

insightView Monitoring

Install Guide (On-premise)

IT Infra Monitoring Solution

i.n.s.i.g.h.t.V.e.w

oxyzn

Contents

1. Overview.....	4
2. Server Installation	5
2.1. Requirements.....	5
2.2. Prerequisites.....	5
2.3. Increase OS performance settings.....	6
2.3.1. Increase the socket connection count.....	6
2.3.2. Increase the local port range	6
2.3.3. Increase the tcp sync backlog queue.....	6
2.3.4. Increase the network inbound queue length.....	6
2.3.5. Set the overcommit memory	7
2.3.6. Increase the process resource limit	7
2.3.7. Disable THG config.....	7
2.3.8. Decrease the utilization of swap (optional).....	8
2.4. Port	8
2.5. Download.....	8
2.6. Install and Start Server	9
2.7. Server Commands	9
2.7.1. Check the status	9
2.7.2. Start server	9
2.7.3. Stop server	9
2.7.4. List agents.....	9
3. Agent Installation	11
3.1. Requirements.....	11
3.2. Prerequisites.....	11
3.3. Download.....	11
3.4. Install and Start Agent.....	11
3.4.1. Linux :	12
3.4.2. Windows :	12
3.5. Agent Commands	12
3.5.1. Check the status	12
3.5.2. Start agent.....	12
3.5.3. Stop agent	12
3.6. Change Server IP Address.....	13
3.6.1. Linux :	13
3.6.2. Windows :	13
4. Upgrade	14
4.1. Server Upgrade.....	14
4.2. Agent Upgrade.....	15
4.2.1. Linux :	15
4.2.2. Windows :	15

2. Server Installation

2.1. Requirements

The insightVew Monitoring Server must meet the follows.

OS	M/W	CPU	MEMORY	DISK	Etc
CentOS Linux 7.6 64bit RHEL 7.4, 8.x, 9.x 64bit, Rock Linux 8.x, 9.x 64bit, Ubuntu Server 20.04 64bit	JDK 11	4 Core or higher	8 GB or higher	10 GB or higher	

* Note 1: Need to install **libnssl**, **compat-openssl10** library on RHEL 8, Rock Linux 8 Server.

```
# yum install libnssl
```

```
# yum install compat-openssl10
```

* Note 2: Need to install **libnssl** library and **Net::SSLLeay** module of Perl on RHEL 9, Rock Linux 9 Server.

```
# yum install libnssl
```

```
# cd <insalled directory>/bin
```

```
# ./perl -MCPAN -e "install Net::SSLLeay"
```

* Note 3: Requirement specifications may be higher depending on the operating environment.

Type	Requirement	Etc
Package	Need 'netstat' command (need install net-tools)	

2.2. Prerequisites

The insightVew Monitoring Server runs with Java, so you must install it first. You can download and install it from the following sites. (Recommended: JDK11)

Name	URL Address	Etc
OpenJDK	https://github.com/ajkbuild/contrib_jdk11u-ci/releases	
	https://github.com/ajkbuild/contrib_jdk8u-ci/releases	
	https://jdk.java.net/archive	

Oracle Java	https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html	
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2.3. Increase OS performance settings

For stable service, adjust OS performance setting values as below on server OS.

2.3.1. Increase the socket connection count

- ① Check the current value as shown below.
`# sysctl net.core.somaxconn`
- ② Increase the value as shown below.
`# sudo sysctl -w net.core.somaxconn=65535`
- ③ Save to the configuration file.
`# sudo vi /etc/sysctl.conf`
`net.core.somaxconn = 65535`

2.3.2. Increase the local port range

- ① Check the current value as shown below.
`# sysctl net.ipv4.ip_local_port_range`
- ② Increase the value as shown below.
`# sudo sysctl -w net.ipv4.ip_local_port_range="1024 65535"`
- ③ Save to the configuration file.
`# sudo vi /etc/sysctl.conf`
`net.ipv4.ip_local_port_range = 1024 65535`

2.3.3. Increase the tcp sync backlog queue

- ① Check the current value as shown below.
`# sysctl net.ipv4.tcp_max_syn_backlog`
- ② Increase the value as shown below.
`# sudo sysctl -w net.ipv4.tcp_max_syn_backlog=65535`
- ③ Save to the configuration file.
`# sudo vi /etc/sysctl.conf`
`net.ipv4.tcp_max_syn_backlog = 65535`

2.3.4. Increase the network inbound queue length

- ① Check the current value as shown below.

- ```
sysctl net.core.netdev_max_backlog
```
- ② Increase the value as shown below.  

```
sudo sysctl -w net.core.netdev_max_backlog=65535
```
  - ③ Save to the configuration file.  

```
sudo vi /etc/sysctl.conf
```

```
net.core.netdev_max_backlog = 65535
```

### 2.3.5. Set the overcommit memory

- ① Check the current value as shown below.  

```
sysctl vm.overcommit_memory
```
- ② Set the value as shown below.  

```
sudo sysctl vm.overcommit_memory=1
```
- ③ Save to the configuration file.  

```
sudo vi /etc/sysctl.conf
```

```
vm.overcommit_memory = 1
```

### 2.3.6. Increase the process resource limit

- ① Check the current value as shown below.  

```
ulimit -a
```
- ② Increase the value as shown below.  

```
ulimit -Hn 65535
```

```
ulimit -Sn 65535
```

```
ulimit -Hu 65535
```

```
ulimit -Su 65535
```
- ③ Save to the configuration file. (If userid is 'oxyzn')  

```
sudo vi /etc/security/limits.conf
```

```
root soft nofile 65535
```

```
root hard nofile 65535
```

```
root soft nproc 65535
```

```
root hard nproc 65535
```

```
oxyzn soft nofile 65535
```

```
oxyzn hard nofile 65535
```

```
oxyzn soft nproc 65535
```

```
oxyzn hard nproc 65535
```

### 2.3.7. Disable THG config

- ① Check the current 'Transparent huge pages' value as shown below.

- ```
# cat /sys/kernel/mm/transparent_hugepage/enabled
```
- ② If not [never], set the value to 'never' as shown below. (Notice: must be run as 'root' user)


```
# echo never > /sys/kernel/mm/transparent_hugepage/enabled
```
 - ③ Save to the configuration file.


```
# vi /etc/rc.local
```

```
echo never > /sys/kernel/mm/transparent_hugepage/enabled
```

```
# chmod +x /etc/rc.d/rc.local
```

2.3.8. Decrease the utilization of swap (optional)

- ① Check the current value as shown below.


```
# sysctl vm.swappiness
```

```
# sysctl vm.min_free_kbytes
```
- ② Decrease the value as shown below for use physical memory.


```
# sudo sysctl vm.swappiness=30
```

```
# sudo sysctl vm.min_free_kbytes=65536
```
- ③ Save to the configuration file.


```
# sudo vi /etc/sysctl.conf
```

```
vm.swappiness = 30
```

```
vm.min_free_kbytes = 65536
```

* It should be set to an appropriate value according to the server operating environment.

2.4. Port

The insightView Monitoring server uses the default port for connection from the agent and the web console as shown below, so the corresponding port must be opened in the firewall.

Purpose	Default Port	Etc
Connection from Agents	18575, 18521, 60000-64000	
Access for Web Console	9091, 13001	

2.5. Download

You can download the package of server from the following site.

Type	URL Address	Etc
Server	http://www.insightvew.com	

2.6. Install and Start Server

After download the server package, install as follows:

- ① Extract the downloaded package file.
tar xvf ivmserver_linux_64bit_v<version>.tar
- ② Execute the install script.
./install.sh
- ③ Input the destination directory to install.
- ④ After installation is completed, modify the **JAVA_HOME** variable value of the following files with the JDK installed directory.
<installed directory>/tomcat/bin/catalina.sh
<installed directory>/jdbc/jdbcenv.cfg
- ⑤ Start the server as follows.
cd <installed directory>
./ivmserver.sh strat

- Note: If you configure database for saving history data, create table with sql file on the below.

```
<server installed directory>/sql/<db type>-ivm-create.sql
```

2.7. Server Commands

To start, stop and check the status of the server, proceed as follows.

2.7.1. Check the status

```
# ./ivmserver.sh status
```

2.7.2. Start server

```
# ./ivmserver.sh start
```

2.7.3. Stop server

```
# ./ivmserver.sh stop
```

2.7.4. List agents

```
# ./ivmserver.sh agent
```


3. Agent Installation

3.1. Requirements

The insightView Monitoring Agent must meet the follows.

OS	CPU	MEMORY	DISK	Etc
Linux/Unix, Windows (Amazon Linux 64bit, RedHat Enterprise 64bit, CentOS 64bit, Ubuntu 64bit, Windows Server 2008/2012/2016/2022 64bit, Windows 7/10 64bit)	1 Core or higher	1 GB or higher	400 MB or higher	

* Note 1: Need to install **libnssl** library on RedHat Enterprise Linux 8/9, Rock Linux 8/9 Server.

* Note 2: If the current time of the agent OS is not correct, the time zone needs to be changed.

* Note 3: Requirement specifications may be higher depending on the operating environment.

3.2. Prerequisites

The insightView Monitoring Agent needs the followings.

OS	Requirement	Etc
Linux	Needs the 'netstat', 'vmstat' command.	
	If H/W, S/W inventory collecting: - Needs to start agent with root account or sudo command	

3.3. Download

You can download the package of agent from the following site.

Type	URL Address	Etc
Agent	http://www.insightvew.com	

3.4. Install and Start Agent

After download the agent package, install as follows:

3.4.1. Linux :

- ① Extract the downloaded ".tar" file.
tar xvf ivmagent_linux_64bit_v<version>.tar
- ② Execute the install script.
./install.sh
- ③ Input the destination directory to install.
- ④ **Server IP** is the **IP address of the insightView Monitoring Server** installed in the previous step.
- ⑤ **Server Port** uses the default port(**18575**). If you made any changes, enter the changed port.
- ⑥ Start the agent. If you want to change the hostname for displaying, enter 'n' character and modify the 'Hostname' variable in the configuration file. And then start the agent.

* Note: If you want to register as a service, run the following as root account.

```
# cd <install-dir>/bin  
# ./cr_service.sh
```

3.4.2. Windows :

- ① Extract the downloaded ".zip" file.
- ② Execute the install file.
> install.exe
- ③ Input the destination directory to install.
- ④ **Server IP** is the **IP address of the insightView Monitoring Server** installed in the previous step.
- ⑤ **Server Port** uses the default port(**18575**). If you made any changes, enter the changed port.
- ⑥ Verify that the '**insightView Agent**', '**insightView Wdog of Agent**' Service is registered and started.

3.5. Agent Commands

To start, stop and check the status of the agent, proceed as follows. On Windows, check the Service.

3.5.1. Check the status

```
# ./ivmagent.sh status
```

3.5.2. Start agent

```
# ./ivmagent.sh start
```

3.5.3. Stop agent

```
# ./ivmagent.sh stop
```

* Note: If you register to service, must be start/stop with service command.

3.6. Change Server IP Address

If you change management server's ip address that conneded from agents, change as follows:

3.6.1. Linux :

- ① Stop agent.
cd <install-dir>
./ivmagent.sh stop
- ② Go to the 'cfg' directory.
cd cfg
- ③ Modify the server's ip address in the config file.
vi serverinfo.cfg
svr_ip = <new server ip>
- ④ Restart agent.
cd <install-dir>
./ivmagent.sh start

3.6.2. Windows :

- ① Stop agent.
'insightVew Wdog of Agent', 'insightVew Agent' Service Stop
- ② Go to the 'cfg' directory.
> cd <install-dir>Wcfg
- ③ Modify the server's ip address in the config file(**serverinfo.cfg**).
svr_ip = <new server ip>
- ④ Restart agent.
'insightVew Agent' Service Start

4. Upgrade

4.1. Server Upgrade

Download server package from the website and upgrade as follows: (Install directory example: /home/oxyzn/ivmserver/)

- ① Stop server of old version and rename directory.
/home/oxyzn/ivmserver/ivmserver.sh stop
mv /home/oxyzn/ivmserver /home/oxyzn/ivmserver.old
- ② Install new version server package. (Don't start at this time)
./install.sh
- ③ Copy rdb data file to the new version directory from old version directory.
cp /home/oxyzn/ivmserver.old/rdb/ivmdb.rdb /home/oxyzn/ivmserver/rdb/
- ④ Copy config files to the new version directory from old version directory if you modified. (reposit.linux.conf, localinfo.cfg, jdbcenv.cfg, catalina.sh, etc)
cp /home/oxyzn/ivmserver.old/rdb/reposit.linux.conf /home/oxyzn/ivmserver/rdb/
cp /home/oxyzn/ivmserver.old/cfg/localinfo.cfg /home/oxyzn/ivmserver/cfg/
cp /home/oxyzn/ivmserver.old/jdbc/jdbcenv.cfg /home/oxyzn/ivmserver/jdbc/
cp /home/oxyzn/ivmserver.old/tomcat/bin/catalina.sh /home/oxyzn/ivmserver/tomcat/bin/
- ⑤ Copy jdbc driver files to the new version directory from old version directory if you added. (ojdbc8.jar, db2jcc4.jar, db2jcc_license_cu.jar, etc)
cp /home/oxyzn/ivmserver.old/jdbc/ojdbc8.jar /home/oxyzn/ivmserver/jdbc/
cp /home/oxyzn/ivmserver.old/jdbc/db2jcc4.jar /home/oxyzn/ivmserver/jdbc/
cp /home/oxyzn/ivmserver.old/jdbc/db2jcc_license_cu.jar /home/oxyzn/ivmserver/jdbc/
cp /home/oxyzn/ivmserver.old/tomcat/lib/ojdbc8.jar /home/oxyzn/ivmserver/tomcat/lib/
cp /home/oxyzn/ivmserver.old/tomcat/lib/db2jcc4.jar /home/oxyzn/ivmserver/tomcat/lib/
cp /home/oxyzn/ivmserver.old/tomcat/lib/db2jcc_license_cu.jar
/home/oxyzn/ivmserver/tomcat/lib/
- ⑥ Copy image file to the new version directory from old version directory if you added.
cp /home/oxyzn/ivmserver.old/tomcat/webapps/ivm/images/<image file>
/home/oxyzn/ivmserver/tomcat/webapps/ivm/images/
- ⑦ Start server of new version.
./ivmserver.sh start
- ⑧ Execute the command for new rdb data apply from new version directory.
cd bin; ./upgrade-<old version>-to-<new version>

4.2. Agent Upgrade

Download agent package from the website and upgrade as follows: (Install directory example: /home/oxyzn/ivmagent/)

4.2.1. Linux :

- ① Stop old version and install new version agent.

```
# ./ivmagent.sh stop
```

Or, if you modified the config file(serverinfo.cfg) :

- ① Stop old version and change the directory name.

```
# /home/oxyzn/ivmagent/ivmagent.sh stop  
# mv /home/oxyzn/ivmagent /home/oxyzn/ivmagent.old
```

- ② Install new version agent package. (Don't start at this time)

```
# ./install.sh
```

- ③ Copy the config file to the new version directory from old version. (Note: If 'ha_mode' value is 'stay', copy the 'log/ivmagent.last' file.)

```
# cp /home/oxyzn/ivmagent.old/cfg/serverinfo.cfg /home/oxyzn/ivmagent/cfg/
```

- ④ Start new version agent.

```
# ./ivmagent.sh start
```

4.2.2. Windows :

- ① Install new version agent.

Or, if you modified the config file(serverinfo.cfg) :

- ① Backup config file from old version directory. (Note: If 'ha_mode' value is 'stay', backup the 'log/ivmagent.last' file too.)

```
cfg/serverinfo.cfg
```

- ② Stop '**insightVew Wdog of Agent**', '**insightVew Agent**' Service and delete installed program **insightVew Agent**

- ③ Install new version agent.

- ④ After installed, stop the agent service.

```
insightVew Agent, insightVew Wdog of Agent
```

- ⑤ Restore the backup config file (serverinfo.cfg) to the new version directory.

- ⑥ Start the agent service.

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