

Product Performance Testing Components



Backend Performance Testing

Maximum number of users, long APIs and stability over a prolonged period evaluated



User Interface Performance

UI user actions with long execution time under the load identified



Test Data Preparation

Environment scaled appropriately from test data perspective



Fine-Tuning Support

Performance issues root causes defined



Handover and Education

Developers are educated to run/maintain/analyze performance tests



Hypercare

The delivery team conducts tests for new builds on their own

Single product performance testing offering

allows to foresee application crashes, faults, and processing delays caused by an increased number of users, and identify issues before they emerge in production

Main Differentiators



BUSINESS FOCUSED

Combining corporate objectives, customer input, and technological solutions to provide better visibility and trackability of reaction on change to enable rather reactive approaches to achieve performance goals



VALUE DRIVEN

Quantifiable results aligned with business objectives and closely monitored through centralized dashboards used as an indicators of impact across different products in portfolio



COLLABORATIVE



Repeatable and transparent process of performance testing, analysis and monitoring, as well as education and onboarding programs establishes a culture of performance optimization across business units and IT to drive value



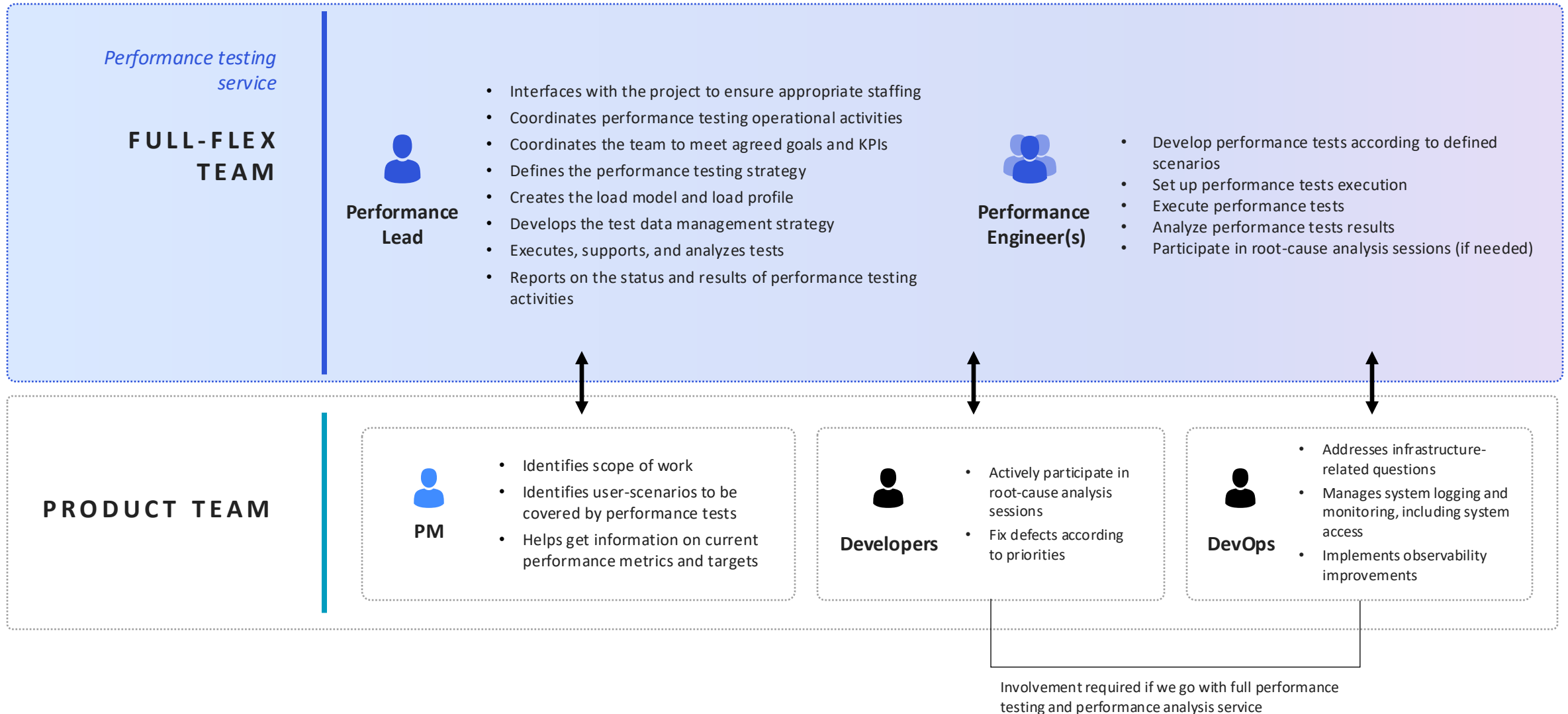
AGILE

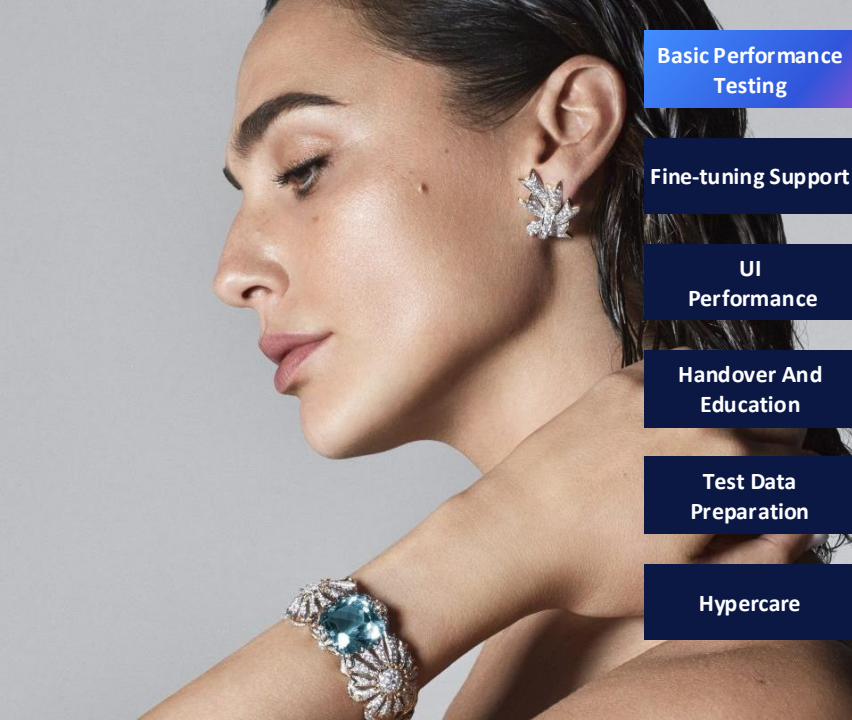
Identifying and selecting iterations of MVP / pilot projects to identify quick wins and rapidly mature culture to focus on business and generating measurable business value

Product Performance Testing Package Options

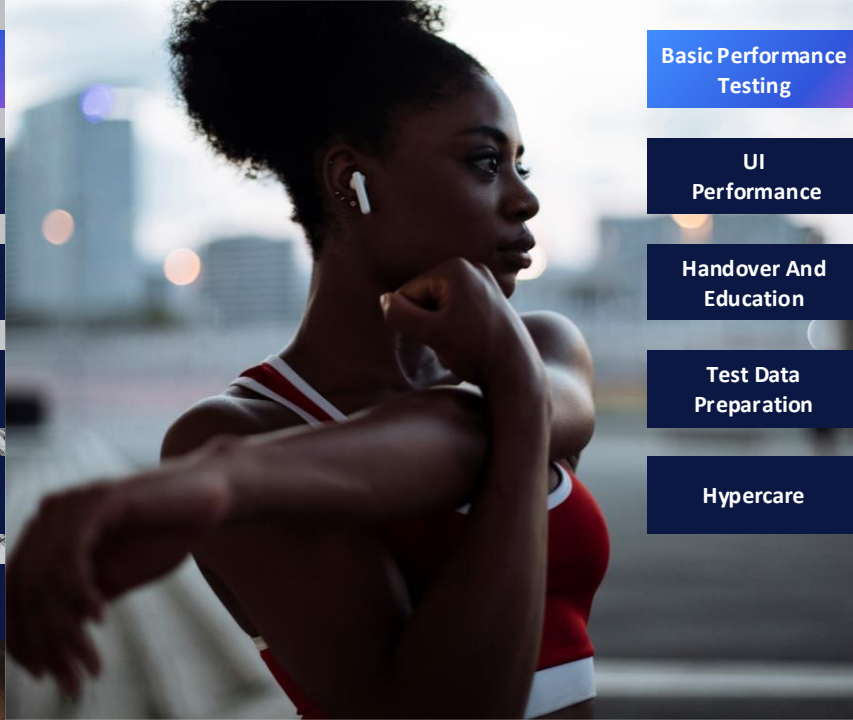
	Basic Package is the starting point for every performance testing engagement	Optional Add-Ons can be added to the Basic Package to tailor the performance testing offering based on the client's performance testing process maturity level				
	Backend Performance Testing	User Interface Performance	Test Data Preparation	Fine-Tuning Support	Handover and Education	Hypercare
Objective	Evaluate backend system performance before milestone	Analyze the performance of the user interface	Prepare environment from data perspective for performance testing	Aid developers in the research and determination of an issues root cause	Enable product team to performance testing approach	Consult developers to onboard them in performance testing expertise and assist in tests execution
Scope	<ul style="list-style-type: none"> Define user scenarios Develop tests Validate test data Run baseline tests Analyze results Report results with highlighting backend points of interest 	<ul style="list-style-type: none"> Develop UI/Mobile scripts Execute UI tests Analyze UI results Report results with highlighting UI points of interest 	<ul style="list-style-type: none"> Develop scripts to generate and seed data using application API interfaces Virtualize 3rd party services that affects load i.e. request-response w/o complex data transformations 	<ul style="list-style-type: none"> Assist developers to analyze individual API/UI calls, db queries Run investigative tests for isolated user scenarios 	<ul style="list-style-type: none"> Prepare test/KT documentation Conduct handover sessions to the project team 	<ul style="list-style-type: none"> Sessions with the product team focused on answering questions and assist them to independently manage performance testing activities within their team
Team	 Performance Testing Lead  Performance Engineer					

Governance Model





- Basic Performance Testing
- Fine-tuning Support
- UI Performance
- Handover And Education
- Test Data Preparation
- Hypercare



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- UI Performance
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- Basic Performance Testing
- UI Performance
- Fine-tuning Support

LUXURY JEWELRY RETAILER

Improving Performance of Mobile App

The client was celebrating its 185th anniversary with a special exhibition in London. They developed a mobile native app that allowed customers to book tickets, navigate the exhibition, try on virtually iconic products, etc. The app had to support up to 500 registrations per hour. They engaged EPAM to prepare and execute backend and mobile end-to-end scenarios using real devices to identify performance issues.

15

Performance issues identified and fixed

from 150 to 3,000

Simultaneous users



SPORTSWEAR AND FASHION COMPANY

Advancing Product Briefing Performance

The client needed to make sure that performance improved after migration to the new technological stack. EPAM covered backend and web UI end-to-end scenarios and orchestrated performance testing using EPAM Carrier, including automated provisioning and configuration of load generators to optimize testing infrastructure costs.

8

Performance issues identified and fixed

from 35sec to 10sec

Increase in performance of list queries

GLOBAL CPG COMPANY

Improving App Performance and Retention

The client's new product was losing around 80% of customers on sign up/in stage due to performance issues. EPAM implemented performance tests focusing on sign-in/sign-up of the backend and mobile. Performance issues were identified and fixed across different application components, including ML, environment configuration, UI overflow, etc.

8

Performance issues identified and fixed

from 85% to 35%

Bounce rate decrease