Managing switch obligations using Registry Switch Timer functionality

Version 1.0

History of Changes

Outline of changes that have been made to this document since the last version

Version	Date	Section	Change Summary
1.0	06/08/2019		Initial version

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Registry Switch Timer Functionality

The Switch Breach Timers feature provides visibility to Traders allowing them to track the progress of customer switches and align internal processes with their Code obligations.

The feature is a framework around tracking and assigning obligations, with associated time frames, to the gaining or losing Trader involved in an ICP switch.

Purpose of this Document

This document outlines:

- Principles around the framework
    - Key concepts
- How the feature works
    - Using the feature

Feature Overview

Part 11 of The Code (https://www.ea.govt.nz/code-and-compliance/the-code/) provides for the management of information held by the Registry, a process for switching customers and embedded generators between Retailers, and a process for managing events of default by Traders.

A key element of the obligations is the timely provision of switch (transaction) messages to the Registry.

On receipt of a switch message the Registry evaluates the message against a set of compliance rules maintained by the Registry Administrator and creates timers to track delivery obligations.

The Registry provides reporting to track switch message delivery obligations, and breaches that have occurred due to late delivery or data inconsistencies.

Key concepts

Arrival of a switch message impacts both gaining and losing trader obligations under the Code. When a switch message arrives, the Registry performs multiple evaluations using rules relevant to each switch message, the evaluations include:

a. Has the switch message itself caused a breach? This evaluation can be termed **Data Consistency** where evaluation is based on the information in the switch message itself and is largely autonomous. For example:

   i. a CS message arrives and the CS Actual Transfer Date is > 90 days after the NT arrival date. A permanent Switch Breach record is created.

b. Does receipt of the Switch Message place obligations against one of the Traders involved in the switch whereby a future switch message must be provided within a timeframe? This can be termed a **Timeliness** evaluation. Arrival of a switch message may create 1 or multiple “Switch Timers” each with a due date and countdown. For example:

   i. a NT message arrives for a Transfer (TR) Switch Type and creates a future obligation on the losing Trader to provide at least one of AN, NW or T2 switch messages; that is, 3 Switch Timers are created.

c. Has the switch message arrived outside the defined timeframe; that is, has it arrived late? The **Switch Timers** (item b above) created by arrival of a prior switch message are evaluated. For example:

   i. a NT message arrives for a Transfer (TR) switch type creating 3 Switch Timers (AN, NW and T2). The NW switch message arrives outside its timeframe; the NW Switch Timer has a breach end date set and becomes a permanent Switch Breach record.

d. Does receipt of the Switch Message remove a **Timeliness** obligation? For example:

   i. a NT message arrives for a Transfer (TR) switch type creating 3 Switch Timers (AN, NW and T2). The CS switch message arrives inside its timeframe; the AN, NW and T2 timers are removed as they have become irrelevant.

The following diagram summarises the evaluation steps performed by the Registry on arrival of a switch message:

Arrival of a switch message outside business hours

The Registry considers business days and business hours when determining the arrival date of a switch message and when calculating the due date of a subsequent switch message; that is:

- if switch message arrival time is earlier then 07:30 (00:00 to 07:30)
    - arrival time = 7:30,
    - arrival date = next/current business day inclusive; that is if a Saturday next Business Day is Monday, if Monday then Business Day = Monday
- if switch message arrival time is between 07:30 and 19:30
    - arrival time no change,
    - arrival date = next/current business day inclusive; that is if a Saturday next Business Day is Monday, if Monday then Business Day = Monday
- if switch message arrival time later than 19:30 (19:30 to 23:59)
    - arrival time = 07:30
    - arrival date = next business day

Switch Breach Types

Registry monitors for the following switch breaches:

Breach Name	Breach 2-digit Identifier	*Brief Description
AN Delivery	AN	Identifies where acknowledgement for the NT message is delivered outside it's allowed timeframe by the losing trader.
CS received after an AN	CS	Identifies where the CS is delivered immediately after the AN has been received, but is delivered outside it's allowed timeframe.
CS received after an NT	T2	Identifies where the CS is delivered immediately after the NT has been received, but is delivered outside it's allowed timeframe.
CS Event Date	E2	Identifies if the CS Transfer date differs from the CS delivery date by more than its allowed timeframe.
RR delivery	RR	Identifies if a switch reread request has been delivered outside of its allowed timeframe.
AC Delivery	AC	Identifies if a response to a switch reread request has been delivered outside its allowed timeframe.
NW delivery before switch completion	NW	Identifies if a notice of withdrawal, provided immediately after the NT has been delivered outside its allowed timeframe.
NA delivery after switch completion	NA	Identifies if a notice of withdrawal, provided after the switch completed, has been delivered outside its allowed timeframe.
AW Delivery	AW	Identifies if a response to a notice of withdrawal request has been delivered outside its allowed timeframe.
NW after initial withdrawal rejection	SR	Identifies where a 2nd or subsequent notice of withdrawal is submitted by the same trader, and the 2nd or subsequent notice of withdrawal outside its allowed timeframe.
AN Expected Transfer Date	ET	Identifies where the acknowledgment (AN) message Expected Transfer Date is earlier than then NT proposed transfer date, or the An Expected Transfer Date is more than its allowed timeframe after the NT arrival date.
NT Proposed Transfer Date	PT	Identifies data inconsistencies between NT Proposed Transfer Date, AN Expected Transfer Date and NT arrival date.
Switch completion after withdrawal rejection	WR	Identifies where a switch withdrawal has been rejected, and the switch then completes outside its allowed timeframe.

*brief description summarises the breach conditions, these often have slight variations for each switch type, and some breaches are not relevant for all switch types. Please refer to the registry manager functional specification for a detailed explanation of breach conditions.

How the Feature Works

Utilising the Registry report to track Switch Timers and Switch Breaches and integrating back-office systems with this feature will allow monitoring of switching obligations and reduce exposure to breaches of the Code.

Using the Feature

A user may request a switch compliance report (refer to Registry Functional Specification Sub-process “PR-040 Produce switch compliance reports”).

The switch compliance report provides multiple views of the switch compliance landscape as either a Detail or Summary. The information returned is dependent on the parameters supplied with a request.

Historical Report

The historical report is used to show breaches that have already occurred.

The historical reports show, either in summary or in detail, switch transactions that were not received by their due date or had data inconsistencies.

Current Report

The current report is used to show work in progress.

The current reports show, either in summary or in detail switch transactions that have not been completed ‘as at’ today.

Summarised Output

As ICPs themselves are not reported this output is most useful to identify trends and patterns and establishing if there are systemic issues in how switch messages are being handled.

Summarised output selects Switch Timers that are due or overdue and aggregates the information; that is, individual ICP identifiers are not reported.

The identified Switch Timers are sorted into 4 buckets with each bucket representing a user-specified number of days overdue, Switch Timers sitting outside the number of days in bucket 4 are placed into a default system generated catch-all bucket (bucket 5).

Output is volume based and does not include the specific ICP identifiers. Output includes:

- Switch Type
- Breach Type
- Participants involved in the switch
- Number of days buckets x5.

Detail Output

This output is most useful to identify specific ICPs that have breached or are about to breach. It can be used to ensure switch messages are delivered in a timely manner.

Detail output selects Switch Timers that are overdue, and the due date is inside a user-specified date range.

The identified Switch Timers are verified against a user-specified number of days overdue and reported if the Switch Timer exceeds this value. Output includes:

- Switch Type
- Breach Type
- Participants involved in the switch
- ICP Identifier
- Breach start date
- Breach due date
- Breach end date
- Number of days in breach.

Submitting a request

A request may be submitted using either the batch or browser interface.

It is a good practice to have the Switch Compliance report run regularly, the report can be scheduled to run on a recurring basis using the browser report scheduler (see User Manual).

Regardless of the interface used to initiate the report the input parameters are the same.

A batch request must use the standard request template including:

- header information specifying the type of request as the 1st line on the file prepended by a header identifier token (HDR); followed on subsequent lines by
- specific parameters, each parameter prepended by a parameter token (PRAM) and line number.

A request submitted by the browser interface need supply parameter information only, the Registry will automatically build the standard request header based on user meta data.

There are overarching mandatory parameters required, these are followed by specific parameters dependant on how the data is to be presented (Detail or Summary) and the date or date ranges to be interrogated.

Parameter	Description
	Mandatory
Switch Type	Specify the Switch Types to be interrogated. For example, if you wish to see only Move In switches set this parameter to MI. If left as null, the Registry will presume all Switch Types must be reported

Parameter	Description
Breach Type	Specify the Breach Type(s) (aka Switch Timer) to be reported. For example, if you wish to see only “failures to deliver a switch completion after withdrawal rejection” set this parameter to WR. If left as null, the Registry will presume all Breach Types must be reported.
Summary or Detail	Specify the format of the returned output. Either aggregated Summary view (“S”) or Detail (“D”). There is no default, this parameter must be supplied

Submitting a Switch Breach History Summary request

In addition to the header record a Switch Breach History Summary request must supply the following parameters:

Parameters	Description
Start Date	Used in conjunction with End Date, defines the date range inside which a due date resides
End Date	
Days Due or overdue (Bucket 1)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 2)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 3)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 4)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
(an assumed 5th bucket exists which is > than highest positive bucket specified, if no positive value specified then 1 day is assumed)	
Participant Identifier	The submitting participants unique Participant Identifier code. For online submission this defaults to the requesting traders identifier
Breach Participant	B – report breaches on both participants in the breach S – report breaches you (self) are responsible for O – report breaches the other participant is responsible for
Example of a Switch Breach Summary report request using the batch interface: HDR,RQSWBRHIST,RETA,RGST,12/09/2019,11:13:12,11,SBHS Request	
PRAM01,MI TR	Report Move In (MI) and Transfer (TR) switches only
PRAM02,CS NW	Report CS and NW breaches only
PRAM03,S	Output must be in Summary format
PRAM04,12/09/2019	Report Switch Breaches where the due date is on or after 12/09/2019
PRAM05,30/09/2019	Report Switch Breaches where the due date is on or before 30/09/2019
PRAM06,1	Breaches that were 1 day overdue appear in this bucket
PRAM07,3	Breaches that were 2 to 3 days overdue appear in this bucket
PRAM08,7	Breaches that were 4 to 7 days overdue appear in this bucket
PRAM09,10	Breaches that were 8 to 10 or more days overdue appear in this bucket
PRAM10,RETA	Report submitted by RETA
PRAM11,B	Report breaches where RETA was responsible for the breach and any other trader was responsible for the breach

Submitting a Switch Breach History Detail request

In addition to the header record a Switch Breach History Detail request must supply the following parameters:

Parameters	Description
Start Date	Used in conjunction with End Date, defines the date range inside which a due date resides.
End date	
Days Overdue	The number of days a Breach is overdue.
Days Due or overdue (Bucket 2)	Ignored for a detail request
Days Due or overdue (Bucket 3)	
Days Due or overdue (Bucket 4)	
Participant Identifier	The submitting participants unique Participant Identifier code
Breach Participant	B – report breaches on both participants in the breach S – report breaches you are responsible for O – report breaches other participant is responsible for
Example of a Switch Breach Detail report request using the batch interface: HDR,RQSWBRHIST,RETA,RGST,12/09/2019,11:13:12,11,SBHD Request	
PRAM01,MI TR	Report Move In (MI) and Transfer (TR) switches only
PRAM02,CS NW	Report CS and NW Switch Breaches only
PRAM03,D	Output must be in Detail format
PRAM04,01/01/2019	Identify Switch Breaches where the due date is on or after 01/01/2019
PRAM05,01/09/2019	Identify Switch Breaches where the due date is on or before 01/09/2019
PRAM06,10	Report Breaches that were 10 days or more overdue
PRAM07,	Ignored for a detail request
PRAM08,	
PRAM09	
PRAM10,RETA	Report submitted by RETA
PRAM11,B	Report breaches where RETA was responsible for a breach and any other trader was responsible for a breach

Submitting a Switch Breach Current Summary request

In addition to the header record a Switch Breach Current Summary must supply the following parameters:

Parameters	Description
As At Date	For the current report the value supplied in this field is discarded. The perspective of the current report as always As At today
Days Due or overdue (Bucket 1)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 2)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 3)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
Days Due or overdue (Bucket 4)	The number of days the Breach Type is overdue. If a negative value is supplied this bucket will report the number of days until a breach is due
(an assumed 5th bucket exists which is > than highest positive bucket specified, if no positive value specified then 1 day is assumed)	
Participant Identifier	The submitting participants unique Participant Identifier code
Breach Participant	B – report breaches on both participants in the breach S – report breaches you are responsible for O – report breaches other participant is responsible for
Example of a Switch Breach Current Summary Report request using the batch interface: HDR, RQCUSWBR,RETA,RGST,12/09/2019,11:13:12,10,SBCS Request	
PRAM01,MI TR	Report Move In (MI) and Transfer (TR) switches only
PRAM02,CS NW	Report CS and NW breaches only
PRAM03,S	Output must be in Summary format
PRAM04,12/09/2019	Report Switch Breaches where the due date is on or after 12/09/2019
PRAM05,1	Breaches that were 1 day overdue appear in this bucket
PRAM06,3	Breaches that were 2 to 3 days overdue appear in this bucket
PRAM07,7	Breaches that were 4 to 7 days overdue appear in this bucket
PRAM08,10	Breaches that were 8 to 10 or more days overdue appear in this bucket
PRAM09,RETA	Report submitted by RETA
PRAM10,B	Report breaches where RETA was responsible for the breach and any other trader was responsible for the breach

Submitting a Switch Breach Current Detail request

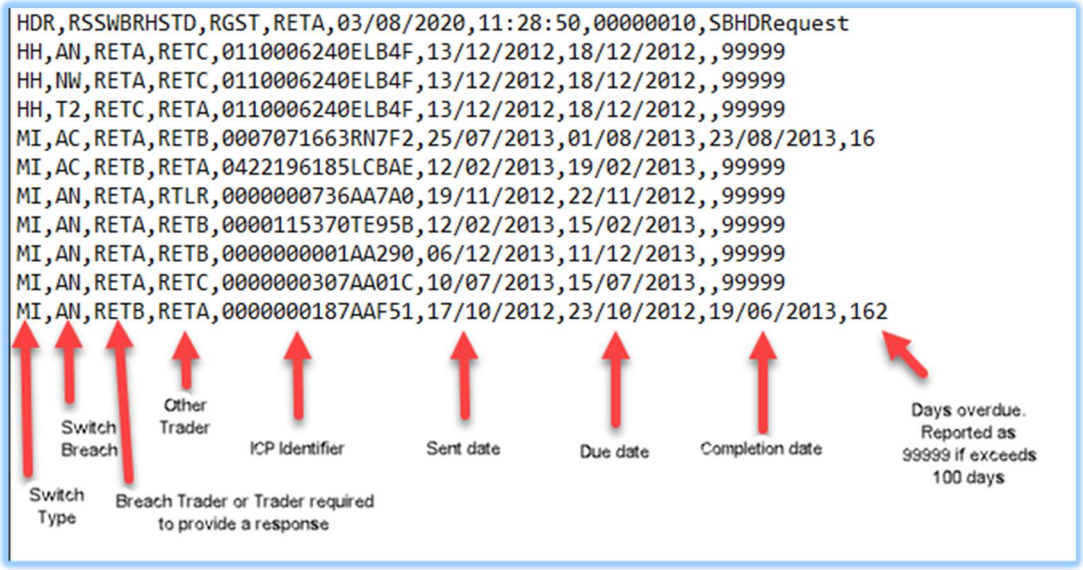
In addition to the header record a Switch Breach Current Detail must supply the following parameters:

Current Report	
As At Date	For the current report the value supplied in this field is discarded. The perspective of the current report as always As At today
Days Due	The number of days until a Switch Timer is due
Days Overdue	The number of days a Switch Timer is overdue
Days Bucket	Ignored for a detail request
Days Bucket	
Participant Identifier	The submitting participants unique Participant Identifier code
Breach Participant	B – report breaches on both participants in the breach S – report breaches you are responsible for O – report breaches other participant is responsible for
Example of a Switch Breach Current Summary Report request using the batch interface: HDR, RQCUSWBR,RETA,RGST,12/09/2019,11:13:12,10,SBCD Request	
PRAM01,MI TR	Report Move In (MI) and Transfer (TR) switches only
PRAM02,CS NW	Report CS and NW breaches only
PRAM03,D	Output must be in Detail format
PRAM04,01/01/2019	Report Switch Breaches where the due date is on or after 01/01/;2019
PRAM05,5	Report Switch Breaches due to occur within the next 5 days
PRAM06,1	Report Switch Breaches overdue by 1 or more days
PRAM07,	Ignored for a detail request
PRAM08,	
PRAM09,RETA	Report submitted by RETA
PRAM10,B	Report breaches or switch timers where RETA was responsible for the breach, or where the other trader was responsible for the breach or switch timer

Analysing the results

Detailed Results Sample Output

Detailed results for Historical and Current option return a set of Switch Breaches at ICP level with additional information including date the timer started (Sent date), the Due date, the end date (Completion date) and the number of days in breach (Days overdue)



Detail Results Date interpretation

<table>
<tr><th>Field</th><th>Interpretation</th></tr>
<tr><td>Sent date</td><td>This is most commonly the date the notice or message was received by the Registry that triggered creation of the Switch Timer:
<table>
<tr><th>Breach Type</th><th>Sent Date</th></tr>
<tr><td>AN</td><td>NT arrival date</td></tr>
<tr><td>CS</td><td>AN arrival date</td></tr>
<tr><td>T2</td><td>NT arrival date</td></tr>
<tr><td>E2</td><td>CS arrival date</td></tr>
<tr><td>RR</td><td>RR arrival date</td></tr>
<tr><td>AC</td><td>RR arrival date</td></tr>
<tr><td>NW</td><td>NT arrival date</td></tr>
<tr><td>NA</td><td>NW arrival date</td></tr>
<tr><td>AW</td><td>NW arrival date</td></tr>
<tr><td>SR</td><td>NW arrival date</td></tr>
<tr><td>ET</td><td>AN arrival date</td></tr>
<tr><td>PT</td><td>NT arrival date.

For the HH switch, if triggered by the AN this is AN arrival date</td></tr>
<tr><td>WR</td><td>AW arrival date</td></tr>
</table></td></tr>
<tr><td>Due date</td><td>The date that notice of the switch event that is subject to a breach was due to be received:
<table>
<tr><th>Breach Type</th><th>Sent Date</th></tr>
<tr><td>AN</td><td>NT arrival date + timeframe</td></tr>
<tr><td>CS</td><td>• TR Switch type: AN Expected Transfer Date + timeframe
• MI Switch Type: NT arrival date + timeframe
HH Switch Type: AN arrival date + timeframe</td></tr>
<tr><td>T2</td><td>NT arrival date + timeframe</td></tr>
<tr><td>E2</td><td>CS Actual Transfer Date</td></tr>
<tr><td>RR</td><td>CS Actual Transfer Date</td></tr>
<tr><td>AC</td><td>RR arrival date + timeframe</td></tr>
<tr><td>NW</td><td>NT arrival date + timeframe</td></tr>
<tr><td>NA</td><td>CS Actual Transfer Date</td></tr>
<tr><td>AW</td><td>NW arrival date + timeframe</td></tr>
<tr><td>SR</td><td>Arrival date of earliest submitted NW + timeframe</td></tr>
<tr><td>ET</td><td>AN Expected Transfer Date</td></tr>
<tr><td>PT</td><td>NT Proposed Transfer Date</td></tr>
<tr><td>WR</td><td>AW arrival date + timeframe</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Field</th><th>Interpretation</th></tr>
<tr><td>Completion date</td><td>The date that notice of the switch event that is subject to the breach was completed (actual arrival date):
<table>
<tr><th>Breach Type</th><th>Sent Date</th></tr>
<tr><td>AN</td><td>AN arrival date</td></tr>
<tr><td>CS</td><td>CS arrival date</td></tr>
<tr><td>T2</td><td>CS arrival date</td></tr>
<tr><td>E2</td><td>CS arrival date</td></tr>
<tr><td>RR</td><td>RR arrival date</td></tr>
<tr><td>AC</td><td>AC arrival date</td></tr>
<tr><td>NW</td><td>NW arrival date</td></tr>
<tr><td>NA</td><td>NW arrival date</td></tr>
<tr><td>AW</td><td>AW arrival date</td></tr>
<tr><td>SR</td><td>NW arrival date</td></tr>
<tr><td>ET</td><td>AN arrival date</td></tr>
<tr><td>PT</td><td>NT arrival date.
For the HH switch, if triggered by the AN this is AN arrival date</td></tr>
<tr><td>WR</td><td>CS arrival date</td></tr>
</table></td></tr>
<tr><td>Days overdue</td><td>Number of business days the event is overdue.
Note: for a RR breach this is the number of actual days between CS Actual Transfer Date and RR arrival date.</td></tr>
</table>

Summary Results Sample Output

Summary results for Historical and Current option return an aggregated set of results with Switch Timers or Breaches separated into user defined buckets.

.

```
HDR,RSSWBRCURS,RGST,RETA,12/09/2019,15:44:38,00000013,SBCS Request
MI,CS,RETB,RETA,1,0,0,0,0,1
MI,NW,RETA,RETB,2,0,0,0,0,2
MI,NW,RETA,RETC,1,0,0,0,0,1
MI,NW,RETA,RTLR,1,0,0,0,0,1
MI,NW,RETB,RETA,2,0,0,0,0,2
MI,NW,RTLR,RETA,1,0,0,0,0,1
TR,CS,RETA,RETB,2,0,0,0,0,2
TR,CS,RTLR,RETA,3,0,0,0,0,3
TR,NW,RETA,RETB,5,0,0,0,0,5
TR,NW,RETA,RTLR,1,0,0,0,0,1
TR,NW,RETB,RETA,4,0,0,0,0,4
TR,NW,RETC,RETA,3,0,0,0,0,3
TR,NW,RTLR,RETA,2,0,0,0,0,2
```

Switch Type

Switch Breach

Breached Trader, or Trader required to provide a response

Other Trader

User defined Buckets

Total number of ICPs

Appendix – Actions taken on arrival of a Switch Message

Arrival of a switch message triggers various actions including:

- Creation of a Switch Timer for evaluation by a future switch message
- Evaluation of a Switch Timer created by a prior switch message that may result in a Switch Breach
- Deletion of Switch Timer made redundant by arrival of a switch message
- Data Consistency validation against the switch message that has arrived that may result in creation of a Switch Breach

The following diagrams illustrate, by Switch Type, the actions taken on arrival of a switch message.

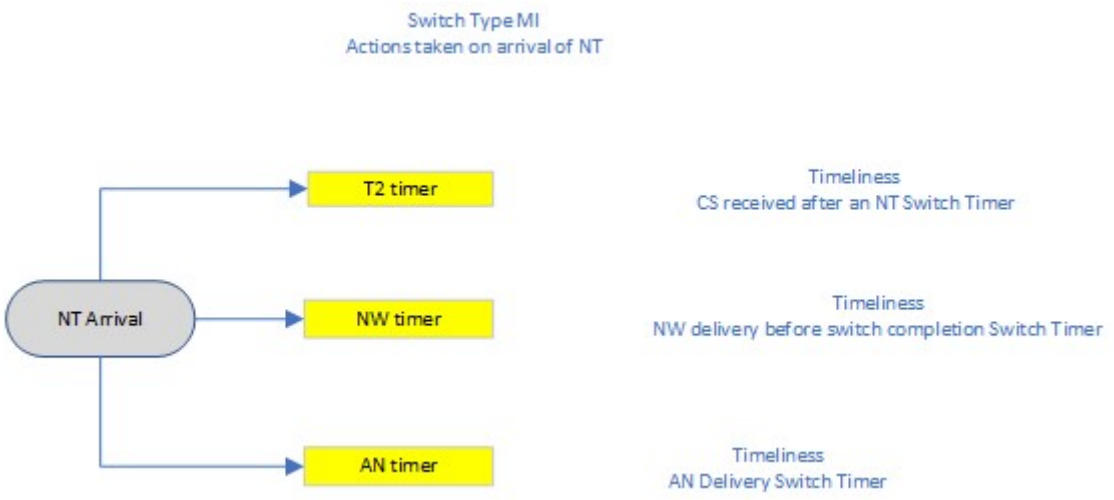
Switch Timer Created

Switch Timer Deleted

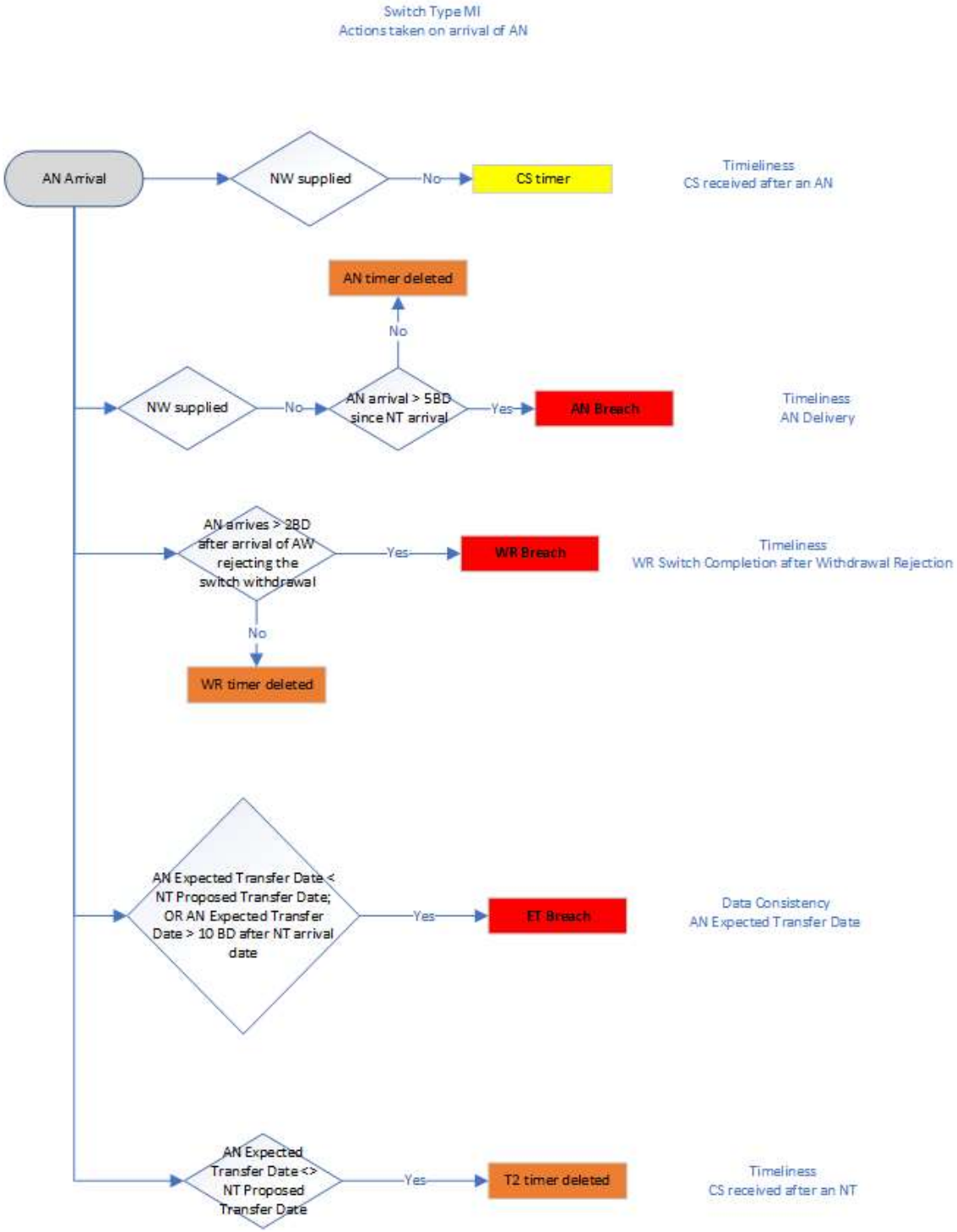
Switch Breach Created

Switch Type MI

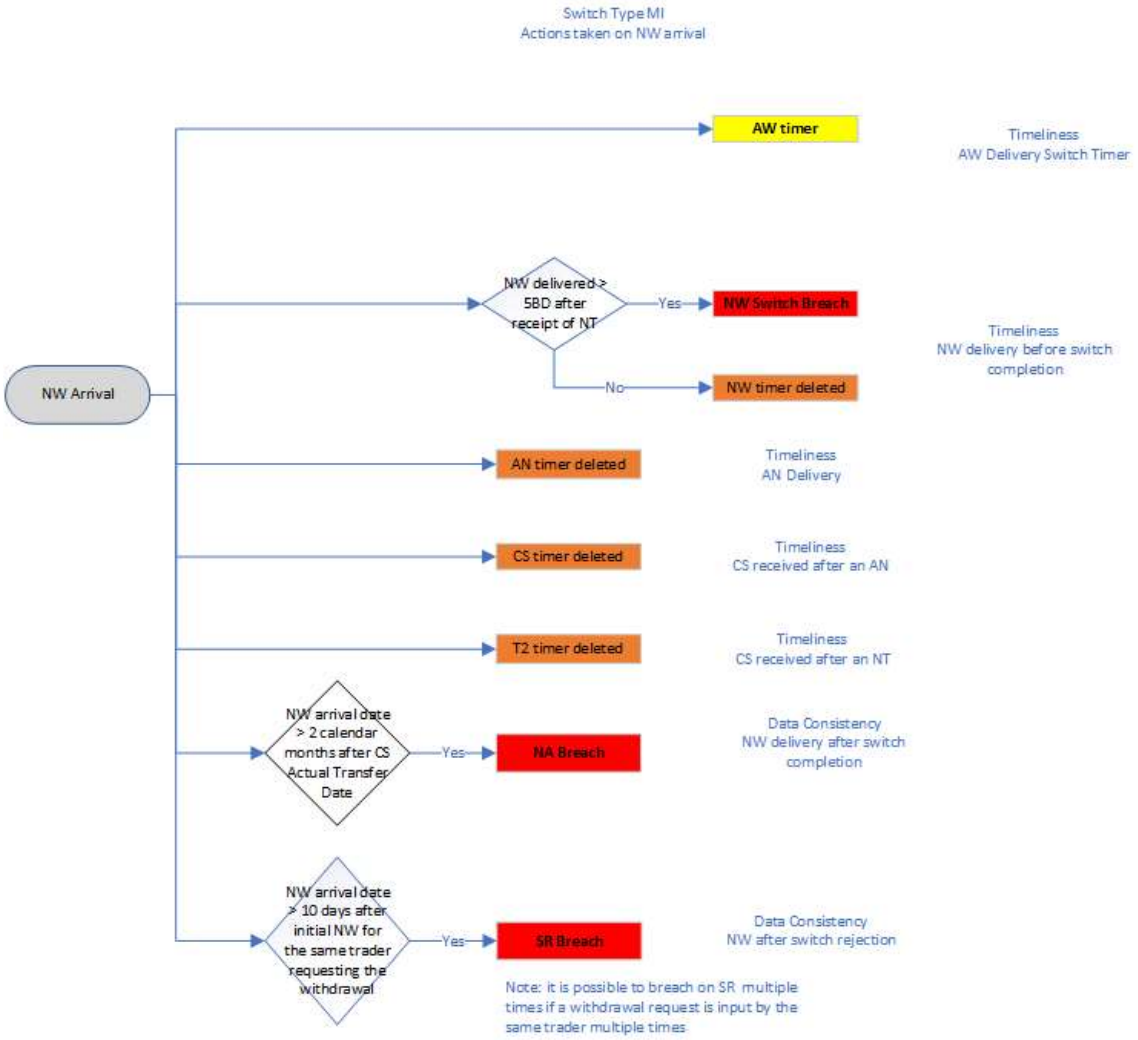
Actions taken on arrival of the NT switch message



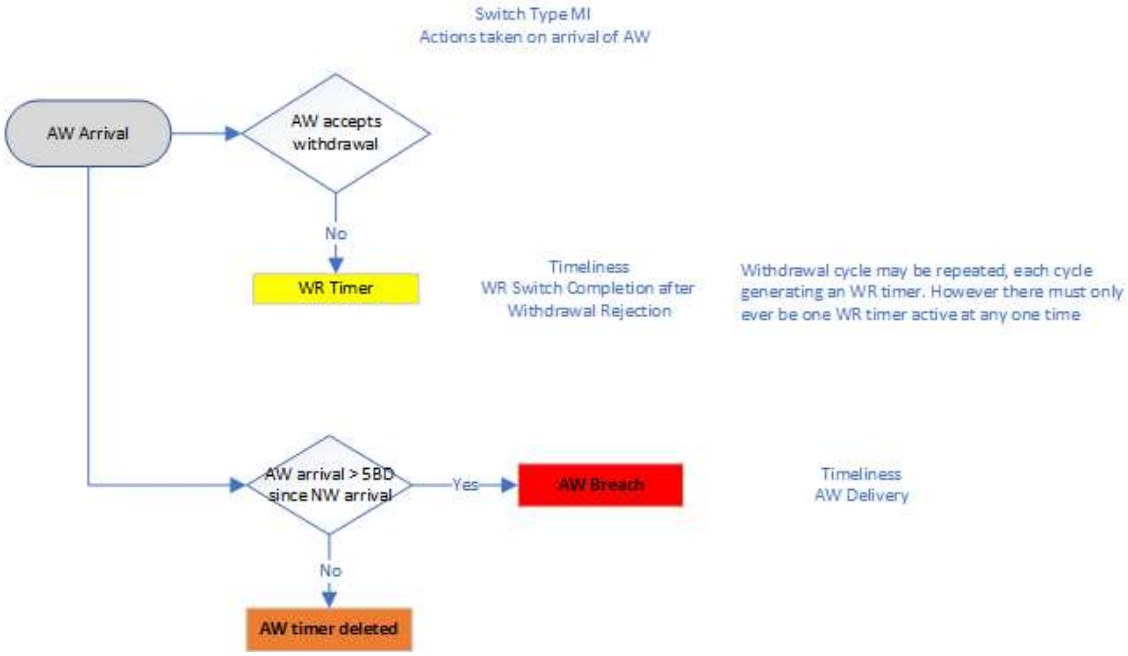
Actions taken on arrival of the AN switch message



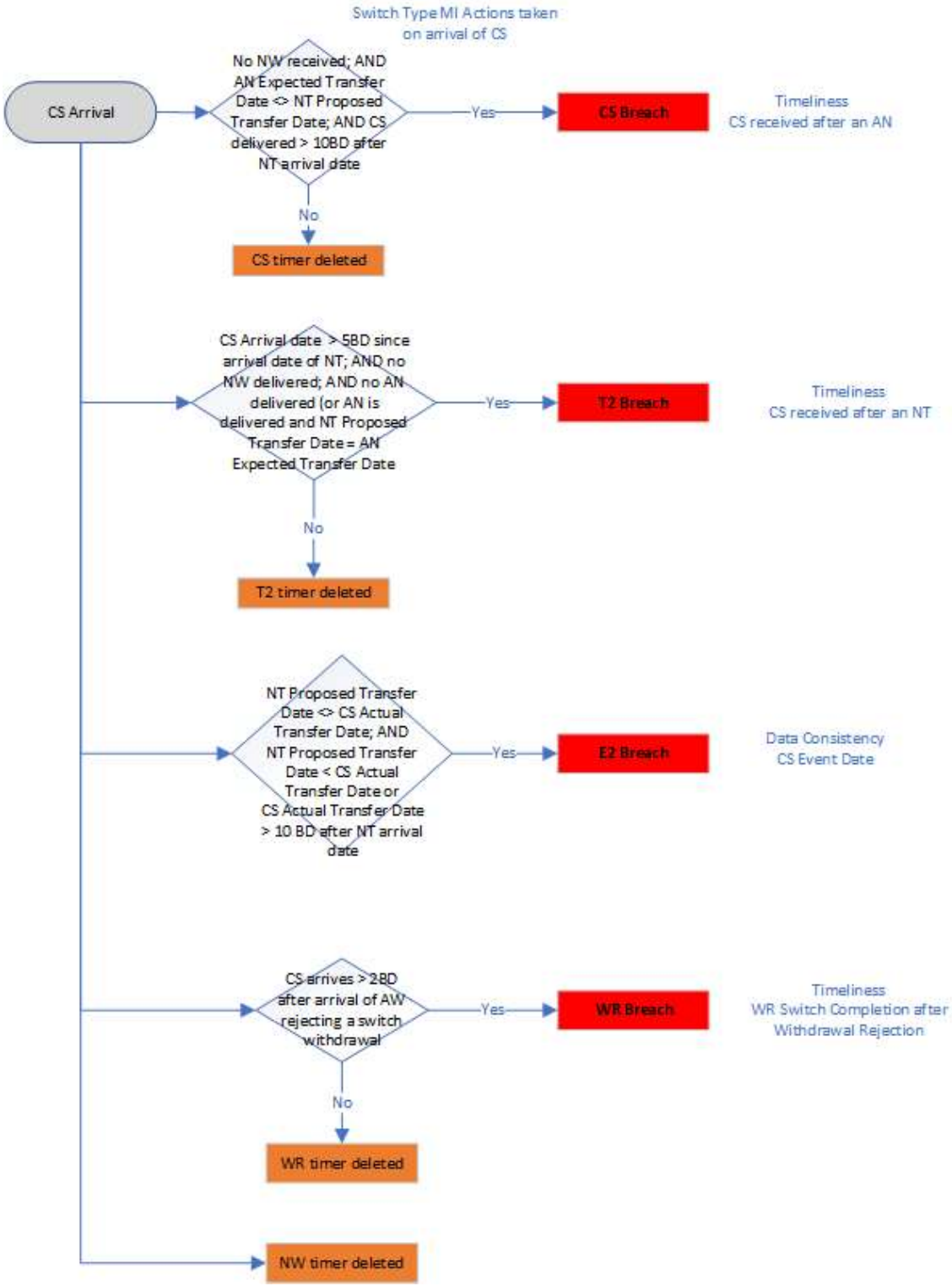
Actions taken on arrival of the NW switch message



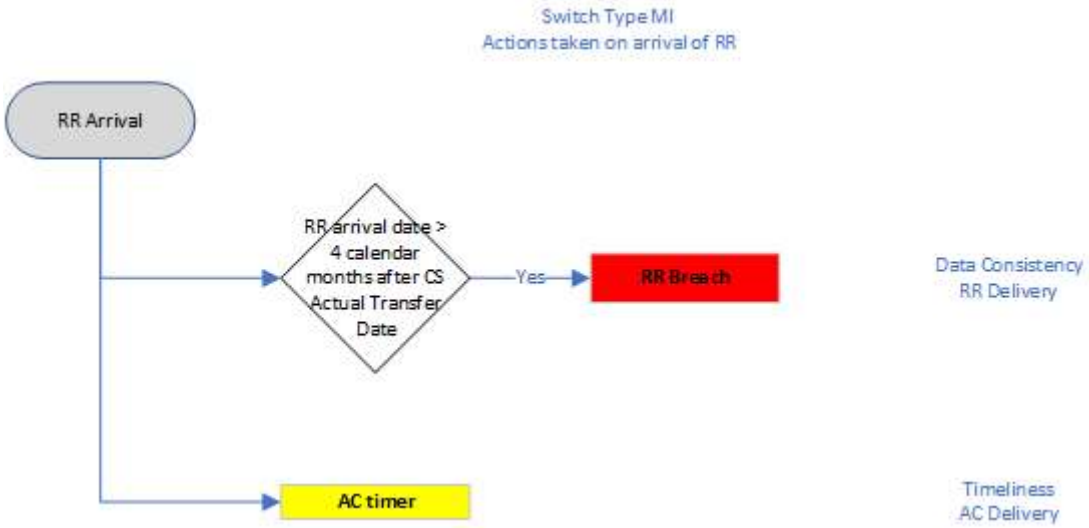
Actions taken on arrival of the AW switch message



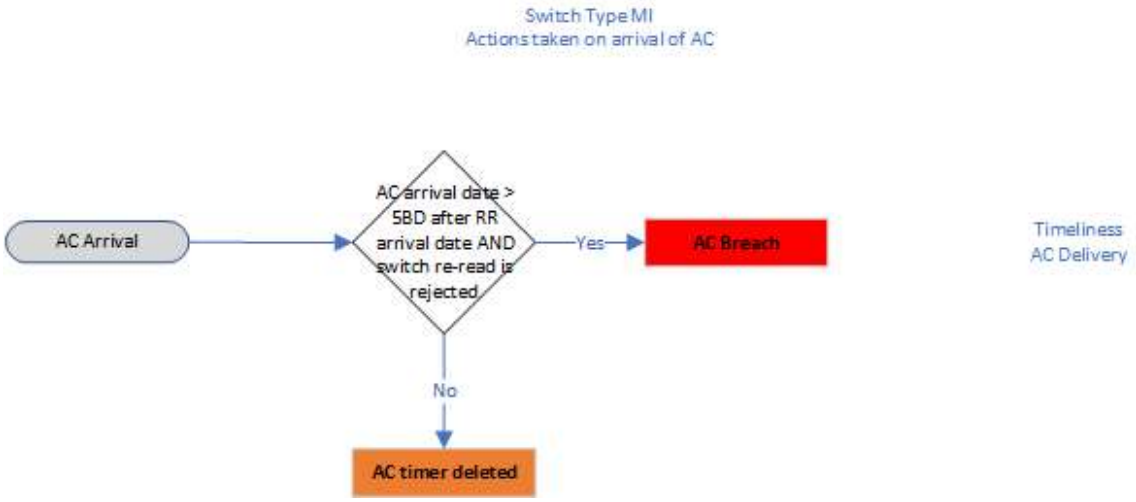
Actions taken on arrival of the CS switch message



Actions taken on arrival of the RR switch message

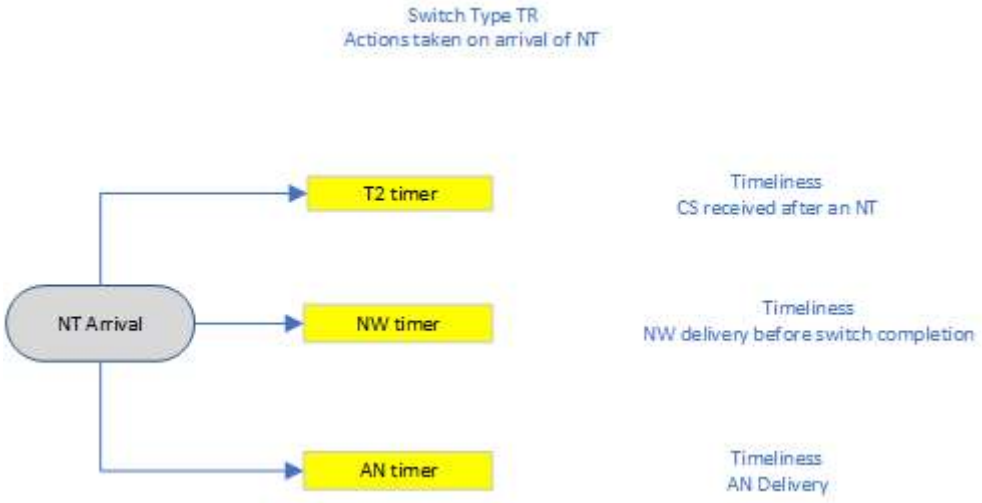


Actions taken on arrival of the AC switch message

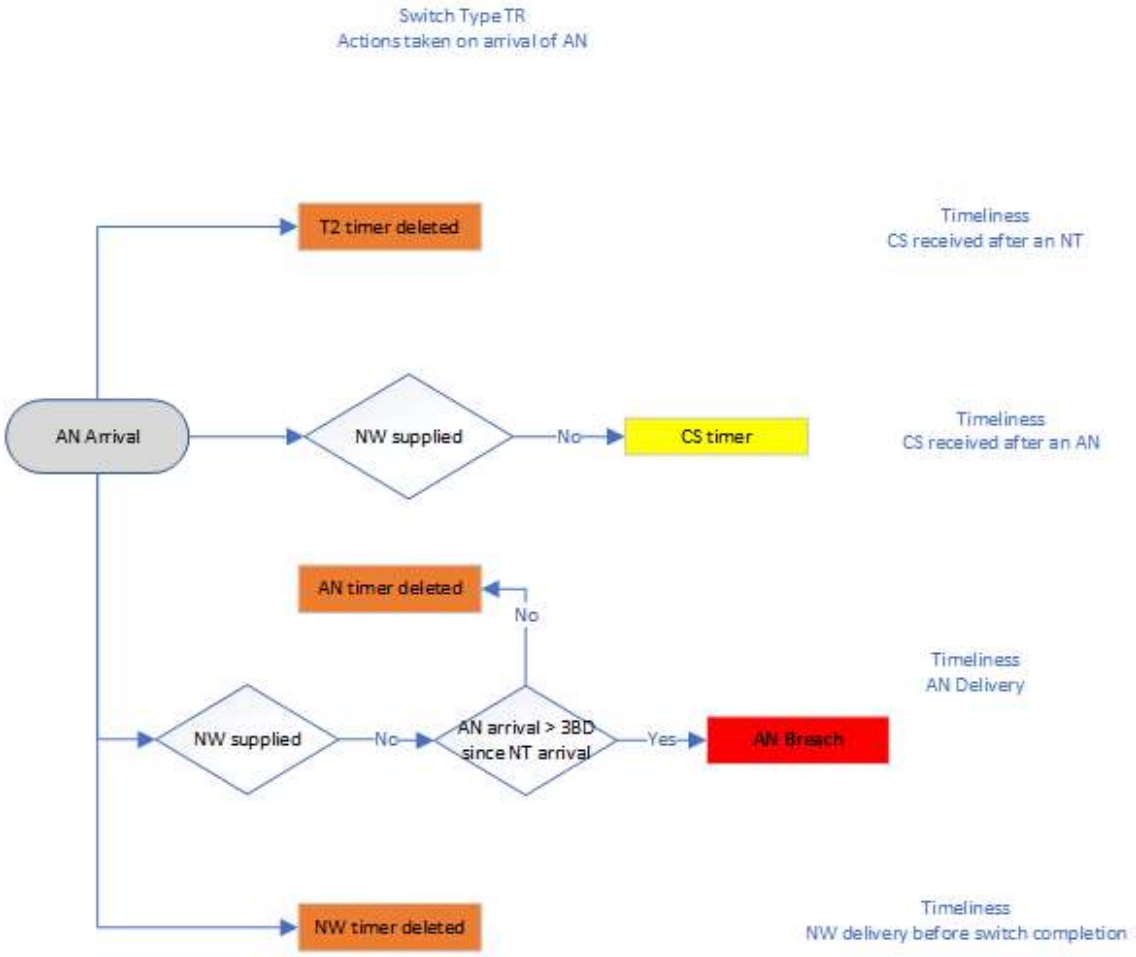


Switch Type TR

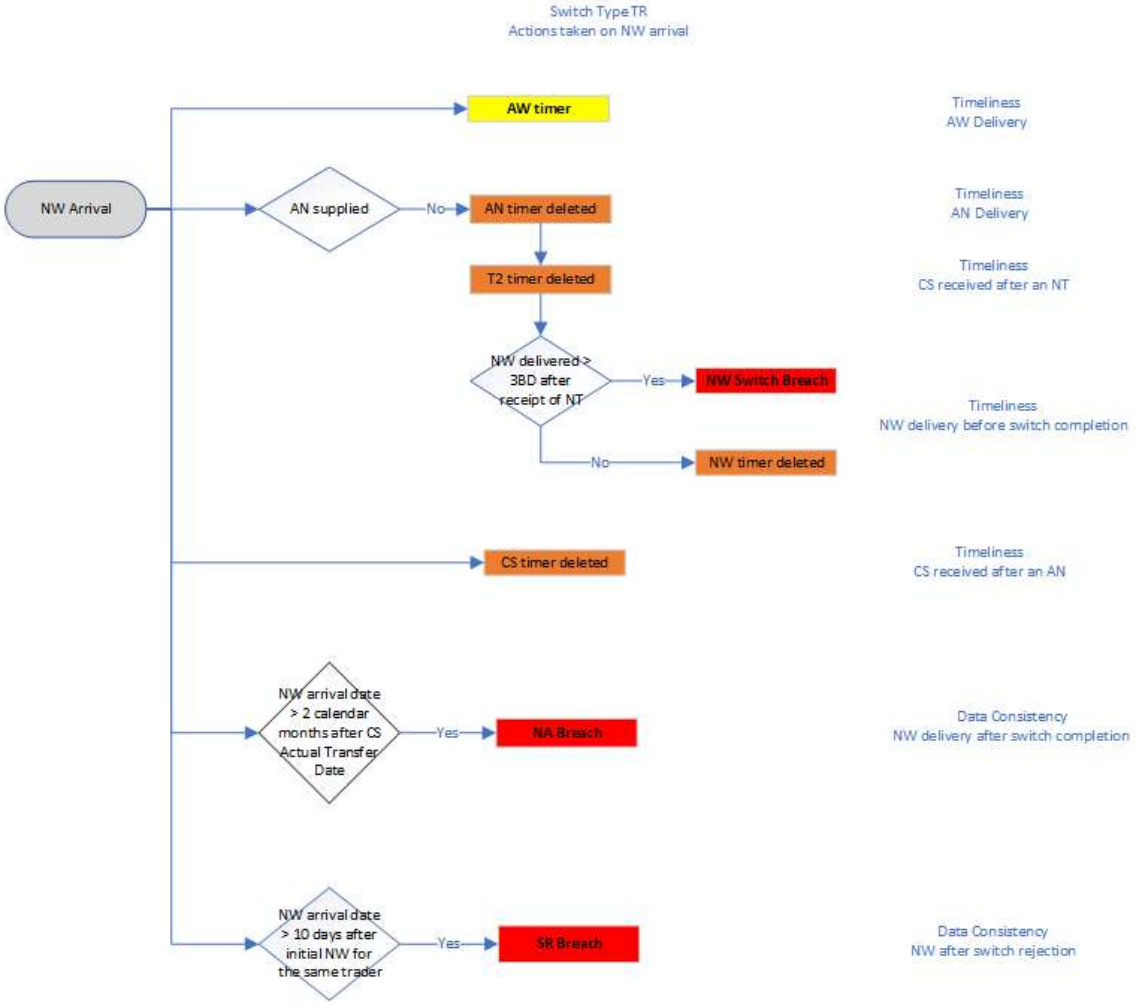
Actions taken on arrival of the NT switch message



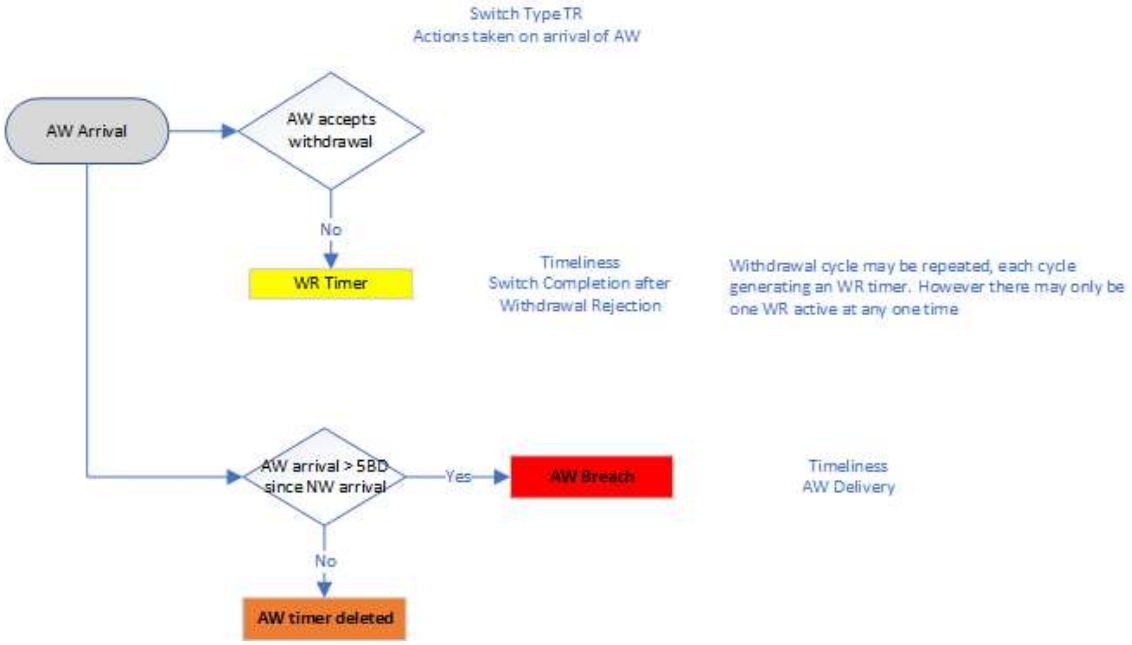
Actions taken on arrival of the AN switch message



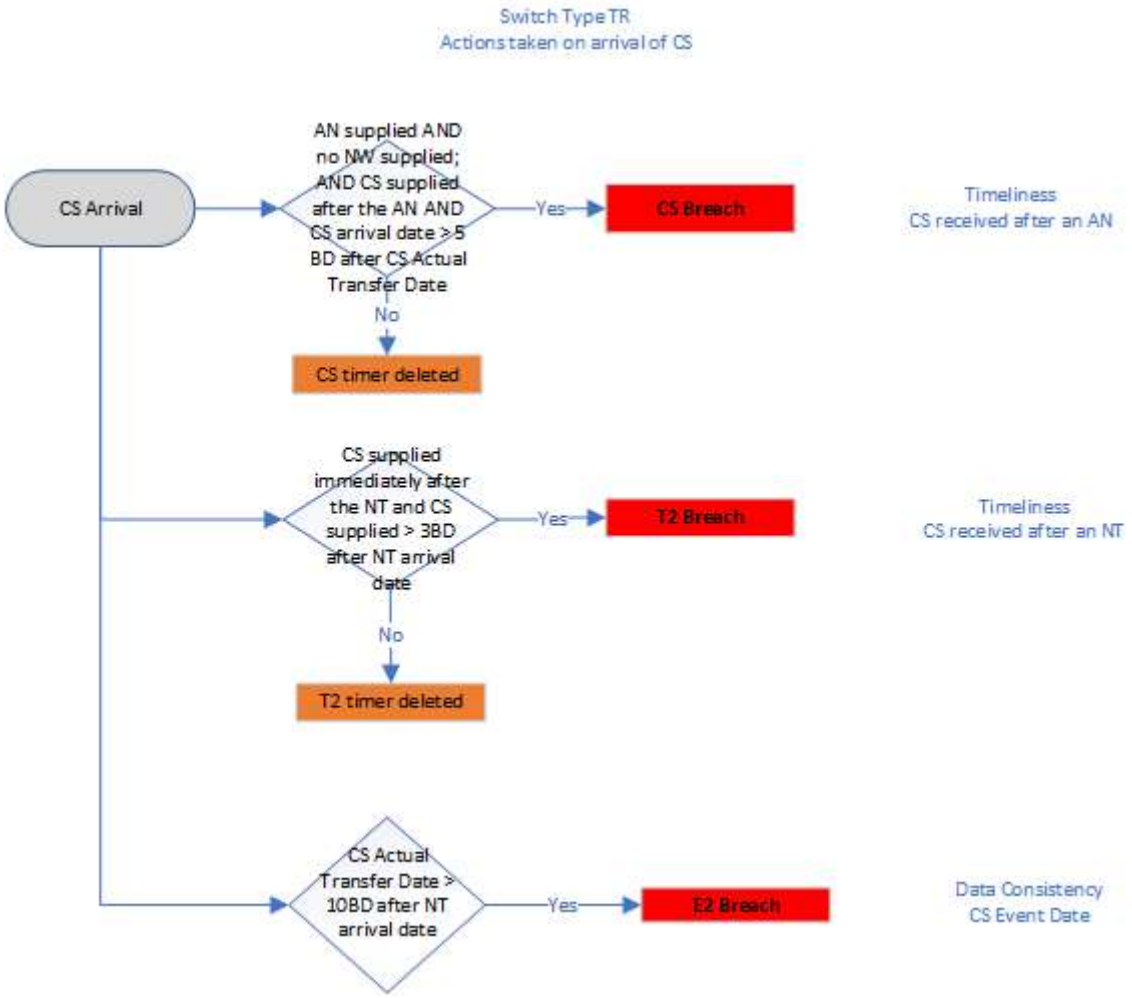
Actions taken on arrival of the NW switch message



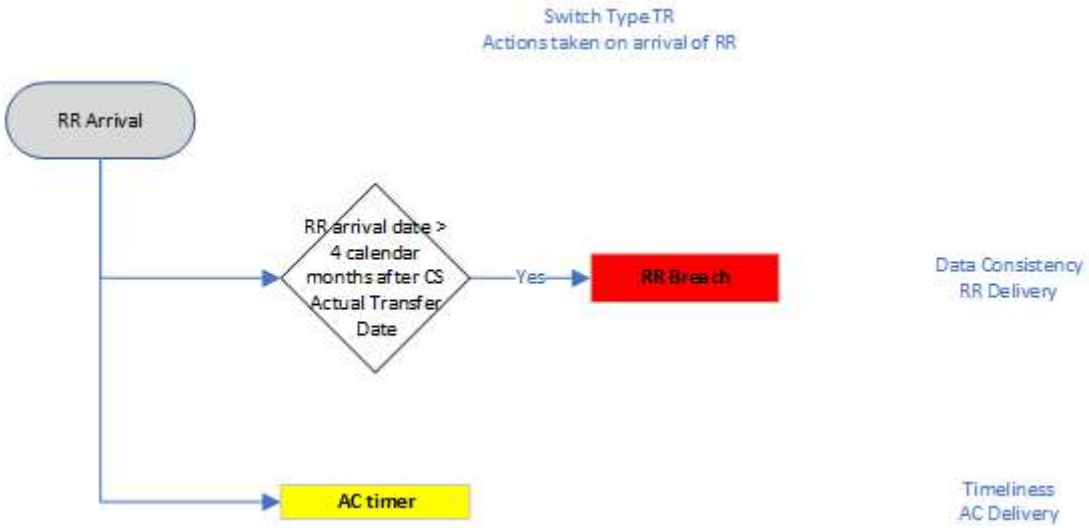
Actions taken on arrival of the AW switch message



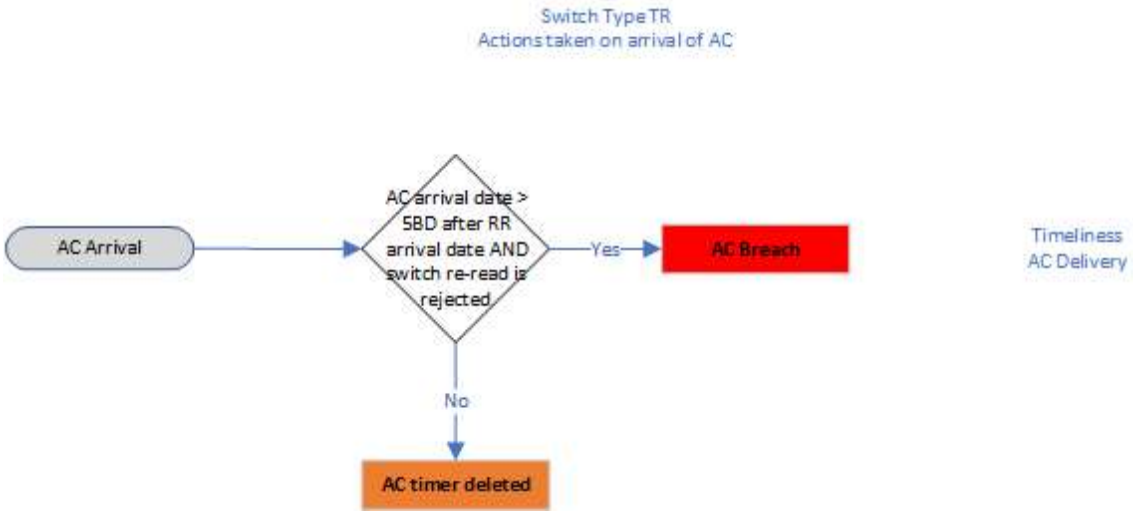
Actions taken on arrival of the CS switch message



Actions taken on arrival of the RR switch message

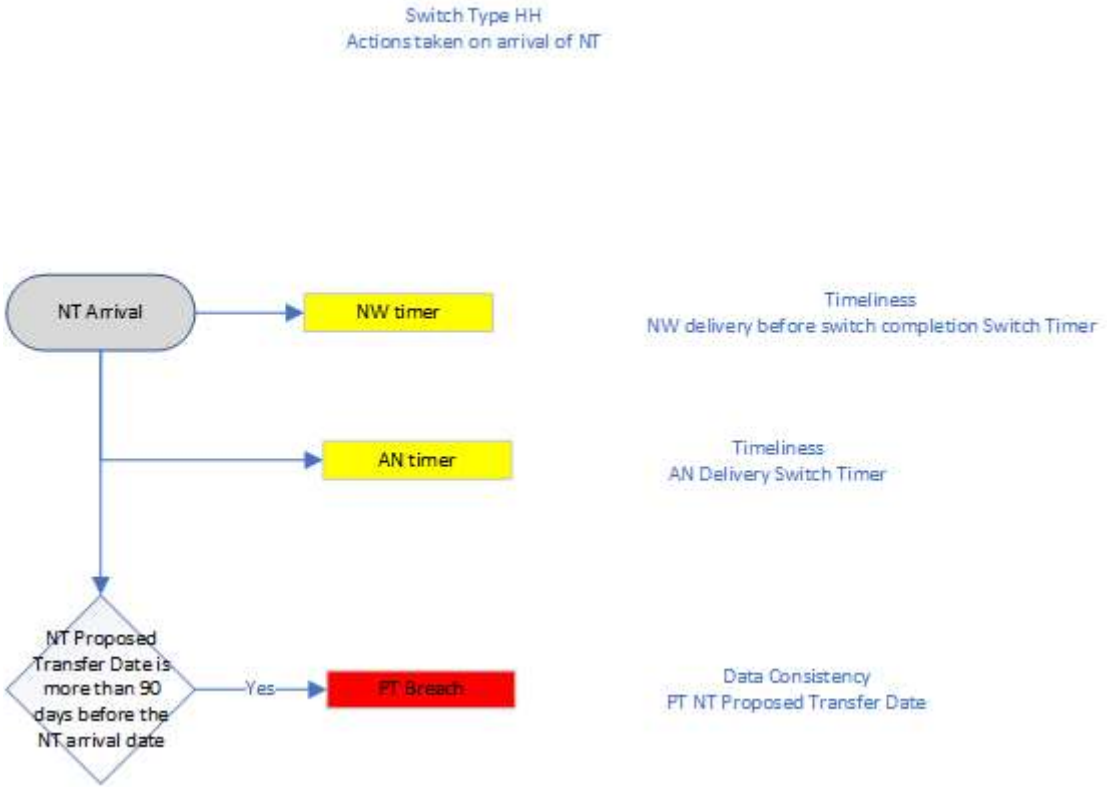


Actions taken on arrival of the AC switch message

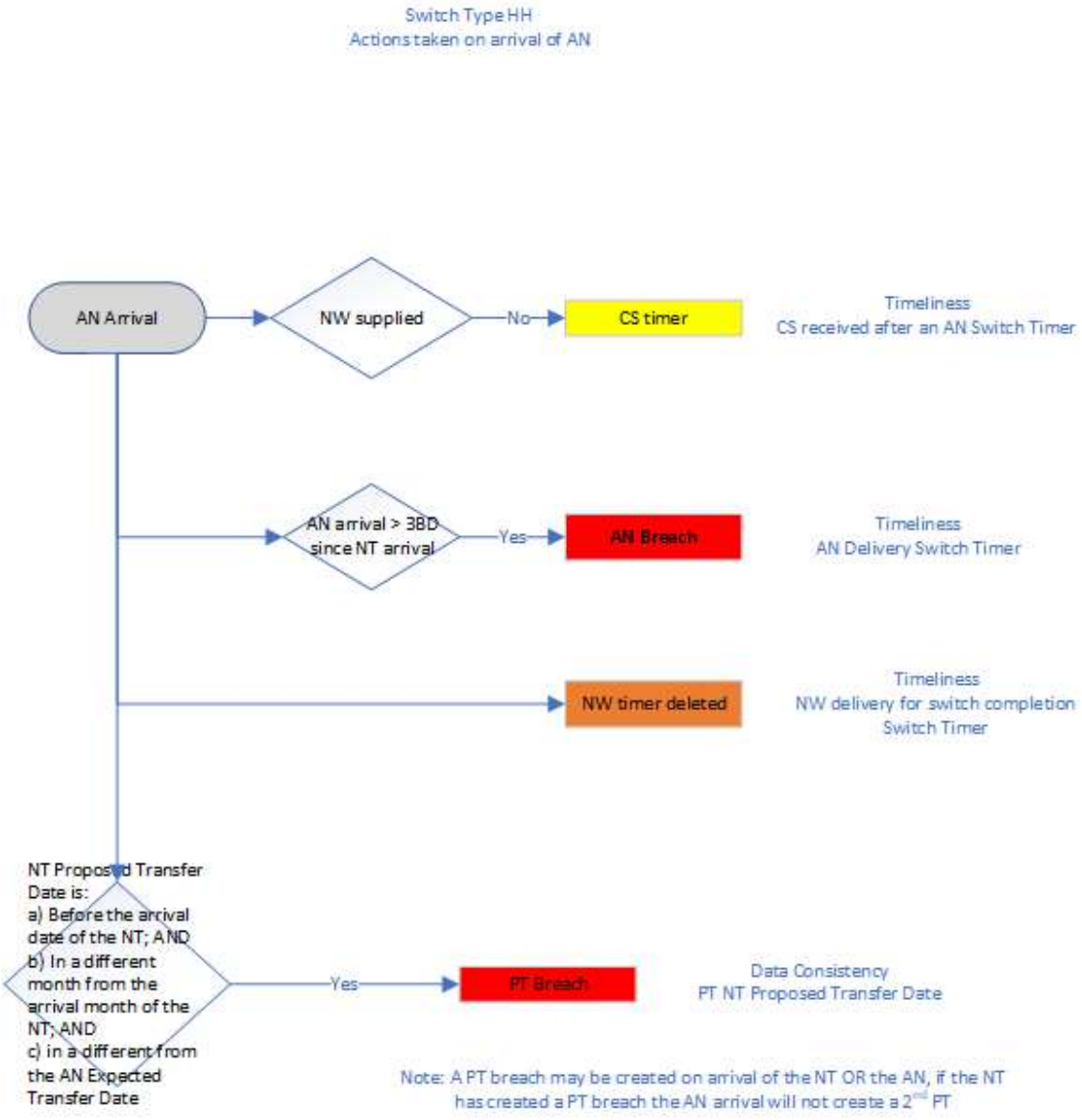


Switch Type HH

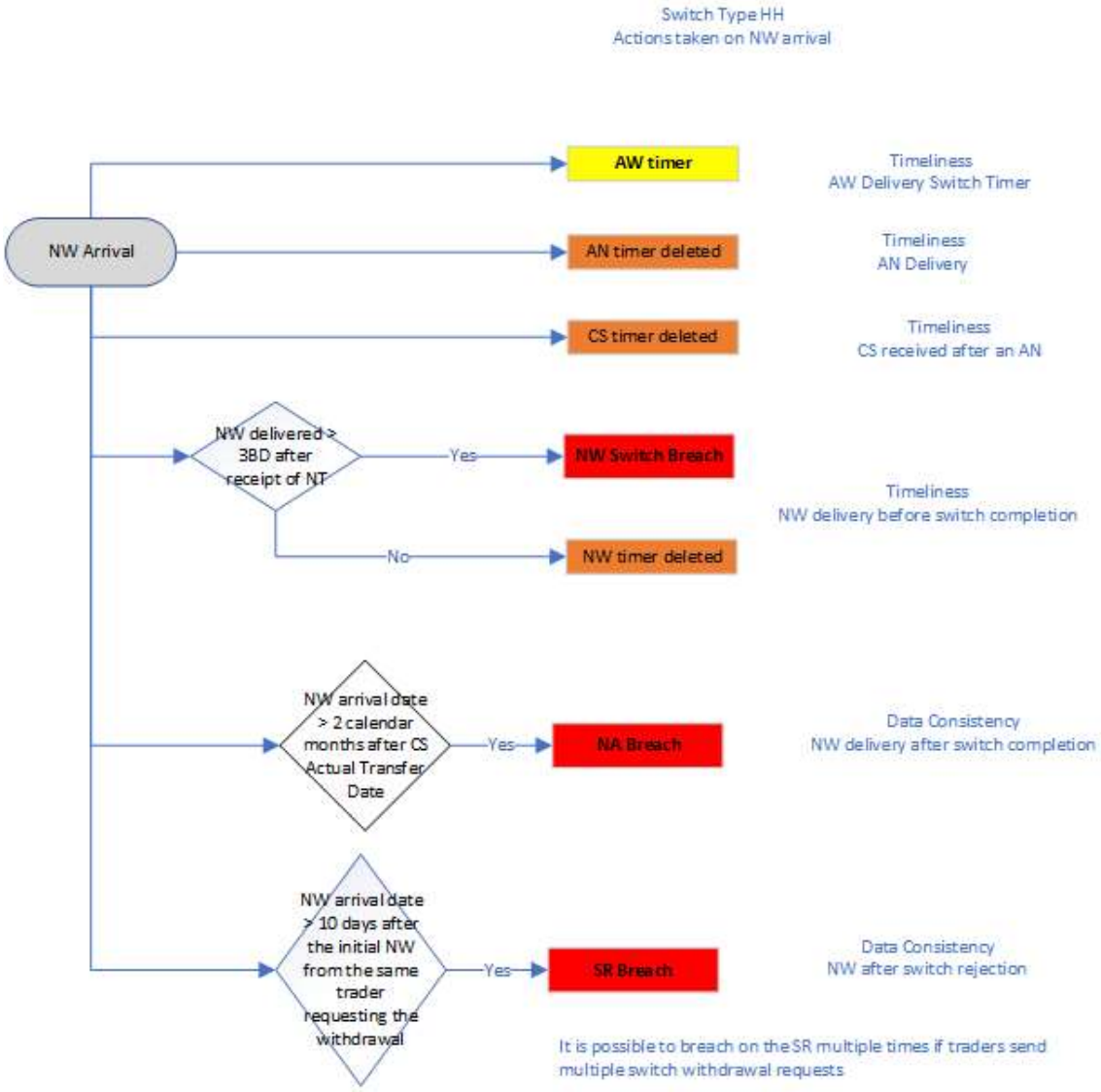
Actions taken on arrival of the NT switch message



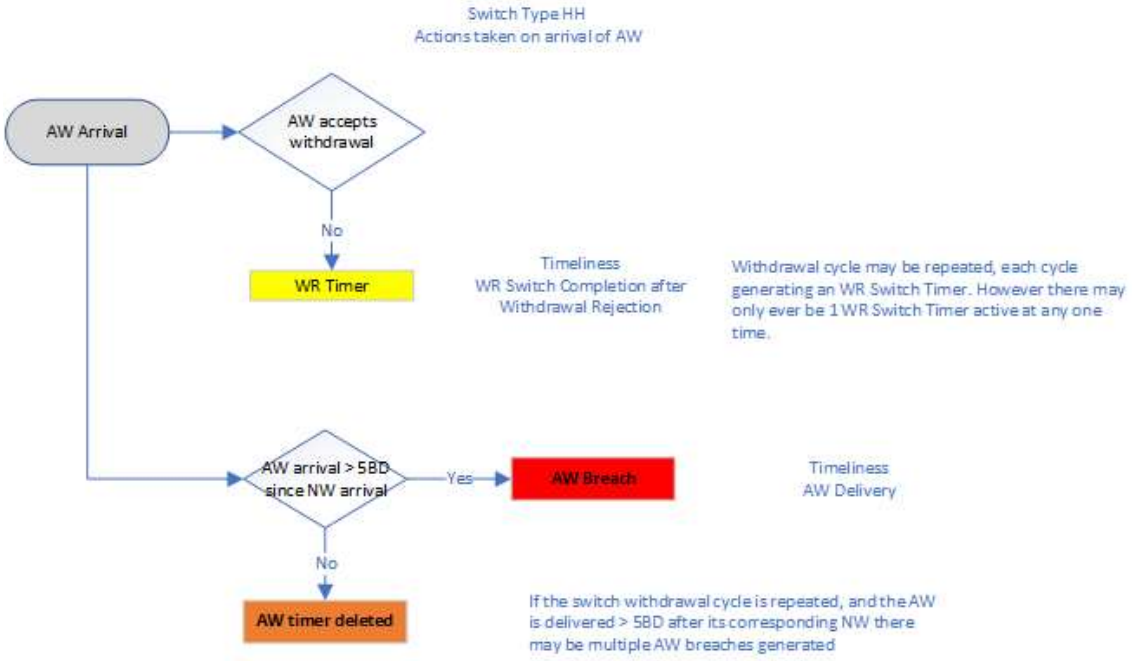
Actions taken on arrival of the AN switch message



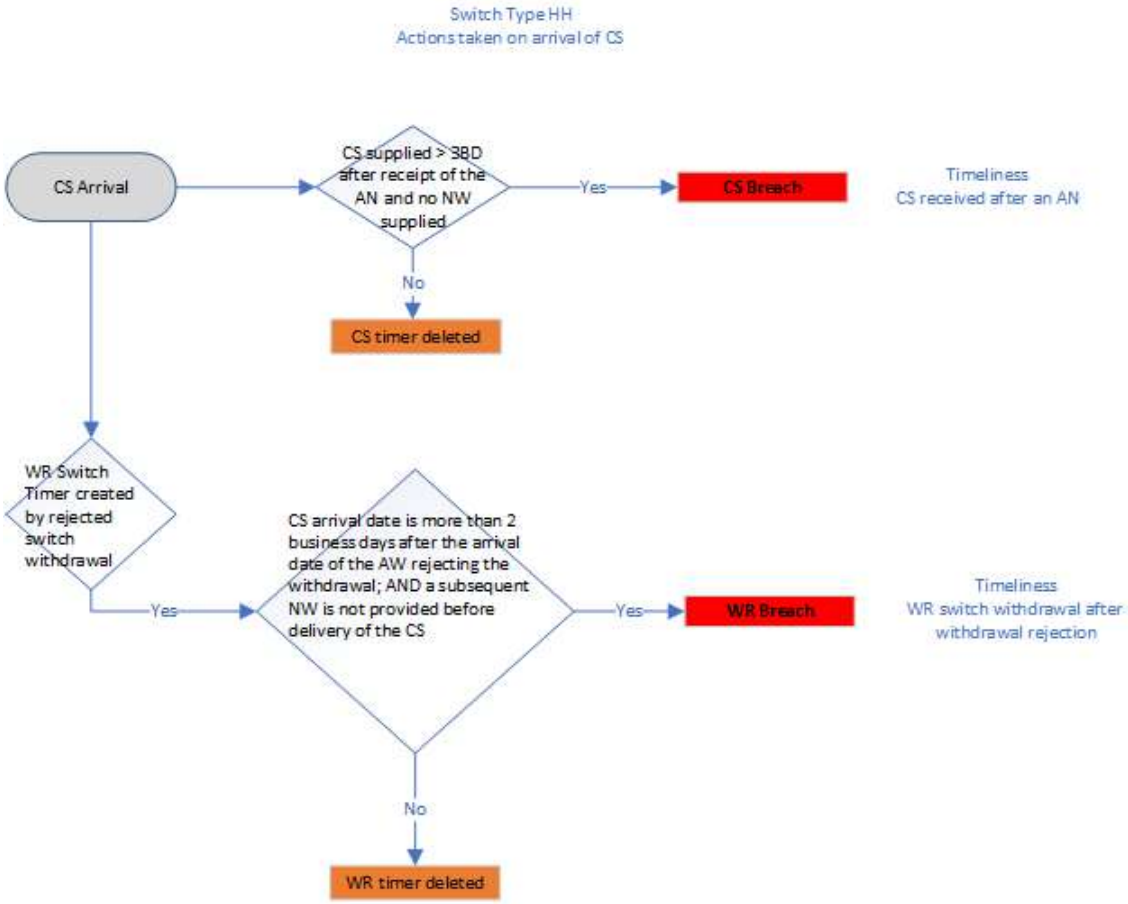
Actions taken on arrival of the NW switch message



Actions taken on arrival of the AW switch message



Actions taken on arrival of the CS switch message



Actions taken on arrival of the RR/AC switch message

The HH switch message does not allow for switch re-reads as the CS message is delivered by the gaining Trader.

Glossary of terms

Term	Description
Switch Type	The type of switch, one of: • MI – An ICP switch made using the “move-in” switch process • TR - An ICP switch made using the “standard” switch process • HH – An ICP switch made using the “gaining trader” switch process
Switch Timer	A countdown timer containing a due date and the number of days until a subsequent switch message must be provided. If a positive value the required switch message is overdue.
Days overdue	Number of business days a switch breach is overdue. If a negative value this is the number of business days until the breach
Switch Breach	A permanent record of a participant either: a) not providing a switch message within a pre-defined timeframe, or b) providing a switch message that has a Data Consistency issue
Breach Type	A code identifying a type of switch process discontinuity
Timeframe	A value (often days) by when a switch message must be provided