

Zabbix v1.8.4

documentation version 3.0

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Checking prerequisites

In order to install Zabbix and use it with Informix, make sure you have:

- A working Informix instance using IDS 11.70 (tested) or 11.50 (should work but not thoroughly tested)

Documentation: <http://publib.boulder.ibm.com/infocenter/idshelp/v117/index.js>

- Apache (v1.3.12 or later)

Documentation: <http://httpd.apache.org/docs/>

- PHP (v5.0 or later)

Documentation: <http://www.php.net/docs.php>

- With extensions: GD, BCMath, XML, MBString, Socket, PDO

According to your distribution, each extension may correspond to a package php-* or php5-*. For example, under Suse, you can install everything (related to php) by typing:

```
# zypper install php5 apache2-mod_php5 php5-bcmath php5-devel php5-gd php5-mbstring php5-sockets php5-pdo
```

- with parameter « date.timezone » set properly (<http://php.net/manual/en/timezones.php>)
- with parameter « memory_limit » over 128MB
- with parameter « post_max_size » over 16MB
- with parameter « max_execution_time » over 300sec

PHP parameters can be found and modified in the php.ini file, usually located in /etc/php or /etc/php5. In some distribution, there are two different php.ini files: one for the cli mode and another for PHP apache module; you need to edit the one for the apache module (/etc/php5/apache2/php.ini under Suse, for example).

During the configuration of zabbix frontend, PHP parameters and extensions will be automatically checked and you will be warned if something is not correct.

- with development tools installed (you will need « phpize » command). On some distribution, it is included in php main package. On some others, you must install php5-devel (php5-dev under some distributions).

Configuring IDS (to accept DRDA connections)

We assume that you already have a working instance (our is « ol_informix1170 » in this example).

First, add the corresponding line to your SQLHOSTS file. If your working instance is mentioned like:

```
ol_informix1170      onsoctcp      ifxserv      sqlexec
```

then you must add a line similar to the one below:

```
dr_informix1170      drsoctcp      ifxserv      9089
```

The new name is not very important, choose something relevant for you. In the last 'column', you have to specify a free service/port.

Now you have to update your ONCONFIG file according to this change. Add a DBSERVERALIASES directive to tell that the new name refers to the same instance. In our case, we will add

```
DBSERVERALIASES dr_informix1170
```

in the ONCONFIG file of the ol_informix1170 instance.

Still in the ONCONFIG file, find parameters ALLOW_NEWLINE and set it to 1.

```
ALLOW_NEWLINE      1
```

Then find parameters USELASTCOMMITTED and set it to « ALL ».

```
USELASTCOMMITTED   ALL
```

Finally, restart your instance

```
$ onmode -ky ; oninit -v
```

You can check that the process « oninit » is listening on the specified port by launching one of these commands (with root privileges, for netstat):

```
# netstat -taupen | grep 9089
$ onstat -g ntt
```

Installing CLI driver

We will use the root account in this part.

If you already have a folder called « clidriver » in \$INFORMIXDIR, you can either ignore this section or delete this folder and execute the following instructions.

First, download the «Informix Client SDK » archive. Click on the following link https://www14.software.ibm.com/webapp/iwm/web/reg/download.do?source=ifxdl&S_PKG=370Inxx8632&S_TACT=103ATD62&lang=en_US&cp=UTF-8

and download the « Informix Client Software Development Kit 3.70.UC1 ». You need an account on ibm.com website to download this package.

Uncompress the downloaded archive:

```
# tar xvf clientsdk.3.70.UC1.LINUX.tar
# cd clientsdk.3.70.UC1.LINUX/IBM_Data_Server_Driver_Package/dsdriver
# cd odbc_cli_driver\linuxia32
# tar zxvf ibm_data_server_driver_for_odbc_cli.tar.Z
```

Move the CLI driver folder in your informix folder:

```
# mv odbc_cli/clidriver $INFORMIXDIR
```

Make sure you always have the environment variable DB2_CLI_DRIVER_INSTALL_PATH set to « \$INFORMIXDIR/clidriver » when you launch program using CLI drivers (such as « zabbix_server »; see « Installing Zabbix » below).

Installing IBM PDO

We will use the root account in this part.

First, download the PDO on the PECL website:

http://pecl.php.net/get/PDO_IBM-1.3.2.tgz

Uncompress the downloaded archive:

```
# tar -zxf PDO_IBM-1.3.2.tgz
# cd PDO_IBM-1.3.2
```

Now we need to « patch » the code to support LVARCHAR type (basically, you need to move line 818 of `ibm_statement.c` (« `case SQL_LONGVARCHAR:` ») to line 875 (without replacing the actual line 875)). This will ONLY work with this (unmodified) version of PDO (1.3.2) !

You can use your favourite editor, or launch these commands:

```
# awk 'NR==818{next};NR==875{print "case SQL_LONGVARCHAR:"}{print}' ibm_st* >mod
# mv mod ibm_statement.c
```

Still in the same directory, launch

```
# phpize
```

If the file « `php_pdo_driver.h` » is not found when you run « `./configure` » (on Suse, for example), you need a symbolic link: `# cd /usr/include/ ; ln -s php5 php`

```
# ./configure --with-pdo-ibm=$INFORMIXDIR/clidriver
# make install
```

If everything went well, you have a message telling that the module has been copied in the extension folder of PHP. If not, you can find in the « `modules` » folder (in the current directory) a file called « `pdo_ibm.so` ». Move this file to the extension directory of your PHP installation. It may be « `/usr/lib/php5/extensions` » on a default installation.

Then you have to tell PHP to load this module, by adding this line to your « `php.ini` » file:

```
extension=pdo_ibm.so
```

Now restart your apache server:

```
# /etc/init.d/apache2 stop
# /etc/init.d/apache2 start
```

Installing Zabbix

Download Zabbix source v1.8.4 from <http://www.zabbix.com/download.php> and make sure you have the informix patch (it should be joined with this documentation).

Uncompress the source

```
$ tar zxf zabbix-1.8.4.tar.gz
```

Uncompress the patch archive into the source folder

```
$ tar -C zabbix-1.8.4 -xf zabbix_informix_patch.tar
```

Compile Zabbix server with Informix (DRDA) support

```
$ cd zabbix-1.8.4
$ ./configure --enable-server --enable-agent --with-informix=$INFORMIXDIR/clidriver
# make install
```

Create a « zabbix » user (as root):

```
# useradd zabbix
# passwd zabbix
```

Create and populate zabbix database (as zabbix). Depending on where you are in the file system, zabbix will not be able to access this folder; if it is your case, copy the « create » folder as root in /tmp and give this folder to zabbix:

```
# cp -R create /tmp
# chown -R zabbix /tmp/create
# cd /tmp
```

As zabbix, launch:

```
$ cd create/data
$ dbaccess <<< 'create database zabbix with buffered log'
$ dbaccess zabbix < ../schema/informix.sql
$ dbaccess zabbix < data.sql
$ dbaccess zabbix < images_informix.sql
```

Now you need to create the configuration folder of zabbix_server (as root, in the « zabbix-1.8.4 » folder again):

```
# mkdir /etc/zabbix
# cp misc/conf/zabbix_server.conf /etc/zabbix/
```

Edit « /etc/zabbix/zabbix_server.conf ». Required (and important) parameters are:

```
DBName=zabbix
DBUser=zabbix
DBPassword=<ThePasswordYouSetForZabbixUser>
DBPort=<ThePortYouSetForYourInstanceUsingDRDA>
```

Now you should be able to launch the server.

Before, make sure you have a locale in which the decimal mark is the point. You can use the « locale » command to know which locale you are using.

You can change your locale by changing the LANG environment variable.

Example: `# LANG=en_EN.UTF-8`

Moreover, remember you need the DB2_CLI_DRIVER_INSTALL_PATH variable to be set.

```
# zabbix_server
```

Check (~3 seconds later) with « ps -A | grep zabbix » that the process is still alive. If not, take a look at the server log in « /tmp/zabbix_server.log » and the « Troubleshooting » section of that document.

If you want to monitor the machine running the server (it is optional):

```
# cp misc/conf/zabbix_server.conf /etc/zabbix/
# zabbix_agentd
```

To install the frontend, follow the official instructions:

http://www.zabbix.com/documentation/1.8/manual/installation#zabbix_web_interface

If nothing is displayed when you try to configure zabbix in your browser, it is probably a problem with apache and php: check your apache log (usually located at /var/log/apache2/error_log or /var/log/httpd/error_log).

Troubleshooting

<i>Error message / Anormal behaviour</i>	<i>Reason</i>
SQL10007N Message « 0 » could not be retrieved. Reason code « 3 ».	Environment variable DB2_CLI_DRIVER_INSTALL_PATH is not properly set.
SQL30061N The database alias or database name « ZABBIX » was not found at the remote node.	ALLOW_NEWLINE not set to 1 in ONCONFIG.
CLI0126E Operation invalid at this time.	Database is not logged.
The « history » table is not filled	The decimal mark of the locale zabbix_server is using is the comma. It must be the point.