
LEI Installation Basics

- on Windows and Linux platforms

Open Mic Webcast

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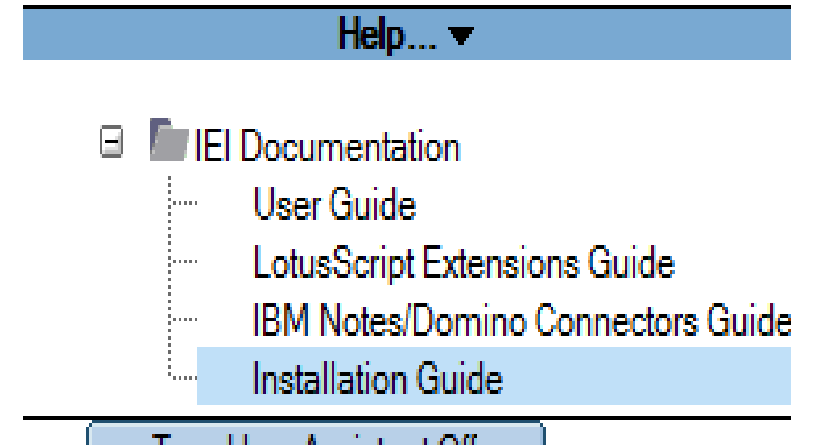
Agenda

- LEI/IEI Overview
- Installation Pre-requisites
 - Install on Windows
 - Install on Linux
- Information on Relational databases
- Information on IBM ODBC drivers
- Back-up and Upgrade
- Installation Process

LEI/IEI Overview

What is LEI?

- It stands for Lotus Enterprise Integrator. But please note that at the beginning of Domino server version 9, it changes its name to IEI or IBM Enterprise Integrator.
- LEI is a product that installs over the top of a Domino Enterprise server. It's an integration tool that moves data between external data sources.
- Basically, there are 3 key databases and their templates are what allow LEI to function.
 - The LEI Administrator - The Control Center for LEI
 - It consists of 3 main types of documents:
 - Activity Documents
 - Connection Documents
 - Configuration Documents
 - The LEI Log - the log database for LEI
 - The LEI Vault - a repository for lotus script agents
 - For more information, please refer to the User and
 - Installation Guide inside the LEI administrator database.



Installation Pre-Requisites

1. Setting the Domino Server documents

Security Tab

- Make sure [Enterprise Connector Products/Lotus Notes Companion Products](#) is set and their [Domino Server Name](#) (e.g mist/Edge Research)
- Scroll down to Server Access section and add the same entries together in the field “Access Server” in addition to selecting “users listed in all trusted directories”. Keep in mind that as with other fields in the server document, adding items to these fields limits access to only those specified.

Programability Restrictions	Who can -
Run unrestricted methods and operations:	<input type="checkbox"/> Enterprise Connector Products/Lotus Notes Companion Products, mist/Edge Research
Sign agents to run on behalf of someone else:	<input type="checkbox"/> *
Sign agents to run on behalf of the invoker of the agent:	<input type="checkbox"/> *
Run restricted LotusScript/Java agents:	<input type="checkbox"/> Enterprise Connector Products/Lotus Notes Companion Products, mist/Edge Research

Server Access	Who can -
Access server:	<input checked="" type="checkbox"/> users listed in all trusted directories and <input type="checkbox"/> Enterprise Connector Products/Lotus Notes Companion Products, Mist/edge research, Joe Cross/CAM/Lotus, */Lotus,
Not access server:	<input type="checkbox"/>
Create new databases:	<input type="checkbox"/>
Create replica databases:	<input type="checkbox"/> *
Allowed to use monitors:	<input type="checkbox"/> *
Not allowed to use monitors:	<input type="checkbox"/>
Trusted servers:	<input type="checkbox"/> *

Installation Pre-Requisites

Basics Tab

- > In the Server Location Information section, ensure to add the Domino server name in the Mail Server field:

Servers	
Mail server:	Mist/Edge Research
Passthru server:	
InterNotes server:	

Note : This setting acts as a work-around when installer cannot find the Domino Server.

- > You can go to Ports tab, and adding the Server's IP Address instead of Domain name can resolve the issue. If this is the case, customer either has DNS issue or Notes Network problem.

Port	Protocol	Notes Network	Net Address	Enabled
TCPIP		TCPIP Network	XYZ.YourCompany.com	ENABLED

Installation Pre-Requisites

2. Configuring the LocalDomainAdmins Group Document

- It is important to add the user name that installs the LEI server in the LocalDomainAdmins Group Document. Be sure to have it in its correct Notes canonical format (eg. **Mist/Edge Research**)
- Note that this is the same as the value of the parameter in the notes.ini:
KeyFileName=C:\Lotus\Domino\data
KeyFileName_Owner=CN=Mist/O=Edge Research

The screenshot shows the configuration window for a multi-purpose group named 'LocalDomainAdmins'. The 'Basics' tab is selected. The configuration includes:

- Group name: LocalDomainAdmins
- Group type: Multi-purpose
- Category: Administration
- Description: This group should contain all Domino administrators in your domain. Most system databases and templates give people in this group Manager access.
- Mail Domain: (empty)
- Internet Address: (empty)
- Auto Populate Method: None
- Members: Domino Administrator/Edge Research Mist/Edge Research

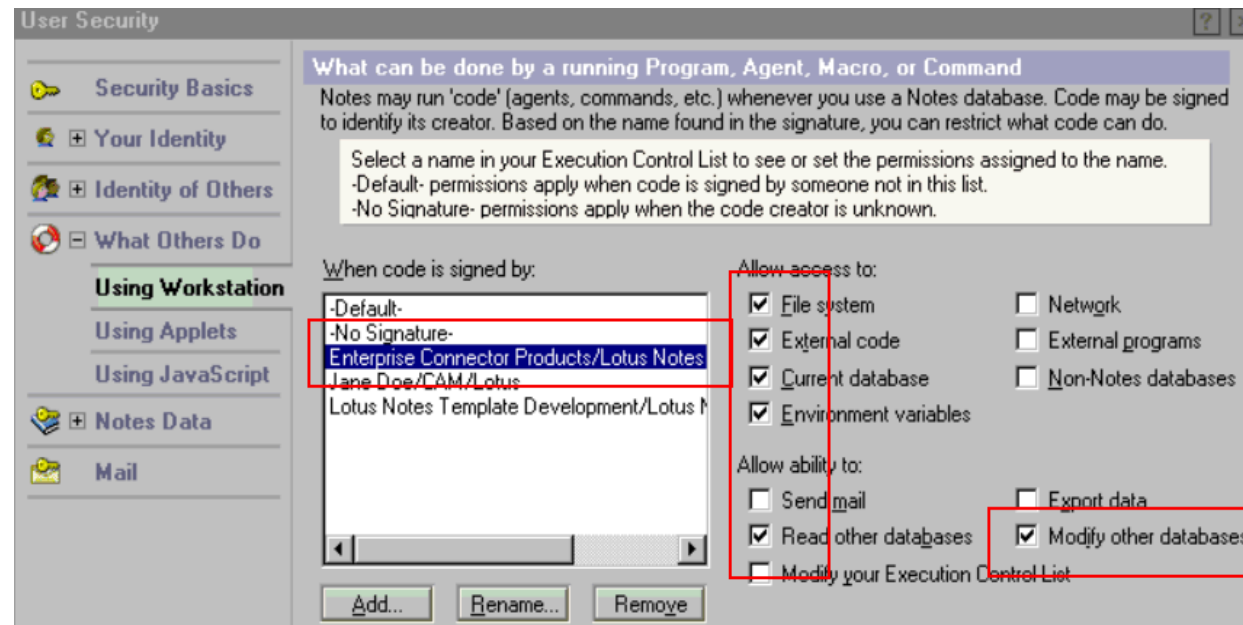
3. Establishing the Access Rights in Your Notes ID File

- A proactive approach to prevent issue especially when your server id is protected with a password.
- Shut down Domino Server. Access server id in a notes client. Go to File – Security – User Security – Enter password. Under Security Basics Tab, ensure that the option “Don't prompt for a password from other Notes programs” is enabled.

The screenshot shows the 'User Security' dialog box in a Notes client. The 'Security Basics' tab is selected. The 'Who You Are' section shows the user is 'Domino Administrator/LEI' with an ID file at 'C:\Lotus9\Domino\data\admin.id'. The ID file encryption strength is '128 bit RC2' and the expiration date is '03/02/2017'. The 'Your Login and Password Settings' section has the option 'Don't prompt for a password from other Notes-based programs (reduces security)' checked.

Installation Pre-Requisites

- On the Using Workstation tab, enter [Enterprise Connector Products/Lotus Notes Companion Products](#) in the “when code is signed by” list and enable the required fields as shown below:



Installation Pre-Requisites

4. Checking the server's notes.ini to make sure that the install type parameter is set to 4 (for Windows) or Enterprise Server (for Linux).

Installation on Windows

- Just ensure that the notes program directory is set in the PATH System variable

Installation on Unix/Linux

- Set and export the following environment variables in your appropriate configuration file (such as .login or .profile) so that they will be accessed each time you log on and invoke LEI.
 - export PATH=\$PATH:/local/notesdata
 - export PATH=\$PATH:/opt/ibm/lotus/notes/latest/linux
 - export PATH=\$PATH:/opt/ibm/lotus/notes/latest/linux/res/C
 - export Notes_ExecDirectory=/opt/ibm/lotus/notes/latest/linux
 - export LD_LIBRARY_PATH=/opt/ibm/lotus/notes/latest/linux:/opt/odbc/lib

5. Always check latest sysinfo.txt file under the IBM_TECHNICAL_SUPPORT folder to confirm that these settings are in effect prior to installation.

Information on Relational databases

What is your back-end Database System?

- Customers could be using the following relational 3rd party software:
 - Oracle
 - DB2
 - SQL Server (OLE DB)
 - Sybase
 - SAP

- Prior to LEI/IEI install, customers must test their client connections from the Domino Server machine to their Database server.

- In the same way that we would keep Domino up to date with the latest FPs, the same practice should be given to their relational database client installed.
 - Know the latest version, compatibility, especially when Domino server is upgraded or migrated from 32bit to 64bit, etc.

Information on IBM ODBC drivers

LEI as we have discussed is used to access Relational Databases such as DB2, Oracle, SQL Server and many others. ODBC or Open Database Connectivity allows a one stop option for accessing all these in one product called the IBM OEM ODBC drivers from DataDirect.

- Install
 - Installers are available in Passport Advantage site:

Find by search text

Type all or part of a product name and click Search or click one of the pop-up suggestions. You can select

- Choose whether to download for Windows, Unix or AIX platform. You must also consider the bitness of the application you are going to use. The drivers must match the bitness of the application

IBM DataDirect ODBC Drivers 7.0 for Domino 64 bit for Windows English (CIB9UEN) - [View details](#)

Size 91Mb

Date posted 21 Mar 2013

[License agreement](#) [Download estimate](#) → [eAssembly](#)

IBM DataDirect ODBC Drivers 7.0 for Domino 64 bit for AIX English (CIB9VEN) - [View details](#)

Size 96Mb

Date posted 21 Mar 2013

[License agreement](#) [Download estimate](#) → [eAssembly](#)

IBM DataDirect ODBC Drivers 7.0 for Domino for Windows English (CIB9WEN) - [View details](#)

Size 87Mb

Date posted 21 Mar 2013

[License agreement](#) [Download estimate](#) → [eAssembly](#)

Information on IBM ODBC drivers

› Creating Data Source

› Windows:

- › In opening the Data Source Administrator in Windows, please take note of the following:
 - › Microsoft has set up the Windows Subdirectories as follows :
 - › Windows/System32 - the default for 64 bit applications
 - › Windows/SysWow64 - the default for 32 bit applications

› Linux

- › On a Linux system, there is no GUI interface for the ODBC Data Source manager as on Windows. You just need to edit the odbc.ini as a file and add the following parameters:
 - › IpAddress=your server ipaddress
 - › Location= is the name of the database you are going to connect
 - › TcpPort=port of the database your are going to connect

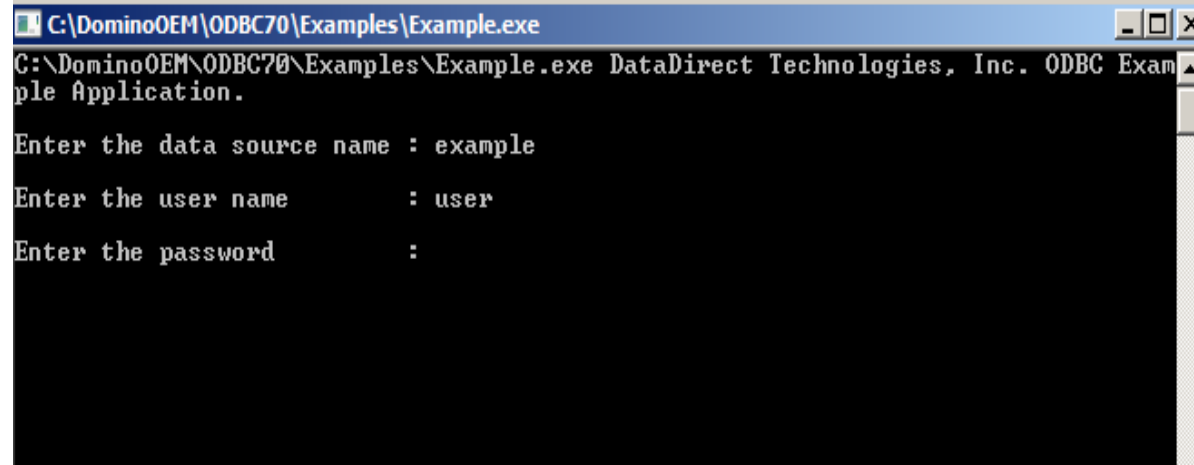
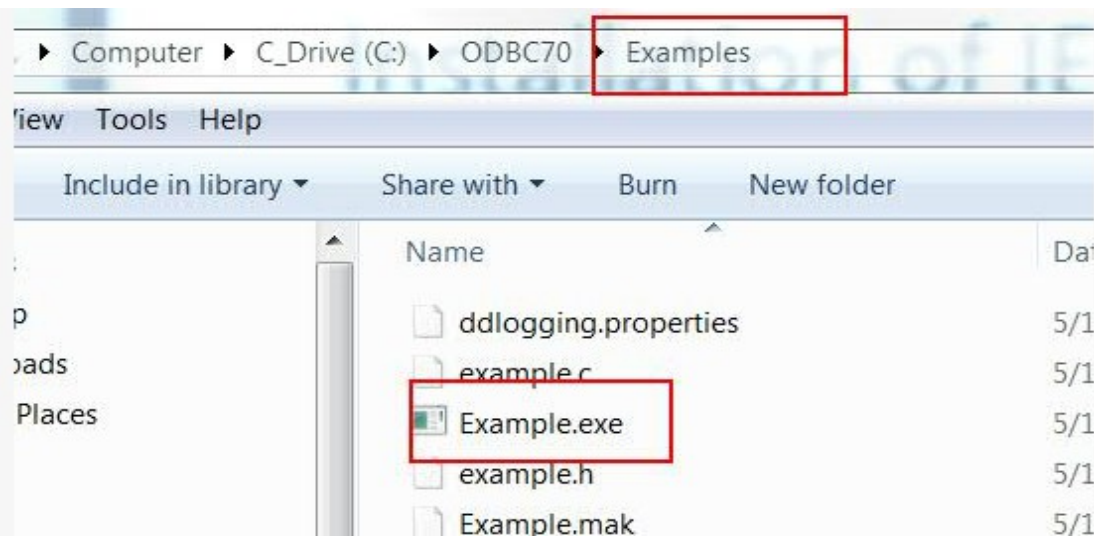
```
[DB2 Wire Protocol]
Driver=/opt/odbc/lib/Lodb226.so
Description=IBM Domino OEM 7.0 DB2 Wire Protocol
AccountingInfo=

"lines removed to all critical lines to fit on one screen

GSSClient=
HostNameInCertificate=
IpAddress=9.9.9.9
KeyPassword=
KeyStore=
KeyStorePassword=
LoadBalanceTimeout=0
LoadBalancing=0
#Location applies to z/OS and iSeries only
Location=C1029D50
LogonID=
MaxPoolSize=100
MinPoolSize=0
Password=
PackageCollection=NULLID
PackageNamePrefix=DD
PackageOwner=
Pooling=0
ProgramID=
QueryTimeout=0
ReportCodePageConversionErrors=0
TcpPort=446
TrustStore=
TrustStorePassword=
UseCurrentSchema=1
ValidateServerCertificate=1
WithHold=1
XMLDescribeType=-10
```

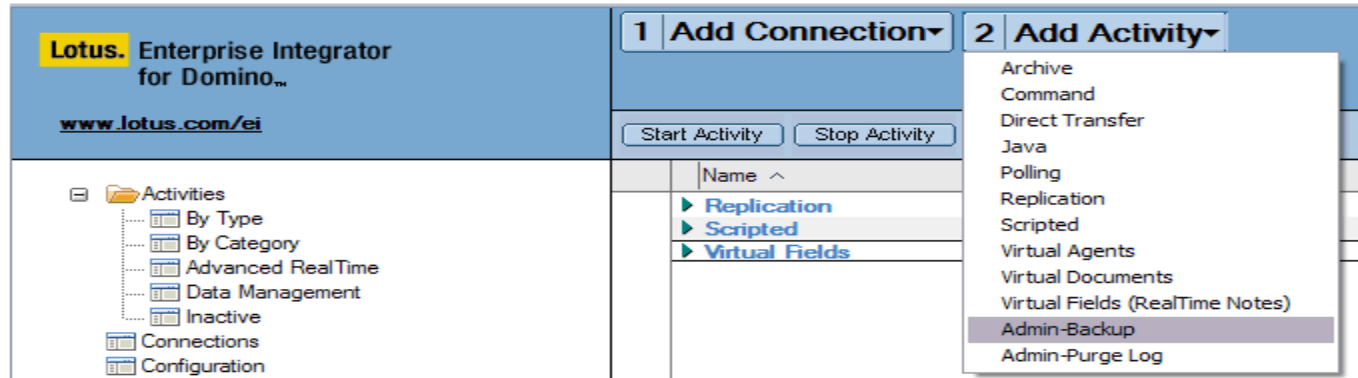
Information on IBM ODBC drivers

- Testing Data Source
 - You will need to use the **example tool** that's included when you download the ODBC OEM Drivers.



Back-up and Upgrade

It is critical to back up the LEI Admin (decsadm.nsf). There is an Activity for this called Admin Back-up.



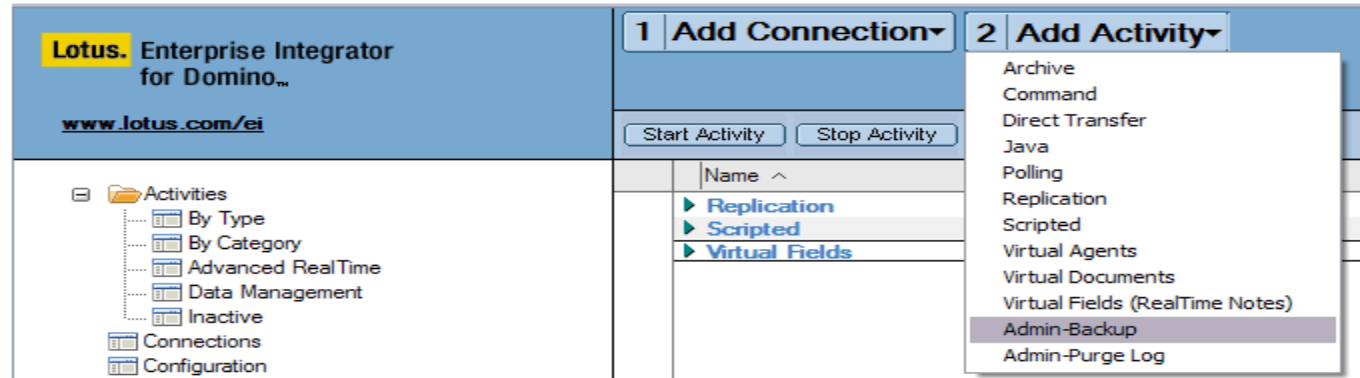
The only recommended way to backup the LEI Admin is with the LEI Backup Activity and copy it to a safe place via the OS outside the data folder, (do not make a copy via Notes as this has lead to subtle problems with scheduled activities).

And as a best practice, before any changes on the system, always perform an incremental or full BACK-UP of your files, databases, configurations, etc.

- Just like the sysinfo file which is found inside the IBM_TECHNICAL_SUPPORT folder, this contains the configuration settings of the server so we can back up and if any issues arise, we may use it for comparison of settings against the new server configuration.

Back-up and Upgrade

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Installation of IEI in Windows and Linux

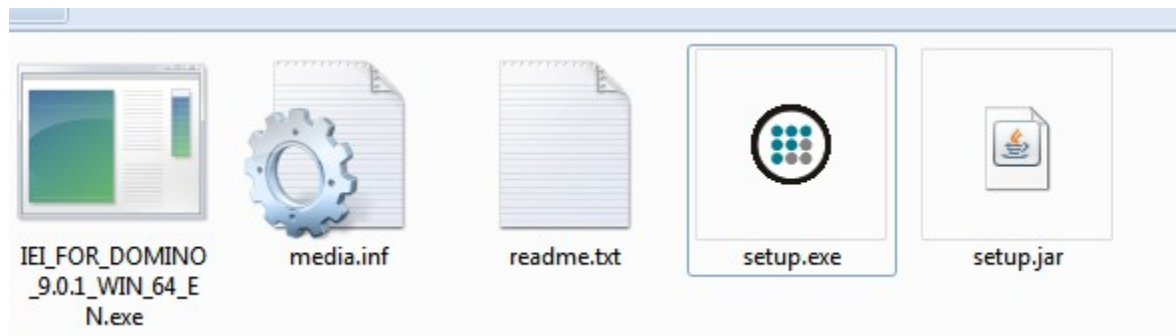
- Will mainly focus on a Windows and Linux installation.
- Both Failover installation and IBM iSeries installation will be covered on a different OpenMic.

Important note:

1. Ensure that Domino server version that is running must match the IEI installer version.
2. Ensure that the Domino Server is running.
3. If DECS is loaded and enabled, shut down DECS.

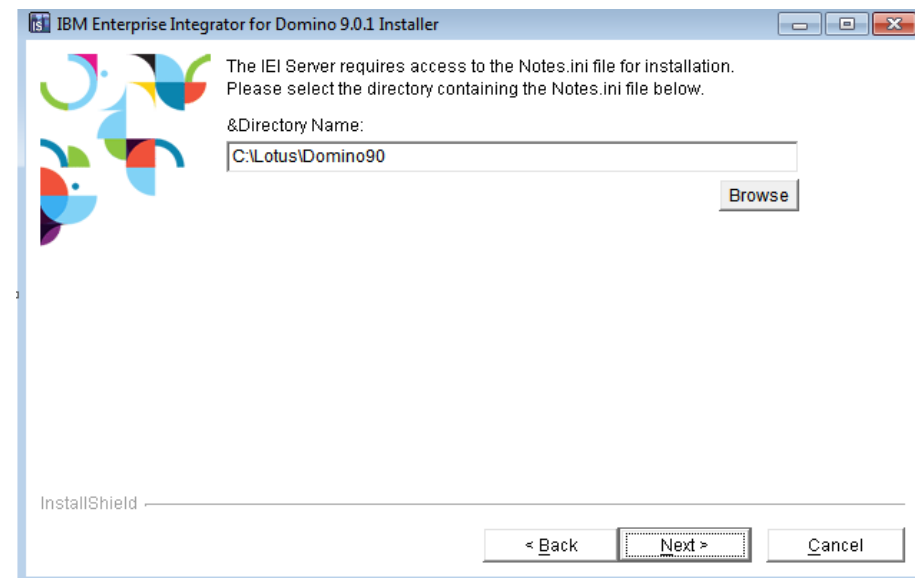
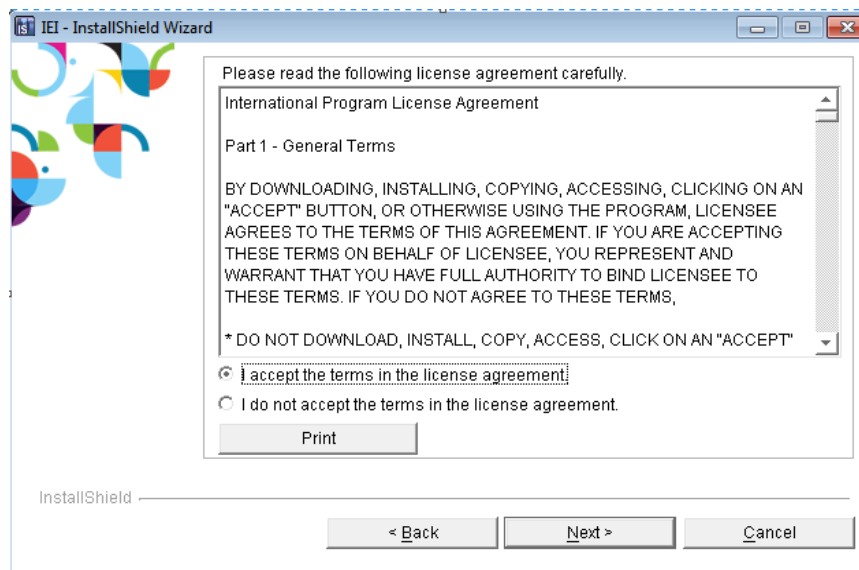
Installation of IEI on Windows

- Once you checked and reviewed all the pre-requisites needed to install IEI, you can now proceed on running the installer.
- Once you have downloaded the installer, You can run the .exe extracting 4 files in the same folder.
- Run the Setup.exe once it finished extracting all the files.



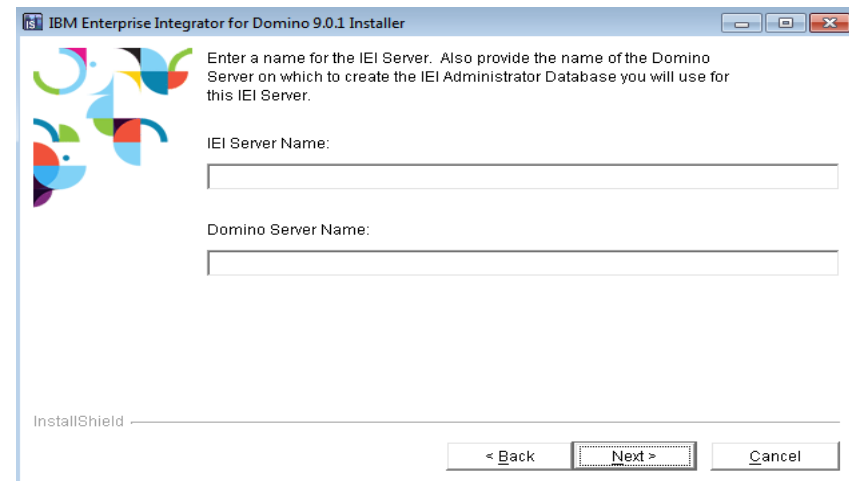
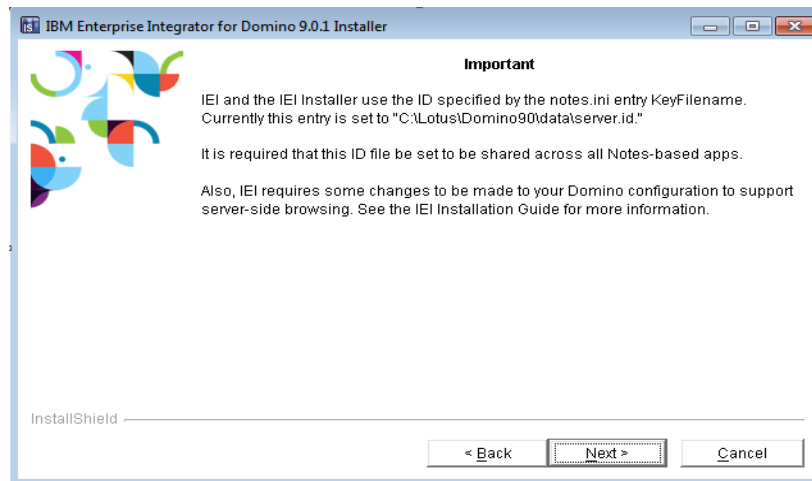
Installation of IEI on Windows

- The IEI Welcome screen appears.
- The IEI licensing screen appears. Respond as prompted and then continue with the install process



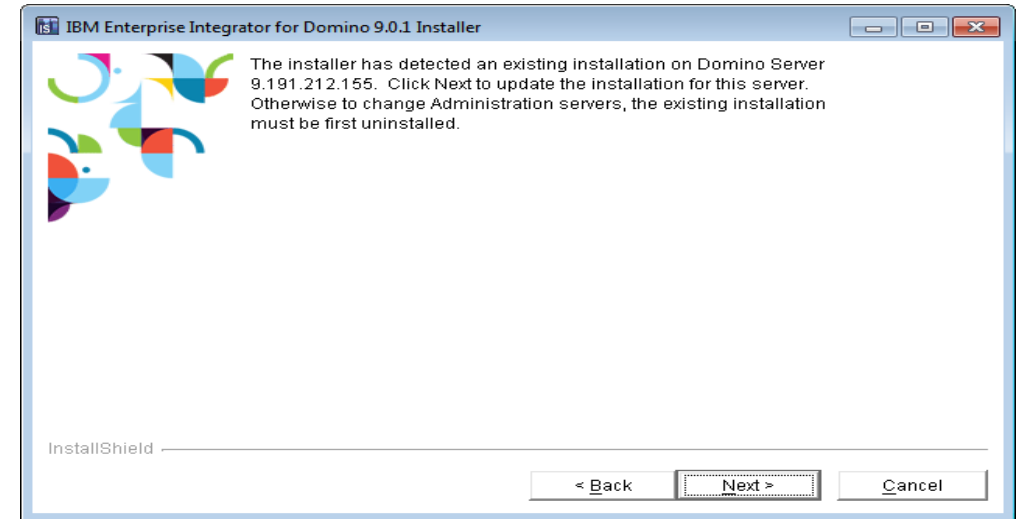
Installation of IEI on Windows

- You have to configure your server Notes ID file so that the Notes ID login file used by the IEI server is shared across all your Notes-based applications.
- The installer detects local and remote servers to determine default values for the notes.ini settings. Specify the name of the IEI server and the Domino server (that will host the IEI Administrator).



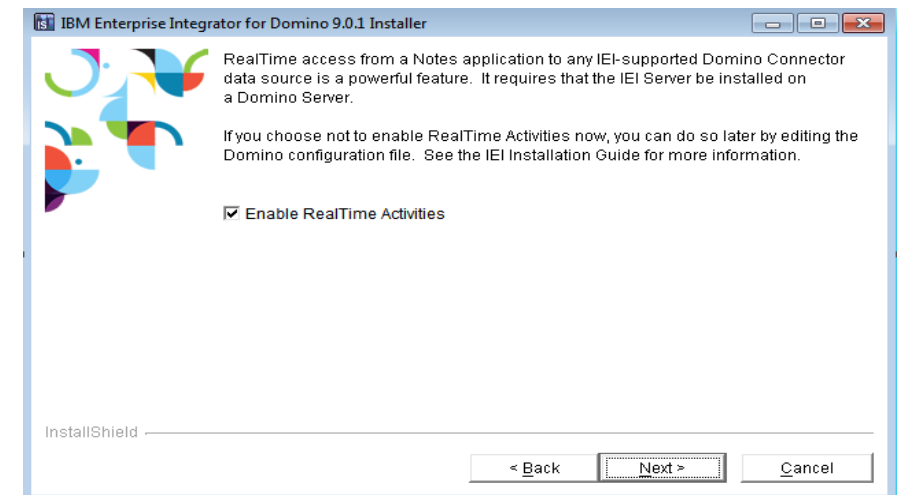
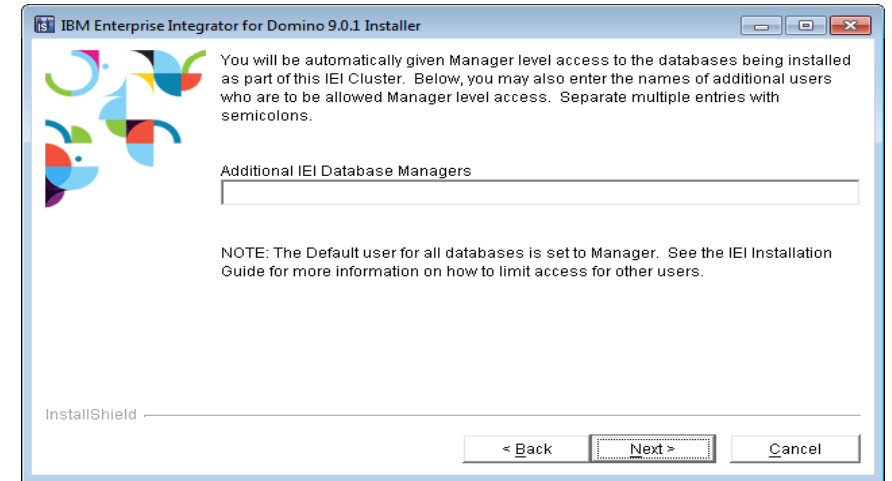
Installation of IEI on Windows

- If the installer detects a previous version of IEI, a screen appears requesting that you stop all IEI servers that use that IEI Administrator before continuing with the installation
- The IEI failover cluster support screen appears.



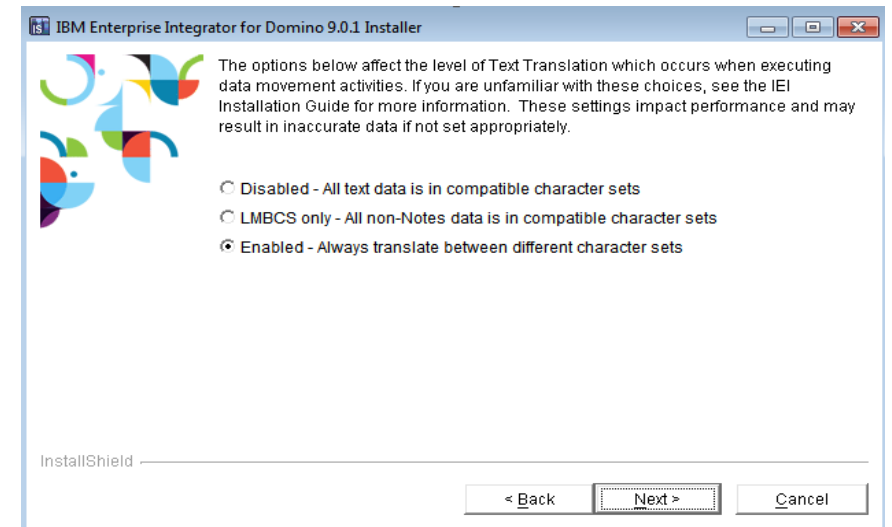
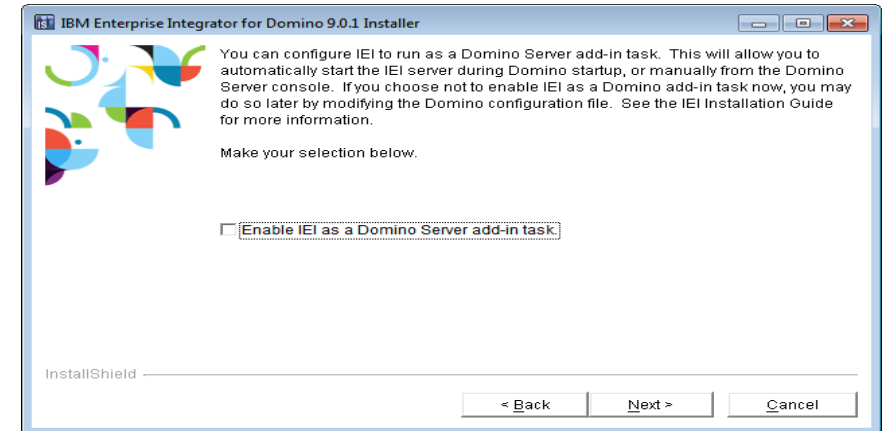
Installation of IEI on Windows

- The Additional Managers screen appears. The Notes ID that you use while installing IEI is entered in the ACL for all the IEI databases created during installation. The default access given is Manager.
- IEI provides Advanced RealTime functionality in three forms -- Virtual Fields, Virtual Documents, and Virtual Agents. If you enable Advanced RealTime, the installer adds the "EXTMGR_ADDINS=decsext" statement to the notes.ini file.



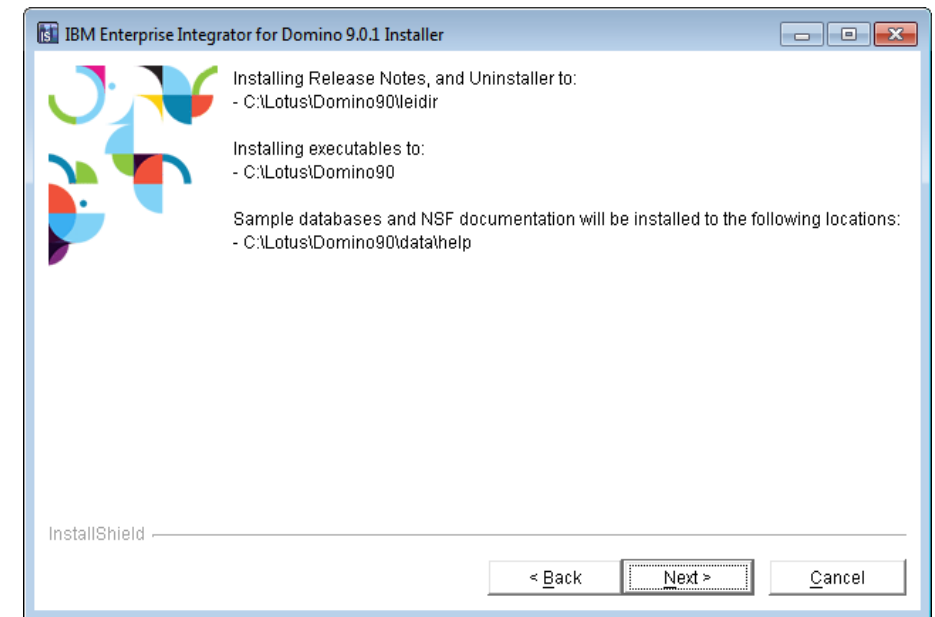
Installation of IEI on Windows

- You can configure IEI to run as a Domino server add-in task.
- Specify how non-native text is translated across multilingual data communications environments.
- Specify where program icons are to be located. Use the default name, which includes the partition name, if you are installing to a partitioned server.



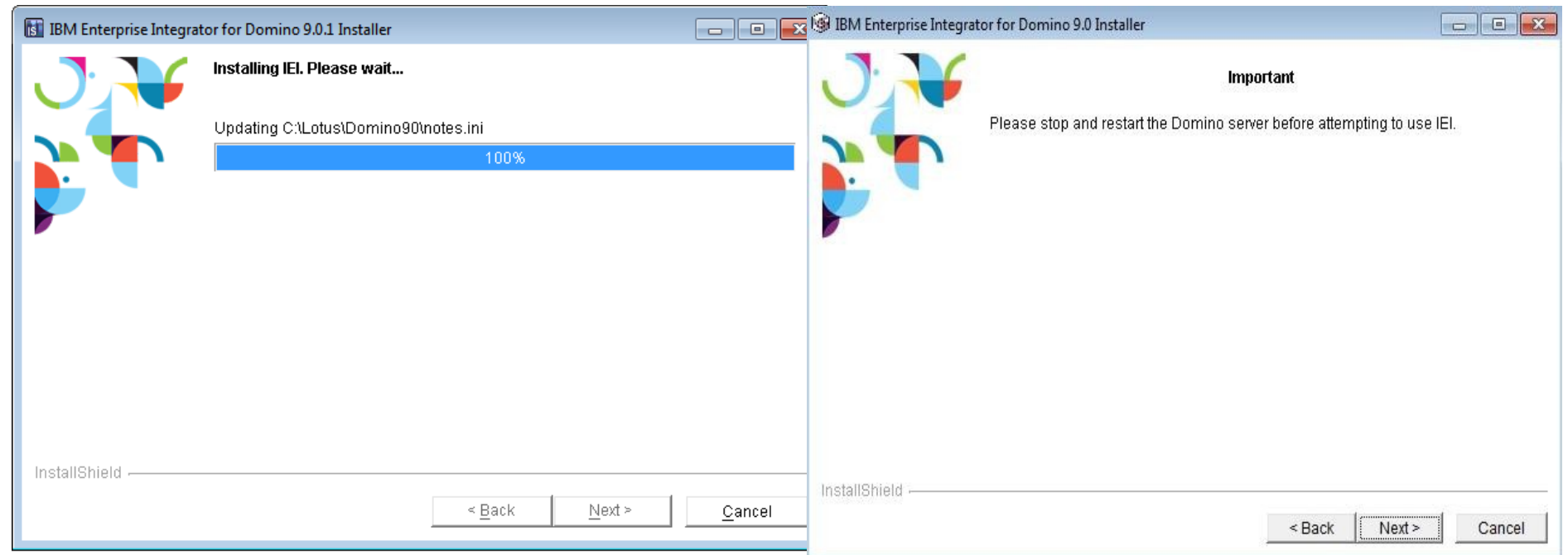
Installation of IEI on Windows

- Specify whether to install the sample databases and script vault and click Next to continue
- The installer indicates in which directories the documentation, executables, samples, and script vault will be placed.
- The installer modifies the designated notes.ini file and performs the installation. When installation is complete, click Next to continue.



Installation of IEI on Windows

- Depending on your configuration, you may need to reboot your machine after install. You will be notified if it is necessary for you to **reboot**



Installation of IEI on LINUX

- If DECS is running, shut down DECS
- Log on to the Linux machine that you want to install the IEI.
- Use the Linux su command to gain root privilege.
- The IEI application is supplied as a .tar file in the folder name of either aix or linux.
Open the .tar file to begin the installation process.
- Run the SetupLinux64.

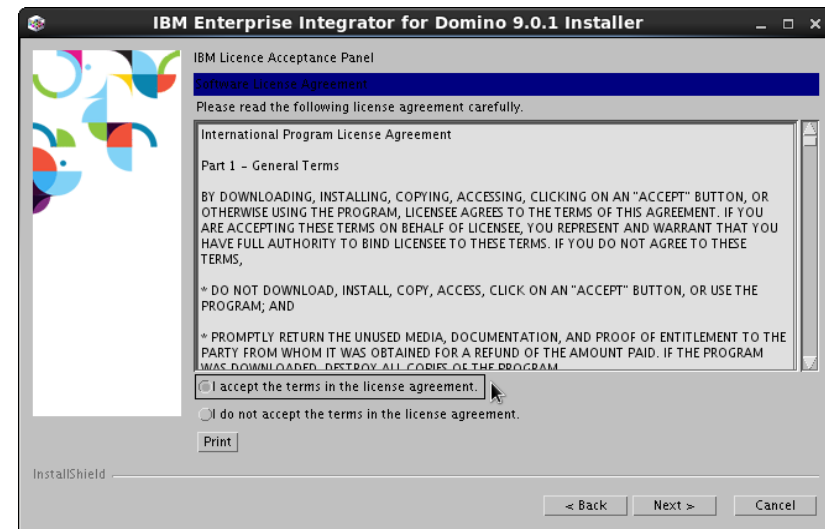
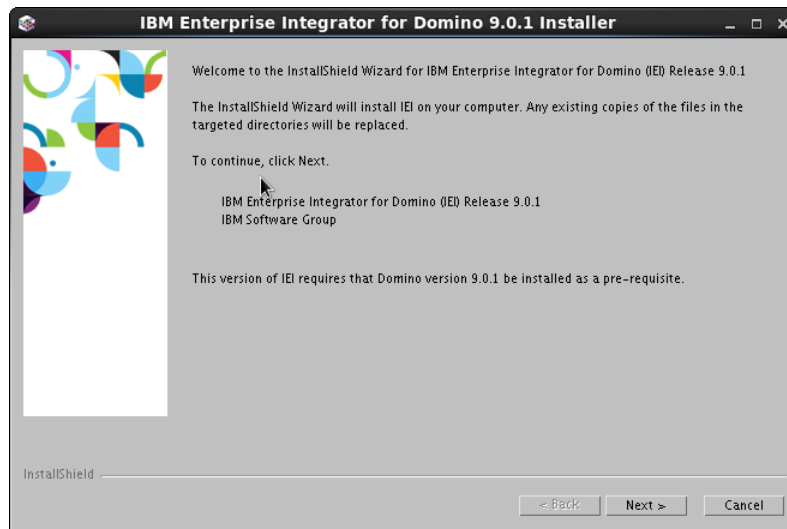
```
root@RHEL64:~  
File Edit View Search Terminal Help  
[notes@RHEL64 ~]$ su - root  
Password:  
[root@RHEL64 ~]#
```

```
[root@RHEL64 901]# tar -vxf IEI_FOR_DOM_9.0.1_LINUX_64_EN.tar  
./  
./readme.txt  
./setupLinux64  
[root@RHEL64 901]#
```

```
[root@RHEL64 901]# ./setupLinux64  
InstallShield Wizard  
  
Initializing InstallShield Wizard...  
  
Preparing Java(tm) Virtual Machine...  
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```

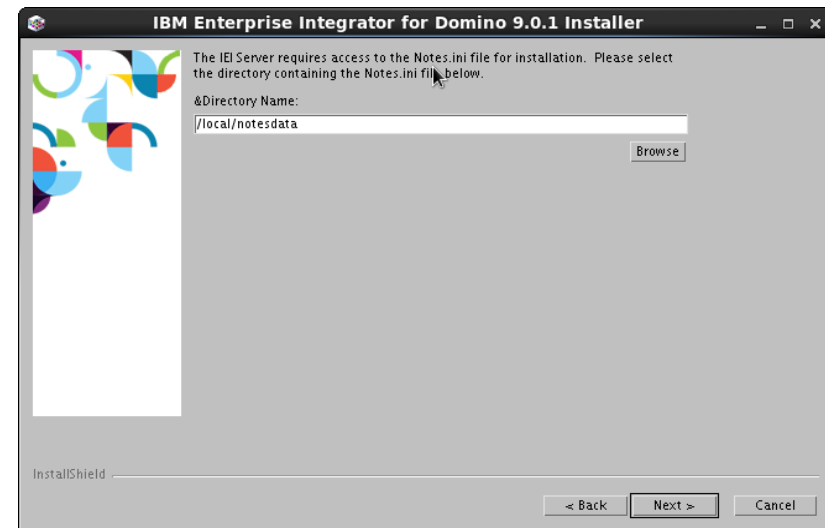
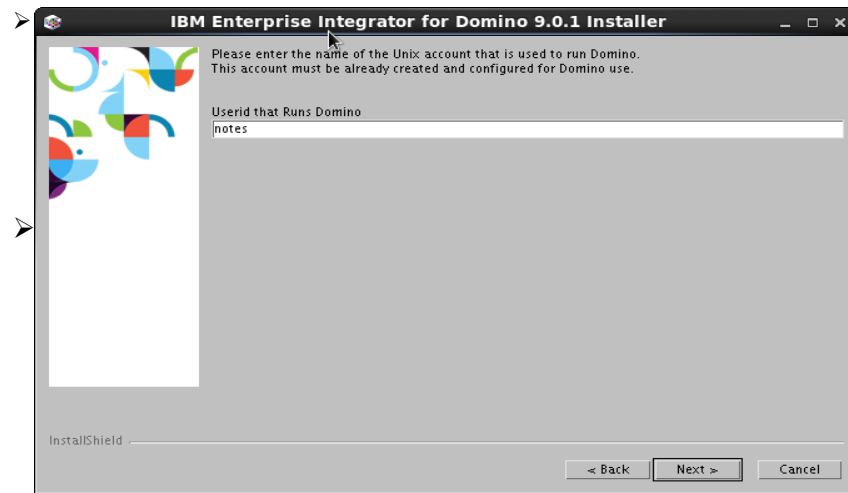

Installation of IEI on Linux

- The IEI Welcome screen appears, displaying product and company details and a Web address.
- The IEI licensing screen appears. Respond as prompted and then continue with the install process



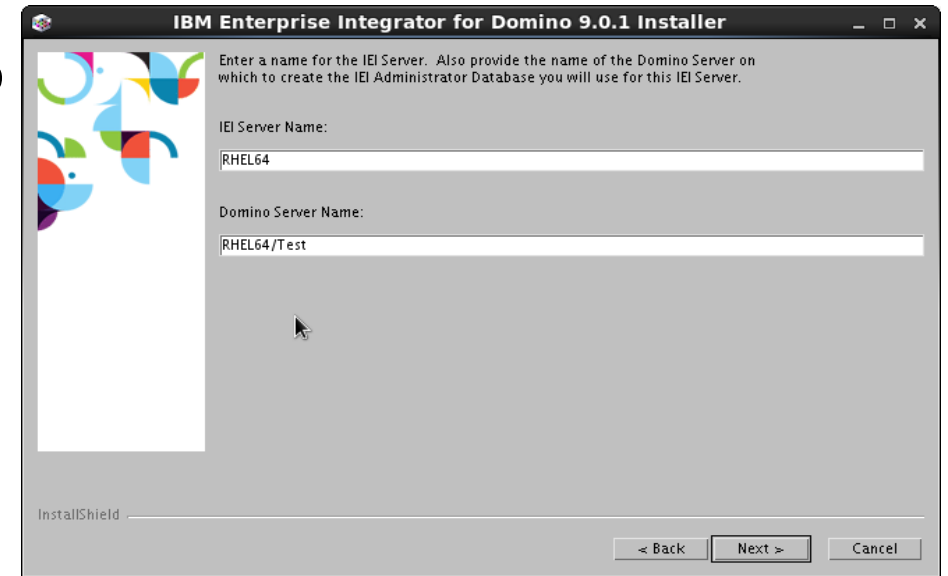
Installation of IEI on Linux

- As prompted, enter the name of the existing Linux account that you use to run Domino.
- IEI installation adds to or modifies several environment variables. Specify the path to the notes.ini file (on the Domino server) that you wish to use



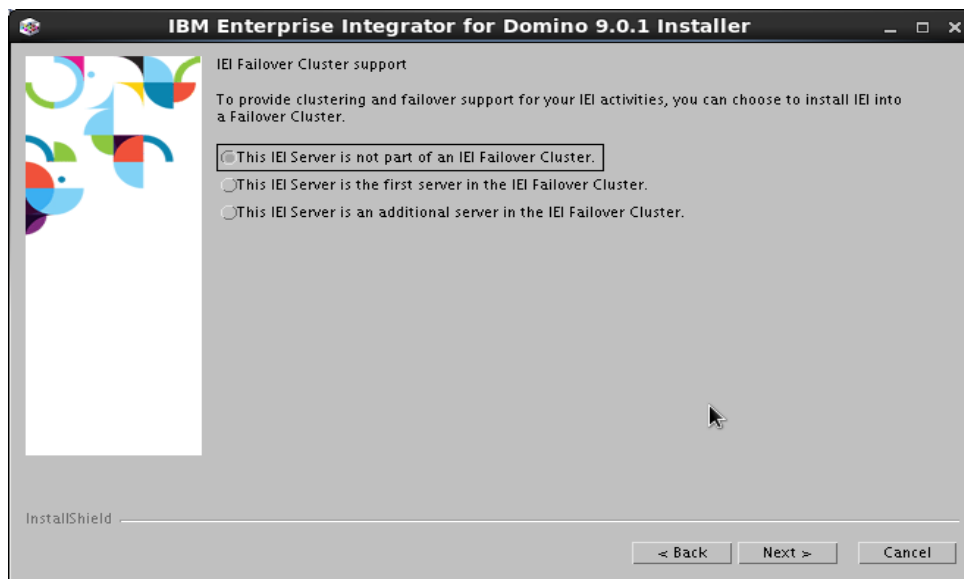
Installation of IEI on Linux

- Be sure that you have configured your server Notes ID file so that the Notes ID login file used by the IEI server is shared across all your Notes-based applications.
- The installer detects local and remote servers to determine default values for the notes.ini settings. Specify the name of the IEI server and the Domino server (that will host the IEI Administrator)



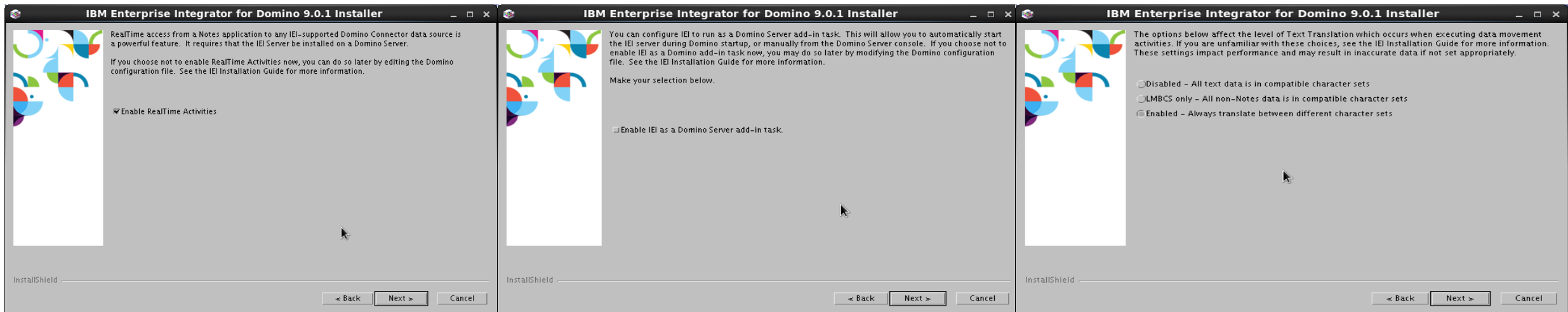
Installation of IEI on Linux

- The IEI failover cluster support screen appears. To provide clustering and failover support for your IEI activities, you can choose to install IEI into a failover cluster.
- The Additional Managers screen below appears. The Notes ID that you use while installing IEI is entered in the ACL for all the IEI databases created during installation.



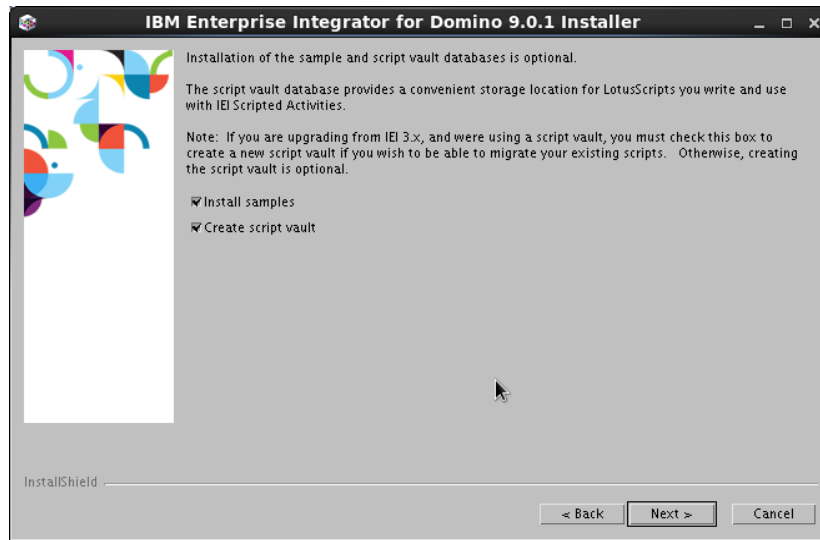
Installation of IEI on Linux

- IEI provides Advanced RealTime functionality in three forms - Virtual Fields, Virtual Documents, and Virtual Agents
- You can configure IEI to run as a Domino server add-in task.
- Specify how non-native text is translated across multilingual data communications environments.



Installation of IEI on Linux

- You can install the sample databases and/or script vault.
- The installer indicates in which directories the documentation, executables, samples, and script vault will be placed.



Installation of IEI on Linux

- The installer modifies the designated notes.ini file and performs the installation, displaying a bar that indicates percentage of installation completion.
- When installation is complete, you must stop and restart Domino before attempting to run this release of IEI. Click Finish to exit the installer.

Installation Documentation

Title: IBM Enterprise Integrator documentation

URL: <http://www.ibm.com/developerworks/lotus/documentation/lei/85x.html>

Note: Here is the website for install guide documentation.

Questions

Press *1 on your telephone to ask a question.

Visit our Support Technical Exchange page or our Facebook page for details on future events.

To help shape the future of IBM software, take this quality survey and share your opinion of IBM software used within your organization: <https://ibm.biz/BdxqB2>



IBM Collaboration Solutions Support page <http://www.facebook.com/IBMLotusSupport>



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http://twitter.com/IBM_ICSSupport