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TRANSITIONING TOWARDS A 'PAPERLESS' OFFICE

Jayant Krishna*

Abstract

The velocity with which the web and groupware technologies are being deployed by the organisations for internal applications is astounding. With a usual prerequisite of a network supporting client-server technology and some standard protocols, these technologies are leading to the emergence of smart and a relatively paperless office. It is quite evident that as organisations get more complex, fast-paced, global and digitally networked, Intranets together with groupware are being treated as overwhelmingly productive and enabling technologies both in terms its strategic importance and contribution to the value added.

WEB TECHNOLOGY'S FRENETIC EVOLUTION

The World Wide Web is said to be in the throes of an especially frenetic evolution, as it is transforming the way organizations operate almost everywhere necessitating them to keep adapting and evolving all the time. Organisations worldwide are experimenting with the Internet technology in multiplicity of ways. Besides the much trumpeted e-commerce applications, many organisations are treating the web technology as an ideal way to disseminate internal information and services over corporate LANs and WANs. Internet technology is now being imaginatively used within large organizations to facilitate information flow, redesign business processes, enhance employee productivity and advance organisation-wide strategic objectives.

CORPORATE INTRANETS

The sheer volume of information stored and managed by organizations is gigantic. This includes rules, procedures, standards, specifications, communications and documents of various types stored in reams of printed paper. Many organizations are already using intranets wherein the storage, retrieval, distribution and updation of this information becomes much simpler and manageable as online information gets delivered to internal users. Intranets are basically intra-company networks built with open internet software that provide companies the ability to improve their internal communication and collaborative teamwork at a relatively

lower cost. Quite naturally, Intranet results in a significant reduction in cost of office operations and substantive savings in the amount of shelf space required. It also gives rise to improved productivity through online access to information and a better control of redundant, obsolete or irrelevant information.

Intranets facilitate many corporate applications like collaborative teamwork, employee communications, publications, online document referencing, time reporting, knowledge management, training and many other interactive activities. In an Intranet set-up, the web and other Internet related technologies are being used totally on the inside of a private network while not necessarily having a direct connection to the web. Browsers could be used to provide a way to communicate with the internal customers, present information, capture feedback, and process the response automatically through databases or scripting. Similarly, search engines may also be used for rapid access to information.

A well-designed Intranet can provide an excellent way to unify the remote operations of an organisation and increase the ease, frequency, and quality of inter-unit coordination and communication. While doing so, large organizations often find that internal use of web technology results in a proliferation of servers and access points, a small price for a string of great benefits.

GROUPWARE APPLICATIONS

Hand in hand with the corporate Intranets, groupware applications also go a long way towards creating paperless and smart offices. The major contributions of groupware in improving organisational performance include on-line

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collaborative work, electronic community development, knowledge management and workflow applications. Groupware is basically a set of tools using computers and communications which provides a virtual common platform to allow people to share information, brainstorm, exchange ideas and collaborate on problem solving. Application development tools are used to implement workflow systems, which define forms, specify operations and the routing logic.

AUTOMATED WORKFLOW

In layman's terms, workflow is a sequence of actions or steps deployed in business processes. Automated workflow is essentially an enabling technology that allows business to streamline their processes for higher efficiencies wherein messaging connectivity between all participants and relevant stakeholders is considered a fundamental requirement for a robust and reliable workflow infrastructure.

Workflow applications could be of several types. Ad-hoc document and message routing applications like document reviewing and on-line polling are among the simplest in which the process required for a given job is defined in the beginning of the process by the initiator himself. Workflow for administrative forms routing such as travelling expense reports and resource requisition processing are those in which the process structure is predefined by the groupware administrator and the complexity of the route is relatively low. Similarly, queue-based workflow applications such as complaints management system and computer-based help desks are useful for work classification and distribution purposes. On the other hand, collaborative routing workflow applications such as employee loan processing, government approval and technical

design workflow applications are relatively complex and entail long and complex processes and often involve iteration of delegation and hence also of routes. Yet another type of application is the line of business production workflow which requires high throughput and high storage requirements. These are complex, expensive and often require imaging back-up also.

Workflow Framework

A close look at the application categories and the outlined requirements suggests some essential requirements for a workflow platform. 'Routing primitives' are the basic building blocks of work routing while 'roles infrastructure' is a logical representation of task performers. Similarly, 'rules' are used as conditional logic to evaluate business conditions as the work item advances through the workflow process. Yet another requirement, 'scripting,' relates to the language used for instructing the system to take suitable actions to imitate business logic. In addition, the workflow platform should offer tracking and audit facilities to measure process efficiency and individual performance against Service Level Agreements (SLAs). In a user-friendly graphical interface, 'forms' are also used to present the event specific information to the participants. An appropriate 'authoring environment' is also used to leverage the strengths of the workflow platform.

Two products namely Lotus Notes and Microsoft Exchange are fairly robust, feature-packed and offer extensible messaging and collaboration technologies, which provide the ideal infrastructure to deploy workflow applications under the groupware umbrella.