

# Installing MidPoint Server



## MidPoint 3.7 and later

This guide applies to midPoint 4.0 and later. For guides that apply to older releases please see the release notes.



This is the guide that describes how to install midPoint as a service, how to properly configure it and how to control it. This guide may be too complex if all you want is just to try midPoint. In that case please see [Trying MidPoint](#) page.

## Introduction

This page describes the steps required to install [midPoint Identity and Access Management](#) from a binary distribution. MidPoint is a Java web application distributed in a form of a stand-alone self-contained server.

## Before You Start

There are few things to check before you start the installation:

- Make sure to see [Release Notes](#) for list of environments that are known to work and for the list of known issues in current release.
- Check the [System Requirements](#)

## Prerequisites

### Java SE Development Kit 11

The development environment requires at least JDK 11. [OpenJDK](#) is recommended.

JAVA\_HOME environment variable should point to the JDK installation path.

## Download MidPoint

Download the midPoint binary release from [Evolvium download site](#).

## Install MidPoint

### Installing the Files

Unpack the archive file to an installation directory. Following directory locations are recommended:

Operating system	Installation directory
Linux and other UNIX systems	/opt/midpoint
Windows	C:\Program Files\midpoint

Following instructions will refer to the relative paths inside the installation directory.

### MidPoint Home Directory

[MidPoint Home Directory](#) is a filesystem directory that midPoint uses to store initial configuration, cryptographic keys, log files and similar "variable" content. MidPoint home directory is located in the `var` subdirectory by default (e.g. `/opt/midpoint/var`). This location is acceptable for many installations. However, some installations may want to separate the static (read-only) parts of the installation and the dynamic (read-write) parts. In that case the midPoint home directory may be moved to any suitable location. This can be achieved simply by setting `MIDPOINT_HOME` environment variable (on UNIX systems) or manipulating the JVM options. Please see [MidPoint Home Directory](#) and [Stand-Alone Deployment](#) pages for details.

MidPoint home directory may be moved even after midPoint is installed. But setting the directory correctly before installation may save a lot of work later on.

### MidPoint Repository

MidPoint comes with an embedded database engine (H2) that is suitable for testing and demo installations. This database will be used by midPoint after the installation unless other repository is specified. However, the embedded database is **not** supported for production installations. Therefore for anything other than evaluation and demo installations it is strongly recommended to set up a full-scale database engine. The [Repository Configuration](#) page provides the instructions.

## Cryptography

MidPoint encrypts some data to protect sensitive parts of the database such as passwords. First start of midPoint generates and encryption key for you. But it generates a short encryption key that is suitable both for use by export-limited and full-strength cryptography modules. Therefore if full-strength JCE extension was installed it is recommended to change the encryption key to a full-strength key. It can be achieved by keytool utility. The [Encryption and Keys](#) page describes the procedure.

## Post-Installation

### Manual Run Control

MidPoint distribution package provides convenient scripts to start and stop midPoint service. Those scripts are located in the `bin` directory. The purpose of those scripts is to start and stop midPoint manually. Those scripts are **not** interacting with any service control facility on operating systems (e.g. systemd). Those scripts just start and stop midPoint process.

### Linux (UNIX)

#### Starting midPoint (Linux)

```
./bin/start.sh
```

#### Stopping midPoint (Linux)

```
./bin/stop.sh
```

The `start.sh` and `stop.sh` scripts are just simple wrappers for `midpoint.sh` script. The `midpoint.sh` script is where all the action happens. This script can also be invoked directly:

#### Using midpoint.sh script (Linux)

```
./bin/midpoint.sh start  
./bin/midpoint.sh stop
```

The `midpoint.sh` script will process the script `setenv.sh` if it exists in the same directory (`/bin`). The script is a convenient place for customizing JVM properties, for example:

```
#!/bin/sh  
export JAVA_OPTS="$JAVA_OPTS -Dmidpoint.nodeId=My_Node1"
```

The `midpoint.sh` script may provide more run control and diagnostics capabilities in the future.

### Windows

#### Starting midPoint (Windows)

```
bin\start.bat
```

#### Stopping midPoint (Windows)

```
bin\stop.bat
```

The `start.bat` and `stop.bat` scripts are just simple wrappers for `midpoint.bat` script. The `midpoint.bat` script is where all the action happens.

The `midpoint.bat` script will process the script `setenv.bat` if it exists in the same directory (`bin`). The script is a convenient place for customizing JVM properties.

## Setting Up a Service

Proper way to run midPoint on a server is to register it to the operating system service control facility. This procedure is inherently dependent on an operating system. Following pages provide specific instruction for individual operating systems:

- Linux: [Running midPoint with systemd](#)
- Windows: [Installing midPoint as a Windows Service](#)

## See Also

- [Installation Guide](#)