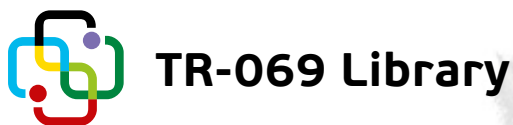# TR-069 Library – LibCWMP
Smoothly give in to perfection

BEST WAY TO IMPLEMENT TR-069

More and more telecommunication companies and service providers want to benefit from the advantages of managing their devices through **TR-069 protocol**. No wonder – it makes their lives much easier. This situation creates a challenge for **device manufacturers** who want to face current needs of their clients. As TR-069 is only loosely described by **Broadband Forum** specifications, there are different ways of implementing the protocol. Our **TR-069 Library, LibCWMP**, with the **smallest memory footprint**, flawlessly usable API and **excellent support** – is **the best choice** available for any type of equipment.

> *"TR-069 is a current industry standard for large scale network management, diagnostics and provisioning. It enables rapid service delivery and efficient remote device configuration. I believe that support for this standard is mandatory for present and future generations of networking devices."*
>
> Sławomir Wolf, CEO, AVSystem

TR-069 Library

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DESIGNED TO FIT EVERY DEVICE PERFECTLY

Smartly designed by talented developers, **LibCWMP** can support different types of devices without the need to implement any other library. What's more, it integrates smoothly with **any type of operating system.** The list of supported devices includes **wired and wireless modems and gateways, access points, routers, VoIP ATA's, IP Phones, VPN gateways, PBX devices, monitoring equipment**... and many more!

FULL SUPPORT FOR INTEGRATION

AVSystem provides **full and extensive support** during the **integration and maintenance** of our CWMP Library. Our Certification process ensures final product is **strictly compliant** with TR-069 and accompanying standards.

broadband forum
member company

KEY FEATURES:

- The **lowest possible memory requirements** (both of RAM and Flash)
- Low CPU utilization
- **Flexibility of design** to make it fit practically **any device**
- Clear and robust **two-level API**
- Abstraction layers for OS-related operations
- Built-in **STUN client**
- Automatic **testing environment** in Python
- Modularity and native support for **advanced TR-069 mechanisms** (diagnostics, notifications, periodic informs etc.)
- **Well-prepared documentation** with how-to's and examples

TR-069 Library – LibCWMP
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THE BUY VS. MAKE DECISION

Time is money, and getting to the market 3, 6 or 12 months sooner is a tremendous strategic and financial advantage. Finally it may **increase your ROI up to 50 %** in product lifetime. Licensing the **TR-069 client LibCWMP** from AVSystem means fewer in-house resources for research and development plus interoperability testing against ACS servers from different vendors. Additionally AVSystem secures the **latest updates and upgrades** of the TR-069 client, thus CPE manufacturer may focus on other components of its products.

There is currently no product which could compete with **LibCWMP** in memory usage or data parsing and processing times. Scope-oriented parsers, **processors written from scratch**, well-designed **abstraction levels** and tooling allow our product to operate in about **30kB (thirty kilobytes)** of memory.

SUPPORT FOR ANDROID

Our offer also includes **CWMPDroid TR-069 Library** for **Android**- or **Java**-enabled devices. This Java-targeted product is based on years of on-hand experience with device management and TR-069 protocol which guarantees quality and efficiency. **CWMPDroid** can support any data model and can be very quickly integrated thanks to easy-to-use API. It's the best solution to keep up with present standards of mobile networking.

OUR CLIENTS

Language	C
Compilation standard	C89
Architectures	X86, ARM, MiPS, others
Flash needed (dynamic linking, all modules, SSL incl.)	95kB
Flash needed (static linking, all modules, SSL incl.)	135kB
Memory usage	30kB (Heap: 24kB, Stack: 6kB)
Thread Support	Yes, 3 threads by default, support for single-thread systems
Additional libraries needed	NONE
GPL Code	NONE
Support for SSL	YES, OpenSSL + API for other libraries
IPv6 Support	Yes
TR-111 Support	Yes, fully built-in
Support for TR-069 methods	All methods supported
Supported data models	Any data model, dedicated tooling for data-model creation included, full support for vendor specific parameters
Transfer support	Built-in transfer support for HTTP, HTTPS, FTP
Diagnostics and TR-143	Built-in support for IPPing, Traceroute, Download and Upload diagnostics

"We've selected AVSystem's TR-069 Library because of its ultimate small flash & RAM memory footprint. Well done!"

Timothy Cardoza, AAstra Corporation, USA

Contact us for more information and free demo!

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