



## Test Environment Setup Guide

1.5

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System response times may vary for a number of reasons including market conditions, trading volumes and system performance.

### VERSION HISTORY

Version	Description & Changes	Date
1.0	First Release	9 August 2010
1.1	Updated Market Trading Hours Updated Network Diagram	27 August 2010
1.2	Updated Market Trading Hours – system configured to run 7 days a week	29 November 2010
1.3	Updated to include connectivity to ASX Trade	9 June 2011
1.4	Updated to include new test environment details Updated Section 4 “Trading Schedule”	18 August 2011
1.5	Updated Services Overview to include OUCH; and other minor updates Updated sections regarding Direct Connections and ASX Connectivity	7 July 2014

## 1 Introduction

This document provides an overview of the CXA Test Environment Setup. This guide is designed to assist participants and vendors in connecting and using the CXA test environment by providing:

- ❖ Configuration details for VPN and trading system connectivity;
- ❖ Functionality Overview; and
- ❖ Market configuration.

It should be noted that the test environment is currently a functional test environment with the availability of connectivity via the internet (direct or iVPN).

## 2 Getting Connected

### 2.1 iVPN Connection

The CXA Functional Test Environment can be accessed by an internet VPN (iVPN). This VPN is configured directly in the firewall at either end of the connection and does not require any client/desktop software.

Participants and vendors (client-side) should configure their VPN/firewall settings using the IP address details and settings shown in Figure 1. CXA will configure our VPN/firewall (server-side) based on the details submitted in the online access request form available on the CXA Client Forum (<http://clientforum.chi-x.com.au/access-request-form/>).

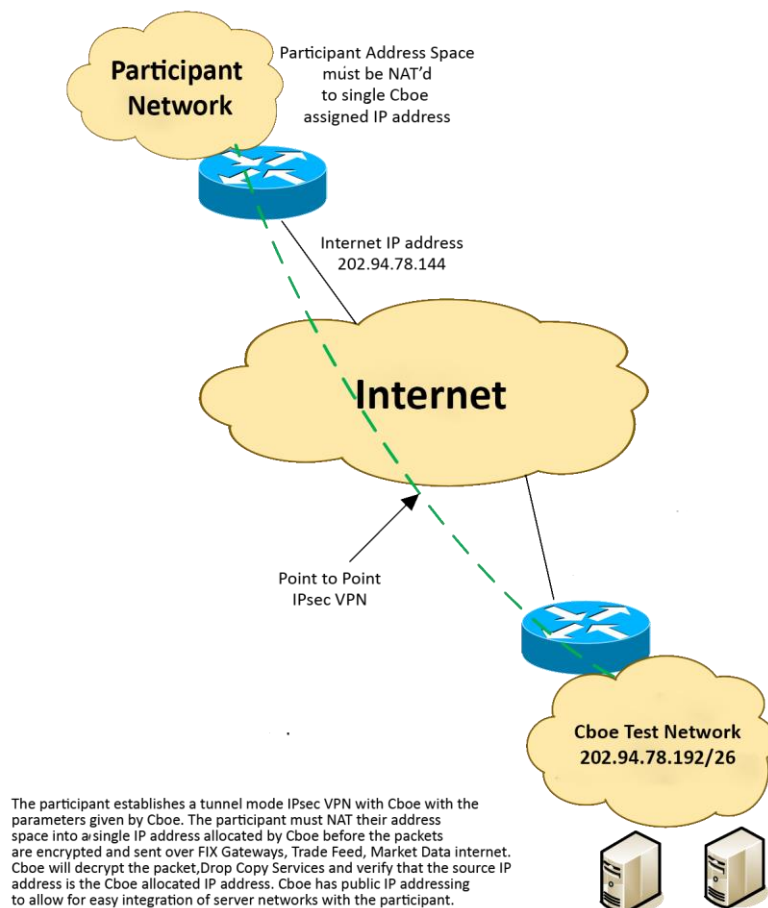


Figure 1 - iVPN Network Configuration

## 2.2 Direct Connection

The Participant Test Environment can also be accessed directly over the internet in an unencrypted format. This is for participants who prefer this method to iVPN. Cboe will update their firewall with the source IP address given by the participant.

## 2.3 Direct Cross Connect

The Participant Test Environment can also be accessed directly within the Cboe data centres via cross connects.

The technical details on the configurations supported and the IP address details for the various Cboe environments are contained in the Cboe document – Technical Connectivity Guide.

## 2.4 Trading System Connection

Once an iVPN or direct connection has been successfully established Cboe will configure the required services to enable connection to the trading system. Please refer to the specifications for each service currently available to determine which services you require.

There is a charge to utilise our test environment and the Cboe team will work with customers to determine a test plan and connectivity requirements to ensure that you effectively utilise the available services.

# 3 Services Overview

The CXA test environment has the following services available:

## 3.1 FIX 4.2 Order Entry Interface

All functionality listed in the FIX 4.2 Trading Interface Specification is enabled in the test environment. This includes:

- ❖ Logon / Logout
- ❖ Order Entry (New/Cancel/Replace/Trade Report)
- ❖ Order Status (Done for Day Report)

## 3.2 CHIXOE (OUCH) Interface

All functionality listed in the CHIXOE Interface Specification is enabled in the test environment. This includes:

- ❖ Logon / Logout
- ❖ Order Entry (New/Cancel/Replace)
- ❖ Order Status (Done for Day Report)

## 3.3 Trade Feed

All functionality listed in the Trade Feed Specification is enabled in the test environment.

## 3.4 3<sup>rd</sup> Party Consolidated Trading Information Feed

All functionality listed in the 3rd Party Consolidated Trading Information Specification is enabled in the test environment. This feed is for participants or vendors who require consolidated order maintenance and executions reports.

If you require this feed please advise at the time of requesting access and detail how you would like the feed to be filtered. This can be done at a participant level (PID) or broker level (individual FIX session). At the PID level you will see all trading information for a Participant i.e. all the FIX sessions under this PID will be consolidated. At the FIX session level one or more FIX sessions can be specified.

## 3.5 Cross Session Order Management Interface

All functionality described in the Cross Session Order Management Specification is available in the test environment.

If you require this service please specify which FIX sessions you would the COG to be able to control.

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### 3.6 Market Data Feed

All functionality listed in the Market Data Feed Specification is enabled in the test environment. Connection to the Multicast Market Data Feed is not available for iVPN access but can be accessed via direct connections.

### 3.7 ASX Connectivity

The Cboe trading system static and price reference data is synchronised to the ASX Trade Functional Test Environment (FTE). This provides reference price data for price improvement orders (Pegged), MOC Orders and NBBOX Trade reports (and other internal CXA operational controls) and security status information.

If a security is placed into a TRADING\_HALT on the ASX Trade test environment the security will be automatically placed into a HALT on Cboe.

## 4 Trading Schedule

Period	Time	Functionality
Technical Connectivity	05:00	<ul style="list-style-type: none"> <li>❖ Participant system connectivity can occur</li> <li>❖ No order entry, modification or cancellation is permitted</li> </ul>
Pre-Market Period	06:30 to 08:00	<ul style="list-style-type: none"> <li>❖ Orders cannot be entered, modified or deleted</li> <li>❖ No trades occur during this period</li> <li>❖ Off-Market Trade Reports allowed</li> </ul>
Continuous Trading Period	08:00 to 21:00	<ul style="list-style-type: none"> <li>❖ Orders can be entered, modified and deleted</li> <li>❖ Trades occur continuously as orders match in price/visibility/time priority per normal trading behaviour</li> <li>❖ Off-Market Trade Reports allowed</li> <li>❖ Market on Close (MOC) final match occurs (16:20)</li> </ul>
Post-Trading Period	~21:00 to 21:35	<ul style="list-style-type: none"> <li>❖ Orders can only be cancelled during this period; they cannot be entered or amended</li> <li>❖ No trades will be generated as a result of matching buy and sell orders</li> </ul>
End of Day	21:35	<ul style="list-style-type: none"> <li>❖ Done for Day event, any untraded orders will be cancelled back to participants</li> </ul>
Technical Connectivity Ends	22:00	<ul style="list-style-type: none"> <li>❖ System closed</li> </ul>

The above schedule is configured to run 7 days a week. Please note CXA Support is only available Monday to Friday.

## 5 Securities

Upon successful logon to the market data feed a list of all active securities available for trading will be downloaded. For those interested in more detailed reference data two files are available for download daily via SFTP. Please refer to the Guide to Reference Data Files documentation available on the Client Forum.

## 6 Support

If you require any assistance connecting to or using the test environment don't hesitate to contact us.

Email: [au.support@cboe.com](mailto:au.support@cboe.com)

Phone: 02 8078 1701

Hours: 08:30 – 17:30 AEST on Business Days.