Testing Cadence

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Objective of this page is to define the test cadence considering ‘Continuous deployment’ and what different test types are to be completed to accomplish CD.

Keeping with the originally established principles for E+, the intention is to maintain platform agility by moving all feature changes to production continuously with minimal lead time, while keeping the production environment and deployed feature set safe and available to customers and colleagues.

Keeping the above in mind all changes being deployed to production should be as automated as possible and ideally go through the following three-dimensional validations: VALUE, QUALITY AND RISK

Test Type	Continuous deployment	Auto/Manual	Env./ Cadence	Report	Ownership
Unit Tests	Sprint and CD activity	Automated	Build02 / Every checkin	Sonar	FB, BB, Capability, DATA, CC, MF ARTs
Component Tests	Sprint and CD activity	Automated	Build02 / Every checkin	Jenkins + Jira XRAY	FB, BB, Capability, DATA, CC, MF ARTs
Functional & Integration BDD	Sprint and CD activity	Automated	Build02, INT/ Every checkin	Jenkins Cucumber + X-Ray	FB, BB, Capability, DATA, CC, MF ARTs
Security -->ZAP, Veracode, Aquascan	Sprint and CD activity	Automated scan	Every checkin	Jenkins	FB, BB, Capability, DATA, CC, MF ARTs
Accessibility (axe-core) + JAWS	Sprint and CD activity	Automated + Manual (Some guidelines will be tested with JAWS)	Build, every checkin	Jenkins Cucumber	FB, BB ARTs
Compatibility (Sauce labs)	Sprint and CD activity	Automated	Build, every checkin, NFT (PRE 01)	Suacelabs report on Spinnaker	FB, BB ARTs
Performance, Gatling (Volumetric Defined considering IF and mother ship load profile model, and Scalable for Voyager)	Sprint and CD activity	Automated	BUILD Indicative numbers using Gatling NFT (PRE 01) Volumetric execution	Gatling report on Spinnaker	FB, BB, Capability, DATA, CC, MF ARTs
Functional E2E testing	Sprint and CD activity	Automated	Build02, INT, NFT (PRE 01)	Jenkins Cucumber + X-Ray	BB, Capability
UAT	Release activity	Automated + Manual	INT/ Release planning	Jenkins Cucumber + bespoke	FB, BB, Capability , DATA, CC, MF ARTs
Operational testing at application & platform level	Sprint and CD activity	Automated + Manual	Build/ INT01/ NFT	Dashboards, Stack driver logs , Dynatrace etc	FB, BB, Capability, DATA, CC, MF ARTs
Security PEN testing	Continuous testing in each Sprint	Automated + Manual	Release milestone	Bespoke	FB, BB, Capability, DATA, CC, MF ARTs

Enable Automated testing in RTL :

	Build	INT	NFT (PRE 01)	Prod
		NA		Prod testing is minimal, manually run.
1	Functional Tests - BDD on Jenkins pipeline	BDD auto on deployment trigger on spinnaker pipeline E2E BDD running every 2 hours (Orchestrated pipeline) Auomated reporting in GCS	E2E BDD running every 2 hours (Orchestrated pipeline) Gatling reporting in GCS	Test Data management is key --> test data or real onboarding User Testing
2	Functional tests - Automated thresholdon Jenkins	Functional tests - Automated threshold on Spinnaker		
3	Functional tests --> Rollback	Functional tests --> Rollback of artefact		
	Functional testing feature branch and rollback if fails	Functional tests --> Support for release version in BDD		
4	Non functional --> Assertions and roll back		Non functional --> Assertions and roll back	