

UPDATES SERVICES

Implementation details

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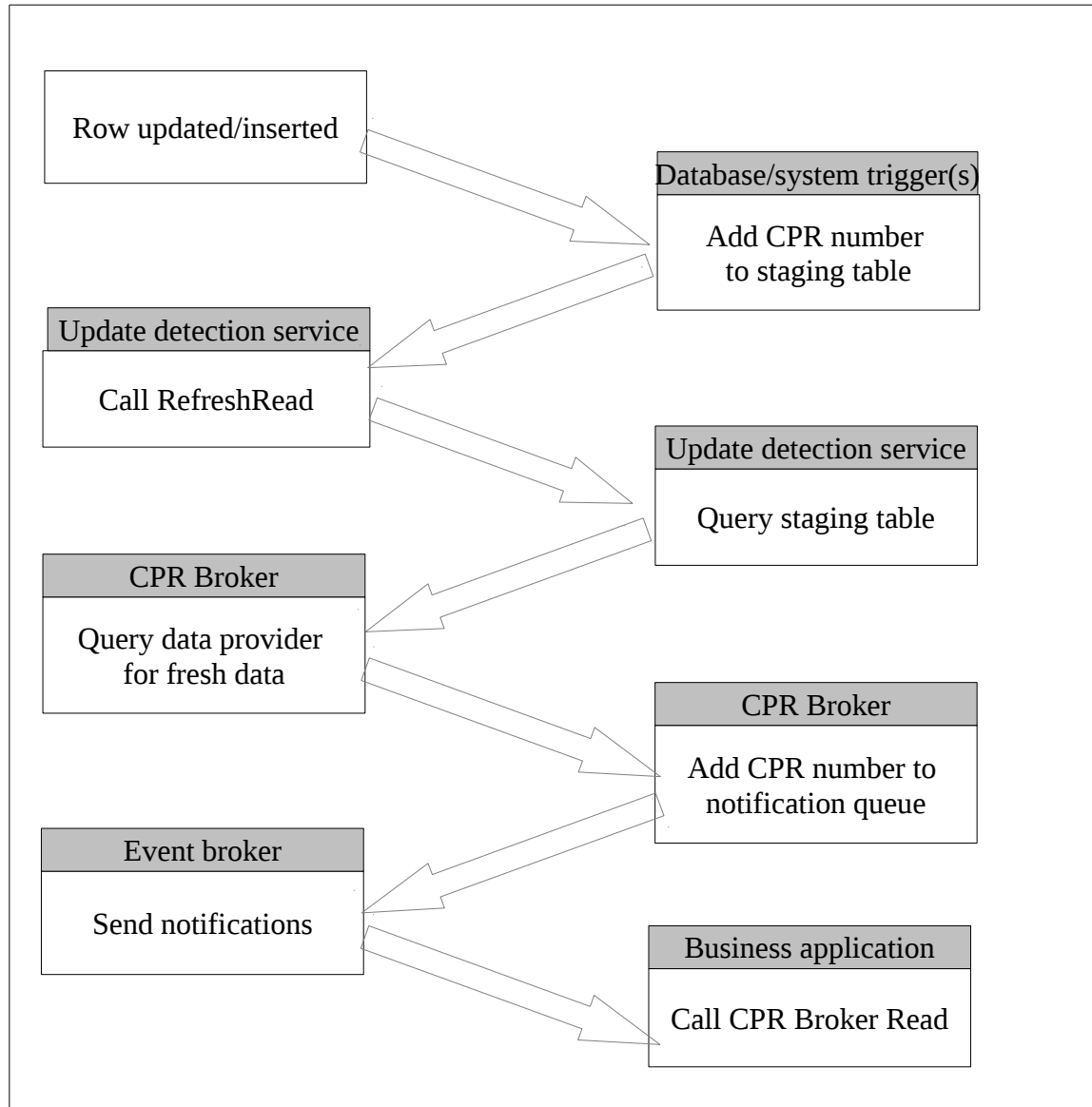
INTRODUCTION

This document will describe how updates services detect updates in the source data providers. These services allows CPR Broker to be notified if one or more person records have changed in a data provider database.

There are currently two services to be installed, DPR Updates and E&M Updates. Apart from targeting different database tables, the implementation is exactly the same.

1ARCHITECTURE

The overall architecture consists of the several components



1.1Row update detection

1.1.1Overall detection principle

When any row is inserted or updated in a relevant table, the CPR number is taken from the row, and stored in a separate database table. This is called the staging table.

1.1.2 Provider specific details

1.1.2.1 DPR

Updates are detected by triggers are created for the relevant database tables that are used by CPR broker to read the data.

1.1.2.2 E&M

Updates are detected by comparing two copies of each relevant table. One copy is taken before the weekly update and the other after the update. Changed or new records are put to the staging table.

1.2 Updates windows service

This service is installed per each data provider instance. It is configured to start automatically. Every while (usually 30 seconds), it reads from the staging table. Then, for each found row, it calls RefreshRead method in CPR Broker. This way the broker loads the fresh version of the data from the data source. All staging table rows belonging to that person are now deleted.

1.3 Event broker

Now since the event broker is polling the CPR broker database, it now sees that new data has been loaded. This causes it to notify any subscribers to the updated person that something has changed. These subscribers can now call Read to load the latest version of the data.

2TESTING

You can do the following steps to create a test scenario.

- Prepare a notification channel. In the demo application, Tools → Options → Notifications → File Share. Write the path to the notification folder.
- Create a data change subscription. In the demo application, Subscribe tab, click Subscribe. This will create a new subscription for all persons.
- Trigger a data change. You can do that by manually editing rows, or use your business application to update the data.

WARNING: Do not do that on your production database unless you know what you are doing. You may have permanent loss of data! It is safer to wait for the change to happen normally.

- Watch the notification folder. You should shortly see a new XML file that contains the UUID of the updated person.

APPENDIX A: E&M DETAILS

Watched database tables	AA70000T AA70300T
Staging table name	T_E_MUpdateStaging
Windows service name (display name)	E_MUpdatesNotificationService (E&M Updates Notification Service)

APPENDIX B: DPR DETAILS

Watched database tables	DTBESKYT DTBOERN DTCIV DTFORALDREMYND DTFORSV DTKADR DTNAVNE DTPERS DTSEPARATION DTSTAT DTTOTAL DTUDRIND
Staging table name	T_DPRUpdateStaging_DPRTTable
Windows service name (display name)	DPRUpdatesNotificationService (DPR Updates Notification Service)

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