

An Integrated Infrastructure for Content Services

*The Sun ONE Content Services Platform
& My Yahoo! Enterprise Edition*

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Abstract

This paper presents the case for proactively developing a broad content strategy and architecture built upon a “content-capable” infrastructure. Optimizing operational efficiency, leveraging existing technology investments and investing in emerging business opportunities are among the many, often competing, demands on today’s businesses. The teaming of the Sun ONE Content Services Platform with My Yahoo! Enterprise Edition illustrates the benefits of an integrated architecture, advanced content delivery services, and premium content.

Why an Infrastructure Approach?

Content Volume, Diversity, and Complexity

Today's businesses are faced with an exponential growth in business content. Many companies have deployed enterprise content management systems to control, leverage, and reduce the cost of managing and delivering business critical content. The problem of managing enterprise content however, is too cumbersome for point-application solutions to solve alone. Businesses need to develop a comprehensive content strategy and architecture that is built upon a content-capable infrastructure.

The increase in the volume of content is only part of the problem. Content has become increasingly rich and more complex.

- Content is comprised of multiple data types sourced from disparate repositories and databases.
- The use of rich media content is growing, which adds new requirements in management functionality, bandwidth and storage.
- Businesses are learning the benefits (and difficulties) of more sophisticated use of metadata, which compounds the complexity of content.

Content in the enterprise includes a wide variety of formats, including structured database records, and unstructured text, graphics, audio, video and streaming media. There are a growing number of content application services, including web content management, document management, digital asset management, knowledge management, enterprise search and categorization, collaboration, and syndication that focus on managing either specific content types, or specific aspects of the enterprise content management problem. Many medium to large sized companies now have many of these content services in place, but while these provide important benefits, in most cases their real value is only realized when the content is integrated with larger enterprise data systems, and when a business has implemented disciplined, yet flexible, business process management.

The good news is that more business content is being managed; the bad news is the growing complexity of integrating and managing all of the systems that manage the content.

Content Accessibility & Integration

Most enterprise content is tightly integrated with one or more business applications (although that is not to say it is integrated with all appropriate business applications). Content plays a critical role in business processes ranging from customer relationship management (CRM), supply chain management (SCM), enterprise resource planning (ERP), business intelligence (BI), and other enterprise applications. In order for these processes to provide value, they must be able to incorporate the right data, in the right process, at the right time. Content often comes from diverse repositories across the enterprise and even between enterprises that have business-to-business relationships. Data exists in structured databases or may exist as unstructured data in numerous content repositories – from the desktop to back-up tapes. Furthermore, many companies already have one or more enterprise systems, and most

companies need a strategy for extending the value of, and not replacing, those systems. Yet, there also needs to be a strategy that allows for a smooth migration to new systems when there is a need for technology change.

Not only is content complexity on the rise, but the integration required to make a content solution provide value for the enterprise has become a daunting challenge. Companies need a strategy that simplifies content accessibility and helps to manage this content complexity throughout the content lifecycle

Content Services Infrastructure

The rise in content complexity means that businesses need to follow an infrastructure approach that enables content services throughout the enterprise. It means that IT managers need to deploy an architecture that ties content and content-based applications together in powerful yet flexible ways. The need to share and integrate content is broad based, and not limited to particular vertical or departmental applications. Therefore it doesn't make sense to solve the problem only through individual integration efforts – a strategy that is based on an infrastructure approach is the only way to meet this challenge head on.

Today, this means deploying a stack built on a network-computing infrastructure foundation. It also means an architecture that can support legacy applications, but is designed to optimize the use of web services for both content and application integration.

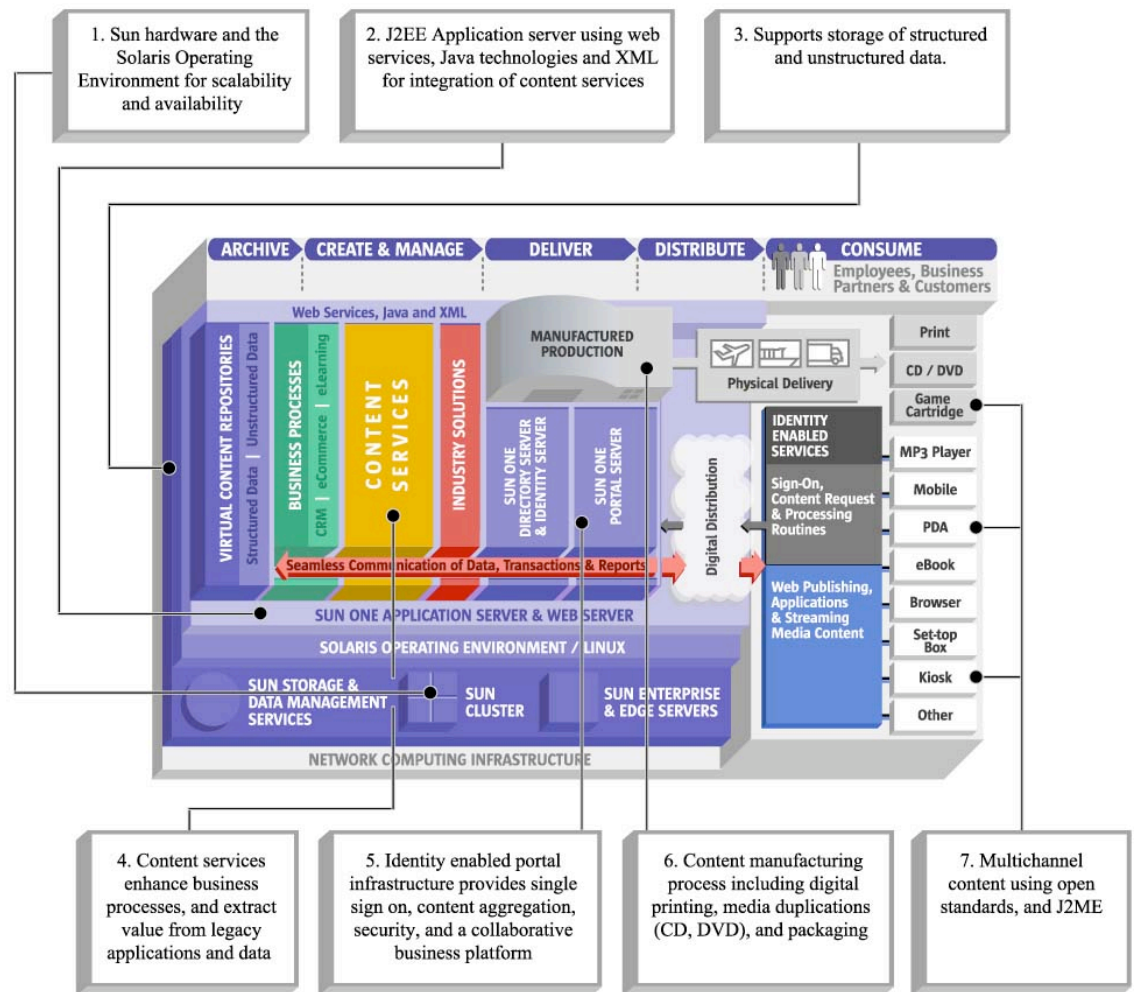
Sun ONE Content Services Platform

The Sun Open Net Environment (Sun ONE) Content Services platform in Figure 1¹, is an example of what we mean by an integrated infrastructure for content services. The figure illustrates the way business content and processes fit into infrastructure stacks both vertically and horizontally. This requirement for an integrated content services approach cuts across various industries such as financial, manufacturing, retail, healthcare, government, media and entertainment, and others.

Figure 1 is designed to show the range of solutions that Sun provides, from servers, storage and operating system, to application server, identity management, and portal technologies. On top of this network computing infrastructure Sun partner technology can be integrated into this modular architecture. This illustration also suggests how one could incorporate other component technologies into an integrated infrastructure. Note that if you think of an infrastructure in this way, light is shed on the relationship and scope of the components, which is very useful given the extensive functional overlap between many of the functional categories. It is important to understand the functions and features of the various components, so as to better able to make your own choices to match your business requirements, and to be able to substitute components with minimal effort, and cost.

¹ Diagram courtesy of Sun Microsystems, Inc.

An Integrated Infrastructure for Content Services



One Architecture, Multiple Choices

Paradoxically, the one-to-many relationship between an architecture and the suppliers that populate that architecture is both the root of the value proposition, and often the cause of anxiety for businesses that must assimilate and build out that architecture. This anxiety often results in avoidance strategies that rely unnecessarily upon service-laden “one-stop” solutions at the high-end or simpler, more proprietary solutions at the low-end.

A compelling characteristic of the Sun ONE Content Services Platform is that it provides an infrastructure that frees content technology providers to focus valuable resources on their areas of expertise by providing easy and reliable access to critical portal, networking and storage services. The following section illustrates the value of this approach by taking a closer look at the synergistic characteristics of the Sun ONE Content Services platform and My Yahoo! Enterprise Edition.

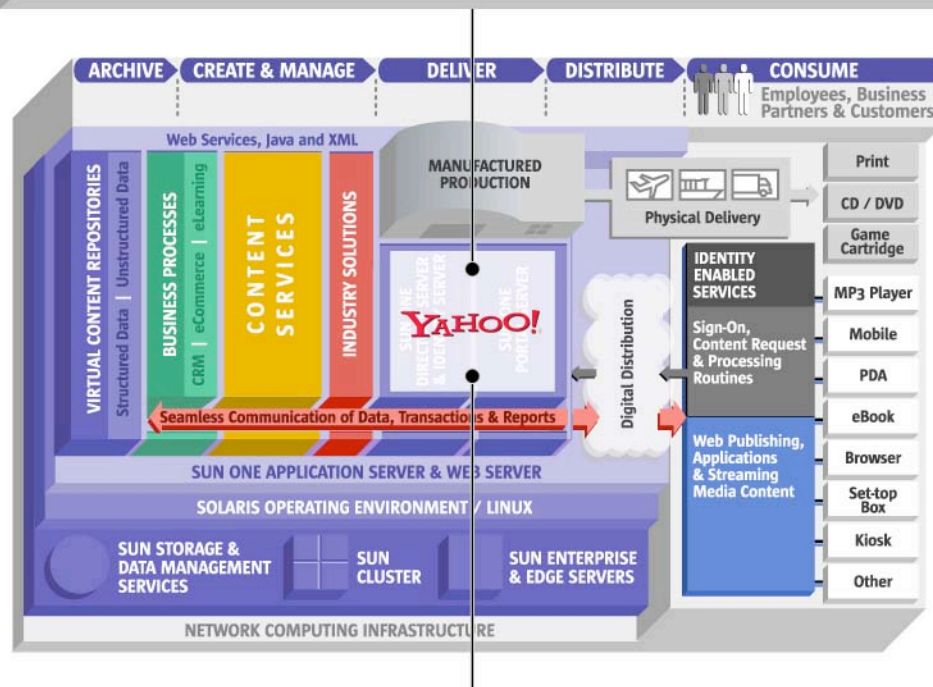
My Yahoo! Enterprise Edition

Familiar Content Tools and Premium Content Drive Adoption of Corporate Portals

My Yahoo! Enterprise Edition is designed to add value to corporate portals through premium content and familiar content applications such as Industry News and Financial information to accelerate adoption and build employee, partner and customer loyalty.

One advantage of the Sun ONE open approach is that Sun and Yahoo! have been able to embed My Yahoo! modules in the Sun Portal to provide an entry point to this combined offering that requires very little effort and is simple to administer.

Yahoo! can serve content directly into a Sun Portal pulled from 2,700 sources in 13 languages, including premium content for Banking/Financial Services, Government, Education, Healthcare, Pharmaceuticals, and High Tech/ Computers and Manufacturing.



Multi-level personalization permits customized corporate desktops with content filtered by subject and service. Service modules include Headline News, Industry and Company News, News Tracker, Stock Portfolios, Market Summary, Weather, Maps, Bookmarks, Address book, and others.

If You Build It, Will They Come?

A technology Return On Investment (ROI) cannot be achieved without the adoption of both the technology and user behaviors that the technology was intended to facilitate. Given Yahoo!'s 72% reach into the workplace²; many corporate employees are frequent and dedicated Yahoo! users. By bringing Yahoo! content and tools inside the corporate portal, companies can dramatically increase portal usage and frequency. When employees go to the company portal to check their Yahoo! information, they may be more likely to stay and use the other portal resources.

Beyond the reasonable assumption that users will tend to gravitate to portals that offer the most complete and integrated set of services, the personalization modules from My Yahoo! Enterprise Edition that are embedded in the Sun ONE Portal provide a means for portal administrators to serve specialized content "in context." For example, a financial services portal can feature banking self-service applications, surrounded by content feeds related to money management.

In this infrastructure and content offering, Sun and Yahoo! offer a unique pairing that should increase user demand for Sun ONE-based portals and open new markets for Yahoo! content services.

² NetRatings, January 2003

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