

Recip-e pharmacy software follow-up

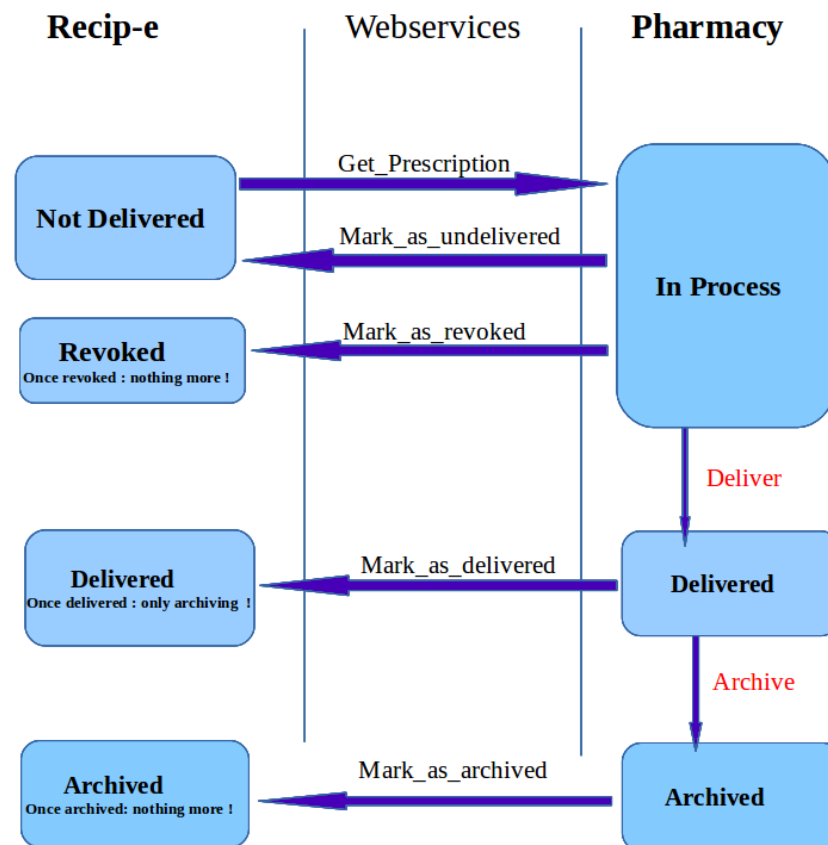
Recip-e pharmacy software follow-up

October 9th 2018

- Follow-up since June 2018
- Recip-e server adaptations
- New Recip-e calls in view of de-materialisation
- End-to-end error discovery and testing

Recip-e principles and transitions

**Allowed status transition for a prescription
the associated actions and webservice calls**



Recipe audit trail May 2018 and August 2018

	May 2018			August 2018 (1-26)		
Operation	pharmacies	#	%	pharmacies	#	%
getPrescription	4880	3310139		4845	2424480	
getPrescription ERRORS	4002	40319	1,22	3751	27000	1,13
markAsDelivered	4691	2892183		4692	2108984	
markAsDelivered ERRORS	1295	21124	0,7	1646	53761	2,5
markAsUndelivered	4827	179795		4809	141663	
markAsUndelivered ERR.	2125	15131	8,41	1935	10971	7,74
revokePrescription	287	638		208	482	

Recip-e audit trail May 2018 and August 2018

Still (end August 2018):

- 153 pharmacies never send in « markAsDelivered »
- 631 pharmacies never send in « markAsArchived »
- Many pharmacies do not keep track of the status of the prescriptions

Recipe technical errors from pharmacies

- GetPrescription with bad RID (unallowed characters)
- markAs[Un]Delivered without RID
- Transitions towards unallowed states
- markAsDelivered calls completely absent
- MarkAsArchived missing

GetPrescription with bad RID

- RID characters well defined
- Format : BEP[0][1]
- 8 alpha-numeric characters that follow
- No letters « O » « I » « J » « U »
- No special characters
- Only upper case characters
ABCDEFGHIJKLMNPRSTVWXYZ
- Allowed numbers 0 1 2 3 4 5 6 7 8 9

markAs[Un]Delivered without RID

- Simple verification : valid RID MUST BE present !

Unallowed transitions between states

- GetPrescription → status « in process »
- MarkAsDelivered → status « delivered »
- MarkAsArchived → status « archived » -> final
- Also : from « in process » to « undelivered » via markAsUndelivered

trying multiple times is useless !

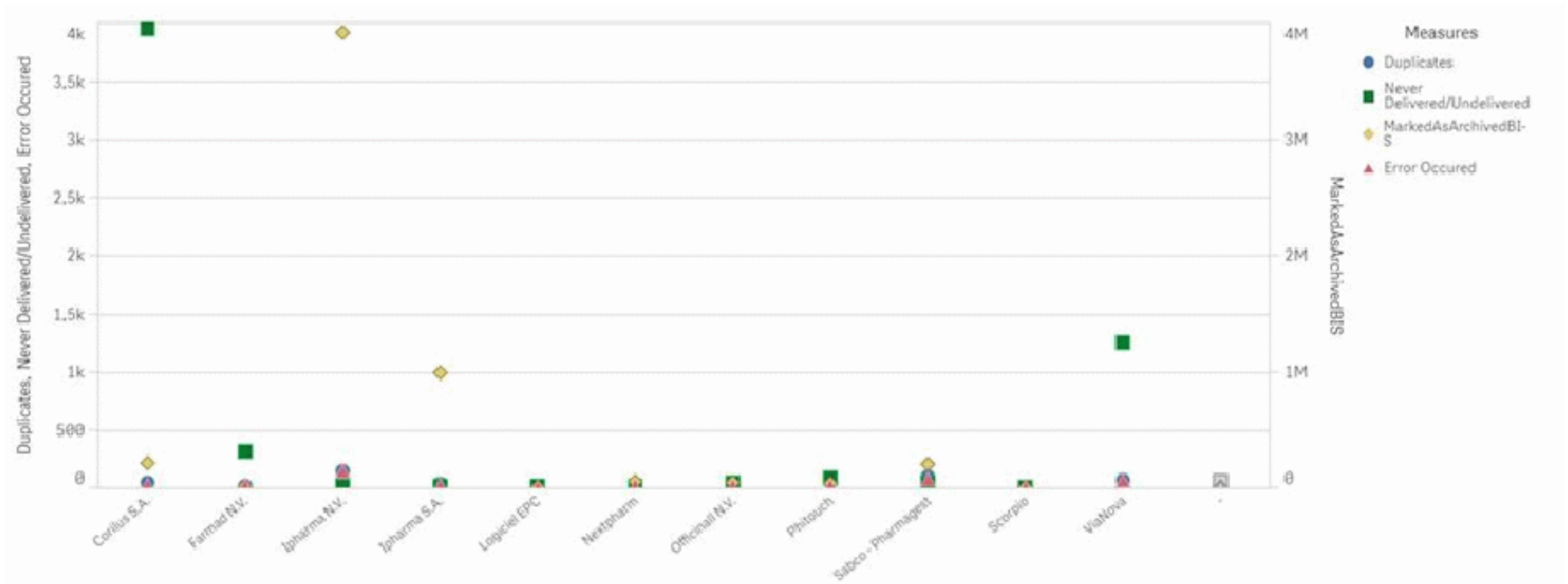
markAsDelivered calls absent

- MarkAsDelivered missing : 140 pharmacies did not send in any delivery message in May (153 in August)
- 3.310.139 via getPrescription
 - 2.892.183 were marked as delivered
 - 179.795 were undelivered
 - 638 were revoked
- This leaves a difference of : 237.523 unaccounted for !

markAsArchived missing

- 600 pharmacies currently still do not send archive confirmation markAsArchived
- In August : 631

Overview 27/9 – 3/10 2018



Recip-e server adaptations

- Additional info :

Error : already Delivered at **XXXX** (**XXX == APB number of pharmacy**)

Error : inProcess at **YYYY**

- Recip-e error messages differentiation : illegal/
useless status transitions

100022**A** → NotDelivered to Delivered

100022**B** → Delivered to Delivered

Recip-e server adaptations

- Additional info :

Error : already Delivered at **XXXX** (**XXX == APB number of pharmacy**)

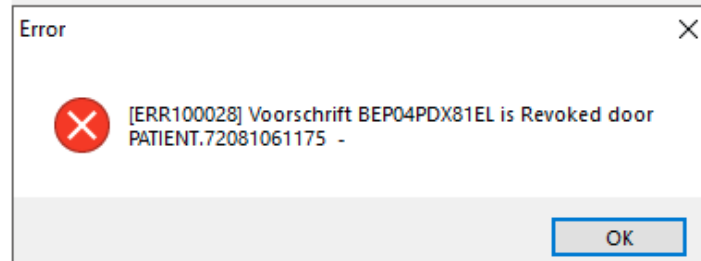
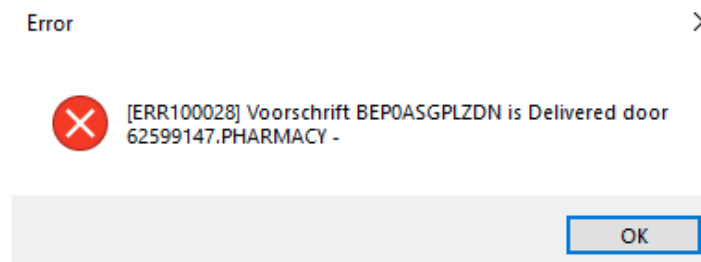
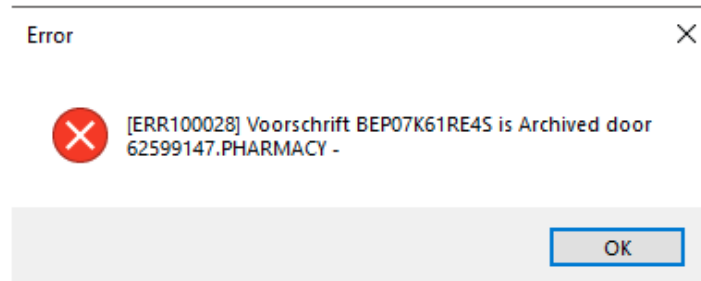
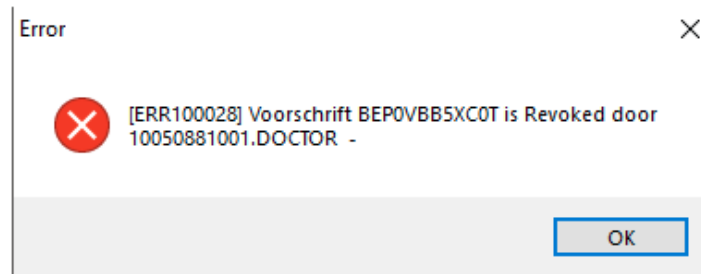
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- Recip-e error messages differentiation : illegal/
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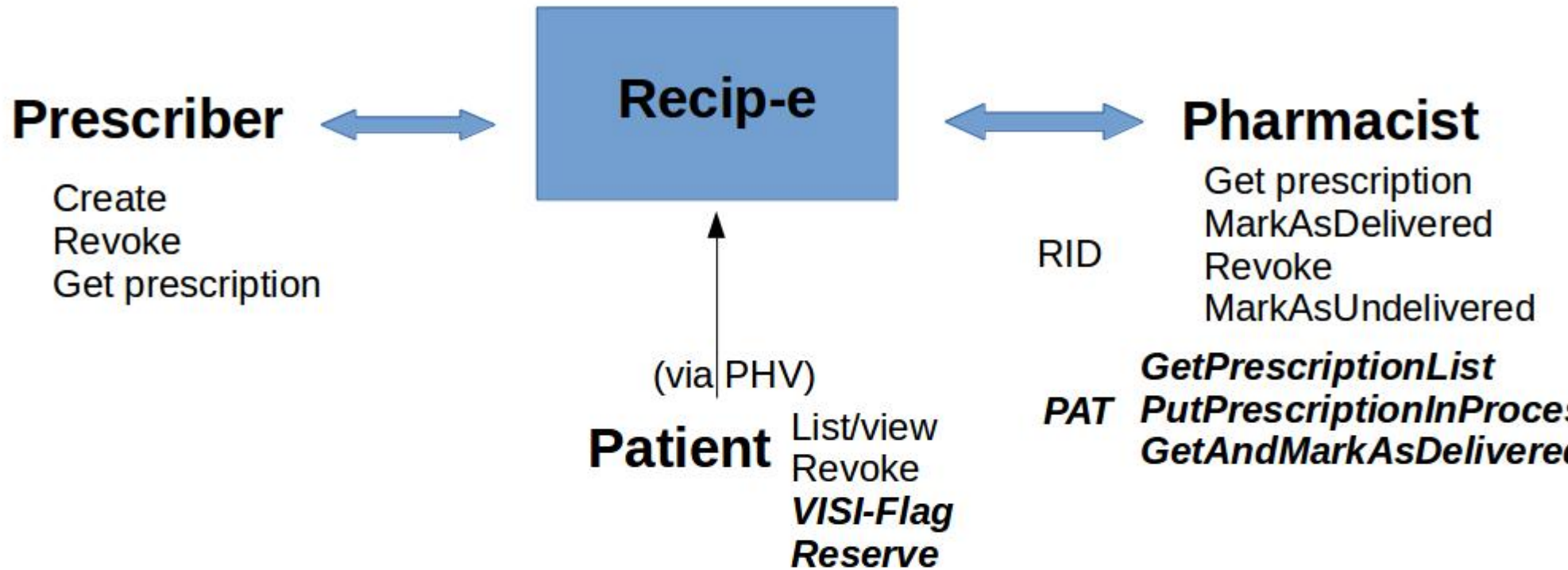
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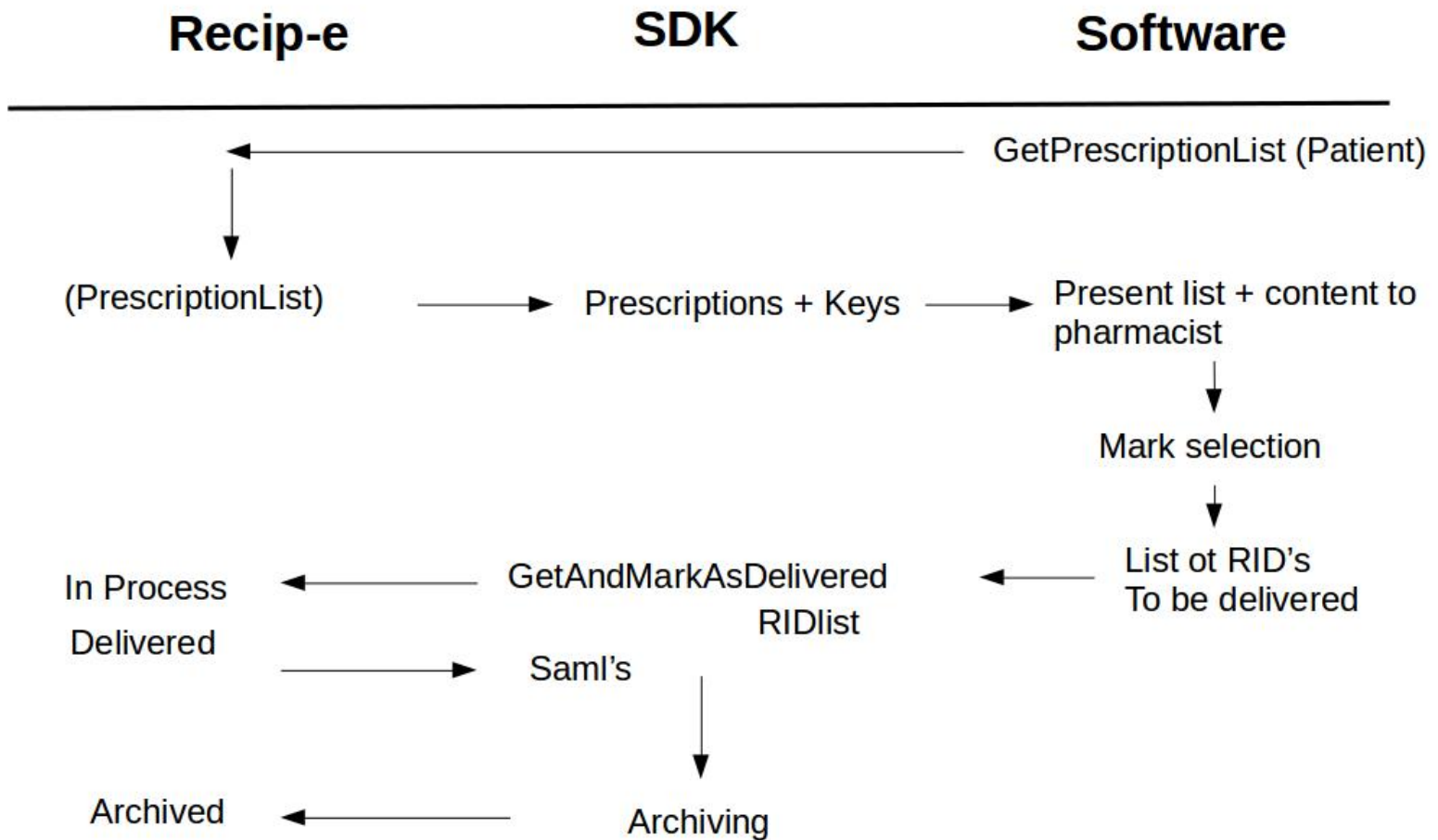
Recip-e server adaptations



Recip-e dematerialisation broad picture



Recip-e dematerialisation broad picture



Recip-e 3 additional calls in support of dematerialisation

Patient functions via Personal Health Viewer

- Visi – flag (on : visible to all pharmacies / off : not visible)
- Destinee : prescription to one pharmacy

Additional webservice calls for pharmacies

- Three-new calls (webservices)

Recip-e 3 additional functions in support of dematerialisation

Two new “generic calls”

GetData (cmd, parameters)

PutData (cmd, parameters)

Additional Recip-e webservice functions :

GetData(GetOpenPrescriptionList, params(month))

PutData(PutPrescriptionInProcessingStatus,
params(RIDx, RIDy, ...))

Recipe 3 additional calls in support of dematerialisation

GetOpenPrescriptionlist (INSZpatient, month, year)

input: insz patient

output: list prescriptions + pagination + depending on VISI-FLAG.

All data including encrypted blob + encryption key, NOT proof. **The statuses of the prescriptions remain unchanged.**

Recip-e additonal calls in support of dematerialisation

- **PutPrescriptionInProcessingStatus, RIDx, RIDy, ...**

IN: List RIDs

OUT: Ok or not ok

Recip-e additonal calls in support of dematerialisation

In the executor-connector a new operation :

GetAndMarkAsDelivered, combining the getPrescription-operation and the markAsDelivered-operation. Delivers the prescription to the requesting software and places it in conf/archive.

The archive-operation is performed by the connector, runs in the background to save time when requested, the operation is closed

Recip-e additonal end-to-end study

Resultaten van Sven

Logging KGSS log4j missing messages ?

Test-apotheken (2) Bergmans officinall

Vraag : end to end als call OK is return code 0 ?
in de connector 1.6.1 ?

Recip-e Jira actief : contacteer

Jonas.Wery@apb.be

Ziekenhuisapotheken → certif. → Yves Lahaise

Recip-e additonal calls in support of dematerialisation

Bij de voorschrijvers :

Dematerialiseringsvalidator

Validatie toevoegen aan de createPrescription-operatie die de createPrescriptionparameters valideert in de connector.

Input: CreatePrescriptionParams (inclusief kmehr)

Output:

Indien geen validatie fouten: createPrescription van Recip-e aanroepen