



**"Results You Can Count On"**

## **UNH-IOL Test Sentinel Automation Software (1-Year License)**

Telebyte is pleased to offer a one-year license for the UNH-IOL's Test Sentinel Automation software to complement our test solutions. Developed by the prestigious University of New Hampshire's Interoperability Laboratory, the software automates testing by managing, configuring and controlling all network equipment, Telebyte test instruments, CO/DPU and CPE devices, traffic generators and storage of test data results. The Test Sentinel is available in three versions.

<b>Description</b>	<b>Order As</b>		
	<b>UNH-TS-LITE</b>	<b>UNH-TS-PRO</b>	<b>UNH-TS-ADV</b>
BBF Gfast Certification Testing (IR-337)	✓	✓	✓
BBF VDSL2 Performance Testing (TR-114)	✓	✓	✓
BBF ADSL & ADSL2/2plus Performance Testing (TR-067/TR-100)		✓	✓
Custom DSL Rate vs Reach Performance Tests		✓	✓
Custom Gfast Rate vs Reach Performance Tests		✓	✓
BBF VDSL2 Vectoring Performance (TR-249)			✓
Full Custom Test Scripting (coming soon)			✓

**The Broadband Forum's  
Gfast Certification Laboratory at  
UNH-IOL uses Telebyte's  
state-of-the-art Gfast solution**

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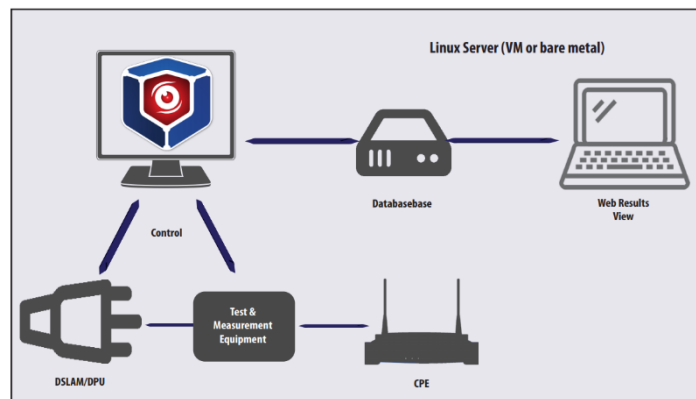
## Main Features

- Annual license
- Facilitates convenient, concise and efficient testing
- All test results written to online database
- Regression testing
- Web results interface
- Review test history in full detail
- Provides multiple user controls
- Displays the command line interface to each device and test instrument with dynamic updates during test execution
- Configure 1 or multiple lines

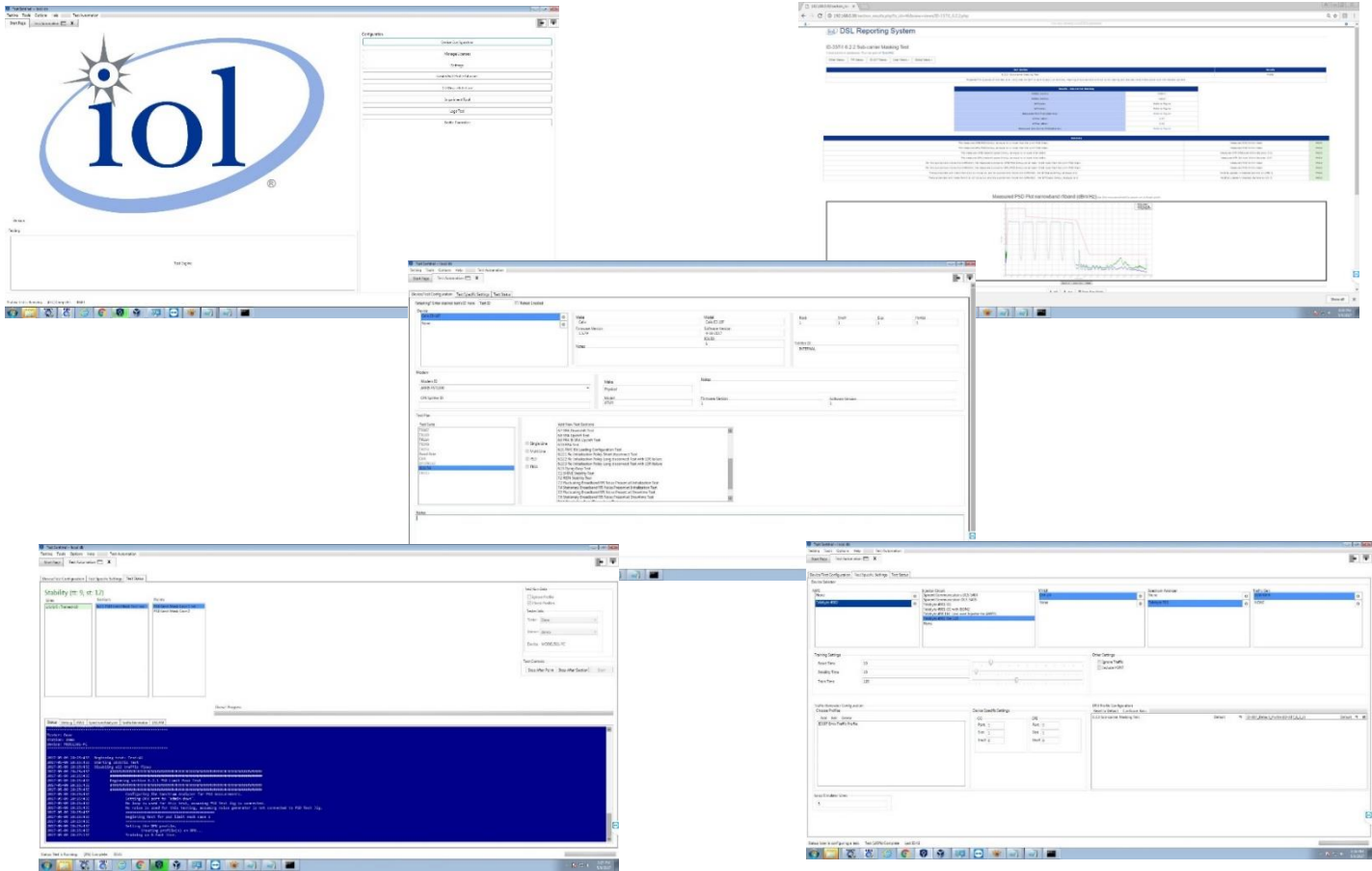
## System Requirements

- Test Sentinel Application
  - Microsoft Windows 7 Professional, or better
  - 4096MB RAM
  - .Net Version 4.5.1 or greater
  - 1 GB Disk Space (for test log storage)
  - Minimum Screen Resolution: 1280x1024
  - National Instruments GPIB hardware required for some test and measurement gear
- Results Database
  - Linux Server (OS is non-specific)
  - Mysql 5.1.73
  - PHP 5.0 - 7.0
  - PHP Extensions: GD, mysql, mysqli, date, filter, session, simpleXML, xml, dom, fileinfo, xmlreader
  - Other Libraries: imageMagick, inkscape

## Architecture



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Supported Equipment	
<b>Traffic Generators</b>	Digital Lightwave EAH Spirent TestCenter (version 4.75) Xena Layer 2-3 Test Platform
<b>DPU*</b>	ADTRAN 508G, 516G Calix E5-16F Huawei MA5811S Nokia SX-16F
<b>DSLAM*</b>	ADTRAN hix5625, Total Access 1248V, Total Access 3000, Total Access 5000 Calix B Series, C7 Series, E Series Ericsson EDN Series Huawei SmartAX UA5000, SmartAX MA5603 Nokia ISAM 7300 Series, ASAM 7300 Series
<b>CPE</b>	All vendors
<b>Noise Generation</b>	Telebyte 4901, 4901-D1-Micro, 4902-Portable, 4902-HD, 4902-D4-120, 4902-2-300-TPD
<b>Digital Analysis</b>	Telebyte 501, 501-JIG, 501-Probe-D, 501-Probe-D250
<b>Line Simulators</b>	HNBT-Starbox, 458-LM-A2-18, 458-LM-A2-36, 458-LM-E1-30-04+, 458-LM-E1-30-TP100, 458-LM-A1-30-AWGN(2), 458-LM-A1-30-TR114, 458-LM-E2-36, 458-LM-E1-36-04, 458-LM-E1-36-TP100, 800-1-212-TP100 Series
<b>Multipair Crosstalk Systems</b>	Telebyte CFA-24, VxT-48-DC+, 4902-Portable, 4902-HD

\* List of supported equipment subject to change. Other equipment can be integrated upon request