INFORMATICA

Informatica Cloud Connector for LinkedIn

User Guide

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Contents

1.Introduction 3

2. LinkedIn Adapter 4

3. Objects / Operation Matrix 4

4. Filter fields 4

5. LinkedIn Configuration 7

6. DSS Task – Multiple Source Object 8

7. LinkedIn Application Creation 8

8. Debugging 10

8.1 Configuration 10

8.2 Creating DSS Task 10

8.3 Running DSS Task 10

Appendix A 11

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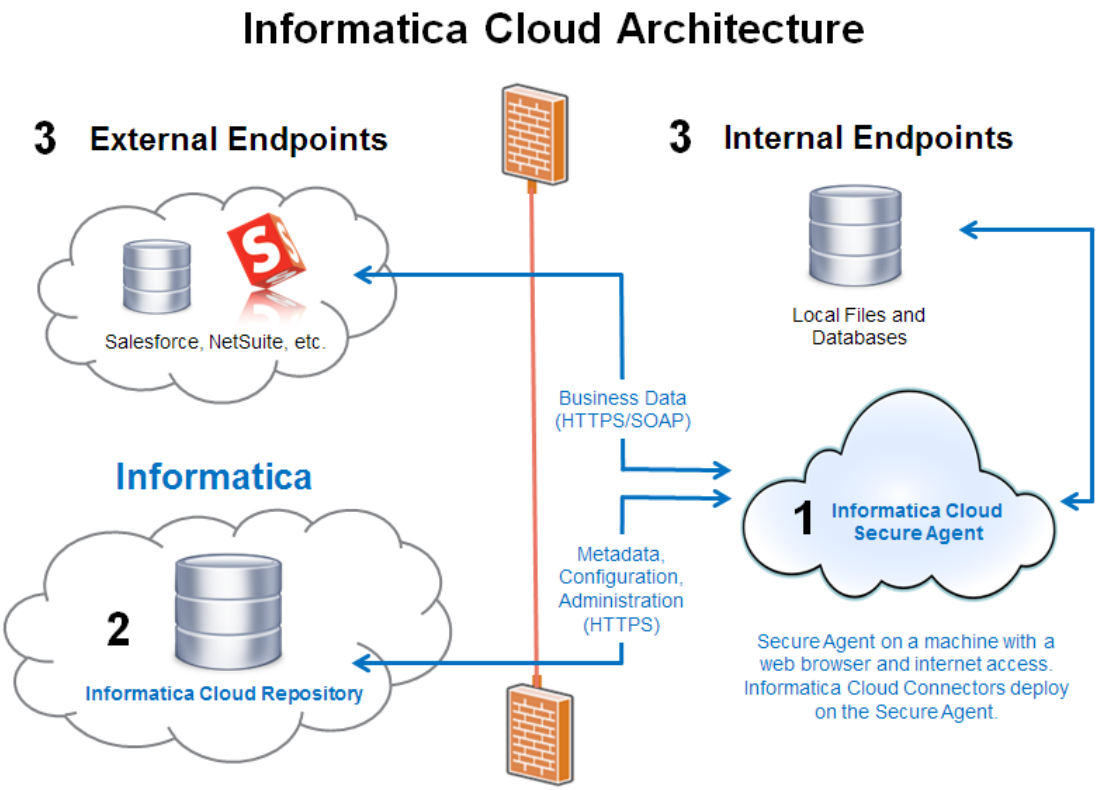
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1. Introduction

Informatica Cloud Connector SDKs are off-cycle, off-release "add-ins" that provide connectivity to SaaS and on-premise applications not supported natively in Informatica Cloud. Connector SDKs can be enabled anytime for your cloud Organization Id, and are designed to address common use cases – including getting data in to, and out of, the supported application.

Connector SDKs do not require any separate software installation on the Informatica Cloud Secure Agent machine. The Connector SDK uses an internal Java application to communicate with the Secure Agent.



Once you have enabled the Connector SDK software for your org Id, you will create a connection in Informatica Cloud to access the LinkedIn Connector.

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2. LinkedIn Adapter

- LinkedIn is a directory of professionals and companies. Individuals and companies use LinkedIn for networking, job searching, hiring, company research, and connecting with affiliates, including alumni, industry, and a variety of other business related groups.
- Informatica LinkedIn Adapter would help users
    - Fetch people, people education and experience from LinkedIn,
    - Fetch the information about various companies and company products from LinkedIn
- This Adapter supports only the Equals operator filter.

3. Objects / Operation Matrix

The supported objects and operations for the LinkedIn Connector are listed in the table, below:

Objects	DSS Source	DSS Target	Select(Task Source)	Insert	Update	Upsert	Delete	LookUp	Data Preview
People	X	NA	X	NA	NA	NA	NA	X	X
PeopleEducation	X	NA	X	NA	NA	NA	NA	X	X
PeopleExperience	X	NA	X	NA	NA	NA	NA	X	X
Company	X	NA	X	NA	NA	NA	NA	X	X
CompanyProduct	X	NA	X	NA	NA	NA	NA	X	X

Note: For objects People, PeopleEducation and PeopleExperience in data preview first 10, first level connection detail is fetched. The data retrieved is based on the member chosen to provide and their privacy settings.

4. Filter fields

When fetching information from LinkedIn, you can filter the data based on people first-name, last-name, company email domain etc.Below example will help you setup filters in LinkedIn Connector for Informatica Cloud.

Note: Only Equals Filter Criteria is ssupported because LinkedIn API does not have the capability to support any other criteria. To run a task any filter value is required and records are fetched based on the application access rights provided by LinkedIn.

Object	Filter Column	Definition	Values
People, People Education, People Experience	FilterFilePath	Specifies the location of the filter file	C:\Test\LinkedIn\PeopleSearch.csv
	PassThrough1	Index reference 1. This filed is available in filter file and not in data filter.	
	PassThrough2	Index reference 2. This filed is available in filter file and not in data filter.	
	Keywords	Members who have all the keywords anywhere in their profile, including name. Use this field if you have a name that you don't know how to accurately split into a first and last name	Mao Ze Dong or Jennifer Love Hewitt. Multiple words should be separated by a space.
	FirstName	Members with a matching first name. Matches must be exact. Multiple words should be separated by a space.	
	LastName	Members with a matching last name. Matches must be exactly. Multiple words should be separated by a space	

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	Company Name	Members who have a matching company name on their profile. company-name can be combined with the current-company parameter to specifies whether the person is or is not still working at the company. it's often valuable to not be too specific with the company name. LinkedIn has made great efforts at standardizing company names, but including suffixes such as "Inc" and "Company" may overly limit your search, missing people who did not include those suffixes on their company names. It's usually better to search for the basic name of the company and all different versions will be returned. This does increase the possibility of a false positive match return, though, so consider the most specific terms you can use. For example, consider using "Acme" instead of "Acme, Inc" to find people from a company called Acme, Inc. But this runs the risk of finding people from different companies with Acme in the title, such as "Acme Vending" and "Acme Services".	
	Current Company	A value of true matches' members who currently work at the company specified in the company-name parameter. A value of false matches members who once worked at the company. Omitting the parameter matches members who currently or once worked the company.	Valid values are 1 or 0 which represents true and false respectively. In filter file any value other than 1 and true is considered as false
	Title	Matches members with that title on their profile. Works with the current-title parameter	
	Current Title	Valid values are true or false. A value of true matches' members whose title is currently the one specified in the title-name parameter. A value of false matches members who once had that title. Omitting the parameter matches members who currently or once had that title.	Valid values are 1 or 0 which represents true and false respectively. In filter file any value other than 1 and true is considered as false
	School Name	Members who have a matching school name on their profile. School-name can be combined with the current-school parameter to specify whether the person is or is not still at the school.	
	Current School	A value of true matches' members who currently attend the school specified in the school-name parameter. A value of false matches members who once attended the school. Omitting the parameter matches members who currently or once attended the school.	Valid values are 1 or 0 which represents true and false respectively. In filter file any value other than 1 and true is considered as false
	Country Code	Matches members with a location in a specific country. Values are defined in by ISO 3166 standard. Country codes must be in all lower case.	
	Postal Code	Matches members centered around a Postal Code. Must be combined with the country-code parameter. Not supported for all countries	
	Distance	Matches members within a distance from a central point. This is measured in miles. This is best used in combination with both country-code and postal-code.	

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	Location	A geographical region. This is not necessarily a country. It could be a city or regional area, such as San Francisco Bay Area	A geographical code, such as us:84 for San Francisco Bay Area or fr:0 for France.
	Industry	An industry field.	https://developer.linkedin.com/documents/industry-codes
	Network	A specific relationship to the member's social network:	There are four values F: First degree connections S: Second degree connections A: Inside one of your groups O: Out-of-network connections Note: To return results from Groups (A) or Out-of-network connections (O), you must provide both thefirst-name and last-name parameters.
	Language	A member locale set to a specific language:	There are seven values en: English es: Spanish fr: French de: German it: Italian pt: Portuguese _o: Others
	Sort	Controls the search result order. There are four options	1. Connections 2. Recommenders 3. Distance 4. Relevance
Company, Company Product	FilterFilePath	Specifies the location of the filter file	C:\Test\LinkedIn\PeopleSearch.csv
	PassThrough1	For the reference as port 1. This filed is available in filter file and not in data filter.	
	PassThrough1	For the reference as port 2. This filed is available in filter file and not in data filter.	
	Email Domain	Company email domain	Eg: informatica.com
	Keywords	Companies that have all the keywords anywhere in their listing. Multiple words should be separated by a space.	
	Hq Only	Matching companies by the headquarters location. When this is set to "true" and a location facet is used, this restricts returned companies to only those whose headquarters resides in the specified location.	1 or True is considered to be “True” all other values are considered as “False”. In filter file any value other than 1 and true is considered as false
	Location	A geographical region. This is not necessarily a country. It could be a city or regional area, such as San Francisco Bay Area.	A geographical code, such as us:84 for San Francisco Bay Area or fr:0 for France
	Industry	An industry field.	https://developer.linkedin.com/documents/industry-codes
	Network	Collection of companies based on relationship.	F: First degree connections S: Second degree connections A: Inside one of your groups O: Out-of-network connections Note: You cannot do an out-of-network connection search without also providing at least one search parameter, such as keywords, first-name, etc. In these cases,

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			the result set will be silently modified to an in-network search.
	Company size	The company collection based on size range specified.	Valid values are: B: 1-10 C: 11-50 D: 51-200 E: 201-500 F: 501-1000 G: 1001-5000 H: 5001-10,000 I: 10,000+
	Fortune	The company collection based on the Fortune ranking.	Eg: 100
	Sort	Controls the search result order. There are four options	1. Connections 2. Recommenders 3. Distance 4. Relevance

Note: For Company and Company Product search, filter by universal name, email domain or other parameters. The priority for filter by provided by below order universal name, email domain and other parameters.

5. LinkedIn Configuration

To create a LinkedIn connection, follow the steps listed below:

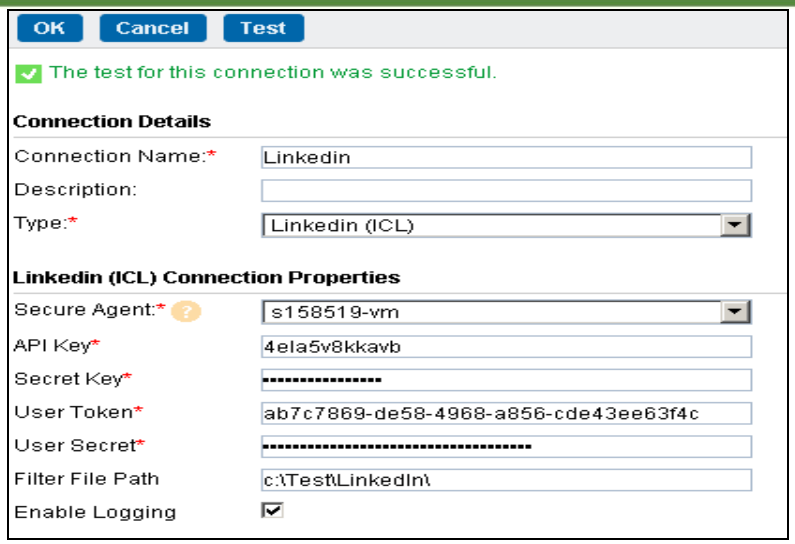
1. Click Configuration > Connections > New.
2. On the New Connection page, enter the information listed in the table below.
3. To test the connection, click **Test**.
4. To save the connection , click **Ok**.

Connection Property	Description
Connection Name	Name of the connection.
Type	Type of connection, select LinkedIn.
Secure Agent	Secure Agent where you have installed the LinkedIn connector.
API Key	Application API Key
Secret Key	Application API Secret Key
User Token	Applications OAuth User token
User Secret	Applications OAuth User secret key
Filter File Path*	Location where the filter file template to be generated.
Enable Logging	Flag to enable and disable the logging debug messages.

*Filter File template contents will be cleared except the header while you run the task or create connection. Take a copy of it, change the file name and use it as filter parameter.

Below attached is a sample screenshot:

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6. DSS Task – Multiple Source Object

Steps to create a DSS task for multiple source objects are same as general task except at the source layer. At the source layer select the source type as "Multiple".

Parent	Child
People	PeopleEducation, PeopleExperience
PeopleEducation	NA
PeopleExperience	NA
Company	NA
CompanyProduct	NA

7. LinkedIn Application Creation

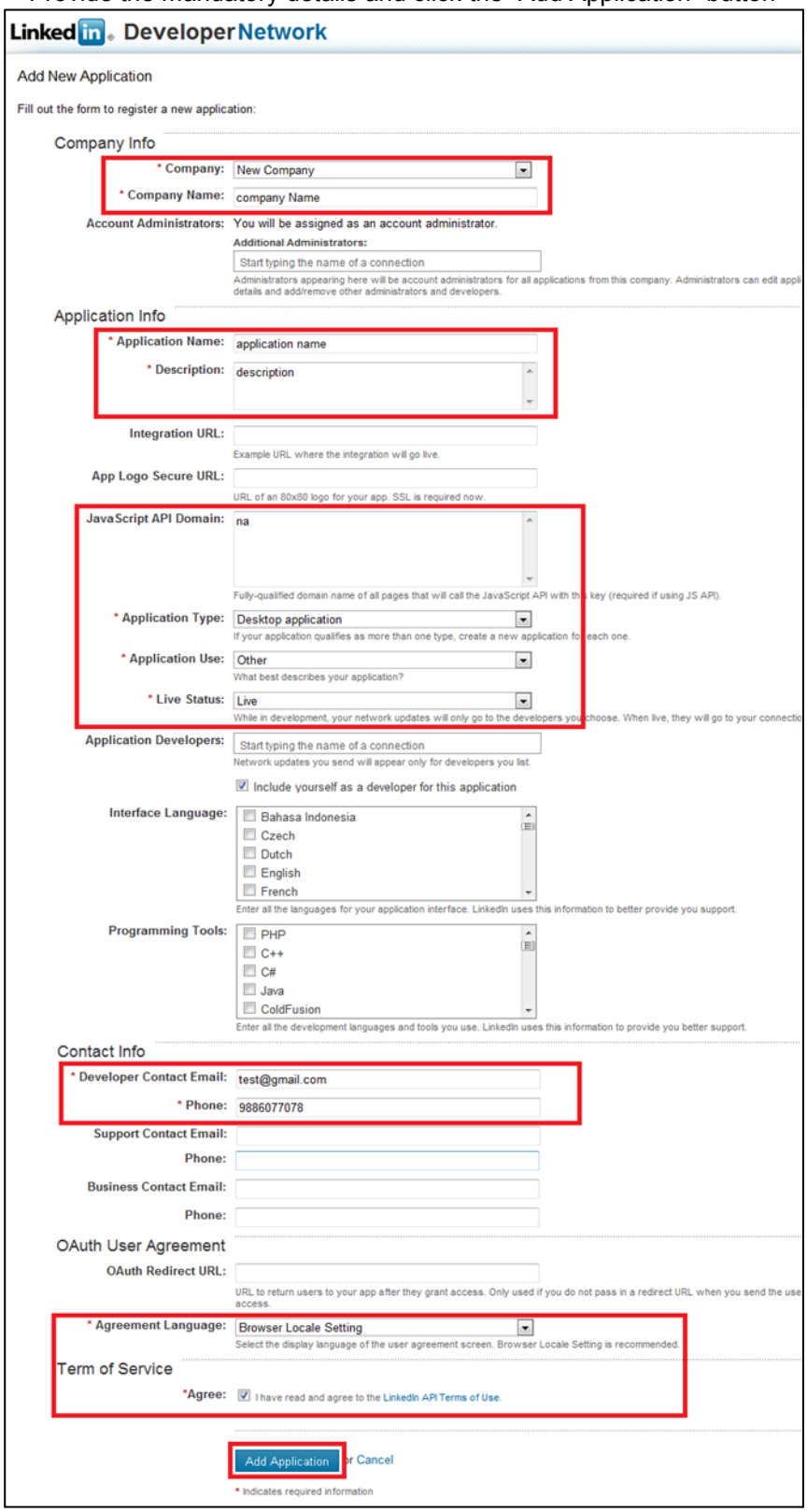
Step 1: Register your application in LinkedIn and get the API key and secret

- Use the URL and login with your LinkedIn credentials "https://www.linkedin.com/secure/developer"
- Click on "Add New Application"



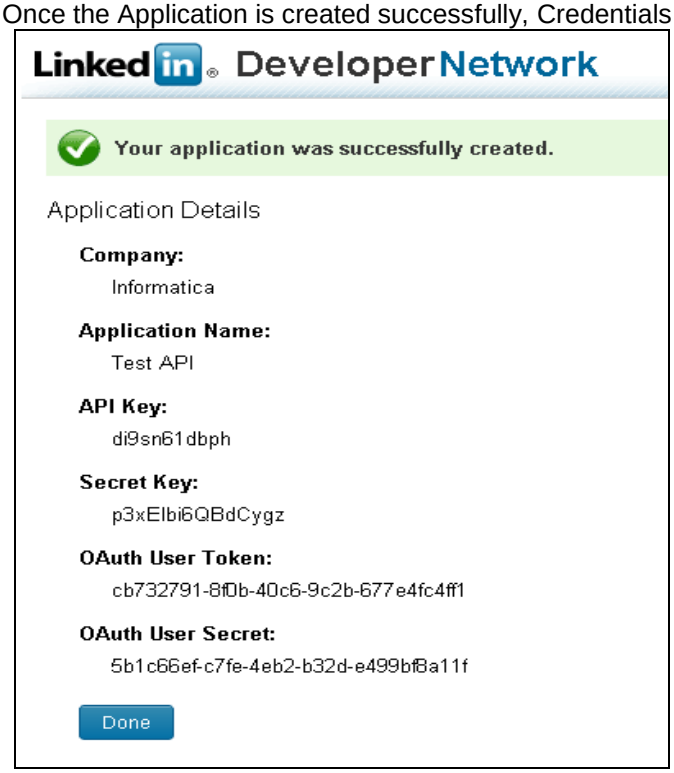
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- Provide the mandatory details and click the “Add Application” button



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- Once the Application is created successfully, Credentials will be populate as shown below.



8. Debugging

Follow below steps to debugg the connector to identify the root cause of the issue been face:

8.1 Configuration

Log and Exception messages thrown during the configuration is captured in the log files. The log files will be available in below locaiton. The log file name, is name of the connector appended with the time stamp.
Eg. C:\Program Files\Informatica Cloud Secure Agent\main\tomcat\log\<connectorname><date & time stamp>

8.2 Creating DSS Task

While creating a Data Synchronization task “null” error message will be thrown when a connector with invalid configuration is selected. The exception details will be available in the above mentioned locaiton.

8.3 Running DSS Task

When a DSS task faield the exception and log details will be captured under the “Session Log”. To run the application in debug mode required special permission from the administrator.

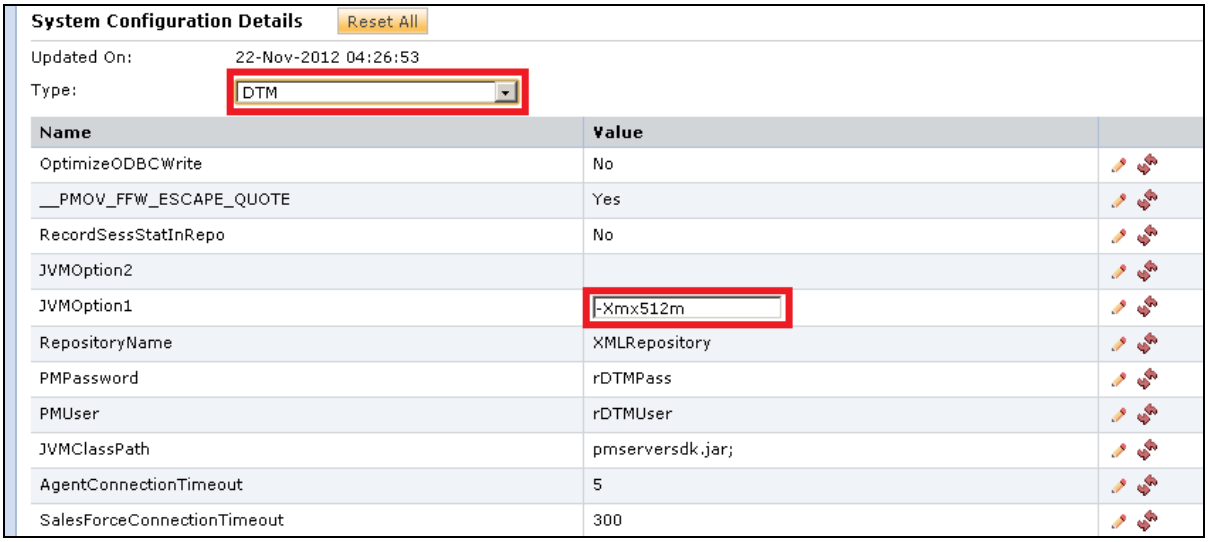
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Appendix A

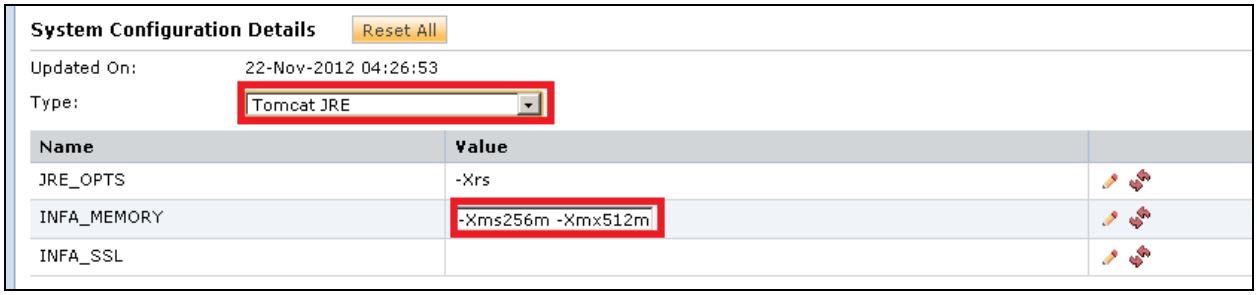
Steps to increase the memory size to overcome out of memory issues:

Step 1: Go to Configuration > Secure Agents >and edit the agent installed with the LinkedIn connector.

Step 2: Under system configuration detail select DTM as type and set JVM Option 1 as “-Xmx512m”



Step 3: Under system configuration detail select Tomcat JRE as type and set INFA_memory as “-Xms256m -Xmx512m”



Step 4: Click “Ok” button to save the changes.

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