This whitepaper describes WML's DataGateway output management solution for document content-control, print centralization and electronic delivery.

DataGateway is WML's document management platform. It integrates with your back-office applications and provides all the key features necessary for a complete document delivery solution for print-and-mail, SMS, email, or web portal.

The solution is ideal for insurance and other financial institutions and works well with back-office systems from CDL (Prescribe or CEDS) and SSP. DataGateway solutions can be tailored to provide exactly the functionality your business requires.

Benefits of a WML Document Solution

- **Document compliance**: Reduce the risk of incurring regulatory fines or of losing future legal action due to the delivery of faulty documents. Take advantage of version controlled letter and document template publication to control and record exactly which versions of documents are released to customers.

- **Regulatory compliance**: Avoid regulatory fines due to late delivery. Out-for-mail barcoding offers the opportunity to prove your delivery of documents into the mail service and even to the customer's door.

- **Management information**: Create management reports from any of the information contained in your documents.

- **Call centre service**: Feedback of faulty documents to sales and customer service staff provides a metric to gauge service improvements.

- **Trans-promo**: Add value to your document spend by triggering trans-promo advertising on letter whitespace.

- **Electronic delivery**: Reduce delivery costs by transitioning to electronic delivery, whilst retaining the ability to fall back to print and mail.

- **Postage costs**: Reduce mailing costs by applying mail-sort to your document output.

- **Production costs**: Control and reduce your document production costs by outsourcing print fulfilment to a digital print house.

- **Disaster recovery**: Add resilience to your document production with fast failover to an alternative, backup printing site.

Innovative Technology

Key Features

- **Document quality control** with *WML Document Content Control (DCC)*. Document Content Control can apply a range of *DCC actions* to check and augment your documents. The plugin architecture of the DCC action code allows customised actions to be quickly developed.

- **Document sorting** with *DCC Sort Actions.* Another plugin-style feature of Document Content Control, DCC Sort Actions can post-sort your daily document output prior to printing.

- **Management information**. DCC uses the document's content to identify page and document types. It collects information from the document page content into the *DCC database*. Reports can be generated for held and output documents. Daily spreadsheet reports are available as well as direct, read access to the on-board SQL database for customised reporting.

- **Tracked electronic document delivery** of PDF documents to the customer via SMS, email and web portal. Non-tracked delivery via email attachment is also featured.

- **Document outsourcing -** secure encrypted and compressed delivery of documents in real-time to a digital print facility of your choice.

- **Handles CDL Prescribe, CEDS PDF and SSP PDF** output formats and can add digital stock overlay or suitable simplex/duplex/media type selection to documents to take advantage of multiple delivery channels.

- **Full digital whitepaper solution** - DataGateway offers PDF document generation and document version control with *Template Manager.*

Supporting Features

- **Manage** several DataGateways on separate sites or operate a **disaster recovery** mirror system at a second site with *Appliance Manager.*

- **Closed-loop audit trail** of all documents including out for mail barcoding.

- **Integrate** with Windows, Unix and Linux-based environments. Collect data using Windows network shares or receive via Unix-style network protocols. IP aliasing means the DataGateway can be a drop-in replacement for an existing printer farm.

- Can be implemented as a **server based** solution, on **VMWare** infrastructure or on Linux **KVM**.

- **Archive** documents (to Windows or Unix network shares) at any point in the chain, allowing fast and easy reprint.

- All the **Production features** required by the print production team such as *throughput alerts*, *failover queues, output batch management* and *barcode overlay.*

Document Content Control

Document Content Control (DCC) is the key technology in the WML document output management platform.

The ability to reliably identify and check each document as is passes through the system ensures you can safely implement print outsource or electronic delivery.

DCC provides a sophisticated, web-based configuration interface to create and manage the rules used to identify and manipulate your documents – the *DCC Profile* (see Ill. 1).

The first task is to define page and document types which appear in your print output. A set of sample documents (in PDF format) is uploaded, and identification phrases are then entered until the sample documents are correctly identified. Finally, a set of DCC actions can be defined, which will apply to particular page or document types.

Illustration 1: A view of the DCC profile editor - reviewing document analysis

Documents which fail to identify, or are identified as being incomplete become *held documents.* The list of held documents can be reviewed by operational staff via the DataGateway web interface to determine if there is a fault in the document or if the DCC profile should be modified.

Documents which are held because they are incomplete can be completed by sending the missing document portion. DCC will then create a finished document and pass it to the output. This means DCC can be used to generate single PDF documents from a back-office system which creates printed output from several different components.

DCC Actions

A DCC action implements a document check, a manipulation, or collection of positioned and labelled values.

A document which fails to pass a check becomes a *held document.* The cause of the exception is stored as the *reason for hold.* Some sample DCC actions are:

- Add a PDF overlay. This is a *manipulation action.* E.g. A letterhead PDF is overlaid on pages of type "Covering Letter" to make a document ready for colour printing or electronic delivery
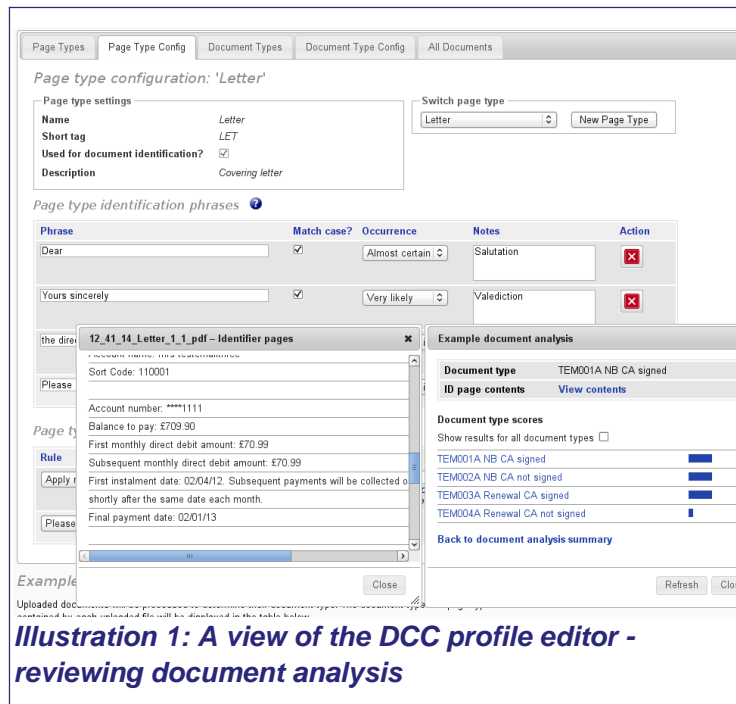
- Check date range. This is a *document check action*. E.g. Ensure that a renewal date on a renewal invitation document is within a specified range.

- Get labelled value. This is an *information gathering action*. E.g. The value "ABC corp" for the label "Underwriter" is collected from the document and stored, for inclusion in a Management Information Report.

DCC actions have a plugin-style architecture, so customised actions can be quickly developed.

DCC Sort Actions

DCC sort actions apply a sort algorithm to affect the print order of your documents.

Examples include simple alpha-numeric sorting, sorting by common address (with the insertion of a common address header sheet for each group of documents) and Royal Mail mailsort, but the exact way the documents should be sorted can be quickly tailored to your business requirements
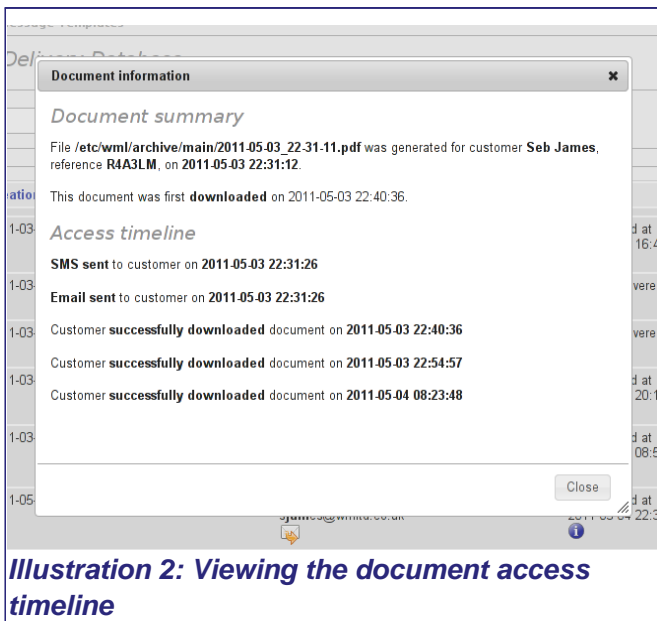
Electronic Document Delivery

Illustration 2: Viewing the document access timeline

The WML secure electronic delivery module sends a customer an email or SMS message inviting him to access his document. The message includes a link to a web-based portal to retrieve the document in PDF format.

The portal can operate a username/password authentication system to verify the customer's identity, or it can make use of a short, one-time code, linked to the customer's name and document reference to ensure secure, SSL encrypted document delivery.

A web interface allows administrators to track the delivery of each document via a **_document timeline_** (Ill. 2).

To guarantee that documents are delivered to each customer, a delivery window can be specified. If the document remains undelivered after a set number of days have passed, it can be printed and mailed to fulfil SLA agreements or regulatory time limits.
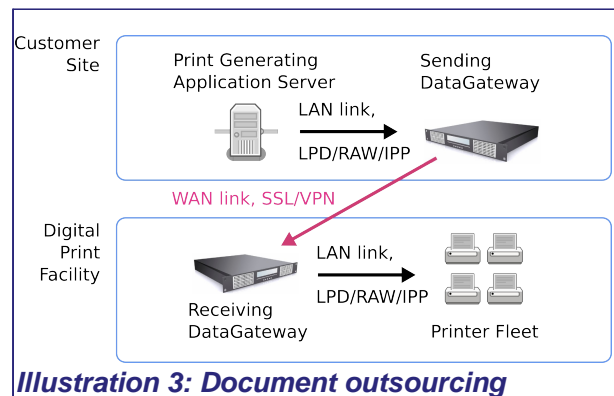
Document Outsourcing

A need to outsource document production may be your key reason for considering a solution from WML. A single DataGateway can be used to replace a fleet of in-house printers, re-routing data from your site to a remote print house, as shown in Ill. 3.

Security Benefits

Print centralisation using SSL-encrypted data transfer delivers the following benefits over processes based on email, FTP or courier-handled CD/DVD media:

Illustration 3: Document outsourcing

- Data Protection Act is fulfilled: no copies of data are held on hard-disk equipment at the print facility, unlike with email, FTP and courier methods.

- Data is very difficult to snoop compared with data transferral via email or FTP.

- All data is encrypted as standard (256 bit SSL within VPN encryption tunnel).

- No need to apply manual decryption at the print factory, as is the case when data encryption is used with FTP, email or courier methods.

- Data can be held in RAM for short periods of time (typically less than 3 minutes, depending on the speed of the network link).

Operational Benefits

The following operational benefits are delivered by document outsourcing:

- The implicit benefit of consolidation through centralisation.

- Real-time printing reduces the time-to-print, giving up to an additional 12 hours before SLA deadlines expire.

Template Manager

WML *Template Manager* is a full digital white-paper forms and overlay system with version control and centralised publication features. Template Manager allows you to define how to convert text based output (CSV, XML, jetforms etc) into delivery-ready, full-colour PDF.

Template backgrounds can be printed from Microsoft Word (or any other word processor) in PDF format and uploaded to the DataGateway. Using the browser-based Template Manager (Ill. 4), variable, static and real-time elements are then laid out to define the finished document template.
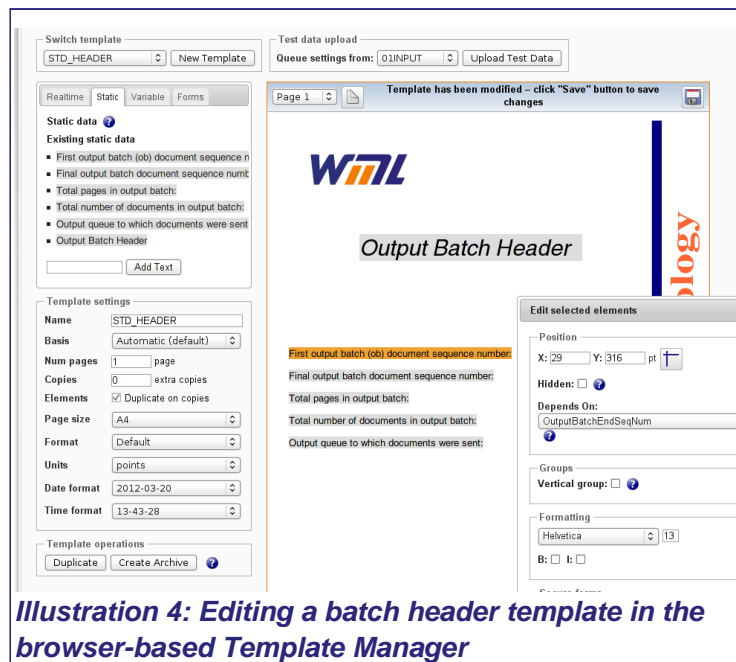

Illustration 4: Editing a batch header template in the browser-based Template Manager

WML's transactional print offering is unique because it merges form and overlay in PDF format before it is transferred to the printer. A unique imposition feature allows the same documents to be electronically delivered in full colour via email or printed onto pre-printed stock using monochrome production equipment (by removing the template background on-the-fly).

Compare this with most forms and overlay print systems which use forms encoded in a printer language such as PCL or PostScript. The document is merged in the printer, which means that the only place to see the final document is after it has been printed.

PDF-native benefits

• Use easy to generate PDF forms (not difficult-to-edit PCL forms or macros)

• Preview all forms easily in your web browser

• With all output in PDF format, your roadmap can now include migration to electronic document delivery

• No PC software to install: Browser-based WYSIWYG template manager and logic interface makes it easy to install the solution on your network

Further Information

Please call Mark Brown on +44 (0)1427 753653 or +44 (0)7753 937955 (mobile) to discuss how a WML solution could benefit your document production.