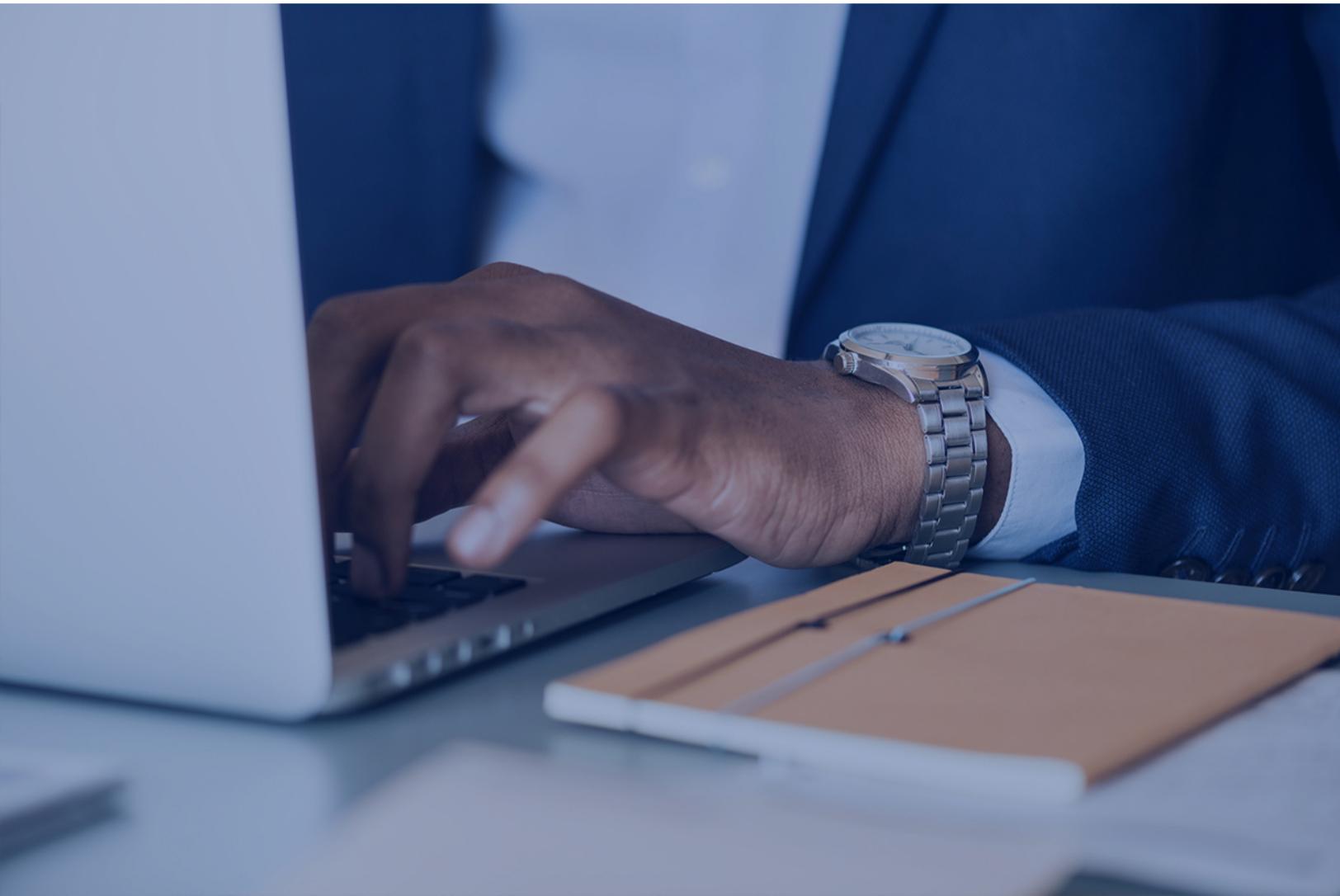




4 STAGES OF INTEGRATED DOCUMENT DELIVERY FROM SAP

A lesson in document submission, transmission,
acknowledgement & management



Executive Summary

This paper is intended to educate users, developers, managers, and executives of companies using SAP, on the efficiencies gained from an integrated, automated document delivery system.

Today's fiscal awareness is putting pressure on companies to cut costs wherever possible in order to maximize profitability by shortening "order-to-cash" and "procure-to-receive" cycles (invoices, sales orders, purchase orders etc.) while increasing business process efficiency. One area commonly overlooked is the manual delivery (mail and/or fax) of these SAP created documents. Regardless of volume, time of day, or medium used, companies need the ability to automate the delivery of business-critical documents to customers and vendors.

Critical to the success of an automated document delivery system is its ability to meet your specific requirements while providing a return on investment measurable in months, not years. To help you get started, take a look at the following list of common document delivery problems and solutions (**Chart 1**).

Chart 1: *Common Document Delivery Problems in SAP ERP*

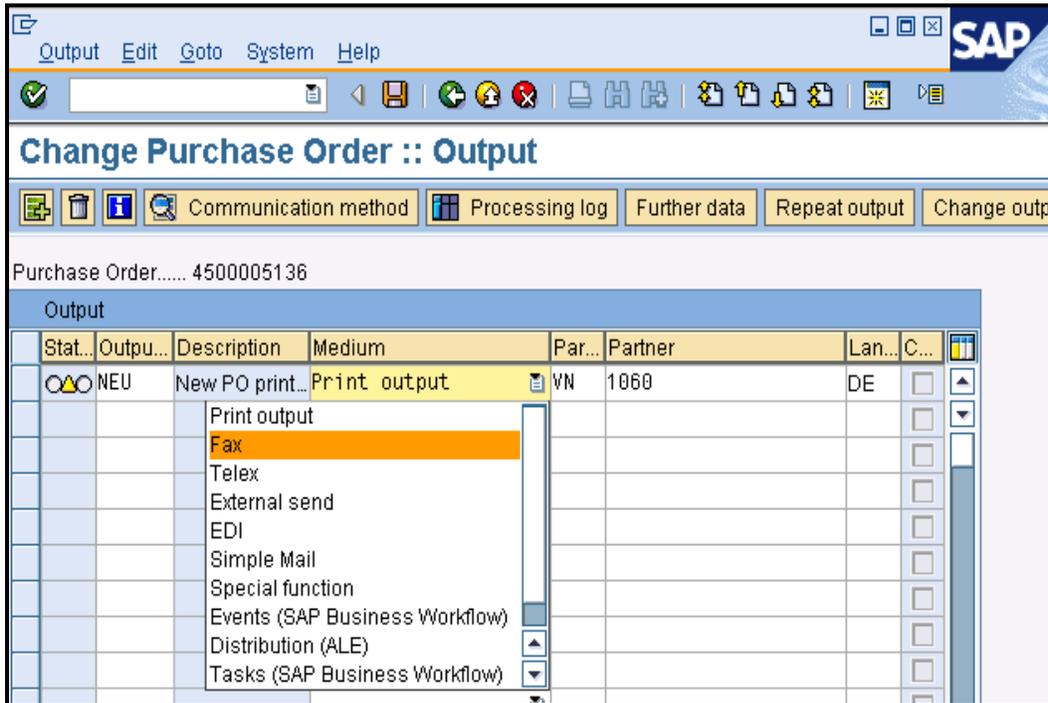
Problem	Solution
Intervention is required by users to print documents and manually fax them.	Automated Document Delivery – reduce manpower costs and increasing employee productivity.
Identification of the preferred document delivery medium (fax, email, secure email, print, etc.)	Options for Document Delivery Channels – fax (networked fax servers or ASP - Application Service Provider), email, secure email, print, etc.
Assurance that the document arrived at the correct destination on time.	Information Delivery Management – includes notification mechanisms and tools such as web-based applications for users to check on the status of their document delivery.
Purchasing more equipment and hiring more employees to keep up with document delivery needs.	Scalability – a document delivery system that grows with your business needs, providing no limit to the number or type of documents to be delivered.
Printing documents on pre-printed forms for mailing or manual faxing	Formatting and Presentation – including support for different document formats originating from SAP (PDF, Word, PostScript, etc...).

To remedy these problems, an integrated document delivery solution is needed to provide a seamless user experience within your SAP environment.

Document Delivery with SAP's Native Functionality

SAP provides a robust list of document output options (Fig. 1) for users to choose from when looking to deliver a document. Most commonly used are the Print, Simple Mail, Email, and Fax output options.

Figure 1: SAP Document Output Options



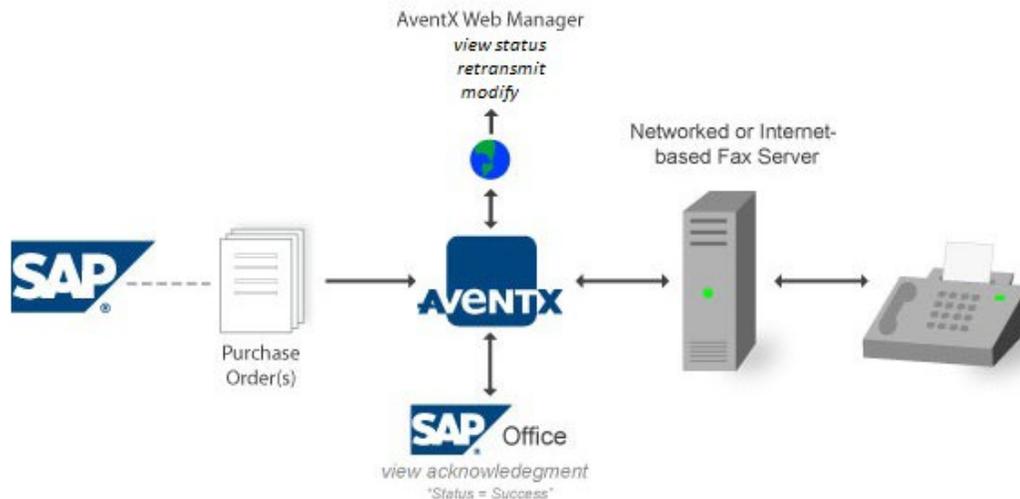
While the Print and Simple Mail Output options are ready to go out-of-the-box, companies need the ability to transmit their SAP documents via fax, email, or secure email. This requires a third party software and hardware solution.

Role of Third Party Vendors in Fax, Email, and Secure Email Output from SAP ERP

Organizations looking to automate delivery of documents from SAP encounter a variety of challenges. While SAP offers email delivery as a plug-and-play option, many users still find themselves living with the pain of manually faxing SAP created documents for a host of reasons: vendor preference, the document is so important that real-time delivery status and acknowledgement of successful delivery are necessary, etc. Additionally, companies are now realizing the importance of secure email transmissions of their business documents.

No matter your reason for delivering documents from SAP, robust applications like AventX Connector for SAP ERP® can solve individual business requirements.

Figure 2: Fax and Secure Email Delivery from SAP Architecture



Using the architecture outlined above (**Fig. 2**), a document (purchase order in this example) is created in SAP and routed to AventX which sends the document to a network or internet-based fax server for fax transmissions. For secure/confirmed email transmissions, a notification is sent to the email recipient notifying them of a secure delivery. The user must then login to a secure server using a username and password to retrieve their purchase order. The delivery of the secure transmission is accomplished using AventX.

Upon transmission completion, an acknowledgement is sent back to SAP (viewable in SAP Office) indicating the status of the document's delivery.

Additional web-based tools can be used to report on the status of the document or to control the document's delivery.

The entire document delivery process described above can be broken down into **four stages**:

1. **Document Submission** – the creation of the document and submission from SAP to the document delivery system
2. **Document Transmission** – the actual transmission of the document to a fax number or email address as described above.
3. **Document Acknowledgement** – the status of the document sent to an email address upon successful or unsuccessful delivery.
4. **Document Management** – the ability to view the final status (successful or unsuccessful) of the document's transmission, and the capability to resend the document or control its delivery.

Stage 1: Document Submission

Creation and submission of a Purchase Order

Under the transaction /NME21, a user creates a Purchase Order and clicks the “Messages” icon.

The Fax Output (**Fig. 3**) example below illustrates the creation and submission of a purchase order. However, AventX is not limited to Purchase Order documents. AventX can fax, email, or securely email any document created in an SAP environment via SAPConnect.

For fax documents, the user selects “Fax” within the “Medium” drop down box, types in the recipient’s fax number for the Purchase Order, and upon completion of the Purchase Order, the document is ready to be processed by SAP.

Documents processed by SAP are transmitted via SAPConnect to a “listener” process in AventX.

Figure 3: Fax Output

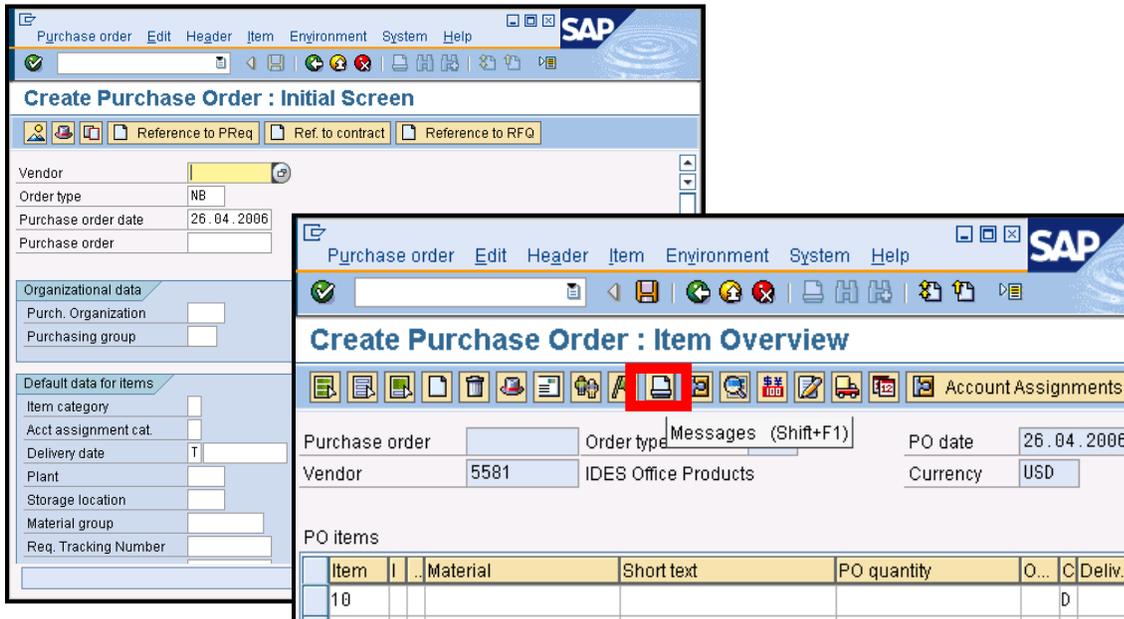
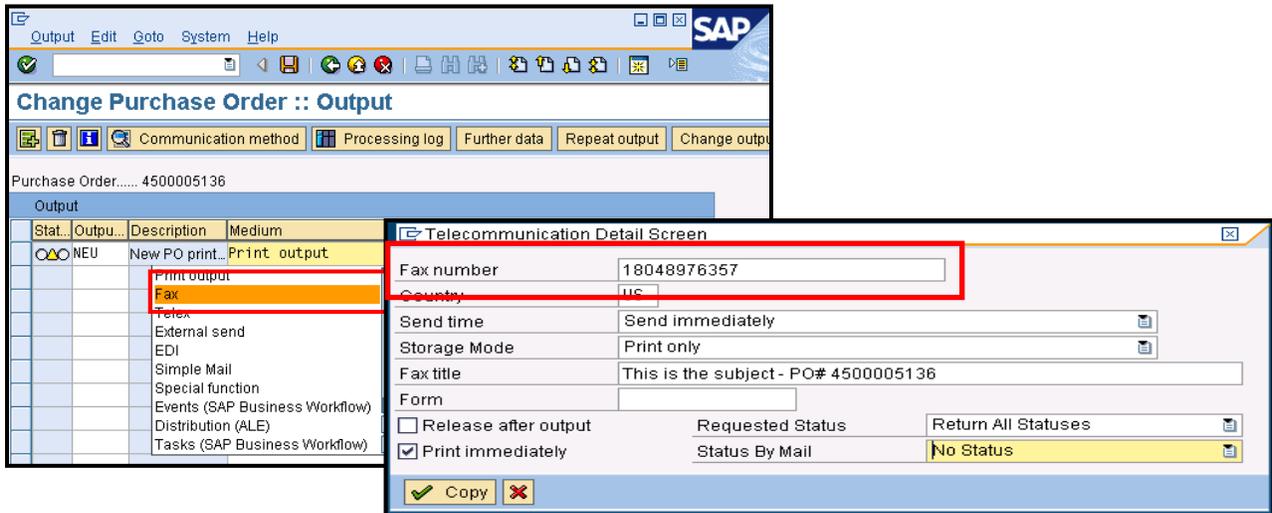
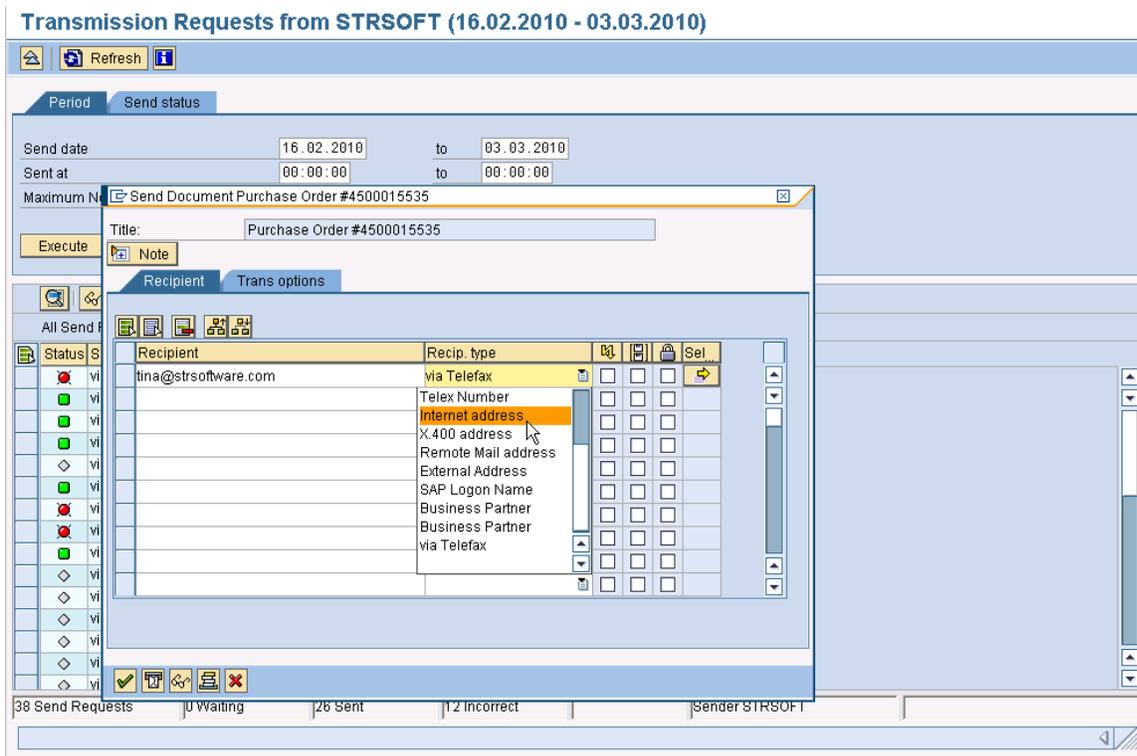


Figure 3: Fax Output, cont.



AventX also allows for the possibility of sending documents via regular and secure email transmission. For example, perhaps the Purchase Order failed to the fax recipient. It is possible in SAP to resend the document using a different recipient type from the /nSOSB transaction. **Figure 4** below shows an example of resending Purchase Order number 4500015535 to a recipient of tina@strsoftware.com. Note that the recipient type must be "Internet Address".

Figure 4: Email Output via "Internet Address"



You can also check on the status of your faxed or emailed document using AventX WebManager, as discussed in the next section.

Stage 2: Document Transmission

Delivery of the Purchase Order

AventX receives the document from SAP Connect and routes it to the proper delivery server. For fax-based transmissions, documents are routed to a network-based or internet-based fax server. Email-based transmissions are sent directly to the recipient.

For secure email transmission, a message is sent to the user via email alerting them of a secure transmission (**Fig. 5**). The recipient clicks a link to open the secure email, and after logging in with a username and password, the recipient can actually view the PO itself (**Fig 6**).

Figure 5: Secure Transmission Email Delivery

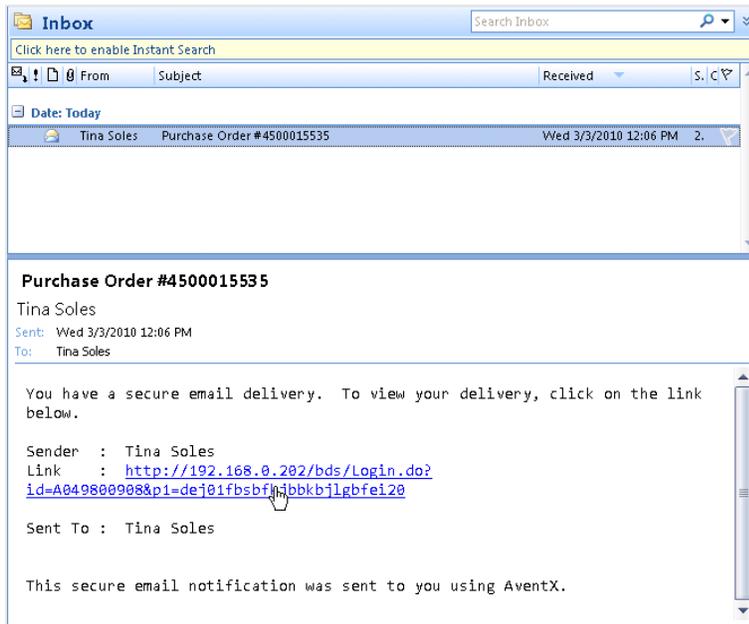
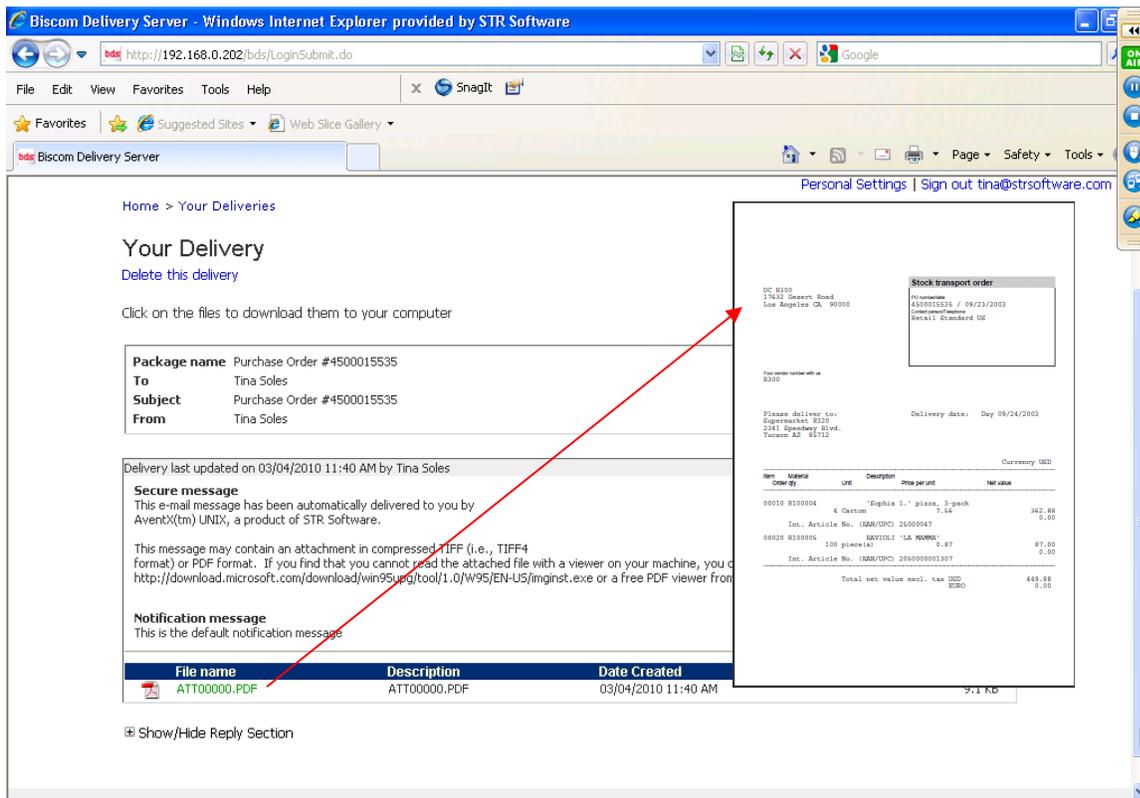
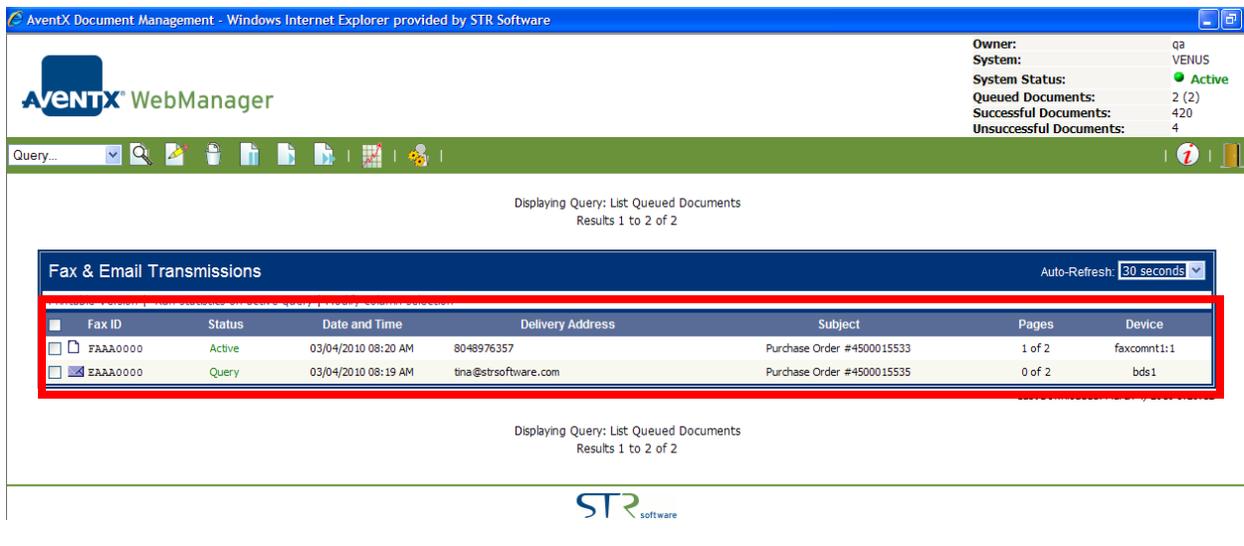


Figure 5: Secure Transmission Portal Access to Purchase Order



During the delivery of the document, the status is updated in real time (as viewed using a document management tool such as AventX WebManager [Fig. 7]).

Figure 7: AventX WebManager Real Time Delivery Status

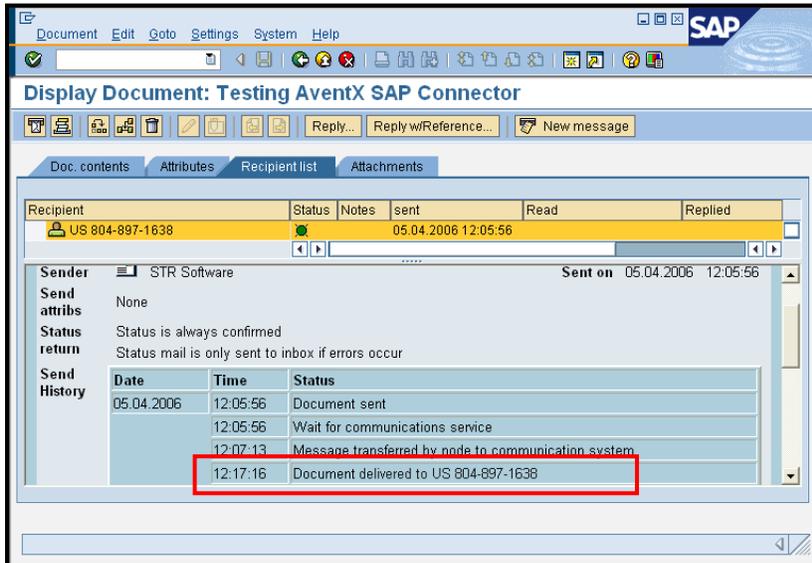


Stage 3: Document Acknowledgement

Status of the Purchase Order Delivery in SAP Office

Upon completion of a fax transmission, status is sent back into SAP where it can be viewed by the sender.

Figure 8: Document Delivery Acknowledgement of a Faxed Document



For secure email transmissions, the status will be successful once the recipient has actually viewed the secure email. Once the status has been marked as successful, the user can use this information as a positive confirmation that the end user has received the transmission (Fig. 9A & 9B).

Figure 9A: Document Delivery Acknowledgement of an Emailed Document from /nSOSB Transaction

Transmission Requests from STRSOFT (16.02.2010 - 03.03.2010)

Refresh

Period Send status

Send date: 16.02.2010 to 03.03.2010
 Sent at: 00:00:00 to 00:00:00
 Maximum No. of Hits: 500

Execute Close

All Send Requests

Status	Send Meth.	Doc. Title	Recipient	Send date	Send time
via Internet	Purchase Order #4500015535	tina@strsoftware.com	03.03.2010	17:35:09	
via Telefax	Purchase Order #4500015535	US 804-897-6357	03.03.2010	17:31:13	
via Internet	Testing Fax	tina@strsoftware.com	03.03.2010	17:20:18	
via Internet	Testing from qa on venus vm #2	tina@strsoftware.com	03.03.2010	16:57:08	
via Internet	Testing from qa on venus vm	tina@strsoftware.com	03.03.2010	16:52:50	
via Internet	bds test 15 fail	robert.wilchek@strsoftware.com	03.03.2010	16:37:35	
via Internet	bds test 14 ok	robert.wilchek@strsoftware.com	03.03.2010	16:34:44	
via Internet	bds test 13 - fail	robert.wilchek@strsoftware.com	02.03.2010	22:13:08	
via Internet	bds test 12 - fail	robert.wilchek@strsoftware.com	02.03.2010	22:05:40	
via Internet	bds test 11	robert.wilchek@strsoftware.com	02.03.2010	22:01:40	
via Internet	test bds 10	robert.wilchek@strsoftware.com	02.03.2010	21:56:10	
via Internet	test bds 9	robert.wilchek@strsoftware.com	02.03.2010	21:32:09	
via Internet	test bds 8	robert.wilchek@strsoftware.com	02.03.2010	21:19:03	
via Internet	test bds 7	robert.wilchek@strsoftware.com	02.03.2010	17:47:09	
via Internet	test bds 6	robert.wilchek@strsoftware.com	02.03.2010	17:36:36	

39 Send Requests | 0 Waiting | 27 Sent | 12 Incorrect | Sender STRSOFT

Figure 9B: Document Delivery Acknowledgement of an Emailed Document from SAP Office

Document Edit Goto Settings System Help

Display Document: Testing AventX SAP Connector

Reply... Reply w/Reference... New message

Doc. contents Attributes Recipient list

Recipient	Status	Notes	sent	Read	Replied	Corre...	Forwarder
tina@strsoftware.com	✓		04.03.2010 21:52:22				

Sender: STR Software Sent on: 04.03.2010 21:52:22

Send attribs: None

Status return: Status is always confirmed
 Status mail is only sent to inbox if errors occur

Trans. history

Date	Time	Status
04.03.2010	21:52:22	Document sent
	21:52:22	Wait for communications service
	21:52:34	Message transferred by node to communication system
	21:53:33	Delivered to tina@strsoftware.com

Although the standard delivery acknowledgement provided within SAP Office is useful, there is no way to view any further details of the transmission or to easily resend the document without going back through the entire SAP document submission process. This can create problems: what if the transmission of the document fails because the fax number was entered incorrectly or what if a mistake is made and the user needs to cancel the transmission of the document?

With AventX, users can access the WebManager and efficiently resolve common document transmission problems. Through this interface users are able to resubmit a failed transmission, revise an incorrect fax number and resubmit a document for transmission, or stop the transmission of a fax document – all without having to go back through the SAP document submission process. Additionally, secure email transmissions (with a typo in the email address, for example) may be re-queued to be transmitted securely to the proper recipient.

Stage 4: Document Management

Working with a Purchase Order fax document

Using the AventX WebManager, users can view, retransmit, modify, cancel, or even delete the transmission of single or multiple documents (**Fig. 10**). These web-based tools are a powerful way to manage document delivery, allowing a user to have full control over the document's transmission. The example in this section discusses a scenario where the sender needs to change a fax number for a previously processed document and re-submit the document for fax transmission. Note that the same process applies for a secure email delivery.

Figure 10: Modifying a Document Transmission – Change Fax Number and Submit

The screenshot shows a web browser window titled "Modify Document(s) - DPAA0000 - Windows Internet Explorer provided by S...". The interface has a green header bar and a sidebar on the left with a menu containing: Transmission, Recipient, Sender, Scheduling, Document, Confirmation Copy, and Acknowledgement. The "Recipient" section is expanded, showing a form with the following fields: Subject (PURCHASE ORDER), Delivery Address (8048976357), Country, Name (US 8048971638), Company, and Delivery. A checkbox labeled "Use new Fax ID" is located at the bottom left. At the bottom right, there are three buttons: "Cancel", "Reset", and "Submit". The "Submit" button is highlighted with a red box.

A critical component to a successful document delivery tool is the ability for SAP users to quickly query for one or more documents based upon criteria such as the USERID (SAP Login), Subject, or the recipient's fax number or email address (**Fig. 11**). In addition, users can simply query for all documents he/she owns in the transmission queue and/or completed list.

Figure 11: Document Submission Querying

Document Selection

List All Documents Sort By: Status
 List Queued Documents Sort Order: Ascending
 List Completed Documents Results Per Page: 25
 Query >>

Tracking	To	From	UserData
Delivery Address	3048971638	Subject	Name
Company			

Reset Query

Once the search has been narrowed, the user can view details of the document's transmission, as well as manage the document's delivery (Fig. 12).

Figure 12: Successful Document Transmission as seen via AventX WebManager

AventX Document Management - Windows Internet Explorer provided by STR Software

AVENTX WebManager

Owner: qa
System: VENUS-qa
System Status: ● Active
Queued Documents: 0 (0)
Successful Documents: 1
Unsuccessful Documents: 0

Query...

Displaying Query: List All Documents
Results 1 to 1 of 1

Fax & Email Transmissions Auto-Refresh: 30 seconds

Printable Version | Run statistics on active query | Modify column selection

Fax ID	Status	Date and Time	Delivery Address	Subject	Pages	Device
DPAA0000	Success	03/17/2009 09:41 AM	8048971638	PURCHASE ORDER	2 of 2	testwin:1

Displaying Query: List All Documents
Results 1 to 1 of 1

Value of Document Delivery

Organizations continually strive to shorten the “order-to-cash” cycle (with regards to invoices, sales orders, statements, etc.) and shorten the “procure-to-receive” cycle (request for quotations, purchase orders, etc.). By combining SAP’s native functionality with the AventX Connector *for SAP ERP* fax and secure email capabilities, you have created a bundled solution that drives efficiency and ensures both cash and procured products/services reach your organization quicker.

While achieving these goals is important, it is equally important to consider the payback of a document delivery solution. Companies typically demand a payback on investment of less than two years when purchasing a system to improve upon a task or procedure; automated document delivery is no different. In most cases, automated document delivery solutions provide an ROI measurable in less than four months. The actual time and savings depends simply upon the daily volume of pages delivered.

Summary

As evidenced, SAP does a good job of creating a robust set of document output options, yet the ability to fax, email or securely email SAP created documents requires a third party application. A third-party solution like STR Software’s AventX Connector *for SAP ERP* must be present to actually **deliver** a document via fax or secure email. Key points such as how a document is submitted, methods of transmission, and how documents are acknowledged and managed must be considered for a successful implementation. Understanding your requirements for document delivery is a crucial first step in determining the best solution for your company.

What to look for in a Vendor

When considering a document delivery solution, try to obtain the following information from each vendor as it pertains to their automated document delivery system:

- References, specifically companies that have experienced several product upgrades of the document delivery system and upgrades of SAP
- Annual support agreement – what is included?
- Source of Support – is it provided by the vendor or an outsourced company?
- Customizations – does the vendor document product customizations and support them during the life of the relationship?
- Implementation – ask for a detailed outline and list of tasks, ask if you can do it yourself, and ask for references of those who did

STR Software Information and Product Demonstrations

To learn more about how STR Software can help save your company time and money, please visit us online at www.strsoftware.com or call us at 804-897-1600 ext. 2 (or toll free at 800-897-7097).

About STR Software

Founded in 1986, STR Software is headquartered in Richmond, Virginia. Providing a single point of contact for its AventX and DataVaya product suites, the company develops, markets, and supports automated document delivery solutions for email, fax, internet fax, and print as well as automated data file transfer solutions to enable sophisticated hybrid cloud, IoT, and ERP data transactions. These solutions integrate with host ERP applications, such as JD Edwards, Oracle E-Business Suite, PeopleSoft, and SAP; in Unix, Linux, MPE, and Windows environments. STR Software, an Oracle PartnerNetwork Gold Partner, has been recognized for engineering reliable “Solutions That Run.”

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