

Entegor

# 一体化数智运维平台

· 部署指南 ·



北京理想信息科技有限公司

Beijing ideal Information Technology Co., LTD

## 目录

**1 安装说明/1**

**2 ZOOKEEPER 安装/2**

**3 ENTEGOR SERVER 与 PROVIDER 安装/4**

**4 ENTEGOR AGENT 安装/8**

**5 服务启动/11**

5.1 ENTEGOR SERVER 与 PROVIDER 启动/11

5.2 ENTEGOR AGENT 启动/12

## 01-安装说明

注意：任何变更操作一定要提前做好备份。

本产品部署需要 2 台服务器：

服务器 1 部署 Server、Provider、Agent、Zookeeper

服务器 2 部署 Agent、gaussDB for MySQL 数据库

环境配置需求						
服务器	类型	数量 (台)	CPU 核数 (C)	内存大小 (GB)	磁盘容量 (GB)	用途
应用服务器 (server)	虚拟机	1	4	32	100	部署应用 server， 负责驱动作业和 流程，管理纳管节 点
数据库服务 器	虚拟机	1	4	32	300	部署数据库，负责 存储数据。

表1- 环境配置需求表

## 02-Zookeeper 安装

Zookeeper 在 linux 系统下安装。

- ◆ 安装包: apache-zookeeper-3.5.9-bin.tar.gz
- ◆ 安装过程:

```
[root@msproxy opt]#tar -zxvf apache-zookeeper-3.5.9-bin.tar.gz
[root@msproxy opt]#cd apache-zookeeper-3.5.9-bin
[root@msproxy apache-zookeeper-3.5.9-bin]# cd conf/
[root@msproxy conf]# cp zoo_sample.cfg zoo.cfg
[root@msproxy conf]# vi zoo.cfg
# The number of milliseconds of each tick
tickTime=2000
# The number of ticks that the initial
# synchronization phase can take
initLimit=10
# The number of ticks that can pass between
# sending a request and getting an acknowledgement
syncLimit=5
# the directory where the snapshot is stored.
# do not use /tmp for storage, /tmp here is just
# example sakes.
dataDir=/tmp/zookeeper
# the port at which the clients will connect
clientPort=2181
# the maximum number of client connections.
# increase this if you need to handle more clients
#maxClientCnxns=60
#
# Be sure to read the maintenance section of the
# administrator guide before turning on autopurge.
#
# http://zookeeper.apache.org/doc/current/zookeeperAdmin.html#sc_maintenance
#
# The number of snapshots to retain in dataDir
#autopurge.snapRetainCount=3
# Purge task interval in hours
# Set to "0" to disable auto purge feature
#autopurge.purgeInterval=1
[root@msproxy conf]# cd ../bin
[root@msproxy bin]# ./zkServer.sh start
ZooKeeper JMX enabled by default
```

```
Using config: /opt/apache-zookeeper-3.5.9-bin/bin/./conf/zoo.cfg
Starting zookeeper ... STARTED
[root@msproxy opt]# ps -ef|grep zookeeper|grep -v grep
root      19656      1  0 20:59 pts/0    00:00:06 java
-Dzookeeper.log.dir=/opt/apache-zookeeper-3.5.9-bin/bin/./logs
-Dzookeeper.log.file=zookeeper-root-server-msproxy.log -Dzookeeper.root.logger=INFO,CONSOLE
-XX:+HeapDumpOnOutOfMemoryError -XX:OnOutOfMemoryError=kill -9 %p -cp
/opt/apache-zookeeper-3.5.9-bin/bin/./zookeeper-server/target/classes:/opt/apache-zookeeper-3.5.9-bin/bin/./build/classes:/opt/apache-zookeeper-3.5.9-bin/bin/./zookeeper-server/target/lib/*.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./build/lib/*.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/zookeeper-jute-3.5.9.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/zookeeper-3.5.9.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/slf4j-log4j12-1.7.25.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/slf4j-api-1.7.25.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-transport-native-unix-common-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-transport-native-epoll-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-transport-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-resolver-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-handler-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-common-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-codec-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/netty-buffer-4.1.50.Final.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/log4j-1.2.17.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/json-simple-1.1.1.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jline-2.14.6.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-util-ajax-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-util-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-servlet-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-server-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-security-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-io-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jetty-http-9.4.35.v20201120.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/javax.servlet-api-3.1.0.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jackson-databind-2.10.5.1.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jackson-core-2.10.5.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/jackson-annotations-2.10.5.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/commons-cli-1.2.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./lib/audience-annotations-0.5.0.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./zookeeper-*.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./zookeeper-server/src/main/resources/lib/*.jar:/opt/apache-zookeeper-3.5.9-bin/bin/./conf: -Xmx1000m -Dcom.sun.management.jmxremote
-Dcom.sun.management.jmxremote.local.only=false org.apache.zookeeper.server.quorum.QuorumPeerMain
/opt/apache-zookeeper-3.5.9-bin/bin/./conf/zoo.cfg
```

## 03-Entegor Server 与 Provider 安装

注意：安装 server 时，必须使用 zh\_CN.utf8 字符集。

```
[root@msproxy v8.1.0]# export LANG=zh_CN.utf8
[root@msproxy v8.1.0]# echo $LANG
zh_CN.utf8
```

安装 Server 首先要将 EntegorServer.bin 通过 FTP 等工具传输(传输时要求使用二进制方式进行传输)到指定的 Linux 服务器上，然后进入安装文件所在的目录，为 EntegorServer.bin 文件赋予可执行权限。执行命令

```
[root@study66 opt]# chmod 777 Entegor_Server_Linux64_157612.bin
```

进行 Entegor Server 的安装，运行安装命令

```
[root@study66 opt]# ./Entegor_Server_Linux64_157612.bin -i console
```

进行 Entegor Server 的安装：

```
[rx2600]@ [/opt] #./EntegorServer.bin -i console
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
█
```

点击回车进行继续进行安装：

```
=====
Entegor v4.0.0 (created with InstallAnywhere)
=====

-----
Introduction
-----

InstallAnywhere will guide you through the installation of Entegor v4.0.0.
It is strongly recommended that you quit all programs before continuing with
this installation.

Respond to each prompt to proceed to the next step in the installation. If you
want to change something on a previous step, type 'back'.

You may cancel this installation at any time by typing 'quit'.

PRESS <ENTER> TO CONTINUE:
```

选择  (典型安装) 继续进行 Entegor Server 的安装：

```
=====  
Introduction  
-----  
  
InstallAnywhere will guide you through the installation of Entegor V4.0.0.  
It is strongly recommended that you quit all programs before continuing with  
this installation.  
  
Respond to each prompt to proceed to the next step in the installation.  If you  
want to change something on a previous step, type 'back'.  
  
You may cancel this installation at any time by typing 'quit'.  
  
PRESS <ENTER> TO CONTINUE:  
  
=====  
Choose Install Set  
-----  
  
Please choose the Install set to be installed by this installer.  
  
->1- Typical  
   2- Minimal  
  
   3- Customize...  
  
ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
: 1
```

选择 Entegor Server 的安装路径，可以不使用默认路径，用户可根据需要自行确定 Entegor Server 的安装路径：

```
You may cancel this installation at any time by typing 'quit'.  
PRESS <ENTER> TO CONTINUE:  
  
=====  
Choose Install Set  
-----  
  
Please choose the Install set to be installed by this installer.  
  
->1- Typical  
   2- Minimal  
  
   3- Customize...  
  
ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
: 1  
  
=====  
Choose Install Folder  
-----  
  
Where would you like to install?  
  
Default Install Folder: /opt/Entegor4.0.0  
  
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
: █
```

重新定义安装路径后继续进行安装：

```

=====
Choose Install Folder
-----
where would you like to install?

  Default Install Folder: /opt/Entegor4.0.0

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: /opt/Entegor/Entegor4.0.0
    
```

输入 Y 确定安装路径，继续进行安装：

```

Choose Install Folder
-----
where would you like to install?

  Default Install Folder: /opt/Entegor4.0.0

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: /opt/Entegor/Entegor4.0.0

INSTALL FOLDER IS: /opt/Entegor/Entegor4.0.0
IS THIS CORRECT? (Y/N): █
    
```

输入 4，选择不创建关联继续进行安装：

```

=====
where would you like to create links?

->1- Default: /usr/local/bin/Entegor_v4.0.0
  2- In your home folder
  3- Choose another location...

  4- Don't create links

ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 4

=====
Installing...
-----

[=====|=====|=====|=====]
[-█
    
```

安装过程：



```
ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 4

=====
Installing...
-----

[=====|=====|=====|=====]

=====
Installation Complete
-----

Congratulations. Entegor v4.0.0 has been successfully installed to:
  /opt/Entegor/Entegor4.0.0
PRESS <ENTER> TO EXIT THE INSTALLER:
```

安装成功.

## 04-Entegor Agent 安装

将 EntegorAgent.bin 拷贝(传输时要求使用二进制方式进行传输)到指定的 Linux 服务器上, 然后进入安装文件所在的目录:

```
[root@study66 opt]# cd /安装目录
```

为 EntegorAgent.bin 文件赋予可执行权限。

执行命令:

```
[root@study66 opt]# chmod 777 V8_Entegor_Agent_Linux_JDK18_64_157612_20230425_234147.bin
```

执行命令:

```
[root@study66 opt]# ./V8_Entegor_Agent_Linux_JDK18_64_157612_20230425_234147.bin -i console
```

```
[root@study66 opt]# ./V8_Entegor_Agent_Linux_JDK18_64_157612_20230425_234147.bin -i console
Preparing to install
Extracting the JRE from the installer archive...
Unpacking the JRE...
```

回车继续。

```
[root@study66 opt]# ./V8_Entegor_Agent_Linux_JDK18_64_157612_20230425_234147.bin -i console
Preparing to install
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
```

```
Launching installer...
```

```
=====
Entegor_Agent                               (created with InstallAnywhere)
-----
```

```
Preparing CONSOLE Mode Installation...
```

```
=====
Introduction
-----
```

```
InstallAnywhere will guide you through the installation of Entegor_Agent.
```

```
It is strongly recommended that you quit all programs before continuing with this installation.
```

```
Respond to each prompt to proceed to the next step in the installation. If you want to change something on a previous step, type 'back'.
```

```
You may cancel this installation at any time by typing 'quit'.
```

```
PRESS <ENTER> TO CONTINUE: █
```

回车继续。

```
=====
Choose Install Set
-----

Please choose the Install Set to be installed by this installer.

->1- Typical
   2- Minimal

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: █
```

选择您想要的安装模式，选择 1 典型安装。

回车继续。

```
=====
Choose Install Folder
-----

Where would you like to install?

Default Install Folder: /opt/EntegorAgent

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: █
```

填写安装目录，默认安装到/opt/EntegorAgent 目录下，可以不采用该默认路径。安装到用户指定的某个目录(该目录必须是已经创建的)，回车继续

```
Please choose the Install Set to be installed by this installer.

->1- Typical
   2- Minimal
   3- Customize...

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 1

=====
Choose Install Folder
-----

Where would you like to install?

Default Install Folder: /opt/Entegor4.0

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: /opt/Entegor4.0

INSTALL FOLDER IS: /opt/Entegor4.0
IS THIS CORRECT? (Y/N): y
```

确认安装目录是否正确，如确认则输入 y。回车继续

```

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: /opt/Entegor4.0

INSTALL FOLDER IS: /opt/Entegor4.0
IS THIS CORRECT? (Y/N): y

=====
Choose Link Location
-----

where would you like to create links?

->1- Default: /usr/local/bin/Entegor_v4.0
  2- In your home folder
  3- Choose another location...

  4- Don't create links

ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 4
    
```

此步询问是否需要创建链接文件，默认选择为 1 创建连接文件夹，连接文件夹为：  
/usr/local/bin/Entegor\_V4.7.6。建议选择 4 。

回车开始安装。

```

ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 4

=====
Installing...
-----

[=====|=====|=====|=====]
[-----|-----|-----|-----]

=====
Installation Complete
-----

Congratulations. Entegor v4.0 has been successfully installed to:
/opt/eneeee4.00000

PRESS <ENTER> TO EXIT THE INSTALLER:
    
```

回车后退出安装界面，安装结束。

## 05-服务启动

### 5.1 Entegor Server 与 Provider 的启动

该方式是手工启动 Server 服务的方式，在系统重新启动后需要手工执行如下后台启动方式。

#### ◆ Entegor Server 后台方式:

以具有可执行权限的用户登陆，输入如下命令，对 Server 进行后台启动，如图所示：

```
[root@msproxy v8.1.0]# nohup ./Server >Server.out &
[1] 11055
[root@msproxy v8.1.0]# nohup: 忽略输入重定向错误到标准输出端

[root@msproxy v8.1.0]#
```

查看 Server.out, 最后几行如图所示：

```
十一月 12, 2020 3:45:26 下午 org.apache.catalina.core.ApplicationContext log
信息: Initializing Spring DispatcherServlet 'restservices'
2020-11-12 15:45:26 [INFO ] DispatcherServlet: Initializing Servlet 'restservices'
2020-11-12 15:45:26 [INFO ] DispatcherServlet: Completed initialization in 17 ms
2020-11-12 15:45:26 [INFO ] Bootstrap: Registering aoms succeeded!
十一月 12, 2020 3:45:26 下午 org.apache.catalina.core.ApplicationContext log
信息: No Spring WebApplicationInitializer types detected on classpath
2020-11-12 15:45:26 [INFO ] Bootstrap: Registering editor succeeded!
十一月 12, 2020 3:45:26 下午 org.apache.catalina.core.ApplicationContext log
信息: No Spring WebApplicationInitializer types detected on classpath
十一月 12, 2020 3:45:26 下午 org.apache.catalina.core.ApplicationContext log
信息: No Spring WebApplicationInitializer types detected on classpath
2020-11-12 15:45:26 [INFO ] Engine: AgentConcurrentMonitor start succeeded!
2020-11-12 15:45:26 [INFO ] Engine: IP:90.14.0.30 is MainServer and will be staeed!
2020-11-12 15:45:26 [INFO ] Engine: SendRomteMainThread start succeeded!
2020-11-12 15:45:26 [INFO ] Engine: IP:90.14.0.30 is MainServer and will be staeed!
2020-11-12 15:45:26 [INFO ] Engine: Entegor Server has been started successfully!
2020-11-12 15:45:26 [INFO ] Bootstrap: MonthReportThread start successfully
2020-11-12 15:45:26 [INFO ] Bootstrap: TimeAreaActCountThread start successfully
2020-11-12 15:45:26 [INFO ] Bootstrap: ClearDataThreadForJobscheduling start successfully
2020-11-12 15:45:26 [INFO ] Bootstrap: AvgTimeThreadForJobscheduling start successfully
2020-11-12 15:45:26 [INFO ] Bootstrap: Entegor Server has been started successfully!
Starting Tyrex Version 1.0
Intalio Inc. (C) 1999-2001. All rights reserved.
```

#### ◆ Provider 后台方式:

以具有可执行权限的用户登陆，输入如下命令，对 Provider 进行后台启动，如图所示：

```
[root@msproxy v8.1.0]# nohup ./Provider >provider.out &
[1] 11055
[root@msproxy v8.1.0]# nohup: 忽略输入重定向错误到标准输出端
```

```
[root@msproxy v8.1.0]#  
2020-11-12 15:42:31 [INFO ] ProviderBootstrap: 连接注册zookeeper服务成功  
2020-11-12 15:42:31 [INFO ] ProviderBootstrap: Entegor Provier has been started sucessfully!  
2020-11-12 15:42:36 [INFO ] KillFailOperConnThread: KillFailOperConnThread start successfully!
```

## 5.2 Entegor Agent 的启动

该方式是手工启动 Agent 服务的方式，在系统重新启动后需要手工执行如下后台启动方式。

后台方式：

以具有可执行权限的用户登陆，输入如下命令，对 Agent 进行后台启动，如图所示：

```
[root@msproxy AgentV8]# nohup ./Agent_Server >/dev/null &  
[3] 12431  
[root@msproxy AgentV8]# nohup: 忽略输入重定向错误到标准输出端
```

查看 Agent 安装目录/log/agent.log, 最后几行如图所示：

```
[root@study66 EntegorAgent]# cd log  
[root@study66 log]# tail -100f agent.log  
2010-06-03 15:33:00,022 INFO core.EntegorInfo: welcome to Entegor(tm)!  
2010-06-03 15:33:00,033 INFO core.EntegorInfo: Agent V4.0.0  
2010-06-03 15:33:00,034 INFO core.EntegorInfo: Copyright(c) 2002-2010 Ideal Technologies Incorporated  
Initializing iEAI Agent...  
2010-06-03 15:33:01,109 INFO agent.IEAIRemoteAgent: iEAI Agent has been started successfully!  
[rx2600]@ [/opt/Entegor4.0] #
```

Agent 服务启动成功。