



CCube eForms Solution Service

With the growing rise in on-line business and e-commerce, organisations need a simple, cost effective way to capture and track transactions through the various processes, to successful conclusion. The CCube eForms module provides electronic forms that can be readily designed and deployed on web sites, to enable applicants to submit on-line requests/transactions.

The Electronic Form gives the ability to capture and workflow e-business forms and is completely compatible with any application and any industry. Best of all, the form is very easy to setup and use - the user simply fills out drop down lists, check-boxes, radio buttons, and text fields that can be validated in real time. Depending on one answer, different choices are given for the next question(s). As the users fill the forms, data is collected behind the scenes and on completion, is used to generate an actual form in PDF format, together with the full data set which can be used to automate business processes.

The CCube eForms module offers the following unique characteristics:

- Ability to create a form template that interactively changes according to the needs of each individual user's session. The user simply fills out drop down lists, and depending on one answer, different choices are given for the next questions.
- Users are lead through the process of creating a form from beginning to end with a point and click interface. As a user answers questions, a form is built electronically.
- These electronic forms link to documents of all types (Word, TIF, COLD/ERM, XLS, etc.) and are stored as PDF documents.
- Upon completion, the form is automatically saved and integrated into the CCube EDRM system, which allows users to access and search for the form based on data populated in the form, directly from the EDRM system.
- As an option these electronic forms can be work-flowed across departments and physical locations. The completed forms actually drive the workflow processes.
- The form decides the scheduling of each point within workflow, how jobs are flowed, and which steps get skipped in particular business processes.
- The system administrators have the ability to change the way the form presents itself.
- The completed form is issued in PDF format, for ease of use elsewhere, e.g. in other applications, web browsers, e-mail, etc.
- The eForms system is independent of any back-end business system, although it can be integrated; consequently, it can be used to collect data for any back-end system, including EDRM systems.

- A key feature is that eForms is deliberately detached from any front-end application, to avoid counting eForm users as concurrent users, eliminating any licensing implications. The system supports un-limited access by internal and external users. The eForms importer (included in the package) provides the link with back-end and other business applications, including EDRM systems.

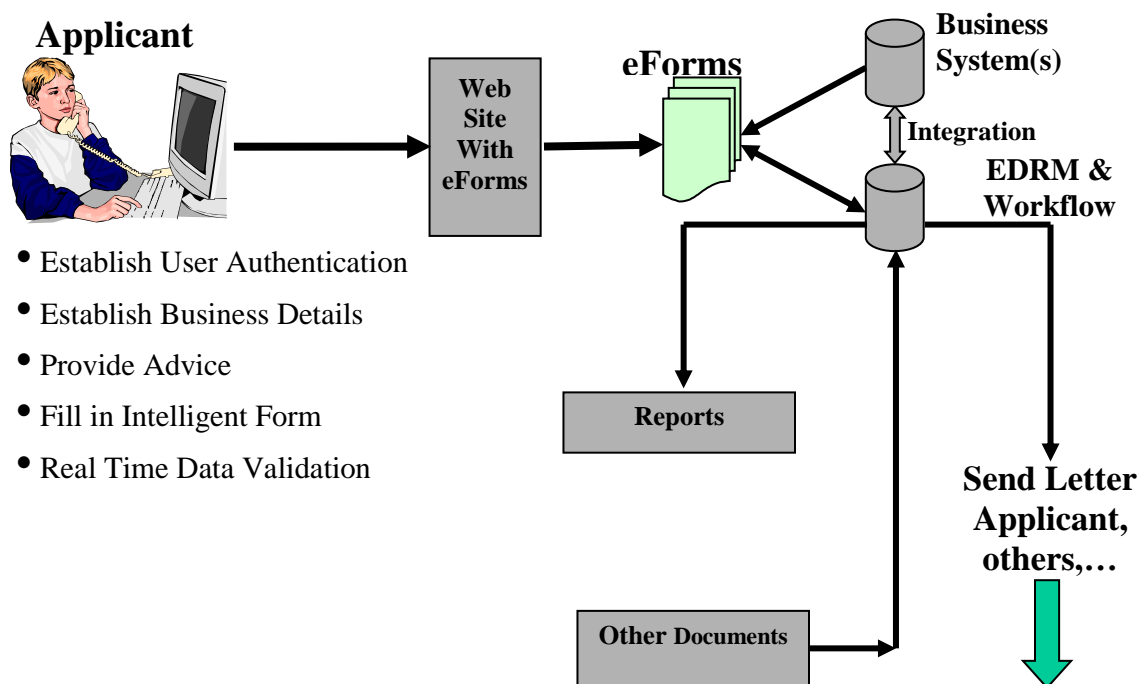
It is important to view eForms as a key component of a practical and effective eForms strategy which must include the following key components:

- Process Analyses
- Development
- Deployment
- Form Filling
- Output Management
- Reporting
- Support

Simply replacing existing paper and electronic forms with eForms will not deliver the intended business benefits.

System Operation

Example eForms Process



eForms is essentially a series of questions designed to collect and collate data entered by a user. The forms system includes in-built navigation and intelligence so that only the relevant questions are presented to the user. In the example above, click on the “Next” button to proceed through the form – this button will be active when the required information has been entered by the user.

With reference to the schematic above, the process will involve the following steps:

1. Access the eForms via a web site – by an internal or external user, or by any number of nominated interested parties.

2. eForms will guide the user, offering help and support/contact information.
3. Each applicant will be able to pause completion and resume at a later date. There will be a limit on the period for which a partially filled form is held in the system.
4. Each applicant will be identified via a unique user ID and password – this will provide the means through which an applicant can resume the form filling, and allow for auditing.
5. On completion, a PDF version will be generated containing all the completed data fields. A summary PDF will also be generated as an option – to be e-mailed to the applicant. The data will be saved in a database table and the completed PDF form(s) will be saved in the EDRM system. This task will be fully automated and setup as a background task.
6. As an option, the summary PDF (or the full PDF) generated can be sent into the Workflow system for subsequent processing/review.
7. The summary PDF will be made available and can be sent via: e-mail (for notification), printed hard copy, or fax. The summary sheet can contain data relevant to specific letter templates for use as standard business letters.
8. The EDRM system will make the forms data available to third-party applications via a data table, used for reporting and other applications.
9. The system will have an audit trail facility which will log all actions that have occurred.

Published electronic forms are accessible via EDRM. When a specific form is selected (in the relevant patient screen in EDRM), any patient data required in the form will be automatically fed through and will be visible on the form, to the user. This facility is available in the eForms designer, and is not hard-coded. Forms can also include barcode information, all material produced for a specific patient can have barcoded and human-readable information clearly printed on the form. This information will, as a minimum, include:

- Patient Name
- Patient Address
- Patient DOB
- Patient GP
- Patient Hospital Number
- Patient NHS Number

The embedded patient information will include barcoded data – use of barcode software fonts. Once the form is completed (e.g. paper based form) the form can be scanned and indexed without further manual intervention as the scanning software will read and interpret the barcoded data – the data read from the barcode is validated against the master index data.

Barcodes are read and interpreted as the document is scanned so that forms and casenote processing can be carried out in real time, e.g. section, sub-section separation, colour / monochrome scanning, and barcode data validation which will include patient data lookups. All standard barcode types are supported and the system can process multiple barcodes on a given sheet – it can be configured to ignore specific

barcodes. Forms/documents without barcodes will be processed via the Forms Recognition module.

Note that eForms will not require scanning as the completed forms (PDFs) will be automatically captured in EDRM.

Electronic Forms must not be seen in isolation from a planned information strategy. An eForms Framework helps to define a business strategy - simply deploying an eForm will not deliver the business strategy. A practical and effective eForms strategy, with eForms as a key component, can be readily identified. Such a strategy must include the following key components:

- Requirements Analyses - *data should be keyed in once!*
- Development - use software designed to build electronic forms
- Deployment - via business intranets or Internet (or both).
- End User Experience – end-to-end form filling with a point and click interface.
- Output Management – automate and drive the business process.
- Reporting – how are the forms are being used, and metrics on the business processes
- Support - training to build good quality forms that enhance the end user experience.

Integrated electronic forms – eForms - provide end-to-end functionality from design, through submission and output management, to fulfill specific business requirements. eForms are essentially structured data entry screens used for collecting data which can be used to feed any number of front and back-end systems used in business processes, for example, HR and ERP applications, reporting tools, letter generation, etc. But these forms must not be seen as simply tools for data collection – this is just the start!

The essential functionality must include:

- Ability to use a form that interactively changes according to the needs of each individual user's session. The user simply fills out drop down lists, and depending on one answer, different choices are given for the next questions – intelligent navigation. The user must be allowed to suspend the form filling and resume at a later time.
- These electronic forms link to supporting documents of all types
- The system administrators have the ability to change the way the form presents itself.
- The form design must not involve programming although it is understood that more complex forms will require some IT input – users who understands the business process are ideally placed to design forms.
- The eForms system is independent of any back-end business system, although it can be integrated; consequently, it can be used to collect data for any back-end system, including centralized information repository systems.
- Upon completion, the form is automatically saved and integrated into a back-end repository, which allows users to access and search for the form based on data populated in the form, directly from the information repository. Receipt of the completed forms may trigger back end workflow applications.

- eForms must be detached from any front-end application, to avoid counting eForm users as concurrent users, eliminating any licensing implications. The system must support un-limited access by internal and external users.

Examples:

1. Expenses paid quicker with eForms

A London based publishing company recognized the benefits of using electronic forms to manage company-wide employee expense claims online. Operating a paper-based expense claims system was inefficient, slow and costly as paperwork had to be couriered between buildings or sent in the internal post which often resulted in delays or lost forms which would then need to be resubmitted. With a paper system, staff would receive their monthly credit card statements and have to manually enter all items and attached receipts – a laborious process for some who had 60 to 70 purchases to input per month.

The business wanted to resolve these issues by introducing an online claims solution to save time and make processing quicker. The project goals were to:

- Improve the efficiency of the whole process;
- Make filling in claims quicker for staff, particularly sales people so they could focus on selling rather than a laborious process of form filling;
- Provide a direct feed into its accounting system to avoid manual input;
- Provide more accurate recording of expenditure by staff – first time - without AP staff involvement.

The organisation deployed the CCube eForms solution to automate the whole process of employee expense claim management. The new system means that Accounts Payable staff are saving 10 days a month to process 250 credit

The screenshot shows a web browser window titled 'CCube Portal - Microsoft Internet Explorer'. The address bar shows 'http://127.0.0.1:8080/CCube/AuthenticatedMain.aspx'. The page has a navigation menu on the left with 'eFORMS' selected, containing links for 'New eForms', 'Existing eForms', and 'Submitted Applications'. The main content area is titled 'Claim' and contains a 'General Claim' form. The form fields are as follows:

Date	07/08/2007
Vendor	brnbn
Category	Category - B
Description	h3h3h3
Department Code	2
Product Code	2
Net Value	200
VAT	35
Gross Value	235

Below the fields, there is a 'Calculate VAT' button. At the bottom of the form, there are two questions with radio button options:

- Do you have a receipt for this expense? (Yes/No)
- Is this a motor expense? (Yes/No)

At the very bottom of the page, there are buttons for 'ShowHelp', 'Preview', 'Previous', and 'Next'.

card and cash expense claims – time which is being far better used to run the business. The system delivers 100% correct nominal code costing, improves reporting and has improved organisational effectiveness by making a laborious clerical task quick and easy for staff so they can focus on their core job roles.

2. Benefitting from intelligent eForms

Thousands of staff across hundreds of NHS Trusts use paper based forms for recording patient data. One key issue is the number of times the same data is manually recorded, for a single patient who moves from one treatment center to another. This, coupled with the delay of documents being sent back and forth via surface mail, creates an intolerable situation for all those involved in the treating patients.

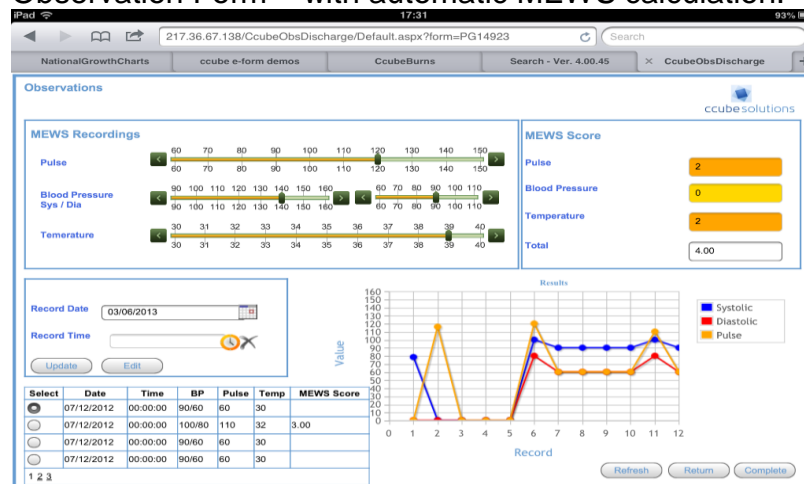
The requirement is quite simple: an application form that is intelligent and captures the required data once, for reuse at any point along a patient's care pathway. Intelligent eForms present the next relevant question, based on responses to earlier questions. The system actually helps the user in the form filling process and verifies the data keyed in which is saved for reuse at any point. This data can also be used to automatically pre-fill related forms so that the same data is not re-keyed in manually. A number of eForms in the NHS Sector have been designed to make the entire process a lot more efficient, minimise data errors, and move relevant data as the patient moves through the care pathway. These electronic forms also present the results of data entry instantly to care-providers who can make rapid decisions, with significant reduction in wait times for patients.

Examples:

a. Electronic Growth Chart



b. Observation Form – with automatic MEWS calculation:



c. Notepad with free-hand draw area

The screenshot displays an NHS eForm interface. At the top left, it shows 'NHS Number: 1223334324' and 'Patient Name: PAULINE GALLOWAY'. Below this is the NHS logo and a user login section with 'super.admin' and a timestamp '15/06/2015 15:42'. The main area features a large, empty rectangular box for drawing, with a small '20150112 334' label at the bottom left. To the right of the drawing box are two line drawings of a human figure, one facing forward and one facing backward, intended for anatomical drawing. At the bottom right, there are 'Exit' and 'Save' buttons. A small checkbox labeled 'Make Available to Other Cases' is located at the bottom left of the drawing area.

3. Solving crime with eForms

The Metropolitan Police handles thousands of applications for communications data per year, which are the subject of serious crime enquiries. The enquiries cover a wide range of offences from robbery and burglary to kidnap and murder. Through their implementation of “TIMS” - electronic document management, telecommunications, electronic forms and workflow - the Met has dramatically decreased the time needed to respond to crimes, whilst operating in a paper-free environment and ensuring compliance with the legislation.

Central to TIMS is the electronic, on-line form, accessible by any one of the 30,000 police officers around the Metropolis. TIMS manages the interaction between these “customers” and the processing center - “business”. In addition, TIMS manages interactions between customers and their respective supervisors, ensuring that the business is aware of all aspects of an application from initiation through dissemination of results, and can provide rapid response to enquiries at all stages of the process.

New and imaginative uses of eForms are in development and at various stages of user acceptance. These developments are tightly coupled with major advances in the interaction between users and computing devices, specifically hand-held, mobile devices driven by consumerism. Mobile hand-held devices such as the iPad, Android, and Windows are leading the information revolution. eForms is one of the core technologies, particularly in the Health Sector where advances in use of eForms on mobile devices, for both structured and un-structured data is beginning to have a real impact on how clinicians interact with information – all without paper!

Envisaged Benefits

A well thought-out eForms strategy will deliver measurable business benefits:

- Improved service to users by automating feedback
- Reduction in data duplication and errors by controlled data collection and validation at source
- Reduction in the high printing and management costs currently incurred when a revision of the form is required

- Standardization of procedures and templates, and a reduction in the use of paper generally
- Forms may be completed by staff that do not need to be specialist, thereby freeing trained and experienced staff to concentrate on processing applications
- Improved use and access will help promote integrity of business data and its use within business processes.
- Integration with back-end EDM & Workflow solutions and databases.

Electronic Forms can:

- maximize engagement with users
- dramatically cut data entry and duplication costs;
- streamline business processes and improve efficiencies

FEATURES AND BENEFITS

Key features

- Interactively change according to needs of each individual user's session
- Electronic forms link to supporting documents of all types
- System administrators have the ability to change the way the form presents itself
- No need for programming– eForms model business process
- eForms are independent of back-end business systems
- eForms support integration with back-end business systems
- Completed forms can be saved in any repository; can trigger back end workflows
- eForms are detached from any front-end application, eliminating any licensing implications

Key benefits

- Maximize engagement with users
- Dramatically cut data entry and duplication costs
- Streamline business processes and improve efficiencies
- Improved service to users by automating feedback
- Reduction in data duplication and errors by data collection and validation at source
- Reduction in the high printing and management costs currently incurred with paper forms
- Standardization of procedures and templates, and a reduction in the use of paper generally
- Forms may be completed by staff that do not need to be specialist
- Improved use and access promotes integrity of business data and use within business processes
- Integration with back-end IT solutions and databases

CLIENTS

- Aintree University Hospitals NHS Foundation Trust
- Blackpool Teaching Hospitals NHSF Trust
- Cambridge University Hospitals NHSF Trust – Addenbrookes Hospital
- Milton Keynes Hospital NHSF Trust
- NHS Forth Valley
- NHS Grampian
- North Staffordshire Combined Healthcare NHS Trust
- Papworth Hospital NHSF Trust
- Pennine Care NHSF Trust
- St Helens and Knowsley Hospitals NHS Trust
- South Staffordshire and Shropshire Healthcare NHS Foundation Trust
- Tameside Hospital NHSF Trust
- University Hospital North Staffordshire NHS Trust

Pricing

CCube eFORMS Software	Licenses	Price £ Per Licence (Unit)/Annum
CCube eFORMS Software – Site wide Licence	1	£21,650 per Licence (Unit) per annum
Professional Services	Man Day	Price £ Per Man Day
Professional Services – Implementation, Training, Project Management	1	£795 per day

Payment Terms:

- All prices exclude VAT and are subject to our standard terms and conditions
- Subject to minimum 1 year contract term
- All invoices are to be paid within 30 days of the invoice date

ABOUT CCUBE SOLUTIONS

CCube Solutions is an award-winning provider of enterprise content management (ECM) solutions, comprising electronic document and records management, workflow, electronic forms, portal software, and systems integration.

Founded in 1995, CCube Solutions have a proven track record working with the National Health Service, police, local government, and in the private sector providing cost effective and scalable solutions, tailored to meet the individual requirements of customers.

Today, NHS Trusts, local councils, and numerous well-known organisations use our systems day-to-day to capture, store, protect and share information over its useful lifecycle.

Our focus is ensuring users get the right information at the right time to enable them to carry out their jobs productively.

An AIIM Advisory Board member, CCube Solutions is active in developing and guiding the future direction of the ECM industry, and upholds AIIM's principles of good information management. We are fully conversant of the trends and issues in the ECM industry, know-how applied on every customer engagement.

As each project involves a tailored version of our software, we work closely with global IT assurance provider, The NCC Group, to protect customer investment in our software having registered our source code under ESCROW.

The CCube team comprises its own software developers, implementation and support staff, and project managers with full onsite training typically given via 'train-the-trainer' courses so customers are self-sufficient using our software.

CCube Solutions is headquartered in Milton Keynes, and is the trading name of OITUK Limited.