

## Telephony \ Routing

### Overview

The routing module allows the user to modify dialled strings if necessary, and to assign specific tariffs to specific access codes. It also handles provisioned DNIS numbering, so that Prism can accurately show those calls.

### ASR Records

Access, Search and Replace (ASR) allows the user to configure the system to replace the access code, dialled digits and trunk number of a call when the existing values match some combination of trunk number, dialled digits and access code.

**⚠ Warning:** replacing fields with other values permanently changes the contents of the call record. Replacements made during initial collection cannot be repeated during a re-cost.

### Search

The search grid displays all currently configured ASR records. For standard grid controls see common features.

ASRs | Search

CDR source code	CDR source name	CDR source label	Process order	Calling	Called	Channel match	Channel replace	Access code met.	Access code repl.	Digits match	Digits
			2	x	✓	NULL	NULL	NULL	NULL	7*	NULL
1	TestPABX	TestPABX	4	x	✓	NULL	NULL	NULL	NULL	NULL	NULL
			20	x	✓	NULL	NULL	NULL	666	666*	6
2	VodafoneBills	Vodafone Bills	30	✓	✓	099	NULL	NULL	NULL	88*	NULL
1	TestPABX	TestPABX	44	✓	x	NULL	NULL	NULL	9	[0-9]?????*	NULL

1 - 5 of 5 items

### Create

ASRs | Create

#### Create ASR

Regular expressions or wildcards can be used to specify matching text

CDR source None selected	No of digits to replace 0	Process order* 0
Channel match NULL	Access code match NULL	Digits match NULL
Channel replace NULL	Access code replace NULL	Digits replace NULL
Action* Please select one option	ASR row* Please select one option	Use in recost* NO

1. CDR Source: specifies the CDR source this record affects. If none is selected the ASR affects all CDR Sources.
2. Process Order: specifies the order in which the records in this table are applied. Lowest first.
3. ASR role: specifies whether to look at the incoming or outgoing part of the call from the drop-down list. 'Calling and Called' will check against both parties.
4. Channel Match: specifies the channel number. A partial match is allowed. A null matches anything.
5. Channel Replace: specifies what the channel number will be changed to when the rules are met. A null will not change the channel.
6. Access Code Match: specifies the access code. A partial match is allowed and a null matches anything.
7. Access Code Replace: specifies what characters will be placed in the access code field when the rules are met. A null will not change the access code.
8. Digits Match: specifies the dialled digits to match. A partial match is allowed and a null matches anything.
9. Digits Replace: Will add to the beginning of the existing dialled digits, after removing the digits specified in the 'No. Of Digits To Replace'. A null will not replace digits.
10. No. Of Digits To Replace: specifies how many digits to remove from the dialled digits string before adding the Digits Replace field.
11. Action: specifies whether to continue the procedure after a match has been found.
  - a. Stop - Once it matches the string it will not attempt to match another ASR.
  - b. Continue - It will continue through the Process order to see if it matches another ASR and apply any subsequent changes.
  - c. Start from the Beginning - It will complete its current set of rules then go back to the first ID and attempt to match again through the list (Please be careful when doing this on calls with 9 as if you have a call to 999 then it can remove all digits).
12. Used In Recost: specifies whether to use this when running Re-cost. If set to 'No' it will not be used. 'Yes' will force it to be used in the recost engine.

### Wildcards & Regular Expressions

Several fields serve to match specific fields, or parts of fields, in the CDR data. To better match these Prism can use both wildcards and regular expressions. The simple wildcards are '\*' to match anything. This can represent any number of characters or none. A '?' will match a single character, but it must exist. For example:

7 would be matched by "7\*" but not by 7?

71 would be matched by both

711 would be matched only by 7\* again.

Limited regular expressions are also available, and these can be used on combination, for example:

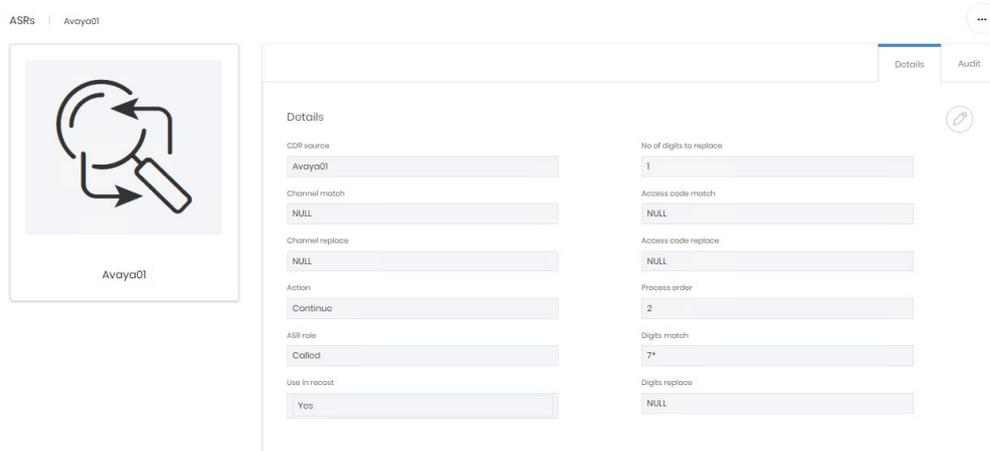
[1-2]???\* would match any string of at least 4 characters which started with a 1 or a 2

### Recycle Bin

The recycle bin functions in the same way as the search grid, with an additional control on the far right to restore the deleted record.

### Detail Page

The detail page for an ASR shows all fields for the record on the Details tab, with creation and last update details on the Audit tab.

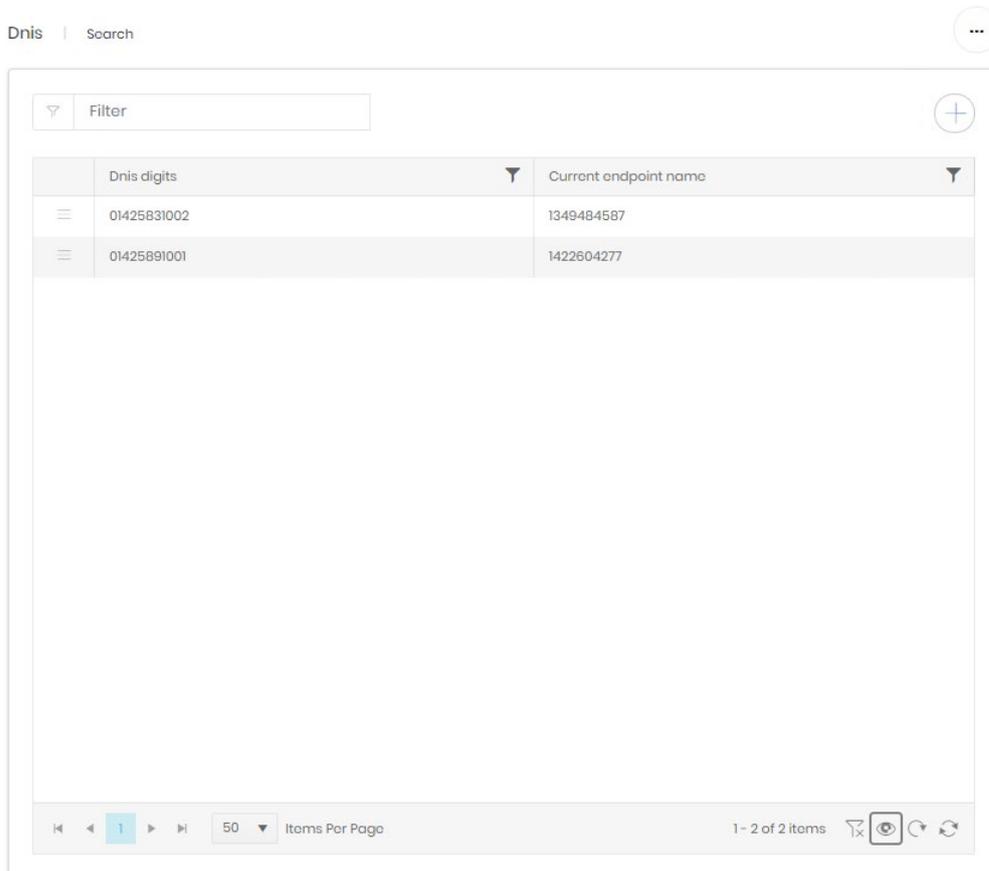


### DNIS

For CDR Sources which output DNIS information in CDR Prism can match the endpoint associated with the DNIS number and present that in analytics and reporting.

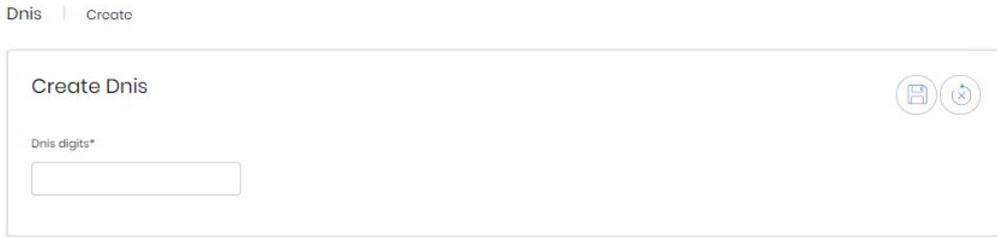
### Search

The search grid shows all defined DNIS entries and their currently assigned endpoint. If a DNIS entry does not have an endpoint assigned it will show in the list with a blank Current endpoint name. For standard grid controls see common features.



### Create

Creating a new DNIS entry is simply a case of entering the DNIS digits as they appear in CDR.

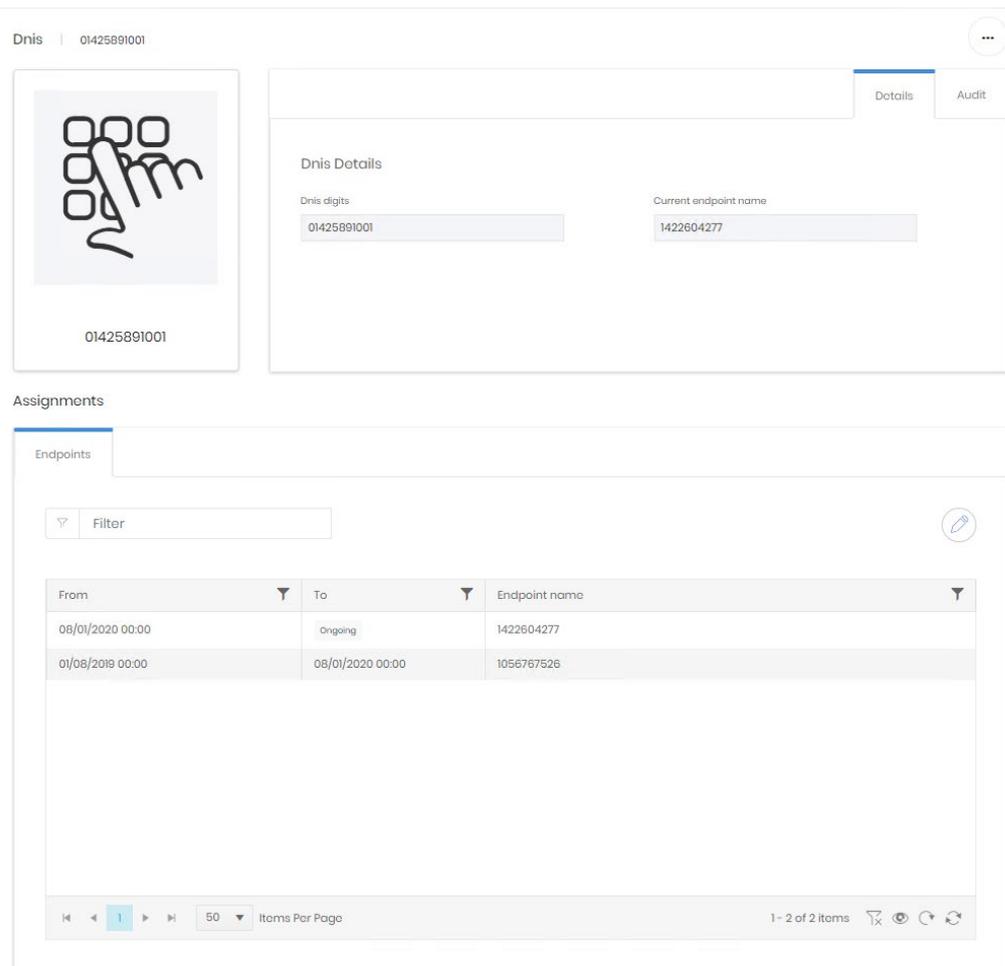


### Recycle Bin

The recycle bin functions in the same way as the search grid, with an additional control on the far right to restore the deleted record.

### Detail Page

The detail page displays the current and past endpoint assignments for the DNIS record.



The endpoint assignments can be edited or added to, as long as a DNIS record is not assigned to more than one endpoint at any one time. If the dates are not aligned correctly Prism will highlight the problem rows for correction before allowing the edits to be saved.

Endpoints

Add, edit or delete Endpoints and click Save. There should only be one Endpoint assigned to a Dnis at any point in time. Any rows violating this rule will be indicated in the Overlap column.

There is an overlap in assignment date ranges for the same Cdr Source

+ Add Endpoint

Row validation			From	To	Endpoint name	
Row	Status	Overlap				
1		Rows: 2	06/01/2020 00:00	Ongoing	1422604277	🗑️
2	Updated	Rows: 1	01/08/2019 00:00	09/01/2020 00:00	1056787626	🗑️

## Access Codes

This section allows users to search, add, assign and delete access codes in the system. An access code allows a specific tariff to be assigned depending on the information presented either within the CDR record or following [ASR](#) manipulation.

## Search

The search grid shows all access codes, assigned or otherwise, that have not been deleted. For standard grid controls see common features.

Access Codes | Search

Filter

Access code	From	To	Carrier	Cost tariff	Category	Use category	Description	Use description as label
95	15/05/2020 00:00	Ongoing			On-Net	×	On Net Calls	✓
95	01/05/2020 00:00	15/05/2020 00:00				×	O-N	✓
66	12/05/2020 00:00	Ongoing	Tiger	Tiger Free		×	Access 66	✓
77	05/05/2020 00:00	11/05/2020 00:00	Tiger	Tiger Free		×	UM	✓
77	12/05/2020 00:00	27/05/2020 00:00	Tiger	Tiger Free		×	Voice Mail	×
77	27/05/2020 00:00	Ongoing	Tiger	Tiger Free	Free	×	Control Voicemail	×
8						×		×
9	15/05/2020 01:00	Ongoing	Example Carrier	Stripa Prime		×	PSTN	×
9	07/07/2020 00:00	Ongoing	BT	Standard_Business		×	PSTN	×

1 - 9 of 9 items

Access codes which are not yet assigned show a single entry with no from or to date (1). Individual access codes may appear in the search grid multiple times as they can be assigned to multiple CDR sources or clusters (2). Historical values also appear in the grid (3) when an access code has been retired, by reaching the set 'to' date. See the [detail page](#) for how access codes are assigned.

## Create

Creating a new access code record requires only the code itself. Everything else is configured on the [detail page](#) by assignment.

Access Codes | Create

Create Access Code [Save] [Refresh]

Access code\*

And access code must not already exist, either in the current grid, or the recycle bin. If the code required is in the recycle bin it can be restored, and any previous assignments closed out with 'to' dates or deleted.

## Recycle Bin

The recycle bin functions in the same way as the search grid, with an additional control on the far right to restore the deleted record.

## Detail and Assignment Page

The detail page is where access codes are assigned to CDR sources. Each assignment can be to one or more CDR sources and can set a new tariff. If needed the access code can set an override call category instead of, or as well as, the tariff.

Access Codes | 9

1 2

4 ★

9

[Details] [Audit]

Access Code Details

Access code: 9      Current description: Multiple current tariffs

Current cost tariff: Multiple current descriptions

Assignments

Assignment Details

Filter

From	To	Description	Use description as label	Carrier	Cost tariff	Category	Use category	CDR count
07/07/2020 00:00	ongoing	PSTN	x	BT	Standard_Business		x	1
15/05/2020 00:00	ongoing	PSTN	x	Example Carrier	Stripo Prime		x	1

1 - 2 of 2 items

## Details

The top section of the screen (1) shows the access code itself and a description and tariff derived from the current assignments. This will reflect the description and tariff of a single assignment, but if multiple assignments are active it will display "Multiple current tariffs" (or descriptions).

## Audit

The audit tab shows the creation and last updated information for the access code.

## Assignments

The remainder of the screen (2) is used for the assignments grid. For standard grid controls see common features. The arrow on the left of each row (3) expands the CDR Sources to display exactly which sources are assigned to this row. Multiple rows may be required. For example, a single access code may indicate a different tariff on each of several CDR Sources.

## Editing Assignments

Assignment Details

Add, edit or delete Assignments and click Save. There should only be one assignment for a CDR Source at any point in time. Any rows violating this rule will be indicated in the Overlap column.

+ Add Assignment

Row validation			From	To	Description	Use description as label	Cost tariff	Category	Use category	CDRs
Row	Status	Overlap								
1	Active		01/01/2020 00:00	Ongoing	Main PSTN Route	-	Stripe Prime (Example Carrier)		-	All CDRs

All CDRs

Entering edit mode allows current assignments to be adjusted, or new ones to be added. There are eight editable fields in the assignment.

**From** – the date at which this assignment became (or becomes) active. Prism's costing engine will start to use it for tariff or category selection.

**To** - the date at which this assignment became (or becomes) inactive. Prism's costing engine will cease to use it for tariff or category selection.

**Description** – A label for what the access code is achieving in this assignment. This can be made to replace the Dialling Code label from the tariff's numbering plan. A description is required.

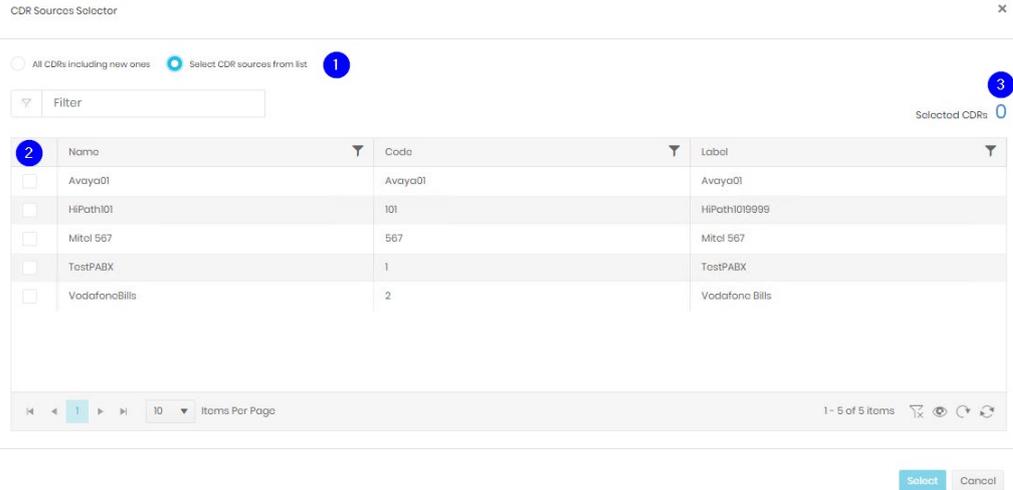
**Use description as label** – Overrides the description derived from the tariff's numbering plan for the dialled number with the access code description field. This will affect every call with the access code and should be used with care.

**Cost tariff** – Selection of a carrier and tariff here will cause Prism to cost the calls affected by this access code with the defined tariff.

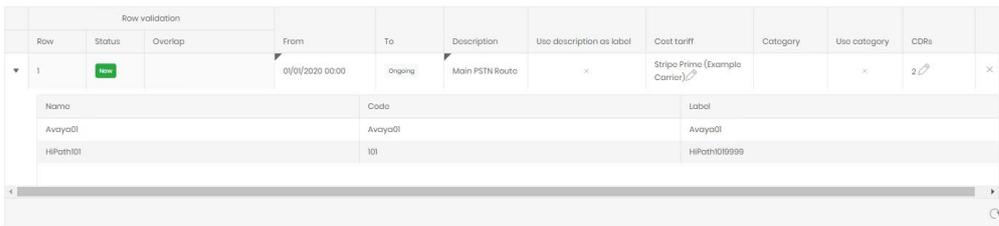
**Category** – Sets all affected calls to a fixed category (categories are defined in Charging\Tariffs).

**Use category** – Determines whether the category defined above is applied to calls, overriding the category defined by the tariff.

**CDRs** – Defaults to All CDRs. Editing this field opens a selection window to choose which CDR Sources this access code record is assigned to.



The CDR Source picker displays a list of CDR Sources if “Select CDR Sources from list” is chosen (1). Tick the box next to any sources that the access code should be assigned to (2). If multiple pages need to be viewed the selection count (3) gives quick reference to how many sources have already been marked. Returning to the assignment details will show the selections in the expansion of the row.



When all changes and additions have been made click save and the assignment is complete.