netMeter™

Handheld Device for Broadband, PayTV Installation & Maintenance

Innovation with **NEXT**Lab

Highlights

Benefits

1 **Save Revisiting Cost**
Every on-site works are measured & monitored with netMeter

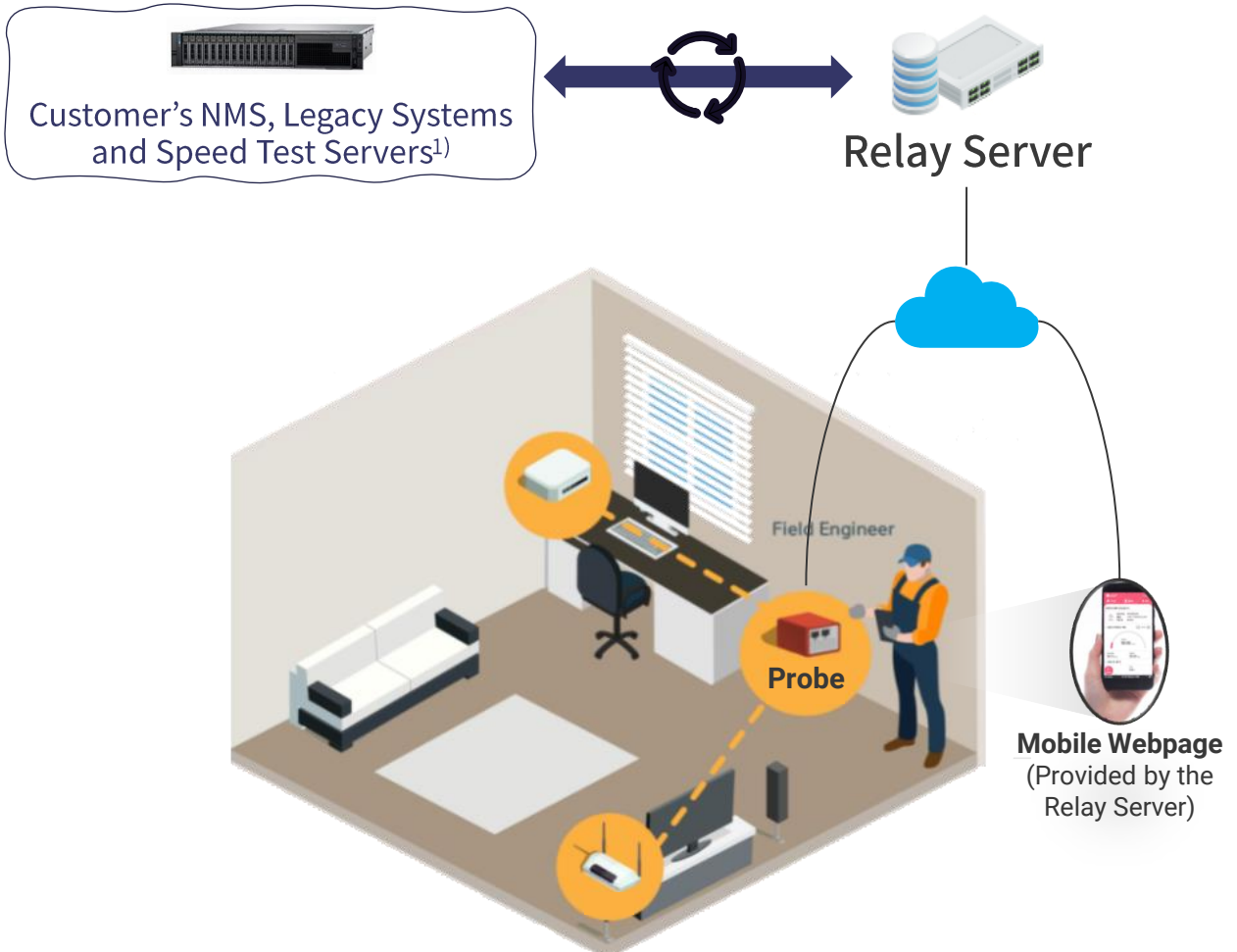**2** **Provide Data-Driven Decision-Making Tool to Field Engineers**
Any replacement or additional line work can be decided regarding the measurement results

3 **Great Integrability to the Customer's Business**
i.e., Speed Test Server, Subscriber Information, Quality Management System…

Solution Overview

The followings are the full structure of netMeter solution.
Customers can configure according to the purpose of the operation.

Customer's NMS, Legacy Systems and Speed Test Servers[1]

Relay Server

Field Engineer

Probe

Mobile Webpage
(Provided by the Relay Server)

1) Customer can use its own Speed Test Server instead of using NEXTLab's Server

Specifications

Probe

1 Essential 1G (NLPA-GN)
TCP Throughput Measurement up to 1Gbps

Interfaces	
Network Connection	2 X RJ-45 (10/100/1000)
Extra Connection	1 X USB 2.0 Type A (Receptable)
Infrared	1 X 850nm

Physical Specifications	
Dimensions (mm)	W61 X H42 X D66
Weight (gf)	175
Temperature Range (℃)	Operating : 0~40 / Storage : -20~60
Drop	Up to 1.5m
Vibration	8~500Hz, 1.0 Oct/min
Battery	1 X 9.25Wh Lithium Polymer (Internal Rechargeable, Self Replaceable)
Input Power (Battery Charge)	5VDC ~2Ah via USB Type-C Connector
Status Indicators	(1) 4 Battery Level LEDs (2) 1 Power-Up State LED (3) 1 Internet Connectivity State LED (4) 1 Measurement State LED

Measurement Specifications	
TCP Connectivity	IPv4, IPv6

Internet Speed Test (TCP Throughput Test)	(1) Supporting Methods : Hermes by NEXTLab or Other Method Specified by the Customer
	(2) Measurement KPIs
	  • Upload, Download Bitrate (Mbps)
	  • Ping (ms) , Loss (%) to the Test Server
	  • CRC(RX)

Specifications

Measurement Specifications (Continued)

IPTV Test^{Option}	(1) The Probe directly joins the channels and analyzes the receiving streams
	(2) Supports managing the channel lists
	(3) Measurement KPIs
	  • IGMP Join/Leave Delay (ms)
	  • Receiving Bandwidth (Mbps)
	  • Delay – Average (ms), Stdev
	  • Jitter
	  • RTP Error – Loss, Reorder, Duplicate
	  • ETSI TR 101 290 1st Priority
	  • OOB(Out of Band) Channels Connection Test

Onsite STB Test^{Option}	(1) Active Testing : The Probe act as a STB emulator (2) Passive Testing : The Probe transmits an IR command to the STB and check whether the request from the STB has normally transmitted to head ends
Ping & Traceroute	(1) Ping/Traceroute to the specified address (IPv4, IPv6, URL) (2) Can define the number of pings and packet size (3) Can define the maximum number of hops to count

Package Contents

• Probe
• Silicon-based Anti-Shock Cover
• USB Type-C Cable for Charging

Ordering Information

Basic	NLPA-GN-B-N : Ping & Traceroute, Internet Speed Test (NEXTLab's) NLPA-GN-B-C : Ping & Traceroute, Internet Speed Test (Customer's)
└ IPTV Test Option	NLPA-GN-B-{N/C}-I
└ Onsite STB Test Option	NLPA-GN-B-{N/C}-O
└ IPTV & Onsite STB Test Option	NLPA-GN-B-{N/C}-IO

Trade Information

Preferred HS Code	903040
Wireless Communication Parts	Not Included
Country of Origin	Korea, Republic of

Specifications

Probe

1 **Essential 10G** (NLPA-DGN)
TCP Throughput Measurement up to 10Gbps

Interfaces	
Network Connection	1 X RJ-45 (1G/2.5G/5G/10G) + 1 X RJ-45 (10/100/1000)
Extra Connection	1 X USB 3.0 Type A (Receptable)
Infrared	1 X 850nm

Physical Specifications	
Dimensions (mm)	W191 X H53 X D124
Weight (gf)	743
Temperature Range (℃)	Operating : 0~40 / Storage : -20~60
Impact	IK 03 (0.35J)
Vibration	8~500Hz, 1.0 Oct/min
Battery	1 X 33.3Wh Lithium Ion (Internal Rechargeable, Self Replaceable)
Input Power (Battery Charge)	USB-PD 3.0 via USB Type-C Connector
Status Indicators	(1) 4 Battery Level LEDs (2) 1 Power-Up State LED (3) 1 Internet Connectivity State LED (4) 1 Measurement State LED

Measurement Specifications	
TCP Connectivity	IPv4, IPv6

Internet Speed Test (TCP Throughput Test)	(1) Supporting Methods : Hermes by NEXTLab or Other Method Specified by the Customer
	(2) Measurement KPIs
	  • Upload, Download Bitrate (Mbps)
	  • Ping (ms) , Loss (%) to the Test Server
	  • CRC(RX)

Specifications

Measurement Specifications (Continued)

IPTV Test ^{Option}	(1) The Probe directly joins the channels and analyzes the receiving streams
	(2) Supports managing the channel lists
	(3) Measurement KPIs
	  • IGMP Join/Leave Delay (ms)
	  • Receiving Bandwidth (Mbps)
	  • Delay – Average (ms), Stdev
	  • Jitter
	  • RTP Error – Loss, Reorder, Duplicate
	  • ETSI TR 101 290 1st Priority
	  • OOB(Out of Band) Channels Connection Test

Onsite STB Test ^{Option}	(1) Active Testing : The Probe act as a STB emulator (2) Passive Testing : The Probe transmits an IR command to the STB and check whether the request from the STB has normally transmitted to head ends
Ping & Traceroute	(1) Ping/Traceroute to the specified address (IPv4, IPv6, URL) (2) Can define the number of pings and packet size (3) Can define the maximum number of hops to count

Package Contents

• Probe
• USB-PD 3.0 Power Adapter
• Dedicated Carrying Bag

Ordering Information

Basic	NLPA-DGN-B-N : Ping & Traceroute, Internet Speed Test (NEXTLab's) NLPA-DGN-B-C : Ping & Traceroute, Internet Speed Test (Customer's)
└ IPTV Test Option	NLPA-DGN-B-{N/C}-I
└ Onsite STB Test Option	NLPA-DGN-B-{N/C}-O
└ IPTV & Onsite STB Test Option	NLPA-DGN-B-{N/C}-IO

Trade Information

Preferred HS Code	903040
Wireless Communication Parts	Included, but permanently deactivated
Country of Origin	Korea, Republic of

Specifications

Relay Server Software

Features

(1) Mobile Website
- Field Engineers can run every measurement features & get the results of their probe
- Supports every O/S and Devices if which can support a standard HTML
- Remote Control Support : Senior Engineers can access the other's probe for giving assistance
- Miscellaneous : Auto Power-off time setting, Chatting-based helpdesk, Deactivation of the stolen/lost probe

(2) Integration
- Customer's SSO/LDAP
- Customer's specified Speed Test Server
- Customer's EPG server for auto-updating the IPTV channel list
- Transmit the measurement results to the specified database/server
- Automating the SLA-based work completion process by integrating the related legacy systems

Ordering Information

A consultation in advance is required due to the following reasons
- Defining the integration points with the customer's systems is required
- Defining the installation servers' performance and the server farm's network configuration are required

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