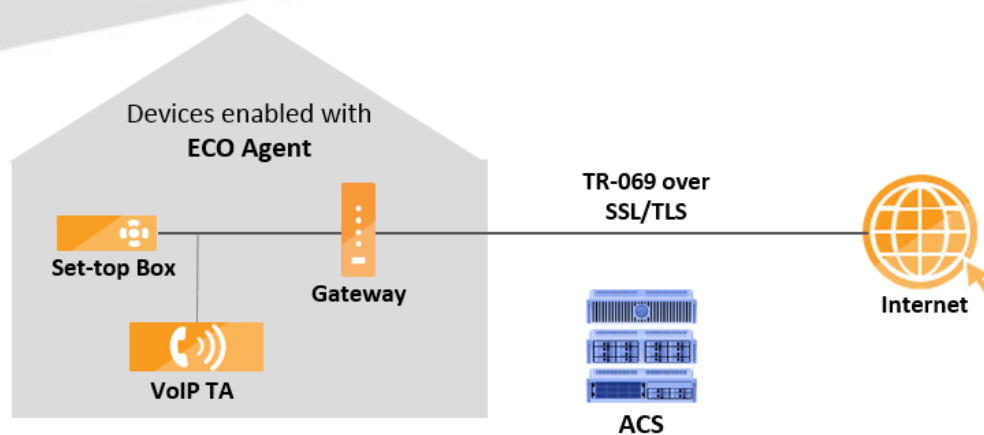


# ECO Agent

Enable Delivery, Management, and Support of Triple Play and Connected Home Devices



## FEATURES

- Built with the industry's most robust and widely deployed TR-069 client technology
- Provides secure, resilient, and instantaneous TR-069 communication and messaging
- Enables advanced management use cases, such as diagnostics, monitoring, and alarming
- Supports the Device:2 (TR-181 Issue 2) root data model
- Supports the TR-135, TR-140, and TR-104 services data models
- Supports the XMPP Connection Request mechanism as defined in Annex K of TR-069 Amendment 5
- Provides an extensible data model and use cases enabled with simple XML
- Supports the HTTP Bulk Data Collection mechanism as defined in TR-157 Amendment 10 and TR-181 Issue 2 Amendment 10

## PRODUCT OVERVIEW

ECO Agent enables remote, automated, secure provisioning and management of subscriber devices for service providers of pay TV and connected home services. ECO Agent is the most robust, widely deployed, and proven management agent for devices in the industry.

In 2002 2Wire, now part of ARRIS defined the Open Gateway Management Protocol (OGMP), which is the basis for the TR-069 standard. Over the last 10 years, this TR-069 client technology has been deployed and managed on more than 25 million devices worldwide. ARRIS continues to evolve and enhance the ECO Agent to ensure support for the latest standards, technology, advanced use cases, and device platforms.

### Manage devices using extensive TR-069 capabilities

ECO Agent has unparalleled support for TR-069 management operations and communication with an auto-configuration server (ACS). ECO Agent provides:

#### Flexible deployment

- ACS discovery is flexible and can be achieved through pre-provisioning or configuration files.

#### Communication and message integrity

- Communication between ECO Agent and its corresponding ACS uses SSL/TLS and Digest Authentication. The device identity and ACS can be authenticated using unique credentials and certificates.

#### High reliability and resiliency

- ECO Agent provides session retry logic, error handling, and back-off algorithms.

#### Management via TR-181 Issue 2

- Service providers can enable any IP-connected device type or platform with ECO Agent using TR-181 Issue 2 (Device:2).

#### Support for CPE methods in TR-069 Amendment 5

- ECO Agent provides support for all mandatory and most optional CPE methods in TR-069. ECO Agent provides support for basic and advanced management use cases such as data model operations, file download for upgrades, reset, scheduled informs, and reboot, as well as the XMPP Connect Request mechanism.

Service providers can rely on ECO Agent to fulfill their needs for device management features, interoperability, robustness, and reliability today as well as in the future.

### Enable advanced management use cases

In addition to typical management use cases such as provisioning or firmware upgrades, ECO Agent supports advanced use cases such as diagnostics and data collection, also known as Periodic Statistics. ECO Agent has built in support for diagnostics defined in TR-181 Issue 2.

## CUSTOMER CARE

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Furthermore, ECO Agent supports data collection, which is critical for use cases such as fault management and performance monitoring. Monitoring requires frequent, periodic collection of key metrics, or samples, into a single report. The report is subsequently retrieved by the ACS or data collection server for aggregation and evaluation. Similarly ECO Agent can be used to detect faults and notify the ACS of events or alarms.

### Connect with more devices

Devices that reside behind a gateway or firewall on a subscriber home network, such as IP-connected set-top boxes or voice ATAs, can present a unique management challenge to service providers. To initiate a management session with these devices, an ACS needs to reach them reliably and instantaneously. ECO Agent solves this need by implementing a secure, lightweight, and persistent connection that can be used by the ACS to proxy connection request messages and initiate management sessions in real time, securely and reliably.

### Rely on interoperability with your ACS for all devices, regardless of platform

ARRIS's acquired TR-069 heritage, widespread adoption, and commitment to furthering standards means that service providers can count on successful interoperability between ECO Agent and their ACS of choice. Furthermore, ECO Agent is based on ubiquitous technologies including ANSI C and POSIX libraries, which means it can be easily ported to connected device platforms running most distributions of embedded Linux. As a result, service providers can deploy a common management agent across all managed devices in the subscriber home.

### Extend data model support to meet the needs of your services

ECO Agent can be easily extended to support any data model parameters required for delivery, management, or support of new and increasingly complex device types, features, and next generation services.