# MigratoryData Server

## Installation Guide

*Version 5.0*
*January 26, 2017*

# Copyright Information

Copyright © 2007-2017 Migratory Data Systems. ALL RIGHTS RESERVED.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THE DOCUMENT. MIGRATORY DATA SYSTEMS MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT DESCRIBED IN THIS DOCUMENT AT ANY TIME.

# Contents

# 1. Introduction

This guide describes the installation of MigratoryData Server. It is recommended to read *MigratoryData Architecture Guide* before reading this document for a better understanding of the concepts and to have a more comprehensive background.

## 1.1 Release

This guide is part of the documentation set for MigratoryData Server version 5.0.

## 1.2 Related Documents

- *MigratoryData Architecture Guide*

- *MigratoryData Configuration Guide*

- *MigratoryData Performance Benchmarking Guide*

- *MigratoryData API Developer's Guide and Reference Manual* for each API of MigratoryData Server

# 2. Requirements and recommendations

## 2.0.1 Software

Written in pure Java, MigratoryData Server runs on all major operating systems: Linux/Unix, Mac, Windows, and potentially on any other platform having support for Oracle Java Runtime Environment (JRE) version 6 or later.

MigratoryData Server comes with 32-bit and 64-bit installers for:

- Windows

- Linux (rpm and deb)

- A platform-independent tarball

The recommended platform for production is any modern 64-bit Linux enterprise server distribution (kernel 2.6 or later) such as RedHat Enterprise Linux, Debian, or Centos.

MigratoryData Server is self-contained, its object code consists of a single JAR file with no dependencies. The installers for Linux and Windows already include Oracle JRE 6 or later. Otherwise, if you install MigratoryData Server using the platform-independent tarball, the requirement is to download and install Oracle JRE 6 separately.

## 2.0.2 Hardware

- In a production environment it is recommended to have a server with at least four CPU cores, but the recommendation can grow to more CPU cores depending on the load of data on the server and how much simultaneous clients will be connected.

  *For development or small deployments there are no special requirements concerning CPU. You can use any decent workstation hardware.*

- In a production environment it is recommended to have 8 GB or more memory depending on the load of data on the server and how much simultaneous clients will be connected.

  *For development or small deployments it is recommended to have at least 512 MB memory.*

## 2.0.3 Capacity Planning

You can estimate the hardware and the number of the MigratoryData servers required for your real-time application by using *MigratoryData Benchmark Kit*, a sophisticated software able to

simulate millions of concurrent clients from a single machine and being able to publish messages of a configurable size at a configurable frequency. Also, you can check *MigratoryData Performance Benchmarking Guide* to see if your use case matches any of the already benchmarked use cases.

# 3. Microsoft Windows

The installation procedure described in this section has been tested on the following Windows versions and architectures:

- Windows 2000 i586

- Windows Server 2003 i586/x64

- Windows XP i586/x64

- Windows Vista i586/x64

- Windows 7 i586/x64

- Windows Server 2008 x64

Download and double-click the Windows installer program:

```
migratorydata-Version-windows-Architecture.exe
```

Follow the on-screen instructions in the setup program.

> **Note** — The setup program offers you the possibility to install MigratoryData Server either in user mode or as a system service. To install MigratoryData Server as a system service, you will need administrator privileges. In this case, use the function "Run As Administrator" of Windows.

After installation:

1. To start MigratoryData Server use:

   ```
   start -> programs -> migratorydata -> start
   ```

2. To test your installation use:

   ```
   start -> programs -> migratorydata -> access
   ```

   This will open the home page of MigratoryData Server which contains documentations and examples.

3. To review the logs of MigratoryData Server use:

   ```
   start -> programs -> migratorydata -> review logs
   ```

4. To change the default configuration of MigratoryData Server use:

   ```
   start -> programs -> migratorydata -> edit configuration
   ```

   The default configuration file `migratorydata.conf` is located in the installation direc-tory provided during the installation process. Follow the instructions in *MigratoryData Configuration Guide* to configure MigratoryData Server.

5. To remove MigratoryData Server from your system use:

   ```
   start -> programs -> migratorydata -> uninstall
   ```

The next step is to build your clients to communicate with your MigratoryData Server installation. Please refer to the *API Developer's Guide and Reference Manual* of any MigratoryData API that you intend to use, to learn how to build clients for MigratoryData Server.

# 4. Linux

## 4.1 RPM Based Linux

The installation procedure described in this section has been tested on the following RPM-based Linux distributions and architectures:

- CentOS i586/x64

- RedHat i586/x64

Download the RPM package of MigratoryData Server and run as `root` the following command to install it:

    rpm -vi migratorydata-*Version*-*Architecture*.rpm

This will deploy MigratoryData Server as follows:

| Location | Description |
| --- | --- |
| `/etc/migratorydata/migratorydata.conf` | The default configuration file of MigratoryData Server. Follow the instructions in *Migratory-Data Configuration Guide* to configure MigratoryData Server. |
| `/var/log/migratorydata/` | The logs folder |
| `/usr/share/migratorydata/` | The folder which contains the object code of MigratoryData Server as a JAR file as well as the Oracle JRE bundle |
| `/usr/bin/migratorydata` | A script used by the `init.d` daemon script |
| `/etc/init.d/migratorydata` | The `init.d` daemon script used to start, stop, and restart the MigratoryData Server service |
| `/usr/share/doc/migratorydata` | Folder containing documentations, examples, and licenses |

After installation:

1. The service will start automatically when the machine reboots. To manually start, stop, restart, and get the status of the service, run as `root` one of the following commands:

   ```
   /etc/init.d/migratorydata start
   /etc/init.d/migratorydata stop
   /etc/init.d/migratorydata restart
   /etc/init.d/migratorydata status
   ```

2. To test the installation start a web browser on the machine where MigratoryData Server has been installed and open the following URL:

   ```
   http://localhost:8800
   ```

   If a browser is not available on the machine where MigratoryData Server has been installed, then, supposing the address of the machine is `push.example.com` and the port 8800 is not blocked by the firewall of the machine, you can remotely test the installation by opening the following URL from a remote machine connected to `push.example.com`:

   ```
   http://push.example.com:8800
   ```

   This will open the home page of MigratoryData Server which contains documentations and examples.

3. To upgrade MigratoryData Server to a newer version, run as `root` the following command:

   ```
   rmp -vU migratorydata-NewVersion-Architecture.rpm
   ```

   **Note** — The upgrade process will preserve the old configuration files to ensure the continuity of your service. A copy of the default configuration of the new version is also provided with the extension *.new*.

4. To remove MigratoryData Server from your system run as `root` the following command:

   ```
   rpm -ve migratorydata
   ```

The next step is to build your clients to communicate with your MigratoryData Server installation. Please refer to the *API Developer's Guide and Reference Manual* of any MigratoryData API that you intend to use, to learn how to build clients for MigratoryData Server.

## 4.2   DEB Based Linux

The installation procedure described in this section has been tested on the following DEB-based Linux distributions and architectures:

- Debian i586/x64

- Ubuntu i586/x64

Download the DEB package of MigratoryData Server and run as `root` the following command to install it:

    dpkg -i migratorydata-*Version*–*Architecture*.deb

This will deploy MigratoryData Server as follows:

| Location | Description |
| --- | --- |
| `/etc/migratorydata/migratorydata.conf` | The default configuration file of MigratoryData Server.  Follow the instructions in *Migratory-Data Configuration Guide* to configure MigratoryData Server. |
| `/var/log/migratorydata/` | The logs folder |
| `/usr/share/migratorydata/` | The folder which contains the object code of MigratoryData Server as a JAR file as well as the Oracle JRE bundle |
| `/usr/bin/migratorydata` | A script used by the `init.d` daemon script |
| `/etc/init.d/migratorydata` | The `init.d` daemon script used to start, stop, and restart the MigratoryData Server service |
| `/usr/share/doc/migratorydata` | Folder containing documentations, examples, and licenses |

After installation:

1. The service will start automatically when the machine reboots.  To manually start, stop, restart, and get the status of the service, run as `root` one of the following commands:

```
/etc/init.d/migratorydata start
/etc/init.d/migratorydata stop
/etc/init.d/migratorydata restart
/etc/init.d/migratorydata status
```

2. To test the installation start a web browser on the machine where MigratoryData Server has been installed and open the following URL:

   ```
   http://localhost:8800
   ```

   If a browser is not available on the machine where MigratoryData Server has been installed, then, supposing the address of the machine is `push.example.com` and the port 8800 is not blocked by the firewall of the machine, you can remotely test the installation by opening the following URL from a remote machine connected to `push.example.com`:

   ```
   http://push.example.com:8800
   ```

   This will open the home page of MigratoryData Server which contains documentations and examples.

3. To upgrade MigratoryData Server to a newer version run as `root` the following command:

   ```
   dpkg -i migratorydata-NewVersion-Architecture.deb
   ```

   **Note** — The upgrade process will preserve the old configuration files to ensure the continuity of your service. A copy of the default configuration of the new version is also provided with the extension *.new*.

4. To remove MigratoryData Server from the system run as `root` the following command:

   ```
   dpkg --purge migratorydata
   ```

The next step is to build your clients to communicate with your MigratoryData Server installation. Please refer to the *API Developer's Guide and Reference Manual* of any MigratoryData API that you intend to use, to learn how to build clients for MigratoryData Server.

# 5. Platform Independent

Download and extract the tarball distribution of the MigratoryData Server to any folder. You will have the following layout in your installation folder:

| Location | Description |
| --- | --- |
| `doc` | Folder containing the documentation set for MigratoryData Server |
| `html` | Folder containing the home page of MigratoryData Server including documentations and examples |
| `logs` | The logs folder |
| `THIRD-PARTY-LICENSES` | Folder containing the licenses of the third-party components embedded in MigratoryData Server |
| `LICENSE.txt` | Use of MigratoryData Server is subject to the license terms defined by this file |
| `migratorydata.conf` | The default configuration file of MigratoryData Server. Follow the instructions in *MigratoryData Configuration Guide* to configure MigratoryData Server |
| `migratorydata.jar` | The object code of MigratoryData Server |
| `README.txt` | A short introduction to the product |
| `start-migratorydata.bat` | The start script of MigratoryData Server for Windows systems |
| `start-migratorydata.sh` | The bash start script of MigratoryData Server for Linux/Unix systems |

1. To start MigratoryData Server, open a console/terminal, change to the directory where MigratoryData Server package has been extracted, and run one of the following commands according to your operating system:

   ```
   start-migratorydata.bat      (Windows)
   ./start-migratorydata.sh     (Linux/Unix)
   ```

2. To test the installation, start a web browser on the machine where MigratoryData Server has been installed and open the following URL:

```
http://localhost:8800
```

If a browser is not available on the machine where MigratoryData Server has been installed, then, supposing the address of the machine is `push.example.com` and the port 8800 is not blocked by the firewall of the machine, you can remotely test the installation by opening the following URL from a remote machine connected to `push.example.com`:

This will open the home page of MigratoryData Server which contains documentations and examples.

The next step is to build your clients to communicate with your MigratoryData Server installation. Please refer to the *API Developer's Guide and Reference Manual* of any MigratoryData API that you intend to use, to learn how to build clients for MigratoryData Server.