

# Alaris inVoice

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## Release notes

version 3.5.28

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# 1 Enhancements

## General

- The two-factor authentication capability has been added for access to the System. Authentication is performed with the help of the Google Authenticator app. It can be configured as follows:
  1. The user can enable two-factor authentication for its account in the *User settings* interface by selecting the *Enable two factor authentication* checkbox. When selected, the *QR code* section becomes available, which contains the buttons *Show actual QR* and *Regenerate QR*. This QR code (the actual or re-generated one) must be fed to the Google Authenticator app. Based on the code, the app provides an additional numeric password that can be used to access the System (after entering a correct login and password). If the specified code is incorrect, the following error message will appear: "Incorrect TOTP please try again".
  2. A user with the new permission *Security policy control* can select the new checkbox *2FA enabled* for other users. In this case a user for which the checkbox was enabled will receive an email with instructions on Google Authenticator installation and access to the System. Please note that a user cannot enable this checkbox for its own users. The email template is configured in the *Template manager* interface and is called *2FA enabled for your account*.

Please note that the enabled checkbox is not saved on the user level for System users such as *Alaris*, *Monitoring*, *monitoring*, and *invoice\_mon*. The maximum number of entry attempts (including login and password entry with no TOTP) is 5 within one minute; the interval between attempts must be 3 seconds.

- Rate calculation for year cubes has been removed. This serves to increase Analytics performance.
- When attempting to restore the password for an inactive user, the following error will appear: "User with such email or name not found". This is done in order not to show cases when a user is actually found.

## Billing logic

- The new field *Limit interval* has been added for billing increments. It is empty (disabled) by default. When set to 0, the logic is disabled as well. When set to more than 0, the new increment logic is applied: call length exceeding the limit is cut down to the limit. For example, if the call length is 372 seconds but the invoice must be issued for 300 seconds (per second payment scheme), the new format increment will look as follows:

Free interval: 0

First interval: 1

Next interval: 1

Limit interval: 300

Deductable interval: 0

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- The logic of handling products with A-number based billing has been reworked following the updates of the European law. It is now required to track both the A-number country and network (dial code). The new checkbox *Use ANI based billing* has been added to International products. It operates similar to the original logic, only with no need to create tag products. The fields *ANI dial code* and *ANI carrier destination* have been added to rates for the products with the enabled checkbox *Use ANI based billing*. They serve to specify the A-number dial code. The logic for searching the suitable rate has been enhanced as follows: the rate is first searched by longest B-number match, and then by A-number match. The A-number dial code may be left blank in the rate, which corresponds to the lowest priority. The vendor rate is defined based on the translated A-number.

The following migration will be performed after the System update. The new checkbox will be selected for products with the enabled checkbox *Check ANI tags*. Additionally, rates (including those from tag products) will be added to the base product with account for the new rate storage structure. As a result, the respective tag and its values will be used as the A-numbers.

The *Rate export* interface now allows setting the *Billing type* at the *Column settings* tab: *ANI + DNIS based* for the new mode and *DNIS based* for other International products to enable export of the A-number dial code. The change type for the changes pending at mode will be exported with account for A- and B-number dial codes. New columns for the client and vendor phone numbers are available in CDR export. Rate analysis also takes into account the A-number dial code.

Rate import has also been enhanced with account for the new logic:

- The following columns can now be set:
    - *ANI dial code*: A-number dial code
    - *ANI rate effective from*: rate start date for the A-number dial code (the *Effective from* column is used for those rate file sheets that do not use A-number based billing, that is, the *ANI dial code* field is empty).
    - *ANI rate effective till*: rate end date for the A-number dial code (the *Effective till* column is used for those rate file sheets that do not use A-number based billing, that is, the *ANI dial code* field is empty).
    - *ANI group*: group of A-number dial codes that can be specified on every sheet of the rate file to ensure connectivity between dial codes and rates. The column value is saved to the rate's *ANI carrier destination* field.
    - *Rate ANI group*: A-number dial code group. It is available if the *ANI group* is set.
    - *ANI effective from*: A-number dial code start date (optional). If not set or specific rows have no values, the *Effective from* value is used. If set, the greatest value of *ANI rate effective from* and *ANI effective from* is used as the rate start date.
    - *ANI effective till*: A-number dial code end date (optional). If not set or specific rows have no values, the *Effective till* value is used as the rate end date. If set, the least value of *ANI rate effective till* and *ANI effective till* is used as the rate end date.
    - *ANI based rate*: rate for a specific A-number dial code (the *Rate* column is used for those sheets of the rate file that do not employ A-number based billing, that is, the ANI dial code is empty).
  - Possibility to set the *Default dial code* has been added: the B-number dial code that will be used if the *B-number dial code* column is not set in the file or some rows have no B-number dial code.
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- The checkbox *Remove leading zeroes* has been added to remove leading zeros for *Dial code* and *ANI dial code* values.

Please note that the original format has been made read-only to avoid loss of the old information. It means that import, editing rates of tag products and some properties of the base and tag products will be impossible. Also, the *Convert import* feature has been hidden. The rate import functionality detailed here is not available in the *Rate import(old)* interface. See also the [Alaris YouTube](#) video.

## Carriers

- The new fields *Inbound traffic allowed* and *Outbound traffic allowed* have been added to the *Accounts* interface. They allow excluding entities from routing on the account level. The value 1 will be set for all existing accounts after update to the new version. The original behavior is "allowed on the account level". The new permission *Edit "Inbound/Outbound traffic allowed" flags* has been added that serves to allow users to edit the fields.

## Enterprise API

- The `get_tag_list` method for getting tag lists has been optimized.

## Number management

- When generating a non-recurrent charge by DID data for NRC, the charge period is taken from the agreement (previously the period was one day).
- Previously the number assign date was set as of the moment of the number assignment. However, for defining markers such as [Did..] (Alaris SMS Platform), the verification as of the start of the day is performed. For this reason, the assignment will be made as of 00:00 of the current day. See also the [Alaris YouTube](#) video.

## Reports

- The new System parameter has been added: *Max file for recurrent reports (mb)*. The default value is 100. If the file size exceeds the parameter value, no email will be sent, and the respective task will have the following value in the *Details* column: "Mail not sent, attachment file size is more than X Mb".
- As the *Server sessions (Administration)* report only displays active DB sessions (for example, a session of a user that opened the *Analytics* interface will not be shown), the new report *Past session activity (Administration)* has been added. The report shows sessions that involved any activity in the interfaces.
- The *Report change log (Administration)* report has been enhanced, as earlier it was based on reports created in the previous interface version.

## REST API

- The `POST:voice_rate` method has been hidden.
- Methods for working with reports have been hidden as they operate with the previous version of the *Reports* interface. Methods for working with reports are available in Enterprise API.

## Wholesale Portal

- Support of the *Stripe* payment system has been added for the Wholesale Portal. See also the [Alaris YouTube](#) video.
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## 2 Fixed issues

### General

- Previously when creating a user and then changing it by another user, the change was not shown in the web interface (the *Modified* icon).
- The *Regular expressions* interface could not be opened again if they were opened previously. The user had to relogin in order to access them.

### Analytics

- A column sorting error has been fixed. Earlier, if a column was added in a new System version, sorting could operate incorrectly.

### Financial module

- If the agreement start date was in the middle of the billing period, some markers (for example, [CompanyRegisteredName]) could not be correctly replaced with values when generating an invoice for the period, and were replaced with void. Starting from the new version, the agreement will be defined by the invoice end date.
- The "Carrier(id=) not found"/"Product(id=) not found" error during auto import of payments has been fixed.

### Limitation rules

- When blocking a base product with limitation rules, traffic for tag products (those configured for A-based billing) was allowed, which was incorrect. Starting with the new version, tag products will also be blocked.

### Rate editor

- Previously when changing the rate close date, the rate start date could also be reset if the time was set to a value other than 00:00:00 (for example, the value 2023.06.01 02:00:00 was changed to 2023.06.01 00:00:00).
- Previously rates were not displayed in the *Rates* tab sheet even though they were available in the product, when grouping rates by product and attempting to open a rate group that included parent rates.

### Rate export

- Incorrect operation of the *download* link has been fixed. Previously it did not trigger downloading a file if the export task was created in the "Sent via e-mail" mode.
- Previously the [RateSnippet] marker used the content of the export task comment as the table header. It was redundant as a dedicated marker [Comments] must be used for the purpose. Now the [RateSnippet] marker will be replaced with a table of rate changes with no comment in its header.
- When exporting rates to email with the enabled checkbox check file before sending, only the link was sent, and no attachment, even though the parameter *Ratesheet delivery options* (1 - attachment, 2 - link, 3 - attachment and link) was set to 3.

### Reports

- When setting a schedule in the format 0,1,2,3,4..., the report was not sent during the first hour because hour 0 was included in the schedule.
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## Fixed issues

- Sometimes, when getting an empty recurrent report, the report details did not contain the reason why the email was not sent. Now the report details will contain the following record: "Mail not sent, result empty".
- When exporting report results to a file from the *view* page, the header will be added to the file based on the System parameter *Add report info to file header* (0 - no, 1 - yes). By default - 1. Previously the header was not added even if the parameter was enabled.

## Routing rules

- When rolling back rules with the help of *Routing rules rollback* button, values for the *Destination tags* field were not restored. The issue has been fixed.

## Tags

- Force rounding of *Effective from/Effective till* dates to start of the day has been removed.

## Wholesale Portal

- Verification of the allowed addresses list for Wholesale Portal users has been corrected.

## 3 Known issues

### General

- When the user logs out of the System by clicking the *Log out* button and then logs in again, the previously opened tabs are not restored.
- If a mail server has been removed from the *Outgoing email accounts* interface, and the internal queue has unsent messages (for example, due to failed authorization) that were supposed to go through this mail server, new messages sent through existing mail servers may remain in the queue.
- If the password for connection to the email server of the *Outgoing email accounts* interface contains the ' symbol, an error occurs when verifying connection with the server. It is recommended to remove the ' symbol from the password.
- When selecting a region in a carrier filter, some carriers may be available that have a region with an ID that partly matches the region in question (for example, region ID=1 partly matches region ID=11). The issue is observed in multipickers, for example in *CDR export tool*.
- A user with the *Invoicing* permission but with no *Generate client invoice/Register vendor invoice* permissions can recalculate period for an account available to the user if *Direction: All* is selected. The situation is incorrect.
- No automatic loading of regular expressions occurs when using the *Regular expressions* interface.

### Analytics

- Previously possibility was added to display the switch details from the CDR in the *Client/Vendor switch* layers if it was impossible to define the switch by the client/vendor POI. Currently the feature is unavailable, the layers will show the information only if the switch is specified directly in the POI.
- When setting a fractional time zone (for example, GMT+3.30) on the user device, an incorrect time shift is observed for the days on which daylight saving time change occurs.

### Carriers

- When disabling the *Is active* checkbox for a product, POIs associated with the product are greyed out (that is, marked as inactive), whereas traffic is still allowed (provided that the POI is active based on its *Active from* and *Active till* dates).
- If a product is used in a large number of rules, the following error may occur when removing the product from all routing rules with the help of the button *Delete this product from all routing rules*: "Maximum number of filtering parameters exceeded. Please reduce the number of parameters to filter".

### CDR management

- Filtering in the *Comments* column operates incorrectly if capital letters are used in the field when creating a task.
- When modifying a rate with a future date, an auto recalculation task may still be created, even though the change does not affect past traffic.

### Financial module

- When exporting the table of payments to MS Excel the *Covered amount* and *Amount debited* columns are not included in the file.
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### Rate editor

- Schedule for the *Offpeak* and *Weekend* periods is not cloned correctly when cloning a rate.

### Rate import

- An empty window is shown for the *Rate import (old)* interface when viewing import history.
- Incorrect verification of dates for sending "New rate/Close rate/Decrease/Increase notification period violated" notifications is observed if the partner and System time zones are different. Suppose the partner's time zone is GMT+3 and the System time zone is GMT+0. If the rate start date and the allowed date (as per agreement settings) for applying changes is 2022.11.08 00:00GMT+3, during import the date will be changed to 2022.11.07 21:00GMT+0 and a notification will appear that this is incorrect.
- In rare cases, empty rows are added to xlsx files that make the file processing inconvenient.
- If an email has an empty field (for example, email subject or body), it will be considered matching an auto import rule even if the rule for the field contains a specific mask (for example, %test%).
- Getting auto import emails the *To*, *CC* and *BCC* fields of which exceed 4000 bytes (in total), cause the following error when opening the *Email processing rules* and *Rate import* interfaces: "Please provide your database administrator with this error. ORA-01489: result of string concatenation is too long".
- The simulation result for email processing rules may be different from the actual result, as when specifying multiple emails in the *To* field during simulation, the rule's field *Mail to/CC/BCC mask* is treated as a mask even if exact match is required. Example: Suppose the *Mail to/CC/BCC* is `alaris.test@gmail.com` which denotes exact match. Suppose a message was received with the following parameters:

To: `alaris.test@gmail.com`

CC: `new@gmail.com`

When searching for a suitable email processing rules, both emails will be merged to the string "`alaris.test@gmail.com,new@gmail.com`" which does not match the set *Mail to/CC/BCC mask* and the rule will not be selected. However, based on a simulation rule, the rule is considered suitable, which is incorrect. To avoid such situations, it is recommended specifying the *Mail to/CC/BCC mask* as a mask, for example:

[%alaris.test@gmail.com%](#)

### REST API

- A deactivated user can send requests to REST API, which is incorrect.

### Routing module

- Due to the specifics of information storage by tag, incorrect update of tag values is observed in the routing module if several identical values are available under one tag (with different periods).

### Routing rules

- The *Vendor product* field disappears when changing the rule type from *Block* to *Regular routing*. However, its value is saved in the database which results in incorrect display after the regular routing rule is saved.

### Simulation

### Tags

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## Known issues

- Tag import for the types *Merge* or *Close all existing records* closes tags only in case of exact match (thus, tags and their values in the file must fully match names and values existing in the System).
  - When importing tags of the types *Delete matching records* or *Close matching records* and specifying the tag name only (without the *Tag value* column), existing tag records are not deleted/closed.
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## Database structure changes

### 4 Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
BAS_PRODUCT	USE_ANI_BILLING	created in 3.5.28	NUMBER	22	Y	Check ANI fields in rates
RAT_DEPEND_RATE_TMP	CHILD_INDEX	created in 3.5.28	VARCHAR2	33	Y	Reference to child product
RAT_DEPEND_RATE_TMP	RATE_ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination
RAT_DEPEND_RATE_TMP	RATE_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Origin dial code
RAT_EXP_ALL_REC_TMP	-- Table --	created in 3.5.28				Temporary table for rate export
RAT_EXP_PRESET	PRESET_BILLING_TYPE	created in 3.5.28	VARCHAR2	30	Y	Billing type
RAT_EXP_REC_TMP	-- Table --	created in 3.5.28				Temporary table for rate export
RAT_IMP_ERR_LOG	RATE_ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
RAT_IMP_LOAD_ORIGIN_CODE	-- Table --	created in 3.5.28				Rate origin dial codes import results table
RAT_IMP_LOAD_ORIGIN_CODE	ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination
RAT_IMP_LOAD_ORIGIN_CODE	ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Origin dial code
RAT_IMP_LOAD_ORIGIN_CODE	END_DATE	created in 3.5.28	DATE	7	Y	End date
RAT_IMP_LOAD_ORIGIN_CODE	ERROR_TYPE_ID	created in 3.5.28	NUMBER	22	Y	Error type ID
RAT_IMP_LOAD_ORIGIN_CODE	SHEET_NAME	created in 3.5.28	VARCHAR2	1024	Y	Sheet name in Excel file
RAT_IMP_LOAD_ORIGIN_CODE	SHEET_ROW_NUM	created in 3.5.28	NUMBER	22	Y	Row number in sheet
RAT_IMP_LOAD_ORIGIN_CODE	START_DATE	created in 3.5.28	DATE	7	Y	Start date



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
RAT_IMP_LOAD_ORIGIN_CODE	TASK_JOB_NAME	created in 3.5.28	VARCHAR2	36	Y	Task job name
RAT_IMP_LOAD_RATE	RATE_ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination
RAT_IMP_LOAD_RATE	RATE_DIAL_CODE	changed in 3.5.28	VARCHAR2	4000	Y	Dial code
RAT_IMP_LOAD_RATE	RATE_ID	deleted in 3.5.28	NUMBER	22	Y	Rate ID
RAT_RATE	RATE_ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination
RAT_RATE	RATE_ANI_GRP_ID	created in 3.5.28	NUMBER	22	Y	Origin dial codes group ID
RAT_RATE_ORIGIN_GROUP	-- Table --	created in 3.5.28				Rate origin dial codes
RAT_RATE_ORIGIN_GROUP	ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	N	Origin dial code
RAT_RATE_ORIGIN_GROUP	GRP_ID	created in 3.5.28	NUMBER	22	N	Origin dial codes group ID



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
RAT_RATE_ORIGIN_GROUP_TMP	-- Table --	created in 3.5.28				Temporary table for rate import
RAT_RATE_TMP	RATE_ANI_CSCD	created in 3.5.28	VARCHAR2	4000	Y	Carrier-specific origin destination
SMS_SYS_DLV_STATUS	-- Table --	created in 3.5.28				List of system delivery statuses
SMS_SYS_DLV_STATUS	ID	created in 3.5.28	NUMBER	22	N	Unique ID
SMS_SYS_DLV_STATUS	STATUS	created in 3.5.28	VARCHAR2	16	N	Status name
SMS_TRNSL_CODE	-- Table --	created in 3.5.28				Error code translations
SMS_TRNSL_CODE	CODE	created in 3.5.28	VARCHAR2	4000	N	code
SMS_TRNSL_CODE	CODE_TYPE	created in 3.5.28	NUMBER	22	N	code type: routing/system/error/status/protocol code
SMS_TRNSL_CODE	DESCR	created in 3.5.28	VARCHAR2	4000	N	description



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
SMS_TRNSL_CODE	ID	created in 3.5.28	NUMBER	22	N	id
SMS_TRNSL_CODE	PROTOCOL	created in 3.5.28	VARCHAR2	10	N	protocol http/smpp/any
SMS_TRNSL_CODE	TYPE	created in 3.5.28	NUMBER	22	N	code type system/user - 0/1
SMS_TRNSL_RULES	-- Table --	created in 3.5.28				Code translation rules
SMS_TRNSL_RULES	CHANNELS	created in 3.5.28	VARCHAR2	4000	Y	Channel list
SMS_TRNSL_RULES	ERROR_CODE	created in 3.5.28	NUMBER	22	Y	Error code
SMS_TRNSL_RULES	ID	created in 3.5.28	NUMBER	22	N	id
SMS_TRNSL_RULES	MCCMNC_LIST	created in 3.5.28	VARCHAR2	4000	Y	MCCMNC list
SMS_TRNSL_RULES	RESULT_CODE	created in 3.5.28	NUMBER	22	Y	Result code
SMS_TRNSL_RULES	SOURCE_CODE	created in 3.5.28	NUMBER	22	Y	Source code



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
SMS_TRNSL_RULES	TYPE_CODE	created in 3.5.28	NUMBER	22	N	Translation type from sms_trnsl_type
STA_CUBE_DAY_BK	-- Table --	deleted in 3.5.28				Voice analytic daily cube
STA_CUBE_DAY_BK	AVG_PDD	deleted in 3.5.28	NUMBER	22	Y	Average PDD
STA_CUBE_DAY_BK	CALLED_LATA	deleted in 3.5.28	NUMBER	22	Y	B-side LATA
STA_CUBE_DAY_BK	CALLED_OCN	deleted in 3.5.28	VARCHAR2	4	Y	B-side OCN
STA_CUBE_DAY_BK	CALLED_STATE	deleted in 3.5.28	VARCHAR2	2	Y	B-side State
STA_CUBE_DAY_BK	CALLING_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	A-number dial code
STA_CUBE_DAY_BK	CALLING_LATA	deleted in 3.5.28	NUMBER	22	Y	A-side LATA
STA_CUBE_DAY_BK	CALLING_OCN	deleted in 3.5.28	VARCHAR2	4	Y	A-side OCN
STA_CUBE_DAY_BK	CALLING_STATE	deleted in 3.5.28	VARCHAR2	2	Y	A-side State
STA_CUBE_DAY_BK	COUNT_OK	deleted in 3.5.28	NUMBER	22	Y	Successful calls



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_DAY_BK	COUNT_RES	deleted in 3.5.28	NUMBER	22	Y	Attempts with successful code
STA_CUBE_DAY_BK	COUNT_SHORT	deleted in 3.5.28	NUMBER	22	Y	Short calls
STA_CUBE_DAY_BK	COUNT_TOTAL	deleted in 3.5.28	NUMBER	22	Y	Attempts count
STA_CUBE_DAY_BK	COUNT_VERY_SHORT	deleted in 3.5.28	NUMBER	22	Y	Very short calls
STA_CUBE_DAY_BK	DCHECK	deleted in 3.5.28	DATE	7	Y	Date
STA_CUBE_DAY_BK	DST_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Vendor dial code from rates
STA_CUBE_DAY_BK	DST_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Vendor POI ID
STA_CUBE_DAY_BK	DST_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample vendor rates
STA_CUBE_DAY_BK	EXTRA_CNT	deleted in 3.5.28	NUMBER	22	Y	CDR count with extra sign
STA_CUBE_DAY_BK	GROUP_ID	deleted in 3.5.28	NUMBER	22	Y	Aggregation group ID



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_DAY_BK	HOST	deleted in 3.5.28	VARCHAR2	256	Y	Softswitch
STA_CUBE_DAY_BK	MAX_PDD	deleted in 3.5.28	NUMBER	22	Y	Maximum PDD
STA_CUBE_DAY_BK	MIN_PDD	deleted in 3.5.28	NUMBER	22	Y	Minimum PDD
STA_CUBE_DAY_BK	SRC_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Client dial code from rates
STA_CUBE_DAY_BK	SRC_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Client POI ID
STA_CUBE_DAY_BK	SRC_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample client rates
STA_CUBE_DAY_BK	SUM_DST_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Vendor charge
STA_CUBE_DAY_BK	SUM_DST_DURATION	deleted in 3.5.28	NUMBER	22	Y	Vendor duration, sec
STA_CUBE_DAY_BK	SUM_DURATION	deleted in 3.5.28	NUMBER	22	Y	Raw duration, sec
STA_CUBE_DAY_BK	SUM_MARGIN	deleted in 3.5.28	NUMBER	22	Y	Margin
STA_CUBE_DAY_BK	SUM_SRC_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Client charge



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_DAY_BK	SUM_SRC_DURATION	deleted in 3.5.28	NUMBER	22	Y	Client duration, sec
STA_CUBE_GROUP	GROUP_ID	changed in 3.5.28	NUMBER	22	N	Group ID
STA_CUBE_MANAGER_M ONTH	-- Table --	deleted in 3.5.28				Manager analytic monthly cube
STA_CUBE_MANAGER_M ONTH	AVG_PDD	deleted in 3.5.28	NUMBER	22	Y	Average PDD
STA_CUBE_MANAGER_M ONTH	CALLED_LATA	deleted in 3.5.28	NUMBER	22	Y	B-side LATA
STA_CUBE_MANAGER_M ONTH	CALLED_OCN	deleted in 3.5.28	VARCHAR2	4	Y	B-side OCN
STA_CUBE_MANAGER_M ONTH	CALLED_STATE	deleted in 3.5.28	VARCHAR2	2	Y	B-side State
STA_CUBE_MANAGER_M ONTH	CALLING_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	A-number dial code



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MANAGER_MONTH	CALLING_LATA	deleted in 3.5.28	NUMBER	22	Y	A-side LATA
STA_CUBE_MANAGER_MONTH	CALLING_OCN	deleted in 3.5.28	VARCHAR2	4	Y	A-side OCN
STA_CUBE_MANAGER_MONTH	CALLING_STATE	deleted in 3.5.28	VARCHAR2	2	Y	A-side State
STA_CUBE_MANAGER_MONTH	COUNT_ACCOUNTABLE	deleted in 3.5.28	NUMBER	22	Y	Count of total attempts accountable for PDD calculation
STA_CUBE_MANAGER_MONTH	COUNT_OK	deleted in 3.5.28	NUMBER	22	Y	Successful calls
STA_CUBE_MANAGER_MONTH	COUNT_RES	deleted in 3.5.28	NUMBER	22	Y	Attempts with successful code
STA_CUBE_MANAGER_MONTH	COUNT_SHORT	deleted in 3.5.28	NUMBER	22	Y	Short calls
STA_CUBE_MANAGER_MONTH	COUNT_TOTAL	deleted in 3.5.28	NUMBER	22	Y	Attempts count



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MANAGER_MONTH	COUNT_VERY_SHORT	deleted in 3.5.28	NUMBER	22	Y	Very short calls
STA_CUBE_MANAGER_MONTH	DCHECK	deleted in 3.5.28	DATE	7	Y	Date
STA_CUBE_MANAGER_MONTH	DST_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Vendor dial code from rates
STA_CUBE_MANAGER_MONTH	DST_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Vendor POI ID
STA_CUBE_MANAGER_MONTH	DST_RATE_LIST	deleted in 3.5.28	VARCHAR2	64	Y	3 sample vendor rates
STA_CUBE_MANAGER_MONTH	EXTRA	deleted in 3.5.28	VARCHAR2	128	Y	Extra field
STA_CUBE_MANAGER_MONTH	EXTRA_CNT	deleted in 3.5.28	NUMBER	22	Y	CDR count with extra sign
STA_CUBE_MANAGER_MONTH	GROUP_ID	deleted in 3.5.28	NUMBER	22	Y	Aggregation group ID



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MANAGER_MONTH	HOST	deleted in 3.5.28	VARCHAR2	256	Y	Softswitch
STA_CUBE_MANAGER_MONTH	MANAGER_ID	deleted in 3.5.28	NUMBER	22	Y	Manager ID
STA_CUBE_MANAGER_MONTH	MAX_PDD	deleted in 3.5.28	NUMBER	22	Y	Maximum PDD
STA_CUBE_MANAGER_MONTH	MIN_PDD	deleted in 3.5.28	NUMBER	22	Y	Minimum PDD
STA_CUBE_MANAGER_MONTH	RULE_ID	deleted in 3.5.28	NUMBER	22	Y	Routing rule ID
STA_CUBE_MANAGER_MONTH	SRC_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Client dial code from rates
STA_CUBE_MANAGER_MONTH	SRC_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Client POI ID
STA_CUBE_MANAGER_MONTH	SRC_RATE_LIST	deleted in 3.5.28	VARCHAR2	64	Y	3 sample client rates



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MANAGER_MONTH	SUM_DST_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Vendor charge
STA_CUBE_MANAGER_MONTH	SUM_DST_DURATION	deleted in 3.5.28	NUMBER	22	Y	Vendor duration, sec
STA_CUBE_MANAGER_MONTH	SUM_DST_RAW_DURATION	deleted in 3.5.28	NUMBER	22	Y	Total vendor raw duration (in seconds)
STA_CUBE_MANAGER_MONTH	SUM_DURATION	deleted in 3.5.28	NUMBER	22	Y	Raw duration, sec
STA_CUBE_MANAGER_MONTH	SUM_MARGIN	deleted in 3.5.28	NUMBER	22	Y	Margin
STA_CUBE_MANAGER_MONTH	SUM_SRC_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Client charge
STA_CUBE_MANAGER_MONTH	SUM_SRC_CONN_FEE	deleted in 3.5.28	NUMBER	22	Y	Total client connection fee
STA_CUBE_MANAGER_MONTH	SUM_SRC_DURATION	deleted in 3.5.28	NUMBER	22	Y	Client duration, sec



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MANAGER_MONTH	SUM_SRC_RAW_DURATION	deleted in 3.5.28	NUMBER	22	Y	Total client raw duration (in seconds)
STA_CUBE_MANAGER_MONTH	SWAP	deleted in 3.5.28	NUMBER	22	Y	Swap deals flag
STA_CUBE_MONTH_BK	-- Table --	deleted in 3.5.28				Voice analytic monthly cube
STA_CUBE_MONTH_BK	AVG_PDD	deleted in 3.5.28	NUMBER	22	Y	Average PDD
STA_CUBE_MONTH_BK	CALLED_LATA	deleted in 3.5.28	NUMBER	22	Y	B-side LATA
STA_CUBE_MONTH_BK	CALLED_OCN	deleted in 3.5.28	VARCHAR2	4	Y	B-side OCN
STA_CUBE_MONTH_BK	CALLED_STATE	deleted in 3.5.28	VARCHAR2	2	Y	B-side State
STA_CUBE_MONTH_BK	CALLING_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	A-number dial code
STA_CUBE_MONTH_BK	CALLING_LATA	deleted in 3.5.28	NUMBER	22	Y	A-side LATA
STA_CUBE_MONTH_BK	CALLING_OCN	deleted in 3.5.28	VARCHAR2	4	Y	A-side OCN



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MONTH_BK	CALLING_STATE	deleted in 3.5.28	VARCHAR2	2	Y	A-side State
STA_CUBE_MONTH_BK	COUNT_OK	deleted in 3.5.28	NUMBER	22	Y	Successful calls
STA_CUBE_MONTH_BK	COUNT_RES	deleted in 3.5.28	NUMBER	22	Y	Attempts with successful code
STA_CUBE_MONTH_BK	COUNT_SHORT	deleted in 3.5.28	NUMBER	22	Y	Short calls
STA_CUBE_MONTH_BK	COUNT_TOTAL	deleted in 3.5.28	NUMBER	22	Y	Attempts count
STA_CUBE_MONTH_BK	COUNT_VERY_SHORT	deleted in 3.5.28	NUMBER	22	Y	Very short calls
STA_CUBE_MONTH_BK	DCHECK	deleted in 3.5.28	DATE	7	Y	Date
STA_CUBE_MONTH_BK	DST_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Vendor dial code from rates
STA_CUBE_MONTH_BK	DST_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Vendor POI ID
STA_CUBE_MONTH_BK	DST_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample vendor rates



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MONTH_BK	EXTRA_CNT	deleted in 3.5.28	NUMBER	22	Y	CDR count with extra sign
STA_CUBE_MONTH_BK	GROUP_ID	deleted in 3.5.28	NUMBER	22	Y	Aggregation group ID
STA_CUBE_MONTH_BK	HOST	deleted in 3.5.28	VARCHAR2	256	Y	Softswitch
STA_CUBE_MONTH_BK	MAX_PDD	deleted in 3.5.28	NUMBER	22	Y	Maximum PDD
STA_CUBE_MONTH_BK	MIN_PDD	deleted in 3.5.28	NUMBER	22	Y	Minimum PDD
STA_CUBE_MONTH_BK	SRC_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Client dial code from rates
STA_CUBE_MONTH_BK	SRC_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Client POI ID
STA_CUBE_MONTH_BK	SRC_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample client rates
STA_CUBE_MONTH_BK	SUM_DST_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Vendor charge
STA_CUBE_MONTH_BK	SUM_DST_DURATION	deleted in 3.5.28	NUMBER	22	Y	Vendor duration, sec
STA_CUBE_MONTH_BK	SUM_DURATION	deleted in 3.5.28	NUMBER	22	Y	Raw duration, sec



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_MONTH_BK	SUM_MARGIN	deleted in 3.5.28	NUMBER	22	Y	Margin
STA_CUBE_MONTH_BK	SUM_SRC_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Client charge
STA_CUBE_MONTH_BK	SUM_SRC_DURATION	deleted in 3.5.28	NUMBER	22	Y	Client duration, sec
STA_CUBE_WEEK_BK	-- Table --	deleted in 3.5.28				Voice analytic weekly cube
STA_CUBE_WEEK_BK	AVG_PDD	deleted in 3.5.28	NUMBER	22	Y	Average PDD
STA_CUBE_WEEK_BK	CALLED_LATA	deleted in 3.5.28	NUMBER	22	Y	B-side LATA
STA_CUBE_WEEK_BK	CALLED_OCN	deleted in 3.5.28	VARCHAR2	4	Y	B-side OCN
STA_CUBE_WEEK_BK	CALLED_STATE	deleted in 3.5.28	VARCHAR2	2	Y	B-side State
STA_CUBE_WEEK_BK	CALLING_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	A-number dial code
STA_CUBE_WEEK_BK	CALLING_LATA	deleted in 3.5.28	NUMBER	22	Y	A-side LATA
STA_CUBE_WEEK_BK	CALLING_OCN	deleted in 3.5.28	VARCHAR2	4	Y	A-side OCN



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_WEEK_BK	CALLING_STATE	deleted in 3.5.28	VARCHAR2	2	Y	A-side State
STA_CUBE_WEEK_BK	COUNT_OK	deleted in 3.5.28	NUMBER	22	Y	Successful calls
STA_CUBE_WEEK_BK	COUNT_RES	deleted in 3.5.28	NUMBER	22	Y	Attempts with successful code
STA_CUBE_WEEK_BK	COUNT_SHORT	deleted in 3.5.28	NUMBER	22	Y	Short calls
STA_CUBE_WEEK_BK	COUNT_TOTAL	deleted in 3.5.28	NUMBER	22	Y	Attempts count
STA_CUBE_WEEK_BK	COUNT_VERY_SHORT	deleted in 3.5.28	NUMBER	22	Y	Very short calls
STA_CUBE_WEEK_BK	DCHECK	deleted in 3.5.28	DATE	7	Y	Date
STA_CUBE_WEEK_BK	DST_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Vendor dial code from rates
STA_CUBE_WEEK_BK	DST_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Vendor POI ID
STA_CUBE_WEEK_BK	DST_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample vendor rates



### Database structure changes

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_WEEK_BK	EXTRA_CNT	deleted in 3.5.28	NUMBER	22	Y	CDR count with extra sign
STA_CUBE_WEEK_BK	GROUP_ID	deleted in 3.5.28	NUMBER	22	Y	Aggregation group ID
STA_CUBE_WEEK_BK	HOST	deleted in 3.5.28	VARCHAR2	256	Y	Softswitch
STA_CUBE_WEEK_BK	MAX_PDD	deleted in 3.5.28	NUMBER	22	Y	Maximum PDD
STA_CUBE_WEEK_BK	MIN_PDD	deleted in 3.5.28	NUMBER	22	Y	Minimum PDD
STA_CUBE_WEEK_BK	SRC_DIAL_CODE	deleted in 3.5.28	VARCHAR2	256	Y	Client dial code from rates
STA_CUBE_WEEK_BK	SRC_POI_ID	deleted in 3.5.28	NUMBER	22	Y	Client POI ID
STA_CUBE_WEEK_BK	SRC_RATE_LIST	deleted in 3.5.28	VARCHAR2	30	Y	3 sample client rates
STA_CUBE_WEEK_BK	SUM_DST_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Vendor charge
STA_CUBE_WEEK_BK	SUM_DST_DURATION	deleted in 3.5.28	NUMBER	22	Y	Vendor duration, sec
STA_CUBE_WEEK_BK	SUM_DURATION	deleted in 3.5.28	NUMBER	22	Y	Raw duration, sec



**Database structure changes**

Table	Column	Change	Data type	Data length	Nullable	Comments
STA_CUBE_WEEK_BK	SUM_MARGIN	deleted in 3.5.28	NUMBER	22	Y	Margin
STA_CUBE_WEEK_BK	SUM_SRC_CHARGE	deleted in 3.5.28	NUMBER	22	Y	Client charge
STA_CUBE_WEEK_BK	SUM_SRC_DURATION	deleted in 3.5.28	NUMBER	22	Y	Client duration, sec
STA_RAW	CDR_DST_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Vendor origin dial code
STA_RAW	CDR_SRC_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Client origin dial code
STA_RAW_ARCHIVE	CDR_DST_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Vendor origin dial code
STA_RAW_ARCHIVE	CDR_SRC_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Client origin dial code
STA_RAW_MERGE_TMP	CDR_DST_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Vendor origin dial code
STA_RAW_MERGE_TMP	CDR_SRC_ANI_DIAL_CODE	created in 3.5.28	VARCHAR2	16	Y	Client origin dial code



REST API changes

## 5 REST API changes

Resource	Parameter	Change	Description	Auth required	Parameter descr.	Direction	Param. required	Param. type	Param. in	Order index	Validation json
GET:black_list	tag_id	deleted in 3.5.28	Get black list	1	type: 1 contact tags. type: 2 black list tags	0	0	integer	query		
GET:black_list	tag_id	changed in 3.5.28	Get black list	1	type: 1 contact tags. type: 2 black list tags	1	1	integer	body	2	
GET:black_list	tag_ids	created in 3.5.28	Get black list	1	List of tag IDs separated by comma	0	0	string	query	2	
POST:black_list	tag_id	created in 3.5.28	Add new record to black list	1	tag ID	0	0	integer	body		
GET:black_list/{id}	first_rec	deleted in 3.5.28	Get specific black list	1	Pagination: first record	0	0	integer	query		



**REST API changes**

Resource	Parameter	Change	Description	Auth required	Parameter descr.	Direction	Param. required	Param. type	Param. in	Order index	Validation json
GET:black_list/{id}	rec_count	deleted in 3.5.28	Get specific black list	1	Pagination: maximum number of records	0	0	integer	query		
PUT:black_list/{id}	tag_id	created in 3.5.28	Update specific black list record	1	tag_id	0	0	integer	body		
POST:bulk_send_sms	black_tag_ids	created in 3.5.28	Send array of SMS	0	Black list of tag IDs separated by comma	0	0	string	query		
POST:schedule_sms_sending_from_file	black_tag_ids	created in 3.5.28	Send SMS to multiple phone numbers from file	1	List of tag IDs separated by comma	0	0	string	body		
GET:sms_campaign	black_tag_ids	created in 3.5.28	Get campaign list	1	Black list of tag IDs separated by comma	1	0	string	body	3	



## REST API changes

Resource	Parameter	Change	Description	Auth required	Parameter descr.	Direction	Param. required	Param. type	Param. in	Order index	Validation json
POST:sms_campaign	black_tag_ids	created in 3.5.28	Create new campaign	1	Black list of tag IDs separated by comma	0	0	string	body		
GET:sms_campaign/{id}	black_tag_ids	created in 3.5.28	Get specific campaign	1	Black list of tag IDs separated by comma	1	0	string	body		
PUT:sms_campaign/{id}	black_tag_ids	created in 3.5.28	Update sms campaign	1	Black list of tag IDs separated by comma	0	0	string	body		
GET:tag	is_default	created in 3.5.28	Get tag list	1	is_default	1	0	string	body		
GET:tag	type	created in 3.5.28	Get tag list	1	Type	0	0	integer	body		
POST:tag	is_default	created in 3.5.28	Create new tag	1	is_default	0	0	integer	body		{"type":"boolean"}



**REST API changes**

Resource	Parameter	Change	Description	Auth required	Parameter descr.	Direction	Param. required	Param. type	Param. in	Order index	Validation json
POST:tag	type	created in 3.5.28	Create new tag	1	type: 1 contact tags. type: 2 black list tags	0	0	string	body	4	
DELETE:tag/{id}	tag_id	created in 3.5.28	Delete specific tag	1	Tag ID	0	0	integer	path		
GET:tag/{id}	first_rec	deleted in 3.5.28	Get specific tag	1	Pagination: first record	0	0	integer	query		
GET:tag/{id}	is_default	created in 3.5.28	Get specific tag	1	is_default	1	0	string	body		
GET:tag/{id}	rec_count	deleted in 3.5.28	Get specific tag	1	Pagination: maximum number of records	0	0	integer	query		
PUT:tag/{id}	is_default	created in 3.5.28	Update specific tag	1	is_default	0	0	integer	body		{"type":"boolean"}
PUT:tag/{id}	type	created in 3.5.28	Update specific tag	1	type: 1 contact tags. type: 2 black list tags	0	0	string	body	4	