

Bilt Rewards chooses WireMock Cloud to unlock parallel development and get to market faster

Learn how Bilt Rewards uses WireMock Cloud to create realistic testing and development environments when integrating third-party APIs and new microservices.

“Without WireMock Cloud, we could not have met our requirements to deliver the project on schedule.”

Kosta Krauth
Head of Engineering, Bilt Rewards



Client



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Bilt Rewards

Bilt Rewards partners with property managers across the US to provide renters a loyalty program for earning points when making rent payments. Renters can use these points to purchase services or transfer them to other loyalty programs.

Region

North America

Industry

FinTech

Goal

Parallel development; mocking 3rd party APIs

Challenge

Accurately simulating system behavior during development and integration tests; parallelizing work between back and front-end teams.

Solution

After working with open source WireMock for unit testing, Bilt Rewards adopted WireMock Cloud as a platform to prototype and mock APIs and remove blockers in the development process.

Results

- Developers spend more time on development and testing rather than managing the environments
- Supporting complex mocking and integration testing use cases using proxies and finite state machines.
- Back-end and front-end development teams have a common reference for API specifications.

BACKGROUND

Bilt Rewards is a loyalty program for renters in the United States. By paying rent, residents earn points which can be used to book travel, fitness classes, apply cash, or transfer points to other loyalty programs such as airlines.

The software is built using a microservices architecture and integrates with a large number of third-party services. Developing and testing against these API integrations was becoming challenging, especially when the APIs weren't readily available or when more complex scenarios needed to be simulated.

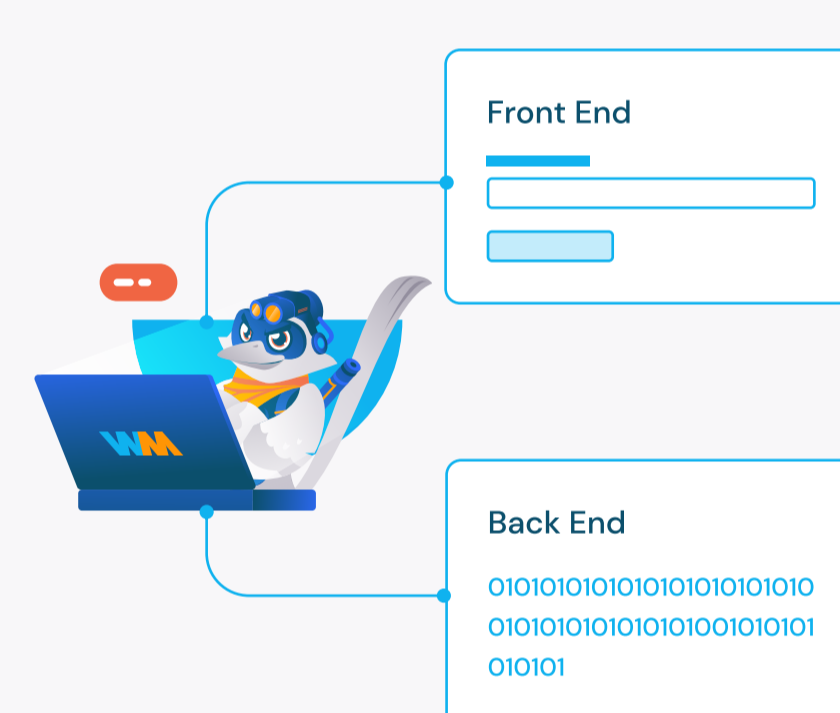
CHALLENGE

Enabling parallel development and realistic testing

Bilt works with its own microservices and multiple third-party services, many of which do not provide test environments; in services that did provide a sandbox, Bilt still ran into challenges replicating real-life conditions such as negative scenarios. Hence, they had to invest development time to create realistic environments before rolling their app out to production.

They were looking for a tool that would:

- run mock APIs in lower environments to understand how they would behave in production;
- have the ability to simulate error states; and
- help parallelize the work between back-end and front-end development teams.



“We looked at other tools, but none could match the sophistication that WireMock offers.”

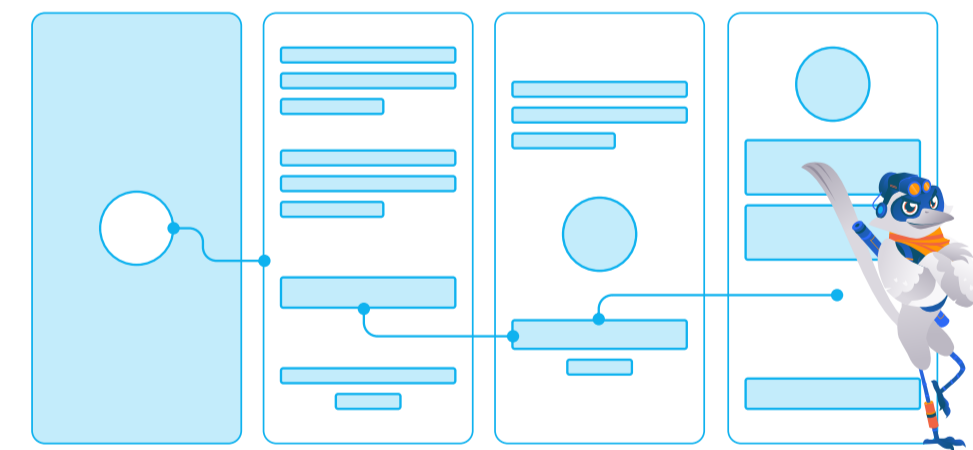
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SOLUTION

WireMock Cloud provides quick time to value and less development work

After looking at other Java-based mocking solutions that offered basic request-response capabilities, Bilt Rewards chose WireMock to mock both third party and internal APIs and accelerate development processes. WireMock offers sophisticated features such as proxying and finite state machines, which enable Bilt Rewards to string together a sequence of calls and branch out in terms of the behavior based on various parameters.

Having used the open-source version of WireMock for unit testing, Bilt Rewards opted for WireMock Cloud to collaborate on API design and run full integration tests in a realistic cloud environment. WireMock Cloud allowed them to easily migrate their mocks and validate that the application continued working when deployed in real-life conditions, and removed much of the additional overhead of managing the environment.



“Having a hosted WireMock Cloud experience that has an easy user interface, access controls, integration with our SSO provider – it was really helpful so that we can just get started using it without having the burden and cost of operating the open source.”

Kosta Krauth
Head of Engineering, Bilt Rewards

RESULTS

On-time project delivery with fewer developer resources

Parallel development:

Using WireMock Cloud, Bilt Rewards can parallelize the work between back-end and front-end developer teams. Developers can agree on an API specification that is then mocked using WireMock, work independently on the integration and eventually replace it with the fully functioning system once completed. This is accomplished with minimal overhead and while simulating various scenarios (including negative ones) which were previously difficult to simulate.

Third party API mocking:

Rather than building several support systems to work around third-party APIs' limitations, Bilt Rewards can rely on WireMock Cloud - This allows Bilt Rewards to run automated, repeatable functional and performance tests for everything they do.

API prototyping:

Bilt Rewards is looking into using WireMock mock based prototyping module to increase API governance – standardizing schemas, naming conventions, and payloads. This would enable additional use cases around contract testing for microservices and better collaboration between team members.



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