BCS

IDEM
Access Configuration Guide

Ver 1.0.1

April 2016

London
Stock Exchange Group

Contents

Summary

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1 Introduction

The following sections describe how to connect to the BCS servers using the GUI (Workstation) or the API (Application Program Interface) connection.

2   BCS GUI (Workstation)

The BCS GUI (Workstation) is a client application giving access to the BCS clearing system; it is a Java based application that is downloadable from Borsa Italiana website and can be installed on any PC running the supported operating systems.

The BCS GUI uses the Java Virtual Machine version 1.8, that is included in the setup package.

The latest version of the BCS GUI is available at the following address:

http://www.borsaitaliana.it/borsaitaliana/intermediari/gestione-mercati/bcs-bitclearingstation/bcs.htm

2.1   PC minimal requirements

- Processor : Intel Pentium Dual Core 2GHz or better;

- RAM memory: 512 MB minimum, 1 GB recommended;

- Hard drive space: 200 MB.

2.2   Bandwidth requirements

Performance test of the application, reproducing the standard clearing operations, showed that each connection has a bandwidth occupation up to 64 kbps. The bandwidth peak is reached during the login phase, when static data is downloaded.

2.3   Operating systems supported

The supported operating systems, JVM 1.8 compliant, are:

- Windows 8 (Desktop);

- Windows 7;

- Windows Vista SP2;

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2.4 Application Size

The application size (GUI BCS + JVM) is about 170 MB.

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3 BCS API

The BCS API libraries can be used by Members and ISVs to connect to the BCS clearing system.

The API libraries are written in C/C++ and are available for Windows, Solaris 5.8, Linux Red Hat 9 and AIX 5. It is possible to download the API library package at the following address:

http://www.borsaitaliana.it/borsaitaliana/intermediari/gestione-mercati/bcs-bitclearingstation/bcs.htm

All the related documentation (Programmer's Manual, API Data Layouts) is available at the same address.

The test/production environment configuration can be specified by setting the 'TCP_IP' parameter of the GKApi.txt configuration file with the destination IP address, according to the following table:

	SOLA Service	IP Addresses	External TCP PORT
PRODUCTION PDC	SERVER 01	194.169.15.136	TCP 34900
	SERVER 02	194.169.15.137	
PRODUCTION SDC	SERVER 01	194.169.15.141	
	SERVER 02	194.169.15.142	
TEST CDS	SERVER 01	194.169.15.169	

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4   Connection to the BCS Clearing system

The connection to the BCS Clearing system is available through:

- Any network infrastructure currently used for the access to any market of the Group (BItNet, Extranex, London CMC, Milan – London colo);

- A VPN Bronze Connection;

- A VPN lan to lan;

Customers that use any of the Group market production leased line (BItNet, Extranex London CMC, Milan – London colo), VPN Bronze connection or VPN Lan to Lan connection have to enable the port 34900.

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5   System access credential

The access to the BCS system is carried out through User name, Password and Member Code.

The member code is a unique ID for companies admitted to IDEM trading and/or clearing services and corresponds to the CED code.

Two categories of users are available:

- BCS GUI (Workstation) users;

- BCS API users.

There is no link between client PCs where the application is launched and applications users, that means that the same user can connect to the service from different PCs but not at the same time.

If a user tries to connect to the service with a username already connected he will receive an error message like 'user already logged'.

6   Software versions management

New software releases can involve BCS application servers and/or BCS GUI and/or BCS API library.

New releases are always notified to users and can belong to two different categories:

- Bug fixing releases: in this case, a communication is sent to users five days before the release in the production environment;

- New features releases: in this case, a communication is sent to users at least one month in advance. The new version is first deployed in the CDS test environment to let users test the new features.

Releases involving BCS-API can belong to two different categories:

- New data layout releases: in this case, a communication is sent to users at least one month in advance. The new version is first deployed in the CDS test environment to let users test the new features. A new version of the Data Layout document is provided.

- New API library releases: in this case, a communication is sent to users at least one month in advance to let the users develop and test the new API features in the test environment. A new version of the Programmer's Guide document is provided.

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7 Service availability

The following are the availability times of the BCS Clearing system:

- Production: from 07.30 AM to 11.50 PM

- Test CDS: from 08.30 AM to 06.30 PM

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APPENDIX A

VPN LAN-to-LAN Configuration

General Description

Lan-to-Lan connection allows to establish a private and secure connection between two end-point (generally firewall or concentrators) through the public network. One end-point is situated in Borsa Italiana farms and the other one at the customer site.

The established connection, defined IPsec tunnel, keeps Borsa Italiana network and the customer's one permanently connected. The remote connectivity of the users is completely seamless.

The VPN lan-to-lan configuration is performed with authentication and cryptographic protocols between Borsa Italiana network and the customer's one. The compatible protocols are defined by Borsa Italiana.

The network component that has to be installed at the customer site isn't provided by Borsa Italiana, but is in charge of the client.

To activate the Lan-to-Lan connection is possible to contact Borsa Italiana Technical Account Management at:

clients-services@borsaitaliana.it

Configuration parameters

To set up a Lan-to-Lan connection a concentrator component is needed. It should be able to:

- support IPSec tunnel Lan to Lan in preshared secret modality (no certificates are used)

- support the following protocols:

Primary VPN Peer and NAT Source	Primary VPN Peer IP	91.235.120.50
	NAT Source for all Primary VPN connections	172.21.5.1
Secondary VPN Peer and NAT Source	BackUp VPN Peer IP	91.235.120.51
	NAT Source for all Secondary VPN connections	172.21.5.129
IKE Phase 1 Proposal	Authentication	Preshare
	Group	2

	ESP-e	3DES
	ESP-a	SHA-1
	Lifetime	28800
IKE Phase 2 Proposal	Group	2
	Protocol	ESP
	Enc_alg	3DES
	Auth_alg	SHA-1
	Group	2
NAT Traversal (NAT-T)		Disabled
IKE Negotiation mode		Main

- do source NAT of the customer networks on an address we will provide you with. This address will be used on the IPsec tunnel.

Contacts

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