

Configuration Guide

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About us

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1. Admin Menu

Administrator - Users

Menu: Admin -> Administrators

- **Username:** user
- **Password:** [Enter a web password]
- **Admin Access:** [Select each page you want to set for this user]

Warning: Please read security recommendations at "First Steps after Installation Guide"

The screenshot shows a web browser window with the URL `pp6.i6net.org`. The page title is "Add Administrator". The form is divided into two main sections: "General Settings" and "Access Restrictions".

General Settings:

- Username:** A text input field with a help icon.
- Password:** A text input field with a help icon.

Access Restrictions:

- Department Name:** A text input field with a help icon.
- Extension Range:** Two text input fields separated by "to".
- Admin Access:** A dropdown menu showing a list of accessible pages. The list includes: Admin, Administrators, Asterisk CLI, Asterisk Modules, Feature Codes, Applications, Extensions, Misc Applications, Connectivity, DAHDI Channel DIDs, Numbers, Outbound Routes, SIP Trunks, and VoiceXML.

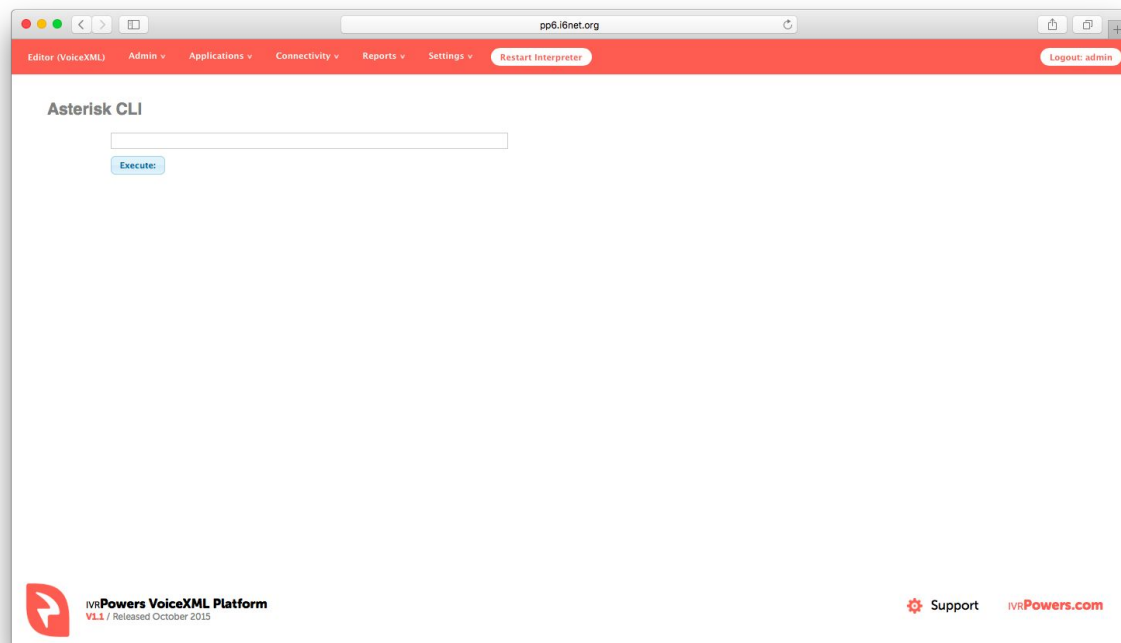
At the bottom left of the form is a "Submit Changes" button. At the top right, there is a "Logout: admin" link. On the right side of the page, there is a vertical list of links: "Add User", "admin", "demo", and "user".

The footer of the page contains the IVR Powers VoiceXML Platform logo, version "V1.1 / Released October 2015", a "Support" link, and the website "IVRPowers.com".

Asterisk CLI

Menu: Admin -> Asterisk CLI

- **CLI:** Fill the CLI command line you want to execute.



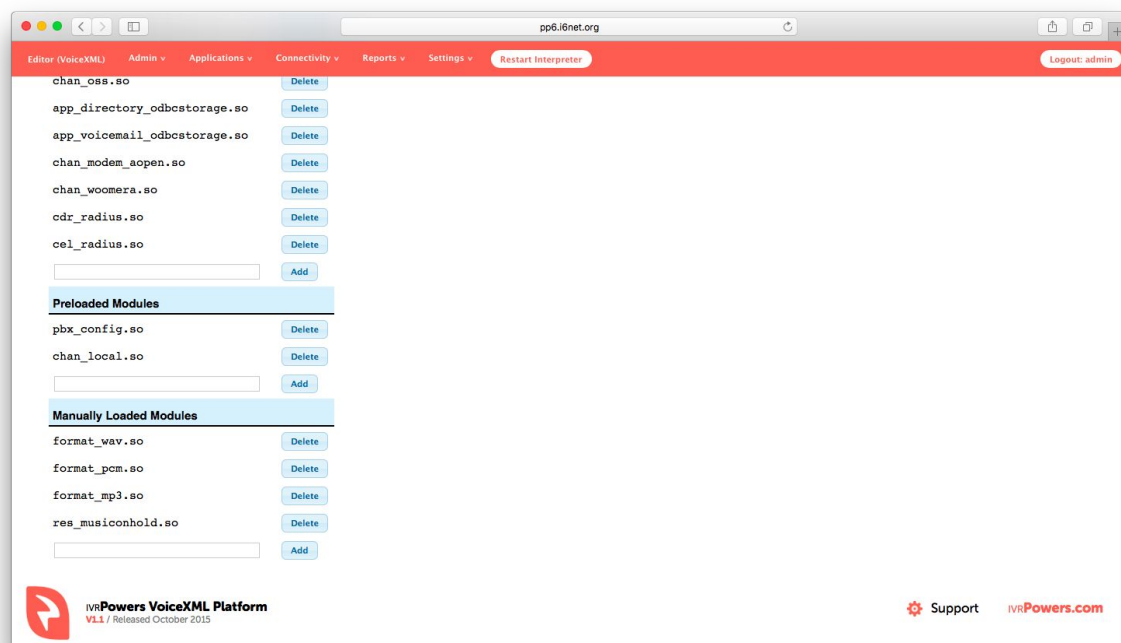
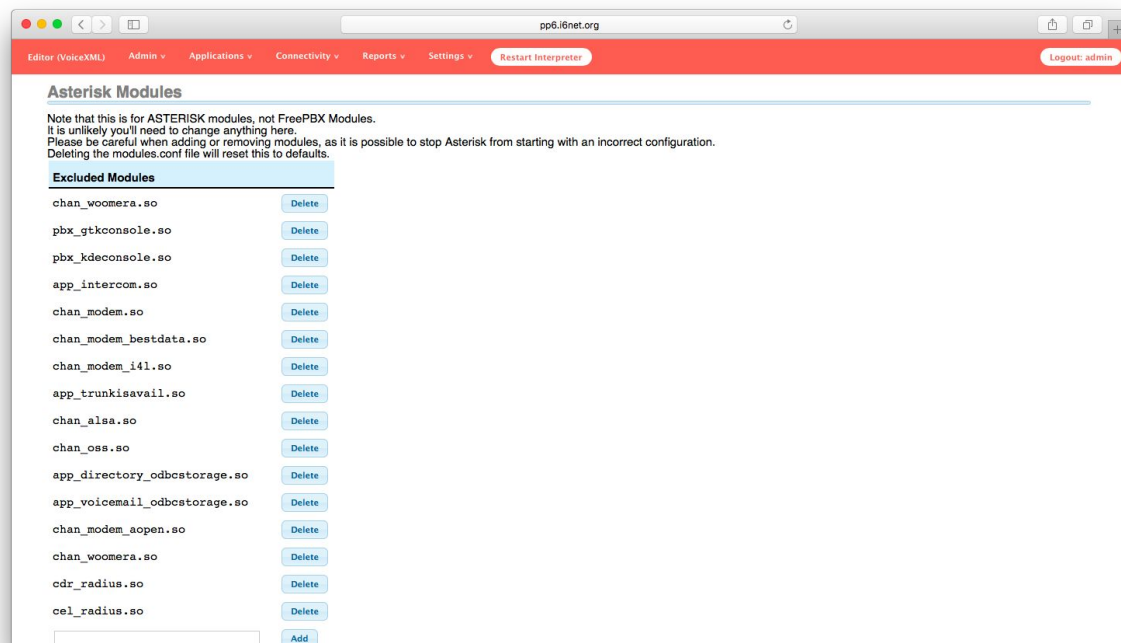
Asterisk Modules

Menu: Admin -> Asterisk Modules

This page allow you show all Asterisk Module loaded.

- Executed Modules
- Preloaded Modules
- Manually Loaded Modules

Warning: Please don't delete or insert new Asterisk Modules if you are not an Asterisk expert.

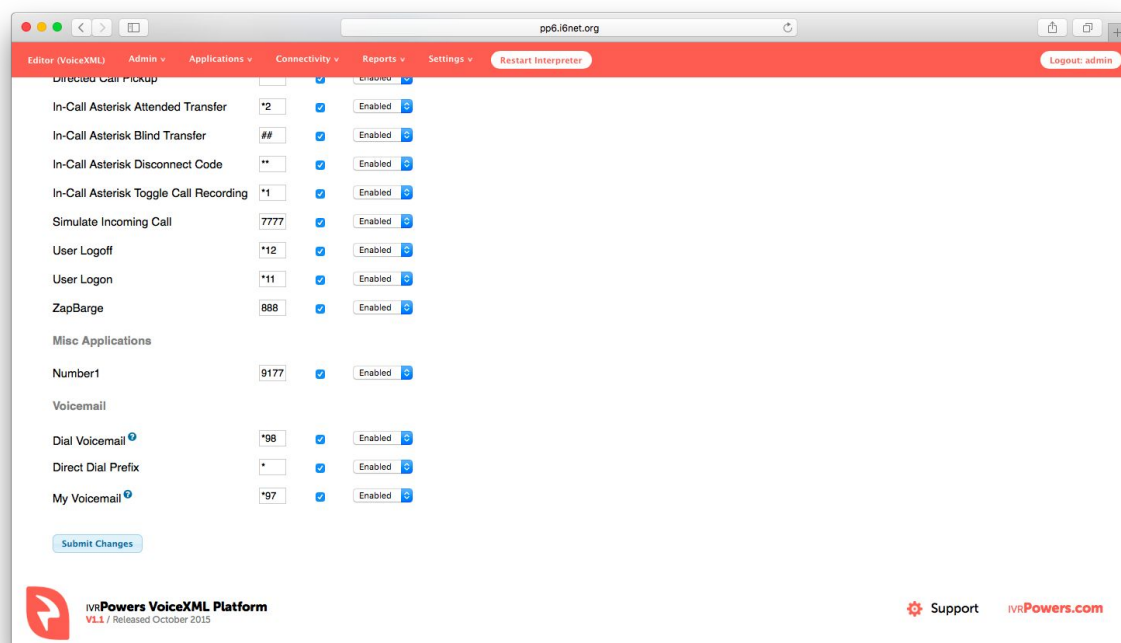
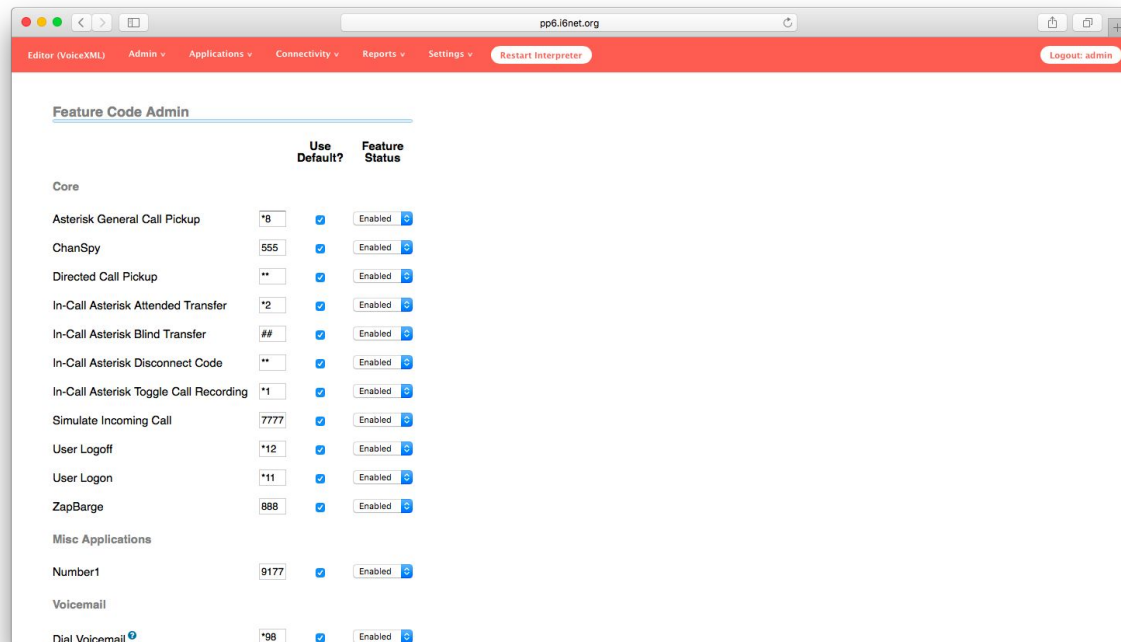


Feature Codes

Menu: Admin -> Feature Codes

The Feature Codes Module is used to enable and disable certain features available in FreePBX and Asterisk, and to set the codes that local users will dial on their phones to use that particular feature.

For example, the Feature Codes Module can be used to set the code that a user will dial to activate or deactivate Call Forwarding. It can also be used to set a Code that can be used to enter into an Echo Test, to hear your extension number, or to hear the time of day.



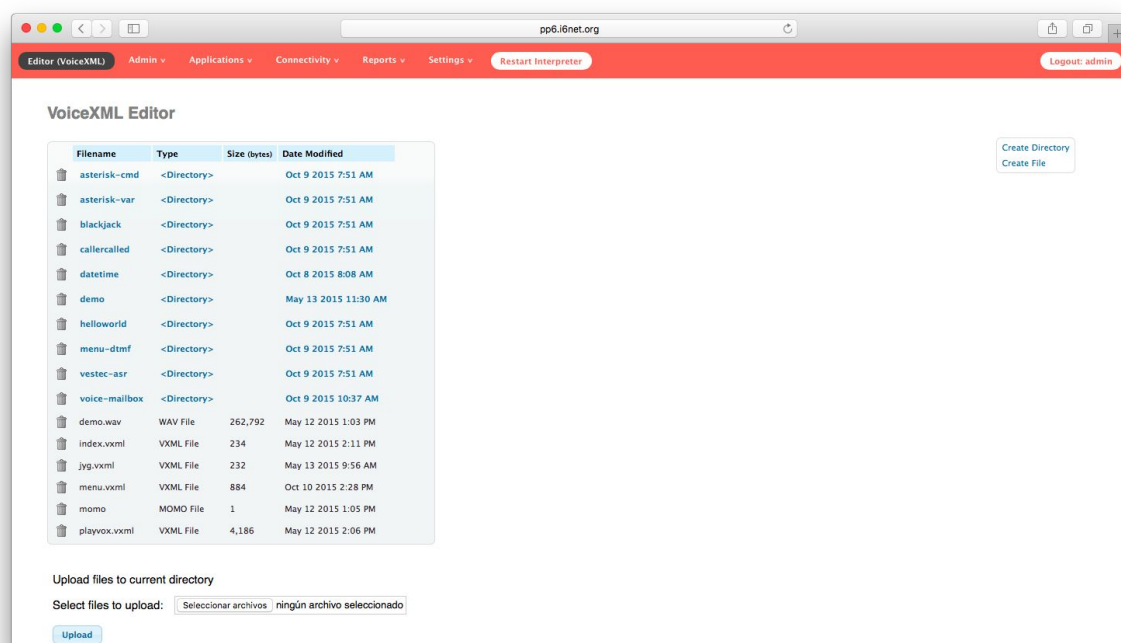
Warning: Please don't change Feature Codes if you are not an Asterisk expert.

2. VoiceXML editor

Overview

Menu: VoiceXML editor

The VoiceXML editor is a small file directory to allow manage your VoiceXML script easily from the web panel. By default, you will find some example to quick start with your IVR VoiceXML Platform.



Create File

You can create a text file from the VoiceXML editor without requiring to upload it. Just select create a file to start coding something... in PHP, VoiceXML or any other text script language required for your service.

[Screenshot]

Create Directories

The VoiceXML editor allow to create any kind of directory to create your own structure for an application or several services. You can rename or deleter easily any directory created.

[Screenshot]

Edit Files

The VoiceXML editor allow to modify content of text file very easily in a code format (colors). It's specially designed for VoiceXML script to be edited. XML coder will love to have this to update any script with a nice online web editor.

[Screenshot]

Upload Files

You can upload any kind of files: .txt, .vxml, .wav, .mp3, .php, .asp...etc
The VoiceXML editor don't check the contents of your files so you have to take care about the right formats of the files you are uploading to the IVR VoiceXML platform.

[Screenshot]

3. System Reports

Overview

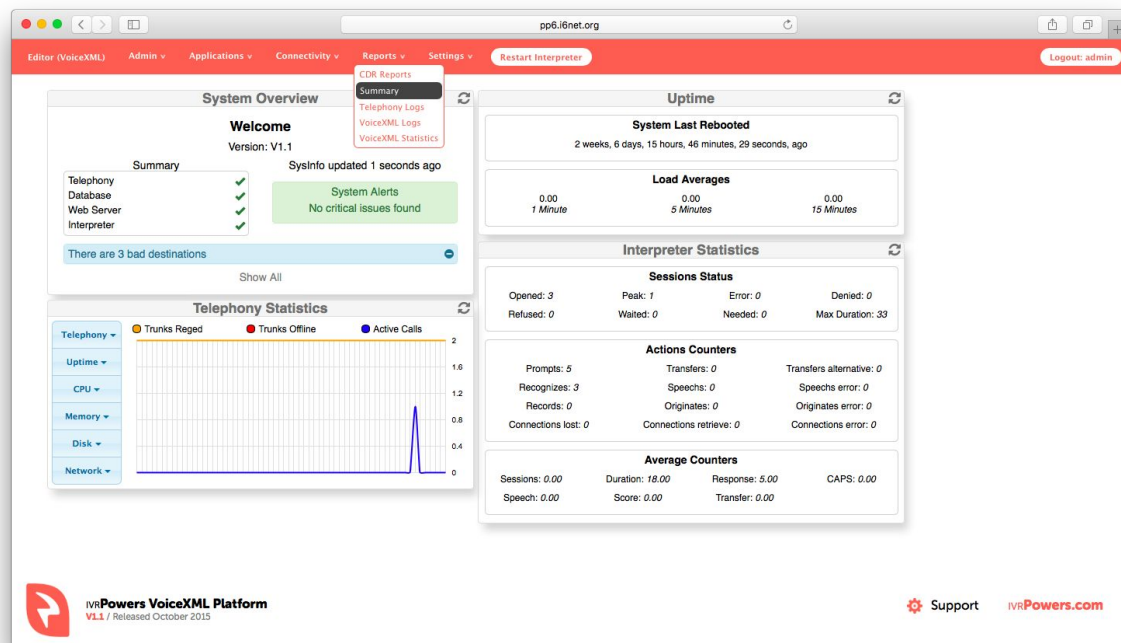
The IVR VoiceXML Platform includes advanced reports to make easier your voice service debugging and reporting management. Main contents are:

- Summary
- CDR Reports
- Telephony Logs
- VoiceXML Logs
- VoiceXML Statistics

Summary - Monitoring Tools

Menu: Reports -> Summary

The IVR VoiceXML Platform Summary is a set of monitoring tools, available in the home of the web panel.



System Overview

[Ref. Screenshot]

Uptime

[Ref. Screenshot]

Interpreter Statistics

[Ref. Screenshot]

Telephony Statistics

[Ref. Screenshot]

CDR Reports

Menu: Reports -> CDR Reports

CDR Search

pp6.i6net.org

Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

CDR Reports

CDR Search Calls Compare Monthly Traffic Daily Load

Call Detail Record Search

Order By	Search conditions	Extra options
<input checked="" type="radio"/> Call Date <input type="radio"/> CallerID Number <input type="radio"/> CallerID Name <input type="radio"/> Outbound CallerID Number <input type="radio"/> DID <input type="radio"/> Destination <input type="radio"/> Destination CallerID Name <input type="radio"/> Userfield <input type="radio"/> Account Code <input type="radio"/> Duration <input type="radio"/> Disposition <input checked="" type="radio"/> Newest First	From: 01 October 2015 00:00 To: 31 October 2015 23:59 Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Not: <input type="checkbox"/> Begins With <input checked="" type="radio"/> Contains <input type="radio"/> Ends With <input type="radio"/> Exactly Between: And: Seconds All Dispositions Not: Group By: Day	Report type: <input checked="" type="checkbox"/> CDR search <input type="checkbox"/> CSV file <input checked="" type="checkbox"/> Call Graph Result limit: 100

Search

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Call Compare

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Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

CDR Reports

CDR Search Calls Compare Monthly Traffic Daily Load

Calls Compare

Search Fields	Search conditions	Graph Layout
Select the Day: From: 26 October 2015 Destination: Source: CLI: Userfield: Accountcode: Channel:	Laps of days to compare: - 2 days <input checked="" type="radio"/> Exact <input type="radio"/> Begins with <input type="radio"/> Contains <input type="radio"/> Ends with <input checked="" type="radio"/> Exact <input type="radio"/> Begins with <input type="radio"/> Contains <input type="radio"/> Ends with <input checked="" type="radio"/> Exact <input type="radio"/> Begins with <input type="radio"/> Contains <input type="radio"/> Ends with <input checked="" type="radio"/> Exact <input type="radio"/> Begins with <input type="radio"/> Contains <input type="radio"/> Ends with	<input type="radio"/> Minutes by hours <input checked="" type="radio"/> Number of calls by hours

Search

No calls in your selection.

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Monthly Traffic

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Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

CDR Reports

CDR Search Calls Compare Monthly Traffic Daily Load

Monthly Traffic

Search Fields		Search conditions			
Select the Month:	From : October-2015	Lapse of month to compare : - 2 months			
Destination:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Source:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
CLI:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Userfield:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Accountcode:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Channel:					
Search					

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Daily Load

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Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

CDR Reports

CDR Search Calls Compare Monthly Traffic Daily Load

Daily Load

Search Fields		Search conditions			
Select the Day:	From : 26 October-2015				
Destination:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Source:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
CLI:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Userfield:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Accountcode:		<input checked="" type="radio"/> Exact	<input type="radio"/> Begins with	<input type="radio"/> Contains	<input type="radio"/> Ends with
Channel:					
Search					

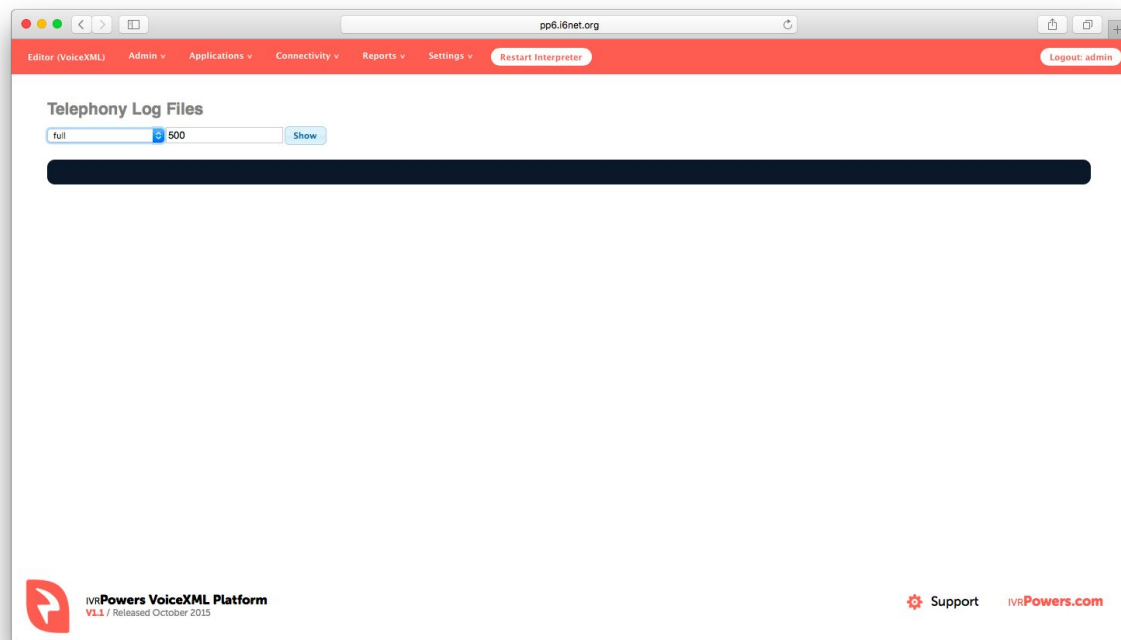
No calls in your selection.

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Telephony Logs

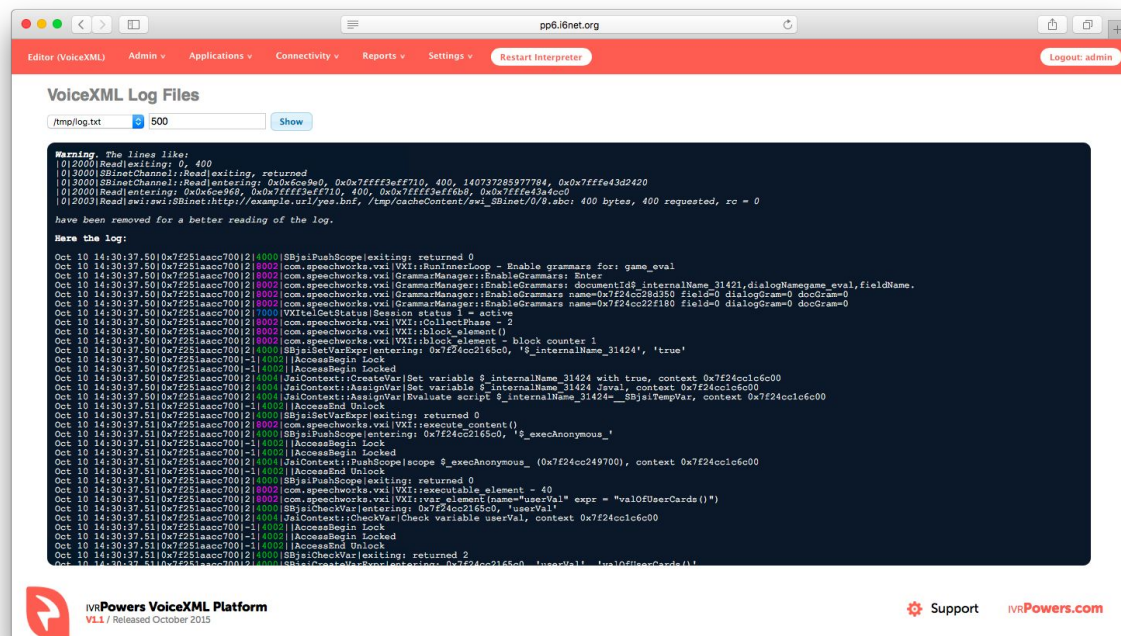
Menu: Reports -> Telephony Logs



VoiceXML Logs

Menu: Reports -> VoiceXML Logs

Show /tmp/log.txt file from the VoiceXML interpreter



VoiceXML Statistics

Menu: Reports -> VoiceXML Statistics

Top:

Asterisk PID	:	721
utime	:	151196
stime	:	373788
Priority	:	20
Nice	:	0
Threads	:	40
Memory	:	883 Mbytes
CPU	:	5616
File descriptors	:	23
Interpreter PID	:	546
utime	:	1883
stime	:	7888
Priority	:	20
Nice	:	0
Threads	:	121
Memory	:	1798 Mbytes
CPU	:	7182
File descriptors	:	6
Queue ID	:	0
Key	:	0x000007b5 (1973)
User ID	:	500
Group ID	:	500
Permissions	:	0666
Size	:	65537 bytes
Number	:	0 message(s)
Used	:	0 byte(s) (0%)
Last send	:	Interpreter(546) 2015/08/07 20
Last receive	:	Asterisk(721) 2015/08/07 20

Statistics:

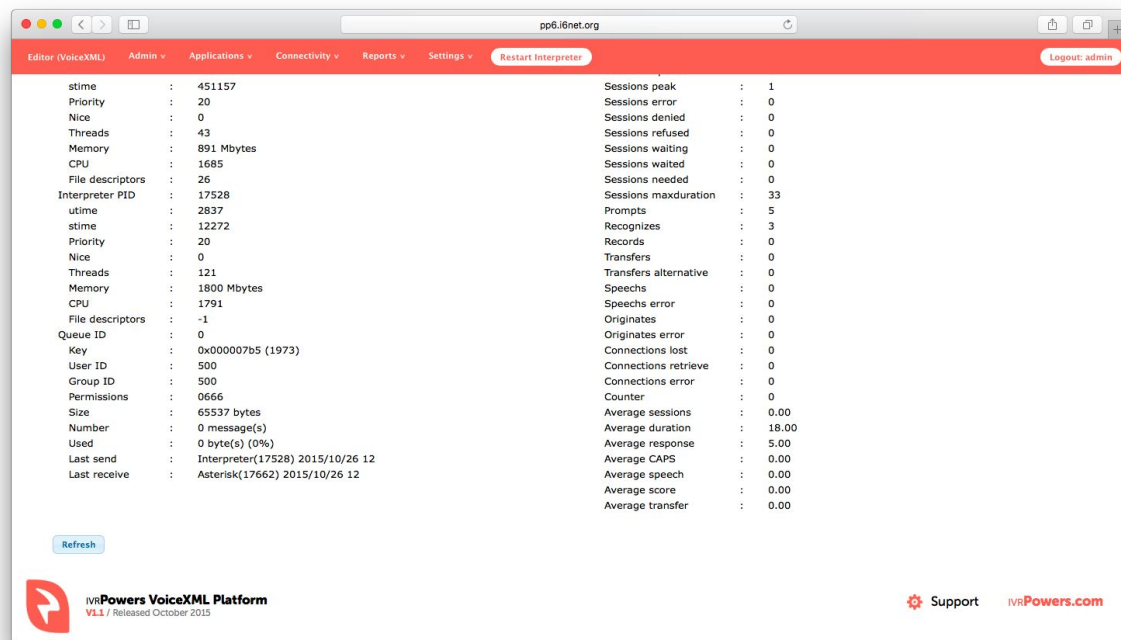
Sessions pending	:	0
Sessions opened	:	0
Sessions peak	:	0
Sessions error	:	0
Sessions denied	:	0
Sessions refused	:	0

Sessions waiting	:	0
Sessions waited	:	0
Sessions needed	:	0
Sessions maxduration	:	0
Prompts	:	0
Recognizes	:	0
Records	:	0
Transfers	:	0
Transfers alternative	:	0
Speechs	:	0
Speechs error	:	0
Originates	:	0
Originates error	:	0
Connections lost	:	0
Connections retrieve	:	0
Connections error	:	0
Counter	:	0
Average sessions	:	0.00
Average duration	:	0.00
Average response	:	0.00
Average CAPS	:	0.00
Average speech	:	0.00
Average score	:	0.00
Average transfer	:	0.00

The screenshot shows a web browser window with the URL `pp6.iinet.org`. The page title is "VoiceXML Statistics". It features a navigation bar with links: Editor (VoiceXML), Admin, Applications, Connectivity, Reports, Settings, and a Restart Interpreter button. A Logout button for 'admin' is in the top right.

The main content area is divided into two columns of statistics:

Top		Statistics	
Asterisk PID	: 17662	Sessions pending	: 0
utime	: 299113	Sessions opened	: 3
stime	: 451157	Sessions peak	: 1
Priority	: 20	Sessions error	: 0
Nice	: 0	Sessions denied	: 0
Threads	: 43	Sessions refused	: 0
Memory	: 891 Mbytes	Sessions waiting	: 0
CPU	: 1685	Sessions waited	: 0
File descriptors	: 26	Sessions needed	: 0
Interpreter PID	: 17528	Sessions maxduration	: 33
utime	: 2837	Prompts	: 5
stime	: 12272	Recognizes	: 3
Priority	: 20	Records	: 0
Nice	: 0	Transfers	: 0
Threads	: 121	Transfers alternative	: 0
Memory	: 1800 Mbytes	Speechs	: 0
CPU	: 1791	Speechs error	: 0
File descriptors	: -1	Originates	: 0
Queue ID	: 0	Originates error	: 0
Key	: 0x000007b5 (1973)	Connections lost	: 0
User ID	: 500	Connections retrieve	: 0
Group ID	: 500	Connections error	: 0
Permissions	: 0666	Counter	: 0
Size	: 65537 bytes	Average sessions	: 0.00
Number	: 0 message(s)	Average duration	: 18.00
Used	: 0 byte(s) (0%)	Average response	: 5.00
Last send	: Interpreter(17528) 2015/10/26 12	Average CAPS	: 0.00
Last receive	: Asterisk(17662) 2015/10/26 12	Average speech	: 0.00
		Average score	: 0.00
		Average transfer	: 0.00



Fail2Ban Status

Menu: Reports -> Fail2Ban Status

This section allow us to check if there are any blocked IPs in our firewall and the reason why they are blocked. We can also delete the content of the Fail2ban log if we need to free space in the disk.

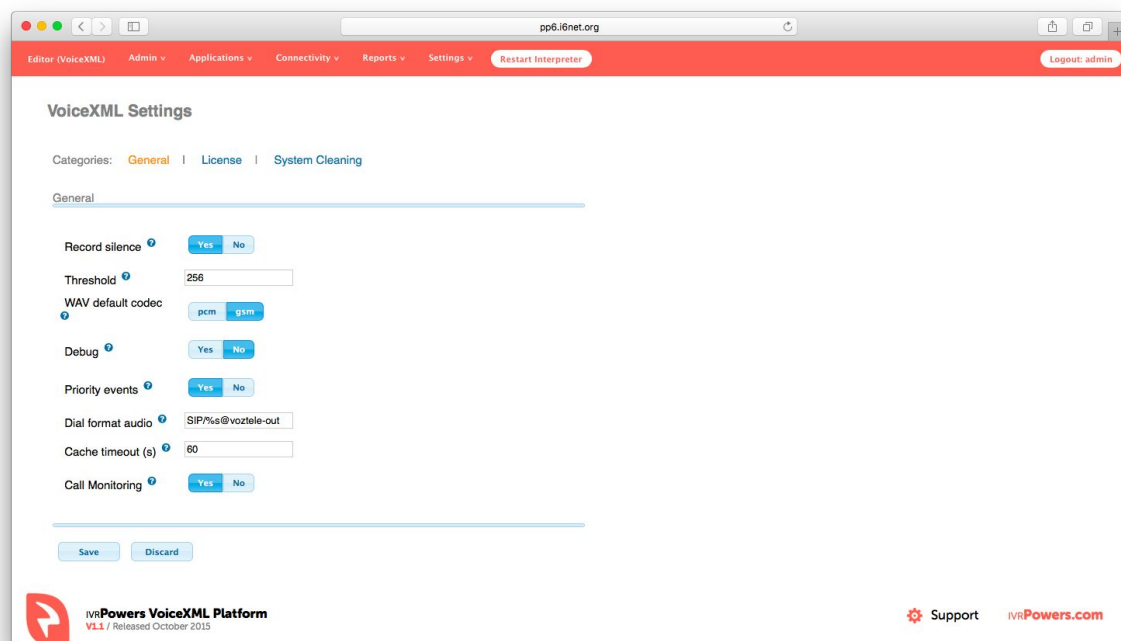
[screenshot]

4. System Settings

VoiceXML Settings

General:

- **Record silence:** [Yes | No]
- **Threshold:** [256 by default] value for threshold silence]
- **WAV default codec:** [pcm | gsm] codecs for recording
- **Debug:** [Yes | No] Enable or disable interpreter and telephony logs
- **Priority events:** [Yes | No] Force to check first DTMF events
- **Dial format audio:** [SIP/%s@voztele-out] string format to generate outbound calls
- **Cache timeout (s):** [60 by default]
- **Call Monitoring:** [Yes | No] set call recording...



License:

System Information

This information has to be sent to IVRPOWERS to get a license key.

```
Version      :          V12
Build       :
  CVS Revision :          $Revision: 1.719.2.5 $
  Gcc          :          V4.4
  Arch        :          64 bits
  Target      :          x86_64
  Asterisk    :          V11.16.0
  Option sum  :
  Date        :          May 5 2015 23:38:06
  Code       :          xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

Key Settings

- **Key:** [License Key] Set here your license key
- **Max sessions:** [Number of ports] Set here the number of ports allocated by your key
- **Expiration date:** [No permanent keys parameter] Set here your expiration date
- **Video:** [Yes | No] Always No
- **Text-to-Speech:** [Yes | No] TTS enabled or not
- **Speech:** [Yes | Emulation | Automatic | Debug | No] ASR modes
- **Externals:** [Yes | No]

- **Dialer:** [Yes | No] Always No
- **Chan H323:** [Yes | No] Always No
- **Chan RTMP:** [Yes | No] Not yet available

pp6.i6net.org

Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

VoiceXML Settings

Categories: General | **License** | System Cleaning

System information

Version	: V12.1
Build	:
CVS Revision	: \$Revision: 1.758 \$
Gcc	: V4.4
Arch	: 64 bits
Target	: x86_64
Asterisk	: V11.16.0
Option sum	:
Date	: Sep 30 2015 11:59:32
Code	: 0c00000000000010bpp6.i6net.org

License (The form is already filled with the existing values in the license configuration)

Key [?]

Max sessions [?]

Expiration date [?]

Video [?] ☒ Yes ☐ No

Text-to-Speech [?] ☒ Yes ☐ No

Speech [?] ☐ Yes ☐ Emulation ☐ Automatic ☐ Debug ☒ No

Externals [?] ☒ Yes ☐ No

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Editor (VoiceXML) Admin Applications Connectivity Reports Settings Restart Interpreter Logout: admin

VoiceXML Settings

License (The form is already filled with the existing values in the license configuration)

Key [?]

Max sessions [?]

Expiration date [?]

Video [?] ☒ Yes ☐ No

Text-to-Speech [?] ☒ Yes ☐ No

Speech [?] ☐ Yes ☐ Emulation ☐ Automatic ☐ Debug ☒ No

Externals [?] ☒ Yes ☐ No

Dialer [?] ☐ Yes ☒ No

Chan H323 [?] ☐ Yes ☒ No

Chan RTMP [?] ☐ Yes ☒ No

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System Clearing:

This section is very important to keep your system clean and avoid to fill all your disk capacity. Take care to backup all data you would like to store before cleaning your system:

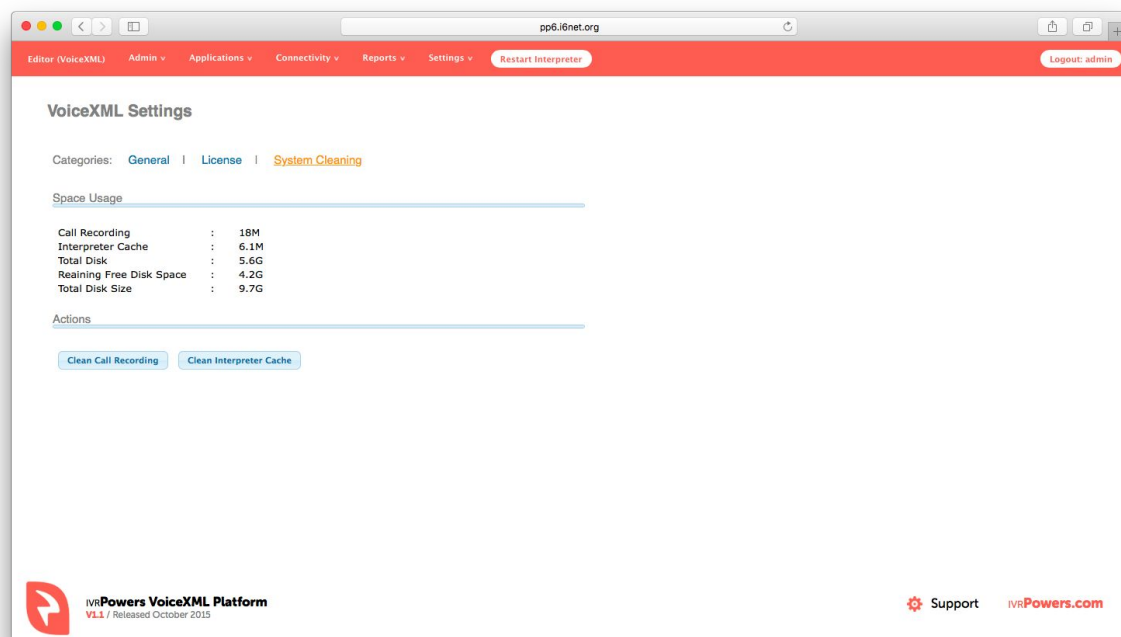
Space Usage

Call Recording	:	4.1M
Interpreter Cache	:	400K
Total Disk	:	5.1G
Remaining Free Disk Space	:	4.6G
Total Disk Size	:	9.7G

Actions

Clean Call Recording -> Clean all recording files (wav files)

Clean Interpreter Cache -> Clean all VoiceXML Interpreter cache files



SIP Settings

ASR Configuration

Menu: Settings -> ASR Resources

General Settings

- **Local IP:** [Set the local server IP X.X.X.X of your server]

- **MRCP Version:** [v1 | v2]

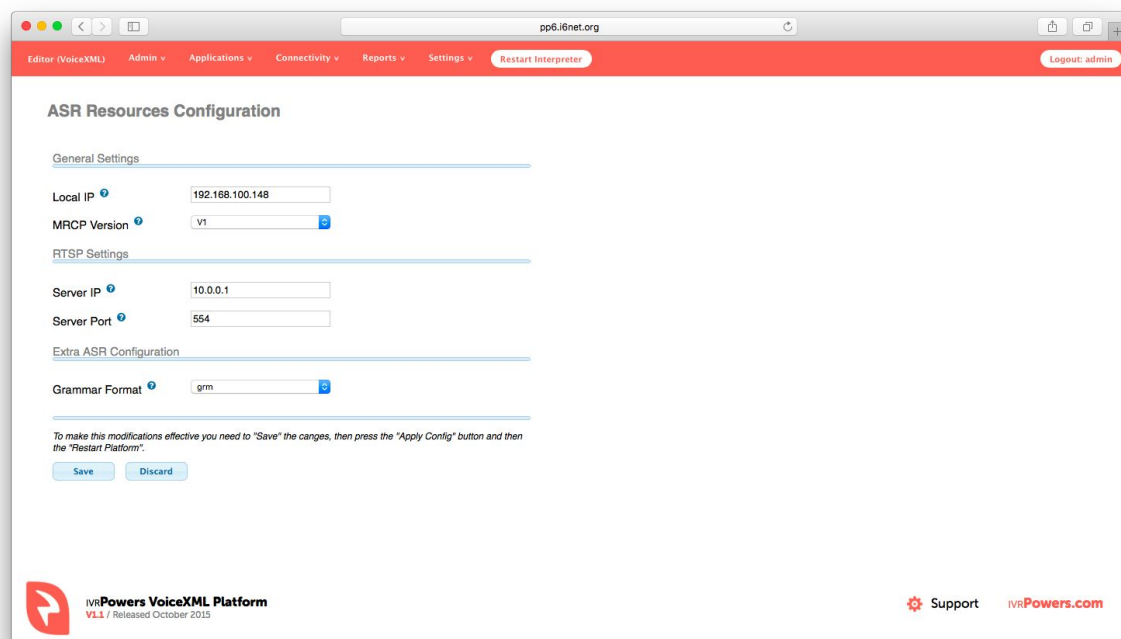
RTSP Settings

- **Server IP:** [Set the IP X.X.X.X of the MRCP server]
- **Server Port:** [Set the default port for MRCP, 554]

Extra ASR Configuration

- **Grammar Format:** [Set the grammar format: gram, bnf, grm, grxml, srgs, txt]

To make this modifications effective you need to "Save" the changes, then press the "Apply Config" button and then the "Restart Platform".



TTS Configuration

Menu: Settings -> TTS Engine

- **TTS Mode:** [HTTP | MRCP] Set the TTS connector mode

HTTP Mode

- **URL:** Set the URL for the TTS engine

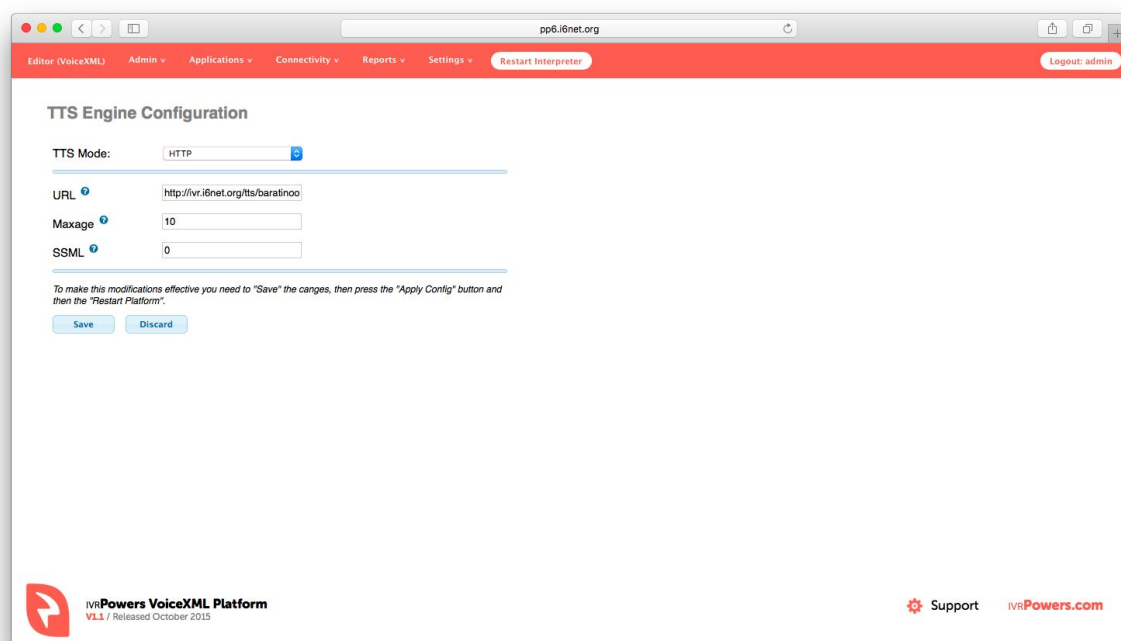
MRCP Mode

- **Local IP:** The private IP of the network interface
- **Local Port:** Local Port for the MRCP connector (This value can not be modified)
- **Remote IP:** IP of the machine where the MRCP server is
- **Remote Port:** Port to connect to the MRCP service

Common Settings

- **Maxage:** This parameter force to reset the TTS cache 0 = no cache, default = 10
- **SSML:** Set the SSML/XML format mode for TTS

To make this modifications effective you need to "Save" the changes, then press the "Apply Config" button and then the "Restart Platform".



Telephony Log Settings

Menu: Settings -> Telephony Log Settings

IMPORTANT: Use extreme caution when making changes!

General Settings:

- **Date Format:** Set the date format
- **Log rotation:** [Sequential | Rotate | Timestamp]
- **Append Hostname:** [Yes | No]
- **Log Queues:** [Yes | No]

Log Files:

The screenshot shows the 'VoiceXML IVR Advanced Settings' page. The top navigation bar includes 'Editor (VoiceXML)', 'Admin', 'Applications', 'Connectivity', 'Reports', 'Settings', and a 'Restart Interpreter' button. The user is logged in as 'admin'. A warning message states: 'IMPORTANT: Use extreme caution when making changes! Some of these settings can render your system inoperable. You are urged to backup before making any changes. Readonly settings are usually more volatile, they can be changed by changing 'Override Readonly Settings' to true. Once changed you must save the setting by checking the green check box that appears. You can restore the default setting by clicking on the icon to the right of the values if not set at default.'

VoiceXML IVR Advanced Settings

Advanced Settings Details

Display Friendly Name	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Display Readonly Settings	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Override Readonly Settings	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	

Asterisk Builtin mini-HTTP server

Enable Static Content	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Enable the mini-HTTP Server	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
HTTP Bind Address	<input type="text" value="0.0.0.0"/>	
HTTP Bind Port	<input type="text" value="8088"/>	
HTTP Prefix	<input type="text"/>	

Asterisk Manager

Asterisk Manager Host	<input type="text" value="localhost"/>	
Asterisk Manager Password	<input type="text" value="amp111"/>	
Asterisk Manager Port	<input type="text" value="5038"/>	

The screenshot continues the 'VoiceXML IVR Advanced Settings' page. The top navigation bar and user status are the same as the previous screenshot.

Asterisk Manager Proxy Port

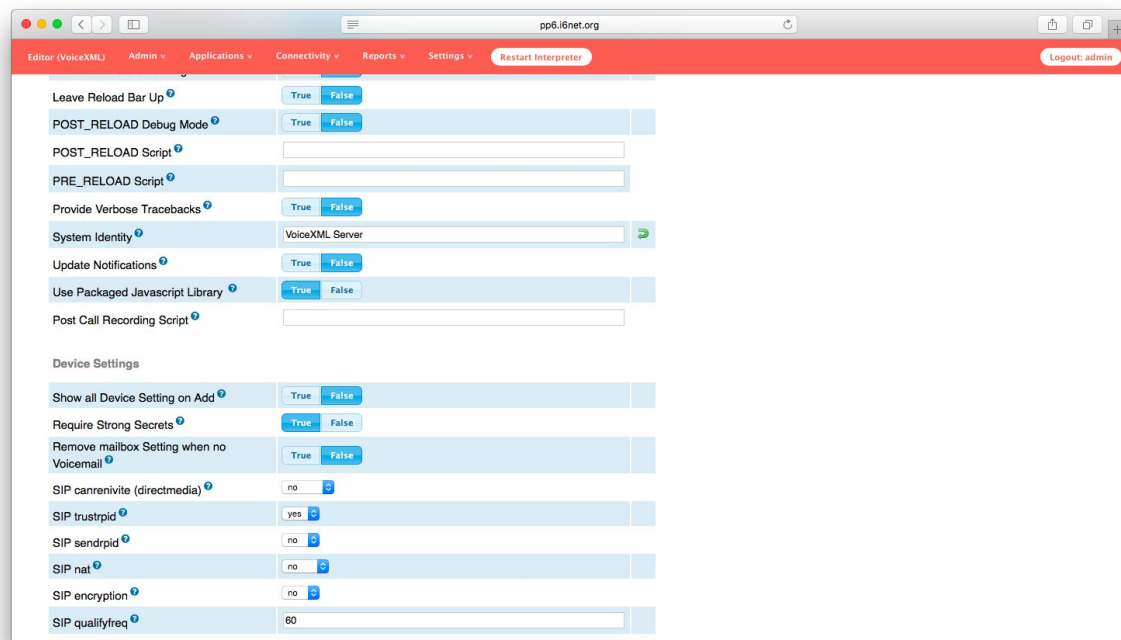
Asterisk Manager Proxy Port	<input type="text"/>	
Asterisk Manager User	<input type="text" value="admin"/>	
Asterisk Manager Write Timeout	<input type="text" value="5000"/>	

CDR Report Module

Enable CEL Reporting	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
----------------------	---	--

Developer and Customization

Always Download Web Assets	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
AMPLOCALBIN Dir for retrieve_cont	<input type="text"/>	
Debug File	<input type="text" value="/var/log/asterisk/manager_debug"/>	
Default Language	<input type="text" value="en_US"/>	
Developer Mode	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Disable VoiceXML IVR debug Logging	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Disable Mainstyle CSS Compression	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Disable Module Admin Caching	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Display Monitor Trunk Failures Option	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Enable jQuery Migrate	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Enable Module Signature Checking	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Enable Module Tracks	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Enable Remote Unlocking	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	



Advanced Settings

IMPORTANT: Use extreme caution when making changes!

Some of these settings can render your system inoperable. You are urged to backup before making any changes. Read only settings are usually more volatile, they can be changed by changing 'Override Readonly Settings' to true. Once changed you must save the setting by checking the green check box that appears. You can restore the default setting by clicking on the icon to the right of the values if not set at default.

5. IVR Watchdog

The watchdog is a cronjob that checks if the components of the IVR are properly running. If it is not the case, it will make sure that the components returns to their correct state.

By default it runs the checks every 30 minutes but this can be changed to suit the necessities of your platform. To do so, the crontab must be edited. With your favourite text editor open the file `/etc/crontab`,

```
# sudo vi /etc/crontab
```

and change the following line to fit you requirements of frequency.

```
*/30 * * * * root /var/www/html/admin/modules/vxml/scripts/ivr_watchdog.sh
```