Network Trace™ for OS/2® by Golden Code Development is software designed to reduce the cost of ownership of your OS/2 network. It enables any OS/2 machine on your network to capture all network traffic to a file for later analysis. Network Trace makes it easy to gather traces, whether on your local segment, or on the most remote segment of your WAN. You can now have the benefit of a hardware network probe on each of your network segments, but with a software-only implementation. You leverage the hardware you already have, and the software is deployed easily through standard software distribution.

Network Trace™

for OS/2®
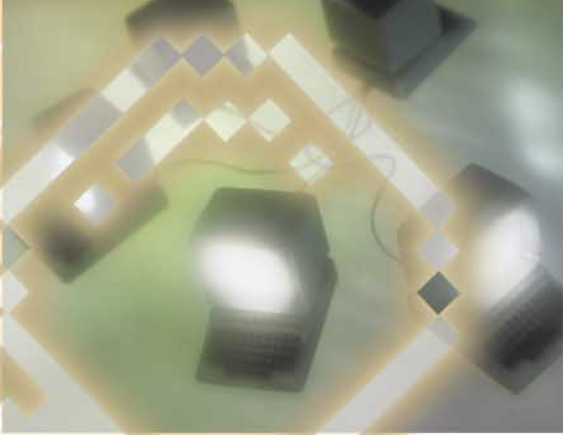
Turn any OS/2 machine into a network probe.

Take a trace on any segment in the network, in minutes.

Network Trace is a software-only, hardware-independent implementation.

solution when installed on a single, network-enabled notebook computer (see Figure 1). However, its true benefits are realized when the software is deployed throughout the enterprise. In an integrated configuration (see Figure 2), any remote OS/2 machine can produce traces, when accessed from a central location using existing remote management technologies, such as telnet or Netfinity Manager.

Simplicity. In order to support the widest range of customer environments, Network Trace has a command line interface. This simplifies remote use and enables automation via REXX. The trace files generated are Sniffer™-compatible, making them readable by most existing network analyzer tools and with the Golden Code Trace Analyzer™.

Low Overhead. Network Trace has minimal impact on system resources when it is dormant: no more than 31KB RAM utilization and <1% CPU utilization (in fact, 0% when configured for Protocol mode).

Convenience. Since it is an NDIS 2.01 module, Network Trace requires no dedicated hardware. No hardware key is necessary. In its standard mode of operation, it does not interfere with the normal network activity of the installed machine.

LAN Switch or Hub
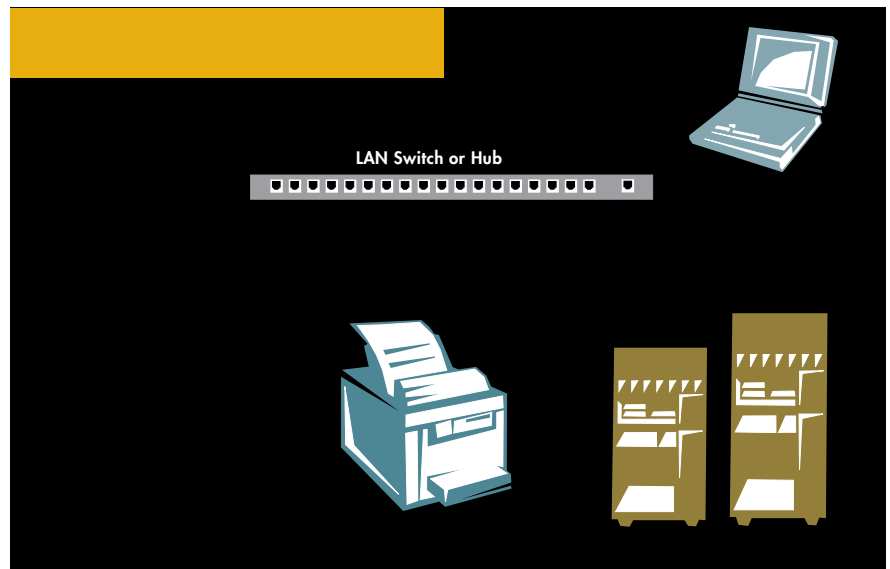
Uses

Problem Analysis. Network Trace improves problem determination by providing a simple and cost effective way to take a trace, locally or remotely, from any machine in the network. Traces simultaneously generated from multiple locations can be analyzed and compared to help isolate and diagnose problems.

Application Development. Network Trace provides a cost effective mechanism to reduce application development time. Network traffic between an application server and its client can be traced to provide insight into problems.

Performance Tuning. Traces can be taken to create a baseline for the performance of a network or a system. Additional traces can be taken at any time for comparison with the baseline. Analysis of these traces may be used to determine whether an application performance problem is network-wide, or isolated to a specific machine. Network Trace allows performance issues to be addressed proactively, before problems become overwhelming.

Network Health Check. Traces previously too costly and time consuming to take on a regular basis are now possible, enabling the network administrator to take a more proactive approach to network health.

www.goldencode.com

E-mail support for Network Trace is provided for one year from the date of purchase at no additional charge. Targeted response time is within one business day. The Golden Code website provides the latest product tips, updates, fixes, and documentation.
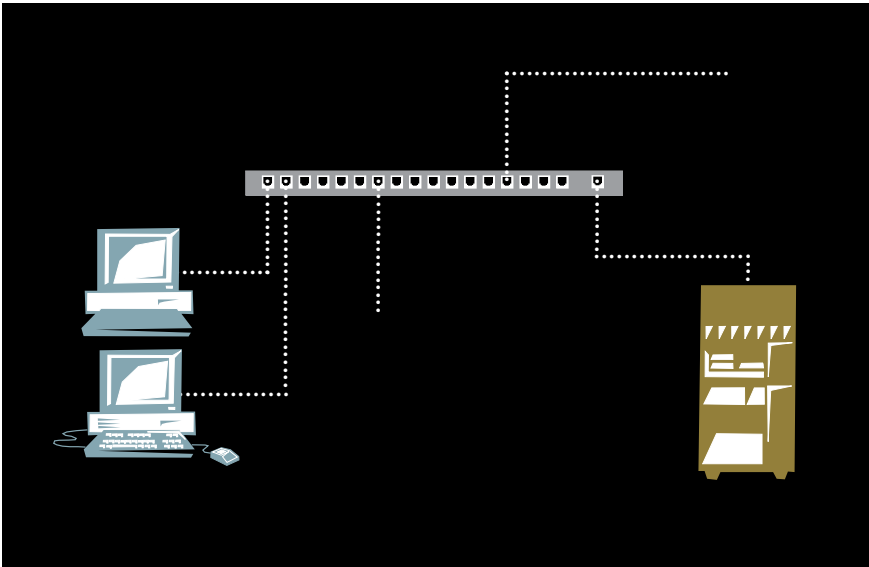
Phone support contracts are available for an additional fee.

On-site consulting services are available at an additional charge to assist with planning, installation, deployment, problem determination, and skills transfer.

Using REXX, automated traces can be scheduled periodically for each network segment as a preventative maintenance measure.

Profiling. Network Trace can be used to profile client-server applications and network devices. Even the operating system can be profiled, when it is loaded via a remote IPL technology such as WorkSpace On-Demand or RIPL. An analysis of the communications between server and client machines, or among network devices, yields invaluable insight into the inner workings of these systems. For example one may determine:

- Network Session Flows
- File System Access and Flows
- Error Conditions

Operating Systems Support

Network Trace for OS/2 is supported on versions of the OS/2 operating system currently supported by IBM®. Although this product may function properly on older versions of OS/2, support for these versions will be provided on a best efforts basis only. Fix pack updates for both OS/2 and MPTS may be required.

TESTED OS/2 VERSION	FIXPAK LEVEL	MPTS LEVEL
OS/2 v3.0	XR0W038	WR08600
OS/2 v4.0	XR0M012	WR08610
OS/2 v4.0	XR0M013	WR08621
WorkSpace On-Demand Client	XR0M009	WR08421
Warp Server™ v4.0	XR0W038	WR08600
Warp Server v4.0 with WorkSpace On-Demand Manager	XR0W038	WR08600
Warp Server for e-business	XR04500	WR08620

Hardware Requirements

HARDWARE RESOURCE	MINIMUM	RECOMMENDED
CPU	150 MHz Pentium®	450 MHz Pentium II®
RAM	32MB	64MB
Disk Space	32MB	128MB
Network Hardware	NDIS 2.01 compliant MAC device driver	NDIS 2.01 compliant MAC device driver supporting Promiscuous Mode[1]

Tested Network Hardware

	DEVICE DRIVER LEVEL	PROMISCUOUS MODE [1]	SUPPORTS >256 BYTE FRAMES [2]
IBM PCMCIA EtherJet Adapter[3]	IBMEXNDI.OS2 v3.04	✓	✓[4]
IBM EtherJet 10/100 CardBus Adapter[3]	IBMCNDIS.OS2 v.2.32	✓	✓
IBM PCI EtherJet 10/100 Adapter[3]	IBMFE.OS2 v2.05	✓	✓
IBM PCMCIA Auto 16/4 Token Ring Adapter	IBMTOKCS.OS2 v2.02		✓[4]
IBM LANStreamer 16/4 Token Ring Adapter	IBMMPC.OS2 v4.36	✓	✓
IBM PCI 16/4 Token Ring Adapter	IBMTRP.OS2 v2.0	✓	✓
IBM PCI 16/4 Token Ring Adapter II	IBMTRP.OS2 v2.0	✓	✓
IBM 16/4 Token Ring CardBus Adapter	IBMTRP.OS2 v2.04[5]	✓	✓
Intel 82557, 82558, 82559 Ethernet Adapters[3]	E100B.OS2 v4.14 and v4.26	✓	✓

New Hardware Adapter Testing

At a customer's request, Golden Code Development will test hardware adapters that previously have not been certified for use with Network Trace. There is no additional fee for this testing; however, the customer must supply two adapters to our support team. These adapters will not be returned to the customer, but will be maintained by Golden Code Development to test future releases and fixes. Support for some new adapters may be limited by the hardware and/or device drivers.

Footnotes

1 Promiscuous copy is a hardware feature which allows a network adapter to copy network packets which are not directly addressed to the current node. Some adapters and some NDIS MAC drivers do not support promiscuous mode. In this case, only broadcast messages and network frames addressed directly to the local adapter can be captured.

2 In Protocol mode, some network adapters only allow the capture of the first 256 bytes of a frame. While this is of limited usefulness when troubleshooting application level problems, it is still very helpful in analyzing network level problems. This limitation can be avoided by running Network Trace using the "dedicated" option OR by using Service mode.

3 Ethernet adapters do not support loopback, which means that in Protocol mode, outbound frames from the tracing computer cannot be captured at this time. This is not a limitation in Service mode or with Token-Ring.

4 Using the "dedicated" option in Protocol mode OR by using Service mode.

5 The CardBus adapter is supported using IBMTRP.OS2 starting with v2.04. Prior versions of IBMTRP.OS2 will NOT work.

Statement of Year 2000 Compliance

When properly used in accordance with its associated documentation, Network Trace for OS/2 will correctly store, display, process, provide and/or receive date data from, into and between 1999 and 2000 and the twentieth and twenty-first centuries, including leap year calculations, provided that all other technology used in combination with Network Trace for OS/2 properly exchange accurate date data with it.

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