

Text-To-Speech Applications Using Static and Dynamic Prompts Together

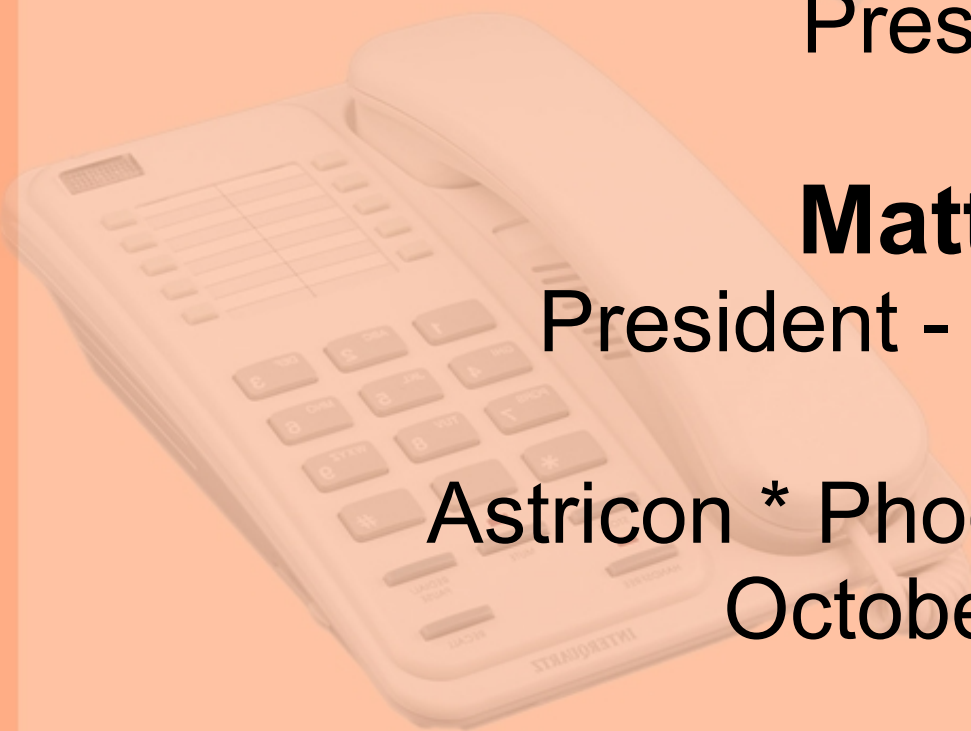
Presented by

Matt Florell

President - ViciDial Group

Astricon * Phoenix, Arizona, USA

October 15, 2009



Options for Text to Speech(TTS):

- Limited, built-in Asterisk functions
- Festival
- Cepstral



Limited, Built-in Functions

- “Say” functions:
 - SAY DATE – says the date
 - SAY TIME – says the time
 - SAY DATETIME – says formatted date and time
 - SAY NUMBER – says a given number
 - SAY ALPHA – says a given character string
 - SAY PHONETIC – says a given character string phonetically
 - SAY DIGITS – says a digit string
- Stringing together static prompts

Festival

- Open Source and no 'use' or per channel cost
- Limited voice options
- Lower quality

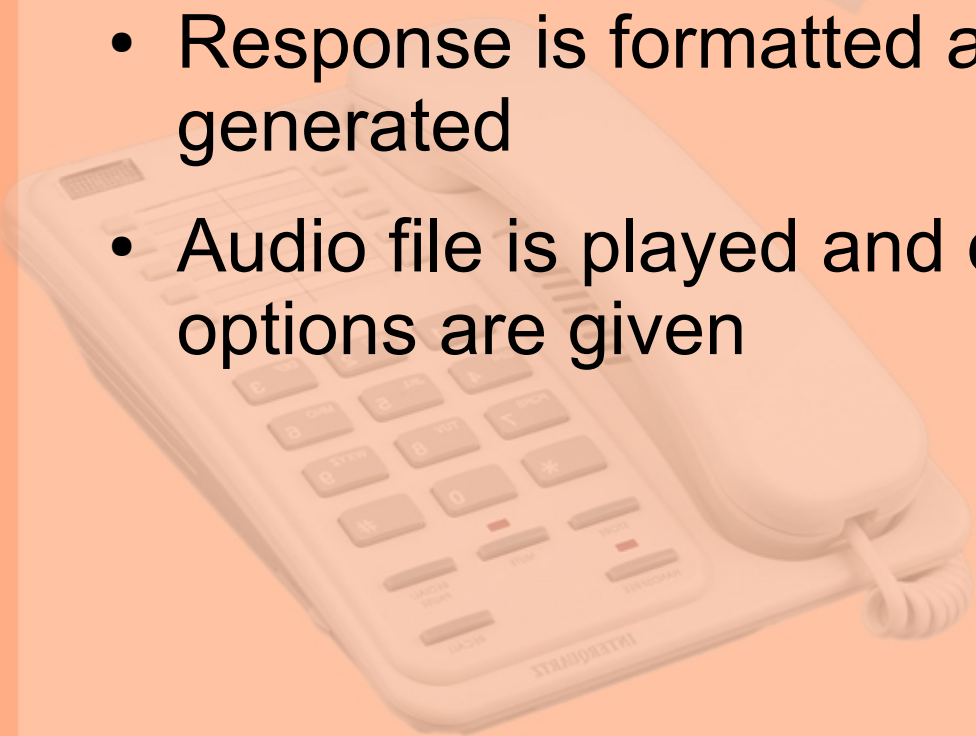


Cepstral

- Several high-quality voices available in several languages
(including Allison Smith “the voice of Asterisk”)
- Per-concurrent-channel paid use licenses
- SSML compatible
 - Smoother transitions between words
 - Ability to change emphasis and pronunciation
 - Ability to insert multiple static prompts with multiple TTS-generated sections into a single prompt audio file

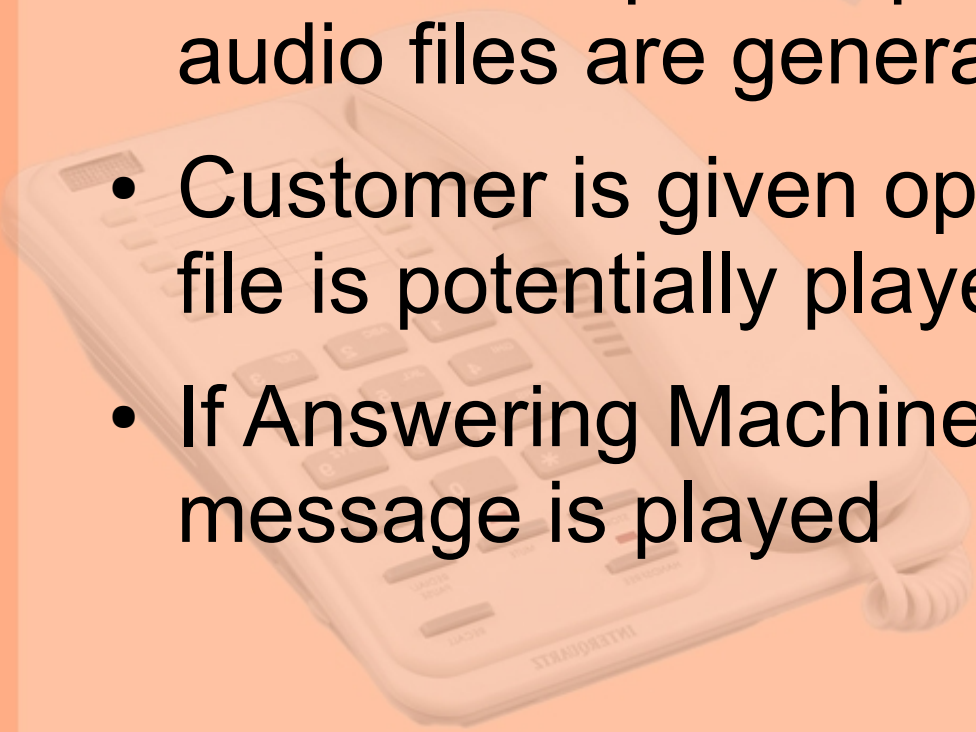
Cepstral Example: Inbound

- Shipping status IVR and TTS application
- Customer enters in phone number
- Application gathers shipping status via XML URL query
- Response is formatted and speech audio file is generated
- Audio file is played and dynamic post-message options are given



Cepstral Example: Outbound

- Debt collection company calling delinquent customers
- List contains name and payment date
- If customer picks up the phone the dynamic audio files are generated and played
- Customer is given options and another dynamic file is potentially played
- If Answering Machine is detected, a special TTS message is played



Cepstral ViciDial Demo: Astricon

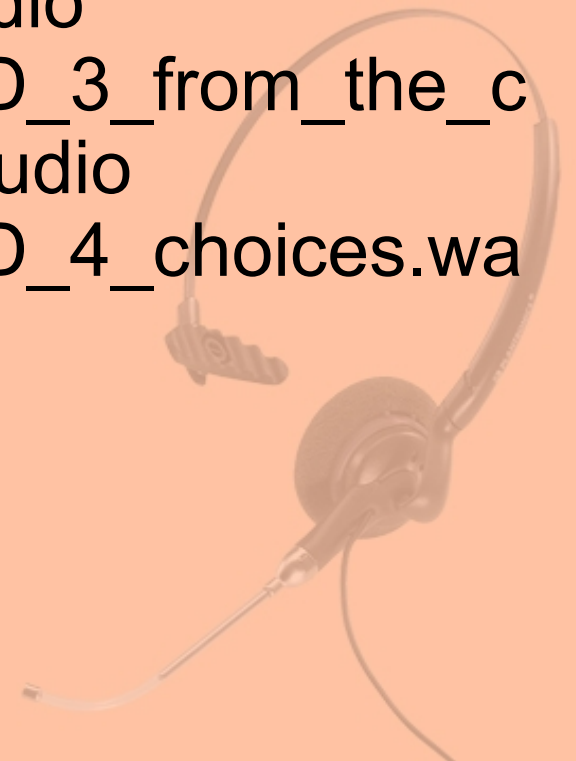
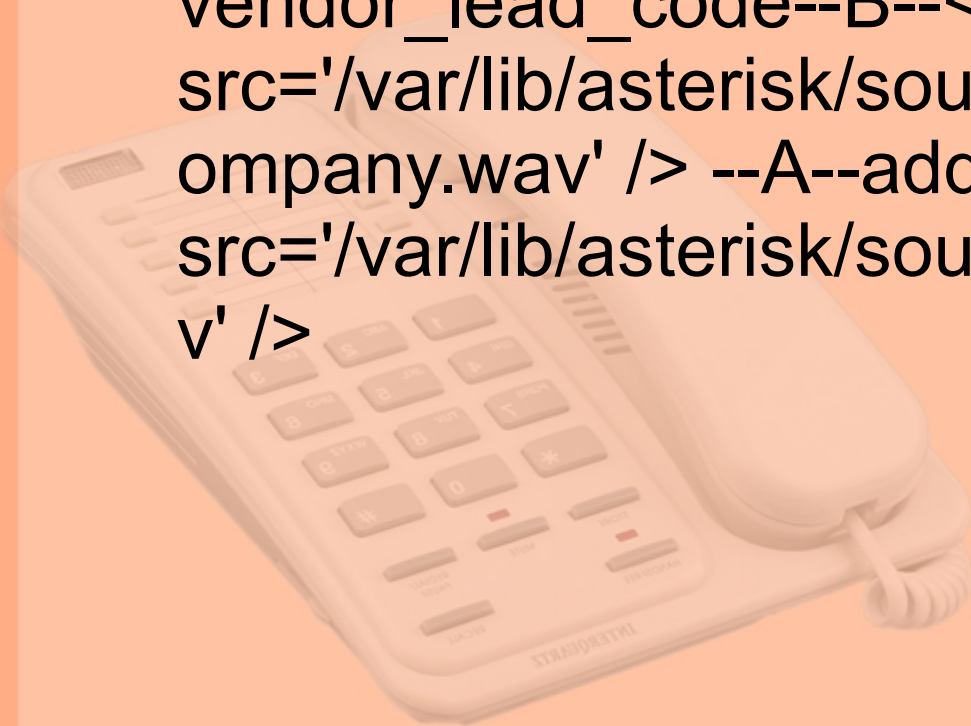
<http://www.eflo.net/tts.php>

- Astricon survey live calling application
 - Enter name, company, astricon ID and phone number and you will be called



SSML Example

- `<audio src='/var/lib/asterisk/sounds/Allison_AD_1_hello.wav' /> --A--first_name--B-- --A--last_name--B--, <audio src='/var/lib/asterisk/sounds/Allison_AD_2_astricon_id_is.wav' /> <say-as type='acronym'>--A--vendor_lead_code--B--</say-as>, <audio src='/var/lib/asterisk/sounds/Allison_AD_3_from_the_company.wav' /> --A--address3--B--, <audio src='/var/lib/asterisk/sounds/Allison_AD_4_choices.wav' />`



Astricon Demo: Settings

VICdial
ADMINISTRATION

HOME | Timeclock | Logout Tuesday October 27, 2009 22:05:08 PM

Show Campaigns | Add A New Campaign | Copy Campaign | Real-Time Campaigns Summary

ASTRICON: Basic Detail Statuses HotKeys Lead Recycling Auto Alt Dial List Mix **Survey** Pause Codes Real-Time

SURVEY SETTINGS FOR THIS CAMPAIGN:

Survey First Audio File:	<input type="text" value="TTSastricon_one"/>	audio chooser ?
Survey DTMF Digits:	<input type="text" value="123"/>	?
Survey Not Interested Digit:	<input type="text" value="1"/>	?
Survey Opt-in Audio File:	<input type="text" value="TTSastricon_two_developer"/>	audio chooser ?
Survey Not Interested Audio File:	<input type="text" value="TTSastricon_two_developer"/>	audio chooser ?
Survey Method:	HANGUP <input type="button" value="v"/>	?
Survey No-Response Action:	OPTOUT <input type="button" value="v"/>	?
Survey Not Interested Status:	NI - Not Interested <input type="button" value="v"/>	?
Survey Third Digit:	<input type="text" value="2"/>	?
Survey Third Audio File:	<input type="text" value="TTSastricon_three_user"/>	audio chooser ?
Survey Third Status:	USER <input type="button" value="v"/>	?
Survey Third Extension:	<input type="text" value="8300"/>	?
Survey Fourth Digit:	<input type="text" value="3"/>	?
Survey Fourth Audio File:	<input type="text" value="TTSastricon_four_party"/>	audio chooser ?
Survey Fourth Status:	PARTY <input type="button" value="v"/>	?
Survey Fourth Extension:	<input type="text" value="8300"/>	?
Survey Response Digit Map:	<input type="text" value="1-YES 2-LISTEN 3-NOTME X-NO RESPONSE "/>	?
Survey Survey Xfer Extension:	<input type="text" value="8300"/>	?
Survey Campaign Recording Directory:	<input type="text" value="/home/survey"/>	?
Voicemail:	<input type="text" value=""/>	voicemail chooser ?

Campaigns

Campaigns Main

Statuses

HotKeys

Lead Recycle

Auto-Alt Dial

List Mix

Pause Codes

Lists

Scripts

Filters

In-Groups

User Groups

Remote Agents

Admin

Reports

Astricon Demo: Settings

VICdial
ADMINISTRATION

[HOME](#) | [Timeclock](#) | [Logout](#) Tuesday October 27, 2009 22:09:40 PM

[Show TTS Entries](#) | [Add A New TTS Entry](#)

MODIFY A TTS RECORD: astricon_one

TTS ID: **astricon_one**

TTS Name: ?

Active: ?

TTS Text:

```
<audio src='/var/lib/asterisk/sounds/Allison_AD_1_hello.wav' />
--A--first_name--B-- --A--last_name--B--, <audio src='/var/lib/asterisk
/sounds/Allison_AD_2_astricon_id_is.wav' /> <say-as type='acronym'>--A--
vendor_lead_code--B--</say-as>, <audio src='/var/lib/asterisk/sounds
/Allison_AD_3_from_the_company.wav' /> --A--address3--B--, <audio
src='/var/lib/asterisk/sounds/Allison_AD_4_choices.wav' />
```

?

[DELETE THIS TTS ENTRY](#)

[Click here to see Admin changes to this TTS entry](#)

Companies and Applications:

Asterisk Software based PBX - www.asterisk.org

Cepstral Text to Speech - www.cepstral.com

ViciDial Call Center - www.vicidial.com

Festival Speech Synthesis - www.cstr.ed.ac.uk/projects/festival/

Allison Smith Voice Talent - www.theivrvoice.com



Thank you!

For more information, visit us at the ViciDial booth in the Expo hall, or contact us at:

<http://www.vicidial.com>

