GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release Notes for PacketCheck™ Version 22.6.24

GL's PacketCheck™ is a PC based Ethernet test tool that is designed to check frame transport ability and throughput parameters of Ethernet and IP networks. It can be used as a general-purpose Ethernet performance analysis tool for 10Mbps, 100Mbps and 1Gbps Ethernet local area networks.

The application makes use of the network interface card (NIC) in the PC to transmit and receive Ethernet packets over the network. Throughput up to 800 Mbps can be easily tested.

Release History

Description	Version
Enhancement: • Added support for "Protocol Type" 0, Now user can configure IP Protocol Type from 0 to 255 **Bug Fixes:** • Fixed "Out of Order Frames" statistics issue when selecting "Up and Down Count" Payload option • Fixed PacketCheck application hang issue when "Start All" and "Stop All" for 3 to 4 times • Fixed Data Rate issue when configuring Packet length between 400 to 600 • Fixed "Pat SYNC" issue when configuring the stream for "Rx" only direction • Fixed Copy option is not working for "Up and Down Count" option	**22.6.24**
Bug Fixes: • Fixed ARP resolve status for ARP request sent from Same MAC, Same Src IP and Dst IP	**22.5.18**
Enhancement: • Ability to copy from one stream to another (both one-to-one copy and one-to-many copy) to quickly configure multiple streams. • Ability to resolve IP Address to MAC address (based on Address Resolution Protocol (ARP)) for all streams with a single click, so that all streams are configured properly before starting the test. • Populate switch/router MAC tables and routing tables using the Resolve all streams feature before the starting the test to avoid unnecessary flooding. • For Layer3 or Layer4 streams, analyzes the received payload based on the IP or UDP length and ignore any MAC padded bytes added in transit. • Frame sizes from 22 bytes up to 1518 supported, Jumbo frames also supported. • Up to 500 Mbps total combined rate (all streams combined) is possible. • Burst mode tries to generate traffic with the configured rate, but also as smoothly and evenly distributed so that the Device Under Test (DUT) node buffers do not overflow due to a temporary spike in the peak traffic • In IFG mode, the Inter Frame gap in milliseconds can be configured. The estimated rate achievable based on the IFG and the frame size is displayed for user convenience	**22.5.4**

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Bug Fixes: • Application GUI not updating to IFG mode from BURST when we select HDL file as payload • Unable to Paste MAC address which has address value "00" • Fixed application crash while loading PacketCheck™ profile and clicking on individual stream "Start" button • ARP is not resolving the MAC address for Stream 2 and above • ARP Resolve button is minimizing when ARP resolve failed • Fixed application crash for starting PacketCheck™ at 100% rate with packet length 6699 and above length • Packets are not transmitting when enabling Sequence Number and Magic Pattern for packet length 50	
Enhancement: • Added option to Start/Stop the stream individually • User can stop any configured Stream and modify Layer2 or Layer3 or Layer4 configuration and Start the stream to start sending Packets based on the modified configurations • Added option to configure "Bridge" or "Route" Traffic Reception Mode for comparing Layer2 or Layer3 and above parameters while receiving the Packets in PacketCheck • Now "Initial Config" and "PacketCheck" application can minimized separately • New PacketCheck icon • Merged PacektCheck™ changes with MFR-IP-PacketCheck application **Bug Fixes:** • Fixed "OUT OF ORDER" issue when user stop and start the PacketCheck application • Fixed "OUT OF ORDER" issue due to mismatch in sequence number, Now clicking on "Reset" button will reset expected Sequence Number and match with received Packet's Sequence number • Fixed "NO RX DATA" issue when user stop individual stream and start PacketCheck application • Fixed application crash issue when stopping individual stream and starting it again using "Start All" button • Fixed Destination MAC address is not resolving when a gateway option is enabled	**21.7.29**
Changes/Enhancements: • Added support for Software based license • Added warranty license support • Fixed Destination MAC address is not resolving when a gateway option is enabled	**20.9.14**

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release December 2018 **Changes/Enhancements:** • User configurable Sequence number options: It can be a 4 bytes UP counter or 2 bytes each of Up and Down Counter. Up & Down counter is new addition for compatibility with PacketExpert • Support for low Tx data rates (<10Kbps) • Added new statistics field to display the Rx packets drops at driver level	**8.12.10**
Release July 2018 **Changes/Enhancements:** • Now user can able to disable or set a user configured UDP check- sum. By default, this option is disabled. So, correct UDP checksum is placed in every UDP packet. By enabling Configure UDP checksum, user can provide any random checksum to be used for all the UDP packets sent on that stream. • Added stream wise UDP Checksum error frames count in statistics window. • Added Zero Checksum UDP Packet counts in statistics window. • Added a scroll bar in statistics window.	**8.8.3**
Release July 2018 **Bug Fixes:** In Report Generation, Bit Error rate field is not updating. It always display 0. It has been fixed.	**8.7.5**
Release May 2018 **Updates:** • Currently in Tx Configuration window, to edit Data Rate values one needs to delete the current value and then enter the new value. Now, the application has been fixed to allow users to edit without deleting the current value. • When, traffic is generated in IFG mode, the radio button still points to Burst Mode traffic generation. This issue has been fixed. • For Random Frame size configuration, the packet size distribution options is not working correctly. This issue has been fixed. • For Random Frame size configuration, keeping Min and Max frame size value same causes application to crash. This issue has been fixed. • Stream ID in statistics display starts from zero (0), instead of 1. This issue been fixed. • Rx Stop condition (Time duration) failed to work if we stop the transmission beforehand. • Impairment functions for AND, OR and XOR causing incorrect payload alteration • Able to change the Traffic generation mode (BURST / IFG) even after starting the packet generation.	**8.5.28**

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release July 2017 **Updates:** • Security checking related updates have been made	**7.7.13**
Release May 2017 **Updates:** • PacketCheck Install shield has been updated to automatically install the VS2013 redistributable package, without asking user permission • Sample configuration files have been included in the installation folder • Copyright year is updated to 2017	**7.5.2**
Release April 2017 **Updates:** • Burst/IFG mode selection option was not clearly visible in GUI, it has been updated • Security checking related updates have been made.	**7.4.4**
Release March 2017 **Updates**: • 64 Bit PacketCheck used to install in Program Files (x86) path, it has been correct and now it installs in Program Files folder	**7.3.24**
Release September 2015 **Changes/Enhancements:** • Changed the minimum supported rate to 64 Bps (minimum possible). In previous releases, lowest rate was cut off at 0.01% of Link Speed • Improved Inter Frame Gap accuracy for IFG mode. Now, up to 5 msec accuracy is possible on high end systems	**5.5.21**
Release February 2014 **Bug Fixes:** • Bit Error Rate and Error Count was not being published properly for Reports • OWD (One Way Delay) configuration was not being published for reports in CLI	**4.2.7**

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release September 2013	**3.9.13**

Changes/Enhancements:

- When a stream, with configured impairments, is started, the Impairments tab automatically gets enabled, once the impairments are done. This way, users can further introduce impairments for the same stream at the run time.

Bug Fixes:

- When Fixed Pattern length was > 20 bytes, generating report was crashing the application
- Enable IP Increment setting was not being written to report properly for Layer2 Streams
- CLI server was sometimes (rarely) crashing while running test scripts for multiple streams
- Test Duration was not being reset properly – was restarting even when test was stopped
- For long term tests (more than 48 hours at 100% rate), some of the Common Statistics was showing negative value
- When test was restarted (after a previous run), Common Stats Tx and Rx Rate was initially displaying negative values and starts from there. Only initial value was a problem - was showing correctly after 5 seconds (i.e. first rate update).
- Test duration per stream differs when multiple streams are run
- When a Configuration File with 10 streams is loaded, and another Configuration file with less than 10 Streams is loaded, application crashes
- Tx rate distribution while adding multiple streams was incorrect
- When Stream Statistics are reset, Test duration was not being reset.
- Issues while editing the Byte Count values in the Impairments Tab
- Fixed Patterns are not loaded from saved configurations.
- Lost frames statistics displaying incorrect count values, in case when the link was down.
- Sync Loss count is not updated for lower frame size (less than 100) – when remote side stops and resumes transmission, local side was not displaying Sync Loss Count, only for certain low frame sizes (< 100 bytes)
  - ➢ Layer2 : <63 without VLAN
  - ➢ Layer3 : <83 without VLAN, <96 with VLAN
  - ➢ Layer4: <91 without VLAN, <103 with VLAN
- Tx rate dipping to 0% in statistics, when test is run for a long duration on the same pc with all 4 layers enabled. When total Tx Rate is 100%, Tx would stop (all streams) transmitting for some time (usually around half hour) and then resume transmission. This would repeat over the entire test duration.
- Tx Statistics in Bert results and Common Statistics mismatch
- When incoming traffic switches from 1518 to 68 byte frame size, sync loss count was observed, for Layer1 BERT.

Release – August 2013	**3.8.28**

Changes/Enhancements:

- Added "Increment IP Identification" setting (based on customer request) in GUI and CLI

Bug Fixes:
None

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release – April 2013	**3.4.19**
Changes/Enhancements: • Added "Duration" to per Stream Statistics, CLI, Reports and Periodic Reports. • Improvement in Frame Loss count accuracy - the Sequence number has been increased from 2 bytes to 4 bytes, to help determine the frame loss count at high frame rates accurately • Improvement in Frame Loss count accuracy, when Out of order frames are present - algorithm has been improved to exclude Out of order frame count from 'Lost frame count', thereby improving the accuracy of the Frame Loss count reported, when Out of order frames are present. **Bug Fixes:** None	
Changes/Enhancements: • Added "Duration" to per stream statistics. **Bug Fixes:** None	**3.4.12**

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release – February 2012	**3.3.0**

Changes/Enhancements:

1) One Way Delay feature is added to correctly calculate delay only on a single PC with 2 NIC cards. In GUI, Previous "RTD" tab is replaced with "Delay Measurements" tab, which includes both RTD (Round Trip Delay) and OWD (One Way Delay) options.

2) For One Way Delay, user must select Tx or Rx. Selecting Rx will calculate and display OWD in the stream statistics.

Command Line Interface:

Commands have been added to support the RTD and OWD delay features –

3) In CLI, new commands to "EnableDelay" both RTD and OWD are added.
"EnableDelay 0 true RTD;"; // For RTD
"EnableDelay 0 true OWD EnableTx;"; // OWD Tx side
"EnableDelay 0 true OWD EnableRx;"; // OWD Rx side
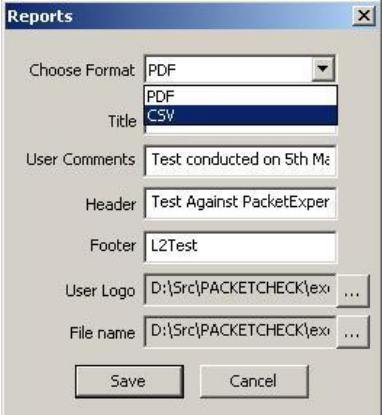"EnableDelay 0 false;"; //Disable RTD and OWD

Bug Fixes:

- Fixed the application crash issue when minimum frame size in payload options is selected for layers above MPLS

- When a stream is configured for Ethernet, then MPLS, IP and UDP Tabs are disabled for the selected steam

- Fixed Byte offset field displaying –1 issue

- Fixed the issue of impairment tab not automatically activated until we manually deactivate the impairments option

- The error message display while exiting from Packet Check application is fixed.

- BERT status shows Sync for First time if we run the stream as Tx_Rx for even no Rx data from other end

- Bit Error Rate value used to Reset When sync loss happened while running the test

- Tx Stream Common statistic display incorrect statistics

- Packet Check impairments

- If Tx Duration is continuous and Rx is 60 sec for particular stream Tx gets stopped after 60 sec

- Load configuration is not effecting for Tx rate

- Packet length as Random and statistical Distribution is generating packet with max length configured value

- For outgoing ARP messages, sent from IP streams (when "Build MAC header automatically" option is selected), source MAC address is 0-0-0-0-0-0

Report Generation:

- Packet length displays proper value for fixed length packet type option

- Fixed the issue of application not popping any error message when the specified file is missing

- Crash for Report Generation in PDF format

- Report in XML format was not generated

- Bert statistics were not updated in the report generated

- Overwriting the previous Report Generated file was not possible

- Common statistics, VLAN, MPLS were not updated in the reports

- For MPLS the correct values were not displayed, it got mismatched

- For MPLS Label report was taking IP values if only label was selected for test. For 1 label added for test

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

• Report Packet length displays min and max value for fixed length packet type, if we select packet length a fixed and run the test and generate the report we see the Tx parameters max value displays for fixed type length	

Release – September 2011
 	
Changes/Enhancements:
 	
1) Stacked VLAN (up to 3 stacks) has been added to GUI, CLI and reports
2) Stacked MPLS (up to 3 stacks) has been added to GUI, CLI and Reports. User can Enable or Disable MPLS completely by selecting Layer 2.5 in Layer/Dir tab.
3) Common statistics has been added to GUI, CLI and reports, which gives statistics common to all streams
4) The stream wise statistics parameter is changed from Byte Error Rate to Bit Error Rate and Byte Error Count to Bit Error Count
5) Tx Parameter tab includes Min and Max Frame Length for user convenience. If user enters values < min frame length, the value is not taken.
6) Report Generation is enhanced to generate XML format in addition to PDF format
7) Periodic Reports feature to generate reports for a specific stream and for the specified time duration at run-time
 	
Command Line Interface:
Commands have been added to support new features –
 	
➢ EnableVLAN streamID Enable vlanLevel
        Ex:inform task "EnableVLAN 0 true 3 ;";
 	
➢ VLANParams streamId stackId TypeField VLANId VLANPriority
        Ex:inform task "VLANParams 0 0 '81-00' 12 1 ;";
 	
➢ EnableMPLS streamId Enable mplsLevel
        Ex: inform task "EnableMPLS 0 true 3;";
 	
➢ MPLSParams streamId stackId Label CoS TTL
        Ex:inform task "MPLSParams 0 0 4000 1 128;";
 	
➢ CommonStatistics
        Ex:inform task "CommonStatistics;";
 	
➢ EnablePeriodicReport streamId periodicity filePath
        Ex:inform task "EnablePeriodicReport 0 5 'report.xml'
	3.2.0

Release – April 2011 **Changes/Enhancements:** None **Bug Fixes:** (Customer Reported bug) - In Loopback mode, when loopback is running, but no traffic is being received, PacketCheck took up large CPU (nearly 25%). Fixed this bug. Now, takes normal CPU when Loopback is running, but no traffic is being received.	3.1.2

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release – April 2011	3.1.1

Changes/Enhancements:

1) Layer1 support has been added. Earlier, Layer1 was not properly supported in PacketCheck™. Now, proper Layer1 support has been added.
2) CSV Format for reports - Report generation now supports CSV format in addition to PDF format.

Release – January 2011	3.1

Enhancements:

Reset Statistics – This option has been added to the statistics to reset statistic values displayed in both Normal as well as Loopback mode

Release October 2010	3.0

Enhancements:

1) Command Line Interface has been developed utilizing the GL WCS framework.
➢ GL Client and BasicServer are used for Client Server Communication.
➢ All the functionalities of PacketCheck™ are exposed in the form of well defined commands.
➢ PacketCheck™ Server runs as a task on the Basic Server.
➢ Once instantiated, the PacketCheck™ Server task accepts commands, executes and returns the results back to the client.

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release March 2010	2.3.3

Enhancements:

1) HDL File Playback - HDL file transmission feature has been added to PacketCheck™ with this release. HDL is the GL proprietary file format to store captured packets. It can be opened by GL's PacketScan™ analyzer application. Using HDL file (captured traffic) for transmission allows user to generate various kinds of traffic like IPTV, VoIP etc. using captured traffic.

2) Traffic Generation Modes - Adding HDL file transmission has necessitated operating PacketCheck™ transmission in 2 different modes:

➤ Burst Mode – This is the normal mode of operation. In this mode, traffic is generated in bursts and the configured bandwidth is maintained. Here, the emphasis is to try and achieve the configured bandwidth for each stream. The resultant Inter Frame Gap varies because of the bursty nature of the traffic.

➤ IFG Mode – This is the Inter Frame Gap mode. In this mode, traffic is generated frame by frame, and the configured IFG is maintained. The configured bandwidth is ignored. Here, the emphasis is on maintaining the IFG value between packets for each stream. The actual Bandwidth generated depends on the Frame Size and the configured IFG. The traffic generation mode is common to all the streams. User can select the mode of operation in the GUI.

3) Build MAC Header Automatically under IP tab, there is a new checkbox – "Build MAC Header Automatically". If checked, then the MAC header is built automatically. The Source MAC address is taken from the NIC card. The destination MAC address is resolved from the destination IP address or the Gateway IP address, through ARP. Len/Type field is set to 08-00 (IP). If unchecked, configured values under MAC tab are taken to populate MAC header. Checking this helps user to not bother obtaining MAC addresses while doing Layer3/Layer4 testing.

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release – December 2009	2.2

Enhancements:

1) **Impairments Options** –User can activate/deactivate impairments on any stream at run time through the GUI.

2) **Jumbo Frame Support** –The upper limit for the frame size is changed - upto 9000 bytes frame size can be configured, which was earlier limited to 1514 bytes. Now. If the NIC card and the connected link supports, frames will be sent. Else, frames will not be sent.

3) **RTD (Round Trip Delay)** – Measures RTD for each stream. RTD is measured and the value is correct only if the following conditions are met

   a. The stream MUST be configured as Tx_Rx

   b. Remote end must be in Loopback

   c. RTD must be enabled for the stream in the configuration (RTD tab)

4) **ARP Request/Response** – PacketCheck now generates as well as responds to ARP requests, allowing for easier testing across routers/switches.

   a. ARP is activated only after User clicks on Start and is deactivated when User clicks Stop i.e. ARP is active only when streams are running

   b. ARP Generation - PacketCheck generates ARP requests automatically only for certain streams, based on the configuration. When user clicks start, PacketCheck goes through each stream. If the stream is Layer3/4, it further checks if the destination IP address is in a different subnet. If yes, then it tries to query the MAC address of the default IP gateway configured. If successful, it sends the packets to the MAC address of the gateway IP machine.

      Note: For multiple streams, it may take some time for the stream to start because of the ARP query before it actually sends traffic.

   c. ARP Response – PacketCheck generates ARP responses, when it receives an ARP request for an IP address that is configured in any of the streams (Source IP Address). It populates the response with the Source MAC Address configured for the stream. This helps Routers/switches to properly route the packets to the configured stream addresses.

5) **Gateway IP Address** – Under IP tab, Gateway IP Address has been enabled. If enabled, and if the destination IP address is in a different subnet (found on the basis of the Subnet mask for source IP address), then the packets are routed to this gateway address, instead of the destination IP address. User must take care to configure this address properly, especially if the destination IP address is in a different subnet.

6) **Invert Pattern** – Invert Pattern option has been added to the payload. Enabling this will do a bitwise invert operation on the Tx Payload. In the receive direction, received payload will be bitwise inverted before being used for comparison.

7) **Statistics Pane** view has been changed to display previous column names as row names and the streams as column wise.

Release – July 2009	1.6

Enhancements:

● PacketCheck™ is enhanced to operate in Loopback mode. In Configuration tab, for the Loopback mode Traffic Type, Mode and Test Duration options are enabled and other field options are disabled, as it is not applicable for this mode.

● RTT option is changed to RTD (Round Trip Delay) in Configuration tab and Test Results tab. Now PacketCheck™ calculates the average Round Trip Delay in microseconds (μsec)

● The text box field length for test duration is increased to help view the complete value settings, in Configuration tab.

● The Test Results tab is enhanced with the Change button option to create new test (*.txt) log files to save the test results with required file name.

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

- Added a Reset button in Test Results tab to reset Tx and Rx statistics

Bug Fixes:

- For lower bandwidths, 1% to 10%, Tx or Tx_Rx mode was consuming 100% CPU usage, it is fixed.

- Memory leak due to repeated Start/Stop operation during test and caused application crash, it is fixed.

- Dropping lot of packets during PacketCheck™ testing in Tx_Rx mode on one end and Loopback mode at the other end. This condition is fixed in PacketCheck™ to handle the test without dropping packets.

- RTD calculation was showing correct value for lower bandwidths, but, for higher bandwidths there were considerable drift to a higher value (in 10s of milliseconds), which is fixed to limit the drift to 1 msec and the RTD reported values are fairly accurate.

- Tx and Rx throughput reported were not accurate, which is fixed to reflect the correct values for both Tx and Rx.

- PacketCheck™ was displaying IP checksum error count and Wrong UDP port count when run in Layer-4 Tx_Rx against loopback, which is corrected.

- Problem in writing to Test log file in loopback mode and also in creating log file, application crashing, problems are fixed

- Problems in saving **Layer Selection** settings in the configuration.ini file, is fixed to save the correct settings.

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release – June 2009	1.5

Enhancements:
 	
• **PacketCheck.exe** –
    ○ Interface Configuration screen includes **Enable RTT option** while setting the value to **"true"** or **"false"** respectively. If set to true, PacketCheck™ is enabled to calculate RTT which is displayed in the Rx Statistics window. If RTT option is disabled, the Rx Statistics window for RTT displays "-NA-".
    ○ **RX Statistics** screen enhanced to display - measurement of the average **Round Trip Time [RTT]** value of each packet in msec**.**
• **PacketCheckCLI.exe –** reflects the entire GUI based PacketCheck™ enhancements in a command line interface.
Bug Fixes:
• Problems with specifying **Sequence Number Offset** and **Magic Pattern** are now fixed to customize the options as per the test requirements.	

Release – May 2009	1.4

New Implementation:
PacketCheck™ application can be accessed through a GUI as well as through Command Line Interface (CLI).
 	
• **PacketCheck.exe** – is a GUI based PacketCheck™ application for traffic generation and verification over Layers 2, 3, and 4. The GUI includes –
    ○ Interface Selection and details display of network interface card (NIC) used for packet transmission and reception
    ○ Interface Configuration screen includes parameters settings present in PacketCheck.ini file
    ○ Start and Stop button option to control BER Testing in TX, RX, TX_RX, and LOOPBACK modes.
    ○ Test Results screen displays TX and RX Statistics details and the BER Test status.
 	
• **PacketCheckCLI.exe -** is a command - line (CLI) based PacketCheck™ application for traffic generation and verification over Layers 2, 3, and 4. The entire GUI based PacketCheck™ functionalities are implemented through a command line interface with an exception of editing the configuration PacketCheck.ini file manually.
Enhancements:
Enhanced to support Layer 3 and Layer 4 testing. Layer 3 testing involving IP address configuration within the same IP network and also 2 different LANS. For Layer 4 testing, source and destination UDP ports need to be configured in addition to MAC and IP addresses.	

GL Communications Inc.

Systems   Telecommunications   Software

818 West Diamond Avenue - Third Floor
Gaithersburg, MD 20878
Phone: 301-670-4784
Fax: 301-670-9187
June 2022

Release –April 2009 **Enhancements:** - Capability to respond to ARP requests - PacketCheck™ (Rx mode) has the capability to respond to ARP requests. PacketCheck™ in Rx mode sends ARP Reply so that routers can communicate with the PC on which PacketCheck™ is running. PacketCheck™ inspects the ARP request, and if the query is for the Source IP address configured, responds to the ARP request sent by the router, and sends the configured Source MAC address in the Response message. ARP (Address Resolution Protocol) - is the method for finding a host's link layer (hardware) MAC address when only it's Network Layer IP address is known.	1.1a
Initial Release – January 2009 - Test Ethernet traffic of up to 500Mbps bandwidth - Generates full duplex IP, UDP, or Ethernet frame traffic to transmit and/or receive traffic on any of the three layers (Data Link / Network layer / Transport) with on-demand bandwidth - Bit-error-rate testing (BERT) on layer 2, layer 3, and layer 4 with detailed runtime statistics for both Tx and Rx - Customizable 2 bytes test patterns - Customizable protocol headers like MAC Source/Destination address, Length/Type field, IP Source/destination addresses, and UDP Source/Destination Port - 64 bytes to 1518 byte frame lengths supported - Supports end-to-end (Tx and Rx) performance statistics monitoring - Capacity to control the traffic duration with Tx and/or Rx run-time settings in seconds - Ethernet Level BERT, Tx and Rx frame statistics - IP level BERT, Tx and Rx packet statistics - UDP level BERT, Tx and Rx packet statistics - Generates test report summary in a log file - Gives Packet Loss, Out of order Packets and Pattern Error packets count - Provides NIC performance details, such as, Received OK frames, Buffer overflow frames, and Received error frames	1.0