



Nasdaq Universal Test Facility

An Innovative Market Testing and Simulation Solution

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Nasdaq Universal Test Facility is a cloud enabled, software as a service (SaaS) solution, offering simulated trading on a wide range of global electronic marketplaces.¹ Access full-scale, high-performance replicas of exchange test systems, allowing you full control over test scenarios executed in isolation from the rest of the market.

Nasdaq Universal Test Facility has been developed in collaboration with Sequitor Engineering to further improve the efficiency, market readiness and resiliency of financial institutions' trading systems.

The service aims to simplify and improve trading system testing via advanced simulation techniques that are targeted to reduce the risk for production incidents and to cut the cost of testing.

Nasdaq Universal Test Facility provides a private customer-dedicated environment with API control over test execution, including trading schedules and system restart, as well as access to event logs. It also offers a library of market simulations to create realistic and useful test scenarios; either historic trading days or generated simulations based on the analysis of billions of real exchange transactions.

Key Benefits:

- Optimization and real-world verification of your trading strategies and execution system
- Reduced risk of costly complex implementation defects
- Increased resilience to market and system disturbances
- Enables higher productivity, quality and shorter time to market



Contact Us
for a Free Trial

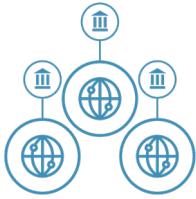
For more information,
please contact our team:

NordicSalesTeam@nasdaq.com

¹ Offered by Nasdaq Technology AB.

Product Overview

Nasdaq Universal Test Facility offers:



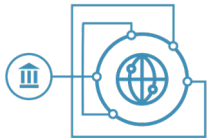
Exclusive access to the test environment

Other users cannot interact with your testing. This gives you confidentiality, predictable behavior, and repeatable testing.



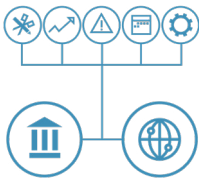
Multi-market support

The ability to run test scenarios across several simulated marketplaces.



Standard protocol for each exchange system

Achieves realistic test conditions.



Test scenarios

Pre-defined and tailor-made scenarios to provide a lower entry threshold, improved test productivity and increased test coverage.



Repeatable execution

Repository of past configurations as well as past simulations facilitates re-running of simulations.

Replay the market the way you like

Pre-defined and tailor-made scenarios provide a lower entry threshold, improved test productivity and increased test coverage.



Replay

A coherent and synchronized replay of the entire market where you can tailor the experience with date, symbols, speed, and location. Through the selected location you may simulate effects of where your equipment is located.



Smart Replay

Smart Replay gives you interactivity where the market will emulate a response to any action you perform. Hence, your system may also interact with the data in a realistic manner.



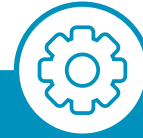
Synthetic Replay

Synthetic Replay are generated simulations/variations based on the analysis of billions of real exchange transactions. Tailor the simulations by volatility, drift, momentum in order to target market specifics.



Intelligent Actors

The system comes with several pre-defined market actors which will mimic market activity. Easily extendable and with own proprietary actors to achieve desired market behaviors.






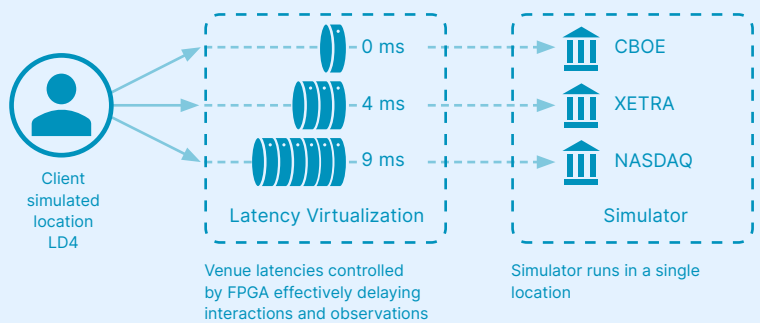
Customize

- Date
- Speed
- Symbols
- Location

Be anywhere, anytime, instantly

The market is fragmented and geographically separated which makes it challenging to recreate a realistic environment.

-  Pick a virtual location (datacenter) from where the simulation should take place
-  Leverage a preset of latencies between venues, or customize to mirror a bespoke setup
-  Simulation will dynamically adapt and adjust market events and interaction based on the requested location



Capacity and Performance

The simulation environment is built for purpose, and with less requirements for robustness and resilience it can achieve unrivalled performance. Not only can you run capacity and performance tests, but it also empowers you to run test faster and more frequently.



A simulated version of the exchange goes beyond the real exchange in terms of performance and capacity.



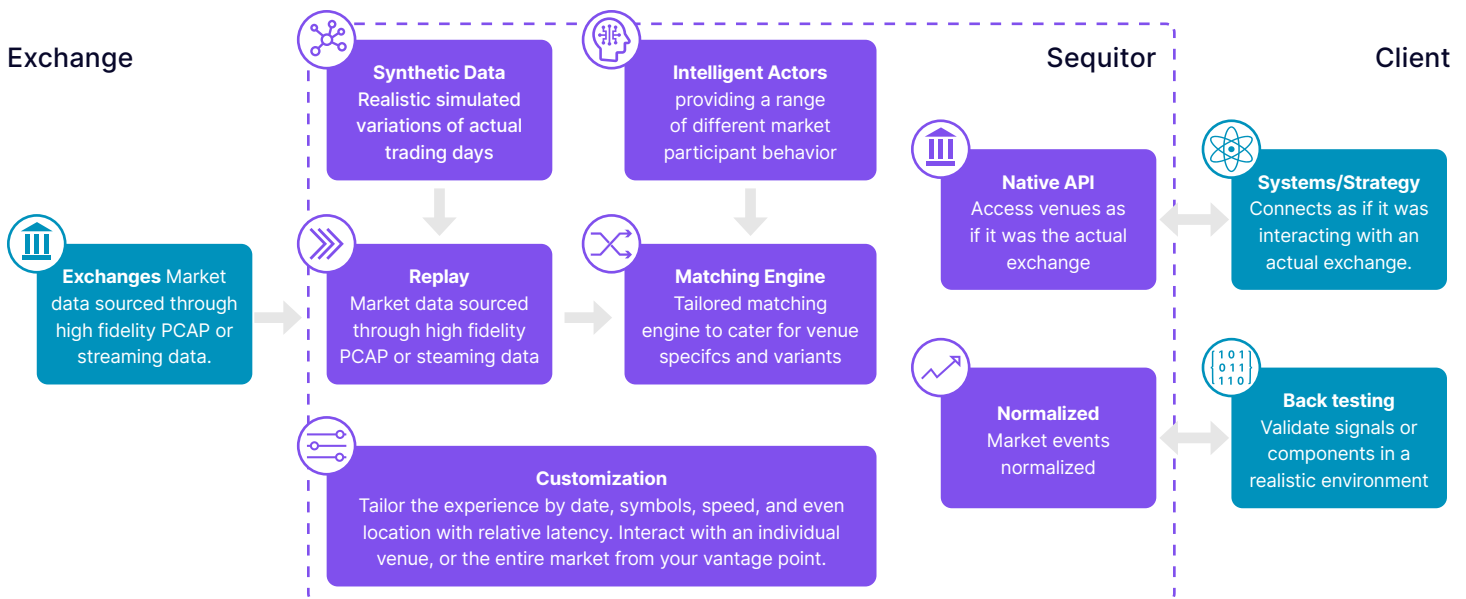
Runs much faster than the speed of an actual exchange. Allows repeated executions over a short period reducing time to market.



The small footprint allows many instances to run concurrently.

Simulation overview

Access the simulator through **native exchange APIs** or a **normalized event stream**. Interactions are based on clients simulated location with respect to the venues.



Capacity and Performance

- 100+ instances can be run concurrently.
- Starting a new instance takes seconds.
- Each instance can match a real exchange in terms of processing performance.

This service is offered by Nasdaq Technology AB.

For more information and to start a free trial, please contact:
NordicSalesTeam@nasdaq.com

