

DID Billing - The need to know..

DID Billing has been one of the most sought how-to, yet there are very little articles on how to configure DID billing in a step by step manner.

In this step-by-step article, i'll try my best to explain the whole 9-yards, that even granny can bill for DIDs without disturbing grandpa..

This How-To was written with the following assumptions:

1. You have a slight understanding of FreePBX and A2Billing
2. You already have ordered a DID
3. You already can receive incoming calls on that DID, configured in FreePBX before passing the Inbound call to A2Billing
4. You already have A2billing installed and functioning properly

Step 1.

Goto FreePBX - Custom Destinations: your settings should look like relative to this:

Edit Custom Destination

Custom Destination:	<input type="text" value="a2billing-did,\${EXTEN},1"/>
Destination Quick Pick	<input type="text" value="(pick destination)"/>
Description:	<input type="text" value="A2B-DID"/>
Notes:	<input type="text" value="To direct DID into A2Billing for onwards delivery and billing"/>

Submit Changes

Delete

- *a2billing-did* = context that you'll be using in your *extensions_a2billing.conf* (feel freely to use whatever name you want, but it must reflect the same name in your *.conf* file)

Step 2 - context [*extensions_a2billing.conf*]

Open your *extensions_a2billing.conf* and add this context..

```
[a2billing-did]
.....
;Deliver DIDs and bill for them
;2009.03.05 last updated
exten => _X.,1,Noop(a2billing-did ${EXTEN})
exten => _X.,n,DeadAGI(a2billing.php|1|did)
exten => _X.,n,Hangup
```

- *a2billing.php|1|did* ----> |1 declares which agi conf we'll be using in *a2billing.conf*; |did declares that we are setting up a DID

Step 3 - *a2billing.conf* [*agi.conf*]

Define your agi-conf, this is my default agi-conf, and works fine for the incoming DIDs.

DO NOT use this agi-conf for DIDs that you'll be forwarding as a wholesaler to your clients, so they in turn can forward to their clients, **IT WILL NOT WORK**

Open your *a2billing.conf* and add the following [adjust accordingly especialy [*agi-confX*], so you don't have a double entry

Most important settings for incoming DID billings are highlighted

[*agi-confX*]

```
.....
;2009.03.06 --> Last updated
```

;Default AGI for A2Billing

debug = 1
asterisk_version = 1_4
answer_call = YES
play_audio = YES
say_goodbye = NO
play_menulanguage = NO
force_language =
intro_prompt =
min_credit_2call = 0
min_duration_2bill = 0
notenoughcredit_cardnumber = YES
notenoughcredit_assign_newcardnumber_cid = YES
use_dnid = YES
no_auth_dnid = 2400,2300
number_try = 1
force_callplan_id =
say_balance_after_auth = NO
say_balance_after_call = NO
say_rateinitial = NO
say_timetocall = NO
auto_setcallerid = YES
force_callerid =
cid_sanitize = CID
cid_enable = NO
cid_askpincode_ifnot_callerid = YES
cid_auto_assign_card_to_cid = YES
cid_auto_create_card = NO
cid_auto_create_card_len = 10
cid_auto_create_card_typepaid = POSTPAY
cid_auto_create_card_credit = 0
cid_auto_create_card_credit_limit = 1000
cid_auto_create_card_tariffgroup = 1
callerid_authentication_over_cardnumber = NO
sip_iax_friends = YES
sip_iax_pstn_direct_call_prefix = 55
sip_iax_pstn_direct_call = YES
ivr_voucher = NO
ivr_voucher_prefix = 8
jump_voucher_if_min_credit = NO
extracharge_did =
extracharge_fee =
extracharge_buyfee =
international_prefixes = 011,00,09
dialcommand_param = "|60|HRgrL(%timeout%:61000:30000)"
dialcommand_param_sipiax_friend = "|60|HRgirL(3600000:61000:30000)"
switchdialcommand = NO
failover_recursive_limit = 2
maxtime_tocall_negatif_free_route = 5400
send_reminder = NO
record_call = NO
monitor_formatfile = gsm
agi_force_currency =
currency_association = usd:dollars,mxn:pesos,eur:euros,all:credit
file_conf_enter_destination = prepaid-enter-dest
file_conf_enter_menulang = prepaid-menulang2
callback_bill_1stleg_ifcall_notconnected = YES

Step 6 - DID

Now we'll let A2Billing be aware of this DID, by adding it to the A2Billing DataBase..
Goto DID | Add DID

DID	00441158170099 Insert DID
BILLING	Fix per month + dialoutrate
START DATE	2009-03-05 23:09:12 Format YYYY-MM-DD HH:MM:SS. For instance, '2004-12-31 00:00:00'
EXPIRY DATE	2034-03-05 23:09:12 Format YYYY-MM-DD HH:MM:SS. For instance, '2004-12-31 00:00:00'
DIDGROUP	DID-1
COUNTRY	United Kingdom
ACTIVATED	Yes <input checked="" type="radio"/> - No <input type="radio"/>
MONTHLY RATE	.15 currency : EUR

- DID: The DID assigned to you by your DID Provider
- Billing: Fix per month + dialoutrate
- DIDGroup: The DID Group you want to assign this DID to
- Country: Here i choose the country this DID refers to.
- Activated: Must be **YES**, else it won't work
- Monthly Rate: The monthly fee you want to charge for this DID

Step 7 - DID Destination

Let's add the destination for this DID, in other words, to which Card (sip/iax friend) we want to deliver the incoming call to.

Goto DID | Add Destinaiton

DESTINATION	29113906400441158170099 Enter the phone number you wish to call, VoIP, the VoIP_Call must be set to yes.
ID CARD	82 Set the card number ID.
DID	00441158170099
ACTIVATED	Yes <input checked="" type="radio"/> - No <input type="radio"/>
PRIORITY	1
VOIP_CALL	Yes <input type="radio"/> - No <input checked="" type="radio"/>

Destination:	2: Prefix to be sent to the trunk in order to capture the correct RateCard 9XXXXX: SIP/IAX friend that will be receiving the incoming call on this DID /DID number: Used in order to send CLID to the end device, if this is not done, the end device will be receiving the SIP/IAX friend card number as CLID; this is usefull for Wholesalers that wants to send DID's to their clients, so their clients can see the incoming DID and thereafter forward it to their registered client.
IDCard:	Should be the cardnumber of the the SIP/IAX Friend
DID:	DID Assigned to this destinaiton (client)
Activated:	Must be YES , else it won't work
Priority:	Have no clue, but leaving it at 1 worked.
VoIP Call:	This must be NO , else the DID won't be charged per minute, would be then a FLAT Fee DID.

Step 8 - Rate Card

We will now define the RateCard to be used for this DID

[Goto Rate Card](#) | [Create New Rate Card](#)

TARIFFNAME	INBOUND-DID
START DATE	2009-03-05 21:39:55 please respect the format YYYY-MM-DD HH:MM:SS.
EXPIRY DATE	2034-03-05 21:39:55 Format YYYY-MM-DD HH:MM:SS. For instance, '2004
TRUNK	LOCAL-SIP
DESCRIPTION	
DNID PREFIX	2 Set the DNID rules to choose the ratecard 'dnidpref: ratecard when the DNID is 900540540.
CALLERID PREFIX	all Set the CallerID rules to choose the ratecard 'calleri: this ratecard when the CallerID is 900540540.

- TariffName: Name for this RateCard
- Trunk: Use the trunk defined in Step 4
- DNID prefix: This is the prefix we using to identify this rate card with the DID when being called.

Step 9 - Rate Sheet

In this step, we'll define the billing increments for this DID, as to how much the the cost per minute shall be.

Goto Rate Card | Add Rate

RATECARD	INBOUND-DID
DIALPREFIX	2 Define the destination prefix. i.e. 441 for UK Landlines. Use 'defaultprefix' to setup a rate is not provided. If you ADD a rate, NOT an EDIT, you can define a range of prefixes. 32484-32487 would match all dialled digits between 32484 and 32487, whereas prefixes 32484,32386,32488 would only match the individual prefixes listed.
DESTINATION	did incoming Name for this call destination, for example : UK, Belgium Landline, Spain Mobile Telefor <i>Define your purchase cost that you need to pay to your voip-provider to let your platform call this destination.</i>
BUYING RATE	0 Set the carrier cost, the price you pay for minutes.
BUYRATE MIN DURATION	0 Set the minimum duration charged by the carrier. (i.e. 30 secs)
BUYRATE BILLING BLOCK	0 Set the billing increment, in seconds (billing block), that the carrier applies. (ie 30 secs) <i>Define the selling cost for customers.</i>
SELLING RATE	0.0175 The retail rate; or the cost per minute to apply to the customer, e.g. 0.02
SELLRATE MIN DURATION	6 Set the minimum duration to charge the customer (ie 60 seconds)
SELLRATE BILLING BLOCK	6 Set the billing increment in seconds to bill your customer.
CONNECT CHARGE	0 Apply a connection charge
DISCONNECT CHARGE	0 Apply a disconnection charge <i>Define the perio when this rating might be active.</i>
START DATE	2009-03-05 21:41:12 Format YYYY-MM-DD HH:MM:SS. For instance, '2004-12-31 00:00:00'
STOP DATE	2019-03-05 21:41:12 Leave empty to apply this rate indefinitely. Format YYYY-MM-DD HH:MM:SS. For instance
START TIME	0 Set the time and day of the week at the rate is first valid (ie Monday 00:00 is 0)
END TIME	10079 Set the time and the day of the week that the rate is no longer valid. (ie Sunday 23:59)
TRUNK	LOCAL-SIP Set the trunk to use for this destination, or NOT DEFINED to use the rate card trunk.
USE FREE TIME TO CALL PACKAGE	No <input type="radio"/> - Yes <input checked="" type="radio"/> Set to use this destination with the freetimetocall package offer.
CIDGROUP	NOT DEFINED Set the Outgoing CID Group to use for this destination, or NOT DEFINED to use the rate

Rate Card:	Select the RateCard created in Step 8
Dial Prefix:	Use the same prefix used in previous steps
Destination:	Country of DID, i used DID-Incoming, as this is what will be displayed in the CDR, then you will know that it was minutes charged for an incoming call.
Buying Rate:	Rate at which you are purchasing your DID, per minute
Sell Rate:	Rates at which your are selling your DID, per minute
Trunk:	Select the Trunk you created in Step 4
Use Free Time:	If you provide Free minutes in a package deal then this should be set to YES, if not, then set this to NO

Step 10 - Callplan

To round off the configurations, we now have to add the inbound DID RateCard to a callplan.

Goto RateCard | List Callplan

Select the desired call plan, and then add the INBOUD-RATECARD to this call plan.

NAME	WSALE-3000 Inbound
LC TYPE	LCR: According to the buyer price
PACKAGE	Set the Package offer if you wish to use one with this Call Plan.
REMOVE INTER PREFIX	Yes <input checked="" type="radio"/> - No <input type="radio"/>
RATECARD	

RATECARD LIST	
INBOUND-DID	DELETE

Step 11 - CDR Control

Once you have done that, feel free to make calls to the assigned DID, and in the CDR you can control if the call was charged or not.

Goto Call Report | CDR Report

Call Log	Calldate	Source	CalledNumber	Destination	Duration	CardUsed	Trunk	IC	Calltype	Buy	Sell	Margin	Markup
1.	2009-03-19 17:59:20	+465696923022	291139064/00441150170099	did incoming	01:21	91139064	LOCAL-STP	ANSWER	DID-CALL	0.000 eur	0.025 eur	100.00%	n/a