Renix

Renix is L2-3 testing software developed by Xinertel. Together with Xinertel chassis and test modules, Renix can perform protocol simulation, traffic and performance test.

With the continuous evolution of the communication network, the software and hardware architecture of network equipment is increasingly complex, the protocols supported by network equipment are more abundant, and the scale of network traffic on the Internet is rapidly expanding. In addition to the characteristics of 5G, such as ultra-high bandwidth, massive connections, low latency, and ultra reliability, higher requirements are put forward for the network tester.

As a professional L2-3 testing solution provider, Xinertel has launched a new generation of testing software platform Renix based on PCT architecture, which can meet the complex testing scenario requirements faced by large network equipment manufacturers, telecommunications operators and data centers.

Key features

- Unified L2-3 test platform
- Ease of use design
- Port speed ranges from 10M to 400GE
- Powerful traffic configuration function
- Efficient and convenient configuration Wizard
- Nested packet capture and analysis capabilities
- Comprehensive and professional statistical views
- Convenient Smartscript function
- Customized test report and result analysis system
- Support Tcl and Python API secondary development

Platform Advantages

Ease of use

Renix adopts advanced PCT architecture design, deeply optimizes the test operation process, functional module settings, configuration item function settings, etc., provides a more professional configuration interface, and provides users with a configuration process that is more in line with their habits based on the ribbon menu operation method and more convenient multi-interface navigation. At the same time, the new protocol simulation configuration wizard effectively reduces the complexity of protocol simulation configuration and greatly improves configuration efficiency.In addition, detailed help documents and convenient log query functions provide new users with Hand use provides more convenience.

Functionality

Renix provides offline operation functions for test item configuration, allowing users to view test results and operate protocols during software operation, as well as record operation history. Renix has powerful functions such as traffic capture, filtering, analysis, and protocol parameter verification, providing users with features such as arbitrarilycustomized flow templates, query and grouping based on configuration and statistics. Richer traffic generation and result analysis tools to meet more complex testing needs.

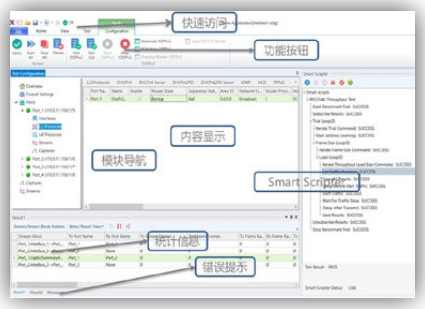
Extensibility

The new software architecture provides unprecedented scalability for Renix. Renix has a unified automation interface that enables script configuration of parameters, providing greater stability and compatibility. The restructured underlying protocol and newly developed data center protocol facilitate the rapid addition of new protocols in the future.

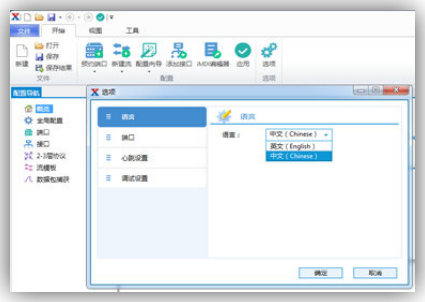
Provide API and customized services

Based on existing software and hardware platforms, we provide secondary development of APIs and testing services for proprietary technologies and protocols according to customer needs.

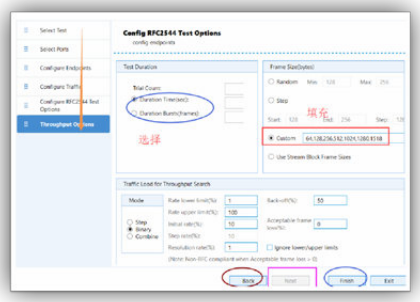
Software features



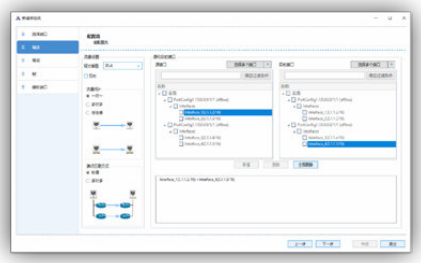
Modular design



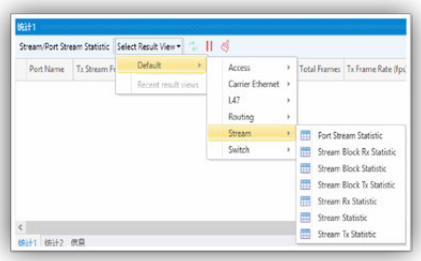
Usability design + bilingual Chinese and English



Efficient and convenient wizard



End-to-end business creation



Comprehensive and professional statistical views

Test report and result analysis system

DarYu-X series

Features

Chassis management	
Supported Chassis	BigTao 220, BigTao 6200, DarYu3000, DarYu12000
Chassis operating system	Linux CentOS 7.X
Chassis management	Add, delete, connect, disconnect the machine frame
Chassis operation	Restart, shutdown, upgrade the shelf, shelf status
Port management	
Port management	Port migration, online, offline, deletion
License management	
License management and operation	Install, clean, merge, delete, download licenses
Multi-user/multi-process	
multi-user	Support up to 32 users
multi-process	Support
Traffic	
Frame length control	Fixed, Increment (supporting step size setting), Decrement (supporting step size setting), Random (supporting random seed),iMIX
Transmission mode	• Port-based: Continuous, Burst, Time • Flow-based: Continuous, Burst • Sending mode: synchronous sending, asynchronous sending
Flow template	Layer2, IPv4, IPv6, TCP, UDP, ARP, Pause, Goose, PPPoE, VLAN, MPLS, ICMP, IGMP, GRE, GTP, L2TPv2, L2TPv3, IPv6, OSPF, STP, MLD, ISIS and so on
Delay mode	LILO, FIFO, LIFO, FILO, supporting configuration of delay mode
Error frame	CRC error, under-size frame, oversize frame
Statistics	
Statistical form	Table statistics (paging statistics), chart statistics
statistical sampling	Real-time statistics
Filtering Statistics	Supported
Statistical items	Transmit/receive flow frame number, transmit/receive rate, receive bandwidth, error packet statistics, delay, jitter, real-time packet loss rate, filtering statistics, etc.
Capture	
Capture type	Transmission/reception capture at the control level; data and control level reception capture (line speed); received messages include CRC; cyclic capture
Capture filtering	• Customized capture mode: 8 stream templates/custom bytes • Error frame capture: FCS Error/PRBS Error/IPv4 Checksum Error/TCP Checksum Error/ UDP Checksum Error/IGMP Checksum Error/ICMP Checksum Error • Length and ID capture: Ultra-short / Ultra-long / Giant frame / Specific length frame / Signature Present ID • Frame type capture: IPv4/TCP/UDP/IPv6/IGMP • Event capture: Qualify Event/ Start Event/Stop Event
Real-time capture	Support real-time capture of control plane
Protocol simulation	
Routing	RIPv1/v2, RIPng, OSPFv2, OSPFv3, BGP4 , BGP4+, ISISv4/v6
Access	PPPoE Client/Server, DHCPv4 Client/Server, DHCPv6 Client/Server, L2TPv2, 802.1X, SAA

Multicast	• IGMPv1/v2/v3 • IGMP/MLD querier • MLDv1/v2 • PIM-SMv4/v6 • PPPoE over Multicast • IPTV
Carrier Ethernet	• Link OAM 802.3ah • Service OAM 802.1ag
MPLS	• LDP • MPLS IP VPN • 6VPE/6PE • BGP VPLS • LDP VPLS • PWE • LSP Ping
SP-SDN	• BGP-LS • PCEP • SR for BGP/OSPF/ISIS • SRv6 for ISISv6/BGP • BGP SR TE Policy • SRv6 VPN • SRv6 EVPN • GSRv6 for ISIS
Data Center	• VXLAN • VXLAN EVPN • OVSDB • OpenFlow 1.3 Controller • BGP/EVPN for VxLAN • LACP
High Availability	• BFD • OSPFv2 BFD • OSPFv4 BFD • ISIS BFD • BGP BFD
TSN protocol simulation (supported by BigTao platform)	• 802.1AS • 802.1Qav • 802.1Qat(SRP) • 802.1Qbv • 802.1Qcr • 802.1Qci • 802.1CB • 802.1Qbu
TSN consistency (supported by BigTao platform)	• 802.1AS • 802.1Qbv • 802.1CB • 802.1Qbu
Protocol Wizard And protocol binding flow support	• OSPFv2/v3 • BGP4/BGP4+ • ISISv4/v6 • PPPoE Client/Server • DHCPv4/v6 Client/Server • IGMPv1/v2/v3 • MLDv1/v2 • PCEP and IGP Topology/SR Anycast/SR TE Convergency/SRv6 VPN/SRv6 IP/SRv6 EVPN
Test kit	• RFC2544 • RFC2889 • RFC3918 • Asymmetric Performance • Y.1564
Automation	
API	Tcl, Python3.x, GUIToTcl, GUIToPython
Smart Scripter	Supported
GUI Language	English, Simple Chinese