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Introduction

Welcome to EBSuite's online on-demand service suite of business applications.

This <LDAP Configuration> guide provides information and instructions to help you set up, and customize the LDAP Configuration feature.

Introduction

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Welcome to EBSuite

What is EBSuite's Online OnDemand Services?

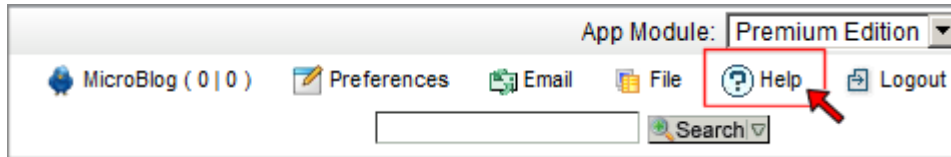
The EBSuite.com hosted suite of CRM business tools is subdivided by business job/task function. Each application can be used as a stand-alone independent business solution or as an integrated complete CRM solution for your business. Applications include:

- Marketing Automation/Campaign Management,
- Sales Force Automation,
- Customer Support/Help Desk and
- Project Management.

Using EBSuite Online Help

EBSuite's Online Help provides several options for accessing configuration and background information

- Our **Learning Center** is located: <http://www.ebsuite.com/iHelpLearn.jsp>
- The **Help** link is accessed in the upper right corner of the application.



- Search our **Knowledge Base** for solutions to “Frequently Asked Questions”,
the URL is: <http://helpdesk.ebsuite.com/supportfaq.jsp>
- Submit a **service request** to our support staff, the URL is: <http://helpdesk.ebsuite.com/support.jsp>
- Email our Technical Support staff at: support@ebsuite.com or call our Technical Support staff at 888.276.3270 option #2 or 888.CRM.EBS0 option#2.

LDAP Configuration

If you are setting up EBSuite as an internal corporate helpdesk solution, and your company's **employees are the primary service target**, then LDAP integration could be a very helpful add-on.

If you have your company employee's data in

- LDAP, or
- Database, or
- A flat file, available on a remote directory,

then EBSuite can use 'LDAP Integration' to read these sources, and provide the full employee information from within the CRM.

This chapter contains the following articles:

- [Not just LDAP: Database, File, and LDAP](#)
- [Terminology](#)
- [How does it work](#)
- [Setup LDAP Source](#)
- [Setup Database Source](#)
- [Setup File Source](#)
- [Search Data Source](#)
- [Retrieving Data](#)
- [Multiple Sources](#)
- [Contact Screen](#)

Not just LDAP: Database, File, and LDAP

We started this development as a strict LDAP integration. But as we take on more customer requests, we've also implemented Database (JDBC), and File integration. But the whole feature has kept its original name: "**LDAP Integration**", or "**LDAP Configuration**".

Your company's employee data could be stored in three different places:

Database:

If you have your employee data stored in a **database table**, or in a **database view** (joining multiple database tables), and the database can be connected from EBSuite instance, then we can configure the integration via a JDBC connection.

We do not require fixed schema for your database table/view columns. So your existing table/view will be supported.

UPI *	FIRST_NAME	LAST_NAME	MIDDLE_INITIAL	COMMON_NAME	EMAIL	TITLE
185786	Alejandra	Lauzon		Alejandra Lauzon	Alejandra.Lauzon@mycompany.com	
119795	Fernando	Crosswhite		Fernando Crosswhite	Fernando.Crosswhite@mycompany.com	
161879	Christian	Shelor		Christian Shelor	Christian.Shelor@mycompany.com	
162314	Neil	Larger		Neil Larger	Neil.Larger@mycompany.com	
107896	Carlene	Ruane		Carlene Ruane	Carlene.Ruane@mycompany.com	
162290	Rosalinda	Yagi		Rosalinda Yagi	Rosalinda.Yagi@mycompany.com	
134329	Hugh	Vanwyk		Hugh Vanwyk	Hugh.Vanwyk@mycompany.com	
118457	Darren	Cloer		Darren Cloer	Darren.Cloer@mycompany.com	
197571	Earnestine	Forbus		Earnestine Forbus	Earnestine.Forbus@mycompany.com	
188243	Benita	Guild		Benita Guild	Benita.Guild@mycompany.com	
159471	Melisa	Castonguay		Melisa Castonguay	Melisa.Castonguay@mycompany.com	
115815	Roslyn	Sweatman		Roslyn Sweatman	Roslyn.Sweatman@mycompany.com	

CSV File:

If you have your employee data stored in a flat **CSV File**, and the file directory can be connected from EBSuite either locally, or through a network mapped share, then we can configure the integration via the Network File.

We do not require fixed column definition for your CSV File. So your existing file will be supported.

0	10	20	30	40	50	60	70	80
1	Display	Name,	First	Name,	Last	Name,	Email,	UID
2	Alejandra	Lauzon,	Alejandra,	Lauzon,	Alejandra.	Lauzon@mycompany.com,	185786	
3	Fernando	Crosswhite,	Fernando,	Crosswhite,	Fernando.	Crosswhite@mycompany.com,	119795	
4	Christian	Shelor,	Christian,	Shelor,	Christian.	Shelor@mycompany.com,	161879	
5	Neil	Larger,	Neil,	Larger,	Neil.	Larger@mycompany.com,	162314	
6	Carlene	Ruane,	Carlene,	Ruane,	Carlene.	Ruane@mycompany.com,	107896	
7	Rosalinda	Yagi,	Rosalinda,	Yagi,	Rosalinda.	Yagi@mycompany.com,	162290	
8	Hugh	Vanwyk,	Hugh,	Vanwyk,	Hugh.	Vanwyk@mycompany.com,	134329	
9	Darren	Cloer,	Darren,	Cloer,	Darren.	Cloer@mycompany.com,	118457	
10	Earnestine	Forbus,	Earnestine,	Forbus,	Earnestine.	Forbus@mycompany.com,	197571	
11	Benita	Guild,	Benita,	Guild,	Benita.	Guild@mycompany.com,	188243	
12	Melisa	Castonguay,	Melisa,	Castonguay,	Melisa.	Castonguay@mycompany.com,	159471	
13	Roslyn	Sweatman,	Roslyn,	Sweatman,	Roslyn.	Sweatman@mycompany.com,	115815	
14	Lonnie	Mahabir,	Lonnie,	Mahabir,	Lonnie.	Mahabir@mycompany.com,	172873	
15	Guy	Rentschler,	Guy,	Rentschler,	Guy.	Rentschler@mycompany.com,	132419	

LDAP:

And of course if your employee data is stored in **LDAP**, there is an integration for that!

We will discuss in details how to setup these three sources in the following chapters.

Terminology

In this guide we will try to consistently use the following terminology, to avoid confusions.

- **Data Source:**

When we use the word Data Source, we are referring to the place that you store your employee data. Your Data Source can be LDAP / Database / Flat CSV File.

- **EBSuite CRM:**

The CRM system that you installed as your internal helpdesk solution.

For example, if you have 10,000 employees in your organization, and over the years (since you installed EBSuite) 600 of them have contacted support, there should be 10,000 records in your **Data Source**, and around 600 employees records in your **CRM**.

- **Attribute**

In your **Data Source**, each record will have many attributes. If your data source is LDAP, we are talking about *LDAP Attribute*. If your data source is Database, we are talking about column values. If your data source is File, we are talking about column value (in an Excel/CSV file).

- **Field**

The Field value in the EBSuite CRM system. This include built in fields and custom fields.

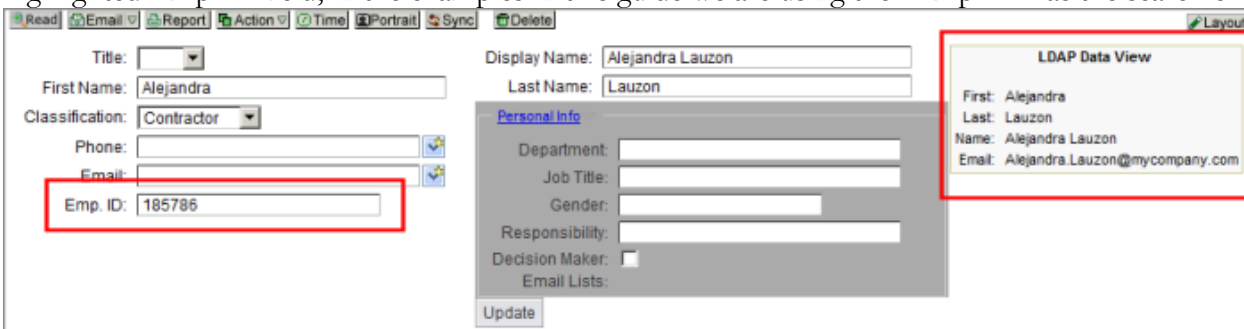
So keep in mind that we are always using "**Attribute**" with "**Data Source**" , and we always use "**Field**" with "**CRM**".

How does it work

There are several steps in configuring the LDAP integration.

- Configure access information. Specify how to connect to the LDAP/Database server, or where is the CSV File.
We will talk about this in more details in [Setup LDAP Source](#), [Setup Database Source](#), and [Setup File Source](#).
- Search: Configure how to find an entry (employee data) in the data source
For a Contact record in EBSuite CRM, we need to search the data source, and find a corresponding entry.
We will talk about this in more details in [Search Data Source](#).
- Retrieve: Configure what information to display, after we find the entry.
After we find an entry, we need to know what attributes to retrieve, and optionally, whether and how do we want to save them.
We will talk about this in more details in [Retrieving Data](#).

After we configured the above, we will see the "LDAP Data View" section in Contact Detail page. Notice the highlighted Emp.ID field, in the examples in this guide we are using the "Emp. ID" as the search criteria.



The screenshot displays the contact detail page for Alejandra Lauzon. The 'Emp. ID' field is highlighted in red. The 'LDAP Data View' section is also highlighted in red, showing the retrieved data for Alejandra Lauzon.

LDAP Data View	
First:	Alejandra
Last:	Lauzon
Name:	Alejandra Lauzon
Email:	Alejandra.Lauzon@mycompany.com

And please remember the terminology from the last chapter, when we are talking about "**Data Source**" we use "**Attribute**".

When we talk about "**CRM**" we use "**Field**".

Setup LDAP Source

Navigate to Account -> Setup -> LDAP -> LDAP Snapshot: Contact, click on "Create New".

(If you do not see 'LDAP' in Account -> Setup, please contact support@ebsuite.com)

You will need to get the LDAP connection information from your LDAP administrator.


The Host should always start with "**ldap://**" (without """)

IP address should also be OK for Host.

The standard LDAP port is 389 (standard), 636 (secure).

You can leave "Search URL" field empty.

Host Info

 Host can be "ldap://...", "file://...", or "jdbc:..." (without ""). For LDAP, port is needed. For FILE, port is ignored.

Host: Port: Secure

Base DN:

Search URL:

User Info

Username:

Password:

Setup Database Source

Navigate to Account -> Setup -> LDAP -> LDAP Snapshot: Contact, click on "Create New".

(If you do not see 'LDAP' in Account -> Setup, please contact support@ebsuite.com)

- In the [Host Info] section,

please enter into Host: "**jdbc:**" (without "") followed by the JDBC connection string to the said database.
please enter into Base DN: the table/view name which contains your employee information.

- In the [User Info] section

please enter into Username & Password: the username & password required to access your database.
for example, in MySQL the username could be root, and the password the one you have chosen when setting up MySQL.

In the screenshot below, we have a MySQL database, sitting on the same server as the CRM. Database schema "**ldap**", table name "AL_EAI_EMPLOYEES", and database authentication ***/**/***

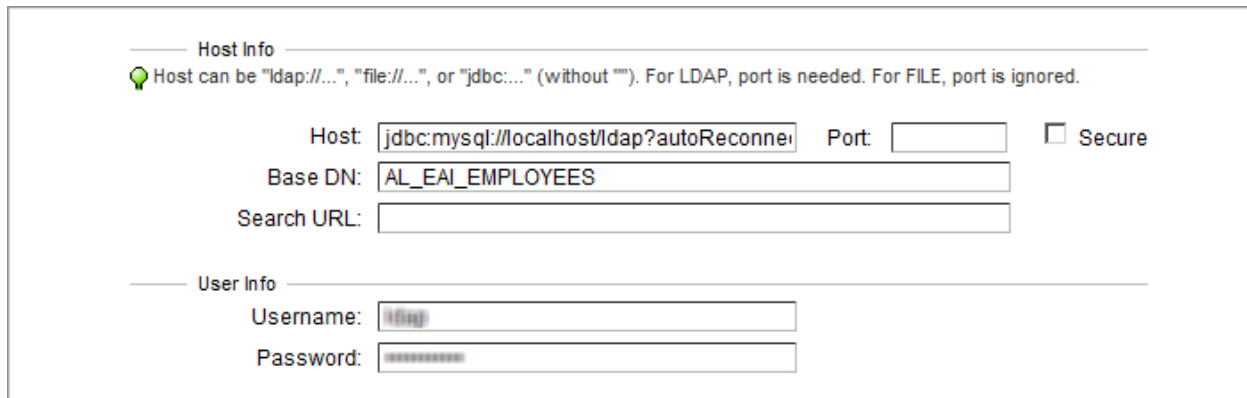
therefore the JDBC connection string in host is

`jdbc:mysql://localhost/ldap?autoReconnect=true`

and Base DN is

`AL_EAI_EMPLOYEES`

and in [User Info] the Username & Password is also filled in.



The screenshot shows a configuration form with two main sections: "Host Info" and "User Info".

Host Info:

- Host: Port:
- Base DN:
- Search URL:
- Secure:

User Info:

- Username:
- Password:

You can leave Port , Secure, Search URL field all empty.

Here is a 'Toad for MySQL' snapshot of the database table:

UPI *	FIRST_NAME	LAST_NAME	MIDDLE_INITIAL	COMMON_NAME	EMAIL	TITLE
185786	Alejandra	Lauzon		Alejandra Lauzon	Alejandra.Lauzon@mycompany.com	
119795	Fernando	Crosswhite		Fernando Crosswhite	Fernando.Crosswhite@mycompany.com	
161879	Christian	Shelor		Christian Shelor	Christian.Shelor@mycompany.com	
162314	Neil	Larger		Neil Larger	Neil.Larger@mycompany.com	
107896	Carlene	Ruane		Carlene Ruane	Carlene.Ruane@mycompany.com	
162290	Rosalinda	Yagi		Rosalinda Yagi	Rosalinda.Yagi@mycompany.com	
134329	Hugh	Vanwyk		Hugh Vanwyk	Hugh.Vanwyk@mycompany.com	
118457	Darren	Cloer		Darren Cloer	Darren.Cloer@mycompany.com	
197571	Earnestine	Forbus		Earnestine Forbus	Earnestine.Forbus@mycompany.com	
188243	Benita	Guild		Benita Guild	Benita.Guild@mycompany.com	
159471	Melisa	Castonguay		Melisa Castonguay	Melisa.Castonguay@mycompany.com	
115815	Roslvn	Sweatman		Roslvn Sweatman	Roslvn.Sweatman@mycompany.com	

Setup File Source

Navigate to Account -> Setup -> LDAP -> LDAP Snapshot: Contact, click on "Create New".

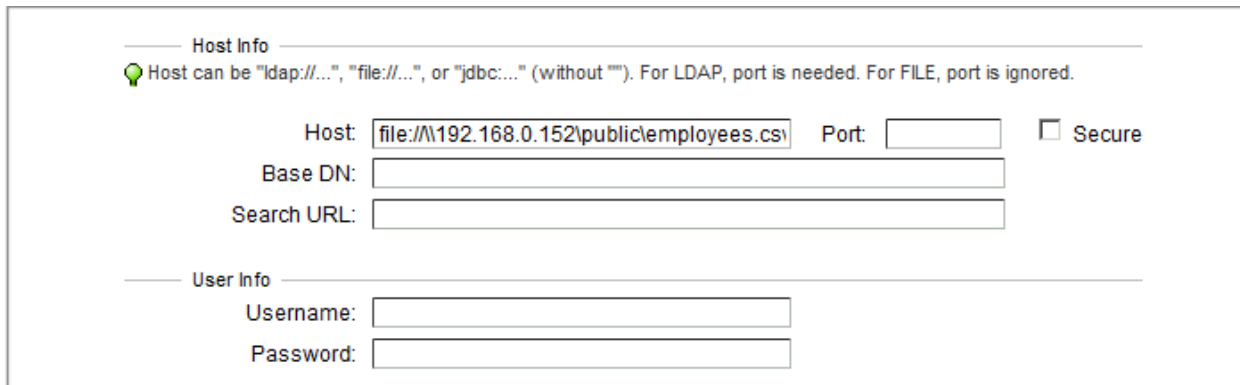
(If you do not see 'LDAP' in Account -> Setup, please contact support@ebsuite.com)

In the [Host Info] section, please enter into Host:

"file:///" (without "") followed by the network path of the CSV file.

In the screenshot below, we have a windows network file system, and on \\192.168.0.152\public\ we have the CSV file employees.csv. In this example the full host value would be

<file://\\192.168.0.152\public\employees.csv>



The screenshot shows a configuration form with two main sections: "Host Info" and "User Info".

Host Info:

- Host:
- Port:
- Secure
- Base DN:
- Search URL:

User Info:

- Username:
- Password:

You can leave Port , Secure, Base DN, Search URL field all empty. Username & Password in [User Info] should also be left empty.

Here is a Excel snapshot of the CSV file.

	A	B	C	D	E	F	G
1	Display Name	First Name	Last Name	Email	UID		
2	Alejandra Lauzon	Alejandra	Lauzon	Alejandra.Lauzon@mycompany.com	185786		
3	Fernando Crosswhite	Fernando	Crosswhite	Fernando.Crosswhite@mycompany.com	119795		
4	Christian Shelor	Christian	Shelor	Christian.Shelor@mycompany.com	161879		
5	Neil Larger	Neil	Larger	Neil.Larger@mycompany.com	162314		
6	Carlene Ruane	Carlene	Ruane	Carlene.Ruane@mycompany.com	107896		
7	Rosalinda Yagi	Rosalinda	Yagi	Rosalinda.Yagi@mycompany.com	162290		
8	Hugh Vanwyk	Hugh	Vanwyk	Hugh.Vanwyk@mycompany.com	134329		
9	Darren Cloer	Darren	Cloer	Darren.Cloer@mycompany.com	118457		
10	Earnestine Forbus	Earnestine	Forbus	Earnestine.Forbus@mycompany.com	197571		
11	Benita Guild	Benita	Guild	Benita.Guild@mycompany.com	188243		
12	Melisa Castonguay	Melisa	Castonguay	Melisa.Castonguay@mycompany.com	159471		
13	Roslyn Sweatman	Roslyn	Sweatman	Roslyn.Sweatman@mycompany.com	115815		

Search Data Source

After we have setup the data source connection information, it's time to configure how do we want to search it.

To find an entry (employee) in your data source, we need to do a search, that match a **CRM Field**, with your **Data Source Attribute**. In the example in this guide, we will assume

- You have a Custom Field called 'Emp.ID' (Account -> Setup -> Custom Field -> Contact)
- You have a Attribute in your data source called 'UPI'
- And we specify (Emp.ID = UPI) as the matching criteria.

LDAP Sync Record Identification

You will need to map one or more Source Attribute(s) to CRM Field(s) so we can perform the search.

Source Attribute	Field	Wildcard Search
UPI	Emp. ID	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

In '[How does it work](#)' chapter , we had the following screenshot:

Read | Email | Report | Action | Time | Portrait | Sync | Delete | Layout

Title: [dropdown]
First Name: Alejandra
Classification: Contractor
Phone: [input]
Email: [input]
Emp. ID: 185786

Display Name: Alejandra Lauzon
Last Name: Lauzon

Personal Info
Department: [input]
Job Title: [input]
Gender: [input]
Responsibility: [input]
Decision Maker:
Email Lists: [input]

Update

LDAP Data View
First: Alejandra
Last: Lauzon
Name: Alejandra Lauzon
Email: Alejandra.Lauzon@mycompany.com

Here we have a Contact (Employee) record " Alejandra / Lauzon / Alejandra Lauzon /". If we put in his Custom Field value (Emp.ID = '185786'), the CRM will automatically do a search in your Data Source, and look for Attribute UPI = '185786'. If there is a result, we display it in the Contact Detail screen.


In this example the LDAP Data View is really simple. In real world cases there can be hundreds of attributes in your data source. We will see how to select what attributes to show in the [next chapter](#).

Note: *Company Email Address* can also be a common matching criteria. Or you can do combinations, Like *FirstName + LastName*. In the latter example, we will need two attributes from your data source, one that maps to built-in CRM field *FirstName*, one maps to built-in CRM field *LastName*.

Multiple Sources

You can setup multiple sources. Each data source is given a sequence number. The lower sequence number will be examined first. We will search each data source until we find a match.

Each source can of course have its own search criteria.

 **LDAP Snapshot**

Source	Sequence	Delete
file://\192.168.0.152\public\employees.csv	<input type="text" value="0"/>	<input type="checkbox"/>
jdbc:mysql://localhost/ldap?autoReconnect=true	<input type="text" value="5"/>	<input type="checkbox"/>
jdbc:mysql://localhost/oz?autoReconnect=true	<input type="text" value="6"/>	<input type="checkbox"/>
ldap://ldap.yourcompany.com	<input type="text" value="10"/>	<input type="checkbox"/>

Contact Screen

You have already seen the Contact Detail screen, when a LDAP data pull happens.

The screenshot displays a web application interface for a contact detail screen. At the top, there is a navigation bar with icons for Read, Email, Report, Action, Time, Portrait, Sync, and Delete. The main content area is divided into several sections:

- Form Fields:** Title (dropdown), First Name (Alejandra), Classification (Contractor), Phone, Email, and Emp. ID (185786). The Emp. ID field is highlighted with a red box.
- LDAP Data View:** A separate window on the right, also highlighted with a red box, showing the following information:
 - First: Alejandra
 - Last: Lauzon
 - Name: Alejandra Lauzon
 - Email: Alejandra.Lauzon@mycompany.com
- Personal Info:** A section with fields for Department, Job Title, Gender, Responsibility, Decision Maker (checkbox), and Email Lists.
- Update:** A button at the bottom of the Personal Info section.

The only things that you may want to consider here :

- Make sure you use page layout, to configure Contact Detail screen to '**Two Columns**'. Three Columns plus LDAP Data View is just too wide, unless you have a super high resolution monitor.
- Make sure you use page layout, to put the CRM Field used in LDAP Search (Emp.ID) in both **Contact Detail**, and **Contact New** screen.
- Make sure you use page layout, to make the CRM Field used in LDAP Search (Emp.ID) a **required field** when creating a new Contact.