



Advanced Document Delivery with BI Publisher

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Manager of Product Development

About STR Software

■ STR Software

- Located in Richmond, VA
- Focused on document delivery solutions since 1988
- Over 1,230 licenses of AventX in 47 states and 19 countries
- Over 94% customer retention
- Oracle Gold Partner with staff of Oracle Certified Professionals
- OAUG 2-Star Elite partner for 2011
- www.strsoftware.com

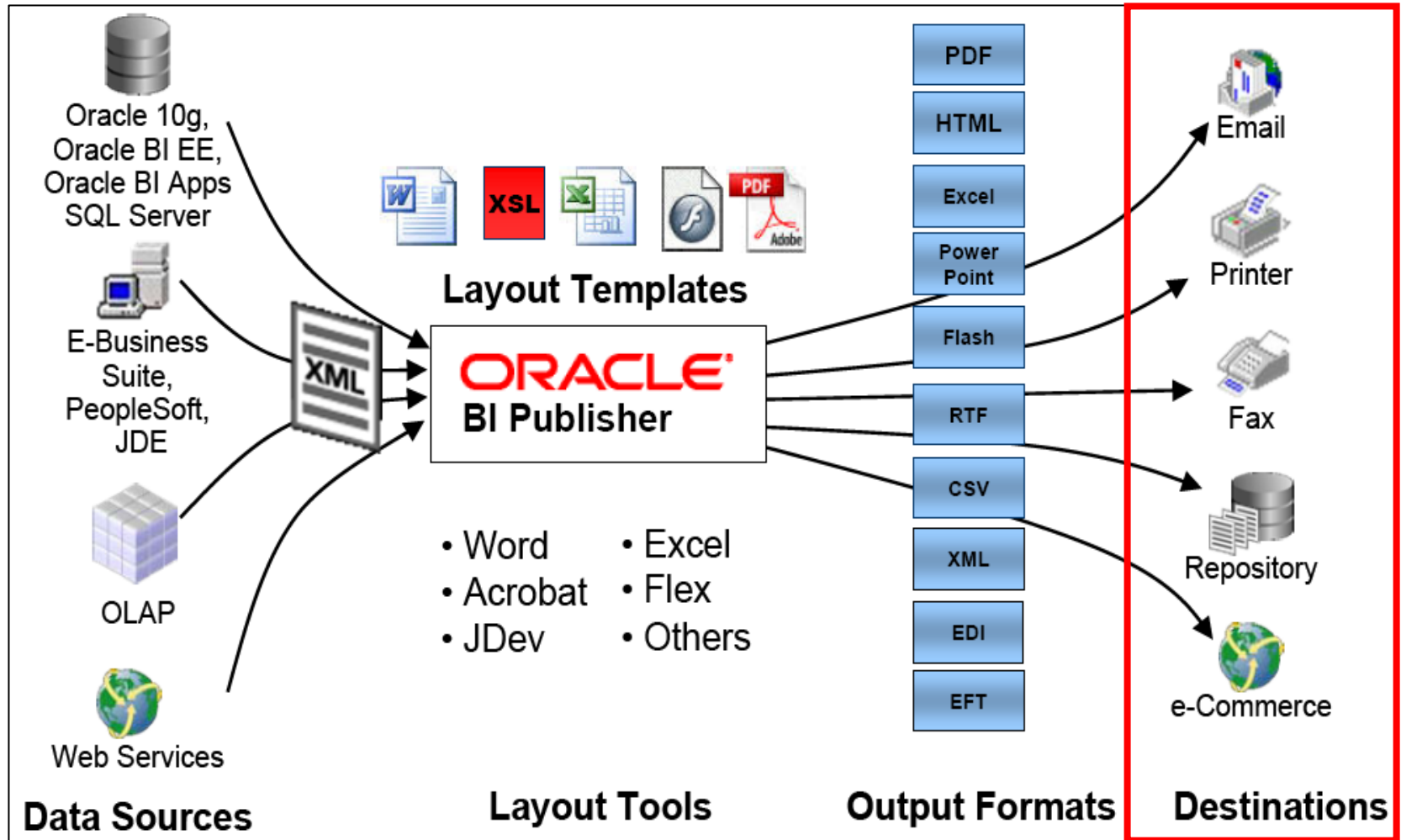
■ Brent Lowe

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Agenda

- Introduction & Document Delivery with BIP
- Bursting Control Files
- 12.1.3 Delivery Options Features and Functionality
- Extending the BIP Delivery Manager

Introduction – BI Publisher Delivery Manager



Document Transmission Methods

- EMAIL
 - Sends email using company's mail server.
 - Ability to dynamically set email message body, document file name, to, cc, bcc, subject and from information.
 - No confirmation on delivery of document.

- PRINT
 - Prints to CUPS based printer via IPP.
 - Does not utilize standard Oracle EBS Printer definitions

- FAX
 - No true built in fax functionality.
 - Oracle recommends open source software FAX4CUPS and efax to communicate with fax modems via a CUPS printer.
 - Ability to dynamically set Fax Number only.

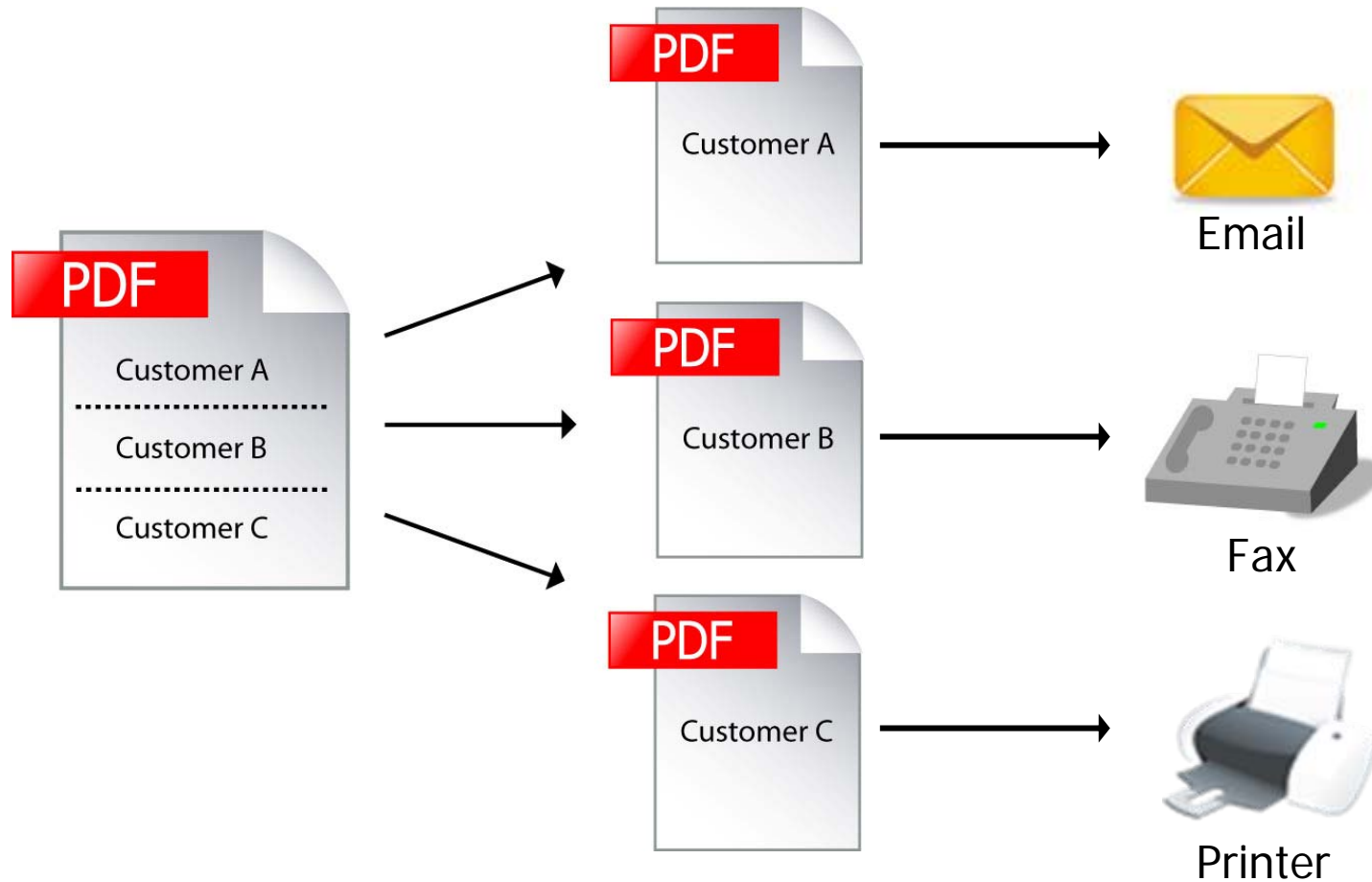
- Other (WebDAV, FTP)

- ALL
 - Only delivers primary document, no ability to deliver Terms and Conditions, supporting diagrams, attachments.

Introduction–BIP Delivery Manager & EBS

- Exposed via 2 main methods
 - Bursting Control Files
 - Oracle 12.1.3 – Delivery Options Form

11.5.10 – R12.1.3 Report Bursting and Delivery



Bursting Control Files

- A bursting control file is an XML based file that defines the answers to 4 main questions.
 1. How do I burst the document?
 2. How do I deliver the burst file?
 3. Where do I deliver the burst file?
 4. What should the delivered file look like?

Bursting Control File

```
<?xml version="1.0" encoding="UTF-8" ?>
- <xapi:requestset xmlns:xapi="http://xmlns.oracle.com/oxp/xapi">
- <xapi:request select="/RAXINV/LIST_G_ORDER_BY/G_ORDER_BY/LIST_G_INVOICE/G_INVOICE">
- <xapi:delivery>
- <xapi:email server="mail.strsoftware.com" port="25" from="qa@strsoftware.com" reply-to="qa@strsoftware.com">
  <xapi:message id="email1" to="brent.lope@strsoftware.com" cc="" content-type="text/html" attachment="true" subject="Invoice #${TRX_NUMBER}">Dear
  Sir/Madam, Please find the attached invoice #${TRX_NUMBER} for ${BILL_CUST_NAME} dated ${TRX_DATE}. <br><br> Regards,<br> STR Software
  Receivables</xapi:message>
</xapi:email>
- <xapi:fax server="ipp://grimlock:631/printers/axtkocupsprinter">
  <xapi:number id="fax1">${BILL_ADDRESS4}</xapi:number>
</xapi:fax>
</xapi:delivery>
- <xapi:document key="${BILL_CUST_NAME}" output="Invoice_#${TRX_NUMBER}.pdf" output-type="pdf" delivery="email1">
  <xapi:template type="rtf" location="xdo://AR.COPY_RAXINV_SELB.en.US/?getSource=true" filter="//G_INVOICE[BILL_ADDRESS3='EMAIL']" />
</xapi:document>
- <xapi:document key="${BILL_CUST_NAME}" output="Fax_Invoice_#${TRX_NUMBER}.pdf" output-type="pdf" delivery="fax1">
  <xapi:template type="rtf" location="xdo://AR.COPY_RAXINV_SELB.en.US/?getSource=true" filter="//G_INVOICE[BILL_ADDRESS3='FAX']" />
</xapi:document>
</xapi:request>
</xapi:requestset>
```

How to burst the document?

How to deliver the burst file?

Where to deliver the burst file?

What should the delivered file look like?

Bursting Control File - Registration

- Upload Bursting Control File to Data Definition

Templates | **Data Definitions** | Administration

Data Definitions >

View Data Definition: Purchase Order Detail Report - BIP

General

[Personalize Stack Layout: \(GeneralStackRn\)](#)

Name **Purchase Order Detail Report - BIP** Code **POXPOSTD_BIP**
Application **Purchasing** Start Date **02-Sep-2010**
End Date
Description **Purchase Order Detail Report for BIP Demo**

Files

XML Schema

Data Template **Data_Template.xml** [Personalize Flow Layout: \(DataTemplateButtonsLayout\)](#)

Preview Data

Bursting Control File

[Return to Data Definitions](#)

Invoke Bursting

- 2 Step Process

Step 1: Run Concurrent Request to Generate Data.

Step 2: Run 'XML Publisher Report Bursting Program'
(Supply Step 1's Request ID as Parameter)

Submitting 2 Requests!?

- After Report Trigger

```
function xx_burst_data (nRequestID in number) return number is
  nCRID number := 0;
begin
  nCRID := fnd_request.submit_request('XDO', 'XDOBURST', '', '', FALSE, nRequestID, 'Y', chr(0));
  if (nCRID > 0) then
    commit;
  end if;
  return nCRID;
end;
```

Submitting 2 Requests!?

- PL/SQL Concurrent Program Wrapper

```
procedure SubmitAndBurst(errbuf OUT VARCHAR2, retcode OUT NUMBER, parameter list...) is
  nCRID number;
  vPhase varchar2(80);
  vStatus varchar2(80);
  vDPhase varchar2(30);
  vDStatus varchar2(30);
  vMessage varchar2(240);
begin
  nCRID := fnd_request.submit_request(REPORT TO RUN TO GET OUTPUT);
  if (nCRID > 0) then
    commit;
  end if;
  -- wait for request to complete
  fnd_concurrent.wait_for_request(nCRID, 60, 0, vPhase, vStatus, vDPhase, vDStatus, vMessage)
  if (dev_phase = 'COMPLETE' and dev_status = 'NORMAL') then
    --submit 2nd request to burst data
    nCRID := fnd_request.submit_request('XDO', 'XDOBURST', "", "", FALSE, nCRID, 'Y', chr(0));
  end if;
  ...
end;
```

Bursting Status Report

- XML Publisher Report Bursting Program creates it's own Report -> Bursting Status Report.
 - How document was burst
 - How documents were delivered
 - Status of delivery

Bursting Status Report

Bursting Status Report

Date: 2010-08-16 03:08:14

Page 1 Of 1

Request ID	4446348
Parent Request ID	4446347
Report Name	Invoice Print Selected Invoices - Bursting Demo
Output File	/disk1/oraapps/inst/apps/VIS1_silverbolt/logs/appl/conc/out/o4446348.zip

Key	Output Type	Delivery	Output	Status
Business World	pdf	Fax	/tmp/081610_035610028/Invoice_fax#10007144.pdf	Success
Hilman and Associates	pdf	email	/tmp/081610_035610028/Invoice_#10007145.pdf	Success

Bursting Control Files – Pros and Cons

■ Pros:

- Bursting capability!
- Delivery capability!
- Out of the box ready for email/FTP

■ Cons:

- Cumbersome setup with XML based configuration files.
- 2 step process to deliver documents.
- Delivery status can be misleading.
- Restricted to utilizing data in XML file for delivery information.

12.1.3 Delivery Options Form

- ANY report
- ONE off delivery
- No Bursting

Submit Request

Run this Request...

Copy...

Name: Active Users

Operating Unit:

Parameters:

Language: American English

Language Settings... Debug Options

At these Times...

Run the Job: As Soon as Possible

Schedule...

Upon Completion...

Save all Output Files

Layout:

Notify:

Print to: noprint

Options... Delivery Opts

Help (H) Submit Cancel

12.1.3 Delivery Options Form

The screenshot shows a dialog box titled "Deliver to..." with a red close button in the top right corner. Below the title bar are four tabs: "IPP Printer", "Email", "Fax", and "FTP". The "IPP Printer" tab is selected and highlighted. The main area of the dialog contains a table with the following columns: "Printers:", "Username:", "Password:", "Copies:", "Orientation:", and "For Language:". The first row of the table is highlighted in yellow. The "Copies" column has the value "1" and the "Orientation" column has the value "Portrait". Below the table are three buttons: "Help", "OK", and "Cancel".

Printers:	Username:	Password:	Copies:	Orientation:	For Language:
...			1	Portrait	

12.1.3 – IPP Print Tab

Deliver to...

IPP Printer | Email | Fax | FTP

Printers:	Username:	Password:	Copies:	Orientation:	For Language:
[Yellow Highlighted]			1	Portrait	

Help OK Cancel

12.1.3 IPP Print Tab - Configuration

- System Administration -> Delivery Options

The screenshot shows the Oracle System Administration web interface. The top navigation bar includes the Oracle logo, "System Administration", and links for "Navigator", "Favorites", "Diagnostics", "Home", and "Logout". The main content area is titled "Create Delivery Option" and contains the following fields:

- Enabled:** Radio buttons for "Yes" (selected) and "No".
- * Delivery Name:** A text input field.
- * Delivery Type:** A dropdown menu currently set to "IPP Printer".
- Description:** A text input field.

Below this section is the "Delivery Option Registration" section, which includes:

- Personalize "Delivery Option Registration":** A link.
- * Host Name:** A text input field.
- * Port:** A text input field.
- * Printer Name:** A text input field.
- User Name:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Sides:** A dropdown menu currently set to "1-Sided Printing".
- Options:** A row of checkboxes for "Authentication", "Encryption", "Use Full URL", "Use Chunked Body", and "Support Fax", all of which are currently unchecked.

Both sections have "Cancel" and "Apply" buttons at the bottom right.

12.1.3 – IPP Print Tab - Pros and Cons

■ Pros:

- Allows for specification of a print job along with other delivery methods in one location.
- Eliminates the need to configure EBS Print Drivers/Styles

■ Cons:

- CUPS – freeware/not supported
- Bypasses standardized EBS Print Driver and Style configuration
- Standard EBS printing is still executed upon completion of the request.
- User Retraining

12.1.3 Email Tab

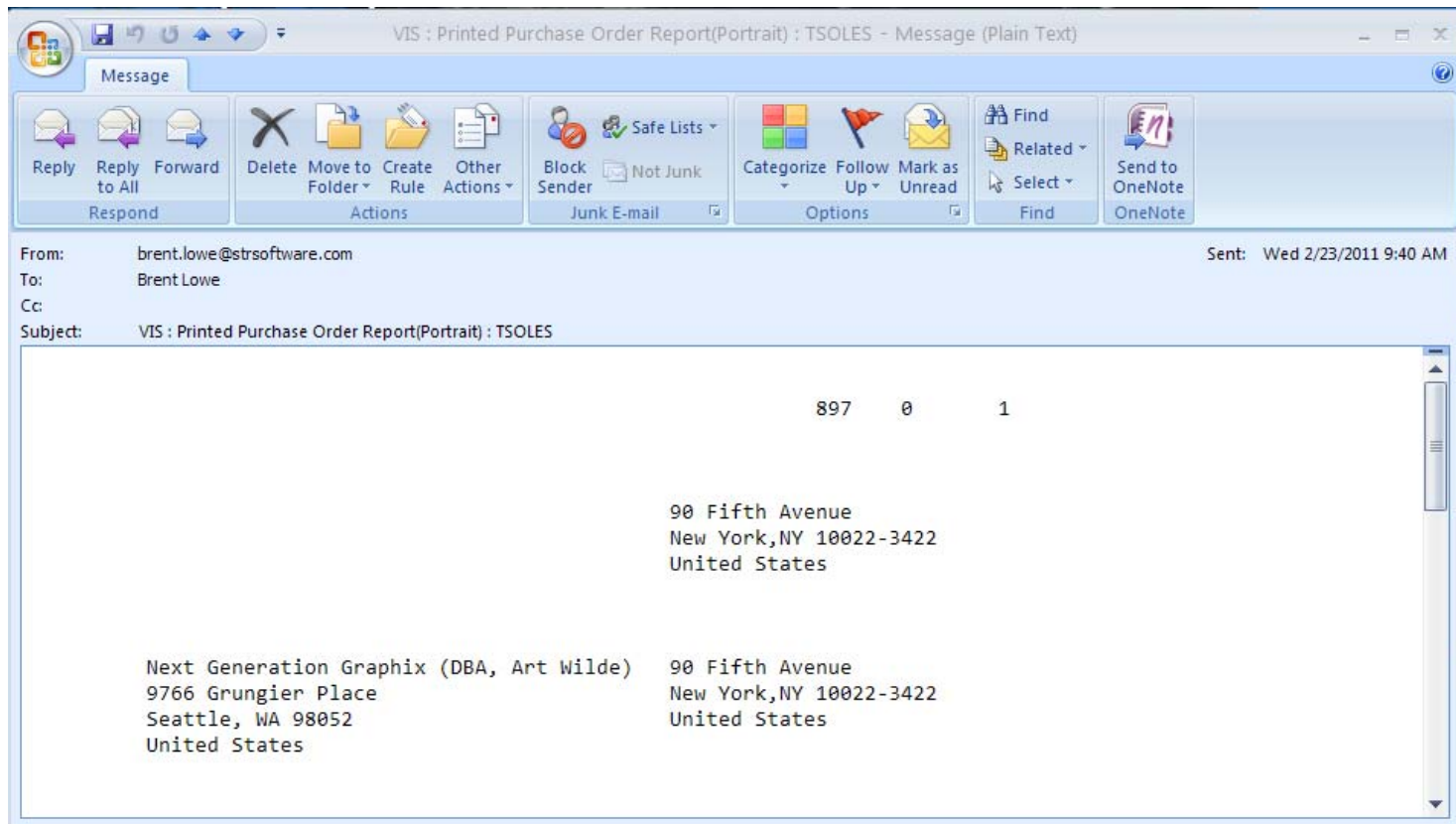
The screenshot shows a dialog box titled "Deliver to..." with a blue title bar and standard window controls. It features four tabs: "IPP Printer", "Email", "Fax", and "FTP". The "Email" tab is selected and highlighted. The dialog contains the following fields:

- From:** A single-line text input field.
- Subject:** A single-line text input field.
- To:** A multi-line list box with five rows.
- CC:** A multi-line list box with five rows.
- For Language:** A dropdown menu with a vertical scrollbar on its right side.

At the bottom of the dialog, there are three buttons: "Help", "OK", and "Cancel".

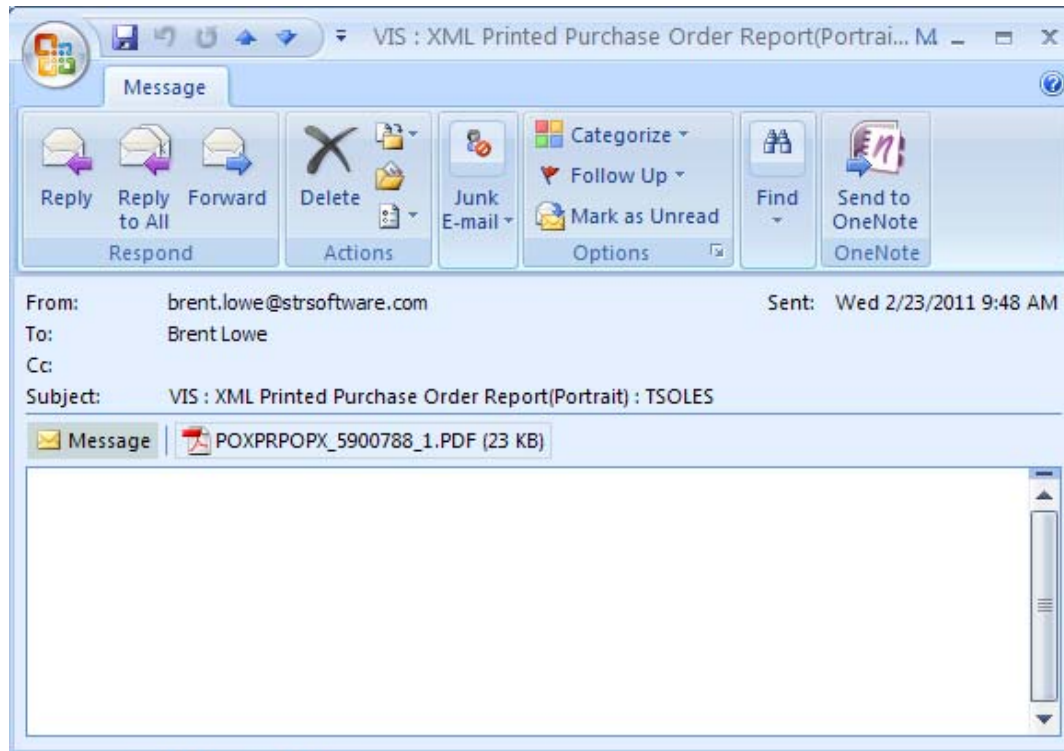
12.1.3 Email Tab - Functionality

- Text based documents:
 - Email Message Body contains report contents. No attachment.



12.1.3 Email Tab - Functionality

- Non-Text based documents
 - Email Message Body is blank
 - Attachment name is based on concurrent program Short Name and Request ID. Example: POXPRPOPX_1234567.PDF



12.1.3 Email Tab – Pros and Cons

- Pros:
 - Can now email data from EBS!
- Cons:
 - User experience is cumbersome
 - Format of email
 - Attachment names

12.1.3 Fax Tab

The screenshot shows a Windows-style dialog box titled "Deliver to...". It has four tabs: "IPP Printer", "Email", "Fax", and "FTP". The "Fax" tab is selected. The dialog contains a table with five columns: "Fax Server:", "Username:", "Password:", "Fax Number:", and "For Language:". There are six rows of empty input fields. At the bottom, there are three buttons: "Help", "OK", and "Cancel".

Fax Server:	Username:	Password:	Fax Number:	For Language:

12.1.3 Fax Tab Configuration

ORACLE System Administration

Navigator Favorites Diagnostics Home Logout

Create Delivery Option

Enabled Yes
 No

* Delivery Name

* Delivery Type

Description

Delivery Option Registration

[Personalize "Delivery Option Registration"](#)

* Host Name

* Port

* Printer Name

User Name

Password

Confirm Password

Sides

Authentication Encryption Use Full URL Use Chunked Body Support Fax

12.1.3 Fax Tab – Pros and Cons

- Depends on volume and exception handling.
 - Fax Modems are single threaded – not going to be able to push a lot of faxes through simultaneously.
 - Exception Handling - Set to success once handed off to CUPS.

12.1.3 FTP Tab

The screenshot shows a dialog box titled "Deliver to..." with a blue header bar. Below the title bar are four tabs: "IPP Printer", "Email", "Fax", and "FTP". The "FTP" tab is selected and highlighted. The main area of the dialog is a table with the following columns: "Server:", "Port:", "User:", "Pwd:", "Remote Dir:", "For Language:", and "Secure". There are six rows of input fields. The "Secure" column contains checkboxes, with the top one checked. To the right of the checkboxes is a vertical scrollbar. At the bottom of the dialog are three buttons: "Help", "OK", and "Cancel".

Server:	Port:	User:	Pwd:	Remote Dir:	For Language:	Secure
						<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

12.1.3 FTP Tab - Functionality

- Transferring BI Publisher documents:
 - <PROGRAM_SHORTNAME>_<REQUEST_ID>.PDF
- Transferring Oracle Report data:
 - o<REQUESTID>.out

12.1.3 FTP Tab – Pros and Cons

- Pros:
 - Remove need for backend FTP scripts.

- Cons:
 - Filename not configurable.
 - Don't fat finger the data entry!

12.1.3 Delivery Options Conclusions

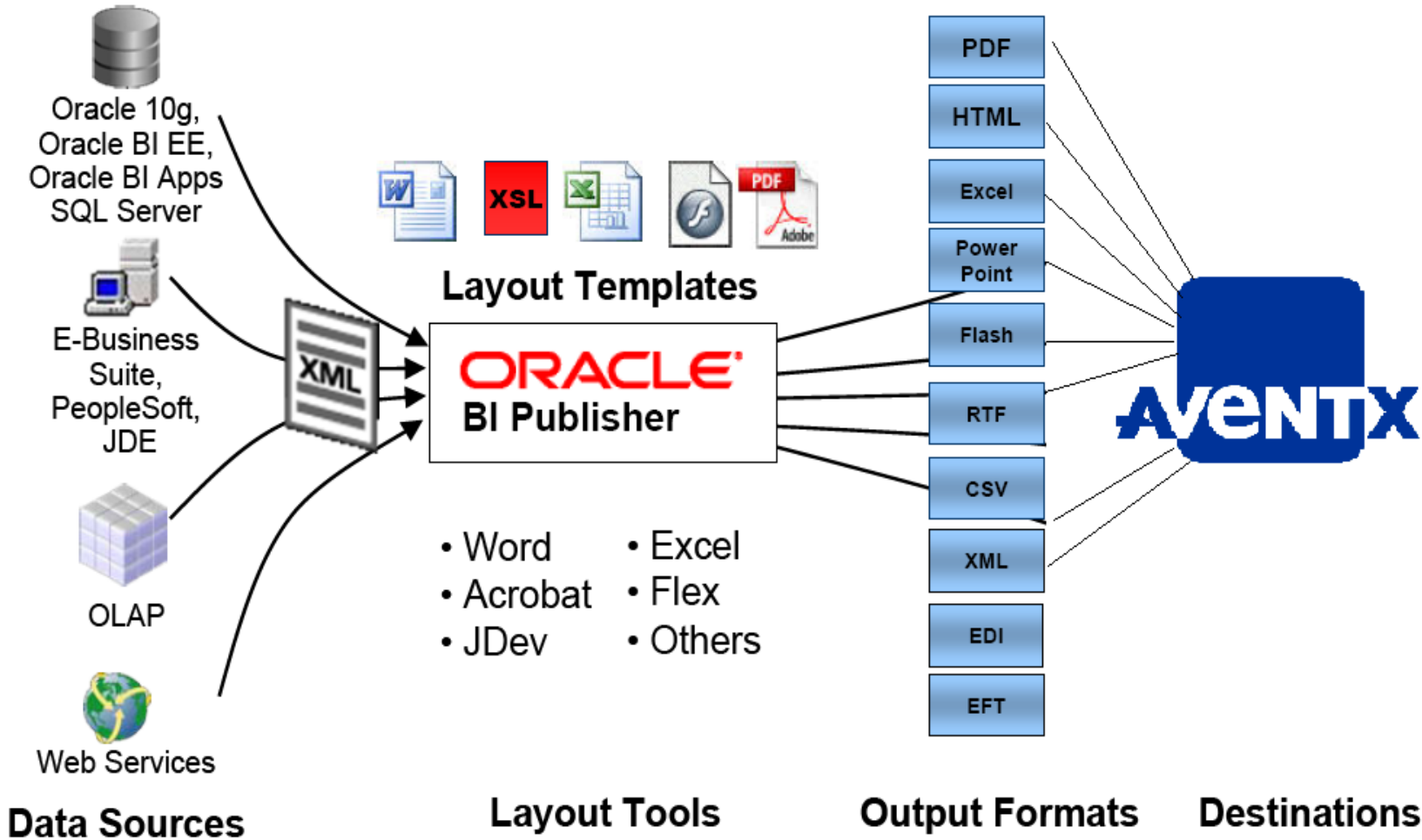
■ Pros

- Good start to delivery mechanism in EBS
- Best feature: Email

■ Cons

- Disjointed configuration (email vs fax/print)
- User experience
- Delivery Status
- No way to turn off, users will find and try to use this.

Extending the BI Publisher Delivery Manager



Document Delivery Fundamentals

Submission - How will the user submit the document from the application?
What information should be delivered? Who should the data be delivered to?

Transmission - How will the document be transmitted (fax, print, email, archive, FTP, etc)

Acknowledgement - How and who will receive a transmission status message?

Management - How will the failed or successful deliveries be re-transmitted?

Customer Driven Extensions

- Deliver and Print Attachments
- Utilize standard customer/supplier setups
- Single process bursting
- Control over final delivery look and feel (attachment names, email message bodies, terms & conditions, etc...)
- Secure/Confirmed Email
- Robust fax capability
- True delivery status
- User managed
- Configurable by Organization and Document Type

Demonstration: Submission

Submission - How will the user submit the document from the application? What information should be delivered? Who should the data be delivered to?

- Any Document
- Any Attachment
- Email, Secure/Confirmed Email, Fax, Print, Archive Destinations
- Interactive and Automatic Delivery
- Bursting Control Files and 12.1.3 Delivery Functionality

Extension: Transmission

Transmission - How will the document be transmitted (fax, print, email, archive, FTP, etc)

- Email
 - Native SMTP email
 - Secure/Confirmed Email
- Fax
 - Network Fax Servers
 - Hosted Fax Servers
 - FOIP
- Print
 - Print to network printers
- Controlled by a Scheduler
 - Manages queue
 - Manages error conditions
 - Manages retries, rescheduling, sending at specific times, routing to specific devices, etc...

Extension: Acknowledgement Demo

Acknowledgement - How and who will receive a transmission status message?

- Status Emails delivered to configurable users.
- Reporting back into Oracle EBS.

Extension: Management Demo

Management - How will the failed or successful deliveries be re-transmitted?

- User has complete control over their own documents.
- System Administrators do not have to intervene.

Conclusions

- BI Publisher Delivery Manager
 - Bursting Control Files
 - R12.1.3 Functionality
- AventX Extensions to the Delivery Manager
 - Submission
 - Transmission
 - Confirmation
 - Management



Oracle EBS R12.1.3 Submit Request Delivery Options Button - FTP - 5



September

This is the 5th

Part 1 - Intro

Part 2 - IPP R

Part 3 - Email

Part 4 - Fax

Today, the fi

Deliver to...

IPP Printer

Server:

Contact Information:

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