Informatica Power Center 9.0.1
Informatica Load Balancing Lab Guide 35

Description:

BISP is committed to provide BEST learning material to the beginners and advance learners. In the same series, we have prepared a complete end-to end Hands-on Guide for building financial data model in Informatica. The document focuses on how the real world requirement should be interpreted. The mapping document template with very simplified steps and screen shots makes the complete learning so easy. The document show required details to implement Informatica Load Balancing. Join our professional training program and learn from experts.
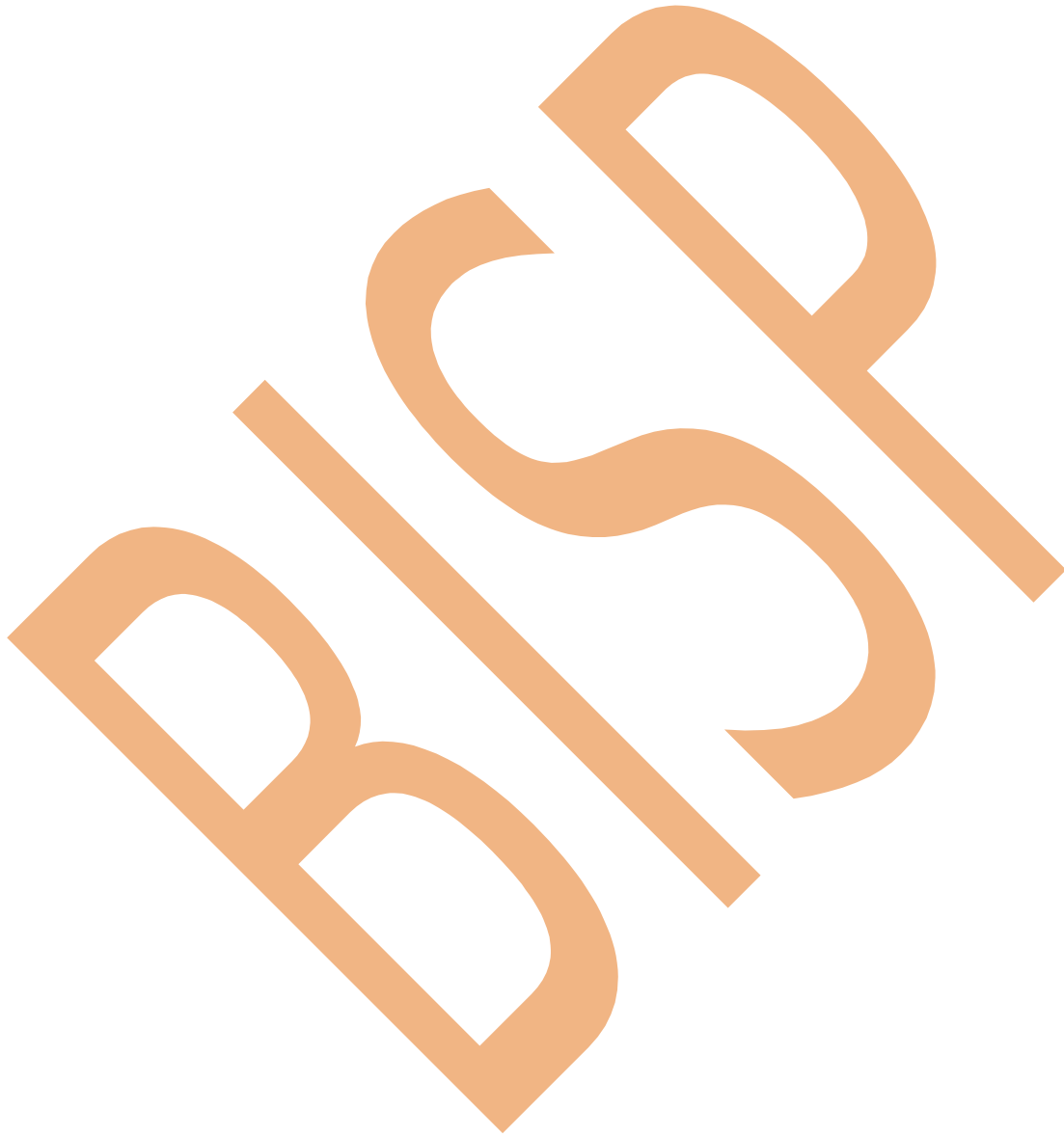
History:

Version	Description Change	Author	Publish Date
0.1	Initial Draft	Upendra Upadhyay	12th Aug 2011
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Contents

Introduction

Load Balancer is a component of the Integration Service that dispatches Session, Command, and predefined Event-Wait tasks across nodes in a grid. Dispatch Mode is the mode used by the Load Balancer to dispatch tasks to nodes in a grid.

A dispatch mode in which the Load Balancer dispatches tasks to the node with the most available CPUs is called Adaptive Dispatch Mode. A dispatch mode in which the Load Balancer checks current computing load against the resource provision thresholds and then dispatches tasks in a round-robin fashion to nodes where the thresholds are not exceeded is called Metric-based Dispatch Mode. A dispatch mode in which the Load Balancer dispatches tasks to available nodes in a round-robin fashion up to the Maximum Processes resource provision threshold is called Round-robin Dispatch Mode.

The following concepts describe Load Balancer functionality:

Dispatch process
The Load Balancer performs several steps to dispatch tasks.

Resources The Load Balancer can use PowerCenter resources to determine if it can dispatch a task to a node.

Resource provision thresholds: The Load Balancer uses resource provision thresholds to determine whether it can start additional tasks on a node.

Dispatch mode: The dispatch mode determines how the Load Balancer selects nodes for dispatch.

Service levels: When multiple tasks are waiting in the dispatch queue, the Load Balancer uses service levels to determine the order in which to dispatch tasks from the queue.
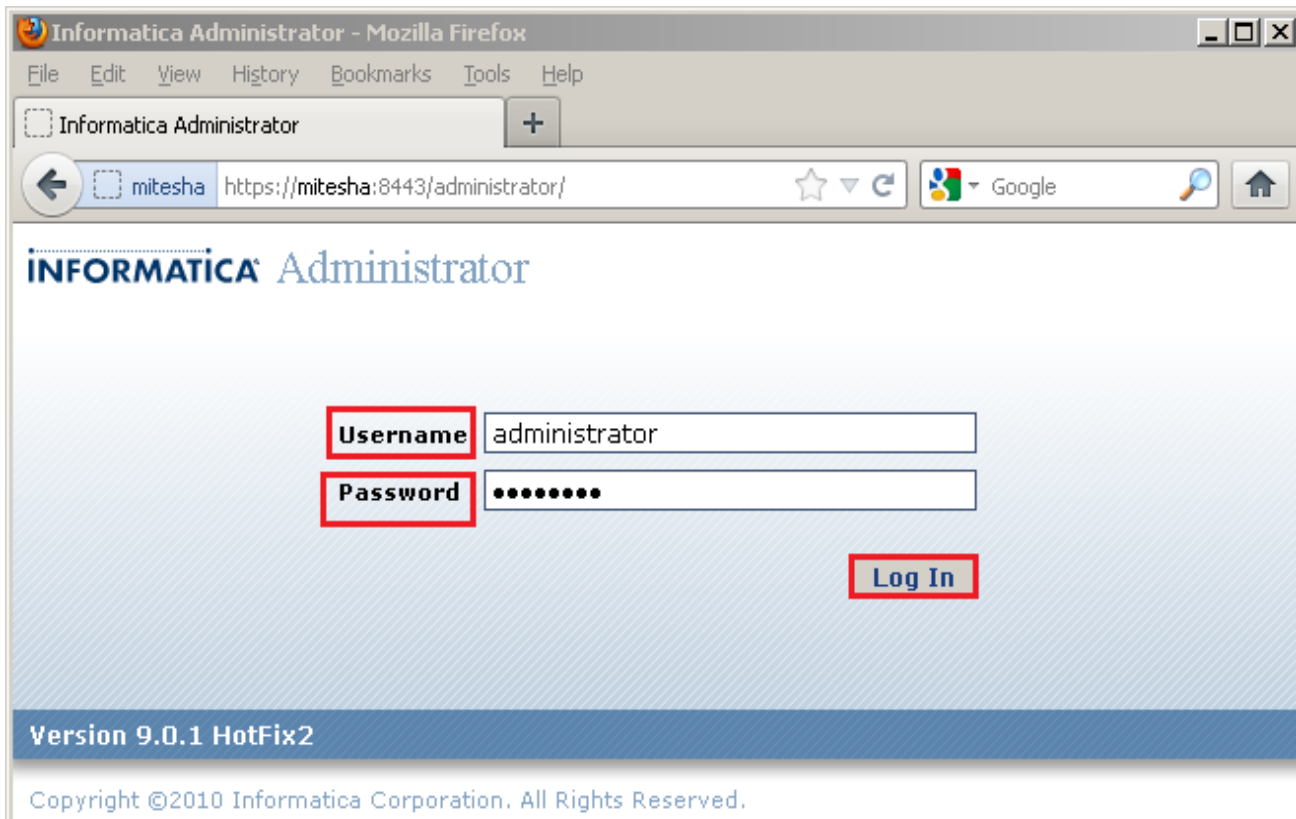
Steps Implementing Load Balancing in Informatica

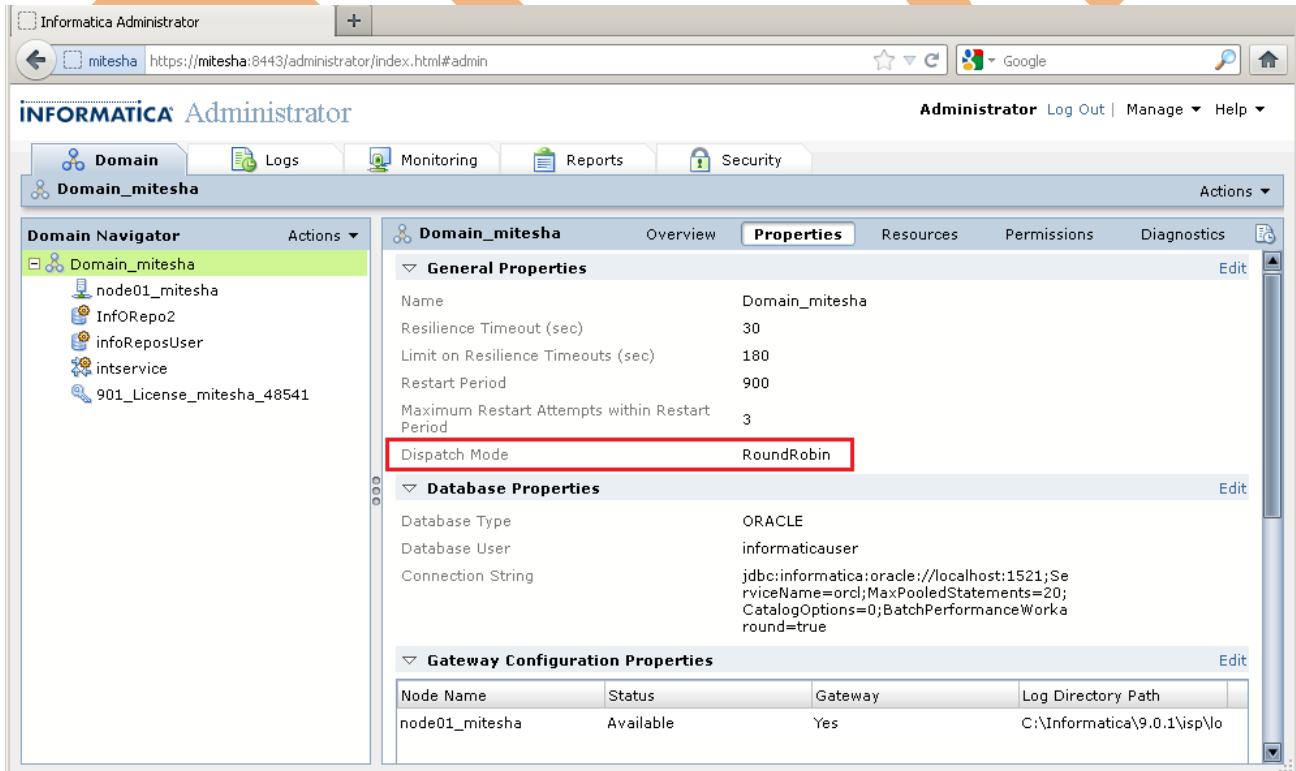### Check Informatica PowerCenter Dispatch Mode

Step-1 Open Informatica Administrator, Click on Start ⇨ All Programs ⇨ Informatica 9.0.1 ⇨ Server ⇨ Informatica Administrator Home Page.
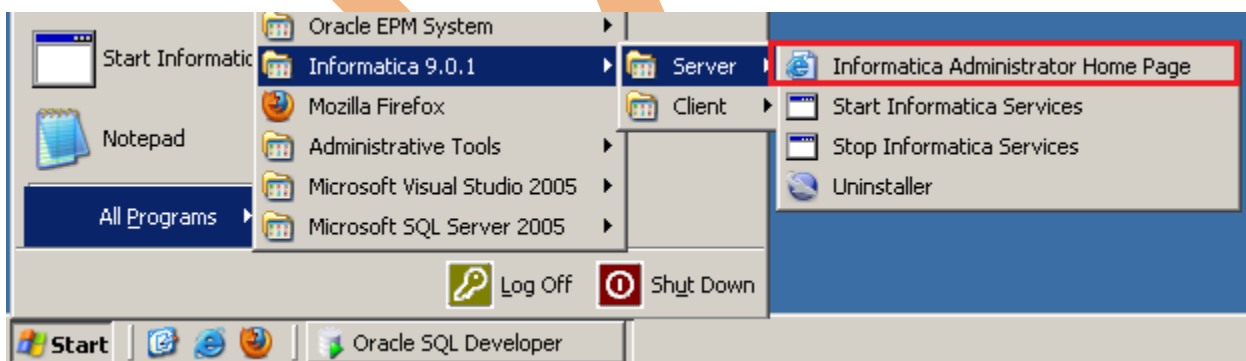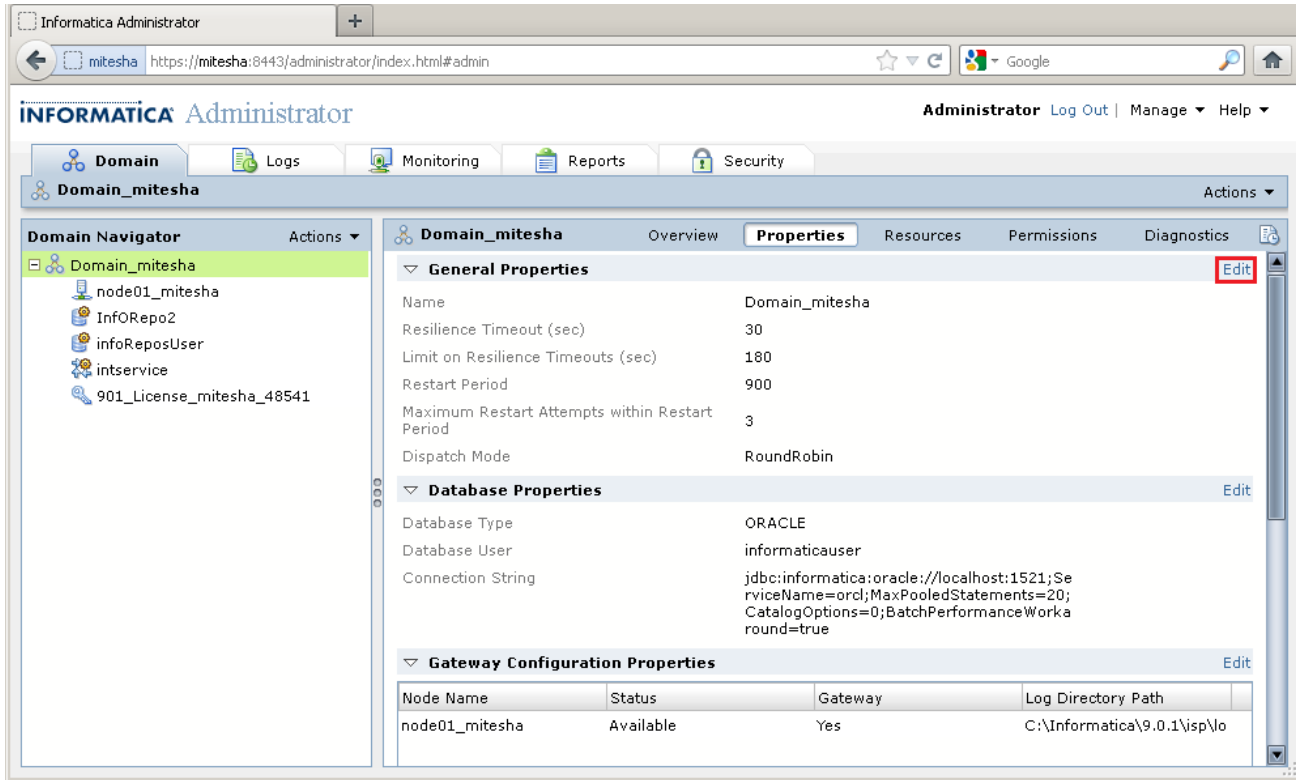

Step-2 Now specify Username and Password to connect admin console and then click on Log In Button.

Step-3 Select domain and go to Properties tab and now can see Dispatch Mode.

Step-4 If you want to edit Dispatch mode and click on Edit option and then select Dispatch mode.

Step-5 Now you can select Dispatch Mode. Basically Dispatch Mode used by Load Balancer to dispatch tasks to nodes in a grid.
There are three types of dispatch mode
- ➢ Round Robin
- ➢ Adaptive
- ➢ Metric Based
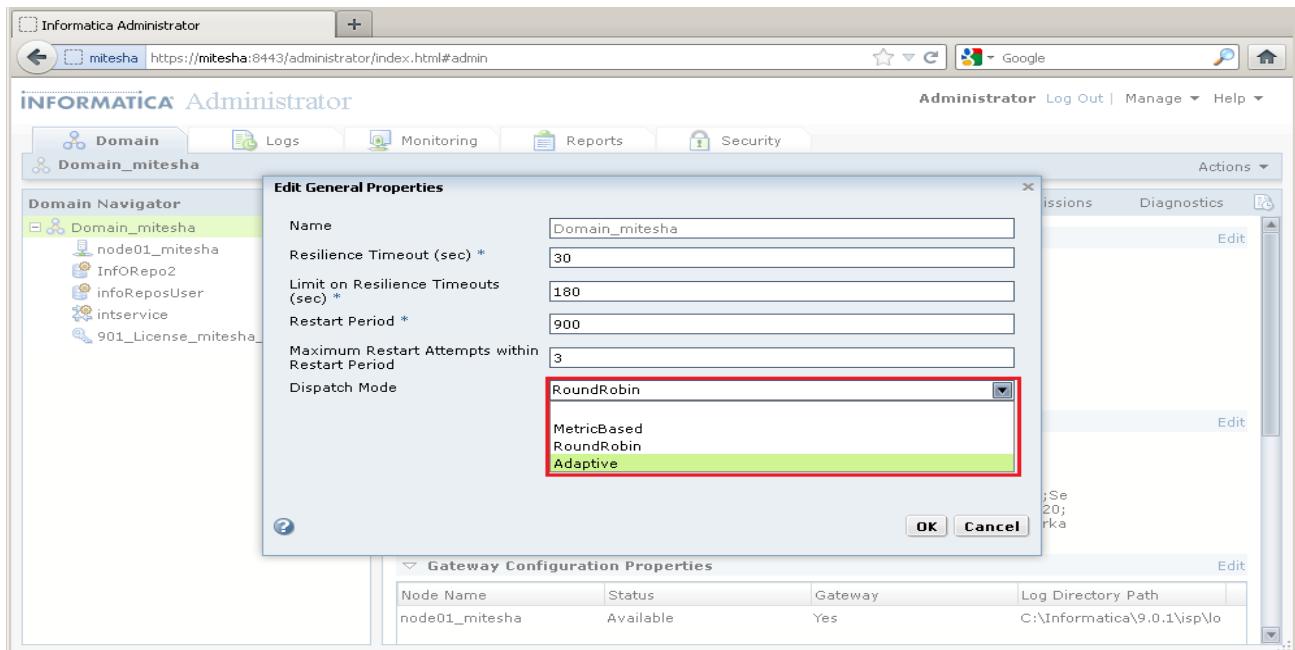
Dispatch Process
The Load Balancer uses different criteria to dispatch tasks depending on whether the PowerCenter Integration Service runs on a node or a grid.

Dispatch Tasks on a Node
When the PowerCenter Integration Service runs on a node, the Load Balancer performs the following steps to dispatch a task:
1. The Load Balancer checks resource provision thresholds on the node. If dispatching the task causes any threshold to be exceeded, the Load Balancer places the task in the dispatch queue, and it dispatches the task later.
The Load Balancer checks different thresholds depending on the dispatch mode.
2. The Load Balancer dispatches all tasks to the node that runs the master PowerCenter Integration

Dispatch Tasks Across a Grid
When the PowerCenter Integration Service runs on a grid, the Load Balancer performs the following steps to determine on which node to run a task:
1. The Load Balancer verifies which nodes are currently running and enabled.
2. If you configure the PowerCenter Integration Service to check resource requirements, the Load Balancer identifies nodes that have the PowerCenter resources required by the tasks in the workflow.
3. The Load Balancer verifies that the resource provision thresholds on each candidate node are not exceeded. If dispatching the task causes a threshold to be exceeded, the Load Balancer places the task in the dispatch queue, and it dispatches the task later.
The Load Balancer checks thresholds based on the dispatch mode.
4. The Load Balancer selects a node based on the dispatch mode.

What is LB Tracing ? Why?

- ➢ LB tracing enables exclusive logging of the process followed by the Load balancer in dispatching a job.
- ➢ It provides Information about when a job run request is received, the list of resources available at each node.
- ➢ It provides accurate information regarding what causes a session task go waiting mode during dispatch.
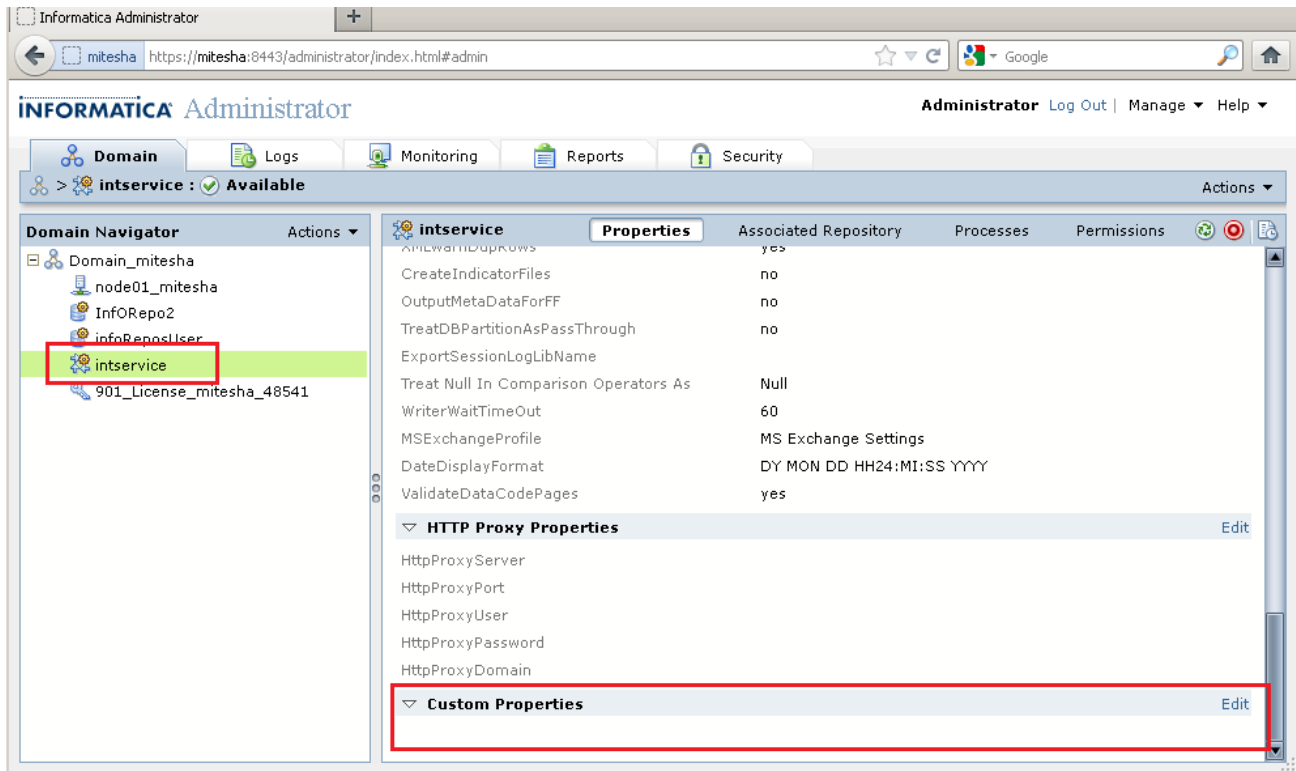

How to Enable LB Tracing

We need to set the following IS Custom Properties.

Enable LB Trace = YES

Enable LBA Trace = YES

And trace files would be created in the <infa_home> server/bin directory of the Informatica.

Step-1 Click on IS(Integration Services) and go to Properties tab and click on Custom Properties Edit option.

Step-2 Now click on New button and add custom properties.

Custom properties - Custom properties include properties that are unique to your PowerCenter environment or that apply in special cases. An Integration Service has no custom properties when you initially create it. Use custom properties only if Informatica Technical Support instructs you to.

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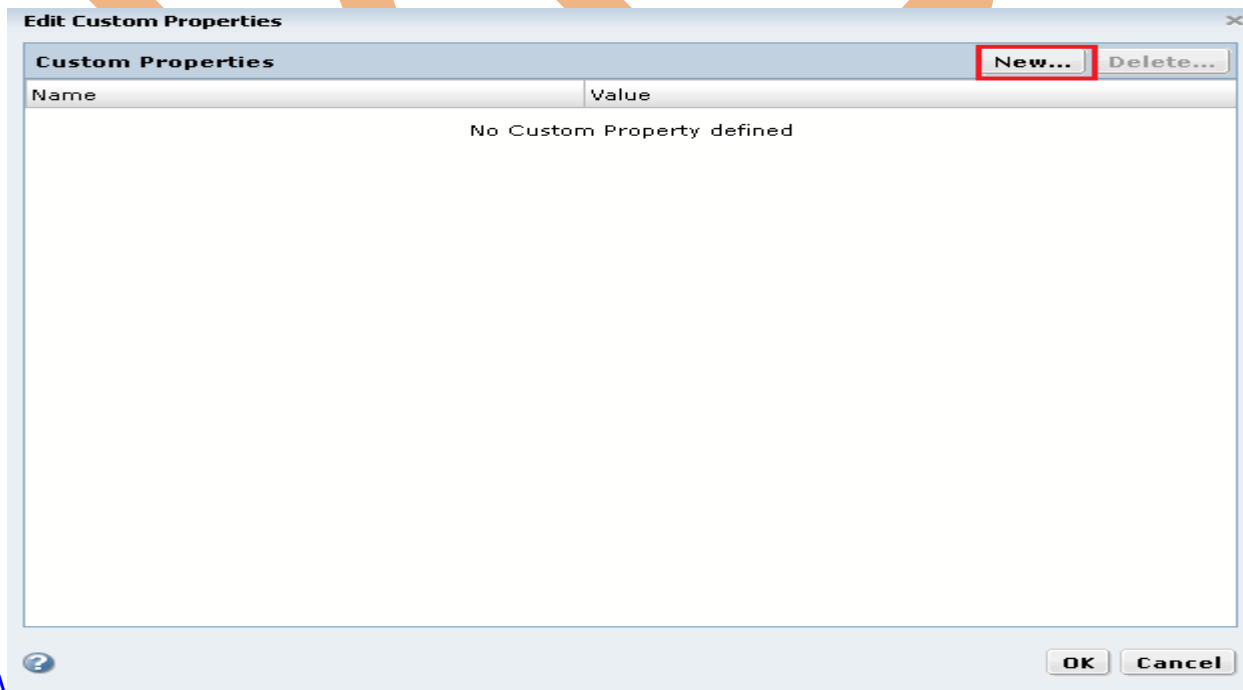
Step-3 Set custom properties for Enable LB(Load Balancer) Trace and its value is YES.
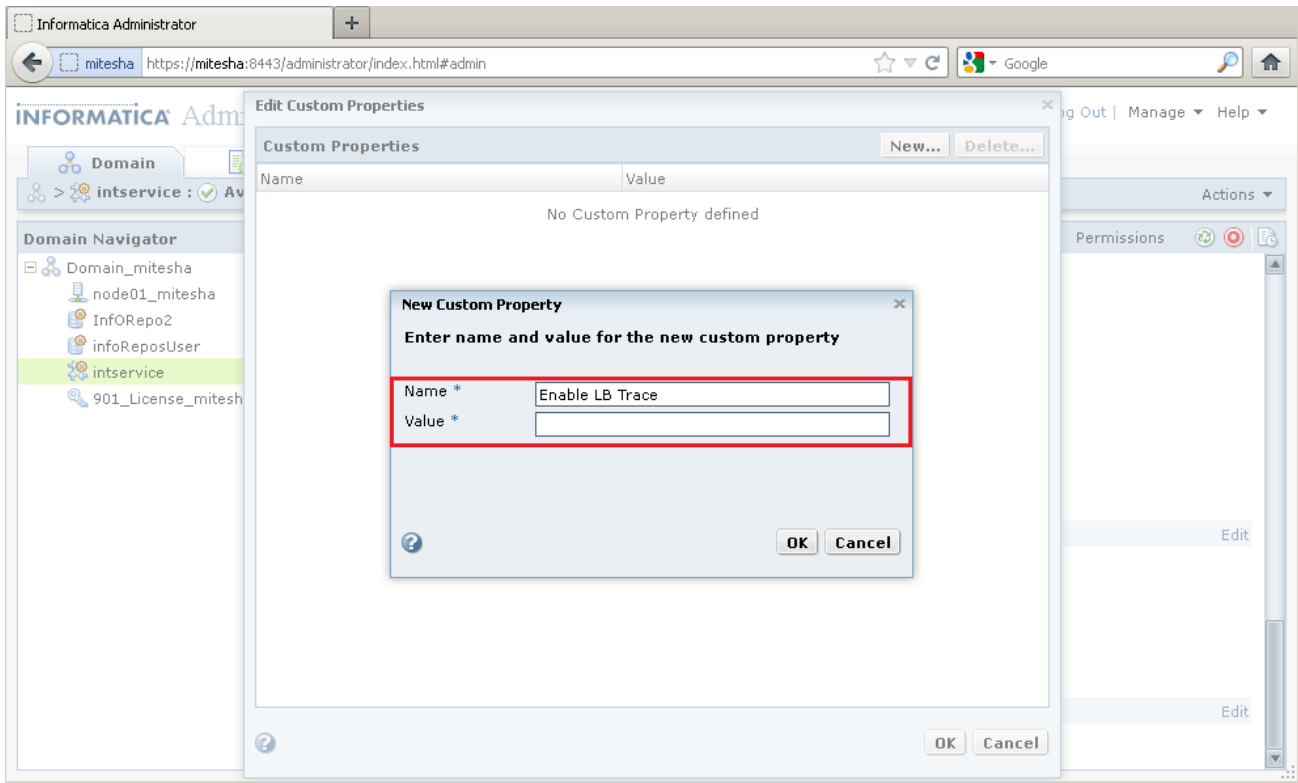
Step-4 And also set custom properties for Enable LBA(Load Balancer Agent) Trace and its value is YES.