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SUBJECT:

TARIC3-INB-PTP

Performance Test Plan

DOCUMENT HISTORY

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1. INTRODUCTION

1.1. Objective of this document

This document describes the test cases that define the performance testing activities for the TARIC3 –INB system.

The document should be used to guide the execution of the tests.

1.2. Scope of the document

This document contains all the test cases required to comprehensively test the Input Bridge Satellite application. This library of test scenarios provides test coverage for the Performance test phase.

1.3. Structure of this document

This document has 3 chapters after this introduction chapter. Chapter 2 describes the test environment. Chapter 3 describes the various test cases. Finally, chapter 4 gives the template of the test report form that must be filled in when the TARIC3-INB system is tested.

1.4. Intended audience

This document is intended for people responsible for the assessment of the performances of the TARIC3-INB system.

1.5. Abbreviations and acronyms

CDCO	Centrally Developed, Centrally Operated
DG TAXUD	Directorate General Taxation and Customs Union
INB	Input Bridge
TARIC	*Tarif Intégré Communautaire*
UNIX	Unix operating system
XML	eXtensible Markup Language

Table 1: Abbreviations and acronyms

1.6. Reference documents

[TARIC3-INB-FS]	"TARIC3 - INB - Functional Specifications", version 1.02"

Table 2: Reference documents

1.7. Applicable documents

[TARIC3-INB-PTS]	"TARIC3 – INB- Performance Test Scenarios", version 1.00"

Table 3: Applicable documents

2. TEST REFINEMENTS

2.1. Test case guidelines

2.1.1. Test scenario coverage

The performance test plan covers the performance test scenarios defined in [TARIC3-INB-PTS] . For each performance test scenario; one or several test cases are defined. The table in Annex 1 clearly identifies which test cases implement each test scenario.

2.1.2. Test case structure

A test case is composed of one or more scripts that are specified in the following way:

Name:	The name of the test case to be executed.
Purpose:	A short description of what is performed by the test case.
Related Scenario	Reference of the performance test scenario in relationship with the test case.
Precondition:	All the required conditions that must be fulfilled before the test case is executed. Please note that the default precondition is mentioned only once.
Content:	The description of the actions to be performed, together with the data to be used, when deemed relevant.
Expected output:	The time the operator has to register and check.

2.1.3. Message terminology

During the execution of a test case, one or several messages will be exchanged between the Input Bridge and TARIC3 CDCO. In the remainder of this document, the following terminology will be applied for the message exchanges:

- **Client message**: Message sent from a client towards the Input Bridge Interface.

- **INB response message:** Message sent by the Input Bridge Interface to a client.

- **TARIC3 input message:** Message sent by a TARIC3 user to TARIC3 CDCO system.

2.2. Test data set

2.2.1. User data set

The following users having TARIC3 data management rights should be defined: *[Removed]*.

On the other hand, the following Input Bridge users should be defined :

[Removed] and *[Removed]*.

2.2.2. TARIC3 reference data set

A copy of the TARIC3 production database will be used as TARIC3 reference data set, in order to have a representative and realistic data set. In fact, all relevant tables in the database will be populated with a production like quantity and mix of data.

2.3. Test Approach

The tests are in the form of single test cases intended for manual execution and manual recording of the results unless otherwise stated.

The results will be compared with the baseline.

Some tests need to simulate a background activity. This background activity will be simulated through a script.

2.4. Test execution

Test plan can be executed as follow:

o   Execute the following command line through the console:

   ▪   start_inb.sh 2>&1 | tee log.txt

o   Once this action is performed successfully, volume tests are not finished. You have to check through the interface or through the database that the three 'edifact' files are processed. Their status will be: "Partially processed". This action will take several hours. Then execute the following command:

   ▪   start_inb.sh log

   ▪   find output -name '*.log' -type f -exec echo {} \; -exec cat {}> all.txt \;

o   The all.txt file will contain all time result.

2.4.1. Test cases 'inb_perf_xxx'

- Send simultaneously (via system-to-system) the XML "client" messages to the Input Bridge interface ;
- From the "Logger[1], note the time on which the Input Bridge starts the processing of the first "client" message.
- From the "Logger", note the time on which the Input Bridge ends the processing of the last TARIC3 response message.

2.4.2. Test cases 'inb_load_xxx'

- Run in loop mode the ant script simulating background activities on TARIC3 for different users.
- Send via system-to-system an XML "client" message to TARIC3 through the input message;
- From the "Logger", note the time on which the Input Bridge starts the processing of this client message;
- From the "Logger", note the time on which the Input Bridge ends the processing of the corresponding response message.

2.4.3. Test cases 'inb_volume_xxx'

- Send via system-to-system several XML client messages with different number of transactions through the Input Bridge;
- For each client message, note from the "Logger" the time on which the Input Bridge starts the processing of this one ;
- From the "Logger", note the time on which the Input Bridge ends the processing of the corresponding response message.

2.4.4. Test cases 'inb_perf_impact_xxx'

- Run in loop mode the ant script simulating background activities on the Input Bridge.
- Go into the appropriate TARIC3 screen;
- For each of the operations (insert, update, query and delete), enter the appropriate data;
- Press the "Submit" button and start the timer;
- Wait until the "Success" message is displayed and stop the timer. In the case of a query stop the timer when the query result is displayed.

---

[1] A Logger is a file which will be used to log all the messages related to the operations performed by the Input Bridge application. The Input Bridge start and end message process time, will be traced and hence retrieved from this Logger.

2.5. Preliminary steps

2.5.1. Creation of the baseline

As mentioned in [TARIC3-INB-PTS], in order to create the baseline each critical and/or priority application action will be performed once and one by one.

Obtained time for each of this action will be reported to become a metric for the performance testing but will never be considered as an acceptance criteria.

For this purpose a client message *inb_baseline_01.xml* will be created and sent 10 times to the Input Bridge. Each time, the response time will be recorded and an average response time will be calculated at the end.

The table below gives a description of the steps which will be followed in order to create a baseline:

Name:	inb_baseline_01	
Purpose:	Send one client message 10 times through the Input Bridge Interface and calculate the average response time.	
Preconditions:	No background activities are running on TARIC3 and no other operations are being performed on the Input Bridge.	
Content:	Step 1:	As user **[INB1]**, send the client message *inb_baseline_01.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.
	Step 5:	Repeat 9 times the steps above and calculate the average response time.
Expected output:	Step 1:	The client message should be successfully received by the Input Bridge.
	Step 2:	Input Bridge response time T1:
	Step 3:	Input Bridge response time T2:
	Step 4:	Input Bridge response time T3:

Step 5:   Input Bridge response time T4:

Step 6:   Input Bridge response time T5:

Step 7:   Input Bridge response time T6:

Step 8:   Input Bridge response time T7:

Step 9:   Input Bridge response time T8:

Step 10:   Input Bridge response time T9:

Step 11:   Input Bridge response time T10:

Step 12:   Average response time:

2.5.2. Creation of the background activity

Depending on the purpose of the test case, two types of background activities will be defined: TARIC3 CDCO and Input Bridge background activities.

Background TARIC3 CDCO activities

First step:

The main user (who will be the one used by to perform tests as they are described into test cases) launches a first initialization script. The goal of this script is to create reference data and delete all the pending data which might lead to database constraints violations. In other words, this user prepares the database for the other virtual users.

Second step:

In order to simulate background activities of TARIC3 CDCO users, scripts will be created. The purpose of those scripts is to simulate basic CDCO activities which are:

- Insert a role regulation;
- Insert a goods nomenclature;
- Insert a measure (using the goods nomenclature and the regulation which have been previously inserted);
- Update a role regulation (the one which has been previously inserted);
- Update a goods nomenclature(the one which has been previously inserted);
- Update a measure(the one which has been previously inserted);

- Perform a query on regulations in order to obtain above 1000 results;
- Perform a query on goods nomenclatures in order to obtain above 1000 results;
- Perform a query on measures in order to obtain above 1000 results;
- Delete the inserted measure;
- Delete the inserted goods nomenclature;
- Delete the inserted role regulation;

Each script will be simulating background operations performed by a specific user. When several virtual users will be simulated, each user will launch its own script in parallel with others users.

Input Bridge background activities

Concerning the simulation of the Input Bridge background activities, an ant script *INB_BACGRD_TST.xml* will be created. Through this script client messages will be sent in loop by user `[INB1]` to the Input Bridge. These client messages will contain the following basic operations:

- Insert a role regulation;
- Insert base regulation;
- Insert a goods nomenclature;
- Insert measure;
- Update role regulation (inserted before);
- Update base regulation (inserted before);
- Delete measure (updated before);
- Delete goods nomenclature (updated before);
- Delete base regulation (updated before);
- Delete legal regulation (updated before).

Technology used:

In order to be able to perform this background activity, a combination of "Unix Bourne Shell" scripts (.sh) and Ant files will be created and used. For a complete list of TARIC3 CDCO used files, refer to Annex 2.

3. TEST CASES

3.1. Performance tests

3.1.1. Test case: inb_perf_01

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_perf_01

Purpose: Send one client message to TARIC3 through the Input Bridge Interface and check the response time.

Related scenario   TS001

Preconditions: No background activities are running on TARIC3 application.

Content:

Step 1:   As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:

Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.1.2. Test case: inb_perf_02

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_perf_02

Purpose:		Send simultaneously 2 client messages to TARIC3 through the Input Bridge Interface and check the response time.
Related scenario		TS001
Preconditions:		No background activities are running on TARIC3 application.
Content:	Step 1:	As user **[INB1]**, send simultaneously the client messages *inb_perf_01.xml and inb_perf_02.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of *inb_perf_01.xml* "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the "TARIC3 response" message corresponding to *inb_perf_02.xml*.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.
Expected output:	Step 1:	The client messages should be successfully received by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time.

3.1.3. Test case: inb_perf_03

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name:		inb_perf_03
Purpose:		Send simultaneously 3 client messages to TARIC3 through the Input Bridge Interface and check the response time.
Related scenario		TS001
Preconditions:		No background activities are running on TARIC3 application.
Content:	Step 1:	As user **[INB1]**, send simultaneously the following client messages *inb_perf_01.xml inb_perf_02.xm* and *inb_perf_03.xml* towards the

		Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of *inb_perf_01.xml* "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the "TARIC3 response" message corresponding to *inb_perf_03.xml*.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.
Expected output:	Step 1:	The client messages should be successfully received by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time:

3.1.4. Test case: inb_perf_04

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name:	inb_perf_04
Purpose:	Send simultaneously 5 client messages to TARIC3 through the Input Bridge Interface and check the response time.
Related scenario	TS001
Preconditions:	No background activities are running on TARIC3 application.
Content:	Step 1: As user **[INB1]**, send simultaneously the following client messages towards the Input Bridge Interface:

> o *inb_perf_01.xml,*
>
> o *inb_perf_02.xm,*
>
> o *inb_perf_03.xml*
>
> o *inb_perf_04.xml*

          o   *inb_perf_05.xml*

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of *inb_perf_01.xml* "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the "TARIC3 response" message corresponding to *inb_perf_05.xml*.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output: Step 1:   The client messages should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.1.5. Test case: inb_perf_05

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_perf_05

Purpose: Send simultaneously 10 client messages to TARIC3 through the Input Bridge Interface and check the response time.

Related scenario   TS001

Preconditions: No background activities are running on TARIC3 application. The message *init_ref_data.xml* loading reference data into TARIC3 database should be successfully processed first.

Content: Step 1:   As user **[INB1]**, send simultaneously the following client messages towards the Input Bridge Interface:

          o   *inb_perf_01.xml*

          o   *inb_perf_02.xm,*

          o   *inb_perf_03.xml*

o *inb_perf_04.xml*

o *inb_perf_05.xm*

o *inb_perf_06.xm*

o *inb_perf_07.xm*

o *inb_perf_08.xm*

o *inb_perf_09.xml*

o *inb_perf_10.xml*

Step 2: Open the "Logger" and note the time on which the Input Bridge starts the processing of *inb_perf_01.xml* "client" message.

Step 3: Note also from the "Logger" the time on which the Input Bridge ends the processing of the "TARIC3 response" message corresponding to *inb_perf_10.xml*.

Step 4: Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:

Step 1: The client messages should be successfully received by the Input Bridge.

Step 2: Input Bridge "Client message" processing start time:

Step 3: Input Bridge "TARIC3 response message" processing end time:

Step 4: Input Bridge response time:

3.1.6. Test case: inb_perf_06

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_perf_06

Purpose: Send simultaneously 15 client messages to TARIC3 through the Input Bridge Interface and check the response time.

Related scenario TS001

Preconditions: No background activities are running on TARIC3 application.

<u>Content:</u>

Step 1:   As user **[INB1]**, send simultaneously the following client messages towards the Input Bridge Interface:

- o *inb_perf_01.xml,*
- o *inb_perf_02.xm,*
- o *inb_perf_03.xml,*
- o *inb_perf_04.xml*
- o *inb_perf_05.xml,*
- o *inb_perf_06.xml,*
- o *inb_perf_07.xml,*
- o *inb_perf_08.xml,*
- o *inb_perf_09.xml,*
- o *inb_perf_10.xml,*
- o *inb_perf_11.xml,*
- o *inb_perf_12.xml*
- o *inb_perf_13.xml*
- o *inb_perf_14.xml*
- o *inb_perf_15.xml*

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of *inb_perf_01.xml* "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the "TARIC3 response" message corresponding to *inb_perf_15.xml*.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

<u>Expected output:</u>

Step 1:   The client messages should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.2. Load tests

3.2.1. Test case: inb_load_01

Name: inb_load_01

Purpose: Send one client message through the Input Bridge and check the response time, when two users are performing background activities on TARIC3 CDCO.

Related scenario   TS002

Preconditions: The ant scripts simulating the background activities of one TARIC3 user should be running in loop mode.

Content: Step 1:   As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output: Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.2.2. Test case: inb_load_02

Name: inb_load_02

Purpose: Send one client message through the Input Bridge and check the response time, when 3 users are performing background activities on TARIC3.

Related scenario	TS002

Preconditions:	The ant scripts simulating the background activities of 2 TARIC3 users should be running in loop mode.

Content:	Step 1:	As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:	Step 1:	The client message should be successfully received by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time:

3.2.3. Test case: inb_load_03

Name:	inb_load_03

Purpose:	Send one client message through the Input Bridge and check the response time, when 5 users are performing background activities on TARIC3.

Related scenario	TS002

Preconditions:	The ant scripts simulating the background activities of 3 TARIC3 users should be running in loop mode.

Content:	Step 1:	As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client"

message.

Step 3: Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4: Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output: Step 1: The client message should be successfully received by the Input Bridge.

Step 2: Input Bridge "Client message" processing start time:

Step 3: Input Bridge "TARIC3 response message" processing end time:

Step 4: Input Bridge response time:

3.2.4. Test case: inb_load_04

Name: inb_load_04

Purpose: Send one client message through the Input Bridge and check the response time, when 10 users are performing background activities on TARIC3.

Related scenario TS002

Preconditions: The ant scripts simulating the background activities of 5 TARIC3 users should be running in loop mode.

Content: Step 1: As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.

Step 2: Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3: Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4: Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected Step 1: The client message should be successfully received

output: by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.2.5. Test case: inb_load_05

Name: inb_load_05

Purpose: Send one client message through the Input Bridge and check the response time, when 15 users are performing background activities on TARIC3.

Related scenario   TS003

Preconditions: The ant scripts simulating the background activities of 10 TARIC3 users should be running in loop mode.

Content: Step 1:   As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output: Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.2.6. Test case: inb_load_06

Name: inb_load_06

Purpose: Send one client message through the Input Bridge and check the response time, when 20 users are performing background activities on TARIC3.

Related scenario   TS003

Preconditions: The ant scripts simulating the background activities of 15 TARIC3 users should be running in loop mode.

Content:

Step 1:   As user **[INB1]**, send the client message *inb_perf_01.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:

Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.3. Volume tests

3.3.1. Test case: inb_volume_01

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_volume_01

Purpose: Send a client message with around 30 transactions to TARIC3 through the Input Bridge and check the response time.

Related scenario	TS004	
Preconditions:	No background activities are running on TARIC3 application.	
Content:	Step 1:	As user **[INB1]**, send the client message *inb_volume_01.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.
Expected output:	Step 1:	The client message should be successfully received by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time:

3.3.2. Test case: inb_volume_02

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name:	inb_volume_02
Purpose:	Send a client message with around 300 transactions to TARIC3 through the Input Bridge and check the response time (this file must be composed of around 50% of correct transactions).
Related scenario	TS004
Preconditions:	No background activities are running on TARIC3 application.

Content:	Step 1:	As user **[INB1]**, send the client message *inb_volume_02.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client"

message.

Step 3: Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4: Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output: Step 1: The client message should be successfully received by the Input Bridge.

Step 2: Input Bridge "Client message" processing start time:

Step 3: Input Bridge "TARIC3 response message" processing end time:

Step 4: Input Bridge response time:

3.3.3. Test case: inb_volume_03

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_volume_03

Purpose: Send a client message with around 1500 transactions to TARIC3 through the Input Bridge and check the response time (this file must be composed of around 33% of correct transactions).

Related scenario TS005

Preconditions: No background activities are running on TARIC3 application.

Content: Step 1: As user **[INB1]**, send the client message *inb_volume_03.xml* towards the Input Bridge Interface.

Step 2: Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3: Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4: Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected Step 1: The client message should be successfully received

output:		by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time:

3.3.4. Test case: inb_volume_04

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name:	inb_volume_04
Purpose:	Send a client message with 25000 transactions to TARIC3 through the Input Bridge and check the response time (this file must be composed of around 50% of correct transactions).
Related scenario	TS005
Preconditions:	No background activities are running on TARIC3 application.

Content:	Step 1:	As user **[INB1]**, send the client message *inb_volume_04.xml* towards the Input Bridge Interface.
	Step 2:	Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.
	Step 3:	Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.
	Step 4:	Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:	Step 1:	The client message should be successfully received by the Input Bridge.
	Step 2:	Input Bridge "Client message" processing start time:
	Step 3:	Input Bridge "TARIC3 response message" processing end time:
	Step 4:	Input Bridge response time:

3.3.5. Test case: inb_volume_05

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_volume_05

Purpose: Send a client message with 25000 transactions to TARIC3 through the Input Bridge and check the response time (this file must be composed of around 2% of correct transactions).

Related scenario   TS006

Preconditions: No background activities are running on TARIC3 application.

Content:

Step 1:   As user **[INB1]**, send the client message *inb_volume_05.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:

Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.3.6. Test case: inb_volume_06

Make sure that the data to be loaded through the Input Bridge does not already exist in the database.

Name: inb_volume_06

Purpose: Send a client message with 25000 transactions to TARIC3 through the Input Bridge and check the response time (this file must be composed of around 50% of correct transactions).

Related scenario   TS006

Preconditions: No background activities are running on TARIC3 application.

Content:

Step 1:   As user **[INB1]**, send the client message *inb_volume_06.xml* towards the Input Bridge Interface.

Step 2:   Open the "Logger" and note the time on which the Input Bridge starts the processing of this "client" message.

Step 3:   Note also from the "Logger" the time on which the Input Bridge ends the processing of the corresponding "TARIC3 response" message.

Step 4:   Calculate the Input Bridge response time by making a difference of the times recorded in steps 2 and 3.

Expected output:

Step 1:   The client message should be successfully received by the Input Bridge.

Step 2:   Input Bridge "Client message" processing start time:

Step 3:   Input Bridge "TARIC3 response message" processing end time:

Step 4:   Input Bridge response time:

3.4. TARIC3 Performance Impact tests

In order to perform Impact tests, an Input Bridge action must be running in background activity. Volume test can be launched to insure that there is an Input bridge activity in background. To launch Volume test, the following command will be executed through the command line:

./start_inb.sh Vol_load

3.4.1. Test case: inb_perf_impact_01

Name:　　　　　　inb_perf_impact_01

Purpose:　　　　　While background activities are running on the Input Bridge, u-insert a goods nomenclature in TARIC3 CDCO and check the response time.

Related scenario　　TS007

Preconditions:　　An Input Bridge action must be running in background activity. Volume test can be launched to insure that there is an Input bridge activity in background.

Content:　　　　Step 1:　　Log on as user **[T3_U1]**and insert a new goods nomenclature GN1 providing a value for all the fields. Press the "Submit" button and start the timer.

　　　　　　　　Step 2:　　Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:　　Step 1:　　The goods nomenclature GN1 should be successfully inserted in the database.

　　　　　　　　Step 2:　　TARIC3 CDCO response time:

3.4.2. Test case: inb_perf_impact_02

Name:　　　　　　inb_perf_impact_02

Purpose:　　　　　While background activities are running on the Input Bridge, update a goods nomenclature in TARIC3 CDCO and check the response time.

Related scenario　　TS007

Preconditions:　　The ant script *INB_BACGRD_TST_01.xml* simulating the

background activities on the Input Bridge should be running in loop mode.

Content: Step 1: Log on as user **[T3_U1]**and update goods nomenclature GN1. Press the "Submit" button and start the timer.

Step 2: Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output: Step 1: The goods nomenclature GN1 should be successfully updated.

Step 2: TARIC3 CDCO response time:

3.4.3. Test case: inb_perf_impact_03

Name: inb_perf_impact_03

Purpose: While background activities are running on the Input Bridge, query a goods nomenclature in TARIC3 CDCO and check the response time.

Related scenario TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content: Step 1: Log on as user **[T3_U1]**and query goods nomenclature GN1 from the database. Press the "Submit" button and start the timer.

Step 2: Wait until the query result is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output: Step 1: The goods nomenclature GN1 should be successfully retrieved from the database.

Step 2: TARIC3 CDCO response time:

3.4.4. Test case: inb_perf_impact_04

Name: inb_perf_impact_04

Purpose: While background activities are running on the Input Bridge delete a goods nomenclature in TARIC3 CDCO and check the response time.

Related scenario	TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:	Step 1:	Log on as user **[T3_U1]**and delete goods nomenclature GN1. Press the "Submit" button and start the timer.
	Step 2:	Wait until the query result is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:	Step 1:	The goods nomenclature GN1 should be successfully deleted from the database.
	Step 2:	TARIC3 CDCO response time:

3.4.5. Test case: inb_perf_impact_05

Name:	inb_perf_impact_05

Purpose: While background activities are running on the Input Bridge, insert a base regulation in TARIC3 CDCO and check the response time.

Related scenario	TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:	Step 1:	Log on as user **[T3_U1]**and insert a new base regulation BAS1 in the database. Press the "Submit" button and start the timer.
	Step 2:	Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:	Step 1:	The base regulation BAS1 should be successfully inserted in the database.
	Step 2:	TARIC3 CDCO response time:

3.4.6. Test case: inb_perf_impact_06

Name:	inb_perf_impact_06

Purpose: While background activities are running on the Input Bridge, update a base regulation in TARIC3 CDCO and check the response time.

Related scenario   TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:

Step 1:   Log on as user **[T3_U1]**update base regulation BAS1. Press the "Submit" button and start the timer.

Step 2:   Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:

Step 1:   The base regulation BAS1 should be successfully inserted in the database.

Step 2:   TARIC3 CDCO response time:

3.4.7. Test case: inb_perf_impact_07

Name: inb_perf_impact_07

Purpose: While background activities are running on the Input Bridge, query a base regulation in TARIC3 CDCO and check the response time.

Related scenario   TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:

Step 1:   Log on as user **[T3_U1]**query base regulation BAS1 from the database. Press the "Submit" button and start the timer.

Step 2:   Wait until the query result is displayed message and stop the timer. Calculate the TARIC3 response time.

Expected output:

Step 1:   The base regulation BAS1 should be successfully retrieved from the database.

Step 2:   TARIC3 CDCO response time:

3.4.8. Test case: inb_perf_impact_08

Name: inb_perf_impact_03

Purpose: While background activities are running on the Input Bridge delete a base regulation in TARIC3 CDCO and check the response time.

Related scenario TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:

Step 1: Log on as user **[T3_U1]**delete base regulation BAS1. Press the "Submit" button and start the timer.

Step 2: Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:

Step 1: The base regulation BAS1 should be successfully deleted from the database.

Step 2: TARIC3 CDCO response time:

3.4.9. Test case: inb_perf_impact_09

Name: inb_perf_impact_09

Purpose: While background activities are running on the Input Bridge, insert a measure in TARIC3 CDCO and check the response time.

Related scenario TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content:

Step 1: Log in as user **[T3_U1]**and insert a new measure MEAS1 in the database. Press the "Submit" button and start the timer.

Step 2: Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output:

Step 1: The measure MEAS1 should be successfully inserted in the database.

Step 2:   TARIC3 CDCO response time:

3.4.10. Test case: inb_perf_impact_10

Name: inb_perf_impact_10

Purpose: While background activities are running on the Input Bridge, update a measure in TARIC3 CDCO and check the response time.

Related scenario   TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content: Step 1:   Log in as user **[T3_U1]**update measure MEAS1 in the database. Press the "Submit" button and start the timer.

                   Step 2:   Wait until the "Success" message is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output: Step 1:   The measure should be successfully updated in the database.

                   Step 2:   TARIC3 CDCO response time:

3.4.11. Test case: inb_perf_impact_11

Name: inb_perf_impact_11

Purpose: While background activities are running on the Input Bridge, query a measure in TARIC3 CDCO and check the response time.

Related scenario   TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content: Step 1:   Log in as user **[T3_U1]**and query measure MEAS1 from the database. Press the "Submit" button and start the timer.

                   Step 2:   Wait until the query result is displayed and stop the timer. Calculate the TARIC3 response time.

Expected   Step 1:   The measure MEAS1 should be successfully

output: retrieved from the database.

Step 2: TARIC3 CDCO response time:

3.4.12. Test case: inb_perf_impact_12

Name: inb_perf_impact_12

Purpose: While background activities are running on the Input Bridge delete a measure in TARIC3 CDCO and check the response time.

Related scenario TS007

Preconditions: The ant script *INB_BACGRD_TST_01.xml* simulating the background activities on the Input Bridge should be running in loop mode.

Content: Step 1: Log on as user **[T3_U1]**and delete measure MEAS1 from the database. Press the "Submit" button and start the timer.

Step 2: Wait until the message "Success" is displayed and stop the timer. Calculate the TARIC3 response time.

Expected output: Step 1: The measure MEAS1 should be successfully deleted from the database.

Step 2: TARIC3 CDCO response time:

4. TEST REPORT FORM

4.1. Environment description

Hardware platform	Sun
Operating system	Solaris version
Database (+version)	Database version
Official release number[2]	
ClearCase label[3]	
Performance test file version	
Execution date	

Table 4: Environment description

4.2. Baseline report

Application action	Measure	Time
Send inb_baseline_01.xml 1st time	Input Bridge response time T1	
Send inb_baseline_01.xml 2nd time	Input Bridge response time T2	
Send inb_baseline_01.xml 3rd time	Input Bridge response time T3	
Send inb_baseline_01.xml 4th time	Input Bridge response time T4	
Send inb_baseline_01.xml 5th time	Input Bridge response time T5	
Send inb_baseline_01.xml 6th time	Input Bridge response time T6	
Send inb_baseline_01.xml 7th time	Input Bridge response time T7	
Send inb_baseline_01.xml 8th time	Input Bridge response time T8	
Send inb_baseline_01.xml 9th time	Input Bridge response time T9	
Send inb_baseline_01.xml 10th time	Input Bridge response time T10	
	Average response time	

Table 5: Baseline report

4.3. Test case execution

Test case	Measure	Time
inb_perf_01	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_02	Input Bridge "Client message" processing start time	

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[2] This information must only be filled in for testing of official delivery (e.g. 1.0.0).

[3] This information is only available to the development team and identifies the tested internal version.

Test case	Measure	Time
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_03	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_04	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_05	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_06	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_01	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_02	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_03	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_04	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_05	Input Bridge "Client message" processing start time	

Test case	Measure	Time
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_load_06	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_01	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_02	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_03	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_04	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_05	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_volume_06	Input Bridge "Client message" processing start time	
	Input Bridge "TARIC3 response message" processing end time	
	Input Bridge response time	
inb_perf_impact_01	TARIC3 CDCO response time	
inb_perf_impact_02	TARIC3 CDCO response time	
inb_perf_impact_03	TARIC3 CDCO response time	
inb_perf_impact_04	TARIC3 CDCO response time	
inb_perf_impact_05	TARIC3 CDCO response time	
inb_perf_impact_06	TARIC3 CDCO response time	

Test case	Measure	Time
inb_perf_impact_07	TARIC3 CDCO response time	
inb_perf_impact_08	TARIC3 CDCO response time	
inb_perf_impact_09	TARIC3 CDCO response time	
inb_perf_impact_10	TARIC3 CDCO response time	
inb_perf_impact_11	TARIC3 CDCO response time	
inb_perf_impact_12	TARIC3 CDCO response time	

Table 6: Test report form

ANNEX 1: COVERAGE TABLE

This annex contains a table that describes the coverage of the different test scenarios by the test cases. The goal is to trace the test scenarios with regard to the test cases and vice versa. The first column of the table contains the reference of the test scenario in the [TARIC3-INB-PTS] document, and the second column the name of the related test case(s).

Test scenario	Test cases
TS001	inb_perf_01
	inb_perf_02
	inb_perf_03
	inb_perf_04
	inb_perf_05
	inb_perf_06
TS002	inb_load_01
	inb_load_02
	inb_load_03
TS003	inb_load_04
	inb_load_05
	inb_load_06
TS004	inb_volume_01
	inb_volume_02
TS005	inb_volume_03
	inb_volume_04
TS006	inb_volume_05
	inb_volume_06
TS007	inb_perf_impact_01
	inb_perf_impact_02
	inb_perf_impact_03
	inb_perf_impact_04
	inb_perf_impact_05
	inb_perf_impact_06
	inb_perf_impact_07
	inb_perf_impact_08
	inb_perf_impact_09
	inb_perf_impact_10
	inb_perf_impact_11
	inb_perf_impact_12

Table 7 Coverage table

ANNEX 2: TARIC3 BACKGROUND ACTIVITIES

File	Purpose
TARIC3_SRV_TST1.xml	Simulate Background activity for the user 1

TARIC3_SRV_TST2.xml	Simulate Background activity for the user 2
	
	Do 10 times:
	
	    Insert data for user 2
	
	    Update data inserted by user 2
	
	    Perform X queries
	
	    Delete data inserted by user 2

TARIC3_SRV_TST3.xml	Simulate Background activity for the user 3
	
	Do 10 times:
	
	    Insert data for user 3
	
	    Update data inserted by user 3
	
	    Perform X queries
	
	    Delete data inserted by user 3

TARIC3_SRV_TST4.xml	Simulate Background activity for the user 4
	
	Do 10 times:
	
	    Insert data for user 4
	
	    Update data inserted by user 4
	
	    Perform X queries
	
	    Delete data inserted by user 4

TARIC3_SRV_TST5.xml	Simulate Background activity for the user 5
	
	Do 10 times:
	
	    Insert data for user 5
	
	    Update data inserted by user 5
	
	    Perform X queries
	
	    Delete data inserted by user 5

File	Purpose
TARIC3_SRV_TST6.xml	Simulate Background activity for the user 6 Do 10 times: Insert data for user 6 Update data inserted by user 6 Perform X queries Delete data inserted by user 6
TARIC3_SRV_TST7.xml	Simulate Background activity for the user 7 Do 10 times: Insert data for user 7 Update data inserted by user 7 Perform X queries Delete data inserted by user 7
TARIC3_SRV_TST8.xml	Simulate Background activity for the user 8 Do 10 times: Insert data for user 8 Update data inserted by user 8 Perform X queries Delete data inserted by user 8
TARIC3_SRV_TST9.xml	Simulate Background activity for the user 9 Do 10 times: Insert data for user 9 Update data inserted by user 9 Perform X queries Delete data inserted by user 9
TARIC3_SRV_TST10.xml	Simulate Background activity for the user 10 Do 10 times: Insert data for user 10

File	Purpose
	Update data inserted by user 10 Perform X queries Delete data inserted by user 10

TARIC3_SRV_TST11.xml	Simulate Background activity for the user 11
	
	 Do 10 times:
	
	     Insert data for user 11
	
	     Update data inserted by user 11
	
	     Perform X queries
	
	     Delete data inserted by user 11

TARIC3_SRV_TST12.xml	Simulate Background activity for the user 12
	
	 Do 10 times:
	
	     Insert data for user 12
	
	     Update data inserted by user 12
	
	     Perform X queries
	
	     Delete data inserted by user 12

TARIC3_SRV_TST13.xml	Simulate Background activity for the user 13
	
	 Do 10 times:
	
	     Insert data for user 13
	
	     Update data inserted by user 13
	
	     Perform X queries
	
	     Delete data inserted by user 13

TARIC3_SRV_TST14.xml	Simulate Background activity for the user 14
	
	 Do 10 times:
	
	     Insert data for user 14
	
	     Update data inserted by user 14
	
	     Perform X queries
	
	     Delete data inserted by user 14

TARIC3_SRV_TST15.ml	Simulate Background activity for the user 15

File	Purpose

	Do 10 times:
	
	    Insert data for user 15
	
	    Update data inserted by user 15
	
	    Perform X queries
	
	    Delete data inserted by user 15

TARIC3_SRV_TST16.xml	Simulate Background activity for the user 16
	
	Do 10 times:
	
	    Insert data for user 16
	
	    Update data inserted by user 16
	
	    Perform X queries
	
	    Delete data inserted by user 16

TARIC3_SRV_TST17.xml	Simulate Background activity for the user 17
	
	Do 10 times:
	
	    Insert data for user 17
	
	    Update data inserted by user 17
	
	    Perform X queries
	
	    Delete data inserted by user 17

TARIC3_SRV_TST18.xml	Simulate Background activity for the user 18
	
	Do 10 times:
	
	    Insert data for user 18
	
	    Update data inserted by user 18
	
	    Perform X queries
	
	    Delete data inserted by user 18

TARIC3_SRV_TST19.xml	Simulate Background activity for the user 19
	
	Do 10 times:
	
	    Insert data for user 19
	
	    Update data inserted by user 19
	
	    Perform X queries

File	Purpose
	Delete data inserted by user 19

TARIC3_SRV_TST20.xml	Simulate Background activity for the user 20
	
	Do 10 times:
	
	    Insert data for user 20
	
	    Update data inserted by user 20
	
	    Perform X queries
	
	    Delete data inserted by user 20

TARIC3_SRV_TST21.xml	Simulate Background activity for the user 21
	
	Do 10 times:
	
	    Insert data for user 21
	
	    Update data inserted by user 21
	
	    Perform X queries
	
	    Delete data inserted by user 21

Table 8 TARIC3 CDCO Background activities