XMediusFAX™

Solution Brief

XMediusFAX in a Microsoft Exchange Server 2010 Unified Messaging Environment
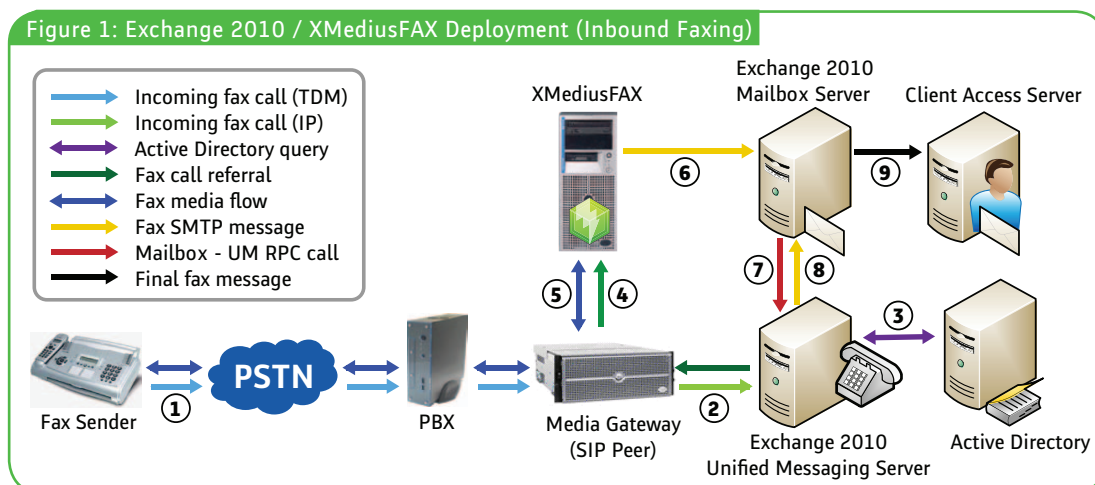
1.0 OVERVIEW

With Microsoft's newly adopted strategy of partnering with 3rd party fax solution providers to interoperate with Exchange 2010, new opportunities have surfaced for such companies to complement Microsoft's Exchange Server 2010 Unified Messaging platform. These opportunities have arisen because the previously embedded inbound fax solution provided within Exchange 2007 Unified Messaging offering is no longer available in Exchange 2010. With direct support for fax functionality withdrawn in Exchange 2010, Partner Fax Solutions such as XMediusFAX are now called upon to fill the void. Sagem-Interstar has addressed this issue by partnering with Microsoft and ensuring that XMediusFAX, its software-only IP fax server solution, meets a set of stringent requirements for ensured interoperability with Exchange 2010. With XMediusFAX, organizations can migrate from Exchange 2007 to 2010 while retaining the ability to receive inbound faxes with minimum disruption to their configuration and operations. Moreover, integration of XMediusFAX with Exchange 2010 enables users to benefit from a multitude of value added features such as outbound faxing, fax archiving, process automation, and advanced inbound routing. These added functionalities enhance the basic inbound faxing capabilities previously found in Exchange 2007. This solution brief provides in basic terms some of the details associated to the integration of the XMediusFAX fax server solution into Microsoft's Exchange 2010 Unified Messaging platform. Table 1 below summarizes the support for inbound and outbound faxing associated with Microsoft Exchange 2007 and 2010 offerings.

Product Offering	Inbound Faxing	Outbound Faxing
Sagem-Interstar & Microsoft Exchange 2010 UM	Fax Support via XMediusFAX	Fax Support via XMediusFAX
Microsoft Exchange 2010 UM	Fax Not Supported	Fax Not Supported
Microsoft Exchange 2007 UM	Native Microsoft Fax Support	Fax Not Supported

Table 1: Microsoft Exchange - Fax Support Summary

2.0 EXCHANGE SERVER 2010 UM / XMEDIUSFAX INTEGRATION (INBOUND FAXING)

Figure 1 below provides an overview of how an inbound fax call is handled in Exchange 2010 when interoperating with XMediusFAX. The configuration shown relies on a SIP Peer (such as an IP Media Gateway) that translates the TDM traffic from the remote fax machine initiated call ① into an IP-based traffic suitable for the UM server and XMediusFAX. When the fax signal is routed to, and reaches the Exchange 2010 UM Server ② , a query to Active Directory ③ is made to determine whether the intended recipient is provisioned to receive fax calls, as well as to establish the SIP address of the XMediusFAX solution, where the call should be referred to. Upon, verification, the UM server issues the fax call referral request to the IP Media Gateway which in turn requests XMediusFAX to establish the call ④ . After successfully establishing the call, the fax sender sends the fax media to XMediusFAX ⑤ which receives and archives it. After the transmission, XMediusFAX sends a notification email containing the TIF image of the fax and special X-headers to the fax recipient via SMTP ⑥ . After the message is authenticated as a valid partner fax and UM mailbox assistant detects a partner fax arrive in the user's mailbox, it issues a remote procedure call (RPC) to the UM server, which ensures that the message's properties match those of fax messages created by Exchange 2007 UM ⑦ . Finally, UM sends the final fax message to the recipient's mailbox via SMTP ⑧ and the user receives a new fax notification in their inbox ⑨ .

Figure 1: Exchange 2010 / XMediusFAX Deployment (Inbound Faxing)

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Do not overlook FAX as a strategic component in your UC & converged IP solution.
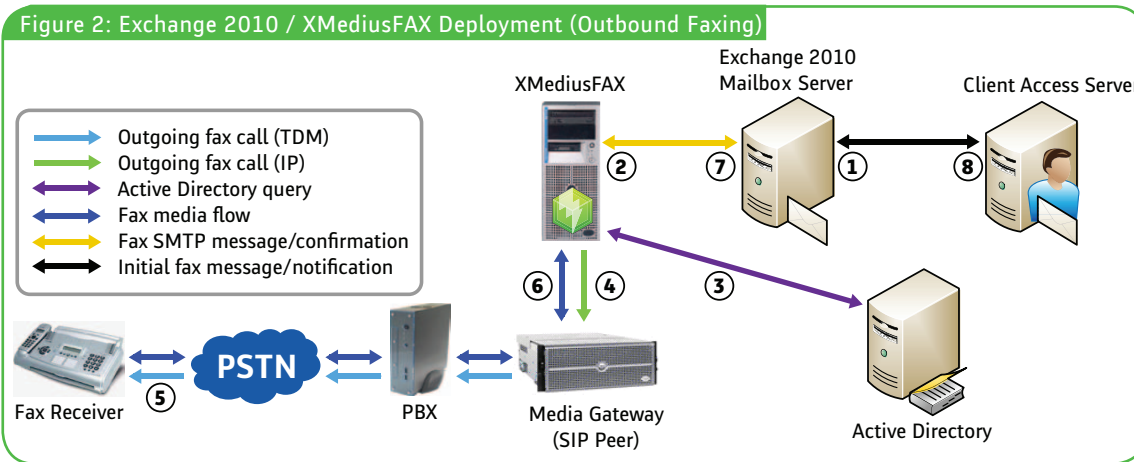
3.0 EXCHANGE SERVER 2010 UM / XMEDIUSFAX INTEGRATION (OUTBOUND FAXING)

Outbound faxing in Exchange 2010 is regarded as a value added component whereby users are afforded a more complete faxing experience in which faxes can be composed and sent from a users Exchange email client without the intervention of the Exchange 2010 UM Server. Figure 2 below provides an overview of how an outbound fax call is handled with Exchange 2010. Clearly noted in the outbound call flow is the exclusion of the UM server, since the call hand-off function it fulfilled for inbound faxing, is not required.

In the outbound flow, a fax is initiated by the user using his/her Microsoft Outlook email client ① . The Exchange server relays the received message to XMediusFAX ② which receives the SMTP message from Exchange. XMediusFAX performs an Active Directory query ③ to retrieve the user's account information (i.e., name, department, fax number, etc.) to associate the user to a site and validate the user's credentials associated to sending a fax. Subsequently, XMediusFAX converts the documents into a TIF and applies a cover page and proceeds to initiate the IP call via the Media Gateway ④ . After successfully establishing the call ⑤ , XMediusFAX sends the fax media ⑥ to the fax receiver. Once transmission is completed, XMediusFAX returns a confirmation by sending an SMTP message with the fax image to the Exchange server ⑦ .Finally, the user receives a new fax notification in their inbox ⑧ .

Figure 2: Exchange 2010 / XMediusFAX Deployment (Outbound Faxing)

- Outgoing fax call (TDM)
- Outgoing fax call (IP)
- Active Directory query
- Fax media flow
- Fax SMTP message/confirmation
- Initial fax message/notification

4.0 BENEFITS

In summary, organizations migrating to the Exchange 2010 UM Server can take advantage of the following operational and financial benefits that the XMediusFAX Partner Fax Solution provides:

- A "drop-in" solution that provides a simple migration strategy from Exchange 2007 to Exchange 2010 UM Server.
- Robust operation based on standardized T.38 Fax Over IP (FoIP) Protocol.
- Secure fax communication through TLS and SSL encryption.
- A scalable solution that can grow with an organization's more stringent faxing requirements.
- High value added functions previously not available with Exchange 2007 UM Server (i.e., outbound faxing, inbound fax routing, process automation and fax archiving among others).
- Cost efficiency by enabling all faxing functions (inbound and outbound) to reside on users desktops and eliminate the need for hardware base faxing and associated costs.

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