



White Paper

ENABLING THE CONTENT DRIVEN ENTERPRISE

Empowering enterprises to derive and drive value from content



Executive Summary

Refresh Software Corporation is building products for the next generation of content applications and services, which will aid in enabling the Content Driven Enterprise (CDE). The CDE has an infrastructure in place that takes advantage of a component infrastructure based on industry standards like SOA, uses a content object model to organize and control its content, and integrates infrastructure and object model with applications that produce and consume content. The CDE promises to unlock the real value of digital content inside the enterprise.

The underlying premise of the CDE is that organizations that create a more agile information infrastructure will reap the benefits of repurposing, reusing and easily maintaining their corporate content.

Historically companies have invested heavily in enterprise software applications such as document management, web content management and digital asset management systems. In each case, the focus has been delivering greater efficiency to the business by offering software application features to support the requirements of what's commonly considered the five stages of content management; create, manage, integrate, transact and distribute.

Through the use of these enterprise applications, organizations have become familiar with the process of digitizing information, describing it with metadata and storing it within content repositories for distribution and reuse. Now, as software development technology evolves at faster rates and related cycle-times for application development continue to shrink, companies have begun to search for tools that can swiftly enable content-centric applications. These new content driven applications tend to be departmental and are effective at gaining more business value from content.

The paradigm shift that the CDE brings about is in thinking about access to content assets in terms of a services tier within an application infrastructure.

Content Management has gone through several iterations - morphing from simple methods to manage updates and versions, into monolithic proprietary systems that offer innumerable features, and require specific resources, skill sets, and environments in which to operate. Content Management is poised to make an evolutionary leap, away from simply managing documents and web pages, towards becoming the driving force that enables compelling new business in the enterprise. One only has to look at the bevy of compliance and regulatory demands being put upon the enterprise today.

The Evolution of the Content Driven Enterprise

Content Management is dead. Long live Content Management. The Content Driven Enterprise is here, and it's being ushered in by Refresh Software.

Today, we find ourselves standing on the threshold of that next step - The Content Driven Enterprise. The Content Driven Enterprise uses; an open, flexible, easily-configurable content management system that leverages an Object Oriented Content Model to offer greater flexibility and maintainability.

Leveraging proven Oracle, SQL database, and other enterprise RDBMS as the standard for storage and publishing, intelligent API's that manage, retrieve, and



present content as objects; a system that adds structure to unstructured data through the use of meta-data tagging and taxonomies; that separates content from format; A system with a component based architecture that leverages enterprise class, low cost expandable components; a system designed to integrate with and to leverage best-in-class, agile, scalable, secure and open infrastructures.

Refresh realized early on that to achieve maximum flexibility and to derive the maximum benefit from a Content Management solution would require a new paradigm - which adheres to your usability, information management, process, and workflow requirements. The embodiment of this approach is SR2, a flexible platform designed to operate with your existing investments in hardware, software, skills sets and infrastructure with the goal of enabling the Content Driven Enterprise.

The Flexibility of the Content Driven Enterprise

The typical enterprise consists of a sea of heterogeneous systems, all designed for different goals, and all expected to be made to work together. Intercommunication of these systems depends heavily on flexibility, intelligent mappings, solid communication channels, and the ability to scale to meet the needs of new combined tasks. To this end, major companies including BEA and Oracle have embraced open standards-based technology and Service Oriented Architectures.

A Content Driven Enterprise must have an Information Architecture designed to work within this new infrastructure, creating a foundation that allows for easy-to-create, intelligent content-centric applications and meta-models that drop right into an existing application infrastructure.

Refresh Software approached the content proliferation problem from a new viewpoint - analyzing the core problem applying best practices and patterns of Object Oriented programming, Isolation of Concerns and High-Cohesion / Low Coupling to arrive at a product and solution that decouples content authoring from delivery, content from format and code change management from content change management.

This approach allows reuse and repurpose of content across any part of an enterprise, adding a level of power and flexibility never before available.

The essence of Refresh Software's vision for the Content Driven Enterprise; a solution tailored specifically to provide unprecedented flexibility for the developers, the users, and the system implementers, while maintaining that critical core functionality that is required for success.

The Refresh Software executive team shuns the "tail-wagging-the-dog" scenarios proselytized by many of the leading ECM vendors today that necessitates not only how YOUR business processes should conform to their business ideals but also legislate which hardware, platform, database, application servers, or display technology the enterprise must utilize to benefit from a proprietary Content Management System. Quite conversely, SR2 strategy is to drop into existing infrastructure and utilize existing investments and expertise.

Organizations are now beginning to realize that the current Content Management products are cumbersome, hard to install/implement and are not adaptable to changing business needs. It is this requirement more than any other that exposes



the need for an infrastructure that will support agile information management across the enterprise, as well as be capable of driving new styles of business.

The Benefits of a Content Driven Enterprise

The value of the Content Driven Enterprise resides in the flexibility and agility which translates into smarter content applications, greater functionality with less effort, better alignment with business requirements, all coalesced with a faster time to market.

Refresh Software's unique market position is in providing some of the key components which aid in delivering on the promise of the Content Driven Enterprise. Our "value add" is in our standards-based modular architecture, object oriented content storage, high-value intelligent API's that enable rapid content-centric application development; make creation, replication, and deployment a quick win situation.

With these benefits comes the opportunity for new deployment patterns and new solution sets. The Content Driven Enterprise literally builds an information-centric infrastructure where applications can be driven through to any part of the business at any time.

For example, to set up a new regional sales office or a new base of operations in another country, or any new entity was traditionally a daunting task, involving the re-creation of systems around the world, ensuring that all relevant and necessary content was transferred to the new location, and that it was accessible and usable.

As the global markets continue to mature and more organizations establish local presence it becomes imperative to create a flexible infrastructure that allows the company to open a new division weeks rather than months. The content driven enterprise, with a flexible information architecture serving as the foundation of the distributed infrastructure, allows today's organizations to establish systems and information that can be customized and configured for the local market without losing critical momentum. "White Label" applications follow a similar implementation and deployment pattern, sharing common content while "localizing" content per application providing the appearance of a establishing a new business overnight.

The Power of the Content Driven Enterprise

The content driven enterprise will be continually evolving as the expertise in how to use content within corporate enterprise applications grows. There is now agreement that all content needs to have a unique identifier, must be described through meta-data, and categorized under some working ontology. Any kind of content, in any form of file or format, can be stored neutrally in a standard content repository (complete with workflow and versioning) and then retrieved and rendered in any way that any application requires. The Content Driven Enterprise provides greater access to the collective corporate knowledge for greater leverage of existing corporate knowledge.

As more companies demand that more of their content be tied to mission-critical business processes, content repositories will increasingly have to be linked, through such emerging standards as Java Specification Request (JSR) 170. Again through the flexibility of the Content Driven Enterprise, and the over-arching obligation to utilize open standards, it will become increasingly straightforward to link multiple



repositories, in an effort to support different business processes, while continuing to maintain a Virtual Content Repository across the entire enterprise.

Summary

As organizations strive to unify their business and become an agile enterprise, the shift into Content Driven Applications and on into Content Driven Enterprises will be necessitated by the need for efficiently managing and distributing information across the entirety of the enterprise.

Applications continue to grow in complexity, further underlining the need for open standards and integration among the foundational components of the corporate infrastructure. The need for an overarching management system that, through an abstraction level, can manage any type of content, be it structured or unstructured, and yet is organized and searchable via an underlying information architecture and metadata tagging and retrievable via intelligent APIs leads the market to the Content Driven Enterprise.

As this evolutionary leap for Content Management becomes reality, and lights the way to the next generation of content applications, it is Refresh Software that had the foresight to understand the past challenges inherent to the content management problem, keen understanding of application development, enterprise software and distributing computing to provide the leverage and flexibility to design around them. We're already thinking about what's next - won't you join us?