

CT-ACS

Auto Configuration Server



Description

Comtrend's Auto-Configuration Server (CT-ACS) is a TR-069-capable server in the broadband network, responsible for auto-configuration of the CPE. The Comtrend CT-ACS complies with the DSL Forum's TR-069 standard. TR-069 is a CPE WAN Management Protocol, and it provides the communication between CPEs and ACS. It includes both a safe auto configuration, and the control of other CPE management functions within an integrated framework. In the course of the boom of the broadband market, the number of different Internet access possibilities are growing as well. At the same time the configuration of this equipment becomes more complicated -- too complicated for the end-users. For this reason the TR-069-capable CT-ACS has been developed by Comtrend. The Comtrend CT-ACS adheres to the TR-069 standard and provides the possibility of auto configuration of these access types. The TR-069 enabled devices can get in contact with the CT-ACS and establish the configuration automatically. Accordingly other service functions can also be provided.

Features

The Comtrend CT-ACS application provides a web user interface that allows administrators to perform management functions easily and conveniently.

CT-ACS has the following capabilities for managing collections of CPEs.

- **Manages Any TR-069 CPE**

The CT-ACS complies 100% with the TR-069 specifications, and is able to manage any TR069-enabled CPEs. The CT-ACS has perfect interoperability with the following well-known DSL chip vendors and CPE manufacturers: Broadcom, Conexant, Gemtek, RealTek, 2Wire, Linksys, Westell, Netopia, Infineon, TI, TrendChip, Alpha Networks, etc.

- **Supports Other CPEs**

The CT-ACS not only works perfectly with Comtrend CPE models, but also allows ACS administrators to flexibly add any new CPE Models from other manufacturers.

- **CPE Parameter Group Management**

By using the Model Profile, ACS administrators can conveniently select CPE parameters to be managed and controlled by the CT-ACS, and group the managed parameters with common values into a CPE Group.

- **Vendor-Specific Parameters**

If CPEs have vendor-specific parameters, these parameters can be subsequently added to the CT-ACS database to allow the CT-ACS to control them. Most importantly, the CT-ACS can manage and control almost all of the parameters shown on the Comtrend CPE web user interface, despite not being defined in the TR-069 specifications.

CT-ACS

Auto Configuration Server

Features

- **ACS-Initiated Provisioning**

At any time, CT-ACS can request that a CPE initiate a connection to the CT-ACS using the Connection Request notification mechanism. By using the Connection Request, Comtrend ACS can ask the CPE to reboot or restore CPE settings to the factory defaults. Comtrend ACS can also send Grouping Connection Requests to all of the CPEs that belong to a certain CPE Group.

- **Security Access**

The CT-ACS uses TR-069 serial numbers to identify each CPE. Before a CPE can be allowed to connect to the ACS, a serial number entry of the CPE must be added to the Devices List. CT-ACS supports basic and digest authentication, SSL/TLS, and certificate authentication.

- **Multiple Download Server Support**

The CT-ACS supports multiple download URLs of the same firmware image, vendor configuration, and web content files. These files can be stored in different download servers to distribute network flow. In addition, the allowed file download time can also be configured and limited to off-hours.

- **Supports Batch Functions**

ACS administrators can use the Batch Copy function or Batch Add function to simultaneously add many CPE accounts. The Batch Edit function can be used to update customer data and parameter values for groups of CPEs. Similarly, the Batch Delete function can be used to simultaneously delete many CPE accounts.

- **Link CPE and Customer Data**

When a CPE account is added, related customer data can also be added, including customer ID, name, phone number, e-mail, address, city, state/province, ZIP/postal code, and country.

- **CPE Search by Keyword**

Comtrend ACS administrators can use key words (MAC address, CPE IP address, SN, CPE Group, Notes, and customer data) to search a specific CPE or multiple CPEs. The Global Search function can search CPE that may exist in any CPE Models.

- **LED Indicators**

Status LED indicator (green/red) shows whether or not a CPE maintains a connection to CT-ACS within regulated periods. Connection Request LED indicator (green/red) shows present status of connection requests sent from CT-ACS to CPE. Firmware LED indicator (green/red/gray) indicates whether or not the CPE has upgraded its firmware to the version designated by the ACS administrator(s).

CT-ACS

Auto Configuration Server

Features

- **CPE Status and Performance Monitoring**

The CT-ACS collects CPE information and statistics generated by the TR-069 parameters for monitoring of CPE status and performance. A status web page lists the most recent CPE parameter values reported to CT-ACS. CPE status information can be exported as a CSV file by CPE group or individually.

- **Detailed Logging**

Every CPE connection record is logged in the Session Log. Moreover, Comtrend ACS also features a Notification, Download, Bootstrap, and Error Logs. Any log entry can be exported or cleared from the log tables.

- **CPE Diagnostics**

CT-ACS uses CPE information generated by TR-069 parameters to diagnose connectivity or service issues. For example, it can ask the CPE to ping an IP address or hostname and report the result of the ping test.

- **Database Backup**

The CT-ACS database will be automatically backed-up at the time designated by the ACS administrators. The database can be manually backed-up and saved locally.

- **CWMP Interoperability Test System**

The CT-ACS CWMP Interoperability Test System (ITS) is specifically designed for Broadband Forum PD-128 CWMP interoperability tests. It provides convenience and accuracy for stepping through the interoperability tests between the CT-ACS and multiple CPEs. By using ITS, the CT-ACS can scan an untested CPEs to discover which TR-069 parameters the CPE supports, for greater management and control.

- **High Availability and Scalability**

According to the design of our load-balance model, multiple ACSes can support unlimited CPE accounts with support for unlimited upgrade and configuration tasks running simultaneously.

Specifications

Standards and Protocols

DSL Forum TR-069, TR-098, TR-104, TR-106, TR-111, TR-135, TR-140, PD-128

TCP / IP

SSL 3.0 / TLS 1.0

HTTP 1.1

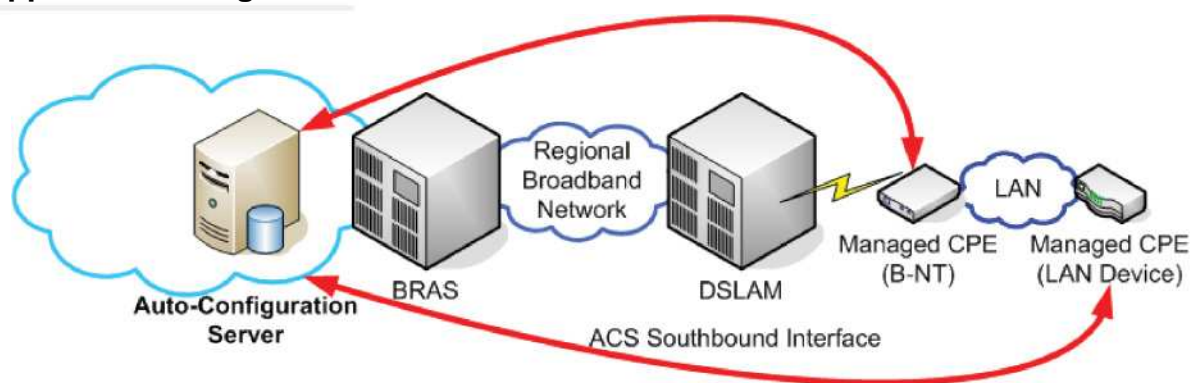
SOAP 1.1

RPC Methods defined by TR-069

CT-ACS

Auto Configuration Server

Applications Diagram



Web Content

Config File

Firmware

CPE Groups

Devices

Global Search

Account

License

Model Management

Monitor

System

ITS

Logout

Device List Batch Edit Batch Delete Batch Copy

OUI-SERIAL | IP Address | S/N | CPE Group | Notes | ID | Name | Phone | Email | Address | City | State | ZIP | Country

OUI-SERIAL Search

Prev 1 Next 1/1

Device List - Total:2

Import

Export

OUI-SERIAL	Connection Request	IP Address	Software Version	Logs	Status	Edit	Delete
0030da638210		10.10.10.12	E111-S310CTU-T01_R05				
0030da638211		10.10.10.14	E111-S310CTU-T01_R05				

Prev 1 Next 1/1

Add

Taiwan:
3F-1, No.10, Lane 609, Chung Hsin Road Section 5, San
Chung, Taipei, Taiwan 24159
Tel: 886-2-2999-8261
Fax: 886-2-2999-8497

China:
NO.88 East QianJin Road,Kunshan City,JiangSu,China
Tel: 86-512-57383156, 86-512-57383157,
86-512-57384515
Fax: 86-512-57383155

Spain:
Edif. América II C/Prócion,7 portal 3 bajo H 28023 Madrid,
Spain
Tel: 34-917990403
Fax: 34-913510999

UK:
566 Chiswick High Road Building 3, Chiswick Park Chiswick -
London, W4 5YA UK
Tel: 44-0-8453701031
Fax: 44-0-8453701032

France:
8, Rue Edouard Naud
92130 Issy-Les-Moulineaux, France
Tel: 33-1-78463600
Fax: 33-1-78463601

Czech Republic:
TOKOVO Jankovcova 1518/2, 170 00, Prague 7, Czech
Republic
Tel: 420-266-782040
Fax: 420-266-782990

USA & Canada:
16 Goodyear, Suite 120, Irvine, CA 92618
Tel: 1-949-7539640
Fax: 1-949-7539020

Brazil:
Al. Campinas, 977 - 7º. Floor - Room 71 / 72 - Jardins
Zip Code: 01404-001 - São Paulo - SP - Brazil
Tel: 00 55 11 3052-2295
Fax: 00 55 11 3052-2295

Mexico:
Mariano Escobedo 396 Office 503 Colonia Anzures, Deleg.
Miguel
Hidalgo 11590 Distrito Federal México
Tel: +52 (55) 4623-1516



COMTREND CORPORATION

Global contact: sales@comtrend.com

Website: www.comtrend.com



DS_CTACS_R1.4_103008