

# insightView Monitoring

Install Guide (On-premise)

IT Infra Monitoring Solution

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oxyzn

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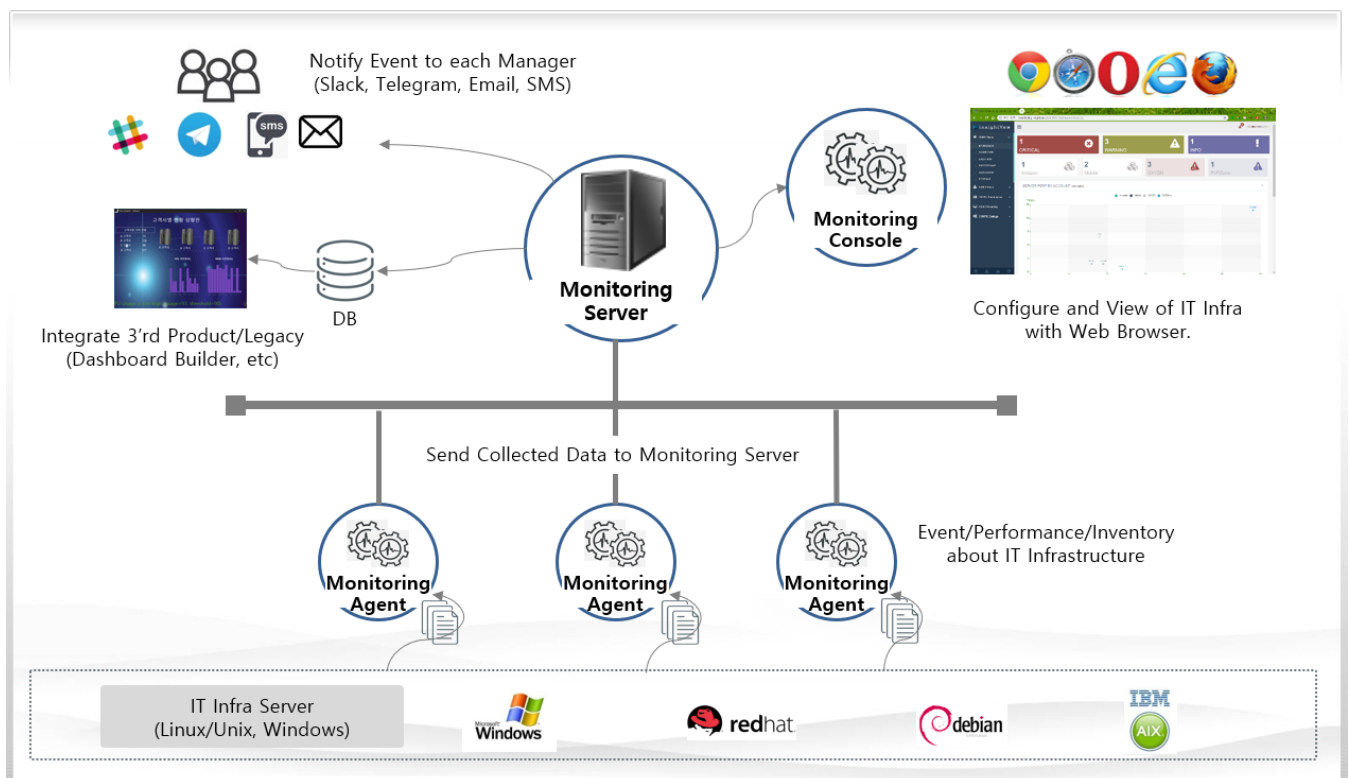
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## 1. Overview

The 'insightView Monitoring' product is a server & docker monitoring solution for cloud/idc server provider. You can monitor and manage servers of Linux/Unix, Windows. Also can monitor docker containers. It supports reliable operation of IT infrastructure servers through fault, performance and configuration monitoring.

It also provides efficient functions to intuitively identify and manage key status information for server and docker containers. It is provided on SaaS or On-premise.



- The main features are as follows:
  - ✓ Support monitoring and management for linux, unix and windows servers integrated
  - ✓ Delegate administrator account privileges through account group
  - ✓ Support integrated monitoring of servers and docker containers
  - ✓ Flexible management of monitoring items through application by task
  - ✓ Provide the convenience of monitoring configuration through provision of current status information
  - ✓ Support mapping of data property values for notification messages
  - ✓ Provide various notification methods for fault events (slacks, telegrams, etc.)

## 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 JDK 8	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, JDK8)

Name	URL Address	Etc
OpenJDK	<a href="https://github.com/ajkbuild/contrib_jdk11u-ci/releases">https://github.com/ajkbuild/contrib_jdk11u-ci/releases</a>	
	<a href="https://github.com/ajkbuild/contrib_jdk8u-ci/releases">https://github.com/ajkbuild/contrib_jdk8u-ci/releases</a>	
	<a href="https://jdk.java.net/archive">https://jdk.java.net/archive</a>	

Oracle Java	<a href="https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html">https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html</a>	
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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 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`

### 2.3.3. 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`

### 2.3.4. 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

### 2.3.5. 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

### 2.3.6. 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

### 2.3.7. 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 | <b>18575, 18521, 60000-64000</b> |     |
| Access for Web Console | <b>9091, 13001</b>               |     |

## 2.5. Download

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

| Type   | URL Address                                                       | Etc |
|--------|-------------------------------------------------------------------|-----|
| Server | <a href="http://www.insightvew.com">http://www.insightvew.com</a> |     |

## 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<br>(Amazon Linux 64bit, RedHat Enterprise 64bit, CentOS 64bit, Ubuntu 64bit, AIX 64bit, Windows Server 2008/2012/2016/2022 64bit, Window 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/Unix | Needs the 'netstat', 'vmstat' command.                                                                                             |     |
|            | If H/W, S/W inventory collecting:<br>- Needs to start agent with root account or sudo command                                      |     |
| Linux      | If docker monitoring:<br>- Needs installation of docker and add the user to the docker group<br>(# sudo usermod -aG docker \$USER) |     |
|            | If Oracle database monitoring:<br>- Needs installation of Oracle client                                                            |     |
|            | If VMware monitoring:<br>- Needs to enable ssh of ESXi server and modify /etc/ssh/sshd_config file (PasswordAuthentication yes)    |     |

### 3.3. Download

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

| Type  | URL Address                                                       | Etc |
|-------|-------------------------------------------------------------------|-----|
| Agent | <a href="http://www.insightvew.com">http://www.insightvew.com</a> |     |

### 3.4. Install and Start Agent

After download the agent package, install as follows:

#### 3.4.1. Linux/Unix :

- 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 insightVew 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
```
- In case of Unix, run cr\_initd.sh file.

#### 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 insightVew 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 Verity that the '**insightVew Agent**', '**insightVew 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/Unix :

- 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, 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/
```

- 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>
```

- Note: If you have created the dashboards on the old version, export and import on the Grafana.

## 4.2. Agent Upgrade

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

### 4.2.1. Linux/Unix :

- 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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