"Maximum duration" setting on reconciliation schedule

ITIM Server provides an option to control the reconciliation time-out. This option, i.e. "Maximum duration" (in minutes), can be configured while setting up a reconciliation schedule. The document explains the conditions where ITIM does and does not honor this setting.

Assumption:

Please note that, for the purpose of this document, it is assumed that the dispatcher/adapter is up and running for the entire duration of reconciliation process. In other words, the status of the resource in ITIM is up during the entire duration of reconciliation.

When the reconciliation process (either manual or scheduled) starts on ITIM, following is the sequence of activities that happen on ITIM server and on Dispatcher/Adapter.

1. ITIM sends a request to the dispatcher/adapter to start the reconciliation operation and waits for the dispatcher to return the first batch of entries.

2. Depending on the batch size property (specified on the dispatcher), the dispatcher/adapter prepares a batch of entries and returns that batch to ITIM Server for processing.

3. After the first batch of entries get processed on ITIM server, ITIM sends a request to the dispatcher to send the next batch of entries. This process continues until all the entries get reconciled and processed by ITIM or there is some exception causing the processing to terminate.

If the reconciliation process runs for more than the configured time duration ("Maximum duration"), then ITIM server will try to abort the reconciliation, once the maximum duration time is elapsed. Following are the two conditions where the behavior of ITIM differs when the maximum duration is reached.

Note:– The behavior of ITIM described below is for ITDI based adapters only. For ADK/DAML based adapters, ITIM always honors the "Maximum Duration" specified in the reconciliation schedule. Once the reconciliation process runs for more than the "Maximum duration" time, ITIM closes the search request and aborts the reconciliation request at its end.

Maximum duration time elapsed when ITIM is waiting to receive the first batch of entries from dispatcher/adapter

This condition might arise when:

●   The request hangs on the dispatcher/adapter after it receives a search request from ITIM and before it could respond back to ITIM with the first batch of entries. ITIM keeps on waiting for the response.

●   A very high value is specified for the batch size on the ITDI based dispatcher and the resource is very slow. In this situation, the time taken by the dispatcher/adapter to accumulate the first batch of entries might exceed the maximum duration time specified on the ITIM server for that reconciliation process. ITIM server keeps on waiting for the initial response.

In these situations, ITIM does not abort the reconciliation request even if the reconciliation time exceeds the "Maximum Duration" value. ITIM waits for the dispatcher to return the first batch of entries and then checks the "Maximum duration" value specified in reconciliation schedule. If the "Maximum Duration" is elapsed, ITIM does not process the entries returned by dispatcher. ITIM then sends a "Search Close" request to dispatcher/adapter to terminate the Search operation. If the dispatcher/adapter is hung then the reconciliation operation in ITIM will hang

forever and user will have to manually abort the operation from ITIM console.

Maximum duration time elapsed when ITIM is waiting on or processing the non-first batch of entries from dispatcher/adapter

This condition might arise when:

● The request hangs on the dispatcher/adapter after one or more batches of entries are sent to ITIM in response to a search request. ITIM waits for the subsequent batch of entries. Meanwhile the maximum reconciliation duration is reached on the ITIM server.

● A very high value is specified for the batch size on the dispatcher and the resource is very slow. In this situation, the time taken by the dispatcher to accumulate the next batch of entries might be substantially more. ITIM waits for the subsequent batch of entries. Meanwhile the maximum reconciliation duration is reached on the ITIM server.

● The number of entries to be processed are substantially large on the resource and the "Maximum duration" is set to a considerably low value. In this situation the maximum reconciliation duration will be reached when the reconciliation process is in progress.

In these situations, ITIM will honor the "Maximum Duration" value set on the reconciliation schedule. Once the reconciliation process runs for more than the "Maximum duration" time, ITIM sends a "Search Close" request to the dispatcher/adapter. Once the dispatcher/adapter sends back the response that it closed the search request, ITIM aborts the reconciliation request at its end.