Enterprise Fax Management — Fax-enable Users and Applications

- Can be implemented as a software-and-boards solution, a software-only solution, or provided turnkey complete with server hardware.
- Supports T.38 for real-time Fax over IP (FoIP).
- Email, Web, desktop, and mobile user interfaces.
- SDK with Application Programming interfaces.
- OCR, barcode, and rules-based fax routing.
- Complete audit trail of all communications.
- Can receive faxes as searchable PDF files.
- Connects to analog or digital phone lines, such as T1, PRI, E1, and BRI, or SIP trunks provided by either the PBX or a SIP trunk provider.
- Support for VMware, Hyper-V, Xen, and Citrix virtualization technologies.

Enterprise Fax Management

Organizations large and small rely on fax communications more today than ever before. Fax is a point-to-point communication, which means you can deliver information in real-time, verify receipt, and be sure that your communication is secure. Fax is also a virus-free communication, a fact that has permanently secured its importance as a means of information delivery.

While the traditional fax server was software and fax board-based and connected to the Public Switched Telephone network (PSTN) central office or to a local PBX, today’s fax server is more typically a software-only solution that is:

- Implemented in a virtualized environment
- Implemented as Fax over IP, whereby faxes are sent/received via an organization’s Voice over IP network

The widely-used capabilities of fax include:

- Users sending/receiving faxes from their desktops – via email applications such as Outlook, workflow-optimized fax clients, or browser-based fax clients.
- An application such as an Accounting program automatically submitting purchase orders or invoices for fax transmission.
- Faxes routed intelligently and directly to a user’s inbox or fax client based on routing criteria.
- Automated fax workflows, whereby a group of customer service or order processing employees have access to a shared mailbox of received faxes.

Virtualizing the FAXCOM Fax Solution

A virtualized FAXCOM server uses the Dialogic Brooktrout SR140 software to enable a seamless integration with Cisco, Avaya, Nortel, and Dialogic Voice over IP networks and media gateways. The FAXCOM Server can thus be installed in a virtual server farm to provide high availability and redundancy, with the fax server configured automatically to relocate from one host to another.

The Dialogic SR140 FoIP product is compliant with the T.38, SIP, and H.323 industry standards, and Dialogic regularly tests its T.38 FoIP solution with additional PBXs, Gateways, SIP Trunking interfaces, and other devices, to confirm additional interoperability. In a T.38 FoIP implementation, the fax server routes faxes to T.38–enabled endpoints on the VoIP network, such as VoIP routers or gateways, which then connect to the phone network to send/receive. That means that even though the VoIP network is the endpoint for sending faxes over the phone network, the fax communication is still a point-to-point, real-time delivery from the IP fax server.
Since deploying T.38 FoIP requires a VoIP implementation with routers and gateways configured for T.38 support (which is typically not a default), organizations need to ensure that technical personnel able to configure VoIP routers and gateways is available to assist Biscom with the implementation.

**Virtualizing the Fax Solution without a VoIP Network**

In the cases where connecting the fax solution to a VoIP network or to a SIP trunk is not an option, the fax solution can still be installed in a virtual environment by using an appliance that seamlessly merges the PSTN with an IP Voice network or application — such as the Dialogic Media Gateway (DMG), which connects using analog lines, PRI, or T1 E&M. A VoIP network does not have to be in place to deploy FoIP.

**The FAXCOM Solution Architecture**

The FAXCOM solution includes a FAXCOM Server and one or more FAXCOM Queues. The FAXCOM Server connects to phone lines, or is implemented as FoIP, to send/receive faxes, while the FAXCOM Queues interface with the users and applications sending/receiving faxes.

One of the primary advantages of the FAXCOM Server/FAXCOM Queue architecture is the capability to easily distribute many FAXCOM Queues that utilize consolidated FAXCOM Server resources. Each queue can support a different application or user group, and can be administered independently of the FAXCOM Server itself.

Because a FAXCOM Server can accept simultaneous connections from multiple FAXCOM Queues, administrators can expand or reorganize FAXCOM Servers without impacting the network services and applications sending/receiving faxes.

**The FAXCOM Queues**

FAXCOM Queues are lightweight services exclusive to Biscom that you install at your site to connect users and applications with the FAXCOM Server. Because they use minimal processing power, memory, or system resources, you can create as many FAXCOM Queues as you need to support a diverse, distributed network of fax users and applications. Because each FAXCOM Queue is configured separately, it can be configured uniquely, with its own set of users/applications, directory service integration, fax routing, fax user behaviors, transmit options, etc.

FAXCOM Queues are created and managed within the FAXCOM Suite front-end fax service, which is installed as a Windows MMC. And because Suite can be integrated with AD (or another LDAP service), the need to maintain and synchronize an external database of fax users is eliminated.

**Application Programming Interfaces**

The FAXCOM Software Developers Kit (SDK) provides a range of options for interfacing applications to the FAXCOM Server. FAXCOM APIs include: .NET & Web Services; COM; SMTP; Envelope Specification (File Drop); Fax Printer Driver; DocFlow (Document Templating); FAXCOM Command Language (FCL).

**Additional Advanced Options**

The FAXCOM Solution includes many optional modules for complex, sophisticated fax processing:

- **Advanced Fax Routing** — a rules-based utility for specifying actions that automatically route incoming faxes
- **FAXCOM Job Tracking and Reporting** — an application that collects transaction information from every FAXCOM Server and FAXCOM Queue in the enterprise to create a SQL database as a single complete source of information with which to track and create reports of all fax activity.
- **FAXCOM Dashboard** — a visual display tool that provides advanced fax analytics in real-time for monitoring FAXCOM Servers and FAXCOM Queues – and issuing an alarm when certain pre-specified conditions are met.
- **Mobile Fax Apps** — support for iPad, iPhone, and Android phone users to send, receive, sign, and annotate faxes.

**About Biscom**

Biscom, headquartered in Chelmsford Massachusetts, pioneered the development of the first enterprise fax server. Since 1986, Biscom has provided the most scalable and reliable secure document delivery and file sharing solutions to the world’s largest enterprises.