

TEST Development Kit (TDK)

OVERVIEW

TDK is a generic test kit for automated testing of RDK components and end-to-end scenarios facilitated by a web based user interface for configuration, test creation, execution and result aggregation. TDK support Python scripting for enhanced flexibility, ease of usage and extensibility. It has a modular architecture designed to withstand changes in the underlying RDK implementation including API changes and testing of new components.

The TDK can be extensively used to test RDK Set-Top Boxes, or individual RDK components in a standalone environment away from the MSO head-end systems.

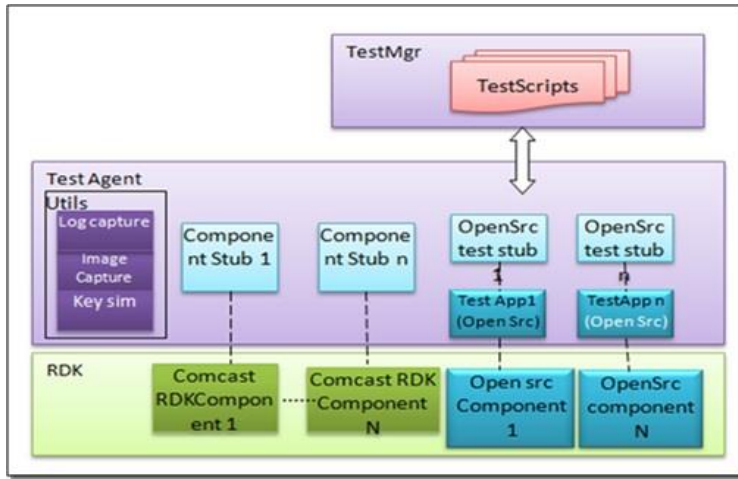
FEATURE LIST



The TDK provides the ability to conduct:

- Automated component-level testing of RDK Components
- Automated Feature-level / End to end testing of RDK STBs
- Testing of RDK STBs and Components in an isolated environment independent of any MSO application or physical RF feeds.
- Command line driven end to end test automation
- Analysis & trending of test results, pass/fail status and test logs using a web based user interface
- Configuration and testing of client RDK STBs behind gateways
- Administration, management and configuration of your test setup

The TDK is also integrated with third party tools such as Jenkins and is designed to be highly modular and configurable to withstand the evolution of underlying RDK codebase.

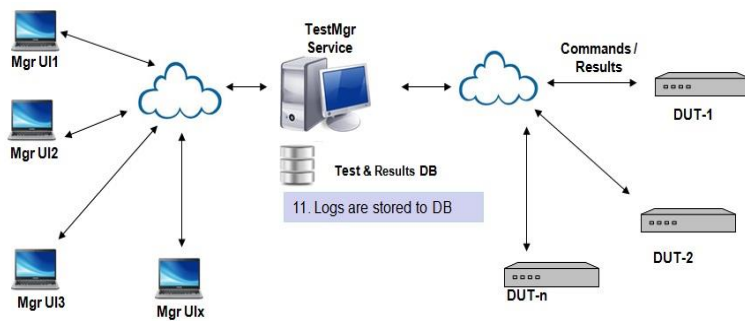


TDK - Inside the RDK STB

TDK ARCHITECTURE

The Package contains:

- Test Cases
- Test Agent for multiple Platforms
- Python Library
- Web Application WAR File
- Web Application RPM package
- Database SQL Dump
- User Manual
- Release Notes



TDK - How It Works

HOW TDK WORKS

1. User writing test scripts
2. User storing testscripts & Suites
3. User Configuring Devices
4. User scheduling Test Script on Device
5. Scheduler asking Agent to load testlib module
6. Agent loading the testlib
7. Testlib init & register RPC Methods
8. Script Engine calling RPC in the testlib
9. Testlib calling function in RDK
10. Testlib communicating result & logs



TDK Set Up

TDK SETUP

TDK STB Agent & Stubs have been deployed and tested on :

- RDK Gateway STB
- RDK Client STB

Test Manager has been deployed and tested on:

- Ubuntu 11.10