
Tivoli Composite Application Manager for Application Diagnostics V7.1.0

Installing ITCAM for J2EE Agent V7.1.1 on UNIX or Linux

© 2014 IBM Corporation



This presentation shows how to install version 7.1.1 of the ITCAM for J2EE Agent on a UNIX[®] or Linux[®] operating system. You will also learn how to check the prerequisites before you install the agent. The entire installation takes no more than few minutes to complete on any supported UNIX or Linux operating system.

Overview of the installation process

- Pre-requisite steps
- Installation steps
- Verifying the installation is complete

The products that are used here are ITCAM for Transaction Tracking and ITCAM for Application Diagnostics V7.1 or ITCAM for WebSphere® V6.1. The steps that are outlined here show ITCAM for Application Diagnostics version 7.1, but will also work if you are using ITCAM for WebSphere V6.1, although the directory paths will be different. The configuration and tracing steps that are shown here are meant to be done on the Data Collector.

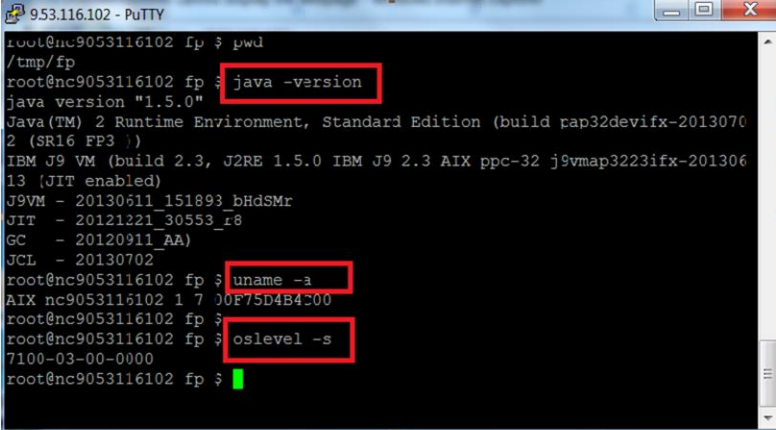
Prerequisite steps

- Check for supported operating system software here:
 - <http://www-969.ibm.com/software/reports/compatibility/clarity/index.html>
 - Click “Detailed System Requirements” on the left and verify that your OS is supported
- Check system environment, including memory, disk space, version of Java™, and so on.
 - Following screen captures show the commands that you use to check basic system environment before you install the agent.

Before you install the ITCAM for J2EE Agent v7.1.1 component, verify that you are using a supported operating system. Click the link that is shown here and select Detailed System Requirements on the left. From there, you can generate a report on the website and verify the OS requirements. After you verify that you have a supported operating system, then run some basic commands to verify disk and memory requirements, version of Java, and so on.

Prerequisite steps

- Step 1: Check Java version, OS level, and system environment



```
953.116.102 - PuTTY
root@nc9053116102 fp $ pwd
/tmp/fp
root@nc9053116102 fp $ java -version
java version "1.5.0"
Java(TM) 2 Runtime Environment, Standard Edition (build pap32devifx-2013070
2 (SR16 FP3 ))
IBM J9 VM (build 2.3, J2RE 1.5.0 IBM J9 2.3 AIX ppc-32 j9vmap3223ifx-201306
13 [JIT enabled)
J9VM - 20130611_151893_bHdSMr
JIT - 20121221_30553_r8
GC - 20120911_AA)
JCL - 20130702
root@nc9053116102 fp $ uname -a
AIX nc9053116102 1 7 00F75D4B4C00
root@nc9053116102 fp $
root@nc9053116102 fp $ oslevel -s
7100-03-00-0000
root@nc9053116102 fp $
```

4

© 2014 IBM Corporation

This example uses IBM AIX® 7.1 with Maintenance Level 03 applied. You can use any supported flavor of UNIX or Linux. If you are using Linux, some commands that are shown here might not apply to the Linux OS. You can use either the IBM or the Sun Java SDK; both will work. You have to install the product either as 'root' or the IBM Tivoli® Monitoring administrative user if you have one created.

Prerequisite steps

- Step 2: Check disk space, file size, and check sum

```

root@nc9053116102 fp $ ls -al
total 890344
drwxr-xr-x  2 root  system    4096 Aug 23 09:37 .
drwxrwxrwt 20 bin   bin      4096 Aug 23 11:20 ..
-rw-r--r--  1 root  system  455843840 Aug 23 09:35 ITCAM_AGT_FOR_J2EE
V7.1.1.0, AIX, .tar
root@nc9053116102 fp $ sum -i ITCAM AGT FOR J2EE V7.1.1.0, AIX, .tar
54505 445160 ITCAM AGT FOR J2EE V7.1.1.0, AIX, .tar
root@nc9053116102 fp $
root@nc9053116102 fp $

root@nc9053116102 fp $ df -m
Filesystem      MB blocks   Free %Used   Iused %Iused Mounted on
/dev/hd4         2560.00    2346.88    9%    11075    3% /
/dev/hd2         4096.00    2026.25   51%    44811   9% /usr
/dev/hd9var      3072.00    2687.79   13%    7062    2% /var
/dev/hd3         6144.00    4078.53   34%    135     1% /tmp
/dev/hd1         6144.00    634.15   90%    257     1% /home
/dev/hd11admin   128.00     127.63    1%     9       1% /admin
/proc            -           -          -       -       - /proc
/dev/hd10opt     7040.00    1901.80   73%   12052    3% /opt
/dev/livedump    256.00     255.64    1%     4       1% /var/adm/ras/livedum
p
/aha              -           -          -       18      1% /aha
root@nc9053116102 fp $
  
```

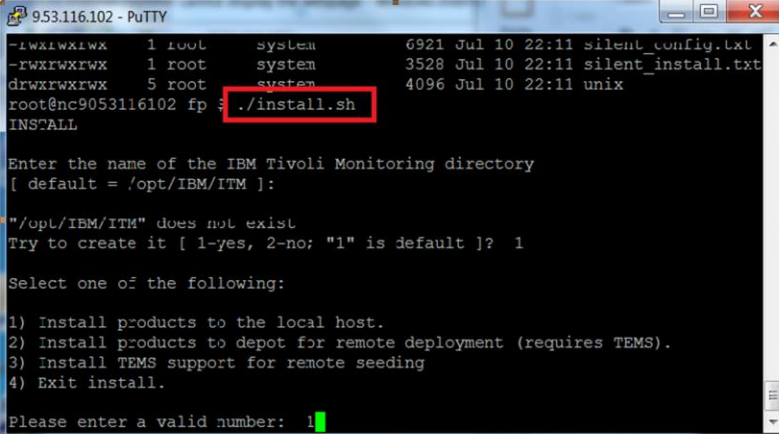
5

© 2014 IBM Corporation

Check the disk space in the default /opt directory by using the “df –m” command. If you are installing to a different directory, check space in that directory. You would need a bare minimum of at least 3 - 5 GB to start to install the basic files and do basic logging. Before you install, check the file size and check sum on the file to be sure that it is not corrupted. Use the commands that are shown here.

Installation steps (1 of 6)

- Step 1: Run the install.sh command and install to local host



```
9.53.116.102 - PuTTY
-rwxrwxrwx  1 root    system      6921 Jul 10 22:11 silent_config.txt
-rwxrwxrwx  1 root    system      3528 Jul 10 22:11 silent_install.txt
drwxrwxrwx  5 root    system      4096 Jul 10 22:11 unix
root@nc9053116102 fp $ ./install.sh
INSTALL

Enter the name of the IBM Tivoli Monitoring directory
[ default = /opt/IBM/ITM ]:

"/opt/IBM/ITM" does not exist
Try to create it [ 1=yes, 2=no; "1" is default ]? 1

Select one of the following:

1) Install products to the local host.
2) Install products to depot for remote deployment (requires TEMS).
3) Install TEMS support for remote seeding
4) Exit install.

Please enter a valid number: 1
```

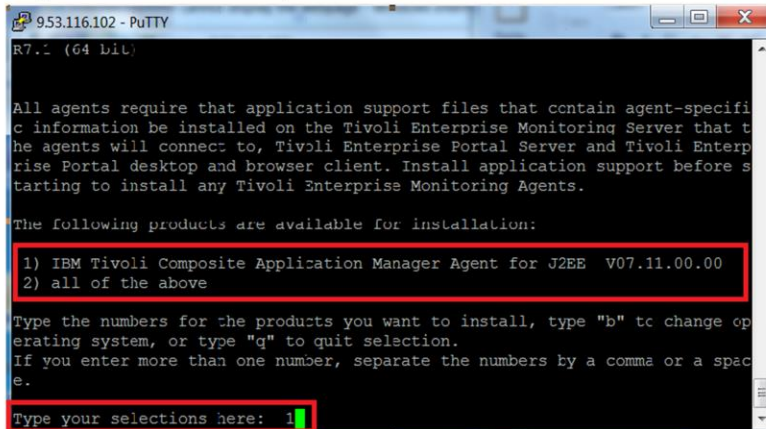
6

© 2014 IBM Corporation

Extract your .tar file and run the install.sh script. You will install to the local host by default until you want to install to the depot for remote deployment.

Installation steps (2 of 6)

- Step 2: Select the product to install and press Enter



The screenshot shows a PuTTY terminal window titled "9.53.116.102 - PuTTY". The terminal output is as follows:

```
R7.2 (64 bit)

All agents require that application support files that contain agent-specific information be installed on the Tivoli Enterprise Monitoring Server that the agents will connect to, Tivoli Enterprise Portal Server and Tivoli Enterprise Portal desktop and browser client. Install application support before starting to install any Tivoli Enterprise Monitoring Agents.

The following products are available for installation:

1) IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00
2) all of the above

Type the numbers for the products you want to install, type "b" to change operating system, or type "q" to quit selection.
If you enter more than one number, separate the numbers by a comma or a space.

Type your selections here: 1
```

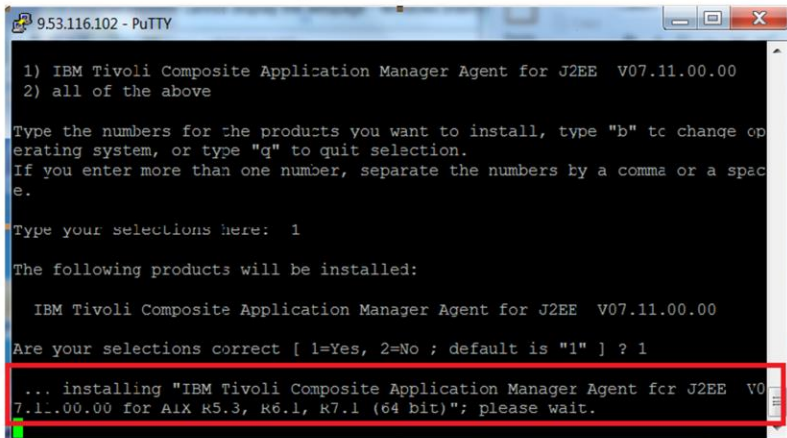
7

© 2014 IBM Corporation

After you accept the agreement and press enter for the encryption key, you will be prompted to select the product. Choose 1 here and install. The code detects the correct operating system.

Installation steps (3 of 6)

- Step 3: Press Enter and note the installing message



```
953.116.102 - PuTTY
1) IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00
2) all of the above

Type the numbers for the products you want to install, type "b" to change operating system, or type "q" to quit selection.
If you enter more than one number, separate the numbers by a comma or a space.

Type your selections here: 1

The following products will be installed:

    IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00

Are your selections correct [ 1=Yes, 2=No ; default is "1" ] ? 1

... installing "IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00 for AIX R5.3, R6.1, R7.1 (64 bit)"; please wait.
```

8

© 2014 IBM Corporation

If your selection is correct, press Enter. You will see the installing message.

Installation steps (4 of 6)

- Step 4: Choose "2" when prompted to install additional packages

```
953.116.102 - PuTTY
The following products will be installed:

  IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00

Are your selections correct [ 1=Yes, 2=No ; default is "1" ] ? 1

... installing "IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00 for AIX R5.3, R6.1, R7.1 (64 bit)"; please wait.

=> installed "IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00 for AIX R5.3, R6.1, R7.1 (64 bit)".

... Initializing component IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00 for AIX R5.3, R6.1, R7.1 (64 bit).

... IBM Tivoli Composite Application Manager Agent for J2EE V07.11.00.00 for AIX R5.3, R6.1, R7.1 (64 bit) initialized.

Do you want to install additional products or product support packages [ 1=Yes, 2=No ; default is "2" ] ? 2
```

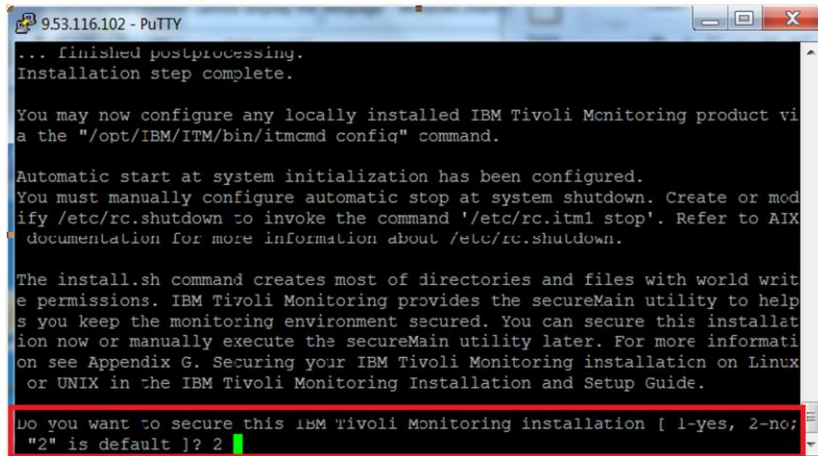
9

© 2014 IBM Corporation

After the installation is complete, you will be prompted if you want to install additional products. Choose option "2" and press Enter.

Installation steps (5 of 6)

- Step 5: Choose “2” when prompted to secure the installation



```
953.116.102 - PuTTY
... finished postprocessing.
Installation step complete.

You may now configure any locally installed IBM Tivoli Monitoring product via
the "/opt/IBM/ITM/bin/itmcmd config" command.

Automatic start at system initialization has been configured.
You must manually configure automatic stop at system shutdown. Create or modify
/etc/rc.shutdown to invoke the command '/etc/rc.itml stop'. Refer to AIX
documentation for more information about /etc/rc.shutdown.

The install.sh command creates most of directories and files with world write
permissions. IBM Tivoli Monitoring provides the secureMain utility to help
you keep the monitoring environment secured. You can secure this installation
now or manually execute the secureMain utility later. For more information
see Appendix G. Securing your IBM Tivoli Monitoring installation on Linux
or UNIX in the IBM Tivoli Monitoring Installation and Setup Guide.

Do you want to secure this IBM Tivoli Monitoring installation [ 1=yes, 2=no;
"2" is default ]? 2
```

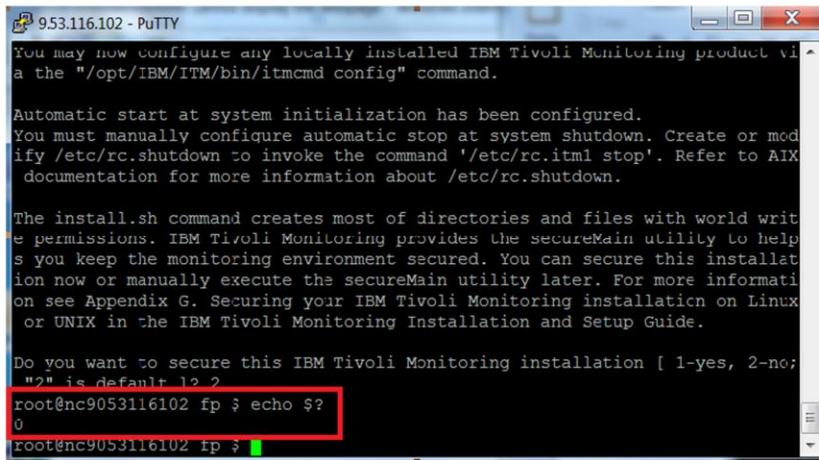
10

© 2014 IBM Corporation

You will now be prompted if you want to secure the installation. Choose option “2” and press Enter.

Installation steps (6 of 6)

- Step 6: Check return code to finish installation



```
953.116.102 - PuTTY
You may now configure any locally installed IBM Tivoli Monitoring product via
the "/opt/IBM/ITM/bin/itmcmd config" command.

Automatic start at system initialization has been configured.
You must manually configure automatic stop at system shutdown. Create or mod
ify /etc/rc.shutdown to invoke the command '/etc/rc.itml stop'. Refer to AIX
documentation for more information about /etc/rc.shutdown.

The install.sh command creates most of directories and files with world writ
e permissions. IBM Tivoli Monitoring provides the secureMain utility to help
s you keep the monitoring environment secured. You can secure this installat
ion now or manually execute the secureMain utility later. For more informati
on see Appendix G. Securing your IBM Tivoli Monitoring installation on Linux
or UNIX in the IBM Tivoli Monitoring Installation and Setup Guide.

Do you want to secure this IBM Tivoli Monitoring installation [ 1=yes, 2=no;
"2" is default ]? 2
root@nc9053116102 fp:~# echo $?
0
root@nc9053116102 fp:~#
```

11

© 2014 IBM Corporation

You will now return back to the command-line prompt. Run `echo $?` and observe the return code; it should be zero. If it is not zero, the installation failed. Check the logs, as shown in the next slides.

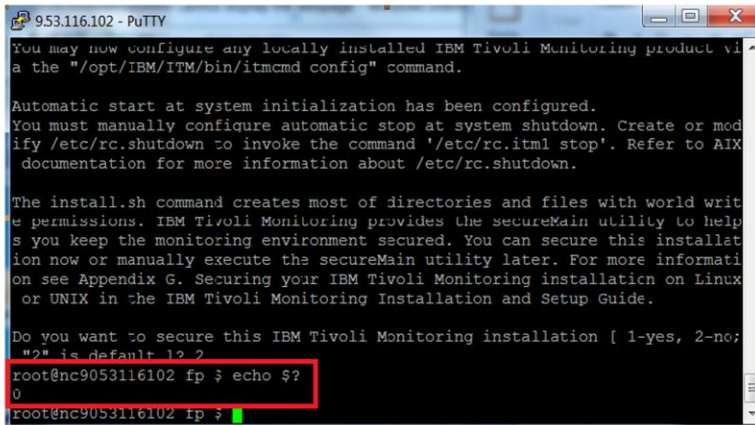
Verifying the installation is complete

- To be sure that your installation of the agent is complete, check these things:
 - Check return code, it should be zero
 - Check the files under the /opt/IBM/ITM directory
 - Check the version of the product installed
 - Check the installation log files

Here you see the four checks that you can do to verify that the installation completed successfully.

Verification options (1 of 4)

- Option 1: Check return code of installation with echo \$?



```
953.116.102 - PuTTY
You may now configure any locally installed IBM Tivoli Monitoring product via
the "/opt/IBM/ITM/bin/itmcmd config" command.

Automatic start at system initialization has been configured.
You must manually configure automatic stop at system shutdown. Create or modify
/etc/rc.shutdown to invoke the command '/etc/rc.itml stop'. Refer to AIX
documentation for more information about /etc/rc.shutdown.

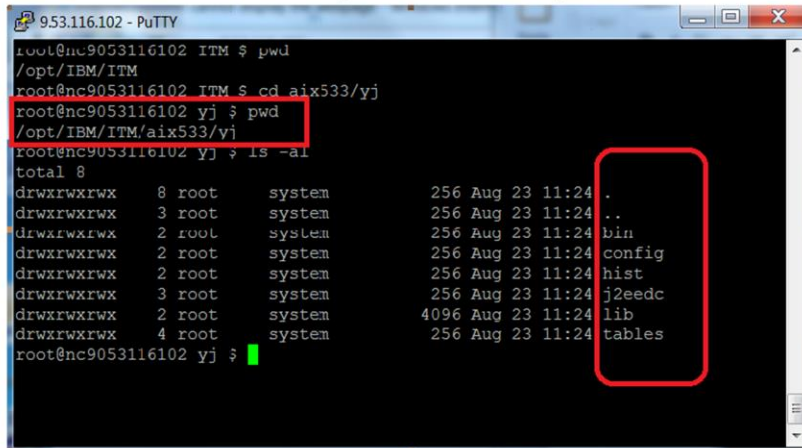
The install.sh command creates most of directories and files with world write
permissions. IBM Tivoli Monitoring provides the secureMain utility to help
you keep the monitoring environment secured. You can secure this installation
now or manually execute the secureMain utility later. For more information
see Appendix G. Securing your IBM Tivoli Monitoring installation on Linux
or UNIX in the IBM Tivoli Monitoring Installation and Setup Guide.

Do you want to secure this IBM Tivoli Monitoring installation [ 1=yes, 2=no;
"2" is default ]? 2
root@nc9053116102 fp $ echo $?
0
root@nc9053116102 fp $
```

When you finish installing, check the return code immediately after you come back to the command-line prompt by running `echo $?`. If the return code is not zero, you have to check the logs under the `/opt/IBM/ITM/logs` directory for more information.

Verification options (2 of 4)

- Option 2: Check installed files under the /opt/IBM/ITM directory



A terminal window titled "953.116.102 - PuTTY" showing the following commands and output:

```
root@nc9053116102 ITM $ pwd
/opt/IBM/ITM
root@nc9053116102 ITM $ cd aix533/yj
root@nc9053116102 yj $ pwd
/opt/IBM/ITM/aix533/yj
root@nc9053116102 yj $ ls -al
total 8
drwxrwxrwx  8 root    system    256 Aug 23 11:24 .
drwxrwxrwx  3 root    system    256 Aug 23 11:24 ..
drwxrwxrwx  2 root    system    256 Aug 23 11:24 bin
drwxrwxrwx  2 root    system    256 Aug 23 11:24 config
drwxrwxrwx  2 root    system    256 Aug 23 11:24 hist
drwxrwxrwx  3 root    system    256 Aug 23 11:24 j2eedc
drwxrwxrwx  2 root    system    4096 Aug 23 11:24 lib
drwxrwxrwx  4 root    system    256 Aug 23 11:24 tables
root@nc9053116102 yj $
```

Red boxes highlight the `cd aix533/yj` command, the `pwd` command and its output, and the `ls -al` command and its output.

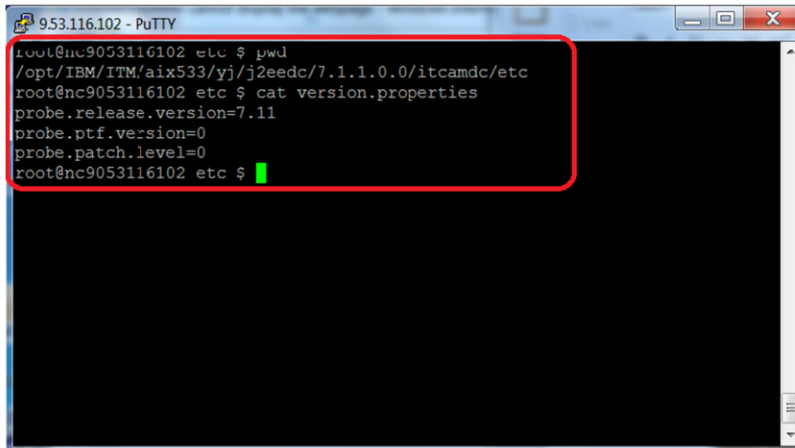
14

© 2014 IBM Corporation

Check the files under the directory that is shown here. If you do not find these subdirectories, check the logs for more information.

Verification options (3 of 4)

- Option 3: Check installed files under the /opt/IBM/ITM directory



```
953.116.102 - PuTTY
root@nc9053116102 etc $ pwd
/opt/IBM/ITM/aix533/yj/j2eedc/7.1.1.0.0/itcamdc/etc
root@nc9053116102 etc $ cat version.properties
probe.release.version=7.11
probe.ptf.version=0
probe.patch.level=0
root@nc9053116102 etc $
```

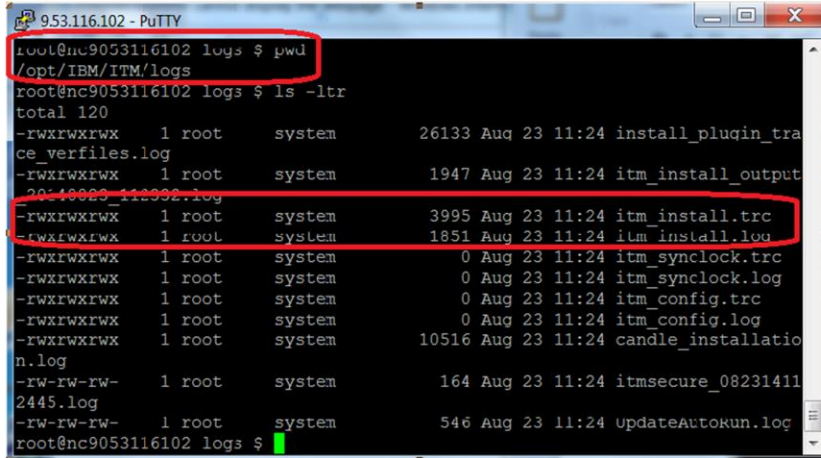
15

© 2014 IBM Corporation

Check the version.properties file under the directory that is shown here. If it does not show that the version is 7.11, check the logs for more information.

Verification options (4 of 4)

- Option 4: Check the installation log files



```
953.116.102 - PuTTY
root@enc9053116102 logs $ pwd
/opt/IBM/ITM/logs
root@enc9053116102 logs $ ls -ltr
total 120
-rwxrwxrwx  1 root  system    26133 Aug 23 11:24 install_plugin_trace_verfiles.log
-rwxrwxrwx  1 root  system    1947 Aug 23 11:24 itm_install_output20140823_112332.log
-rwxrwxrwx  1 root  system    3995 Aug 23 11:24 itm_install.trc
-rwxrwxrwx  1 root  system    1851 Aug 23 11:24 itm_install.log
-rwxrwxrwx  1 root  system     0 Aug 23 11:24 itm_synclock.trc
-rwxrwxrwx  1 root  system     0 Aug 23 11:24 itm_synclock.log
-rwxrwxrwx  1 root  system     0 Aug 23 11:24 itm_config.trc
-rwxrwxrwx  1 root  system     0 Aug 23 11:24 itm_config.log
-rwxrwxrwx  1 root  system   10516 Aug 23 11:24 candle_installation.log
-rw-rw-rw-  1 root  system    164 Aug 23 11:24 itmsecure_082314112445.log
-rw-rw-rw-  1 root  system    546 Aug 23 11:24 UpdateAutoRun.log
root@enc9053116102 logs $
```

16

© 2014 IBM Corporation

The log files are in the /opt/IBM/ITM/logs directory. The two installation logs are itm_install.trc and itm_install.log.

More installation information

- One installation script installs both the DC and TEMA on the same host
- Compatible with IBM Tivoli Monitoring 6.2.3 and IBM Tivoli Monitoring 6.3.
- Recommended IBM Tivoli Monitoring level is IBM Tivoli Monitoring 6.2.3.4 or higher

Here is some additional information for the installation process. The installation process installs both the Data Collector and Tivoli Enterprise Monitoring Agent in version 7.1.1; no additional installations are required.

Trademarks, disclaimer, and copyright information

IBM, the IBM logo, ibm.com, AIX, IBM, Tivoli, and WebSphere are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of other IBM trademarks is available on the web at "[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)" at <http://www.ibm.com/legal/copytrade.shtml>

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Other company, product, or service names may be trademarks or service marks of others.

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE EFFORTS WERE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM'S CURRENT PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DOCUMENTATION. NOTHING CONTAINED IN THIS PRESENTATION IS INTENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY WARRANTIES OR REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF ANY AGREEMENT OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.

© Copyright International Business Machines Corporation 2014. All rights reserved.