



Oracle8i™ Internet File System (iFS)

The Internet File System is a key component of Oracle8i™, enabling the database to become an Internet development and deployment platform. iFS brings the worlds of structured and unstructured data together into a powerful, easy-to-manage document-centric repository accessible via all major Internet protocols.

ALL YOUR DATA, FOR EVERYONE

The Oracle Internet File System (iFS) extends the Oracle8i database in the following ways:

- The iFS makes it possible to treat the database as if it were simply a shared network drive. This means that users can store and retrieve files managed by the database as if they were files managed by a file server.
- The iFS makes it possible to view relational data stored in database tables as if they were files and folders managed by a networked drive.
- The iFS allows end users to access files and folders in the iFS variety of protocols, giving users universal access to their data. This means that an iFS user sees the same files and folders from Windows Explorer, a browser, an email client or an FTP client.
- The iFS stores uses a repository to manage the files and folders it contains. This makes it an ideal platform for “document-centric” applications.
- Advanced searching capabilities make it easy to rapidly locate information contained in the iFS.
- The iFS makes possible the creation of a new class of “documents” that combine relational and non-relational data in a single object.

ADVANCED FILESYSTEM FEATURES

When judged purely as a filesystem, iFS contains an impressive array of powerful features not found in the everyday system.

- *System and Document-Dependent Properties* — The iFS automatically maintains an extensive set of system properties, including author, mime type,

and abstract in addition to user extensible properties specific to the document type.

- *Advanced Search Capabilities* — Files stored in the iFS are automatically indexed on content and file properties.
- *Check-In / Check-Out (CICO)* — Allows a user to ensure that no-one else updates documents they are working on. Also make it easy to determine who has checked out a particular document.
- *Access Control List (ACL) Security* — ACLs allow fine-grained control over the access that users or groups of users have to each document.
- *Versioning* — iFS can automatically maintain multiple versions of documents.
- *Project-Level Management* — Documents can be tagged together to create a project. A given version of these documents can define a stage. A stage can be checked out and worked on independently of newer versions and other users.
- *Multiple Parent Directories* — All documents, including folders, may have multiple parents. This allows documents to be ordered in ways not possible in a typical tree hierarchy.
- *Automatic Expiration* — The iFS can automatically expire old versions of documents.
- *Quotas* — Administrators can control space usage using the iFS user quota mechanism.

ADVANCED SEARCH FUNCTIONALITY

The iFS leverages the Oracle8i database to provide advanced search capabilities:

- *Relational Queries on Metadata* — Queries on all document metadata.
- *ConText*® — Keyword, stemming, proximity and fuzzy, thematic Queries searching.

UNIVERSAL ACCESS POINTS

The contents of the iFS are accessible via:

- *Windows SMB File Sharing Protocol* — All the functionality of the Windows Explorer can be used to manipulate the contents of the iFS
- *Full Support for Windows NT as a Server* — Installable File System implementation makes iFS compatible with the native NT SMB Server
- *HTTP Version 1.1* — Full access to the contents of the iFS using any browser
- *FTP* — Full access to the contents of the iFS using any FTP client
- *IMAP Version 4, Revision 1* — Full access to the contents of the iFS from any IMAP email program
- *POP Version 3* — Allows full access to the contents of the iFS from any POP3 email program
- *SMTP* — Allows documents to be inserted into the iFS by mailing to an Inbox managed by the iFS

APPLICATION PROGRAMMING INTERFACES (APIs)

The iFS allows developers to extend the native functionality of the repository using:

- *Java*™ version 1.1
- *CORBA* version 2.0
- *PL/SQL*™

KEY DEVELOPMENT FEATURES

Powerful document-centric applications can be developed using the following iFS features:

- *Object-Oriented Document Type Architecture* — Developers can define new document classes
- *Override Mechanism* — Developers can alter the default behavior of the iFS
- *Plug and Play Parsers and Renderers* — Custom parsers and renderers can be added to iFS
- *Powerful Web Template Mechanism* — Powerful server-side HTML tags make it easy to link iFS data and the web.
- *Event Notification* — Using Advanced Queuing.
- *Flexible Messaging* — Allows the iFS to be used to implement intra- and Internet workflow.
- *XML Support* — Any XML document, which has been defined using a DTD, can be automatically parsed and stored as relational data. When the original document is viewed via the iFS, the iFS reconstructs the original document from the relational data.

MANAGEMENT

The iFS is integrated with the Oracle8i management features, making it easy to manage and backup.

- *Oracle*® *Enterprise Manager* — OEM Integration offers single-point administration and security.
- *Oracle Internet Directory* — ODI Integration offers single sign-on capability.
- *Flexible Replication* — All or part of the file system can be replicated amongst distinct installations of iFS.



Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
+1.650.506.7000
Fax +1.650.506.7200
<http://www.oracle.com/>

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