



eForms: are you missing a trick?

Advances in electronic forms could offer significant benefits to organisations trying to remove paper from their processes, argues Vijay Magon of CCube Solutions

With the 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. eForms ticks all the boxes in terms of functionality and potential use: studies by Gartner and Microsoft clearly show significant and tangible savings where eForms are deployed. The reality on the ground paints a different picture - why aren't more organisations using eForms? Let's look at the technology and examine why it had to wait for a partner to make a real impact on our consumption of paper.

BACKGROUND

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.

- Users are led through the process of filling a form from beginning to end with a point and click interface. As a user answers questions, a form is built electronically.
- Forms link to supporting documents of all types
- Form design should not require programming although it is understood that more complex forms will require some IT input - users who understand 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 centralised 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. Receipt of the completed forms may trigger back end workflow processes.

Crucially, eForms must be detached from any front-end application, to avoid

counting eForm users as concurrent users, eliminating any licensing implications. The system should support un-limited access by internal and external users.

Equally, eForms 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 that strategy.

WHERE ARE WE NOW?

Advances in eForms and mobile devices open up new options for collecting and analysing data. The boring chore of form filling - paper or electronic - is in the past. With a tablet, the user is essentially left with the fingers of one hand to carry out data entry tasks. Rich user-interface controls such as sliders are replacing click based controls such as drop-down lists and calendars.

But simply replacing established data entry controls with new gesture based controls is not sufficient in itself. eForms are being designed to be device agnostic and provide instant feedback during data collection to help the time-pressed user who needs to easily collect and analyse data. As a minimum, eForms must:

- Be usable on any mobile device, without having to manage versions for each device type
- Allow the user to rapidly collect data using rich user interface controls
- Validate data collected and save it for reuse
- Perform simple and complex calculations using the data collected



- Display and feedback to the user selected results to support analyses and reporting, including dashboard-style charting

The device-agnostic requirement is key: eForms should not be designed to work on a specific platform. Installing an app on an iPad may be terrific as it provides access to the rich user experience on this specific device - but what about an Android or a Windows tablet? Will suppliers develop and maintain eForms for each platform? This will become cost-prohibitive very quickly. It makes sense to design and develop the eForms once, install it on a secure server and provide access to the electronic forms using any device. Furthermore, the success of the mobile platform stems from the fact that it's a device which connects a mobile user with the office - i.e. it is a connector and need not hold any data locally. This is a welcome message for IT and Compliance people in organisations which worry about mobile devices becoming mobile - losing such a device is an acceptable risk; losing corporate data is not!

THE EXPENSES EXAMPLE

Operating a paper-based expense claims system is inefficient and costly as paperwork has to be couriered between

offices or buildings or sent via internal post which often results in delays or lost forms. With a paper system, staff receive monthly credit card statements and have to manually enter items and attached receipts - a laborious process for some who have 60 to 70 purchases to input per month.

Online eForms can help to resolve these issues. The objectives are to:

- Improve the efficiency of the whole process;
- Make filling in claims quicker for staff, particularly sales people so they can focus on selling rather than a laborious process of form filling;
- Provide a direct feed into backend accounting systems to avoid manual input;
- Provide more accurate recording of expenditure by staff .

THE HEALTHCARE EXAMPLE

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 centre to another. This, coupled with the delay from documents being sent back and forth via surface mail, creates an intolerable

situation for all those involved in patient care.

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 then 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 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.

THE LAW ENFORCEMENT EXAMPLE

Law enforcement agencies handle thousands of applications for communications data per year, which are the subject of serious crime enquires. Through implementation of eForms based solutions, organisations have dramatically decreased the time needed to respond to crimes, whilst operating in a paper-free environment and ensuring compliance with legislation.

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

More info: www.ccubesolutions.com