

User Guide

# **BTS<sup>®</sup>: INSTALLATION AND CONNECTIVITY GUIDE**

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**BORSA ITALIANA**

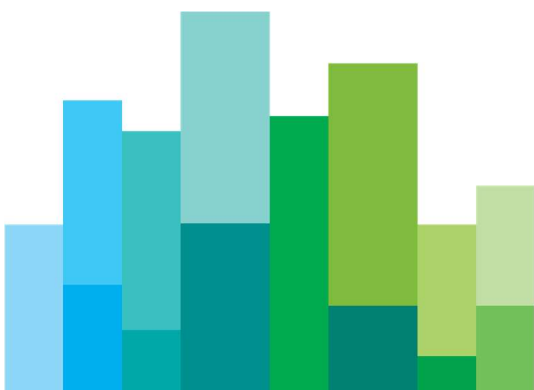
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## Revision History

| Date                | Version | Description  | Author         |
|---------------------|---------|--|----------------|
| <b>1 Apr 2014</b>   | 2.0     | BTS® Client Installation, English Version first draft. This document replaces all previous versions which were based on old templates and old company logos.   | Borsa Italiana |
| <b>1 Oct 2014</b>   | 2.1     | Chapter 5 and 7. Added references to configuration file used to quote via excel.<br><br>Added Appendix 2: manual procedure to be executed in case of SDC invocation for BTS® Production (Milan instance only). | Borsa Italiana |
| <b>16 Feb 2015</b>  | 2.2     | Replaced pictures with old logo<br><br>Removed reference to former BTS® name<br><br>Appendix 2 / 3: updated manual procedure in case of SDC invocation   | Borsa Italiana |
| <b>28 Apr 2016</b>  | 2.3     | JAVA minimum requirement update<br><br>References to ContextManagerSetup.config file added for clock link<br><br>Removed configuration to outdated client versions<br><br>BTS® registered trademark update     | Borsa Italiana |
| <b>31 Jul 2017</b>  | 2.4     | BTS client main release 8.x. – new IPs/ports, new Disaster Recovery model  | Borsa Italiana |
| <b>14 Jun 2019</b>  | 2.5     | Updated with x64 bit client installation sequence<br><br>Update addressing tables  | Borsa Italiana |
| <b>12 Mar 2021</b>  | 2.6     | Removed references to LSE  | Borsa Italiana |
| <b>12 Apr. 2021</b> | 2.7     | Euronext rebranding  | Borsa Italiana |
| <b>5 Nov 2021</b>   | 3.0     | Major change: new set of IPs for CDS, Production and Disaster Recovery   | Borsa Italiana |

# 1. INTRODUCTION



BTS® is a multi market client application that works as trading and market data front-end for equities and derivatives markets.

Both trading and market making functionalities are supported, as well as additional functions to help activity control and supervision.

## 1.1 Scope

This document aims at providing customers with a quick guideline for the correct installation of the client.

Network configuration is also provided in case IP translation (NATting) is enforced and has to be supported within a customer's network.

## 2. TECHNICAL PREREQUISITES



BTS® is a multimarket access client application developed on Java platform and can be downloaded from Borsa Italiana website and installed directly on a member's PC.

In the following a list of requirements is provided: please check if your environment is able to support BTS® client before proceeding to the client installation.

## 2.1 Hardware minimum requirements

- CPU: Pentium Dual Core 2GHz
- RAM: 4GB
- HD: 100GB
- Network Adapter: 100 Mbit/s or 1 Gbit/s

## 2.2 Software requirements

- OS:
  - Windows (x32) desktop versions 10, 8.x, 7 (SP1);
  - Windows (x64) desktop versions 10, 8.x, 7 (SP1) and Windows Server 2012 R2, Windows Server 2012.

BTS® installation kit includes also the java virtual machine which is installed automatically together with the software application. JVM version changes from time to time and since July 2019 is **1.8.0\_72-b15**.

Please note that administrator privileges are required in order to install BTS® on user's PC.

# 3. CLIENT INSTALLATION & CHECKS



BTS® client installation files are available for downloading from Borsa Italiana website in the following pages:

**<http://www.borsaitaliana.it/borsaitaliana/gestione-mercati/bts-bittradingstation/bts.htm>** (Italian)

**<http://www.borsaitaliana.it/borsaitaliana/gestione-mercati/bts-bittradingstation/bts.en.htm>** (English)

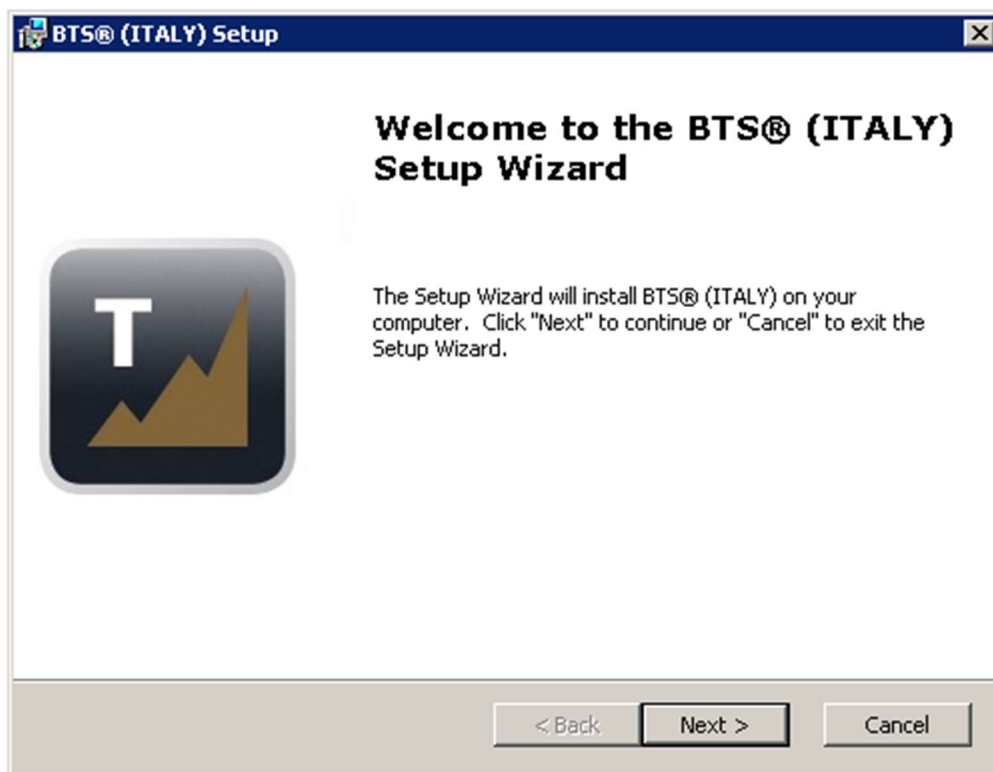
Please note that a single client version can interface all the server instances envisaged to be accessed:

- BTS® CDS (External test environment);
- BTS® Prod (Production);
- SDC BTS® Prod (Production) (in case of Disaster Recovery invocation);

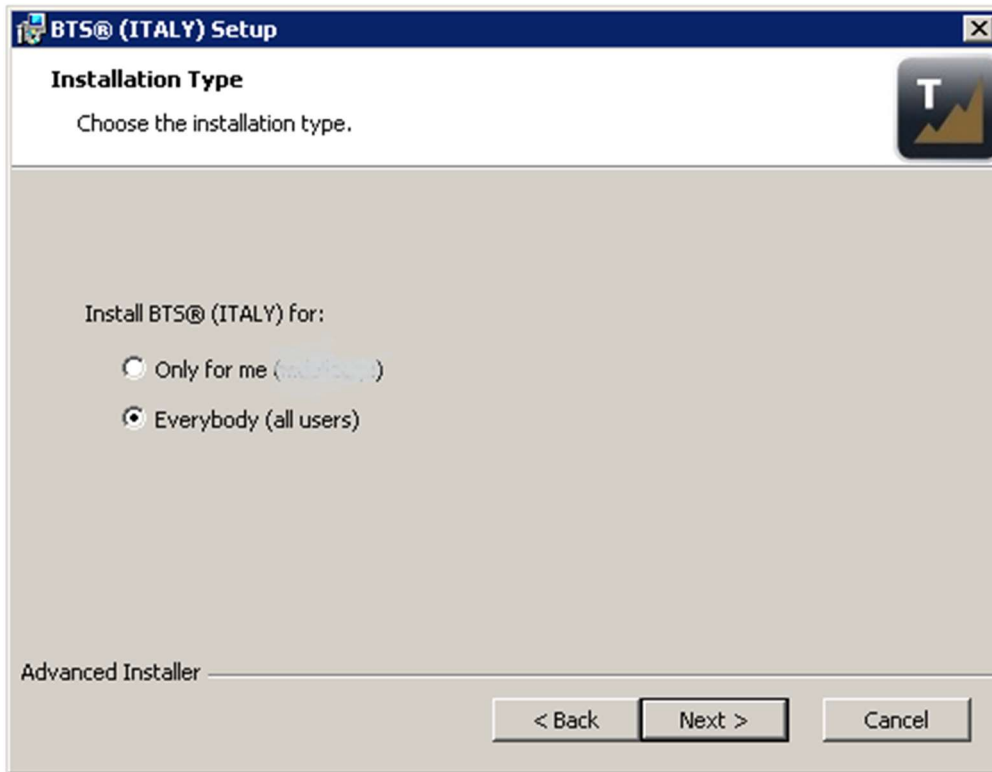
Although BTS® GUI is designed to maximize backward compatibility, it's highly recommended to always download the latest version available in our website.

After downloading the file, please follow the installation instructions:

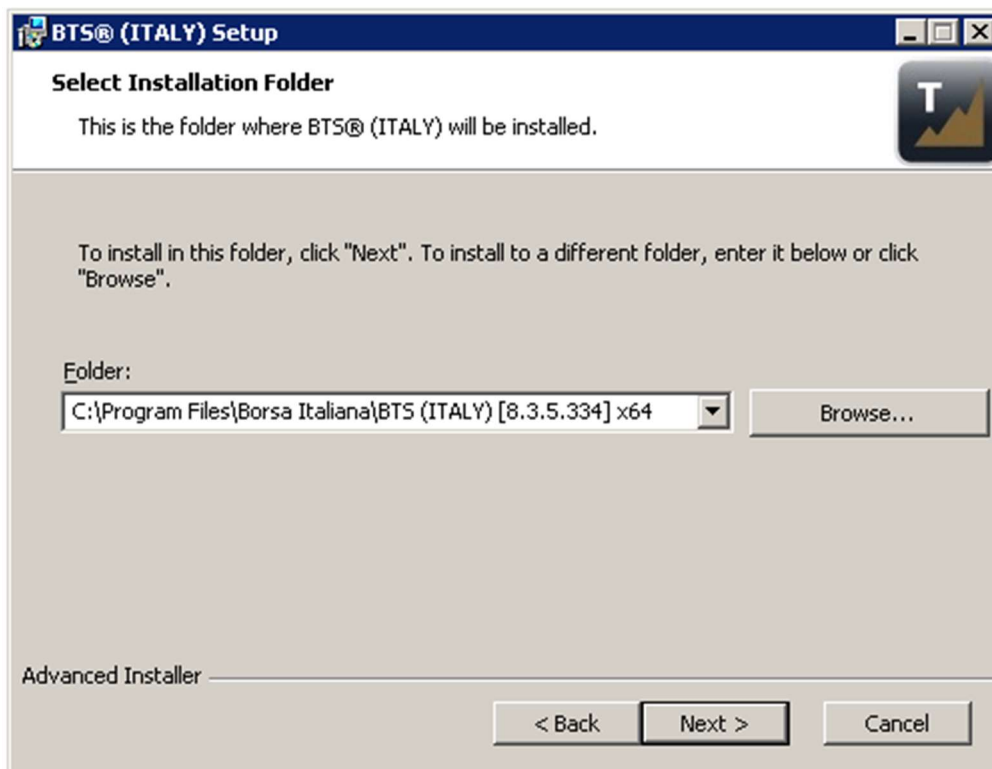
- Open the downloaded .zip file, extract the.msi installation package and run it:



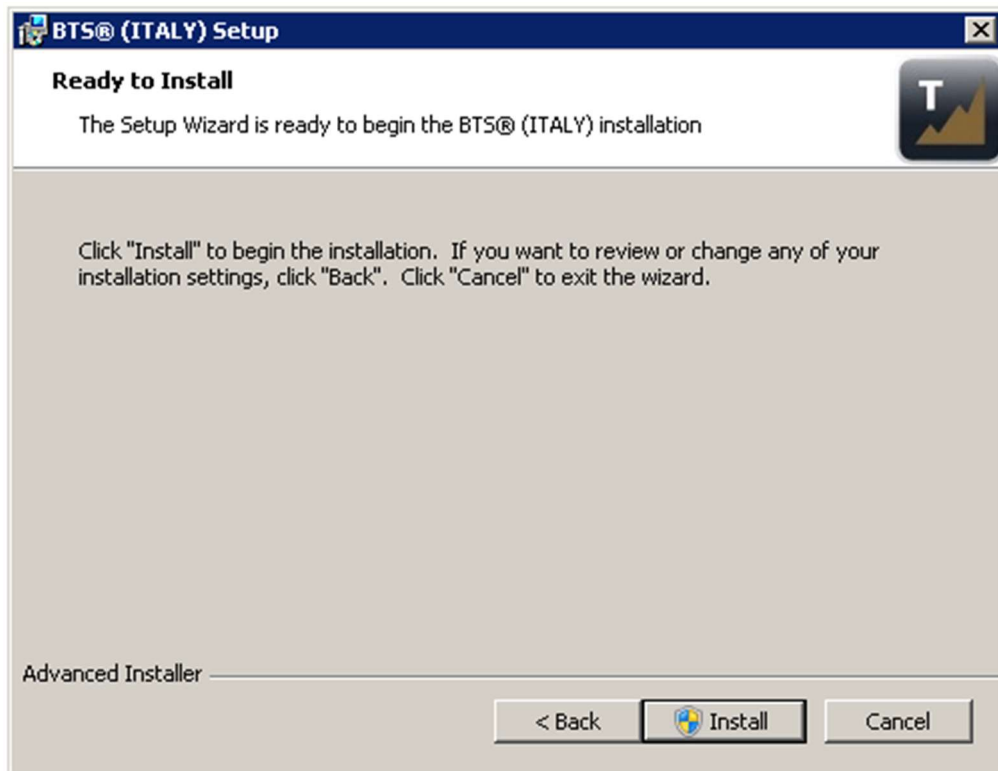
- Click on 'Next':



Select whether to make visible the client to all PC users or just to the current user, then click on 'Next':



- Click on 'Next' to continue installation in the predefined destination folder or 'Browse' if the installation folder needs to be changed, then select 'Next':



Select Install and confirm authorization to proceed, if required.

In order to access BTS®, customers need a user id, a password and a Member Code. Credentials are provided by Borsa Italiana Clients-Services team upon request.

In case of problems during the login, please close the BTS® GUI interface and follow the steps described in chapter Troubleshooting.

# 4. CONNECTIVITY PARAMETERS

In order to access BTS® CDS, production and SDC (Disaster Recovery) services, customers have to enable the following destination IPs and ports on their network:

| Milan BTS environment    | IP Addresses                   | TCP Ports                  |
|--------------------------|--------------------------------|----------------------------|
| <b>CDS</b>               | 81.174.64.172                  | 34900, 34910, 34921, 34924 |
| <b>Production</b>        | 81.174.64.70<br>81.174.64.71   |                            |
| <b>Disaster Recovery</b> | 81.174.64.170<br>81.174.64.171 |                            |

# 5. CUSTOM INSTALLER

In case the customer network architecture requires a re-mapping of IP addresses and ports, use the following procedure :

- Identify the installation directory (in the following defined as %INSTALL%) : the default suggested by the installation procedure is \Programmi\Borsa Italiana\BTS [client\_instance] [version\_number]\
- go to the %INSTALL%\etc\client\ directory
- Open the configuration file ContextManagerSetup.xml
- Verify in the <ENVIROMENTS> - <ENVIRONMENT name="xxx" type="yyy"> - <SERVERS> sections that the <SERVER> items corresponds to the values provided in Appendix – Connectivity Configuration chapter
- go to the %INSTALL%\etc\server\ directory
- Open the configuration file GKApi\_J\_Version.xml
- In the <ENVIROMENTS> - <ENVIRONMENT name="xxx" type="yyy"> - <SERVERS> - <SERVER> sections replace IP addresses (<TCP\_IP> item) and TCP ports (TCP\_PORT item) with the NATted values

# 6. TROUBLESHOOTING



The following sections provide a guide how to resolve typical problems with BTS®:

- Server unreachable
  - The service is down, e.g. has not been started, yet, or it has already been shutdown, or it is down for maintenance purposes: verify whether a notice has been delivered to inform about service availability.
  - The configuration is wrong: try to Telnet (see related chapter) the IP/Ports provided by your network administrator or the ones provided in Appendix – Connectivity Configuration in case no NATting is applied. In any case contact you network administrator.
- The user cannot logon: check your credentials. Contact Borsa Italiana Service Desk to reset the password in case it is forgotten.
- The logon is successful, but not all tools are enabled. Contact Borsa Italiana Service Desk to verify that the configuration is applied correctly.

## 6.1 Connection issues: Telnet test

For problems where a connectivity issue might be responsible for a service failure, a Telnet test can be used to provide a first and quick analysis:

- 1) Go to Start Menu, choose Run, and type: "telnet <server\_IP\_address> <server\_TCP\_port>"
- 2) An empty, black window labelled "Telnet <server\_IP\_address>" should open.
- 3) If a text like "Connecting To <server\_IP\_address> <server\_TCP\_port> ..." is displayed and after approx. 30 seconds the error message "Could not open connection to the host, on port <server\_TCP\_port>: connection failed" appears, the communication could not be established. In this case, please contact your Network Administrator to further investigate the problem.

If within few seconds a blank black screen is displayed, the connection could be established successfully: press Ctrl and '+' simultaneously to display the 'Microsoft Telnet' prompt; type 'quit' and return to leave Telnet.

# **7. APPENDIX 1**

# **CONNECTIVITY**

# **CONFIGURATION**

In the following the connectivity related entries of the configuration files GKApi\_J\_Version.cfg in the different environments is provided for reference.

The file GKApi\_J\_Version.cfg is stored under %INSTALL%\etc\server\ directory, where for %INSTALL% is the client installation directory.

GKApi\_J\_Version.cfg:

```

<ENVIRONMENT name="CDS">
  <SERVERS>
    <SERVER name="CDSLND_AS01">
      <TCP_IP>81.174.64.172</TCP_IP>
      <TCP_PORT>34900</TCP_PORT>
      .....
    </SERVER>
  </SERVERS>
</ENVIRONMENT>

<ENVIRONMENT name="PROD" type="PROD">
  <SERVERS>
    <SERVER name="PDCMLN_AS01">
      <TCP_IP>81.174.64.70</TCP_IP>
      <TCP_PORT>34900</TCP_PORT>
      .....
    </SERVER>
    <SERVER name="PDCMLN_AS02">
      <TCP_IP>81.174.64.71</TCP_IP>
      <TCP_PORT>34900</TCP_PORT>
      .....
    </SERVER>
  </SERVERS>
</ENVIRONMENT>

<ENVIRONMENT name="SDC" type="SDC">
  <SERVERS>
    <SERVER name="PDCMLN_AS01">
      <TCP_IP>81.174.64.170</TCP_IP>
      <TCP_PORT>34900</TCP_PORT>
      .....
    </SERVER>
    <SERVER name="PDCMLN_AS02">
      <TCP_IP>81.174.64.171</TCP_IP>
      <TCP_PORT>34900</TCP_PORT>
      .....
    </SERVER>
  </SERVERS>
</ENVIRONMENT>

```

# 8. APPENDIX 2

## ENVIRONMENT SELECTION

When launching the BTS® application, a System Login window pops up where Username,



The screenshot shows a login window titled 'BTS®' with the 'BORSA ITALIANA' logo. It features four input fields: 'Username', 'Password', 'Member Code', and 'Environment'. The 'Environment' field is a dropdown menu with 'CDS' selected, and a list of options including 'CDS', 'Production', and 'Disaster Recovery' is visible below it.

Password and Member Code must be entered in order to authenticate.

Moreover the environment to be addressed has to be specified by selecting the target in the 'Environment' field drop-down menu. The possible values are:

- **CDS** = test environment
- **Production** = production environment
- **Disaster Recovery** = secondary production site (to be used only in case of Disaster Recover invocation)

Once the user has logged in, the BTS® top-level tool bar appears with all available Menus and virtual desks.

# CONTACT

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