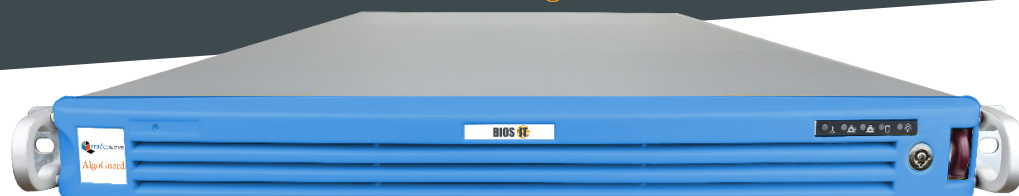


# Traderserve AlgoGuard

- MiFID II algo testing
- Independent algo stability testing
- Protect your organisation and staff from Market Abuse Regulation (MAR)



BIOS IT has expanded its portfolio of trading solutions to focus on the upcoming MiFID II regulations. Our validated AlgoGuard appliances feature the TraderServe's AlgoGuard managed service, which is the first compliant algorithm test suite with the ability to pass or fail algorithms based upon their contribution to or creation of market disorder including stress tests. It does not require any disclosure of the algorithms under test. BIOS IT are able to ensure our customers are compliant with MiFID II's new disorderly market algo testing requirements ahead of the deadline.

## MIFID II

MiFID II imposes new obligations on investment firms governing non-live testing of algorithms on a vast range of instruments. Firms must now certify that they have tested their trading algos to avoid contributing to market disorder.

These changes represent a paradigm shift in the way that algorithms are tested and in the type of test environments required on which to test them to meet regulatory requirements.

**All firms that trade using algorithms are now faced with the problem of meeting these new regulatory mandated requirements, or not trading at all on European trading venues after 3rd January 2018.**

Trading venues will require their members "to certify that the algorithms they deploy have been tested to avoid creating or contributing to disorderly trading conditions" (RTS 7, Article 10, 1). Such tests and certification must be made both prior to initial deployment of algorithms and on any "substantial" update (ibid) and a "responsible party designated by senior management of the investment firm shall sign off the initial deployment or substantial update" (RTS 6, Article 5, 2).

The member must also "explain the means used for that testing" (RTS 7, Article 10, 1). Additionally, as part of an annual assessment, the investment firms must retest their algorithms to "ensure that they are capable of withstanding increased order flows or market stresses" (RTS 6, Article 10).

The purpose of testing for disorderly trading conditions is to "recreate real market conditions to ensure the well-functioning of algorithms under changing circumstances" (3.2.33) and must include tests that show that the algorithm "can continue to work effectively in stressed market conditions" (3.1.16).

Additionally MAR (Market Abuse Regulation) went live in July 2016 and also has implications on testing of algorithms.

## GET IN TOUCH

### AMERICAS

1-800-654-BIOS  
123 10th St.  
San Francisco, CA 94103.

### EMEA

+44 (0) 203 178 6467  
Salisbury House, 29 Finsbury Circus,  
London, EC2M 5QQ

### APAC

+61 (0)2 8866 3343  
Suite 701,275 Alfred St.,  
North Sydney, NSW 2060 Australia

## MARKET ABUSE REGULATION (MAR)

MAR includes:

- Fines up to € 5 million on individuals and € 15 million or 15 % of turnover on firms.
- Criminal sanctions of up to 4 year imprisonment will apply under CSMAD (or its UK equivalent).
- Mandated requirements for capture, detect and reporting of trading events.
- Market operators and investment firms that operate a trading venue shall establish and maintain effective arrangements, systems and procedures aimed at preventing and detecting market manipulation (Art 16.1)
- Under MAR generally any "behaviour likely to create unfair trading conditions" is considered market abuse. This includes
  - Disrupting or delaying the functioning of the trading system of the trading venue
  - Entering orders which result in the overloading or destabilisation of the order book
  - Creating a false or misleading signal by entering orders to initiate or exacerbate a trend

## COMBINING A PROVEN TEST ENVIRONMENT WITH CONSULTANCY EXPERTISE

SQS is now working in partnership with TraderServe to provide a managed testing service, combining TraderServe's proven and sophisticated test environment AlgoGuard, which emulates real world market micro structures, coupled with the unparalleled testing consultancy expertise of SQS.

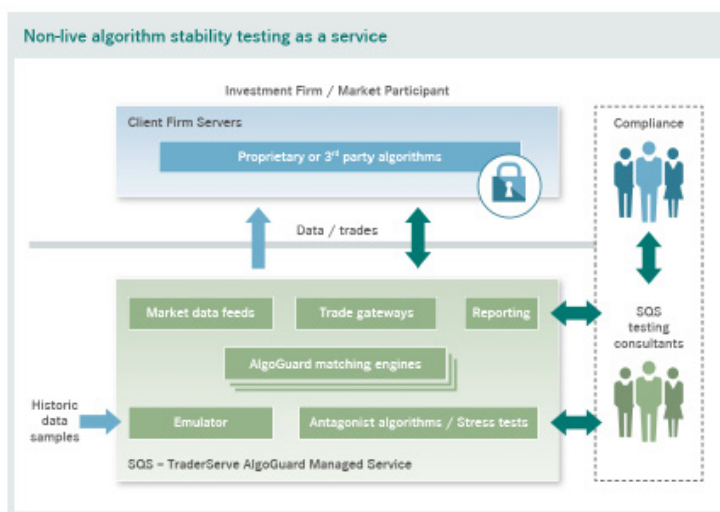
This 'testing as a service' solution ideally suits most firms who want to independently test their algorithms without ever revealing their IP.

AlgoGuard emulates a live, realistic market which responds dynamically to the algorithm being tested. Test strategy and test plans are created by SQS in conjunction with the investment firm. Test plans suited to the client's algorithms manipulate market conditions to introduce both stressed and disorderly trading using antagonist algorithms and measure the tested algorithm against agreed pass/fail levels of market disorder provocation. SQS produce full

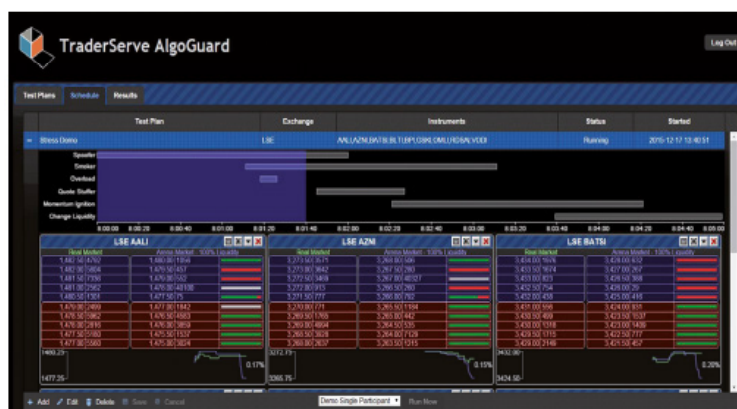
documentation of the testing engagement to help the client to meet their regulatory responsibilities.

SQS's comprehensive test reporting gives the evidence firms will need to demonstrate to their trading venues and regulators that they have complied with the new regulations, as well as independent testing to give confidence to their senior management who must stand behind their algorithm certification.

If you are interested in finding out more about this solution, do not hesitate to send an e-mail to [sales@bios-it.com](mailto:sales@bios-it.com) or visit [www.bios-it.com](http://www.bios-it.com)



AlgoGuard provides you with a "Pass" or "Fail" algorithm stability test report after running the tests



All products and companies referred to herein are trademarks or registered trademarks of their respective companies or mark holders.

## GET IN TOUCH

**AMERICAS**  
1-800-654-BIOS  
123 10th St.  
San Francisco, CA 94103.

**EMEA**  
+44 (0) 203 178 6467  
Salisbury House, 29 Finsbury Circus,  
London, EC2M 5QQ

**APAC**  
+61 (0) 2 8866 3343  
Suite 701, 275 Alfred St.,  
North Sydney, NSW 2060 Australia