



ThingWorx Core 7.3 System  
Requirements  
Version 1.0

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## Document Revision History

Revision Date	Version	Description of Change
December 15, 2016	1.0	Initial version for 7.3



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# ThingWorx Core 7.3 System Requirements

## Overview

This document provides the following server hardware and configuration requirements for running the ThingWorx product in a production environment:

- Core operating system software requirements
- Prerequisite software required by ThingWorx
- Minimum sizing requirements (for production use)

The information in this document is specific to ThingWorx Core 7.3, unless specifically noted otherwise. Other versions of the product may introduce new or changed system requirements.

## Compatibility Matrix

This document provides requirements for the ThingWorx Core. Other ThingWorx Foundation products such as Edge MicroServer, Connection Server, and SDK requirements are located in the [Edge System Requirements document](#). Use the following compatibility matrix to determine what version of the software is correct for your implementation.

	ThingWorx Core				ThingWorx Connection Server			
		4.2x	5.x	6.x	7.x	5.x	6.x	7.x
Edge MicroServer	4.x (XMPP)	✓	✓*	✓*	✓*	✓	✓	✓
	5.x (WSEMS)	No	✓	✓	✓	✓	✓	✓
Java SDK	5.x	No	✓	✓	✓	✓	✓	✓
C SDK	1.x	No	✓	✓	✓	✓	✓	✓
.NET SDK	5.x	No	✓	✓	✓	✓	✓	✓
iOS SDK	1.x	No	✓	✓	✓	✓	✓	✓

\*The Always On™ extension is required.

## ThingWorx Core Server Requirements

### Hardware Sizing

The following are minimum recommendations for production. Actual sizing will depend on the application and usage scenarios.

Aspect	Value	Comment
Memory	16 GB	Configuration will require a percent of dedicated memory to be allocated to the Java VM.
CPU(s)	4 Cores	Virtualized environments may have their own terminology for specifying how many CPUs/Cores are being provided. This must be taken into account when determining if the environment meets the minimum requirements. The amount of concurrent query activity, indexing and searching, as well as the amount of internal event and/or property data-change may warrant increased CPU resources.
Disk Type	*	Server-class hardware is recommended.
Disk Space	100GB	This size will accommodate the default ThingWorx web application installed in Tomcat, along with the initial ThingworxStorage (dB) directory and some initial configuration data. NOTES: <ul style="list-style-type: none"> <li>• This does NOT include the space required for the OS or other prerequisite software.</li> <li>• The total disk space required for any given application depends on the amount of configuration and runtime data that will be maintained. Customers should work with Sales and Field Enablement to estimate space needs according to their application requirements.</li> </ul>
Disk Speed	10000 RPM or SSD	Speed is important if you are storing data on the ThingWorx Core. ThingWorx recommends the fastest disk(s) you can afford, but you should not use disks slower than 10000 RPM. NOTES: <ul style="list-style-type: none"> <li>• You may wish to consider a RAID configuration to increase disk performance.</li> <li>• If you will be executing regular system backups, it is HIGHLY recommended to use an additional physical disk on its own controller - not simply a separate partition on the same physical disk.</li> </ul>

## Operating System

Supported OS (64-bit only)	Production	Tested
Windows Server 2012	Yes	Yes
Windows Server 2008 R2 SP1	Yes	Yes
Red Hat Enterprise Linux (RHEL) 7 Update 1	Yes	Yes
Amazon EC2 Linux (64-bit)	Yes	Yes
Ubuntu 14.04 LTS	Yes	Yes
Other operating systems (please contact Support)		

## Required Software

NOTES:

- The software below requires downloading/installing the proper OS-specific version.
- In general, you may install later minor versions of the software, but new major versions are not supported unless explicitly stated here (i.e. JDK 1.7.0.17 would be a minor version, but JDK 1.8 would be considered a major version). ThingWorx may still properly run on a newer major version but will not be officially supported until tested and certified.

Prerequisite Software	Version Tested	Comments
Oracle Java SE Development Kit (JDK)	Java SE Development Kit 8, Update 92 , 1.8.0_92-b14 (64-bit)	<ul style="list-style-type: none"> <li>• ThingWorx is only supported on 64-bit operating systems.</li> <li>• Open JDK is not currently supported.</li> </ul>
Tomcat (Linux)	8.0.38 (64-bit)	<ul style="list-style-type: none"> <li>• Installed manually as the standard package management does not typically have the latest versions available.</li> <li>• Due to possible security vulnerabilities, a minimum version of 8.0.33 is required.</li> </ul>
Tomcat (Windows)	8.0.38 (64-bit)	<ul style="list-style-type: none"> <li>• Installed using the Windows service installer.</li> <li>• Due to possible security vulnerabilities, a minimum version of 8.0.33 is required.</li> </ul>

## Database Options

Database	Supported Version	Comments
PostgreSQL	9.4.5 minimum	<p>NOTE: The latest update version is supported for 9.4 (for example, 9.4.9). 9.5 is <b>not</b> supported at this time.</p> <p>Additional information is located in the <a href="#">PostgreSQL Guide</a>.</p>
DataStax Enterprise Edition	4.6.3, 5	<p>Additional information is located in the <a href="#">Getting Started with DataStax Enterprise and ThingWorx Guide</a>.</p>
SAP HANA	SPS 11, 12	<p>Additional information is located in the <a href="#">Getting Started with SAP HANA and ThingWorx Guide</a>.</p>

## Composer (Modeling IDE and Mashup Builder)

The ThingWorx Composer is an HTML application that runs in a browser. The required minimum resolution for Composer is 1280x800. The currently supported browsers are shown below.

OS	Browser	Version(s)	Comments
Mac/PC	IE	11 and later	
Mac/PC	Firefox	35 and later	
Mac	Safari	6.1.6 and later	
Mac/PC	Chrome	44	
Mobile (any)			Application not appropriately sized to fit in mobile form factor.

## Mashup Runtime

OS	Browser	Version	Comments
PC	IE	11 and later	
Mac/PC	Firefox	35 and later	
Mac	Safari	6.1.6 and later	
Mac/PC	Chrome	44	
iOS 4	Mobile Safari		