

Sun Java™ System Content Delivery Server 5.0

Monetize, Manage, and Securely Deliver
Mobile Content



Highlights

- **Multicontent Distributed Delivery:** Mobile delivery of multiple content types through a unique, distributed download architecture
- **Complete Content Management:** Management of the full content lifecycle, from submission and verification to publishing and delivery
- **Promote, Price, and Protect Content:** With enhanced campaign features, market content directly to targeted users while supporting digital rights management
- **Easy Integration:** Easily integrates into an operator's existing network infrastructure
- **Device Management:** Rapidly supports new devices while ensuring content is only delivered to compatible devices
- **Carrier-Grade Performance and Scalability:** Meets the high performance and scalability requirements that operators demand
- **Administration and Reporting:** Complete Web-based administration with flexible reporting options



The mobile content download business is the second-largest revenue source after voice for Mobile Service Providers in mature markets. This market continues to grow rapidly; in 2008 it is expected to reach a level of \$18 billion. (*Source Informa, 2006*)

As the market for mobile content and services matures, the need for cost-efficient solutions becomes more and more evident. Profitably delivering these services requires infrastructure investments as well as commitments to nurture and maintain a delicate ecosystem of content developers, service providers, and device manufacturers, and capable tools to help generate awareness and demand.

Sun Java™ System Content Delivery Server is a complete product that enables mobile operators to launch and sustain profitable content services. This comprehensive solution manages intake and developer relations, manages content and pricing, creates branded subscriber storefronts and provides flexible purchase models and marketing tools along with delivery of any content over any relevant channel. It also tracks information for reporting and billing purposes. The architecture of the Content Delivery Server is uniquely set up to support a distributed download structure.

Core components of the Content Delivery Server are:

- **Catalog Manager** — enables the central management of content including developer interface, intake processes, and content management
- **Vending Manager** — handles the selling of content and allows multi-vending functionality towards the central catalog
- **Fulfillment Manager** — handles delivery, digital rights management, and billing functionality

With these core components, this solution provides key functionality in the following areas:

- Content Management
- Content Promotion, Pricing, and Protection
- Subscribers and Devices
- Integration and Deployment
- Performance and Scalability
- Administration and Reporting

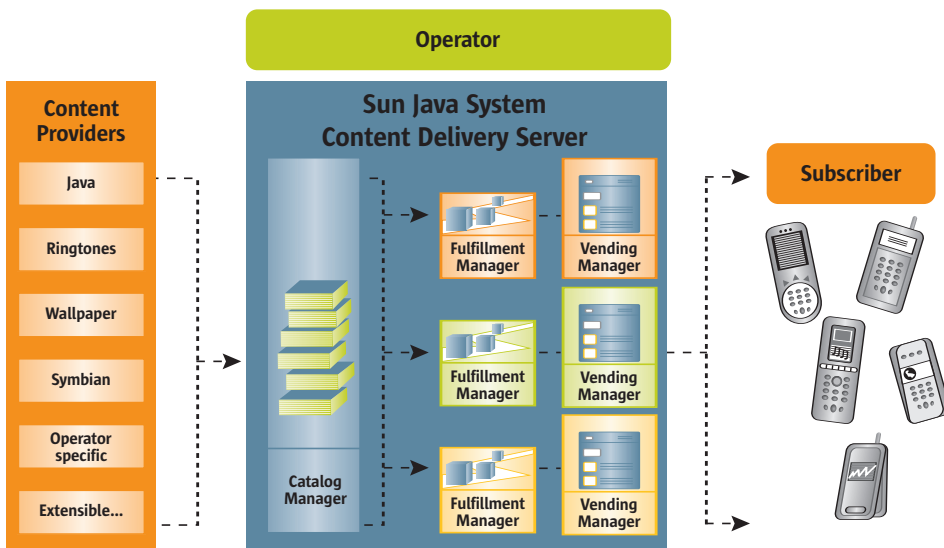
Content management

Distributed downloading

The unique architecture of the Content Delivery Server supports having one central catalog serving multiple vending managers. This allows for different sets of services for different markets and different pricing and customization. It also offers the flexibility to create specific offerings from the same content catalog so that operators can meet the requirements of specific markets.

Extensible content framework

This solution supports the broadest range of wireless content types. With the Extensible Content Framework (ECF), operators can directly add support for new wireless content, legacy content and other custom content without interrupting existing services. The system supports applications based on Java



CDS architecture allows for a distributed multivending system using the same catalog manager

technology; iAppli and Symbian applications; Microsoft Smartphone and Pocket PC applications; monophonic, polyphonic and real ring tones; and audio and video clips. An extensible content framework allows the service provider to easily add new types of content. The system also supports streaming content and integrates easily to external streaming systems.

Content aggregation

With the Content Delivery Server, operators can quickly and easily integrate large batches of content from external aggregators into a single catalog. The system provides secure and reliable delivery of all content in the catalog, whether it is physically stored in the operator's database or hosted externally at a third-party publisher or content aggregator.

Category management

Operators can create and manage multiple categories of content as well as subcategories in multiple levels. This capability allows operators to better classify content, which in turn enables subscribers to discover content with more ease.

Content promotion, pricing and protection Campaign management and promotion

Campaign management capabilities in the Content Delivery Server enable marketing groups to define campaigns, create advertisements, select promotions, define subscriber segments, and set schedules for promoting new and existing content. Advanced promotional tools supporting sponsored content coupons, gifting, send-to-a-friend functionality, SMS+, push-notification, and bundling enable operators to create more effective campaigns — driving data usage and adoption.

Preview and search

The solution also includes a preview feature that makes it possible for the user to look at the application or content before deciding to buy it. In addition, search capabilities make it easier for users to find certain desired content.

Branding

The Content Delivery Server enables an operator to brand and customize retail storefronts with their company's look and feel, marketing messages and promotional offers.

Pricing

With flexible pricing rules, the system supports multiple pricing models and a variety of business models for different subscriber groups. Pricing options include free, pay once, pay-per-download, pay-per-use, pay-per-period, subscriptions, and trials.

Digital rights management

Because controlling usage and protecting content are critical for mobile service providers, digital rights management functionality is a critical component of the Content Delivery Server. The system also includes pre-integration to external, fully OMA-compliant digital rights management system solutions.

Subscribers and devices

Subscriber portal

The Content Delivery Server features a customizable subscriber portal with a "My Downloads" section that retains a subscriber's purchase history and allows him to quickly re-download or renew licenses for frequently used content. Subscribers can also create a "Wish List" to store interesting content links for purchase at a later time. In addition, the subscriber portal allows users to personalize their profiles, select content types and organize categories and search results.

Capability matching

Using the User Agent profile (UAProf), the solution performs capability-matching to users' devices; ensuring only relevant content is presented. The solution includes style sheets for each device type and makes the mapping of content to devices cost-effective and simple.

Integration and deployment

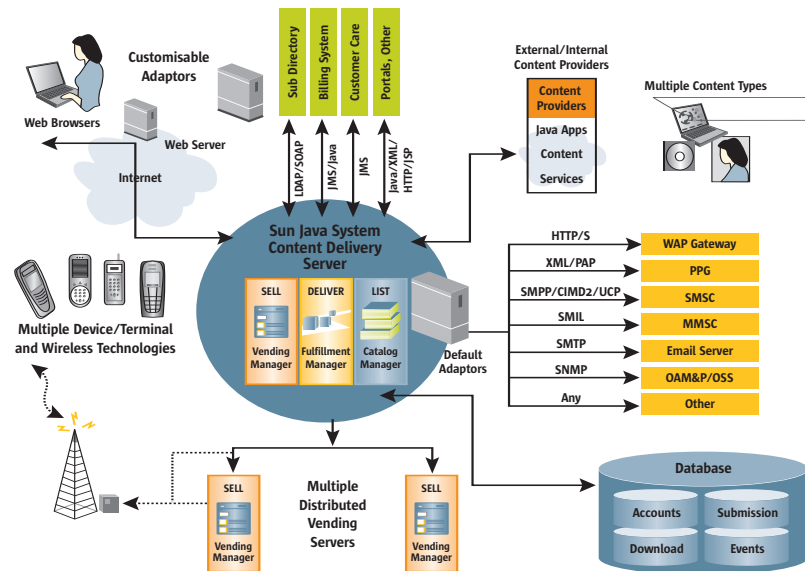
The architecture of the Content Delivery Server enables a highly flexible deployment strategy. Its open and configurable interfaces are designed to integrate easily into existing systems. Some of the supported integration protocols supported by the system include SMS, MMS, SMPP, http, CIMD2, LDAP, RADIUS, MSISDN, and WAP GWs. The system also includes integration point-to-billing systems, DRM systems, and external reporting frameworks.

Performance and scalability

This system is a high-performance, scalable, carrier-class platform that helps lower the cost of hardware, third-party software, system management, and customer care. With its built-in clustering architecture, the Content Delivery Server removes the need for specialized software and increases the number of transactions per second.

Administration and reporting

The comprehensive administrative functionality featured in the Content Delivery Server helps mobile service providers deal with content submission and approval, stocking, pricing, categorizing, capability matching, managing subscriber and developer accounts, and providing customer care.



Open interfaces allows for easy integration to existing systems

Sun offerings

Along with the Content Delivery Server system, Sun offers support and assistance during the implementation and delivery of mobile services. By working with Sun, operators can:

- Decrease time-to-market by leveraging the Java Verified Program. This is an industry-led Java technology content testing and certification process
- Leverage the mobile.java.com portal to access existing mobile content provided by Sun developer partners and also use the site as a marketplace for content
- Leverage the global strength and recognition of the Java technology brand
- Leverage and use the multimillion-member Java developer community, industry-leading Sun developer tools, and other Sun technical resources

Sun can also offer development and deployment consultants to provide hands-on expertise. The Sun services team has extensive experience in complex deployments into operator domains and can support simultaneous implementations of the Content Delivery Server. With experience in development, delivery, back-end systems, Java Platform Enterprise Edition (Java EE) technology, and network protocols and management, Sun consultants are ready to help mobile operators launch new content services.

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Platform and requirements

Operating System

- Solaris™ 9 Operating System on SPARC® processors
- Solaris 10 Operating System on SPARC processors
- HP-UX 11i Operating System

System Requirements

- Memory: 1GB minimum, 2GB recommended
- Disk Space: 5 GB
- Hardware: Single-processor SPARC server, scales with multiprocessor CPU systems

Other

- Sun Java System Application Server Standard Edition or Enterprise Edition 8.1 2005Q1
- BEA WebLogic Server 8.1
- Oracle Database 9i, version 9.2.0.6 or later, Standard Edition or Enterprise Edition
- Oracle Database 10g Release 1 (10.1.0.2) or later, Standard Edition or Enterprise Edition

For more information

To learn more about the Sun Java System Content Delivery Server, visit sun.com/software/products/delivery_server.

Learn More

Get the inside story on the trends and technologies shaping the future of computing by signing up for the Sun Inner Circle program. You'll receive a monthly newsletter packed with information, plus access to a wealth of resources. Register today at sun.com/joinic.