

# **2011 SECURITIES INDUSTRY BUSINESS CONTINUITY TEST**

**October 29, 2011**

## **SUMMARY OF RESULTS**

**Test Lead By**

**Securities Industry and Financial Markets Association**



# 2011 SECURITIES INDUSTRY BCP TEST

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### Summary of Results

#### Executive Summary

The 2011 test is part of an ongoing industry-driven backup site testing initiative that began in 2003 and is led by Securities Industry and Financial Markets Association (SIFMA)<sup>1</sup>.

The 2011 test followed the format of prior industry-wide tests where firms submit test orders and transactions from their backup sites to the markets and industry utilities. The test involved components for Equities, Options, Fixed Income, Clearing and Settlement Utilities, Market Data, Payment Systems, Treasuries and FX. The exercise was supported by all major exchanges, markets and industry utilities. Participation in the test was voluntary and results for specific firms, exchanges, markets and utilities are retained in strict confidence by SIFMA.

Participants in the SIFMA test included **over 220 securities firms** and **60 market organizations**. During the test approximately **1570 communications connections** were established between securities firms and banks and the exchanges, markets and utilities. **Test transactions on these connections were successful 95% of the time**. These results were generally comparable to prior tests. These results underscore the ability of the securities industry to operate through adverse conditions

In parallel with the SIFMA test on October 29, the Futures Industry Association led a backup site test of the futures exchanges and clients. The Futures test included 16 futures exchanges and clearing organizations. **In the futures test, 62 clearing/non-clearing firms and 47 trading firms participated. 93% of these firms tested successfully.**

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<sup>1</sup> The Securities Industry and Financial Markets Association (“SIFMA”) brings together the shared interests of hundreds of securities firms, banks and asset managers. SIFMA’s mission is to support a strong financial industry, investor opportunity, capital formation, job creation and economic growth, while building trust and confidence in the financial markets. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (“GFMA”). For more information, visit [www.sifma.org](http://www.sifma.org).

## Test Objectives

1. To assess the ability of securities market participants to operate through a significant emergency from their backup data centers and work area recovery sites and to examine the level of resiliency of the markets and the industry overall.
2. To provide firms and exchanges with an opportunity to test and evaluate their backup sites and backup communications with the markets on a single day.

## Markets and Utilities Tested and Expanded Test Components

The 2011 test included components for Equities, Options, Fixed Income, Clearing and Settlement Utilities, Market Data, Payment Systems, Treasuries and FX.

Market participants included all major exchanges, markets and industry utilities plus major service bureaus and market data vendors. See **Appendix A** for list of participating market entities.

For 2011, the test was enhanced in a number of ways with new test components and additional participating markets.

- ✓ New exchanges and markets were added including BATS Equities (BZX, BYX), BATS Options, Direct Edge Equities (EDGA, EDGX) and Tullet Prebon (FI IDB)
- ✓ A new test component was added for foreign exchange (FX) that included Bloomberg TRADEBOOK, Bloomberg FXGO, Hotspot and Thomson Reuters.
- ✓ The 2010 Treasury Auction pilot test was expanded this year to include additional dealers.
- ✓ A new test was included with the New York Fed that involved a mock securities lending operation in Fed Trade v3.6 (production environment).
- ✓ Buy side firms were encouraged to participate in the test this year. A number of additional firms registered that conduct business directly with the exchanges, markets and utilities. We began experimenting with a test between buy side firms and broker/dealers. This concept will be expanded in 2012.

The Financial Information Forum assisted in coordinating with the services bureaus and market data vendors during the test.

## Test Format

Participating firms, exchanges, industry utilities, service bureaus and payment banks, operating from backup sites (data center and work area recovery), simultaneously submitted scripted test transactions to markets and settlement entities and receive simulated confirmations. The test was not intended to be a simulation of any specific real event.

Firms and markets were requested to test from backup locations but, in some instances, this was not technically feasible. For a connection between a firm and a market to be considered a valid test interaction, at least one of the entities had to test from a backup site. A number of exchanges and markets and some firms run multiple “hot” sites as a normal data center configuration. In a multiple hot site configuration, order traffic is routed automatically to one or more of the sites and if a site fails, traffic is automatically shifted to the operational sites. This test did not require shutdown of one of the hot sites.

## Test Participants Summary

Exchanges, Markets and Industry Utilities (Equities, Options, FI, Clearing, Treasuries, FX)	41
Securities Firms (Including those testing directly with markets and through service bureaus)	220
Service Bureaus	11
Market Data Vendors	8
Payment Organizations	3
Future Exchanges and Clearing Organizations	16

See Appendix A for a complete list of market entities participating. The names of the participating firms will not be released.

## Overall Test Results

There were 1570 test interactions in the SIFMA test components of which 95% were successful.

The success rate for 2011 is in line with results for the past few years.

The firms participating in the test account for greater than 85 percent of the normal market volume.

**Notes:** A test interaction is a connection between a firm and an exchange, market, service bureau or utility. Test interactions are considered successful if a two-way communication is recorded during the test window. Interactions that experienced issues that were corrected during the test window were counted as successful tests.

## Successful Test Interactions by Market

Equities	94%
Options	93%
Fixed Income	93%
Clearing & Settlement	100%
Treasury	100%
FX	100%
Market Data	96%
Service Bureaus	96%
<b>Total</b>	<b>95%</b>

## Types of Issues Resulting in Unsuccessful Test Interactions

The type of issues noted during this year's test are consistent with issues encountered in prior test except that the organizations experiencing the problems seem to vary from year to year. Types of problems include:

- ✓ General connectivity issues at firms
- ✓ System specific connectivity issues at firms
- ✓ System specific connectivity issues at one clearing bank

## Observations and Conclusions

- This test and prior annual industry tests have consistently achieved extremely positive results that underscore the ability of the industry as a whole to operate through adverse conditions.
- One of the primary values of the annual test is the opportunity it provides for firms and markets to test their backup strategies collectively as an industry.
- The types of problems that caused the failures during this test were not so significant that, during a real event, they could not be addressed fairly quickly with full resources.
- Participants agree that it is valuable to continue to modify and expand the scope of the test each year.
- The backup strategies installed by securities firms and market entities performed extremely well.
- The need for firms to regularly and frequently test their backup connections to market entities is critical.
- Firms should ensure that appropriate controls are in place to manage changes to applications and hardware that may impact backup site connectivity to markets. Some of the problems seen during the test resulted from applications changes and hardware configuration changes that were installed since the last test.

## **Inquires About the SIFMA Test**

Inquires about the test may be directed to:

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## **Futures Industry Test**

For information about the Futures test led by Futures Industry Association, see <http://www.futuresindustry.org/business-continuitydisaster-recovery.asp>

## Appendix A

### PARTICIPATING MARKET ORGANIZATIONS

#### Equities

BATS BZX  
BATS BYZ  
Chicago Stock Exchange  
Direct Edge EDGA  
Direct Edge EDGX  
NASDAQ  
NASDAQ OMX PSX  
NASDAQ OMC BX  
National Stock Exchange  
NYSE/Euronext  
NYSE/AMEX

#### Options

BATS Options  
Boston Options Exchange  
Chicago Board Options  
Exchange  
NASDAQ OMX PHLX  
NASDAQ NOM  
NYSE/ARCA  
The Options Clearing  
Corporation

#### Fixed Income

BondDesk - ATS  
MarketAxess - ATS  
The Municenter - ATS  
TradeWeb - ATS  
Dealerweb - IDB  
eSpeed - IDB  
ICAP - IDB  
Tullett Prebon – IDB  
Bank of New York - Clrg Bank  
JP Morgan Chase - Clrg Bank

#### Clearing/Settlement

DTCC  
NASDAQ ACT  
Omgeo  
SWIFT

#### Payments

Fedwire  
CHIPS  
SWIFT

#### Market Data

Bloomberg  
eSignal  
Factset  
Fidessa  
FT Interactive Data  
OCT Markets Group  
SIX Telekurs  
Thomson Reuters

#### Service Bureaus

Broadridge ICI  
Broadridge BPS  
Broadridge SIS  
CRI  
Fidessa  
Lava Trading  
OTC Markets Group SB  
ReadQ  
SunGard Phase 3  
SunGard Brass  
Thomson Reuters BETA  
Systems

#### Treasuries

US Treasury Auctions  
Govex

#### FX

Bloomberg Tradebook  
Bloomberg FXGO  
Hotspot  
Thomson Reuters RTFX

#### Futures

Canadian Derivatives Clearing  
Corporation  
CBOE Futures Exchange  
CME Group  
ELX Futures  
ICE Clear Canada  
ICE Clear EU  
ICE Clear US  
ICE Exchanges  
International Derivatives  
Clearing Group  
Kansas City Board of Trade  
Mercado Español de Futuros  
Financieros  
Minneapolis Grain Exchange  
Montreal Exchange  
New York Portfolio Clearing  
NYSE Liffe US  
Options Clearing Corporation