Global Parameter Settings of VigorACS

Version 1.0

Summary

This application note describes the global parameter profile functions of VigorACS. This document applies for VigorACS 1.1.1.7 or later.

References

- VigorACS User Guide.
- VigorACS Quick Start Guide.
- TR-069 specification.
- TR-104 specification.

Revision History

Issue	Date	Description
1	September 23, 2008	Initial release for VigorACS 1.1.1.7 or later, by Boham Liu.

Table of Contents

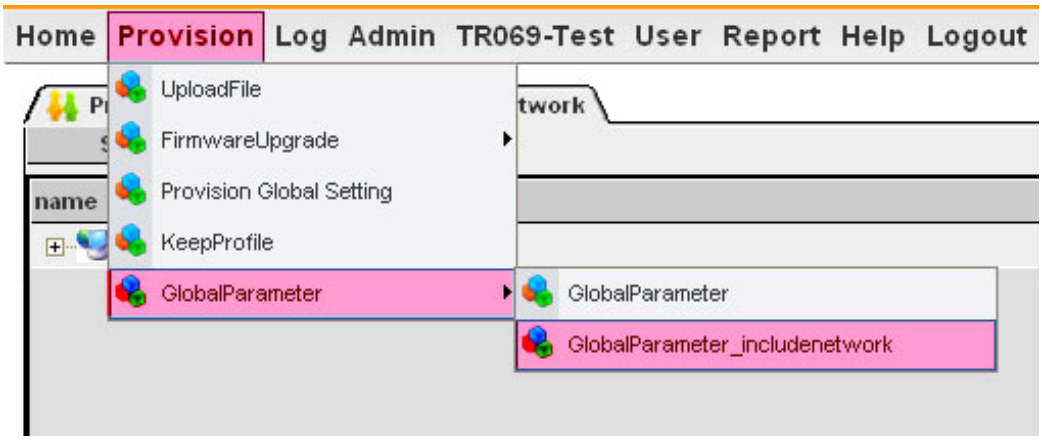
1. Introduction

If you have configured a profile, you won't like to configure it over and over just for setting another network or CPE. The global parameter profile function is a convenient way to set configured profile to specific network or CPEs. VigorACS allows users to configure a profile and set it to any networks or CPEs.

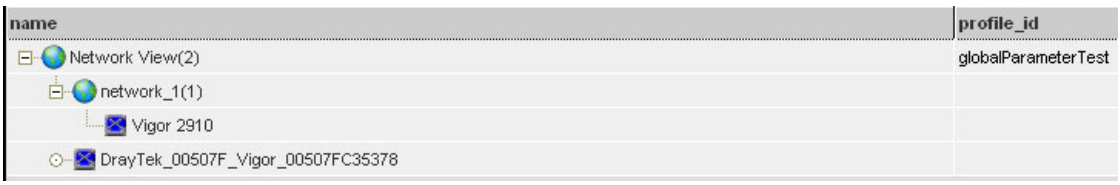
Before starting to configure the global parameters, this document would explain about VigorACS's network inheritance structure, this would help for the further configurations.

1.1 The inheritance structure of network

Click **Provision→GlobalParameter→GlobalParameter_includenetwork**.



The network structure would show as following:



For example: There are 2 networks: **Network View**, which is the root network; and **network_1**, which is sub network of **Network View**. There are 2 CPEs: V**igor 2910**, which is under **network_1**; and **DrayTek_00507F_Vigor_00507FC35378**,

which is under **Network View**.

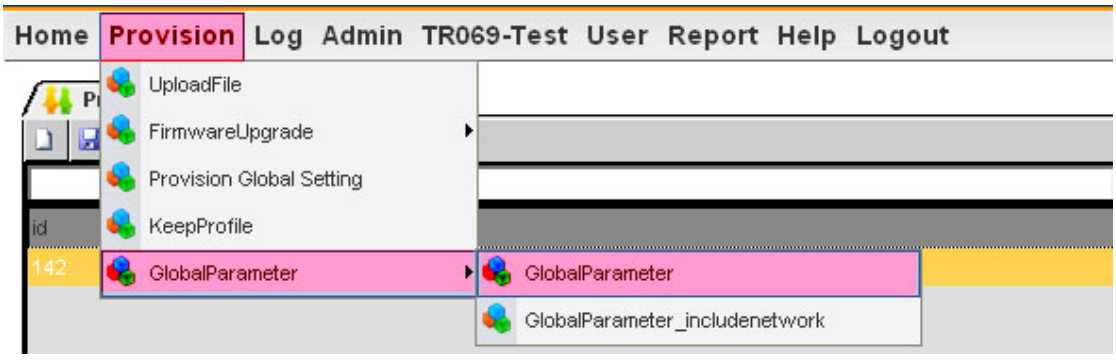
The inheritance structure means: Any network or devices (CPEs) belongs to another network (the parent network), would inherit the profile setting apply to the parent network. In this case, the "globaParameter test" profile, would apply to **Network View, network_1** (as it is a sub network for **Network View**), V**igor 2910** (if you apply another profile in **network_1**, then it would be applied to this CPE, too), **DrayTek_00507F_Vigor_00507FC35378** (it is under **Network View** and inherit the profile "globaParameter test"**)**.

2. The global profile parameter

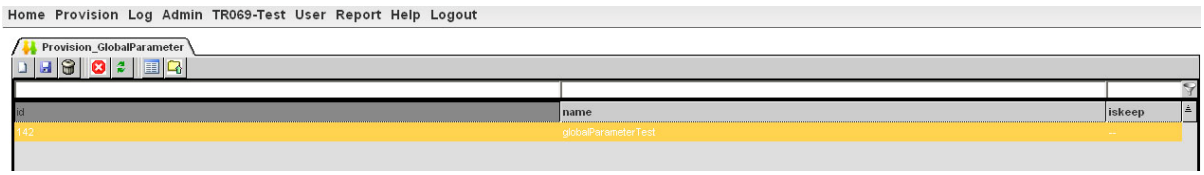
VigorACS allows users define numerous global profiles. Each profile could be set with different parameters.

2.1 Configure global profiles

Click **Provision→GlobalParameter→GlobalParameter**.



The global profile configuration table would show as following:



There are 3 columns: “id” is an auto-generated number as identification of global profile, “name” is arbitrary user-defined profile name and “iskeep” is the keep profile function, will be discussed at **section2.4**. The left-up tool bar is defined functions of global profile setting, description is as following:

 New Record	Create new global profile.
 Save	Save modified name field.
 Delete	Delete this profile; make sure to check if this profile has parameter settings by clicking  , you must delete all parameters before deleting this profile.
 Cancel	Cancel the modified of name field.
 Refresh	Refresh and show current global profiles.
 Detail	Show all parameters of this global profile.
 Upload Profile	Create global profiles by uploading pre-configured global profiles, the profile must define in xml file format.

VigorACS allows users to define multiple global profiles in a XML file and create global profiles by uploading this XML file. The XML file should be defined as following:

Upload_XML_Create_GlobalProfile_Example.xml

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <tr069 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="tr069">
3    <items>
4      <!-- Parameters -->
5      <item id="101" name="InternetGatewayDevice.ManagementServer.PeriodicInformInterval"/>
6      <item id="102" name="InternetGatewayDevice.X_00507F_WirelessLAN.General.SSID.1.Enable"/>
7    </items>
8
9    <profiles>
10     <!-- Profile Test_1-->
11     <profile name="CPE_test_3053"    iskeep="false "    isreplace="false ">
12       <parameter id="101" value="600" iskeep="false "/>
13       <parameter id="102" value="true"/>
14     </profile>
15
16     <!-- Profile Test_2-->
17     <profile name="CPE_test_3054">
18        <parameter id="101" value="601" />
19        <parameter id="102" value="false"/>
20     </profile>
21
22     <!-- Profile Test_2-->
23     <profile name="CPE_test_3055">
24        <parameter id="101" value="603"/>
25        <parameter id="102" value="true"/>
26     </profile>
27   </profiles>
28 </tr069>
```

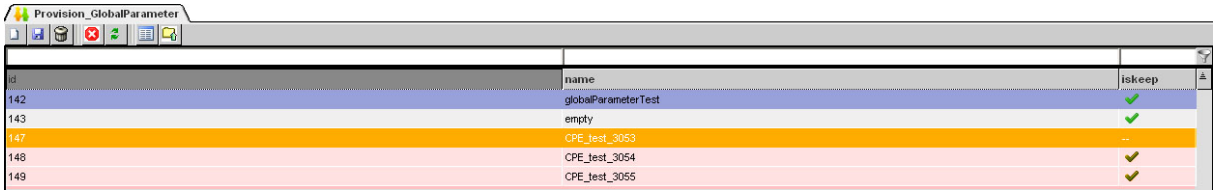
There are 2 main blocks, “items” and “profiles”. “items” includes “item” elements, which are defined with an arbitrary unique number (the **id** attribute) and valid TR069 parameter name (the **name** attribute) for reference in **parameter**.

"profiles" includes "profile" elements. Each profile has been defined some parameters. The attributes of "profile" and "parameter" are defined as following:

Profile	
name	The user-defined global profile name.
iskeep	Set "true" to enable the **Keep Profile** function (this would be discussed in section 2.4), or "false" to disable.
isreplace	If a global profile is already exist. Set "true" to clear all parameter settings and replace with newly upload parameter settings, or "false" to add new parameters if the being uploaded global profile contains more parameter settings (this will only add new global parameter settings to this global profile and not to change any old settings).

parameter	
id	Reference to the **id** of **item**, it determines which TR069 parameters is this parameter.
value	The value of this parameter.
iskeep	Set "true" to enable the **Keep Profile** function (this would be discussed in section 2.4), or "false" to disable.

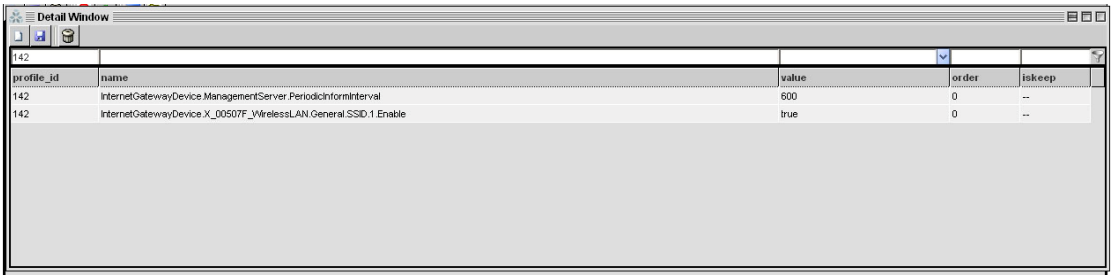
After uploading the above XML file, the result is as following:



2.2 Configure global parameters

Choose a profile by clicking it, and then click  to show the parameter window of this profile.

The parameter window shows as following:



The fields of global parameter defined as following:

Field	Description
profile_id	The id of global profile which this parameter belongs.
name	The valid name of TR069 parameter name.
value	The value of this TR069 parameter.
order	The sequence of parameters setting, the higher priority defined with smaller number, 0 means the highest priority.
iskeep	Determine if this parameter use keep profile function.

The toolbar functions are similar to that for global profile, description is as following:

 New Record	Create new global parameter.

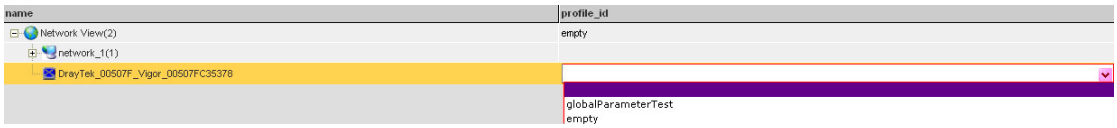
Save	Save modified parameter fields.
Delete	Delete this parameter.

2.3 Set includenetwork

After configuring of global profile and global parameters, the profile must be applied to network or CPEs to take effect.

As description in section1.1, the profile applied to an inheritance structured network.

Click **Provision→GlobalParameter→GlobalParameter_includenetwork**, and then click the "+" beside Network View to expand the network tree structure. Click profile_id field of the network or CPEs you want to apply global profile, the available global profile would show in a drop down list as below:



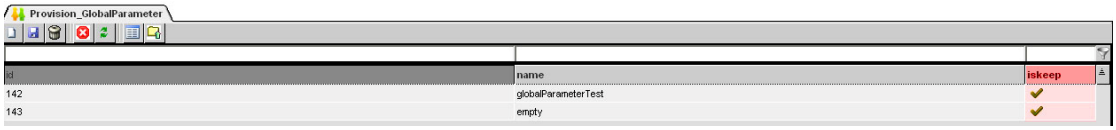
Choose the one you want to apply and click save button at left-up corner. The global parameter settings of this global profile would be applied to the network or CPEs when next inform send to VigorACS, ex. rebooting of the CPEs.

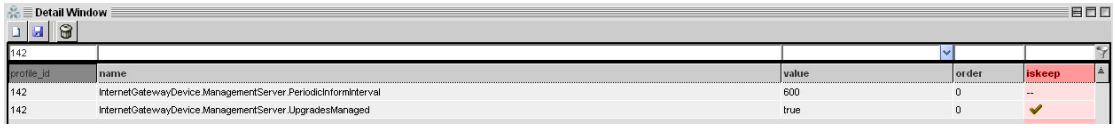
2.4 Keep profile function

Most of CPEs allow parameters setting by subscribers. But while CPEs managed by a centralized management system, this condition should be avoid--otherwise, management conflicts or safety issues may happen. The keep profile function is designed for those issues.

2.4.1 Set Keep Profile while configuring the global profile

Keep profile function applied by enable the “iskeep” field in global profile and parameter configuration. VigorACS would check parameters of CPEs while “iskeep” field is checked  and included in includenetwork. If the parameter values of CPEs differ from parameter settings of global profile, VigorACS would set those parameter values to the parameter settings to prevent from parameters changed by subscribers. If global profile’s “iskeep” field was checked while some global parameters of it didn’t, that means only settings of those parameters with “iskeep” field checked would be kept.

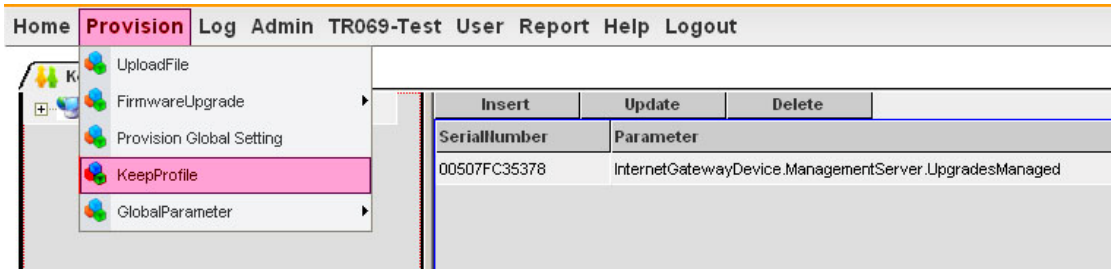




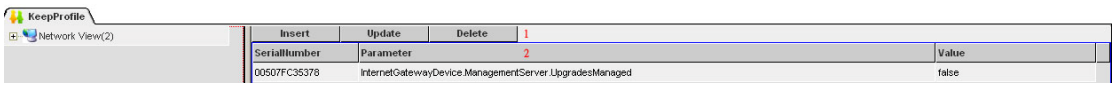
2.4.2 Keeping global parameter settings with Keep Profile function

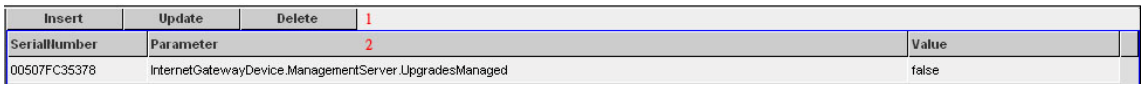
If you only want to keep some settings of global parameters, you don’t have to create a global profile and set Keep Profile function. VigorACS allows users to define the global parameters that would be kept.

Click **Provision→KeepProfile**.



The KeepProfile table shows as following:



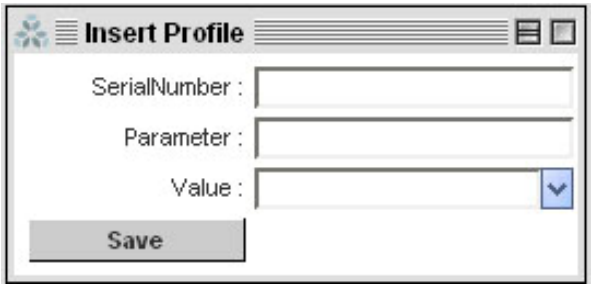


There are 2 rows, the first row (marked as 1) defines the operation for this global parameter, including **Insert**, **Update** and **Delete**. The second row (marked as 2) defines fields of this global parameter, including **SerialNumber**, **Parameter** and **Value**.

Operations of global parameters	
Insert	Create new global parameter that settings of it would be kept.
Update	Update this global parameter by modifying **SerialNumber**, **Parameter** and **Value**.
Delete	Delete this global parameter.

Fields of global parameters	
SerialNumber	The serial number of the CPE that would be applied with parameters kept.
Parameter	Valid parameter name defined in TR069.
Value	The value of this parameter.

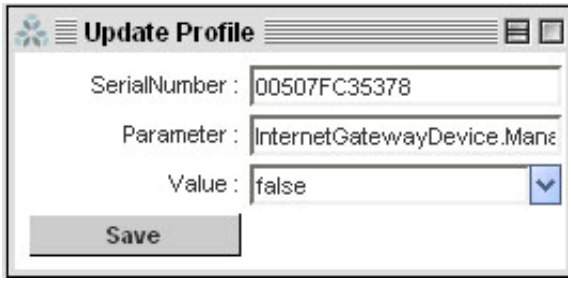
To add a global parameter that would be kept, click **Insert**.



Enter the serial number of the CPE, parameter name and parameter value. Click **Save,**

then this global parameter would be kept.

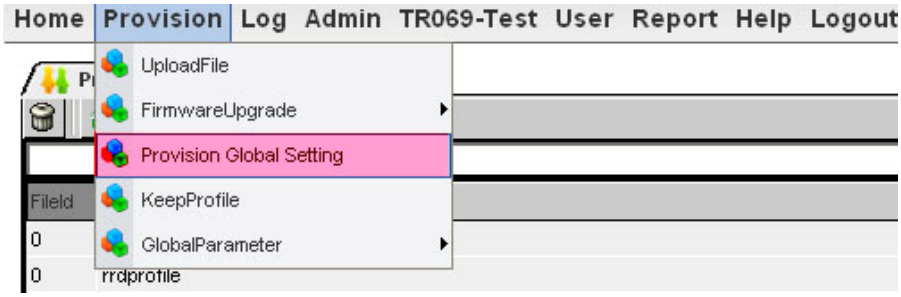
To modify a global parameter, choose the parameter by clicking it, and then click **Update**.



Edit the fields to be changed, and then click **Save**. The global parameter would be kept with modified values

To delete a global parameter that kept, click for choosing it, and then click **delete**. Click “yes” to confirm the deletion on the prompted window.

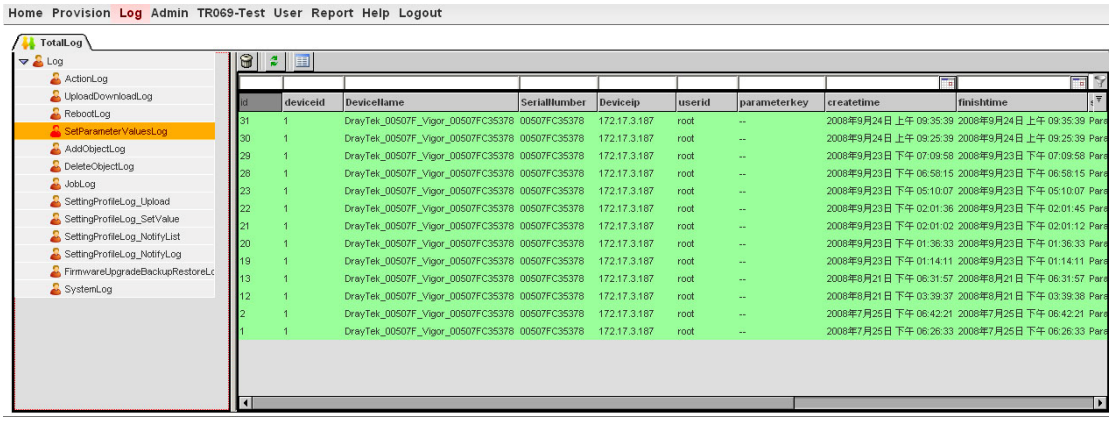
A new global parameter would be automatically added to Keep Profile if you change CPE parameters using **upload profile** function of provision global setting (Click **Provision→Provision Global Setting**). For further details, please reference to **auto discovery and configuration** application note.



2.5 Check the SetParameterValuesLog

How to know if the parameter values defined in global profile has been set to CPEs? The easiest way is to check the log. The log function of VigorACS monitors a lot of information of CPEs. About the parameters modified information, VigorACS provides SetParameterValuesLog.

Click **Log**. Then click **SetParameterValuesLog** at the left option list.



This log contains parameter changes information. For the detail, choose a record and click  . The parameter changes would be recorded. If the global profile set properly, the records should be seen here.