

WAY4™ Application Server Requirements

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Introduction

This document describes general hardware and software requirements for solutions based on the WAY4™ Application Server platform (Application Server). These requirements may be revised after analysis during a WAY4 implementation project stage or server upgrade. This document is intended for WAY4 system administrators (bank or processing centre employees) responsible for system maintenance and installing and configuring the solution. It is recommended to use the following reference materials from the OpenWay documentation series:

- "WAY4™ Application Server" (file – WAY4_Application_Server_Functional_Specification.pdf);
- "Administering WAY4™ Application Server" (file - WAY4_Application_Server_Administering.pdf)

Warnings and information messages are marked as follows:

 There is an increased danger of making errors.

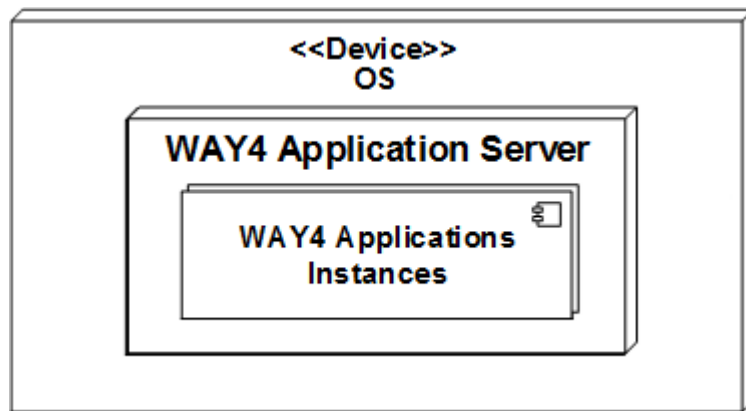
 Information about important features, additional facilities, or the optimal use of certain functions of the system.

Chapter 1. WAY4 Application Server Architecture

WAY4 Application Server is a software platform for managing WAY4 applications: J2EE- Web applications and server (Back-end) applications. For example, WAY4 Web, WAY4 Web Banking, WAY4 Mobile Web Banking, etc.

WAY4 Application Server is a software platform used to manage WAY4 Universe-based applications like Mobile Banking, Web Banking, and the Self-Service Devices Management module.

The WAY4 Application Server architecture is shown in figure.



WAY4 Application Server architecture


Chapter 2. Hardware and Software Requirements

Server for Installing WAY4 Application Server

It is recommended to use the Intel platform for the server. Use of Oracle SPARC and IBM platforms is possible only after WAY4 vendor approval.

Intel Platform

System architecture	Enterprise-level Intel PC server
Processor	Intel Xeon E5-26xx/46xx or Xeon E7-28xx/48xx/88xx series or newer, at least 2.2 GHz or more.
RAM	No less than 2 GB. Memory capacity is determined according to the number of applications installed on WAY4 Application Server. The recommended minimum requirement for one instance is 4 GB (x86_64) and 2 GB (x86).
Disk space volume	No less than 10 GB. Disk subsystem requirement – hardware mirroring ensuring data integrity if one or several disks fail. This requirement is met by using RAID1, 5, 6, 10 or similar technologies.

System architecture	Enterprise-level Intel PC server
Software	<p>OS Red Hat Enterprise Linux 6 (x86 or x86-64) / 7 ES/AS (x86-64), OEL (Oracle Enterprise Linux) 6 (x86 or x86-64) / 7 (x86-64) or Microsoft Windows Server 2012 R2 / 2016 / 2019. CentOS 6 / 7 (x86-64), Windows 8 / Windows 10 (x86-64) can also be used for testing.</p> <p> Note that in the OS Red Hat Enterprise Linux 6 (x86) operating system it is not possible to install and configure the Apache mod_security component.</p> <p>Note that Red Hat Enterprise Linux ES has a restriction on the number of processors. For more information, visit http://www.redhat.com.</p> <p>The hardware must be certified for use with the specified software.</p> <p>Oracle Java (for the required version number and description of setup, see the document "Oracle Java Commercial Updates for WAY4™").</p>
Local area network	1 x 100/1000 Mbps Ethernet port.
Other equipment	Additional hardware and software requirements are determined according to the requirements for applications installed on WAY4 Application Server.
Quantity	2 (main and backup/test).

Oracle SPARC Platform

System architecture	SPARC Enterprise T-Series Servers
Processor	SPARC M6 / M7 / T3 / T4 / T5 / T7.
RAM	<p>No less than 2 GB.</p> <p>Memory capacity is determined according to the number of applications installed on WAY4 Application Server. The recommended minimum requirement for one instance is 4 GB.</p>
Disk space volume	<p>No less than 10 GB.</p> <p>Disk subsystem requirement – hardware mirroring ensuring data integrity if one or several disks fail. This requirement is met by using RAID1, 5, 6, 10 or similar technologies.</p>

System architecture	SPARC Enterprise T-Series Servers
Software	Oracle Solaris 11.3, Solaris 11.4. The hardware must be certified for use with the specified software. Oracle Java (for the required version number and description of setup, see the document " Oracle Java Commercial Updates for WAY4™ ").
Local area network	1 x 100/1000 Mbps Ethernet port.
Other equipment	Additional hardware and software requirements are determined according to the requirements for applications installed on WAY4 Application Server.
Quantity	2 (main and backup/test).

IBM Platform

System architecture	IBM Power System S8XX / Power 7XX / Power 5XX servers
Processor	PowerPC POWER6 / POWER7 / POWER8.
RAM	No less than 2 GB. Memory capacity is determined according to the number of applications installed on WAY4 Application Server. The recommended minimum requirement for one instance is 4 GB.
Disk space volume	No less than 10 GB. Disk subsystem requirement – hardware mirroring ensuring data integrity if one or several disks fail. This requirement is met by using RAID1, 5, 6, 10 or similar technologies.
Software	IBM AIX 7.1 / 7.2 for POWER. The hardware must be certified for use with the specified software.
Local area network	1 x 100/1000 Mbps Ethernet ports.
Other equipment	Additional hardware and software requirements are determined according to the requirements for applications installed on WAY4 Application Server.
Quantity	2 (main and backup/test).

Support of Virtualization Platforms

For each virtual machine on which WAY4 online applications are installed (for example, WAY4 Gate, Customer Profile, WS Runtime Server), the following setup is recommended:

- CPU reservation according to the technical requirements for the online application used.
- Memory reservation required by the application.

 The virtual platforms listed below can be used only after agreement with the WAY4 vendor. Using other virtual platforms is not recommended.

VMware Platform

For the VMware platform it is recommended to use servers with Intel Xeon E5-26xx/46xx or Xeon E7-28xx/48xx/88xx series or newer, at least 2.2 GHz or more processors.

For correct installation and operation of WAY4 Application Server, VMware ESXi 5.5 and higher software must be used. Additional information can be found on the site <http://www.vmware.com/products/vsphere/esxi-and-esx/index.html>.

Oracle VM Platform

For the Oracle VM platform, it is recommended to use servers with Intel Xeon E5-26xx/46xx or Xeon E7-28xx/48xx/88xx series or newer, at least 2.2 GHz or more processors.

For correct installation of WAY4 Application Server, Oracle VM 3.2.2 and higher software must be used. Additional information can be found on the site <http://www.oracle.com/us/technologies/virtualization/oraclevm/overview/index.html>.

IBM PowerVM (AIX) Platform

For the IBM PowerVM platform, it is recommended to use servers with architecture no lower than IBM Power 710 Express.

For correct installation and operation of WAY4 Application Server, use IBM VIOS 2.2.3.52 and higher software for PowerPC POWER6 / POWER7 / POWER8 processors. Additional information can be found on the site <http://www-03.ibm.com/systems/power/software/virtualization>.