Version 2.5

Provisioning documentation*

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1. Provisioning overview

Who needs provisioning?

Basically provisioning is a way to remotely automate the end-user configuration of Zoiper, which is particularly useful for VoIP Service Providers (ITSPs) and Call Centers. Provisioning is especially helpful with the following:

1. Relieve your users from configuring various information, like accounts, codecs, etc.
2. Load balance (distribute the load of) your VoIP servers.
3. Use the user account username and password for your website as credentials, rather than the username and password for the VoIP server.
4. Change your users' configuration in accordance with your specific technology requirements without involving them into any action. This means that users may not even realize that changes take place.

Zoiper Provisioning

The provisioning in Zoiper Biz 2.0 is controlled by a provision file. The provision file must be situated in the Zoiper installation folder and named 'provision.conf'. Upon startup, Zoiper checks if this file exists, tries to read it and exits if the file has an invalid format. If the file is successfully read, Zoiper tries to provision itself, i.e. get its configuration remotely with the parameters, specified in the provision file.

The provisioning itself is made by obtaining a config file from specified in the provision file HTTP or HTTPS web server. In the provision file you can set the HTTP URL where Zoiper will ask for its configuration. The request can be done with the username and password of the given Zoiper user. Usually, based on this user's credentials, the HTTP server will return a generated output in the form of Zoiper configuration file i.e. it will return relevant XML data. The provisioning is very useful for ISPs and call centers.

Zoiper first loads the local configuration file and then the significant sections from the provision configuration thus allowing parts of the configuration to be stored locally (for example the audio options). If an 'accounts' section is provisioned, this means that no local accounts are used. Zoiper stores in the local configuration only sections that are not provisioned.

2. Provision file

The provision file is in XML format, which has the following structure:

⇒ **provision** – main element
- **base_urls** – a section that holds any number of the following text elements:
    - **base_url** – this element supplies a base URL for provisioning. If the provisioning from this URL fails, Zoiper tries to provision from the next one. If it doesn't succeed with any of them, Zoiper displays an error message. The base URL is used to compose the real URLs used in different parts of the provision system.
- **options** – a section that holds the options elements for the provision as follows:
    - **use_authentication** – this element holds a boolean value, indicating if an authentication information will be provided from Zoiper to the web server.(0 = false, 1 = True).
    - **user_input_authentication** – this element holds a boolean value, indicating if Zoiper will ask the user to enter the user credentials.(0 = false, 1 = True).
    - **authentication_type** – this element holds a text value indicating the way Zoiper supplies the user credential to the web server. The possible values are:
        - ✓ 'basic' – uses basic authentication for HTTP protocol

- ✓ 'url' – passes the user credentials as URL parameters: 'user' for the username and 'password' for the password. The password is MD5 digest of the actual password.
  - ▪ **user** – this element holds a preset username which is used if 'user_input_authentication' is False.
  - ▪ **password** – this element holds a preset password which is used if 'user_input_authentication' is False. The password can be encoded as in the Zoiper config file or in plain text.
  - ▪ **refresh_rate** – this element specifies the period (in seconds) for which an update of the provision will occur. 0 means that the phone is provisioned only once on startup. Additional provision cannot take place when there is an active call and will take place after the call is hung up. (not implemented)
- ⇒ **significant_sections** – is an element that holds a list of the sections from the provisioned config file that will be used from the phone. Here are the valid section names:

  'general,sip_options,iax_options,rtp_options,stun_options,accounts, audio,transfer,codecs,restrictions,provision,diagnostics,network,fax'.

  The sections must be separated with commas(,).
- ⇒ **addressbook** – this section holds the addressbook options as follows: (not implemented)
  - • **use_addressbook –** this element holds a boolean value indicating if remote addressbook should be used by Zoiper. (not implemented)
  - • **restrictions –** this element holds a list of values which represents the restrictions applied on the addressbook remote manipulations. Here are the valid restrictions: 'add,update,delete'. (not implemented)

3. Provision parts

The provision parts are as follows:

⇒ **configuration** – used to obtain the user configuration

⇒ **addressbook** – used to obtain and manipulate the addressbook (not implemented)

4. Error response

The web server could respond with an error message in the following XML format:

⇒ **error** – the main XML element. This element should contain the error text, which is fetched and displayed by Zoiper to the user.

5. Examples

⇒ Provision file:

```
<provision>
    <base_urls>
        <base_url>http://www.attractel.com/</base_url>
    </base_urls>
    <options>
        <use_authentication>1</use_authentication>
        <user_input_authentication>1</user_input_authentication>
        <authentication_type>basic</authentication_type>
        <user></user>
        <password></password>
        <refresh_rate>0</refresh_rate>
    </options>

<significant_sections>general,sip_options,iax_options,rtp_options,stun_options,acco
unts,transfer,codecs,restrictions</significant_sections>
    <addressbook>
        <use_addressbook>0</use_addressbook>
        <restrictions>add,update,delete</restrictions>
    </addressbook>
</provision>
```

⇒ From this example the configuration will be obtained from the http://www.attractel.com/configuration URL.

⇒ Error response:

```
<error>Wrong username or password.</error>
```