

GFI CreditMatch Technical Installation Instructions

Created by GFI Product Support Covers GFI CreditMatch Version 7.2.5 and subsequent versions Email: CreditMatch@GFIgroup.com Web: www.GFIgroup.com

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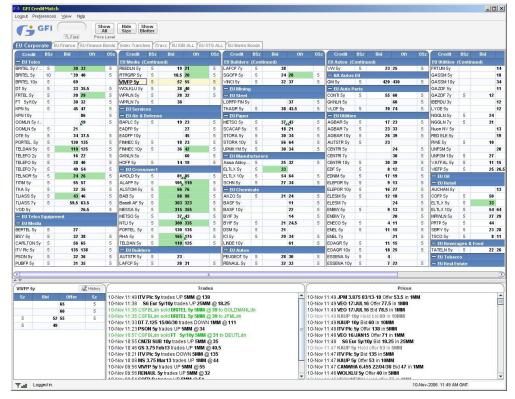
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1. INTRODUCTION

GFI CreditMatch is an interactive trading system for Credit Default Swaps, Credit Indexes and their derivatives, Bonds and Loans..

It allows interbank traders to enter, amend and remove their own prices, search GFI's historical database of price and trade information and offers other information relating to GFI's live marketplace.



The CreditMatch trader screen

This document describes the various aspects on connecting to and installing the CreditMatch application and is intended for anyone involved in the installation, configuration and maintenance of the GFI CreditMatch client environment.

If you require further assistance please call one of the following telephone support numbers, depending on your geographic region:

- Americas: +1 212 968 4162
 - Europe: +44 (0)20 7877 8000
 - Asia: +65 6435 0451



2. ARCHITECTURE OVERVIEW

2.1. The CreditMatch Application

GFI CreditMatch is implemented as a client-server application using Java enterprise technologies.

The CreditMatch client is installed and updates dynamically through Java Web Start using standard Internet and browser technologies.

It is a thin client application but does use local PC storage for:

- 1. Keeping local caches of static data, such as country codes, to facilitate faster start up time and reduced bandwidth usage.
- 2. Logging of application activity.

Therefore, *read and write* permissions are required on the user workstation under the user's local home directory (*Documents and Settings*). A directory called **GFI** will be created under this folder.

The application is signed by Verisign to guarantee the authenticity of the source (GFI). This is required by Java to gain access to system resources.

2.2. Application access control

Access to the application is controlled by usernames and passwords. These are provided by GFI Trading System support directly to the end-users.

Passwords cannot be viewed by GFI staff once set, although they can be reset in real time by GFI support staff.

Users can only maintain one active session per userid at a time and a second login using the same userid and password will cause an automatic log-out of the first user session. All users are automatically logged out at the end of each trading day for security reasons.

All user activity on the system is logged in an audit trail database.



2.3. Client-Server Connectivity

Users can connect to GFI CreditMatch via

- A private extranet, provided in partnership with RADIANZ. (Please speak to your internal network / Radianz specialist for connection information or to GFI)
- The public Internet

GFI CreditMatch features flexible client-server connectivity methods. In order to accommodate a wide range of customers, both direct TCP and SecureConnect connections are supported.

The communication layer uses TCPIP through one the following ports:

- 1. Direct TCP: port 12606
- 2. SecureConnect: port 443

The client application runs as a local instance of Java running on the trader desktop.

GFI CreditMatch is hosted at datacenters. Servers are duplicated in two distinct locations, providing enterprise level security and reliability. The primary data center for the CreditMatch application is located in North America.



3. APPLICATION DEPLOYMENT

3.1. Network Configuration

- 3.1.1. Network Connectivity Requirements
 - Firewall / Proxy:

As discussed in the <u>Architecture Overview</u>, GFI CreditMatch supports direct TCP and SecureConnect. In order to use direct TCP, port 12606 needs to be opened in the firewall.

• Bandwidth:

In tests, several users, over a dedicated line, require less than 64Kb of symmetric bandwidth. It's recommended to have a high speed Internet connection (DSL or better) for maximum performance purposes. For installations with many users at a single site, it is recommended to establish a dedicated connection to the GFI CreditMatch server to insure low latency and high bandwidth availability.

• Security:

A dedicated line or an extranet connection to the GFI CreditMatch server provides the highest level of security of network traffic.

- 3.1.2. Supported Proxies
 - CreditMatch supports proxies through browser integration or configuration to a specific proxy through the "Network Connection Settings" dialog.

For performance and stability reasons however it is recommended to bypass proxies if permissible under network management guidelines.



3.2. Application Configuration

3.2.1. Hardware Requirements

In order to run GFI CreditMatch, use the recommended workstation configuration:

- Core[™]2 Duo or higher family of Intel processors (i.e. Core[™] i3,i5,i7)
- 2.5 GHz or faster processor
- 4 GB of system memory
- 100 MB of free disk space with writable permission per CreditMatch instance located under the user's local home directory where the "GFI" folder is created. This space is needed to save data, caches, and log files

3.2.2. Software Requirements

- O/S: MS Windows XP or 7 with latest service pack recommended
- Web Browser: Internet Explorer 7.0 or higher
- Java Runtime (JRE): 1.7 (recommended) or 1.6, 64 bit or 32 bit JRE is supported.
- 3.2.3. Installation of Java Runtime

To install Java Runtime please go to GFI CreditMatch homepage at <u>http://creditmatch.gfigroup.com</u> and click the Java link.

Alternatively, visit <u>http://www.oracle.com/technetwork/java/javase/downloads</u> and download the appropriate version.

3.2.4. Configuring Java Web Start

After completion of the Web Start installation make sure to check which JRE version is being used by Web Start.

The check can be done by:

1. Bring up the Java Control Panel by

Start-> Settings -> Control Panel -> Java

- 2. Select the Java tab.
- 3. Click on the view button under "Java Runtime Environment Settings"
- 4. Ensure that 1.7 (recommended) or 1.6, 64 bit or 32 bit JRE is in the Java Runtime versions list.



ava Runtim User Syst					
Platform	Product	Location	Path	Runtime Parameters	Frabled
1.6	1.6.0_18	http://java.sun	C:\Program Files\J		
1.6	1.6.0_13	http://java.sun	C:\Program Files\J		
1.5	1.5.0_09	http://java.sun	C:\Program Files\J		
1.5	1.5.0_08	http://java.sun	C:\Program Files\J		•
1.5	1.5.0_07	http://java.sun	C:\Program Files\J		•
1.5	1.5.0_04	http://java.sun	C:\Program Files\J		•
1.4	1.4.1_06	http://java.sun	C:\Program Files\J		

3.2.5. GFI CreditMatch Network Connection Settings

GFI Credit Match configurable application connection settings are used to control connection logic. These settings can be viewed and modified if necessary prior to logging into the system. Please follow the steps described below to view and change the settings.

Depending on your connection method, go to:

RADIANZ the URL defined in your RADIANZ domain for CreditMatch. This will be available from your internal RADIANZ network manager. If you intend to use this connection please contact GFI or Radianz for more information and a list of IP address

Public Internet <u>http://creditmatch.gfigroup.com</u>

The following Login Page should appear:



Click on the Launch CreditMatch button, for the following to appear.



🔒 GFI CreditMatch								. 🗆
	GFI	-		•	- 4 - 1			
	GFI C	_re	D	IT/VI	atc	n°		
Usernal	e: e@ourbnak.com		1	For assistan Americas	ce: +1 212 965	3 4199		
Passwo			1		+44 20 7877 +65 6435	8000		
*****]	CreditMatche	@gfigroup.c	:om		
AL	-login on this PC	<	<	Connection 5	Settings	>		
				s and use of		atch is		
Logir	Exit	govern	ned by	y the GFI Term	ts of Use			
Onli	e trading o	of credi	it d	erivative	s and b	onds		

The Login Page,

1. Select 'Connection Settings'. Network Connection Settings dialog will pop up as shown below:

Network (Connection Setti	ngs			×
Proxy S	Settings				
Defa	ault Proxy				
🔘 No F	Proxy				
O Cust	tom Proxy				
Host:			Port:	80	
	Data Server				
○ TCP	Connection				
 Sector 	ureConnect				
0	/erride Host:	msg-creditmatch.gfigr	oup.com	n:12606	
	ок	Reset	Car	ncel	

- 2. Proxy Settings options may be used to override HTTP proxy settings of Java Web Start or Java plug-in.
 - 'No Proxy' indicates that no proxy should be used, regardless of proxy settings of Java Web Start or Java plug-in.
 - 'Default proxy' (default option) means that currently selected Java Web Start (or Java Plug-in) proxy settings will be used.
 - 'Custom Proxy Settings' option could be used to select proxy server and port and override current Java Web Start or Java plug-in



proxy settings.

3. 'Market Data Server' specifies the hostname and protocol the client will use to connect to the real-time server. Settings can be configured to control whether Direct TCP Connection (preferred) or SecureConnect will be used to connect to the Market Data Server. The port number used for Direct TCP Connection is 12606, for SecureConnect it is port 443. If you are behind a firewall, you may need to contact your firewall administrator before selecting "TCP Connection".

If the "Auto Detect" option is checked, the application will automatically determine the best connection method. This process may take several minutes.

The default market data server will be dynamically determined from the URL used to access GFI CreditMatch. In most cases there is no need to change it. However, the host *may* be overridden with a local hostname or IP address if required by your local network topology. Checking the "Override Host" option allows any hostname or IP address to be entered. The client will use this setting to attempt to connect to the Market Data Server. This entry must resolve to a valid GFI Market Data Server in order for the application to work. Please contact your network administrator for the proper settings.

4. Press 'OK' button to activate new settings and return back to Login dialog. Please note that new settings will be saved as local preferences and will be used from now on when you log in.

The screen will revert to the following make sure your username and password are entered then click the **LOGIN** box, for CreditMatch to start

GFI CreditMatch	
	_
SFI Credit Match [®]	
Username: For assistance:	
yourname@ourbnak.com Americas +1 212 968 4199 Europe +44 20 7877 8000	
Password: Asia +65 6435 0451	
Credit/Match@gfigroup.com	
Auto-login on this PC Connection Settings	
Your access and use of GFI CreditMatch is governed by the GFI Terms of Use	
Online trading of credit derivatives and bonds	

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