CNAM in OpenSIPS

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Professional CNAM Delivery

Who's using CNAM?

- End users
  - IP PBX (asterisk, FreePBX, PIAF,FusionPBX)
  - Softswitch (Freeswitch)
  - SIP PROXY/SERVER (Opensips)
- VoIP providers
  - SBC (ACME, CISCO)
  - SIP PROXY/SERVER (Opensips)
- VoIP developers
  - Customized applications

Benefits of providing CNAM to your customers

- Higher call answer ratios = more billable time

  It's a fact. Calls with CNAM get answered more often than those without

- A feature customers want = more customers

  Customers are more apt to choose a provider that offers CNAM

CNAM helps prevent fraud

Fraud is the most expensive cost of doing business in the VOIP world

Companies are using CNAM in different ways:

- Inbound call centers where people apply for credit will use CNAM to verify that phone numbers actually belong to applicants
- Businesses that take credit cards over the phone can match the name on the card to the CNAM
- Inbound call centers can use CNAM data to verify that callers are who they say they are

Getting CNAM, the old way

Required VPN access

- Some companies still require this.
- Providers charged expensive access and setup fees
- VPNs and the equipment they run on are an additional layer of system failure management
- VPN equipment was expensive, and the good stuff still is today

Limited data access

In the past:

- Not all carriers chose to share their CNAM data
- Not all carriers were equipped to share their CNAM data
- Dips were very expensive, upwards of $.02

SUBSCRIBE / NOTIFY

|-----SUBSCRIBE 5555551212@cnamprovider----->|

|<----------200----------|

|<----------NOTIFY “John Smith”---------- |

- Difficult to directly integrate into the call flow
- Requires spinning up another application or process
- Processing messages is extra overhead
- Longer query time

Getting CNAM, the new way

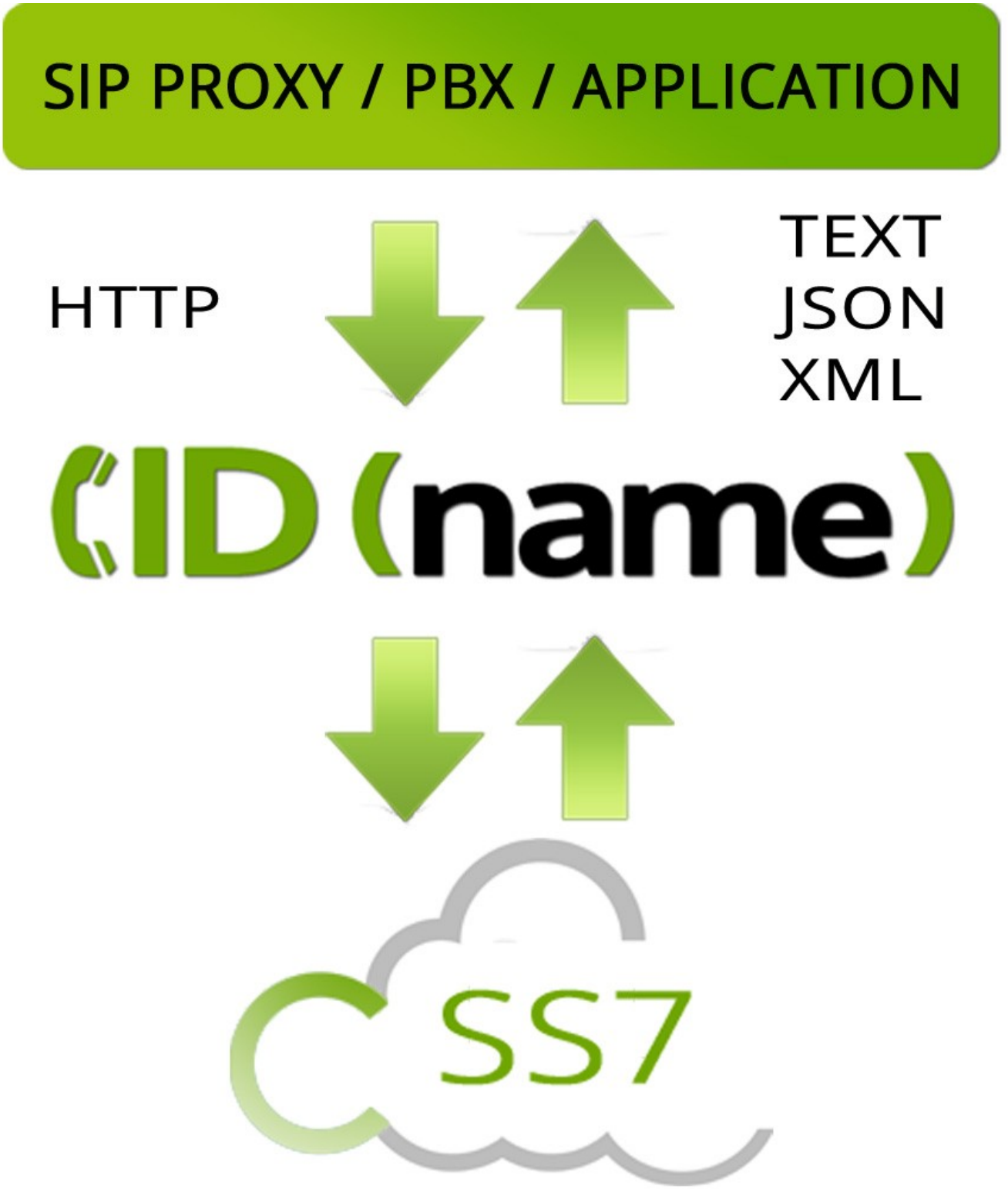

RIP
VPN


SUBSCRIBE
NOTIFY

Open data access

Today:

- Most carriers chose to share their CNAM data
- Most carriers are equipped to share their CNAM data
- Dips are inexpensive, usually under $.01
- More co-operation between carriers


SIP PROXY / PBX / APPLICATION
HTTP
TEXT
JSON
XML
(ID (name)
SS7

Everything just got simple

- Getting CNAM is now as simple as:

  curl http://dip.cidname.com/5555551212

- Authenticate by IP or SSL encrypted token
- Control the output
- Customize unavailable replies
- Add custom tags when you dip, track them in logs you can download

Output choices

- Raw text: John Smith
- XML:

```
<result>
 <cnam>John Smith</cnam>
 <number>5555551212</number>
 <created>2013-07-02 19:19:22</created>
 <rate>0.003750</rate>
 <balance>5.590000</balance>
 <tag>mycustomtag</tag>
 <from>5555551212</from>
 </result>
```

- JSON:

{"cnam":"John Smith","number":"5555551212","created":"2013-07-02 19:19:22",
"rate":"0.003750","balance":"5.590000","tag":mycustomtag,"cid":"5555551212"}

Integrating CNAM in Opensips

- Directly into the opensips.cfg using exec_avp()
- Directly in the opensips.cfg using the REST_CLIENT Module
- Use any flavor of language to proxy the dip from opensips

opensips.cfg using exec_avp()

1. Make sure that you have curl loaded on your system
2. make sure that you load the avpops module: loadmodule "avpops.so"
3. Store the number you want to look up in a variable like $avp(src)
4. use this command in your .cfg to look up the number and store it in an avp

```
exec_avp("timeout -s KILL 2 curl http://dip.cidname.com/$avp(src)", "$avp(cnam)");

uac_replace_from(“$avp(cnam)”,””);
```

opensips.cfg using the REST_CLIENT Module

modparam("rest_client", "connection_timeout", 2)

modparam("rest_client", "curl_timeout", 2)

rest_get("http://dip.cidname.com/$avp(src)", "$avp(cnam)")

uac_replace_from(“$avp(cnam)”,””);

Use any flavor of language to proxy the dip from opensips

Write simple scripts to query the HTTP API in languages like:

- Perl
- Python
- Bash
- C

Call them from opensips using perl_exec(), python_exec(), exec()

Let's compare CNAM providers

Provider	Monthly fee	Lowest advertised cost per dip	Strictly SS7 results
Opencnam	$0	$.004	NO
Bulkcnam	$0	$.009	NO
CallerIDService	$0	$.006	NO
Cnam.info	$2	$.006	NO
data24-7	$12	$.005	NO
voipcnam	$2	$.02	NO
CID(name)	$0	$.0035	YES

Paying for unavailable dips?

- Many providers will charge either full price or a slightly reduced price
- Some providers will replace “unavailable” with city/state from a local db lookup and charge full price

- CID(name) never charges you for unavailable dips
- OPTIONALLY replace with city/state for a small fee

Data quality

- Most providers cache to some degree
  - Caching has the biggest negative effect on CNAM data quality.
  - Caching at any layer destroys the integrity of the entire ecosystem
- Most providers will blend data from whitepages or 3rd party sources
  - Whitepages and 3rd party sources have dated data. They accumulate it by gaining access to various mined databases and web searches.
  - Better to give no data than the wrong data

No caching... EVER!

- Every dip at CID(name) queries the SS7 network directly.
- Data integrity is guaranteed to be authentic as it's delivered from the owner of the number
- By not providing any cached data, dips are fulfilled at under 500ms

Go ahead and sign up!

Try it before you buy it...

Sign up at www.cidname.com

Use the referral code “opensips” to receive an extra 100 free dips for a total of 200 free dips with your new account!

Thank you!

If you have any questions or would like to discuss something....

No time like the present :)

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