GAUGE DATA SOLUTIONS

Gauge Conformance Suite

Conformance Testing Overview

GCS Overview

- The Gauge Conformance Suite acts as a complete solution for Conformance Testing with graphical user interface (GUI) with modified interfaces supporting 1G Electrical/1G Optical/10G Optical /40G Optical/WiFi
- A conformance test suite verifies the compliance of an Equipment Under Test (EUT) to a standard or specification
- Each group of test for RFC consists of Parameters, and Test Cases
- Test Cases can only be run individually or in a batch operation
- After execution, each Test Case reports a Pass and Fail

Test Case Conclusions

- Pass: The EUT behavior conforms to a specific requirement under test.
- Fail: The EUT behavior does not conform to a specific requirement under test.

Acronyms Used with GCS

- TC – Test Case
  - One “Clause” of standard being tested
- EUT – Equipment Under Test
  - The device that is being tested eg. Router, Switch, ONT etc.
- CP – Configuration Parameters
  - Configurations on Suite interfaces and EUT for particular test
- GCS – Gauge Conformance Suite

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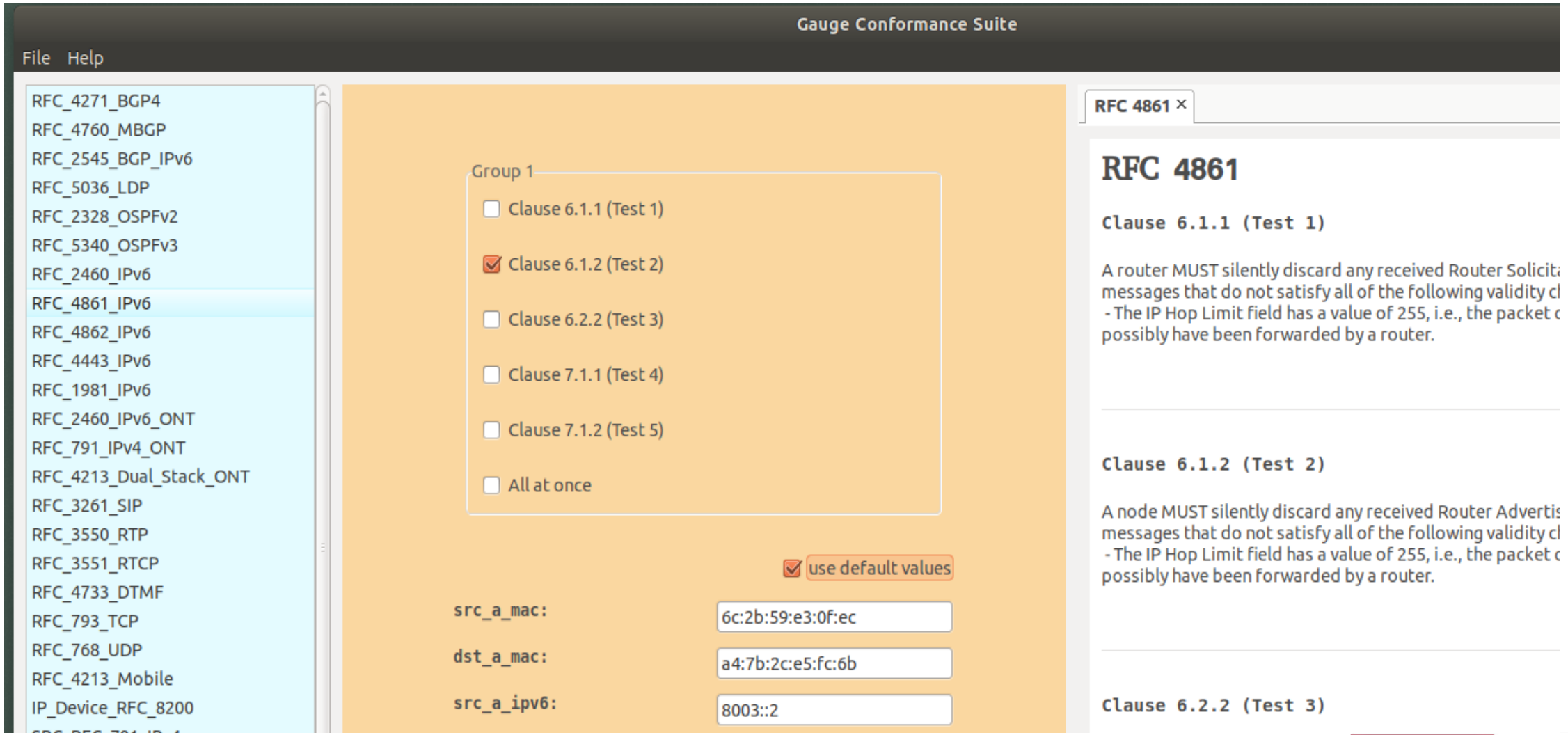
What you must know

- Know the protocol you are going to test
- Know the Conformance Application
- Know the Topology and Configurations for the protocol you are going to test
- Know the Test Cases; for each config
- Know the EUT config
- Know how to troubleshoot Failed Cases

Gauge Conformance Suite Application



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Test Suite Tabs

- **Details**

Welcome | RFC 4861 ×

RFC 4861

Clause 6.1.1 (Test 1)

A router MUST silently discard any received Router Solicitation messages that do not satisfy all of the following validity checks:
- The IP Hop Limit field has a value of 255, i.e., the packet could not possibly have been forwarded by a router.

Clause 6.1.2 (Test 2)

A node MUST silently discard any received Router Advertisement messages that do not satisfy all of the following validity checks:
- The IP Hop Limit field has a value of 255, i.e., the packet could not possibly have been forwarded by a router.

Clause 6.2.2 (Test 3)

A router MUST NOT send Router Advertisements out any interface that is not an advertising interface.

- **Results**

Test Suite Information	
Name	IPv6
Version	2019
Full Name	IPv6 Family
Build Date	[illegible]

Test Run Summary	
RFC_2460_ONT Execution	[illegible]
RFC 2460 Clause 4.2 (Test 9 - Option Type 00)	[illegible]

Test Execution Parameters		
Name	Value	Description
src_a_mac	[illegible]	Tester A MAC address
dst_a_mac	[illegible]	Destination A MAC address
src_a_ipv6	8000:5c0:110c:9d00::1	Tester A IPv6 Unicast Address
dst_a_ipv6	8000:5c0:110c:9d00:221f:3bff:fe7c:5f7f	Destination A IPv6 Unicast Address
IFACE_A	wlp1s0	Tester A Interface
NW1	Network 1	Network 1 created by ONT

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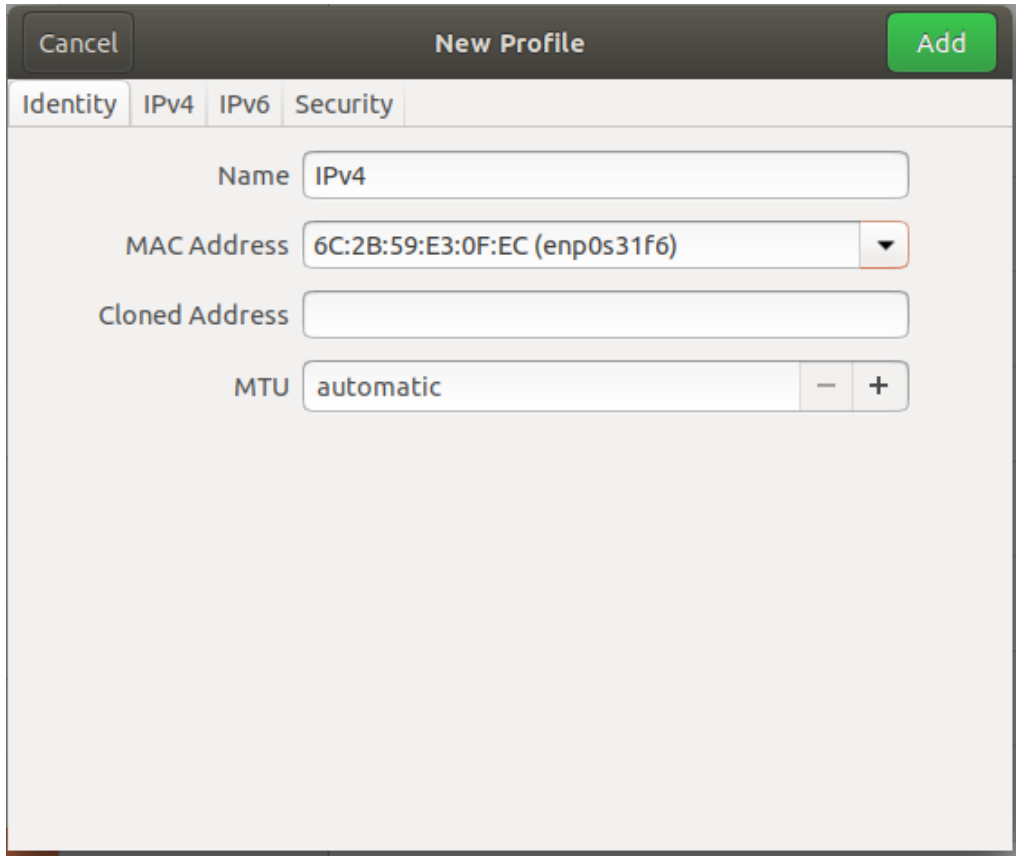
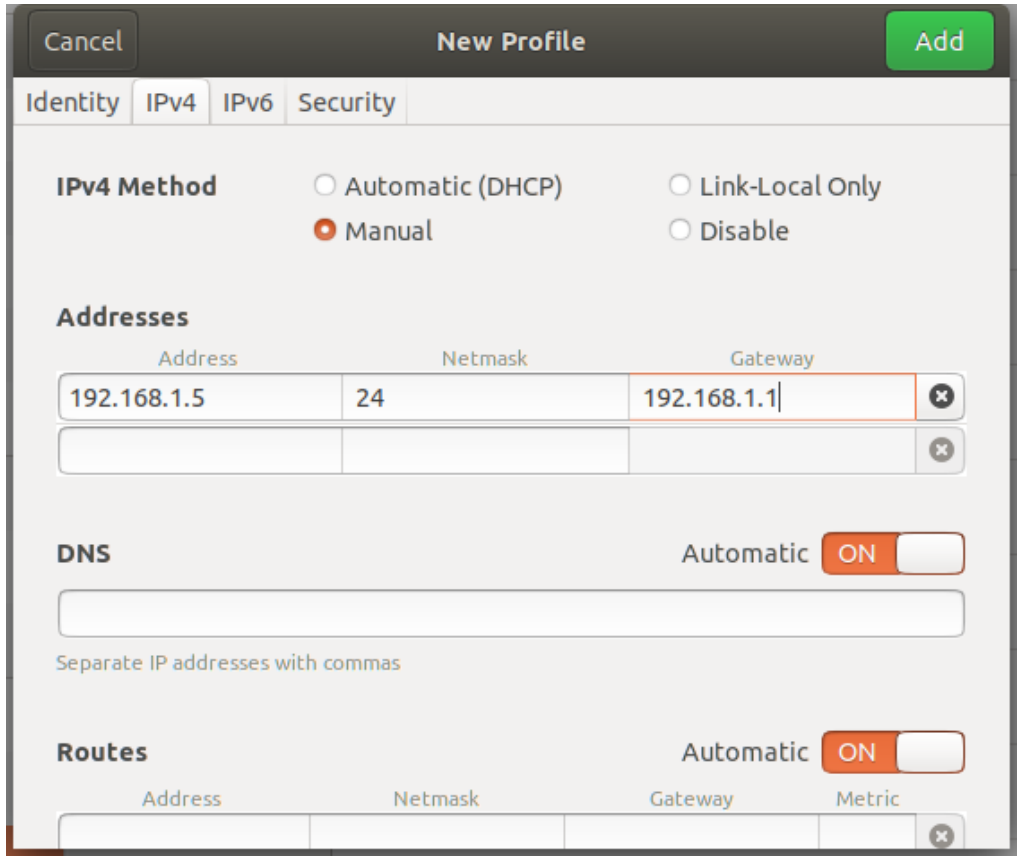
Test Suite Procedure

- Configure GCS and EUT as per Test Case topology
  - Config parameters setup
- Running a Test
  - Test selection
  - Provide input parameters
  - Run the test
- Report generated for the Test Case
  - Fail – Reason for failure – in report

Configure GCS Interfaces as per Test Case





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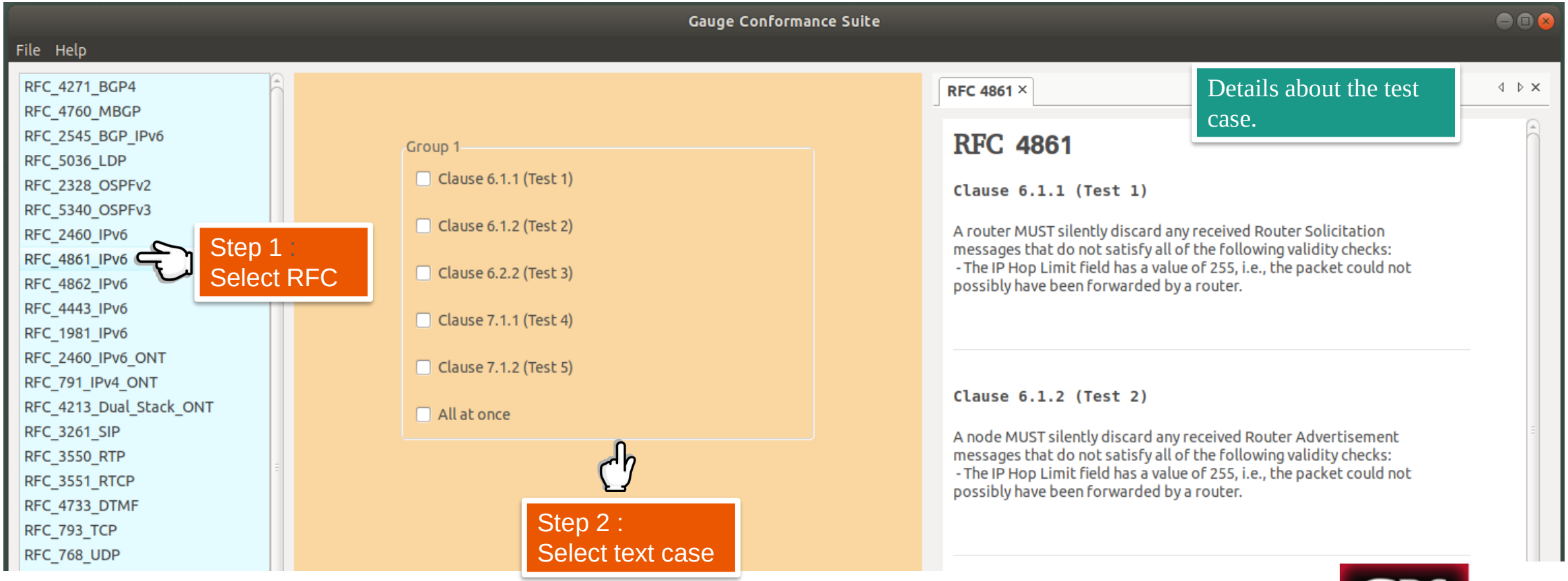
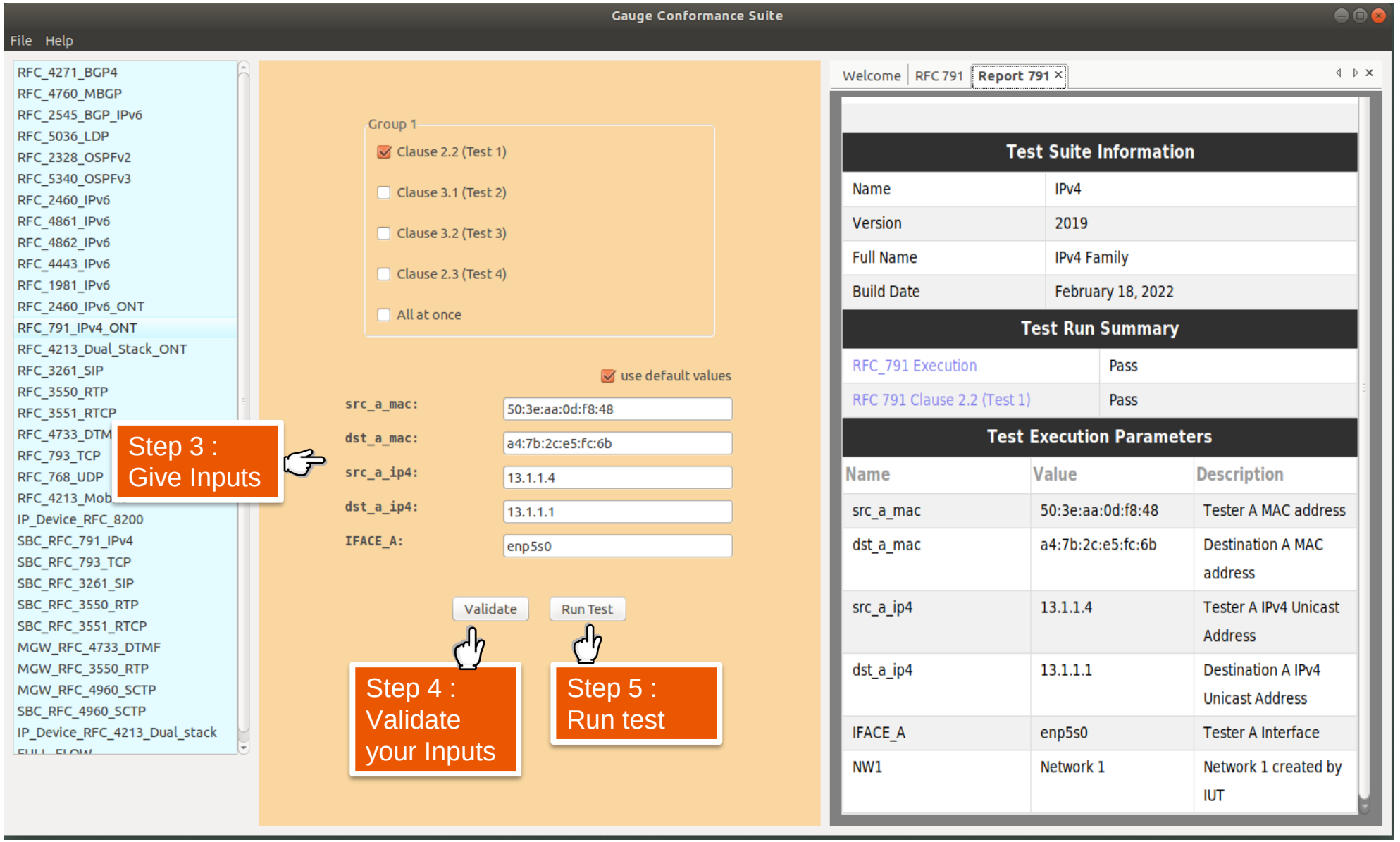
Select RFC

- Once you Select the desired RFC from the RFC list you can load Test Cases
- This screen presents available Test Cases in that RFC, with input screen for parameters like MAC addresses, IPv4/IPv6 addresses



Test Execution



Result : Report is generated here

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