

Report No.	01
Total pages	6

# Stability of New Rock products Test Report

Product Model: NewLync 2.0 All-in-One

Software Version: v2.15.0

Testing Department: Software Testing Department

Test Date: 2025-03-10



# Content

---

1. Introduction .....	1
1.1 Test Purpose .....	1
1.2 Test Product Introduction .....	1
2. Test Methods .....	3
2.1 Test Topology Diagram .....	3
3 Test result .....	4
3.1 Summary of Test Results .....	4
3.2 Data Details .....	5
4. Test Conclusion .....	6
5. Glossary .....	7

# 1.Introduction

---

## 1.1 Test Purpose

Tests the stability of the NewLync 2.0 All-in-One device running at full load, and provides relevant performance index values for users' reference in using or other related test work.

This document verifies that the stability of the device under test meets the requirements by simulating multiple call concurrency using the SIPp test tool and monitoring the call sound quality when concurrency is expected using the Spirent Abacus 50 sound quality monitor.

## 1.2 Test Product Introduction

NewLync 2.0 Converged Communications Platform is New Rock's new generation of Voice over IP core switching equipment with powerful call processing capabilities and excellent performance in stability, reliability, security, scalability and configuration flexibility.

Figure 1-1 Front Panel

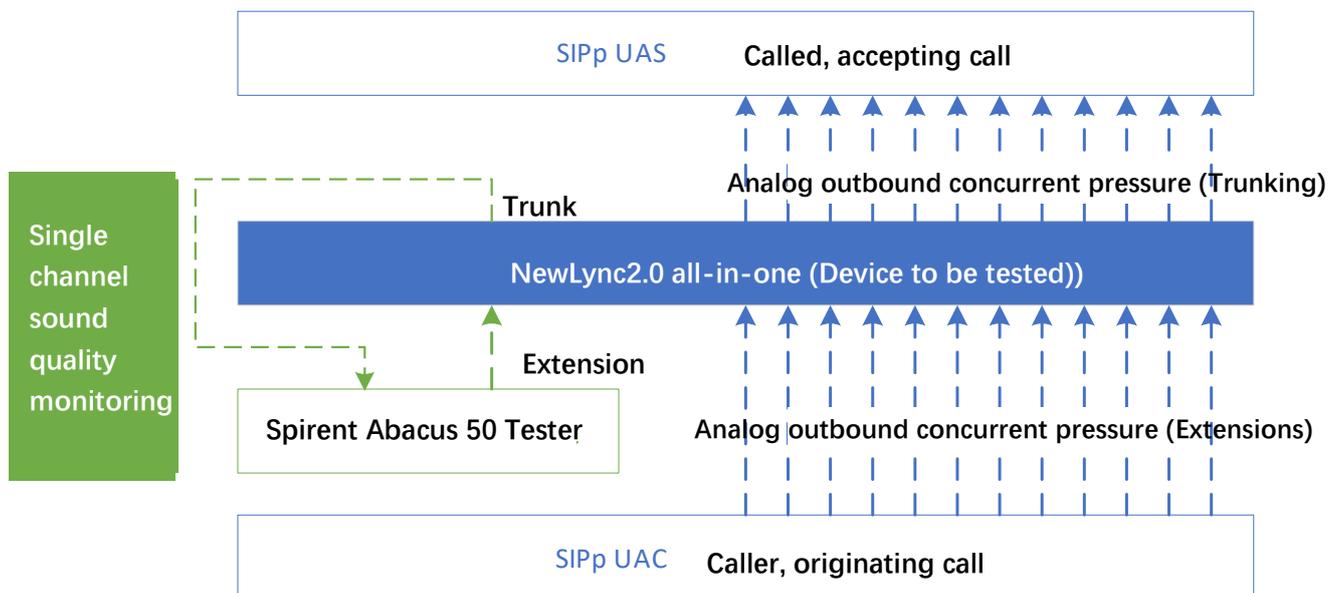


Figure 1-2 Rear Panel



## 2. Test Methods

### 2.1 Test Topology Diagram

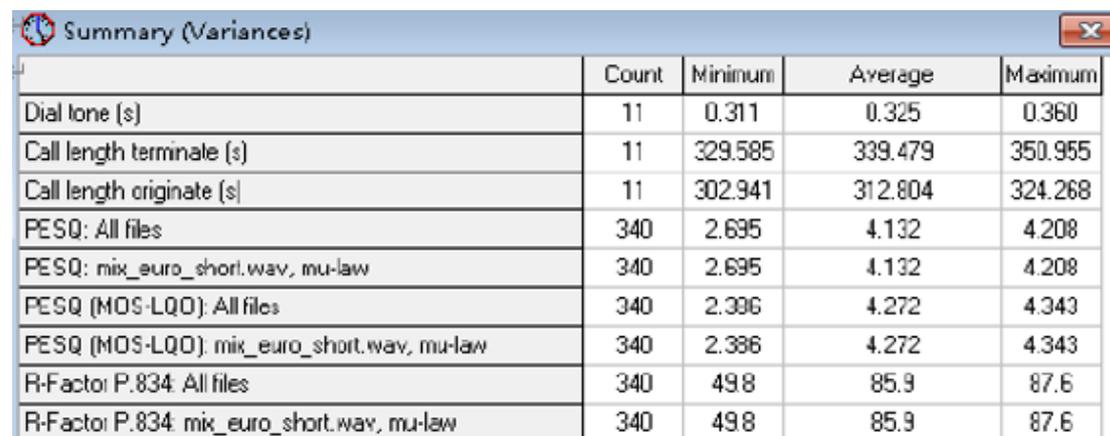


# 3 Test result

## 3.1 Summary of Test Results

Item	Test result	Note
Test Model	IP extensions calling from IP trunks	-
Speech coding	PCMA	-
Test duration	72 hours	-
Call concurrency	400	Simulate the number of call concurrency at 10:1 based on the total number of 4000 users
CPS	4	-
BHCC	14400	Calculated from CPS*3600
Total calls	1036800	Total calls originated. Based on 2,000 calls per day, equivalent to 518.4 days of simulation run load
Call success rate	99.992%	Takes the average of the success rates of the caller and the called
Spirent sound quality monitoring results	4.132	Average of Abacus PESQ:All files

## 3.2 Data Details



	Count	Minimum	Average	Maximum
Dial tone (s)	11	0.311	0.325	0.360
Call length terminate (s)	11	329.585	339.479	350.955
Call length originate (s)	11	302.941	312.804	324.268
PESQ: All files	340	2.695	4.132	4.208
PESQ: mix_euro_short.wav, mu-law	340	2.695	4.132	4.208
PESQ (MOS-LQO): All files	340	2.396	4.272	4.343
PESQ (MOS-LQO): mix_euro_short.wav, mu-law	340	2.396	4.272	4.343
R-Factor P.834: All files	340	49.8	85.9	87.6
R-Factor P.834: mix_euro_short.wav, mu-law	340	49.8	85.9	87.6

## 4. Test Conclusion

---

Test results show that NewLync 2.0 v2.15.0 version, carrying 4000 users, under the pressure scenario of 400 concurrent and CPS=4, the success rate of handling 1036800 calls is 99.992%, the call sound quality is qualified with PESQ  $\geq$  4.0, and the system is running stably.

It meets the criteria for passing this stability test, and the test result is: Pass.

## 5. Glossary

Nomenclature	Definition
BHCC (Busy Hour Call Completion)	Number of calls completed during busy hours Switchboard target handling capacity, i.e., the number of telephone calls completed during the busiest hours of the day (peak periods)
CPS (Calls Per Second)	Number of completed calls per second. $bhcc=cps*3600$
PESQ (Perceptual evaluation of speech quality)	Objective speech quality assessment, a method for evaluating objective MOS values provided by ITU-T Recommendation P.862
SIPp	Performance testing tool based on the SIP protocol, which is a GPL open source software that can create and release multiple calls using the INVITE and BYE methods.

---

Abacus 50	A tester from Spirent that evaluates the distortion of voice signals
-----------	---