

**axess**  
Device Management



**axiros**  
Lasting Advantage



## Axiros **Axess** Appliance

TR-069 And Beyond



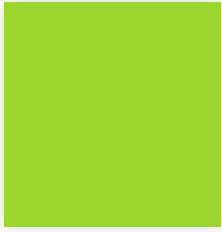
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# Axiros **Product Sheet**

Bringing High End Device Management Into Your Network

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# TR-069 Appliance

Bringing High End Device Management Into Your Network

executive summary

Automated provisioning and remote management of CPEs are vital service delivery activities of ISPs, operators and carriers - helping to reduce costs, lead times and complexity as well as to deploy new customer services.

The Axiros Axess ACS solution platform is the leading subscriber device management system - deployed and productive at more than 35% of europe's TOP 50 operators and carriers.

The Axiros Axess ACS appliance is a dedicated offering for SMBs - giving them the full competitive edge and service profitability right away from start.

This way regio carriers, local ISPs and city operators can take lasting advantage of

- zero touch provisioning
- subscriber self-service solutions,
- automated firmware and configuration management and
- the Axiros' interoperability guarantee, that ensures that all TR-069 standard compliant devices can be managed.

## The Axiros Interoperability Guarantee

"Should a TR-069 Remote Procedure Call or parameter not work out of the box with Axess ACS but it works against any other ACS then Axiros provides support for the functionality within 10 working days, via a software patch or update - free of charge"

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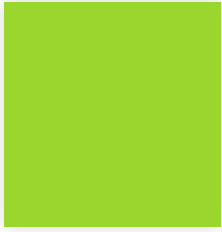
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# Key Features

features

## Easy Integration

The Axiros ACS Appliance is easy to integrate into your existing infrastructure. All ACS features and appliance settings are accessible via web frontend. Powerful dynamic interfaces are available to integrate with your OSS/BSS systems. Whether you use the Axiros ACS appliance as a stand alone or as an integrated solution, you get the best solution for both.

## Grouping

Grouping of CPEs is a very important feature to implement mass operations. Firmware upgrades, whole new configuration settings or additional features can be scheduled to be brought to a wide range of managed devices automatically. The Axiros ACS appliance offers strong and flexible grouping methods. CPEs can be grouped by any combination of relevant CPE parameters.

## Security

Every management interaction on the ACS Appliance is controlled by an advanced authentication and authorisation system. Management traffic is encrypted according to industry strength standards. The security mechanisms are in place for web management interaction as well as northbound calls.

## Real CPE Interoperability

Despite the standardisation efforts by Broadband Forum and the resulting TR-069 protocol, unregulated aspects of the CWMP management protocol constantly lead to incompatibilities between CPEs and management systems. CPE Vendor independency is one of Axiros' core strength - the ACS appliance concentrates years of CPE management experience in a single device, giving you outstanding interoperability with any TR-069 compliant CPE.

## Remote CPE Diagnosis

With the remote CPE diagnosis features of the Axess ACS appliance, CPEs can be analysed in realtime support scenarios. Predefined diagnosis reports for common support tasks are already bundled and ready to be used.

## High Availability

The ACS appliance is prepared for failover setups. Dual unit (master/slave) setups provide the necessary safety when high availability is needed. Automated mode switch over ensures continuous availability of your service delivery.

## CPE Management

Whether you need single CPE operations for realtime support or mass operations for a large number of CPEs, the Axiros ACS appliance fits both. Every parameter of a CPE that is made available via the TR-069 protocol can be managed and screened. All the device information needed by your support operators to analyse problems are at hand. Operations on large numbers of CPEs, like firmware updates or config file uploads, are carried out safely and reliably.

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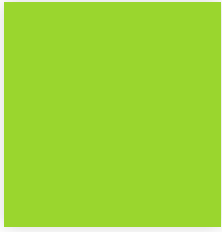
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# Technical Specification

## Web Management Interface

The Web Management Interface is an easy to use graphical user interface which allows common management tasks out of the box.

### ACS Management

- Device Type Management - Manage different types of devices, firmwares and hardware
- Subscriber Management - Add/delete/change subscriberdata; bulkimports and single entity management.
- Support Frontend - Interface for support operators, offers remote diagnosis and management capabilities.
- Parameter Management - Manages the TR-069 parameters and brings them in tune with device implementation and database fields. Also offers vendor specific parameter support.
- Network Support Frontend - Interface managing device ranges, firmwares and configuration files.
- Reports - Offers reports and statistics about key parameters of the ACS Appliance.
- ACS user administration - Create and manage user accounts and access rights on the ACS.

### System Management

Additional settings regarding the appliance management are also offered via a dedicated web interface.

- Unit Configuration - Management interface for device specific settings (like IP and failover).
- Backup Management - Backup and restoring of configuration and operational data.
- Update Management - Software update management interface.

SSL encryption for management traffic is supported, access to management interfaces is restricted to authenticated and authorized users.

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## CPE Management Protocol And Standards

Interaction with CPEs is supported via Broadband Forum's TR-069 standard. Additional data models and definitions of Broadband Forum, including

- TR-106
- TR-111
- TR-098
- TR-110
- TR-104
- TR-135
- TR-140

are provided by the appliance.

Vendor specific parameters can be integrated into the appliance data models by configuration via the web management interface.

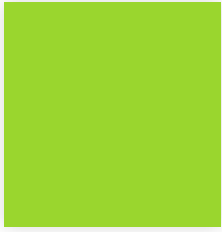
## System Integration

The Axiros ACS Appliance can be used right out of the box with the web management interface. To integrate the ACS functionality into your operational environment, the ACS Appliance offers powerful interfaces.

Integration of the ACS Appliance into your support or subscriber systems can be done by using SOAP or XMLRPC. Both interface protocols include support for

- Adding/Changing/Deleting subscriber data (preprovisioning)
- Remote CPE management on predefined and on customisable parameters
- Firmware upgrade and configuration file upload management
- Flexible grouping conditions on CPE specific attributes

Key parameters of the ACS Appliance can be monitored via SNMP.



# Hardware **Specification**

specification

## **Form Factor**

- 14" Mini 1U chassis, ATX

## **Dimensions**

- Height: 1.7" (43mm)
- Width 16.8" (426mm)
- 0,81 Depth 14.0" (356mm)
- Gross Weight 14 lbs (6.4kg)

## **Power Supply**

Thermal control 260W AC power supply with PFC AC Voltage

- 100 - 240V, 60-50Hz, 4 Amp Max
- DC Output
- 5V + 3.3V ≤ 140W

## **Front Panel**

- 2x USB connectors
- 3 status LEDs
- LCD panel

## **Network**

- 2x Gigabit Ethernet

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