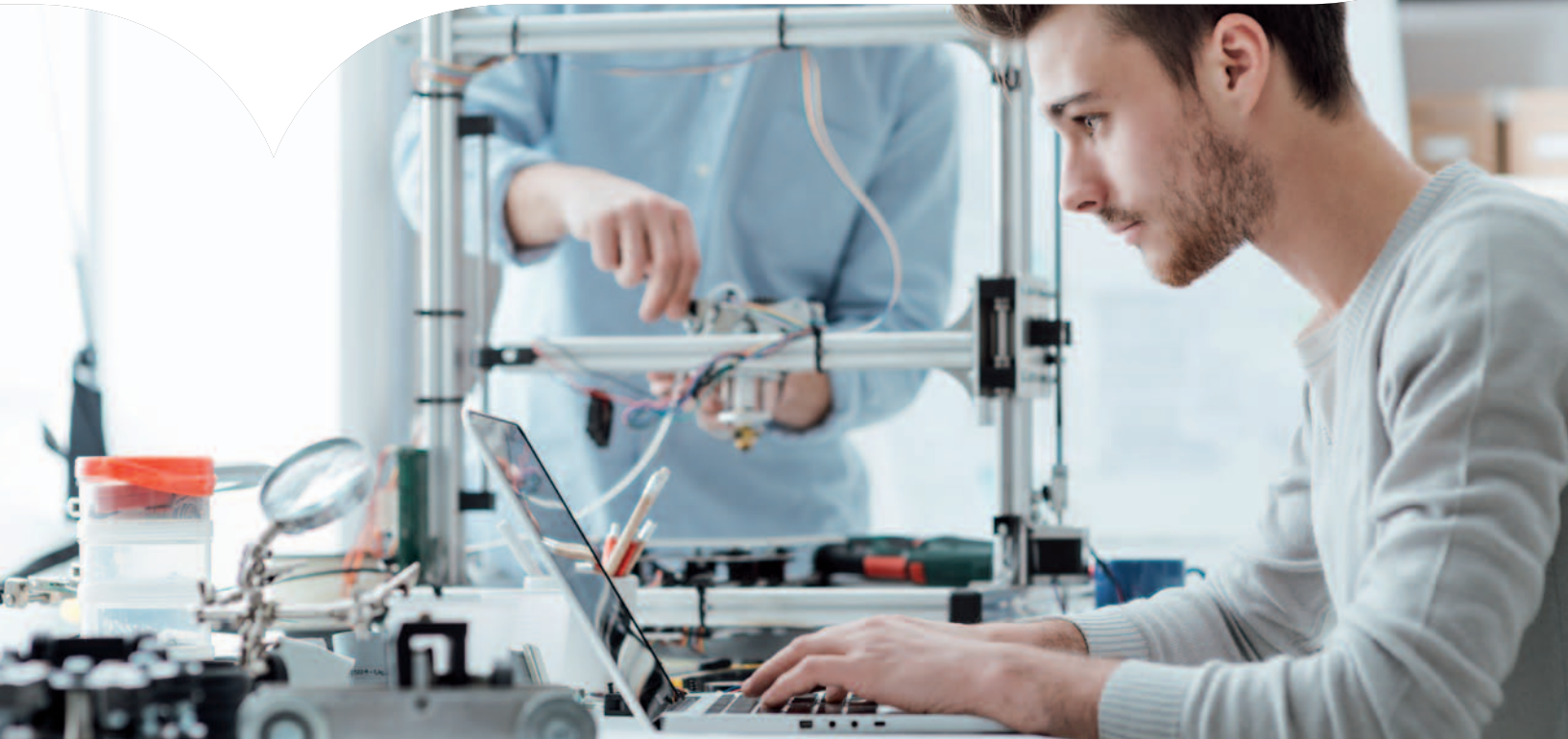


TestOps in Product Engineering

Ensuring Quality through Shift-Left and Shift-Right



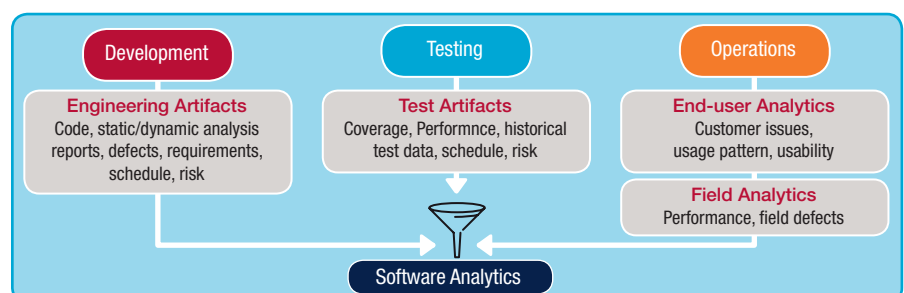
As products and devices become increasingly ‘software-defined’, improved V&V through Software Analytics on feedback data from continuous integration and continuous deployment becomes a strategy for Product Quality.

With real-time device and application monitoring capabilities maturing in recent times, adoption of ‘field metrics driven’ approach is increasingly becoming important for the verification and validation strategy in product engineering.

Organizations can make more informed V&V decisions based on the collected field metrics and defined KPIs. Products are also seeing adoption of disciplines such as static and dynamic code analysis, service virtualization, modelling etc. These are helping the engineering teams in implementing an effective shift-left strategy.

Capgemini TestOps Framework

The concept of TestOps can be broadly defined as a process of using a combination of engineering artifacts, test artifacts and field artifacts and applying the process of software analytics to improve the V&V strategy.

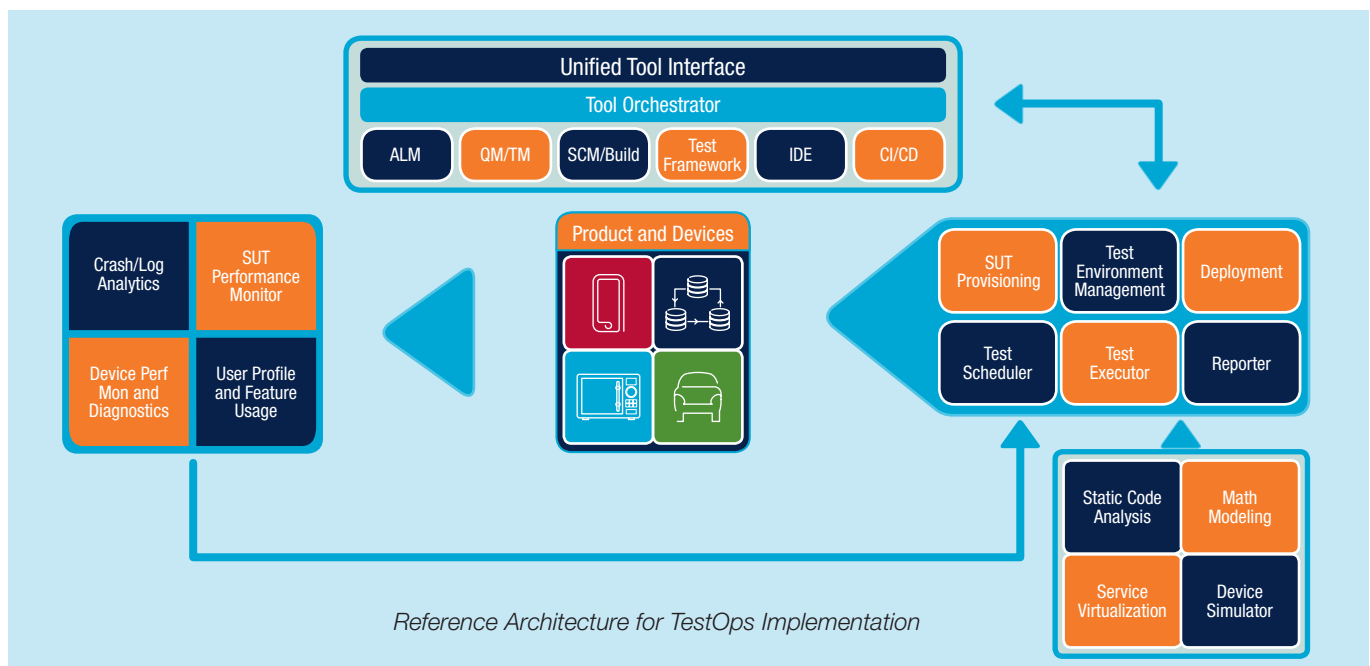


People matter, results count.

Our framework provides following key features:

- **Integrated environment enabling**
 - **Shift Left Strategy:** Implemented via static analysis tools, code review tools, service virtualization tools and mathematics modeling tools
 - **Shift Right Strategy:** Early deployment, continuous integration and real time feedback via a product lifecycle orchestration tool
- **Reusable, common plug-and-play environment**
 - Tool orchestration across system engineering tool sets
 - Monitoring parameters/ events such as crash log analysis, device performance, diagnostics, user profile and feature usage analytics
 - Software analytics
 - Impact analysis
 - Test prioritization and selection
- **Integrated real-time feedback**
 - From device/ product field usage during all phases including staging and beta environments
 - From leading IoT platforms

Experience from over 20 years of product V&V with over 1300 simple to complex products verified, helps us to set the gold standards for Product V&V.



Our Value Proposition

- **Improved quality** : Reduction in defect age and defect slippage, addressing quality based on real user feedback
- **Reduced test-cycle by up-to 30%** : By implementing context specific focused testing strategy
- **Reduced costs** : Optimized usage of resources and reduced rework due to informed testing decisions, regression automation prioritization and preparing for the context specific workloads

To know how we can help you with your Product Testing:

Write to us at: marketing.pes.in@capgemini.com