

# Digital & Analytics

by HCL Technologies

# DEVOPS

➔ Know about DevOps



# Practice Snapshot

## FOCUS AREAS (PEOPLE, PROCESS AND TOOLS)



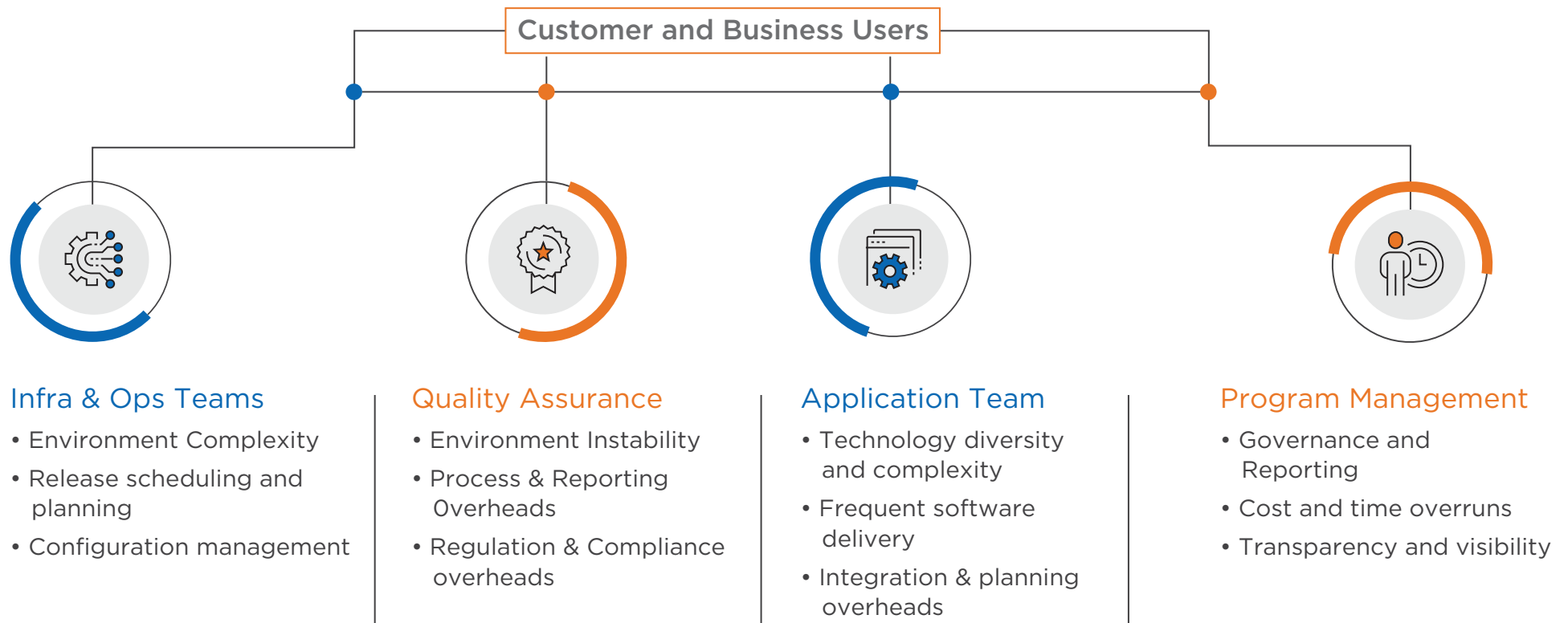
## KEY SERVICE OFFERINGS

<b>DevOps Consulting</b>	DevOps Consulting (culture, process and tools) Comprehensive Assessment questionnaire Enterprise Transformation approach DevOps Maturity model, KPI and Metrics		
<b>Training &amp; Enablement</b>	Extensive Training and certification content Training programs across all levels including executives, managers and team members Technical training, cook books and job aids		
<b>Solutions &amp; Accelerators</b>	<table border="1"> <tr> <td data-bbox="779 1059 1391 1171">                     ADvantage ALM - ALM framework                      HCL SmartConfig Manager                      ADvantage Code - Newage AD Framework                      Cookbooks and job aids                 </td> <td data-bbox="1391 1059 1827 1171">                     Point solutions - CI, CD, IaaS,                      ARA, SV, TDM, Containers and                      Microservices                 </td> </tr> </table>	ADvantage ALM - ALM framework HCL SmartConfig Manager ADvantage Code - Newage AD Framework Cookbooks and job aids	Point solutions - CI, CD, IaaS, ARA, SV, TDM, Containers and Microservices
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<b>DevOps Architects &amp; Engineers</b>	500+ Consultants with strong technical expertise 50+ projects 50+ fortune 500 customers Design, Implementation, advisory and coaching		
<b>Partnerships &amp; Alliances</b>			

## Introduction: DevOps at HCL

In the digital economy, every business is a technology company for whom the time-to-market is a key differentiator. Therefore, application delivery has to counter rapidly evolving business models and diverse technology stacks that need IT systems and teams to embrace speed and flexibility.

This requires IT organizations to accelerate software delivery by increasing collaboration and automation amongst development, quality assurance, operations and project management teams. The means to achieve this is by leveraging both DevOps and Agile methodologies.



## Introduction: DevOps at HCL

DevOps is about eliminating non-value add activities, and automating manual tasks across the software development life cycle (SDLC) phases. An integrated view of automation across the software, operations, quality, and management processes can decrease costs and deliver end-to-end IT agility.

To us, the biggest and the most important goal of DevOps and Agile is not automation but improvement in software quality by testing often and releasing often. HCL Agile and DevOps services brings the agile program management and DevOps approach together through its ALM Smart solution. This is a mantra that our development teams adopt and follow.

HCL's core mission is to align run the business and focus on Continuous Delivery across the SDLC; this turns IT business applications into a lean machine. **We have defined 4 core goals to achieve the mission.**

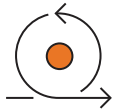
- Achieve faster time-to-market by eliminating redundancies and manual activities across SDLC
- Reduce the cost of delivery and deployment through automation
- Reduce the costs of business and IT change to the minimum
- Bring innovation from the start-up and online world to the traditional enterprise IT

## Service offerings

HCL has widespread experience in working with the customers' business and IT teams. We also have a strong partner ecosystem of tool developers and platform providers; their charter is to develop best practices, accelerators, and tools in collaboration with our dedicated DevOps and Agile Centre of Excellence (CoE) Practice.

HCL has a 360-degree view of DevOps and Agile enablement; we help organizations to align their business, applications, and operations teams through our mature services in DevOps and Agile consulting and delivery. Be it standalone DevOps-Agile assessment of your current investments or the setting up of a full scale CoE to enable a transformation journey, HCL can take care of every need.

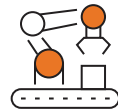
## Our differentiators are:



Agile and DevOps consulting, readiness and maturity assessment, and road map definition using pre-defined accelerators based on our industry experience



Maturity assessments and recommendations on the existing CI and CD tool chain investments through HCL's ALM Smart platform and reusable assets.



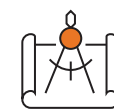
Custom Automation and integration of specific problem areas in DevOps and Agile current investment.



DevOps lab on the cloud with a Managed Services model.



Integrated tooling and platform development



Reference architecture, migration scripts and best practices enablement.

## Our solution

In our experience with Agile, the foundation of agile adoption in an organization is based on the dimensions of People, Process and Technology with a strong Organizational Change Management (OCM) approach, supported by the right infrastructure.

Our DevOps and Agile Academy focusses on the “people” aspect. The “process” aspect is covered by our extensive experience in Kanban, Scrum, XP, Spotify, Scaled agile framework (SAFe), and Disciplined agile delivery (DAD). The “Technology” aspect is effected by our DevOps Engineering practice, with their focus on automation and the Agile SDLC ways of working.

This unified platform of Agile and DevOps, with their best practices, is driven by HCL’s ALM Smart platform.

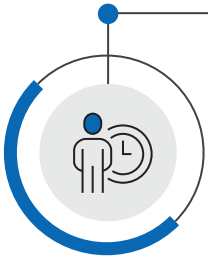
HCL’s ALM Smart™ provides an integrated platform that takes care of DevOps Engineering aspects and also seamlessly integrates Agile Project Management Methodologies. It provides enhanced planning, measurement, control and reporting of activities to ensure quality and consistency through automation.

### **This allows us to provide our customers with the following benefits:**

- Centralized statistics for real-time project status and reporting
- Seamless integration of DevOps engineering and Agile project management needs
- Automated quality assurance and delivery
- Transparency
- End-to-end mapping, from story to code to operations aspects
- Agile Metrics
- Single-click on boarding of current applications on the platform.

# Our solution

ALM Smart



## Project Management

- Project Management, Tracking
- Requirements Management
- Requirements Management
- Code Management
- Collaboration
- Code Review
- Test Management
- Defect Management
- Dashboards



## Engineering Excellence

- Build Automation
- Unit Testing
- Coverage
- Code Quality
- Automated Testing
- Deployment

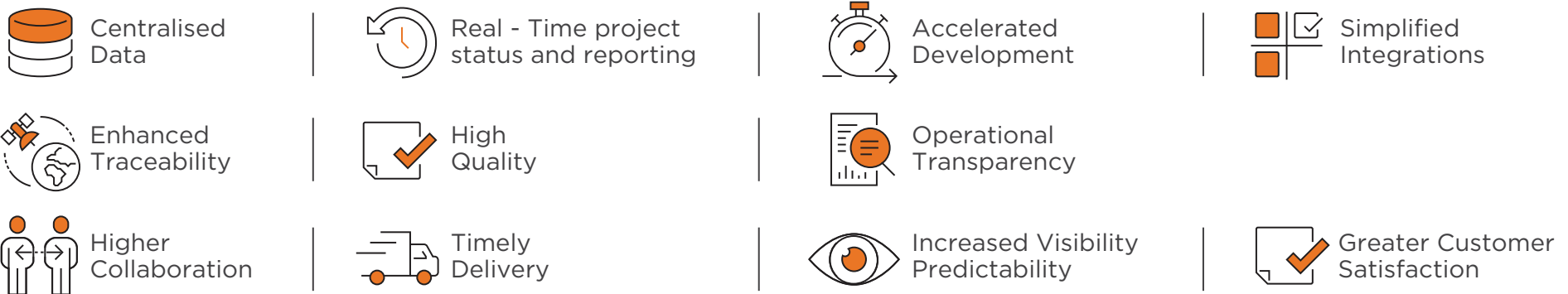
## Our solution

HCL's mature model has 3 certified standards in the DevOps and Agile processes that can significantly enhance the experience of CXOs, Business and IT leadership, product management, developer, tester and operations team in the distributed environment.



The HCL ALM Smart Silver, Gold, and Platinum Standards provide choices to our customers for the DevOps level they want to leverage. These models are upgradeable at any time, with a pluggable architecture; the platform enables our customers to adopt the core engine of ALM Smart while bringing in their own tooling or existing DevOps practices, thereby ensuring there is no lock in.

### It leads to:





# Our Implementation Approach

## Our Approach

Define - Deliver - Drive

### Define

As-is state Assessment  
Validate Maturity model  
Identify pain areas  
Identify constraints  
Create roadmap and recommendation for DevOps solutions

### Deliver

Implementation plan  
Solution design  
Build the implementation  
Incremental Roll-out

### Drive

Gather feedback  
Rollout improvements in phases to other projects  
Training and support plan  
Program governance plan  
Continuous improvement  
Build COE

DEFINE



#### ACTIVITIES

- Identify stakeholders
- Document As-Is process
- Identify existing environments
- Identify use cases
- Identify license requirements
- Create roadmap for adoption
- Build implementation plan
- Identify the base metrics and current maturity

#### DELIVERABLES

- Document containing identified use cases
- As is Processes and workflow
- Phase wise Implementation and execution plan for specific solutions

#### ROLES

- DevOps consultant
- Technical Architect

DELIVER



#### ACTIVITIES

- Build hardware and software environment
- Build integrations with software
- Build the required solution
- Identify the revised metrics and new maturity based on automation/solution
- Demo to customer
- Gather feedback and apply changes
- Use HCL accelerators and platforms if applicable

#### DELIVERABLES

- Working prototype to customer on specific use cases
- Benefits and ROI showcase

#### ROLES

- DevOps consultant
- Technical Architect
- DevOps Engineers

DRIVE



#### ACTIVITIES

- Build DevOps COE
- Continuous Improvement
- Setup governance and change control
- Build solutions for other use cases based on priority and criticality
- Plan for adoption across other projects of the enterprise

#### DELIVERABLES

- Transition document
- Process, tools and platform training to the team
- Standard operating procedure document
- Maturity model improvement roadmap

#### ROLES

- DevOps consultant
- Technical Architect
- DevOps Engineers

## 1 Case studies

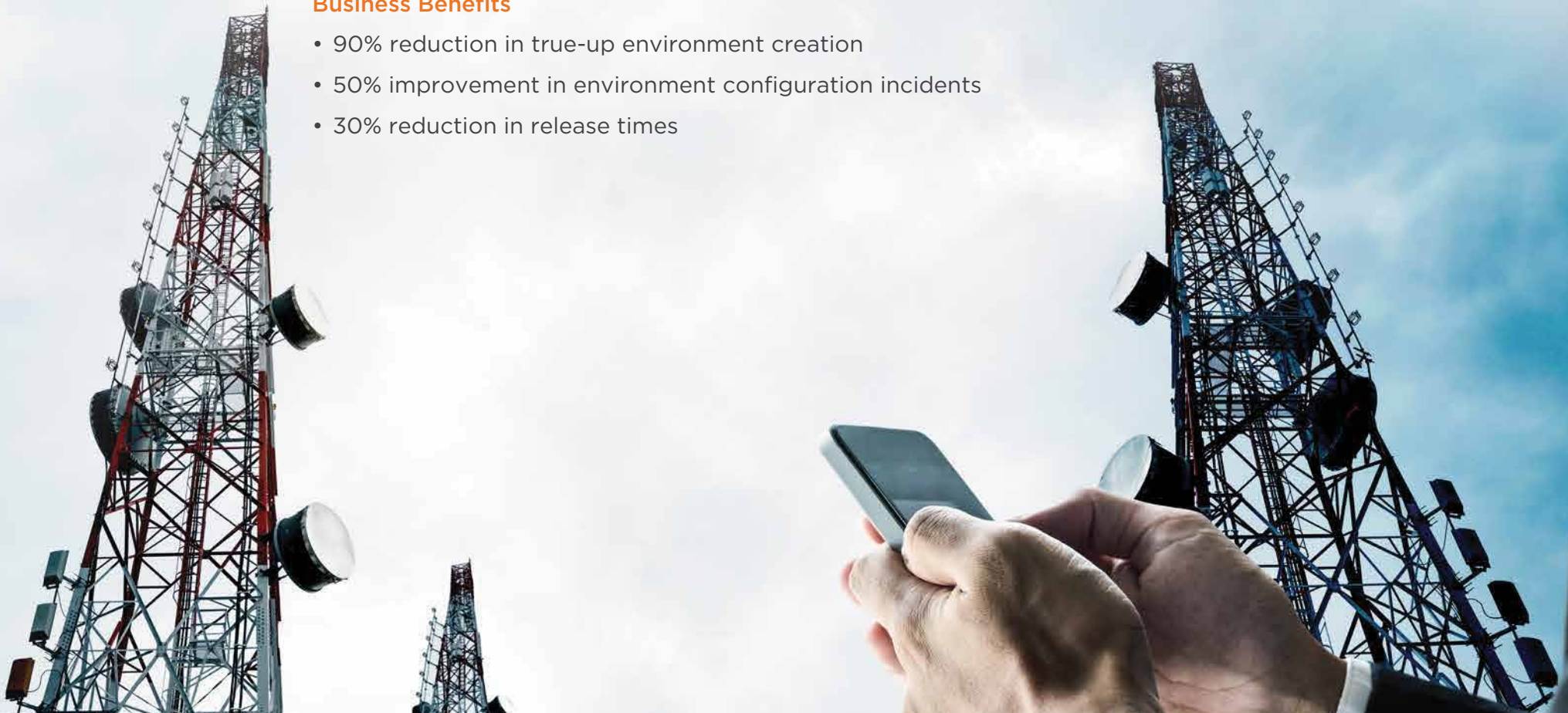
HCL achieves 90% reduction in true environment creation and helps transform business model for a leading wireless provider.

### The Client

Our client, a leading telecom provider in North America, wanted to disrupt the wireless industry by challenging the status quo that needed business and technology transformation of their IT systems. This required stable and frequent rollout of new features, and changes to the existing applications.

### Business Benefits

- 90% reduction in true-up environment creation
- 50% improvement in environment configuration incidents
- 30% reduction in release times



A high-speed train, primarily red and blue, is stopped at a station platform. The scene is captured during sunset or sunrise, with a warm, golden glow illuminating the train and the platform. The train is sleek and modern, with large windows reflecting the light. The platform has a dark roof structure, and the background shows the sky transitioning from blue to orange.

## Case studies

HCL's ALM Smart enabled seamless alignment of Agile methodology and DevOps to deliver upfront time and cost benefits while enabling core operations modernization program for a leading railroad.

### The Client

Our client, a US leading rail company, undertook an enterprise wide transformation initiative towards improved time-to-market, improved quality, reduced risk, increased customer satisfaction, and reduced costs.

### Business Benefits

- 20% reduction in effort due to effective management of release trains in delivery
- Improved clarity and metrics driven Program and Project views
- 25% reduction in code quality issues, design and architectural gaps identified earlier in the cycle
- Improved resiliency of Infrastructure that built confidence

## **3** Case studies

HCL delivers 30% reduction in effort through DevOps by automating build and deployment process for a leading pharmaceutical company.

### **The Client**

The client is a large pharmaceutical company in Europe with an aim to roll out mobility applications (iOS, Android and hybrid) to their end customers in a factory mode. The customer wanted to adopt DevOps principles to achieve agility in the way these applications were built, tested, deployed, and rolled out.

### **Business Benefits**

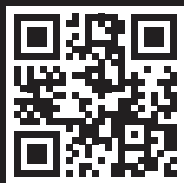
- HCL created a mobility factory and adopted DevOps principles and automation approaches to meet the customer objectives
- 30% reduction in effort for build and deployments
- Faster and frequent releases. 1 per quarter to twice a month; 10% reduction in rework due to standardized requirements planning







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