to the eLearning videos on the HCL portal and the pair programming concept that was used.



Client description

An American furnishings producer primarily based totally in Monroe, Michigan, USA, that makes domestic furnishings, which includes upholstered recliners, sofas, desk bound chairs, carry chairs, and sleeper sofas. The client's furnishings is bought in hundreds of retail residential shops within inside the United States and Canada and is synthetic and dispensed below license in different nations which includes the United Kingdom, Australia, Germany, Indonesia, Italy, Japan, Mexico, New Zealand, Turkey, and South Africa.

1. Business challenges

- > The client is a retail product company, and it sells customizable furniture products. The sales order management is similar to how customizable laptops are ordered, assembled, and delivered.
- > The rule configurations/conditions frequently change so there was a need for a rule authoring module for the rule conditions to change.
- > The client wanted to streamline how rule engines process a sales order and perform the following functions:
 - Validations of the items ordered by the customer
 - Assignment of warehouse/production unit
 - Price of the items customer ordered
 - Determine the promotions on the products, if there are any

2. HCL solution

- HCL proposed a business solution that involved the development of the following two platforms:

Authoring Platform

- Takes the configuration/conditions in the Excel sheet format
- Generates the rules using the Drools templates
- Deploys rule artifacts into a central repository

Runtime Platform

- EJB (Enterprise Java Bean) containers service requests and encapsulate rule engines
- Containers pull the latest rules artifacts from the central repository as they are uploaded



3. Business impact

- The solution helped the customer to consolidate the sales order-related rules in one place- bringing about economies of storage
- The rule artifacts were pushed into the system without the need to restart the server- thus saving time by 20%
- Improved Scalability- The two platforms led to the development of stateless engines which helped the architecture scale horizontally.



Client description

A UK-based free-to-air public television network headquartered in Leeds and London, with creative hubs in Glasgow and Bristol. In addition to license-funded BBC One, BBC Two, and the only private broadcast network ITV, the client was founded to provide the UK with a fourth television channel.



1. Business challenges

> The client wanted to change its existing campaign business process trading model by utilizing cost-effective technology innovations, and if required, creating an entirely new advertisement sales system platform.

> With significant technical changes accumulated over 13 years, making adjustments to the current advertisement sales system was both costly and time-consuming. These barriers to future advancements posed a significant threat to the client's sales capabilities.



2. HCL solution

HCL proposed and worked on the installation of a holistic K2 workflow-integrated application platform with admin operations to improve the client's sales capability. This involved:

- Process-driven application design and implementation, including the development of new business process workflows and a K2 setup.
- Managing and maintaining K2 administrative services and business workflows across all environments (development, test, UAT, and production).
- Flexibility in configuring with REST API services and quickly resolving K2 environment integration concerns.
- Managing and monitoring the performance of a workflow of sequential business tasks.
- Usage of CI/CD, a central code repository in GitHub for ease of maintenance and deployment across environments (continuous integration and continuous deployment).
- Ensuring 100% availability of the environment and services to support the application platform during peak hours.
- Developing an in-platform framework to support common services (email notifications, exceptions handling, tasks, and business workflow management).



3. Business impact

- Targeted design changes made future enhancements in key areas and predictions of long-term architectural changes easy.
- The automated testing and deployment procedure reduced the time taken for error identification, thereby, lowering the probability of late-stage difficulties.
- For easy maintenance, a centralized code repository was used which resulted in the implementation of common services within the K2 framework, allowing quick reaction times.
- Easy optimization and long-term support with minimum maintenance costs.



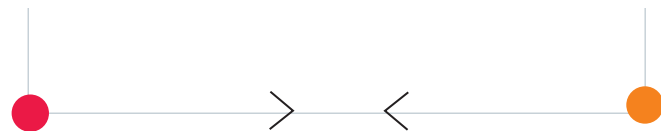
Client description

A US-based equipment manufacturer marketing elevators, escalators, moving walkways, and related equipments.



1. Business challenges

- > The client wanted to expand its existing K2 workflows and was planning for 15 new ones.
- > The client required round-the-clock global application support with the L2 and L3 levels of tickets by the support team in the US and India.
- > The client sought efficient and effective audit services in addition to a well-defined operational support team for its global customer base.
- > The client was looking for a cost-effective technology solution around new workflow execution and on running and managing them.



2. HCL solution

- Emphasized developing an automation assessment/a roadmap during the transition and execution of the steady-state scenario.
- Leveraged onsite (Farmington CT) as well as offshore (OTIS Delivery Center Bangalore) delivery models for better business efficiency and project profitability for OTIS.
- Outlined a well-defined engagement journey with SLAs and quarterly SLA improvement plans for all levels of issues.
- Ensured the availability of high-quality trained resources on demand by operationalizing the OTIS Knowledge Academy.
- Leveraged an onsite lead for periodically participating in auditing and capacity planning to understand any changes or needed process improvements.
- Supported streamlining of processes by following ITIL standards.
- Undertook regular measurement and reporting of metrics for operations and applications support.

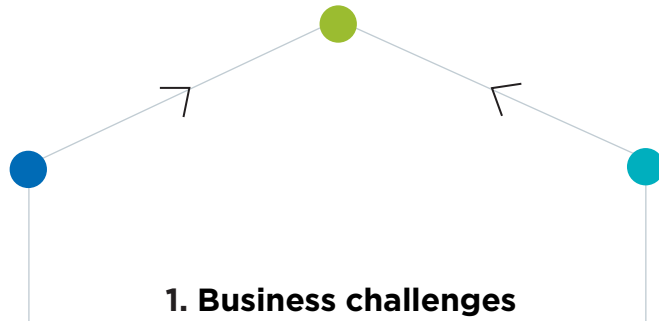


3. Business impact

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|--|---|
| • Optimized support and maintenance | • Productivity improvement ~ 14% |
| • Value-adds in terms of: <ul style="list-style-type: none"> - Minor enhancements - Shift-left - Known error database | • Improvement in knowledge management |
| • Ticket volume reduction | • Backlog reduction and continuous monitoring |
| • Overhead reduction ~ 22% | • Compliance with audit standards for better operational efficiency |

Client description

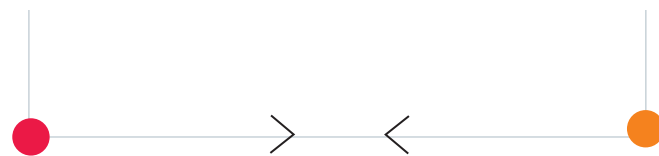
A Standon-based integrated energy and chemical firm. Established in 1950 in Sasolburg, South Africa, the client develops and commercializes innovations such as synthetic fuel technology and manufactures various liquid fuels, chemicals, and power products.



1. Business challenges

> The client wanted to streamline its contract management process by adopting a new approach for handling the complex workflow, documentation, and reporting involving third-party vendors and internal users.

> The client needed a scalable and flexible contract management platform that could be expanded to meet comparable needs throughout its business divisions.



2. HCL solution

- Created a new application with BI-powered K2 BPM to help the customer's Technology and Capital Project Contracting (TCPC) team manage all contracting-related operations for their capital projects.
- Developed a scalable and flexible platform to meet the client's future business needs.
- Undertook an agile implementation approach to ensure transparency and collaboration across several teams.
- Identified five manual contract management processes for automation and has now implemented Defect Management, Early Warning, and Compensation Event business processes.
- Developed a system to retrieve data from various structured data sources, such as SAP/Teradata.
- The solution delivered by HCL can also communicate with the customer's registered external suppliers.

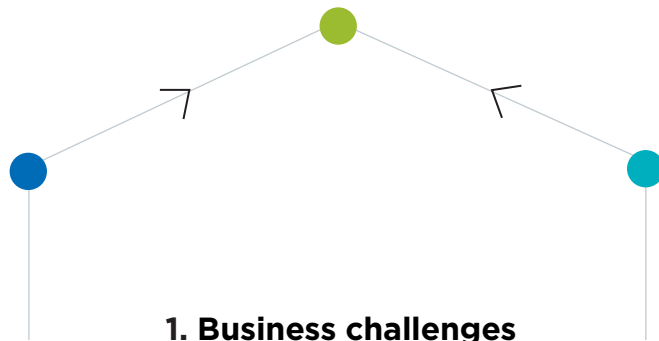


3. Business impact

- Eliminated the business' paper-based contract management system.
- Increased operational efficiency by streamlining the contract management process.
- Enabled seamless integration with MuleSoft.
- Offered greater visibility across all channels.
- Significantly reduced the operation cycle and automation solution development cycle time.
- Facilitated a capability-driven application landscape.
- Delivered a scalable and flexible application for meeting future business needs.

Client description

A government-owned train operator company in Australia. With a hybrid urban-suburban rail system network along a central underground core scaling over 800 km of track and 170 stations over eight lines.



1. Business challenges

- > There were inaccuracies in 65% of electrical permit requests that necessitated effort- and resource-intensive reworks.
- > With limited document management and record-keeping capabilities, manually completed paper-based permit request forms were filed and lodged, which provided a risk of safety mishaps.



2. HCL solution

- Built a proof-of-concept to demonstrate the business case to the client for automating the business process.
- Successfully managed all aspects of the digitalization process from tool evaluation and platform setup to solution architecture and integrations.
- Provided external system integration solutions and a clear road map for their expansion.



3. Business impact

- Improved access and transparency of information regarding the permit requests and their approvals with a single source of truth for all business areas throughout the electrical outage process.
- Shortened a 12-week process by half, resulting in a 60% reduction in cycle time.
- Reduced manual labor by 20% by eliminating duplicate attempts in the end-to-end electrical outage procedure.
- Enhanced network reliability by implementing KPIs for maintenance.
- Ensured greater business process efficiency by providing an information reporting capability that could aid the measuring and reporting of performance and non-compliance with the electrical outage procedure.
- Aligned services to the safety-critical status of the business process.





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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™ 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 December 31, 2021, HCL has a consolidated revenue of US \$ 11.18 billion and its 197,777 ideapreneurs operate out of 52 countries. For more information, visit www.hcltech.com