

# How to Connect to **CBOE**direct™

CBOE*direct* is the trade engine for CBOE, C2, CBSX, CFE and OneChicago.

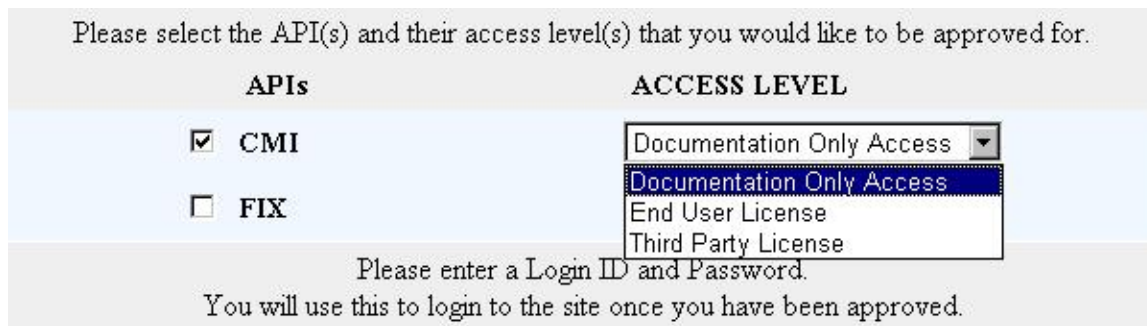
## 1. Register for access to the CBOE*direct* website

Visit the CBOE API website to register for access to the documentation and CMi SDK (Software Development Kit). It is also where the various forms to request hardware and network connections reside.

The Registration page for the CBOE API website is located at:

<http://systems.cboe.com/webAPI/scripts/register.asp>

Complete the necessary fields on the Registration page and select the API(s) and their access level(s) by checking the relevant checkboxes to the left of the APIs, and selecting the access level for each applicable API from the drop-down menu. See the example below.



Please select the API(s) and their access level(s) that you would like to be approved for.

APIs	ACCESS LEVEL
<input checked="" type="checkbox"/> CMI	Documentation Only Access
<input type="checkbox"/> FIX	Documentation Only Access
	End User License
	Third Party License

Please enter a Login ID and Password.  
You will use this to login to the site once you have been approved.

An email will be sent within two business days with the username and password confirming registration.

## 2. Download the API documentation

Once an email has been received that approves access, the documentation and forms may be downloaded. The complete set of documentation for each of the APIs can be downloaded from the Download API Files section as a .zip file or as individual PDF files from the Release Notes section. Adobe Acrobat Reader will be required to view them.

The main menu of the API website has a button for each of the major sections. Everything related to each of the APIs and the networking standards for connecting to the CBOE is located there.

**CBOE MARKET INTERFACE (CMi)**

*CMi pages last updated: 00/00/00*

**FIX PROTOCOL**

*FIX pages last updated: 00/00/00*

**NETWORK CONNECTIONS**

*NET pages last updated: 00/00/00*

**CBOE FINANCIAL NETWORK (CFN)**

*CFN pages last updated: 00/00/00*

**OTHER CBOE API'S**

*Pages last updated: 00/00/00*

### **3. Download the Software License agreement (CMi only)**

To begin the CMi process, download the appropriate Software License agreement form, found in the Download API Files section. After completing and signing the agreement, return at least one copy with an original signature. The Member License Agreement is for those member firms doing their own development. Software Vendors should use the Third Party License Agreement. Once the CBOE receives the completed agreement, access to download the CMi Software Development Kit (SDK) will be granted, and the CMi SDK can be downloaded.

There is no Software License agreement or SDK for FIX 4.2.

### **4. Submit a Test Connection Request, Worksheet A**

A connection to the test environment will be required if coding to the CMi or FIX 4.2 APIs is intended. It is also recommended to request a test connection if the intention is to code to interfaces of an Independent Software Vendors' (ISV) application. An example of this would be where a member firm would like to supply their own theoretical values in lieu of using those generated by the ISV's application, thus interfacing their internal systems to the ISV's application.

Click on the Network Connections button in the main menu.

**NETWORK CONNECTIONS**

Click on the Net-01 Network Connectivity button to download the CBOE Network Connectivity document, which outlines the standards and requirements for connections to the CBOE, as well as the Test Connection Request form and the Production Connection Request form. As of August 2006, the current version of this document is 4.1.

[Net-01: Network Connectivity](#)

Then click on this link to download Worksheet A:

[Worksheet A: Test Connection Request](#)

Complete and return Worksheet A: Test Connection Request form. The CBOE will complete the relevant sections and return the form. The returned form will contain the information necessary to configure the test connection. The test connection must be at least 128Kb. It may be supported by a VPN, Radianz, CBOEconnect or ISDN.

## **5. Choose API (FIX and CMi) and Order Hardware (CMi only)**

### **API**

Select which API that will be used, by checking the appropriate checkbox.

### **Hardware**

The CBOE will supply the following items for CMi API when selected:

- Sun or Fujitsu servers known as the CBOE Application Server (CAS)
- Cisco switch or switches
- PC and 15" flat panel screen to be used as a test client to assist support by CBOE.

Currently the CBOE CAS application is not designed for automatic failover. However, CBOE API Guaranteed Message Delivery allows an end user to manually switch between CASes with no loss of data

Additional Trader Workstations intended for use by members or firm representatives may requested at any time using Worksheet D. A 17" flat panel screen will be shipped with these workstations, instead of the 15" flat panel screen that is shipped with the Test Client.

There is no hardware supplied by the CBOE for FIX 4.2 connections.

## **6. Submit a Production Connection Request (FIX and CMi)**

Firms currently with a TCP/IP connection to the CBOE for another CBOEdirect application connection, or any other CBOE API, such as NCC (handheld), CWN (Common Wireless Network), or VQI (Vendor Quotes), may use that link for their CBOEdirect connection, subject to

appropriately sizing the connection to support additional applications. A connection may be ordered using *CBOEconnect*, the CBOE managed network powered by Savvis or the CBOE Certified Extranet providers, BTRadianz or SFTI.

A Production Connection Request will need to be submitted so that the necessary network setup can be implemented. Firms ordering new *CBOEconnect* circuits must submit Worksheet B: *CBOEconnect* Production Connection Request. Firms with existing TCP/IP connections with the CBOE should complete Worksheet C: Direct Production Connection Request. Firms intending to setup a connection using a CBOE Certified Extranet Provider complete Worksheet E.

[Worksheet C: Direct Production Request](#)

[Worksheet E: Extranet Production Request](#)

## **7. Hardware Installation (CMi only)**

When the hardware has been configured, a time will be scheduled for delivery and installation by your API Client Relations hardware contact. A network connectivity test and application test will be conducted after the hardware has been deployed.

## **8. Software Testing for Certification**

Firms and ISVs coding to both the APIs are required to complete Phases 1-3 of the Certification and Testing phases as described in CBOE API Volume 7: *CBOEdirect* Certification and Testing Procedures and CBOE FIX Volume 6: FIX 4.2 Certification and Testing Guide. Each location connected to *CBOEdirect* must complete Phases 4 and 5, including those sites where an approved ISV will install software.