Integer Installation

Created and last modified by Eric Remington on Aug 05, 2014

Installing Integer

Pre installation worksheet (it may be helpful to print this and associated pages out):

1. **Verify that you have 'root' access on the machines to be installed. By default Integer runs on port 80 which requires root access to bind to.**
2. **Determine which version you will be installing**
   a. Record the version here:

Flag	Version	Alias in this document's Text	Notes
-q	lastDevBuild	<BUILD-ID>	This is the most recent 'good' build. (Default)
-q	<build#>	<BUILD-ID>	A particular build if needed. when recording replace <build#> with the number you need
-q	ALPHA1	<BUILD-ID>	The ALPHA1 release.
-q	_____	<BUILD-ID>	You could be instructed to use a particular release or identifier for this
Selection: -q			that is dash-que

3. **Read here to help determine how many servers you will have.**
   a. Document here number of servers:_____.
   b. Document here function for each server: (Core 'Core'; Front End 'FE'; Discovery 'Disc') You must have ONE Core server.
   c. Server name/IP (Core): _____.
   d. Server name/IP (Front End): _____.
   e. ~~Server name/IP (Discovery):~~ _____.
      i. Throughout this document all configury for a stand alone Discovery has been struck out. It is planned but not yet supported .

Number of servers and server type options

-n -T

Number of Servers	Args Core AKA: Core	Args Front End AKA: FE	~~Args Discovery AKA: Disc~~
1	-n 2 -T Core	N/A	~~N/A~~
2	-n 2 -T Core	-n 1 -T FE	~~N/A~~
3	-n 2 -T Core	-n 1 -T FE	~~-n 3~~ ~~-T Disc~~

(A) Select the row based on the number of servers you will use and record below the options in the green boxes of that row: (Record N/A if not applicable)

Core	_____
FE	_____
~~Disc~~	_____

4. **Determine how you will install.**
   a. **There are 2 ways to get the installables;**
      i. **you can allow the install script to get the install packages from the Integer build server**
         1. **If you plan to have the instal script download the installable(s), verify that you have outgoing access from each server to integer.harvard.edu port 80**
      ii. **you can obtain the packages separately and put them on the server manually or through some automated distribution.**
         1. **If you need to download the installable(s) download the following to a temporary directory. This temporary location will be called "INSTALL-TARS-DIR" later in these instructions.**
            a. http://integer.harvard.edu/<BUILD-ID>/preloadsPublic.tgz
            b. http://integer.harvard.edu/<BUILD-ID>/deployables.tgz
            c. http://integer.harvard.edu/<BUILD-ID>/installer.tgz
      iii. Record Your installation option. It is possible that some servers may install using automatic download and some on protected networks for instance may be required to install from manual download.

Install Type	Flag Core	Flag FE	~~Flag Disc~~	notes

Download installables	default no flag needed	default no flag needed	~~default no flag needed~~	
Manual Download	-l	-l	~~-l~~	this is dash ell
Record Data	(B) Record any flags required for each server Core: _____ FE: _____ ~~Disc:~~ _____			

5. **Collect Information about the server.**
   a. **IP Address - Server Configurations**

Server Purpose	Environment Variable Name	Server Configurations (IP Address)				
		One Server	Two Server	Three Server	Flag	IP Address you will be using
Core IP	coreIp	use localhost	IP of server you will be using for the Core	IP of server you will be using for the Core	-C	
Front End IP	feIp	use localhost	IP of server you will be using for the FE	IP of server you will be using for the FE	-F	
~~**Discovery IP**~~	~~discIp~~	~~use localhost~~	~~IP of server you will be using for the Core~~	~~IP of server you will be using for the Disc~~	~~-3~~	

(C) Record the IP Address from the green column above. Match the address to the correct flag below.

-C _____ -F _____ ~~-3~~ _____

   b. **Database User ID and Passwords.**

Server Purpose	User	Flag	User ID on your system	Flag	Password on your system	Notes
Core	root user	-R		-r		Can and should be unique across systems
	Integer DB User	-D		-P		Must be the same on all systems
Front End	root user	-R		-r		Can and should be unique across systems
	Integer DB User	-D		-P		Must be the same on all systems
~~**Discovery**~~	~~root user~~	~~-R~~		~~-r~~		~~Can and should be unique across systems~~
	~~Integer DB User~~	~~-D~~		~~-P~~		~~Must be the same on all systems~~

(D) Record the data from the green cells in the above table arranged by server id

Core	-R _____ -r _____ -D _____ -P _____
FE	-R _____ -r _____ -D _____ -P _____

~~Disc~~	~~R~~ _____ ~~r~~ _____ ~~D~~ _____ ~~P~~ _____

6. **Determine the Install Location**
    i. **(E) Record the directory you wish to install into. The directory must exist (example: /opt/integer):**

Flag	Value	Notes
-I	_____	Flag is dash-eye This directory will be referred to as INSTALL_TOP later in these instructions

7. **Assemble Command line**
    a. **for Core record all of the flags from (A) (B) (C) (D) and (E) (Yellow blocks) here:**
        i. _____
    b. **for FE record all of the flags from (A) (B) (C) (D) and (E) (Yellow blocks) here:**
        i. _____
    c. ~~**for Disc record all of the flags from (A) (B) (C) (D) and (E) (Yellow blocks) here:**~~
        i. _____
8. **Verify prerequisites.**
    a. **integer servers talk to each other on port 80 (default port).**
        i. **Make sure that the servers you are using have port 80 available to all the other Integer servers.**
    b. **On each server, verify**
        1. **MariaDB. Integer requires MariaDB, at minimum version 5 (Version 10 if installing on MAC)**
            a. Click here for MariaDB verification instructions
        1. **Verify Java Version 1.7**
            a. **Click here for Java Version verification instructions**
9. **Set up your default login (PrivatePreloads)**
    a. **Create and populate the PrivatePreloads directory**
        i. Determine what to use for **privatePreLoadPath** below depending on the value of <BUILD ID>
            1. If <BUILD-ID> is a number
                a. Use privatePreLoadPath="Builds/<BUILD-ID>/archive"
            2. If <BUILD-ID> is a name, label or other non numeric.
                a. Use privatePreLoadPath="<BUILD-ID>"
        ii. Retrieve and extract the default Private Preloads
            1. mkdir ${INSTALL_TOP}/PrivatePreloads
            2. cd ${INSTALL_TOP}/PrivatePreloads
            3. wget -O ./PrivatePreloads.tgz http://integer.harvard.edu/**<privatePreLoadPath>**/PrivatePreloads.tgz
            4. tar xvzf ${INSTALL_TOP}/PrivatePreloads/PrivatePreloads.tgz
    b. **If you want to change the default login from the value userid='admin', password='public'**
        i. Edit ${INSTALL_TOP}/PrivatePreloads/database/preload/DefaultUser.sql
            1. Find the line '(1,'User','admin','admin',NULL,NULL,NULL,'Admin','User',NULL,NULL,NULL,'public');'
                a. this is approximately line 77 in the file.
                b. this should be the ONLY line that matches this text.
            2. edit 'public' to be whatever you want to use as a password.
    c. If you need to pre load any other data into the database you may use the 'PrivatePreloads' directory to do so.
        i. The scripts in the 'bin' directory are run in ls order.
        ii. See the existing script(s) for examples.
        iii. If you need to preload data ADD a new script else the next install will overwrite your changes.
        iv. The PrivatePreloads are run last so they may modify the "default preloads".
10. **On each server; Create Integer database, DB user and apply GRANT.**
    a. **Create Integer database.**
        i. Click here for Integer database creation instructions
    b. **Create Integer DB User and GRANT appropriate privileges.**
        i. Click here for Integer DB User creation and GRANT instructions
    c. Create the install directory
        i. mkdir <INSTALL_DIR>
11. **For each server to be installed obtain and run the installer**
    a. **In the order; Core, FE, ~~Discovery~~ do the following**
        i. **Obtain the Installer**
            1. **If you downloaded the installables in order to perform a local install then;**
                a. mkdir -p ${INSTALL_TOP}/installables
                b. copy installables downloaded in step #4.a.ii.1 from INSTALL-TARS-DIR to ${INSTALL_TOP}/installables

c. mkdir ${INSTALL_TOP}/installbin
d. move ${INSTALL_TOP}/installables/installer.tgz to ${INSTALL_TOP}/installbin
e. cd ${INSTALL_TOP}/installbin
f. Verify that the installer is still a tgz file and that no helpful utility along the way uncompressed it
g. if it is still a .tgz file
    i. tar xvzf installer.tgz
h. if it is a .tar file
    i. tar xvf installer.tar

2. **If you are downloading the installables from our build server**
    a. mkdir ${INSTALL_TOP}/installbin
    b. cd ${INSTALL_TOP}/installbin
    c. wget -O ${INSTALL_TOP}/installbin/installer.tgz http://integer.harvard.edu/<BUILD-ID>/installer.tgz
    d. Verify that the installer is still a tgz file and that no helpful utility along the way uncompressed it
        i. if it is a .tgz file
            1. tar xvzf installer.tgz
        ii. if it is a .tar file
            1. tar xvf installer.tar

ii. **Understand order of evaluation of options**

1. Parameters are processed in the following order. This allows you to set default options in the ENVIRONMENT or Integer.answers but override some on the command line.
    a. ENVIRONMENT variables
    b. Integer.answers
    c. command line options.

iii. **Run the installer**

1. If you are running the installer with command line switches
    a. Execute the appropriate command line for each server using the command lines constructed in #7 above.
        i. (${INSTALL_TOP}/installbin/installAndStartInteger <Apropos argument list for server from #7 above>)
2. If you will use the Integer.answers file
    a. Transpose your answers from #7 above into the Integer.answers file. There will be a unique Integer.answers for each server. Or one with defaults and command line overrides for particular machines.
    b. The Integer.answers is required to be in the same directory as installAndStartInteger.
    c. Execute the following command line for each server ${INSTALL_TOP}/installbin/installAndStartInteger

Like Be the first to like this

No labels

Powered by a free **Atlassian Confluence Open Source Project License** granted to Harvard, HUIT, Project Integer. Evaluate Confluence today.

This Confluence installation runs a Free Gliffy License - Evaluate the Gliffy Confluence Plugin for your Wiki!