Real-time Fax over IP

Brooktrout Technology's TR1034™ series of intelligent fax boards, with real-time fax over IP support, provide companies with the ability to integrate a real-time fax over IP solution with their VoIP network and achieve the same high level of reliability, robustness and scalability that they've come to expect with Brooktrout's PSTN-based fax products. Brooktrout's TR1034 has been tested with FoIP equipment from industry leading providers, including Cisco T.38 gateways, to ensure interoperability.

Brooktrout's flagship TR1034 series provides customers with the best and most reliable fax solution on the market today. Now, with the addition of real-time fax over IP support, the TR1034 offers both an onboard T1/E1 interface for PSTN-based faxing and an Ethernet interface for IP-based faxing via the T.38 protocol using SIP call control. In this configuration the TR1034 provides customers with the best of both worlds: it allows customers to run a PSTN fax solution today and migrate to IP in the future when their IT decision dictates.

No matter whether faxes are sent in real-time over the PSTN or over IP, Brooktrout's rock solid T.30 implementation remains at the heart of the every fax connection. To guarantee delivery every time, even for calls between two T.38 endpoint devices, a good T.30 implementation is required. Brooktrout is recognized as having the best T.30 protocol implementations available on the market today as a result of more than 10 years experience developing and supporting intelligent fax boards that are deployed in a wide variety of enterprise and service provider environments.

Brooktrout's fax over IP solution also provides peace of mind. With any IP network, customers need take the appropriate measures to ensure their network is secure from external attacks from viruses and malicious users. If security from internal attacks is a concern, the IP network could be configured to use VPNs between the T.38 endpoint and gateway. With a properly configured IP network in place, there are no additional security concerns with real-time fax over IP on the TR1034 series. If a malicious packet penetrated the firewall, it would be dropped. Brooktrout's T.30 and T.38 protocols allow only for the transfer of T.4 and T.6 fax images, and not data. Since the TR1034 is dedicated to fax image processing, it provides an additional level of security over other fax processing alternatives such as data modems.

Brooktrout Technology®

Your Hook into the New Network®

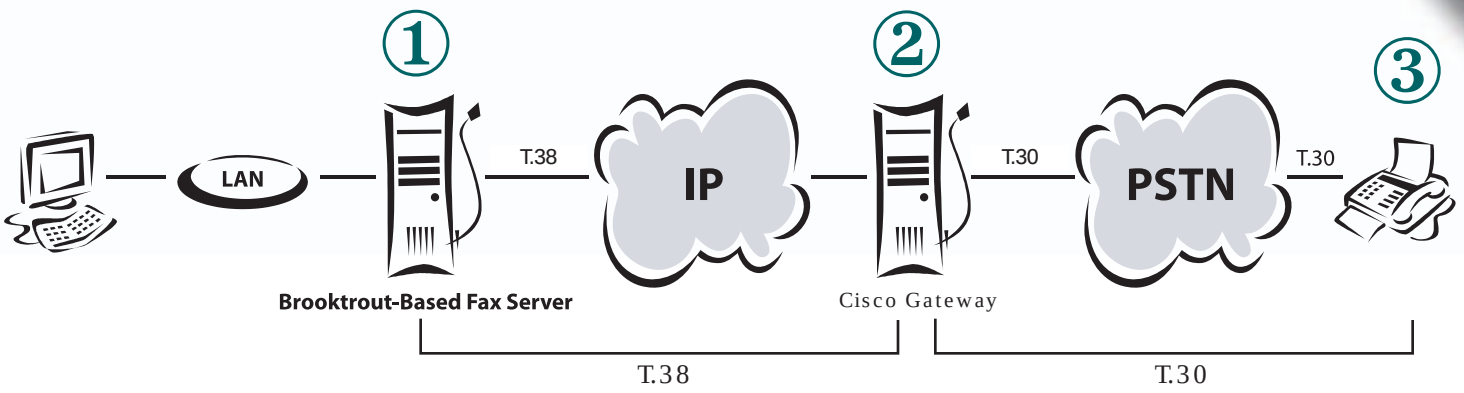
Features and Benefits

The TR1034 T1/E1 with Real-Time Fax Over IP Capability Delivers:

- **Reliable Faxing from the Market Leader:** Brooktrout is the intelligent fax board market leader with over 73% market share* as a result of providing tried and true reliable faxing with Brooktrout's superior T.30 protocol. Brooktrout has continually refined and enhanced its T.30 implementation to a level that is unsurpassed in the industry. And because almost every real-time fax over IP transmission uses T.30, real-time fax over IP with Brooktrout's T.38 will be equally reliable and robust.
- **Investment Protection:** Purchasing a TR1034 series intelligent fax board today is a safe investment, as customers can continue to use their intelligent fax board regardless if their network fax solution is PSTN or IP based.
- **Migration Path to IP:** Customers can begin by deploying a PSTN-based network fax solution and migrate to IP when their IT environment dictates.
- **Industry Leading T.38 Expertise:** Brooktrout has a long history in both real-time PSTN and packet-based fax. Brooktrout Technology's co-founder and CTO, David Duehren, is the primary editor and contributing author of the T.38 real-time fax over IP protocol specification, which he began to develop in the mid 1990s.
- **Security:** With a properly configured IP network, Brooktrout's TR1034 with real-time fax over IP capability offers the same level of security as Brooktrout's PSTN based fax boards. Unlike dual purpose fax and data modem cards, Brooktrout's intelligent fax boards transmit fax images only, and not data, in both PSTN or IP mode, ensuring malicious packets cannot get through.

HOW DOES IT WORK?

The diagram below shows a typical real-time fax over IP implementation with a TR1034-based fax server sitting behind a Cisco gateway/router that supports SIP call control



1 The TR1034-based fax server is connected to an IP network and transmits the T.30 protocol and fax image data using T.38 packets over the IP network to the receiving Cisco gateway / router.

2 The Cisco gateway / router, in turn, repackages the T.38 packets into T.30 protocol signals and transfers them to the receiving fax machine over the PSTN network.

3 The receiving fax machine has a T.30 protocol engine that communicates with the T.30 protocol engine in the TR1034-based fax server through the Cisco gateway.

Corporate Headquarters
Brooktrout, Inc.
250 First Avenue
Needham, MA 02494-2814
U.S.A.
Phone: +1 781 449-4100
Fax: +1 781 449-9009

Sales Offices

Needham, MA +1 781 449-4100	**Atlanta, GA** +1 770 814-4155	**Belgium** +32 2 658-0170	**Japan** +81 3234 2176	**Latin America** +1 305 347-5113
Los Gatos, CA +1 408 370-0881	**Chicago, IL** +1 847 981-5062	**United Kingdom** +44 1344 380280	**Canada** +1 416 860-6240	

E-mail us at info@brooktrout.com or visit www.brooktrout.com

Brooktrout Technology®

Your Hook into the New Network®

©2004 Brooktrout Technology. All rights reserved. All trademarks are the property of their respective owners. Specifications subject to change.