



ZOIPER

Configuration File Documentation 2008

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1. Introduction

Zoiper holds its configuration in an XML file with UTF-8 encoding. The file is called 'zoiper.conf' and is located in the 'Installation folder' with Zoiper Free and in 'C:\Documents and Settings\Current Windows user\Application Data\ZoiperBiz' with Zoiper Biz.

This document explains the structure and the tags used in the Zoiper configuration file.

2. Structure

The configuration is organized in several sub nodes called 'sections'. The indentation of the sections shows which section is contained by a preceding section.

<options> - the main configuration section (every XML file has a main tag like this).

- **<general>** - general options section. There should be only one section of that type.
- **<sip_options>** - SIP protocol options section. There should be only one section of that type.
- **<iax_options>** - IAX protocol options section. There should be only one section of that type.
- **<rtp_options>** - RTP protocol options section. There should be only one section of that type.
- **<stun_options>** - default STUN server options section. There should be only one section of that type.
- **<audio>** - audio options section. There should be only one section of that type.
- **<provision>** - provision options section. There should be only one section of that type.
- **<diagnostics>** - diagnostics options section. There should be only one section of that type.
- **<restrictions>** - restrictions section. There should be only one section of that type.
- **<codecs>** - section that contains a set of codec sections. This section defines the default codec sections set that will be used with all the accounts unless a given account have it's own codec set. The options section should contain only one section of that type.
 - ➔ **<codec>** - the section defining a codec usage.
- **<accounts>** - a section with several sub-sections defining the accounts used by Zoiper. There should be only one section of that type.

- ➔ **<account>** - this section describes a single account and may contain a sub-section defining a custom codec set used by this account.
 - ⇒ **<codecs>** - a section that contains a set of codec sections. There should be only one section of that type.
 - ➔ **<codec>** - a section defining the usage and priority of a particular codec.

3. Sections

3.1 general

- **<record_calls>** - this tag specifies if Zoiper will be recording calls. This tag is used in Zoiper Biz only.
0 - False; 1 - True.
- **<record_path>** - this tag defines the base record path used by Zoiper to record calls. Subfolders in this folder are created for every single day and the filenames of recordings include the time of recording. It is used in Zoiper Biz only.
- **<always_on_top>** - this tag specifies if Zoiper will stay on top of the other applications.
0 - False; 1 - True.
- **<automatic_popup_on_incoming_call>** - this tag specifies if Zoiper will focus itself on incoming call.
0 - False; 1 - True.
- **<popup_menu_on_incoming_call>** - this tag specifies if Zoiper will display the "Accept, Reject and Ignore" dialog box on incoming call.
0 - False; 1 - True.
- **<user_data_visible>** - not used.
- **<volume_controls_visible>** - not used.
- **<log_visible>** - not used.
- **<check_for_updates>** - this tag specifies if Zoiper will check for updates.
0 - False; 1 - True.
- **<catch_protocol_requests>** - this tag specifies if Zoiper will register for "callto" and "zoiper" browser URL protocol requests. It is used in Zoiper Biz only.
0 - False; 1 - True.
- **<integrate_into_outlook>** - this tag specifies if the phone will enable its Microsoft Outlook plugin. (An Outlook restart will be needed). This option does not work if the "catch_protocol_requests" option is not enabled. It is used in Zoiper Biz only.

- **<use_windows_dialing_rules>** - this tag specifies if Zoiper will use Windows Dialing Rules to translate the phone number that the user is trying to dial. The user must dial the number in canonical form. (Outlook stores the phone numbers like this). This tag is used in Zoiper Biz only.
0 - False; 1 - True.
- **<start_with_windows>** - this tag is used to specify if Zoiper will load on Windows start up.
0 - False; 1 - True.
- **<show_hints>** - not used.
- **<start_minimized>** - this tag specifies if Zoiper will start minimized.
0 - False; 1 - True.
- **<forward_type>** - this tag defines what kind of forwarding type was last used from the user.
0 - instant forwarding;
1 - forwarding after number of seconds specified in the "forward_seconds" tag;
2 - instant auto-answer;
3 - auto-answer after a number of seconds, specified in the "autoanswer_seconds" tag.

This tag is used in Zoiper Biz only.

- **<forward_seconds>** - this tag defines the time after which forward after will forward the call. It is used in Zoiper Biz only.
- **<forward_extension>** - this tag stores the last extension that was used for forwarding. It is used in Zoiper Biz only.
- **<autoanswer_seconds>** - this tag defines the time after Zoiper will auto-answer the call. It is used in Zoiper Biz only.
- **<play_sound_on_auto_answer>** - this tag specifies if Zoiper will play a specific sound when a call is auto-answered. It is used in Zoiper Biz only.
0 - False; 1 - True.
- **<automatic_url_open>** - this tag specifies if Zoiper will prompt the user to open a URL sent from the remote peer or server. If it is set to False, the user will be prompted. It is used in Zoiper Biz only.
0 - False; 1 - True.
- **<open_url_on_style>** - this tag defines the behavior of the "Open URL on:" feature. It is used in Zoiper Biz only.
0 - never open URL;
1 - on call answer;
2 - on incoming and outgoing call;
3 - on incoming call answer;
4 - on incoming call;
5 - on outgoing call answer;
6 - on outgoing call.
- **<open_url>** - this tag defines the URL that will be opened using "open_url_on_style" style. It is used in Zoiper Biz only.

- **<number_of_lines>** - this tag specifies the number of lines that Zoiper will use. The minimum value is 1 and the maximum is 6. This tag is used in Zoiper Biz only.
- **<strip_dial_chars>** - this tag defines the character that will be stripped from the "Phone to dial" field upon dialing. The characters, stripped by default are -()[]{}. This tag is used in Zoiper Biz only.
- **<language>** - this tag defines the language used by the Zoiper GUI. If no language or invalid language is specified, the default one will be used (English).
The valid languages are: English, Nederlands, Deutsch, Français, Español.
- **<default_account>** - this tag defines the default selected account in Zoiper.
- **<on_transfer_request_style>** - this tag defines the actions that Zoiper undertakes on cases when the other side attempts to transfer a call.
0 - always accept; 1 - always reject; 2 - ask (a popup window appears).

3.2 sip_options

- **<port>** - this tag specifies the port that Zoiper will use to accept incoming calls and send outgoing SIP calls when UDP transport is used. For the other transport types it is used only for incoming calls. Default: 5060.

3.3 iax_options

- **<port>** - this tag specifies the port that Zoiper will use to accept incoming calls and send outgoing IAX calls. Default: 4569.

3.4 rtp_options

- **<port>** - this tag specifies the starting port of the port range used from Zoiper for RTP sessions. It should be an even number. Default: 8000.
- **<session_name>** - this tag specifies the RTP session name that will be used. It should not contain spaces.
- **<url>** - this tag specifies the RTP URL that will be used. It should not contain spaces.
- **<email>** - this tag specifies the RTP e-mail that will be used. This tag should not contain spaces.

3.5 stun_options

- **<enable_stun>** - this tag defines if the usage of the default STUN server is enabled.
0 - False; 1 - True.
- **<stun_host>** - this tag specifies the STUN server host address.
- **<stun_port>** - this tag specifies the STUN server port. Default: 3478.
- **<stun_refresh_period>** - this tag specifies the STUN server refresh period.

3.6 audio

- **<input_device>** - this tag specifies the input audio device name used by Zoiper. If there is no device name specified or the device is not present on the system, Zoiper will use the system's default one.
- **<output_device>** - this tag specifies the audio output device name used by Zoiper. If there is no device name specified or the device is not present on the system, Zoiper will use the system default one.
- **<ringing_device>** - this tag specifies the audio ringing device name used by Zoiper. If there is no device name specified or the device is not present on the system, Zoiper will use the system default output device.
- **<use_echo_cancellation>** - this tag specifies if the echo cancellation filter will be used.
0 - False; 1 - True.
- **<use_audio_enhancement>** - this tag specifies if audio enhancement and compensation will be used.
0 - False; 1 - True.
- **<ring_tone_file>** - this tag specifies a file that will be used for custom ringing. The file should be a WAV file containing 8000 Hz 16-bit mono audio data. This tag is used in Zoiper Biz only.
- **<mic_boost>** - this tag specifies if the microphone boost feature will be turned on for the selected input audio device.
0 - False; 1 - True.
- **<pc_speaker_ring>** - this tag defines if Zoiper will make ringing sound through the PC speaker. It is used in Zoiper Biz only.
0 - False; 1 - True.
- **<mute_on_early_media>** - this tag enables the phone to mute itself when early media is detected.
0 - False; 1 - True.
This tag is used in Zoiper Biz only. In Zoiper Free it is always False.
- **<ring_when_talking>** - this tag specifies if Zoiper will make ringing sounds if the user have busy line.
0 - False; 1 - True.

It is used in Zoiper Biz only. In Zoiper Free it is always True;

- **<input_volume>** - the input audio volume is represented by this tag. Its value can vary from 0(min) to 1(max).
- **<output_volume>** - the output audio volume is represented by this tag. Its value can vary from 0(min) to 1(max).
- **<disable_dtmf_sounds>** - this tag specifies if Zoiper will play DTMF sounds when they are sent out of band.
0 - False; 1 - True.

3.7 provision

<remember_username_password> - this tag specifies if the provision username and password will be saved in this config file.
0 - False; 1 - True.

- **<login_automatically>** - this tag specifies if the stored provision username and password are feeded right away to the provision server. This tag doesn't have effect if the "remember_username_password" is not set to True.
0 - False; 1 - True.
- **<username>** - this tag contains the stored provision username.
- **<password>** - this tag contains the stored provision password. It could be encoded or be plain text.

3.8 diagnostics

- **<enable_debug_log>** - this tag enables the diagnostic logging. The log files generated by Zoiper are located in the Zoiper Installation folder and are generated immediately upon execution of the phone.

3.9 fax

- **<fax_enabled>** - this tag enables receiving of T.38 faxes. Received faxes are stored as .tiff files in the chosen destination folder.
0 - False; 1 - True.
- **<destination_folder>** - this tag defines the path to the folder, used by Zoiper to store faxes.
- **<custom_command>** - this tag deals with incoming faxes using a certain application. For example it may open a program, associated with .tiff files.

\$(FAX_FILENAME) - when this parameter is used, Zoiper replaces it with the actual filename of the received .tiff file.

- **<automatic_display>** - this tag automatically opens the application that .tiff files are associated with. If no application is associated with .tiff files, the user will be prompted to choose a program from a list.
0 - False; 1 - True.
- **<automatic_print>** - this tag enables Zoiper to automatically print the received .tiff files, using the current default printer.
0 - False; 1 - True.

3.10 network

- **<signal_dscp>** - this tag defines the values, assigned to the signaling (SIP) network packets.
0 - ----;
10 - AF11;
12 - AF12;
14 - AF13;
18 - AF21;
20 - AF22;
22 - AF23;
26 - AF31;
28 - AF32;
30 - AF33;
34 - AF41;
36 - AF42;
38 - AF43;
46 - EF.
- **<media_dscp>** - this tag defines the values, assigned to the media (RTP, IAX) network packets.
0 - ----;
10 - AF11;
12 - AF12;
14 - AF13;
18 - AF21;
20 - AF22;
22 - AF23;
26 - AF31;
28 - AF32;
30 - AF33;
34 - AF41;
36 - AF42;
38 - AF43;
46 - EF.

3.11 restrictions

The "restrictions" section holds identifiers, separated by comma (,). If a particular identifier is present, the restriction will be applied. The valid identifiers and their descriptions are as follows:

- **options_sip_accounts** - no SIP accounts can be added, edited, deleted and displayed in the Options window.

- **options_iax_accounts** - no IAX accounts can be added, edited, deleted and displayed in the Options window.
- **options_sip_new_account** - no SIP accounts can be added.
- **options_iax_new_account** - no IAX accounts can be added.
- **options_audio_general** - no General Audio Options will be displayed in the Options window.
- **options_audio_devices** - no Audio Devices Options will be displayed in the Options window.
- **options_audio_codecs** - no Audio Codecs Options will be displayed in the Options window.
- **options_general** - no General Options will be displayed in the Options window.
- **options_call_events** - no General Call Events Options will be displayed in the Options window.
- **options_integration** - no General Integration/Automation Options will be displayed in the Options window.
- **options_provision** - no Provision Options will be displayed in the Options window.
- **options_sip** - no SIP Options will be displayed in the Options window.
- **options_iax** - no IAX Options will be displayed in the Options window.
- **options_rtp** - no RTP Options will be displayed in the Options window.
- **options_stun** - no Default STUN Options will be displayed in the Options window.
- **options_diagnostics** - no Diagnostics Options will be displayed in the Options window.
- **options_network** - no Network Options will be displayed in the Options window.
- **options_fax** - no Fax Options will be displayed in the Options window.
- **hold** - the Hold button in the main window will be disabled.
- **forwarding_autoanswer** - the Forwarding/Auto-answer button in the main window will be disabled.
- **transfer** - the Transfer button in the main window will be disabled.
- **addressbook** - the Addressbook button in the main window will be disabled.
- **history** - the History button in the main window will be disabled.

- **conference** - the Conference button in the main window will be disabled.
- **check_voicemail** - the Voicemail button in the main window will be disabled.
- **options** - the Options button in the main window will be disabled.
- **dtmf** - the Show DTMF Panel button in the main window will be disabled.
- **quick_dial** - the Show Quick Dial Panel button in the main window will be disabled.
- **account_selection** - the Account selection combo box in the main window will be disabled.
- **register** - the Register button in the main window will be disabled.
- **mute** - the Mute Input and Output buttons in the main window will be disabled.
- **volume** - the Input and Output Volume sliders in the main window will be disabled.

3.12 codecs

- **<use_default_speex_settings>** - this tag is not used.
- **<enhance_decoding>** - this tag is not used.
- **<quality>** - this tag is not used.
- **<bitrate>** - this tag is not used.
- **<variable_bit_rate>** - this tag is not used.
- **<average_bit_rate>** - this tag is not used.
- **<complexity>** - this tag is not used.

Apart from these tags the "codecs" section should contain a number of "codec" sub-sections.

3.13 codec

- **<name>** - the name of the codec.
- **<codec_id>** - the codec ID.
 - 0 - uLaw;
 - 1 - GSM;
 - 2 - iLBC30;
 - 6 - aLaw;
 - 24 - Speex NB.
- **<priority>** - this tag specifies the codec priority. 1 is the highest priority.

- **<selected>** - this tag specifies if the codec will be used.
0 - False; 1 - True.

3.14 account

All <account> sub-sections are situated in the <accounts> section.

- **<tech>** - this tag indicates what technology is used.
0 - for SIP; 1 - for IAX.
- **<name>** - the name of the account. It must be unique.
- **<host>** - for IAX this tag specifies the address which will be used. For SIP this tag specifies the outbound proxy address.
- **<use_outbound_proxy>** - this tag is used with SIP accounts and specifies if the account will use different than the domain outbound proxy server.
- **<username>** - this tag specifies the username for registration and authentication used by this account. For SIP the authentication username can be different.
- **<authentication_username>** - this tag is used by SIP accounts for authentication when a different username is required.
- **<password>** - this tag specifies the authorization password for this account. It could be encoded or be plain text.
- **<context>** - for IAX this tag specifies the context used by the account. For SIP this tag specifies the domain used by the account.
- **<callerid>** - this tag specifies the caller ID name.
- **<number>** - this tag specifies the caller ID number for IAX only.
- **<register_on_startup>** - this tag specifies if the account should be registered on startup of the phone.
0 - False; 1 - True.
- **<do_not_play_ringback_tones>** - this tag specifies if ringback tones will be played for this account.
0 - False; 1 - True.
- **<voicemail_check_extension>** - this tag specifies the extension that will be use to dial the accounts voicemail. It is used in Zoiper Biz only.
- **<use_stun>** - this is a tag that defines the STUN usage for this account only for SIP.
0 - don't use STUN;
1 - use the default STUN server;
2 - use custom STUN server defined in this account.
- **<stun_host>** - this tag is used only when custom STUN usage is defined. It specifies the STUN server host address.

- **<stun_port>** - this tag is used only when custom STUN usage is defined. It specifies the STUN server port. Default: 3478.
- **<stun_refresh_period>** - this tag is used only when custom STUN usage is defined. It specifies the STUN server refresh period.
- **<transport_type>** - this tag defines the packet transport type only for SIP.
0 - this account will use UDP transport;
1 - TCP transport;
2 - TLS transport.
This tag is used in Zoiper Biz only. Zoiper Free uses UDP transport only.
- **<custom_codecs>** - this tag specifies if custom codecs set will be used for this account.
0 - False; 1 - True.
If this tag is set to True the account section should contain "codecs" section (codec set).
- **<dtmf_style>** - this tag defines the way of sending DTMF tones concerning a particular SIP account.
0 - DTMF RFC-2833; 1 - DTMF SIP INFO.

4. Example

```
<?xml version="1.0" encoding="UTF-8"?>
<options>
  <general>
    <record_calls>0</record_calls>
    <record_path></record_path>
    <always_on_top>0</always_on_top>

    <automatic_popup_on_incoming_call>1</automatic_popup_on_incoming_call>

    <popup_menu_on_incoming_call>1</popup_menu_on_incoming_call>
    <user_data_visible>1</user_data_visible>
    <volume_controls_visible>1</volume_controls_visible>
    <log_visible>0</log_visible>
    <check_for_updates>1</check_for_updates>
    <catch_protocol_requests>1</catch_protocol_requests>
    <integrate_into_outlook>1</integrate_into_outlook>
    <use_windows_dialing_rules>1</use_windows_dialing_rules>
    <start_with_windows>1</start_with_windows>
    <show_hints>0</show_hints>
    <start_minimized>0</start_minimized>
    <forward_type>0</forward_type>
    <forward_seconds>30</forward_seconds>
    <forward_extension></forward_extension>
    <autoanswer_seconds>30</autoanswer_seconds>

    <play_sound_on_auto_answer>1</play_sound_on_auto_answer>
    <automatic_url_open>0</automatic_url_open>
    <open_url_on_style>0</open_url_on_style>
    <open_url></open_url>
    <number_of_lines>6</number_of_lines>
    <strip_dial_chars>+-( )[]{}</strip_dial_chars>
    <language>English</language>
    <default_account>sipaccount</default_account>
    <on_transfer_request_style>2</on_transfer_request_style>
  </general>
  <sip_options>
    <port>5060</port>
  </sip_options>
  <iax_options>
    <port>4569</port>
  </iax_options>
  <rtp_options>
    <port>8000</port>
    <session_name>Zoiper_user</session_name>
    <url>www.zoiper.com</url>
    <email>support@zoiper.com</email>
  </rtp_options>
  <stun_options>
    <enable_stun>1</enable_stun>
    <stun_host>stun.zoiper.com</stun_host>
    <stun_port>3478</stun_port>
    <stun_refresh_period>30</stun_refresh_period>
  </stun_options>

```

```

<audio>
  <input_device>Realtek AC97 Audio</input_device>
  <output_device>Realtek AC97 Audio</output_device>
  <ringing_device></ringing_device>
  <use_echo_cancellation>1</use_echo_cancellation>
  <use_audio_enhancement>1</use_audio_enhancement>
  <ring_tone_file></ring_tone_file>
  <mic_boost>0</mic_boost>
  <pc_speaker_ring>0</pc_speaker_ring>
  <mute_on_early_media>0</mute_on_early_media>
  <ring_when_talking>1</ring_when_talking>
  <input_volume>1</input_volume>
  <output_volume>0.5</output_volume>
  <ringtone_path></ringtone_path>
  <disable_dtmf_sounds>0</disable_dtmf_sounds>
</audio>
<transfer>
  <park_extension>700</park_extension>
  <voicemail_prefix>mail</voicemail_prefix>
</transfer>
<provision>

  <remember_username_password>0</remember_username_password>
  <login_automatically>0</login_automatically>
  <username></username>
  <password></password>
</provision>
<diagnostics>
  <enable_debug_log>0</enable_debug_log>
</diagnostics>
<restrictions> account_selection, register</restrictions>
<accounts>
  <account>
    <tech>0</tech>
    <use_outbound_proxy>1</use_outbound_proxy>
    <name>sipaccount</name>
    <host>outboundproxy.xom</host>
    <username>theuser</username>
    <authentication_username></authentication_username>
    <password>fIlcLf5D0dIBmU+9SwYiSA==</password>

    <context>domain.com</context>
    <callerid>caller</callerid>
    <number></number>
    <register_on_startup>1</register_on_startup>
    <do_not_play_ringback_tones>0</do_not_play_ringback_tones>
    <use_stun>2</use_stun>
    <stun_host>thestun.com</stun_host>
    <stun_port>3478</stun_port>
    <stun_refresh_period>30</stun_refresh_period>
    <custom_codecs>0</custom_codecs>
    <dtmf_style>0</dtmf_style>
  </account>
</accounts>
<codecs>
  <codec>
    <name>GSM</name>

```

```
    <codec_id>1</codec_id>
    <priority>1</priority>
    <selected>1</selected>
</codec>
<codec>
    <name>Speex</name>
    <codec_id>24</codec_id>
    <priority>2</priority>
    <selected>1</selected>
</codec>
<codec>
    <name>iLBC 30</name>
    <codec_id>27</codec_id>
    <priority>3</priority>
    <selected>1</selected>
</codec>
<codec>
    <name>a-law</name>
    <codec_id>6</codec_id>
    <priority>4</priority>
    <selected>1</selected>
</codec>
<codec>
    <name>u-law</name>
    <codec_id>0</codec_id>
    <priority>5</priority>
    <selected>1</selected>
</codec>
<codec>
    <name>iLBC 20</name>
    <codec_id>28</codec_id>
    <priority>6</priority>
    <selected>1</selected>
</codec>
<use_default_speex_settings>1</use_default_speex_settings>
<enhance_decoding>1</enhance_decoding>
<quality>4</quality>
<bitrate>8</bitrate>
<variable_bit_rate>0</variable_bit_rate>
<average_bit_rate>0</average_bit_rate>
<complexity>3</complexity>
</codecs>
</options>
```