

LoopCare™

***Tollgrade's LoopCare:
Test Operations
Support System***

With more than 20 years of progressive development, LoopCare™ has evolved to become the world's premier Consumer Access Test Operations Support System (OSS). Currently managing more than 75 percent of the copper pairs in the United States, LoopCare is the heart of the installation and maintenance process for over 100 million xDSL and POTS subscribers worldwide. Whether testing via a PSTN trunk, DLC, DSLAM or external access device, LoopCare efficiently manages the entire test process through a variety of partnerships and interfaces with industry-leading network element providers and switch manufacturers. This proven flexibility, when combined with a simple Graphical User Interface (GUI), Interactive Voice Response (IVR) and open architecture, enables LoopCare to maximize the effectiveness of the network edge while minimizing operating expenses.



LoopCare Features:

Simplicity

All user-driven tests are performed using a simple, easy-to-use GUI. Upon test completion, all results are analyzed and displayed in an easy-to-interpret format.

Scalable Architecture

Currently supporting over 100 million subscribers around the world, LoopCare can be easily deployed within the smallest of networks without concerns of future growth potential.

Open Interfaces

Utilizing open Application Program Interfaces (APIs) and numerous industry partnerships, LoopCare fits seamlessly into most network infrastructures, enabling maximum flow-through and testability.

Broadband Service Support

LoopCare supports a vast array of pre-qualification, installation and maintenance applications for xDSL services.

A Flexible, Open Architecture

The overall value of a Test OSS is highly related to its utilization. It is this understanding that has driven the development of LoopCare's array of open interfaces. Whether executing automated batch testing or responding to field technician test requests, LoopCare can provide the information you need when you need it.

Interactive Voice Response Feature

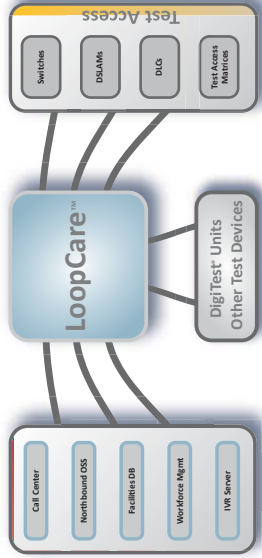
LoopCare's IVR enables field technicians to execute tests and retrieve results without the aid of a costly computing device or repair center attendant. A technician gains access to the IVR system by dialing an assigned telephone number using a touch-tone telephone. After successfully entering a User ID and password, the technician is able to enter a Telephone Number, Circuit ID or other circuit access data, and select a test request. The test results are then returned to the technician by voice output. Multiple tests of one or more lines can be conducted during a single phone call.

Open APIs

Based on an industry-standard open architecture, LoopCare's SOAP/XML and CORBA-APIs provide the flexibility to link automated testing with other work management, operations and database systems. This TCP/IP-based open architecture enables existing systems to fulfill test requests and share data with LoopCare, maximizing system utilization and flow-through.

Direct Test Access Interfaces

Through a vast offering of direct test interfaces with industry-leading switches, DSLAMs and DLCs, LoopCare efficiently manages the test setup and teardown processes without the need for costly external test access devices. Upon gaining access, LoopCare supports a powerful suite of narrowband and wideband test applications for various test heads, including Tollgrade's DigitTest® Measurement Units.



Broadband Support... The Easy Way

Whether they want a faster connection for their home office or high-speed Internet access to download their favorite TV program, most of today's broadband users started with a simple POTS connection. Knowing this, LoopCare has been designed to easily expand to support the evolving needs of today's broadband network customers.

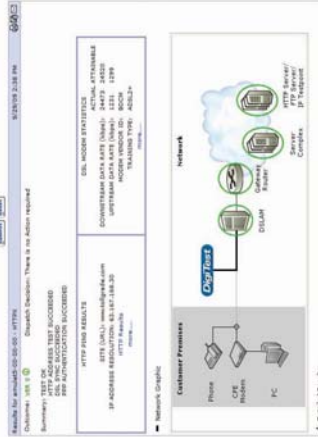
xDSL Pre-Qualification

The LoopCare xDSL pre-qualification features enable service providers to qualify loops for xDSL services using their existing LoopCare test infrastructure, eliminating the need for costly external test access devices or manual processes. Loop qualification is supported on-demand as well as in bulk mode. In the on-demand qualification mode, tests can be done to verify loop suitability either before accepting an xDSL order from the customer or during installation. Bulk pre-qualification can be used to build targeted marketing lists as well as for loop conditioning (for example, load coil removal).

Broadband Service Assurance Through xDSL/IP Service Layer Testing

LoopCare supports service assurance for high-speed Internet access services, such as web browsing and file transfer protocol (FTP) through Tollgrade DigitTest® EDGE® and DigitTest® ICE™ test probes.

In addition to client emulation, the LoopCare and DigitTest ICE solution also offers a full suite of network layer test, measurement, and OAM tools that are used to help isolate the source of problems when client emulation tests return unsatisfactory results. These network layer diagnostic tools include IP Ping, IP Trace, HTTP, and FTP throughput tests.



Fault Isolation for high-speed Internet access—remotely execute access to a sample URL to isolate "No Sync/No Surf" complaints.



When minutes of downtime can cost millions of dollars, you can't afford to trust anyone but Tollgrade.

SYSTEM REQUIREMENTS

Sun Server

UltraSPARC server
Solaris 10 OS

HP Server

HP9000 PA-RISC server
HP-UX 11i OS

IVR Server

Windows x86 server
Windows 2003

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Powerful Data Management

LoopCare's Automated Database Benchmarking

The Benchmark Database feature provides LoopCare with the capability to automatically capture and store test results during normal testing activity. For each loop or circuit, LoopCare captures the results of a maximum of one complete benchmark, up to ten instances of the basic metallic test repertoire, and the most recent load coil and wideband noise tests performed.

Once populated, the database results can then be used for:

- » Pre-qualification of loops for xDSL services
- » Benchmarking loop conditions for unbundled loops
- » Analysis of loop changes/degradation
- » Logging test history

Loopcare's Batch Testing

The LoopCare batch testing feature gives service providers the capability to test lists of TNs or other circuit identifiers in an automated manner while minimizing the impact on regular demand testing. Batch testing can be used to:

- » Verify service after installation
- » Close trouble tickets after craft activity on the line
- » Proactively check the service operation for high-profile businesses or other customers
- » Verify the integrity of testing pairs in cable bundles

LoopCare's Testing Activity Reports

The Testing Activity Reports feature allows LoopCare administrators, planners and network operators to monitor the status of the testing system and the copper loop plant. Stored testing activity data is used to generate reports that identify network problem areas and equipment blockages. These reports can be used to proactively fix network problems and improve the health of the testing network.