

# Test configuration

## Test configuration

Whiteboxes and the Router SDK support a remotely updatable test configuration profile. A configuration profile can be assigned to the agent (either individually or in groups) in SamKnows One, and the agent will remotely fetch download it. The agent will automatically check for updates of the configuration profile once per hour. If updates are found, then the agent will automatically load the new configuration profile and apply it.

The configuration profile encompasses the following components:

1. Which tests should run;
2. Whether the tests should run according to a schedule, or should only be run manually;
3. How frequently the tests should run (if scheduled);
4. What parameters the tests should run with, including which servers they should test against; and
5. Acceptable cross-traffic and CPU utilisation thresholds.

Multiple instances of the same test may be run with different parameters and frequencies. For example, a speed test may run to an on-net server hourly, and an off-net server once per day.

We use an open standard from the IETF called LMAP to manage our measurement agents. This encompasses test scheduling, reporting and configuration. SamKnows uses a JSON data model over an HTTPS transport for interacting with our backend LMAP controller. The SamKnows LMAP controller is distributed globally and can support millions of concurrent devices retrieving test schedules and reporting measurement results.