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1 Introduction

1.1 About This Manual

Purpose

This Marketplace manual is a reference for suppliers. It aims to provide enough information for users to understand the theory and practice of e-invoicing as implemented in Marketplace for a Supplier. It does not cover the configuration and setup of e-invoicing; this is addressed in the E-Invoice Administration Manual. It also does not cover aspects of Marketplace that are not related to e-invoicing. These are documented separately.

This manual is divided into two main sections:

- Understanding E-Invoicing 4
- Working With E-Invoicing 14

The first section is largely theoretical. It describes how e-invoicing is implemented in Marketplace and defines key aspects of the underlying workflow engine. The second section focuses on the practical usage of the product. This provides many screen-shots and can be used as a hands-on user guide.

Style

Various style conventions are used throughout this manual:

Bold text refers specifically to menu names or button names. For example, "go to **e-invoicing** | **workflow configuration** | **preferences**" or "click **continue**". Note also the use of the vertical bar "|" as a separator between menu levels.

Italic text refers to Marketplace defined names. For example the function *E-invoice approver* or the invoice status *Pending Export*.

Terminology

The terms "e-invoice" and "e-invoicing" are used to refer formally to the Marketplace e-invoicing module and related functions. To be concise, this manual also uses the more generic terms "invoice" and "invoicing".

The term "Marketplace" refers to all brandings of the system.

1.2 Getting Started

Before attempting to use any e-invoicing facilities, you need a mutual agreement with specific buyer organisations that you wish to use e-invoicing. Once agreed, enable e-invoicing for the required buyers. You can then use the following features:

- Create invoice from a PO (PO flip)
- Import XML invoices
- · View invoices
- Generate status reports

The home page also provides some quick links to move directly to an option.

2 Understanding E-Invoicing

This section describes the theory and concepts of e-invoicing as implemented in Marketplace.

2.1 Overview

An ability to process invoices is a key part of any procurement process. Typically, a buying organisation sends a Purchase Order to a Supplier to request goods or services. Subsequently, the Supplier delivers the goods or services and sends an invoice to the Buyer. Providing the invoice matches the goods or services received, the Buyer then authorises payment.

Historically, this process has been manual and paper-based. Marketplace provides e-invoicing functionality that allows electronic (paperless) invoices to be processed automatically with the minimum of manual involvement. Marketplace supports e-invoices that are created externally using an industry standard XML schema. It also allows invoices to be created within Marketplace by the Supplier, or by the Buyer on behalf of the Supplier.



Simplified Procurement Process

The Marketplace E-invoicing module implements the Matching Process using a highly sophisticated workflow engine. This allows buying organisations to configure a workflow that matches their complex business requirements. Potentially, a high proportion of invoices can be processed automatically and only those showing particular discrepancies from the PO or receipt need to be processed manually. Where manual intervention is needed, roles can be used to direct particular types of invoices to specific groups of users for acceptance or approval.

Credit Notes can be processed in exactly the same way as invoices. Marketplace regards any invoice with a negative total value as being a credit note. The workflow engine allows separate rules to be defined for invoices and credit notes. In the remainder of this document, every

reference to invoices applies equally to credit notes unless the text explicitly distinguishes between the two.

In Summary, the Marketplace E-invoicing module provides the following:

- Creation of manual e-invoices
- Manual upload of XML e-invoices
- Automated HTTPS load of XML e-invoices
- Highly configurable workflow engine
- Extensive user interface functionality to allow efficient monitoring and processing of e-invoices
- Reporting engine to generate various reports
- Export functionality to deliver XML or customised files to an FMS
- Payments loader to record payment details

2.2 Matching

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At the heart of the e-invoice workflow is a matching process. This can be configured to use twoway matching (invoice and PO or invoice and receipt), three-way matching (invoice, PO and receipts) or a combination of the two. In addition, the workflow allows the use of header-level checks, line-level checks or both. For example, you may wish to use precisely-defined line-level rules for your main acceptance stage but have a simpler rule based on total invoice value for your approval rules.



Simplified Matching Process

Another important feature of the matching process is its ability to handle partial invoices: A single PO may have any number of receipts and invoices associated with it. To cope with this, the workflow engine allows PO header and line values to be compared with cumulative invoice and receipt totals.

2.3 Creation

Maketplace offers a number of ways of creating or importing invoices:

- Manual PO Flip (Supplier)
- Manual PO Flip (Buyer)
- Manual Import
- Auto Upload

Manual Invoices

An invoice can be manually entered into Marketplace by a supplier. It can also be done by the buyer on behalf of the supplier. This is referred to as "invoice registration" or previously, "proxy invoicing".

Manual Import

A supplier can import invoices into the system by logging in to Marketplace and uploading invoices.

The the following XML formats are supported:

- cXML
- xCBL
- eBIS-XML

Auto Upload

A supplier can also integrate their systems directly with Marketplace, allowing invoices to be uploaded automatically. This uses an HTTPS based interface. The following XML formats are supported:

- cXML
- xCBL
- eBIS-XML
- ZIP file containing collection of one of the above XML formats

2.4 Process Overview

When an invoice enters Marketplace it is validated and then enters the workflow engine.



Simplified Invoice Workflow Process

This diagram provides a simplified view of the process; everywhere that a manual review or acceptance is involved, there is also a possibility of a rejection, dispute or holding. These alternative flows are not shown.

Invoice validation is only applied to XML invoices since there is no need to validate invoices that are created within Marketplace. XML invoices pass through two stages of validation:

- Technical Validation
- Business Validation

Both of these validation stages are performed by the Invoice Loader component. Validation failures result in an email being sent back to the supplier's registered support email address and also to the Marketplace Helpdesk.

When using the HTTP-based Invoice Receiver to load invoices, the contents of the HTTP header are checked. Any error here results in an HTTP error response being returned to the originating system. For example if the supplied user name and password are invalid, no further processing occurs. Similarly, if ZIP file is being loaded and the ZIP file is invalid or if an eBIS XML batch file is being loaded and the batch schema is invalid, an HTTP error response is returned and the entire batch file is rejected.

During technical validation the XML is checked to ensure it is correctly formed and complies with the appropriate schema. Technical validation checks the following:

- XML Schema and Version (e.g. cXML version 1.2.009) match the values given in the message header
- XML is well-formed
- XML validates against its schema

The business validation stage applies some basic tests to the content of the e-invoice. For example currency fields are checked to ensure that they are all populated with 'GBP' since this is the only currency currently supported by Marketplace. Failure of a business validation rule results in an email being sent back to the supplier's registered support email address and also to the Marketplace Helpdesk. The failed invoice is saved in Marketplace for further investigation, but does not enter the invoice workflow.

Note that if a failed invoice originated from a batch (either ZIP or XML), only the failed invoice is rejected. The other invoices from the same batch can be processed normally.

Business validation checks the following:

- Invoice references a valid PO
- Supplier ID on the HTTP header is valid and matches the Supplier ID on the PO
- All currency fields on the invoice are set to GBP
- Invoice net total equals the sum of net line totals subject to 1p per line rounding tolerance
- Invoice VAT total equals the sum of the VAT line totals subject to a 1p per line rounding tolerance
- Invoice gross total equals the sum of the net total and VAT total subject to a 1p rounding tolerance
- PO item references in the invoice are unique. i.e. A single PO item cannot be referenced twice in a single invoice.

The e-invoice workflow comprises seven stages as illustrated. Although the stages are predefined, the rules defining actions within each stage are fully configurable. This allows end user organisations to configure the system in a manner that matches their business process.

The key stages of the validation and workflow process are described below.

Key Stage	Description
Validation Activities	•
Technical Validation	Only applies to e-invoices generated externally (i.e. not PO flip). Checks various technical aspects of the received XML or ZIP file.
Business Validation	Only applies to e-invoices generated externally (i.e. not PO flip). Checks various business aspects of the received e-invoice. For example, checks that the currency is valid within Marketplace. Note: Currently, these business rules are hard-coded.
Workflow Activities with User	Assignments
Mapping	Individual line items on the e-invoice are "mapped" to lines on the PO. In most cases this can be fully automatic but where discrepancies occur, manual resolution is needed.
Acceptance	If the e-invoice complies with user-defined rules it can be automatically accepted. Workflow rules can also be used at this stage to reject the e-invoice, place it on hold or assign to user for manual intervention. The workflow allows for multiple Acceptors to be involved in this activity.
Account Code Distribution	The system attempts to distribute account codes automatically based on the codes specified on the PO. In some cases, automatic distribution is not possible and so a manual activity is required.
Account Code Distribution Approval	Once the account code distribution has been set (manually or automatically) it needs to be approved. Again, this can be a manual or automatic rule-based activity.
Approval	This is the final stage required before an invoice can be paid. Rules can be used to approve the invoice automatically. Alternatively, one or more individuals can be involved in the process.
Workflow Activities with System	em Assignments
PO Closure	This stage allows the workflow to close a PO for future e-invoicing if a particular set of conditions are satisfied. If the conditions are not satisfied, no action is taken.
Export	This stage is similar to PO Closure: It allows the workflow to trigger export to a particular destination if certain conditions are satisfied.

E-Invoice Process Key Stages

2.5 E-Invoice States

During its lifetime, an invoice passes through a number of states.



Invoice State Chart

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State	Description
Submitted	The invoice is created or imported into Marketplace. This is a transitory state since the invoice is immediately validated.
Validated	Passed validation
Invalid	Failed validation
Pending Mapping	Awaiting mapping
Pending Acceptance	Awaiting acceptance
Pending Account Code Distribution	Awaiting account code distribution
Pending Account Code Approval	Awaiting account code approval
Pending Approval	Awaiting invoice approval
Pending Export	Awaiting export
Exported	Exported from Marketplace, awaiting payment
Prepaid	Approval complete, no payment necessary as payment sent with order
Partially Paid	Partially paid, awaiting full payment
Paid	Fully paid

The purpose and meaning of each state are described below:

In addition to the states described above, an invoice can be put On Hold or Disputed during any of the five workflow stages. Once in either of these sub-states, the invoice cannot advance to the next workflow stage until it is released from On Hold or the dispute resolved. It is still possible to reject an invoice whilst it is On Hold or Disputed.

Note that when an invoice is finally approved, it either progresses to the Pending Export or Prepaid state. This is determined by the 'Cheque with order' flag on the invoice. Prepaid invoices are excluded from the automated invoice export files.

3 Working With E-Invoicing

This section provides a step-by-step guide for a Supplier to use e-invoicing in Marketplace.

3.1 Configuring E-Invoicing

Before using E-Invoicing, you need to contact the Buying organisations which you wish to invoice electronically. The E-Invoicing module needs to be enabled by both the Buyer and Supplier before it can be used.

To start using E-Invoicing, click **administration** | **e-invoicing**. This takes you to the e-invoicing setup page:



Supplier Setup Page - Enabled

This page lists your buying organisations and shows whether or not e-invoicing has been enabled by the buyer. If it has been enabled by the buyer, then you simply need to check the 'Enabled' box to start using e-invoicing with that particular buyer.

If you enable e-invoicing for a buyer that has not yet enabled e-invoicing, you can only start using e-invoicing when the buyer enables the service.

After making any changes to the setup page, click update to apply the changes.

3.2 Home Page

To access the home page, log into Marketplace or click home.

The home page provides various information relating to e-invoicing:

		In	Pu	rchase Order / Request Numbe	r Search			
		New Or	ders (68)		\land	search	search	
Purchase Orde	er No. Date			Buyer	Actions			
AP0038	10/10/2	2007 2:53PM		Andy Brunel, AP1	7 B		Site Alerts	
AP0027	27/06/2	2007 8:17AM		Andy Brunel, AP1	7 🖻	Demo Site Al This is a dem Dosted: 01/(tert onstration Site Altert - formatted 18/06 12:33	in "Alert" style
AP0014	26/06/2	2007 2:44PM		Andy Brunel, AP1	7 🗈	Postedi or/	55,00 12,00	
AP0002	26/06/2	2007 10:47AN	1	Andy Brunel, AP1	1 🗈	[more]		
429391	24/05/2	2007 1:32PM		Andy Brunel, AP1			Receipted Orders	\wedge
[more]					\sim	AP0055	Andy Brunel, AP1	
		User Req	uests (99)			AP0054	Andy Brunel, AP1	
Request No.	Date	Type	Buyer					₩
428703	29/03/2006 10:04AM	Spot Quot	e Madhuri S	ayana, Braintree (District Council	AP0053	Andy Brunel, AP1	
369346	15/11/2005 12:46PM	Spot Quot	e Nanny Og	g, L.B. of Weather	wax			· · · ·
369341	15/11/2005 12:46PM	Spot Quot	e test user,	Nadeem's Trainin	g Area	AP0052	Andy Brunel, AP1	
369337	15/11/2005 12:45PM	Spot Quot	e test user,	Mihirs Training ar	ea	400051	Andy Reyard AD1	
321902	13/09/2005 2:32PM	Spot Quot	e Kit2 Lay, K	(its Council		AP0051	Andy Bruner, AP1	
[more]						[more]		
		Latest E	-Invoices				Quick Links	
Invoice Numb	er Buyer Organisation	PO Number	Invoice Date	Original Format	Status	receipt order	S	
255-2	Buyer	AP0055	03/12/2007	Buyer PO Flip	awaiting processing	view user red	quests	
						view orders	es	
<u>054-1</u>	Buyer	AP0054	29/11/2007	Buyer PO Flip	paid	setup e-invo request deta	icing ils change	
<u>055-1</u>	Buyer	AP0055	29/11/2007	Buyer PO Flip	paid			
052-1	Buyer	AP0052	26/11/2007	Buyer PO Flip	awaiting processing			
0511	Buyer	AP0051	26/11/2007	Buyer PO Flip	paid			
		[more]						

Supplier Home Page

At 'Latest E-Invoices' table lists the five most recently processed invoices. The table includes details of the Buyer; the PO number; and the invoice date, format and status. To view any of the invoices shown in this list, click on the invoice number hyperlink.

Against each of the purchase orders listed in the 'New Orders' and 'Receipted Orders' tables there

is a le icon. To view an existing invoice or create a new invoice for any of these orders, click on the icon.

3.3 Creating E-Invoices

As a Supplier, you can manually create an invoice in Marketplace and send it directly to the Buyer. To create an invoice, you can either:

- Open a purchase order and click create e-invoice
- Click on an appropriate
 icon on the Home page

Marketplace then lists any invoices that already exist for this PO:

Below are the e-invoices for order AP0124.								
Invoice Number	Invoice Date	Source Format	Invoice Status					
124-1	28-Sep-2007	Buyer PO Flip	pending approval (disputed)					
124-2	01-Oct-2007	Buyer PO Flip	pending acceptance					
124-3	06-Nov-2007	Supplier PO Flip	rejected					
create manual invoice								

List Invoices Page

This table shows the invoice date, invoice source and current status. If there are no existing invoices the page is shown but the table is empty. To view details of an existing invoice, click on the hyperlink invoice number. To create a new invoice click create manual invoice. This takes you to the create manual invoice page:

	Enter e-invoice details and click continue									
e-invoice header details										
Invoice N	umber:									
Title:										
Comment	s:									~
Invoice D	ate:									*
		dd/mm/yy	/yy							
Total Excl	VAT:	£								
Total VAT		£								
Total Inc.	VAT:	£								
Purchase	Order Num	ber: AP0171								
VAT Reg I	lo.:	12345678	91 <u>(request change)</u>							
select li	nes from p	urchase order								
Select line	s from pure	hase order AP0	171 to be added to	the e-invo	vice.					
Selected Line	Item Code / Job ID	Manufacturer	Product/Service Description	Ordered Qty	Invoice Qty	Unit Price / UOI	Total (ex. VAT)	VAT Rate	Calculated VAT	Custom VAT
~	APS0159	N/A	Green ink pen	20	20	£ 0.59	£11.80	Standard (17.5%)	£2.07	£
~	APS1394	N/A	A4 Note pads	12	12	/ Each	£15.24	Standard (17.5%)	£2.67	£
✓	APS2245	N/A	A4 Ring binder	12	12	£ 2.01 / Each	£24.12	Standard (17.5%)	£4.22	£
add nor	purchase	order lines to th	ne e-invoice							
Item Jo	Code / b ID	Manufacti	urer Product/ Descri	Service	Quantity	Unit Pric	e / UOI	VAT Rate	VA	Action
						£	1	Standard (17.5%)	✓ £	add

By quantity 🚩

•	calculated	totals	

Total Ex. VAT	Total VAT	Total Inc. VAT
£51.16	£8.96	£60.12
receleulati		

Create Manual Invoice Page

This page provides a partially populated form for creating the invoice. The line items are taken directly from the purchase order. To create the invoice:

- Enter an invoice number (must be unique for this buyer)
- Optionally, enter a title and some comments for the invoice
- · Enter the invoice date
- Enter your calculated totals for the invoice
- · De-select any order lines that are not being invoiced
- Update any order lines with changes to quantity, unit price, VAT rate, calculated VAT as required
- · Optionally add any additional line items
- · Click recalculate totals and check the Marketplace totals against your totals
- Click continue to create the invoice

At this point Marketplace validates the details you have entered. It checks that all mandatory fields are populated and checks that the calculated values are within an accepted tolerance of the entered values. If the validation fails, Marketplace displays an error message and you need to correct the problem before proceeding. Once the details have passed the validation process the invoice is created. It immediately enters the invoice workflow and is processed accordingly. The updated List Invoices page confirms that the invoice has been created and shows its current status:

E-invoice successfully created

Below are the e-invoices for order <u>AP0171</u> .							
Invoice Number	Invoice Date	Source Format	Invoice Status				
171-1	11-Dec-2007	Supplier PO Flip	pending approval				
create manual invoice							

Updated List Invoices Page

3.4 Viewing E-Invoices

To view a list of recent e-invoices go to e-invoicing | view:

Day: All 🕶 Month: Dec	ember 🔽 Year:	2007 🕶 💷	() s	Search:	on: E-	Invoice Number 💌 💶
below are e	e-invoices for you	r organisation from	december 2	007.		
	Invoice Number	Buyer Organisation	PO Number	Invoice Date	Status	
	<u>169-1</u>	UAT Test Council	AP0169	07/12/2007	approved for payment	:
	<u>168-1</u>	UAT Test Council	AP0168	06/12/2007	paid	-
	<u>171-1</u>	UAT Test Council	AP0171	11/12/2007	awaiting processing	

View Invoices Page

By default, this page lists the invoices created in the current calendar month. If you wish to see a list of invoices for any other period enter the appropriate dates and click **go**. Alternatively, click on

the **I** arrows to step to the previous or following month.

If you wish to search for a specific invoice or PO, enter the number in the search field, select 'E-

Invoice Number' or 'PO Number' from the drop-down list and click go.

Once you have located a particular invoice, click on the invoice number hyperlink to view details of the invoice. Similarly, you can click on the invoice number hyperlinks that appear on the home page or elsewhere to view details of the invoice.

Inv	voice							
	Su Suppl VAT Reg	pplier: AF ier ID: AF g. No.: 12	9 & Sons Ltd 91 234567891	Supplier AP & Sor 21 Good Good To GT1 2GT	Address: ns Ltd year Road wn			
Invoice Number: 171-1 Invoice Title: Invoice Date: 11-Dec-2007 Received Date: 11-Dec-2007 Type Of Supply: sale					Invoice / UAT Tes Money S Big Towr BT1 3BT	Address: t Council treet		
			Purchase Or	der I	Number: A	P0171		
ID	Description	Quantity	UnitPrice/Value	Unit	t Of Issue	VAT Rate	Total UnitPrice	Total VAT
1	Green ink pen	10	£0.59	Each	h	17.5%	£5.90	£1.03
2	A4 Note pads	12	£1.27	Each	h	17.5%	£15.24	£2.67
	Subtotal:							£21.14
							Subtotui	
							Total VAT:	£3.70

Creation method: Manual Original Format: Supplier PO Flip Invoice Status: awaiting processing back Invoice Details Page

The invoice details page shows all the key details of the invoice including dates, addresses and values. The page also shows the current status of the invoice.

3.5 Reporting

The Status Report reports on basic invoice details including invoice number, purchase order number, invoice date, received date and current invoice status.

To create a status report go to e-invoicing | status report.

The Status Report criteria page allows you to specify what data is included in the report:

		Working With E-Invoicing	19
e-invoicing status report		L	
Received Date:	* * * to:	v v v]
Invoice Date:	1 🔽 December 💌 2007 🕶 to:	12 🕶 December 💌 2007 🕶]
Buyer:	ALL		add
Invoice Number:	ALL		
PO Number:	ALL		
Invoice Status:	ALL	-	
Include stored documents:			
Group By:	Buyer Organisation 💌	nerate report	

Status Report Criteria Page

To generate a Status Report, enter the required details on the criteria page, then click **generate report**. The 'Group By' drop-down list allows you to group the output by:

- Buyer Organisation
- Invoice Date
- Received Date
- Status

By selecting 'Include stored documents', the report also uses an archive database. This can be useful if you wish to search for historical data.

An example output is shown below:

search parameters								
Received Date Invoice Date		Buyers	Invoice Number	PO Number E	-Invoicing Status	Stored Do	cuments	
-	01/12/2007 - 12/12/	2007 ALL	ALL	ALL A	LL	Included		
group report	Бу							
First								
Buyer Organisation								
report data:								
Buyer	Invoice Number	PO Number	Received Date	Invoice Da	te Status		PO Status	
UAT Test Counc	il							
UAT Test Counc	il <u>168-1</u>	AP0168	06/12/2007	06/12/2007	7 paid		Fully Invoiced	
UAT Test Counc	il <u>169-1</u>	AP0169	07/12/2007	07/12/2007	approved for	payment	Fully Invoiced	
UAT Test Counc	il <u>171-1</u>	AP0171	11/12/2007	11/12/2007	awaiting proc	essing	Partially Invoiced	
			edit criteria	d	ownload			

Example Status Report

To regenerate the report using different criteria, click on **edit criteria**. This takes you back to the criteria page.

To download your report in CSV format, click on **download**. You are then prompted to save or open the file.

3.6 Importing E-Invoices

Marketplace allows you import invoices that have been created externally. The following formats are supported:

- eBIS-XML
- cXML
- xCBL
- ZIP file containing a collection of XML invoices

To import invoices go to e-invoicing | import:

Select the e-Invoicing file you want to import. You can either upload individual XML files or a ZIP file containing multiple XML files. The supported formats are cXML, xCBL and eBIS.

Invoice file:	Browse
	continue

Import Invoices Page

Enter the file name of the required invoice into the text box. Alternatively, click **Browse** and locate the file on your file system. Once selected, click **continue** to upload the file into Marketplace. A status message confirms that the import was successful, or, if there was an error, an error message is given.