



workFile Technical Overview, White paper



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Overview

This document gives an overview and understanding of the technicalities of the workFile product suite. The purpose of this document is to give interested parties a technical insight into the workFile product, how it is designed and architected, and the technologies used. This document is aimed also to give an insight into how third party applications can utilise any one of the workFile modules.

Sufficient technical information will be provided to make integration decisions, I.T strategy and road map decisions easier with regards to utilising and incorporating workFile into an organisation.

Business functions will be touched on to give examples of how the workFile product suite modules fit into business requirements and meet the business requirements of tomorrow through its flexibility.

The workFile product suite provides a number of modules that each address individual business and compliance requirements. Utilising the data storage units, such as Grau, standard NAS, SAN and MSAR, workFile has access to vast storage space, and that in-turn allows each workFile repository to manage vast amounts of structured and un-structured information and data.

Requirements

This section looks at the business requirements that workFile can satisfy. Many of the business requirements outlined within this section look at system accountability, security, accessibility, scalability and ease of use. The business requirements shown within this section help deal with wider issues, such as service level agreements, data security and integrity, legal admissibility and compliance issues.

Data and archive storage

SAN, NAS, EMC Centura, Grau Data storage technologies etc. are now common place within large and medium sized organisations. Such technologies and solutions help to satisfy the following business requirements;

- Provide a logical store for electronic file formats and data
- Provide a secure and robust platform
- Allow easy use for agents and users
- Provisions for future requirements / scalability issues
- Be able to store all types of media, including:
 - E-Mail
 - Documents
 - Scanned files
 - Faxes
 - Back-up files
 - Video footage
 - XML and other structured file formats
 - CCTV footage
 - Audio files
 - Pictures
 - Micro-fiche
 - Etc
- Allow quick location of files within the storage system / archive
- Provide application integration

See how workFile aids in the usage of such storage technologies. Please review the [Solution Overview](#), and the workFile [Storage module](#) section of this document.

Image Management

Image management has been invested in heavily by many large financial organisations. Image management is often used to store and manage types of correspondence. These systems are often integrated into other line of business applications such as C.R.M. allowing image enablement of such systems.

Such systems need to satisfy some of the following business requirements:

- Store multi format files / images
- Allow file type and image classifications

- Allow clear index / retrieval keys to be built
- Provide mechanisms to add images to the storage repository
- Provide security models for sensitive images / classifications
- Provide retrieval mechanisms to locate images
- Provide a method to display images
- Image retrieval performance times must not be compromised
- Provide a truly scalable solution
- Take advantage of storage devices to store the images on / within

For an overview how this requirement is met within workFile, please review the [Storage module](#) and the [Content module](#) sections of this document.

Document Management

Document management or EDM and ECM are still new concepts and ideas. Again, many larger organisations have invested heavily in these areas. Such systems need to satisfy some of the following business requirements:

- Store multi format electronic files
- Allow file type classification
- Allow clear index / retrieval keys to be built
- Provide mechanisms to add documents to the repository
- Provide complex security models that allow types of documents to be secured.
- Provide retrieval mechanisms to find and view the documents
- Allow documents to be versioned under a controlled environment
- Store multiple versions of the same file
- Allow documents to be copied locally
- Allow working off-line from the system
- Provide publication version documents
- Provide methods to display documents from the repository
- Provide quick and secure access
- Provide a truly scalable solution
- Take advantage of mass storage devices

The EDM and ECM requirement is addressed in this document within the [Content module](#) section of this document.

Line of business application integration

Line of business applications often require other systems to be integrated. This allows users to access the data they require through a single application. A list of some of the integration considerations is shown below:

- Allow cross-application sharing of data
- Allow views from other systems
- Allow methods / processes to be used from other applications
- Provide ease of use between the systems

Application integration is addressed within the solutions section, [The workFile suite](#).

Case Management

Case management is often used within business applications such as C.R.M and named "workflow". This is incorrect, workflow and business process management offer many more functions and a structured environment when compared to case management. Case management is often implemented through a series of queues or work bins.

Some of the business requirements for such a system are listed below:

- Allow a case container to be created
- Allow types of work to be created / associated with a case
- Break down work into individual tasks
- Allow cases to be routed to the people with the right skills to deal with the case
- Allow work / cases to be referred to other individuals
- Allow work / cases to be held for a period of time
- Join work together to form one case
- Quickly find work / cases
- Maintain strict service level agreements on types of work
- Track how work is done and by who
- Compile a full systems audit for each piece of work
- Find problem areas / departments
- Allow interaction with other systems, typically image management and document management solutions

Case management is addressed within the solution section of this document, [Case module](#).

Records Management

Many records management solutions exist but do not have the flexibility to map to all organisations structured data requirements. Most line of business applications such as C.R.M, are a form of records management solution but they lack the true flexibility of records management implementations.

Records management solutions often have to meet the following business requirements:

- Allow records to be classified and created
- Allow sub records / information to be stored against a parent record.
- Allow records to be searched and located quickly
- Provide a secure environment for each record
- Integrate records with image and document management solutions
- Manage and maintain a variety of structured records in different formats
- Store interactions / system audits for each record as sub record information

Records management can be used to meet a number of varied business requirements. For example:

- Customer details
- Customer interactions (Customer Relationship Management)
- Supplier and stock information
- Patient records
- Contact Management
- Sales
- Supply chain management
- Legal management
- Etc

Because records management is the method in which structured data is stored, it does not matter what this data relates to it. This allows records management to be used for almost any business requirement a business may have. To review the outsourced solution records management module, please go to the section named [Records module](#).

Business process management and workflow

Business process management and workflow solutions allow business processes to be modelled and then controlled through strict system applications. Often these solutions must meet the following requirements:

- Allow flexible and easy modelling of a business process
- Allow new processes to be modelled easily
- Assign groups, individuals and tasks to particular steps / points within a business process or workflow
- Employ a secure environment for each step / point within a process or workflow
- Provide a flexible method for identifying and assigning work to a particular process / workflow
- Allow automation of certain tasks / steps
- Allow work to be tracked completely
- Set service level agreements for individual points / steps within a process or workflow
- Assign service level agreements for a type of work or completion of a process
- Give full accountability and system audit information on items within processes or workflow streams
- Allow integration of other system data
- Allow application integration with such systems as CRM, Image management, document management
- Provide routing tools, administration tools and exception handling processes
- Allow items to be allocated, referred or held

These systems address the process, not the data you are storing / using. Because of this any process an organisation may have, can be modelled and then incorporated within a workflow or business process management system. Please review the solution section named, [BPM module](#).

Customer Relationship Management

Customer relationship management is seen as a way of providing better customer services and in-turn a method of retaining customers. Such systems provide typically the following functionality:

- Store customer details
- Store additional details that relate to the business for a customer
- Store and provide access to interaction details between the customer and the organisation
- Track customer activity / trends
- Provide a method of capturing pieces of work generated by a customer interaction

In its basic form customer relationship management is the art of storing and maintain customer details and the interactions between the organisation and that customer. All interactions should be stored within the system, allowing the system to provide staff with a complete history of that customer and the organisation. In addition interactions with customers can often cause pieces of work to be generated. Such work generation needs to be captured and completed; many CRM systems now offer their own case management functions. Some offer workflow capabilities, however this is not true workflow and should **not be considered as such by a customer.**

Review the CRM solution, [C.R.M module](#), within this document and how it can link with true case management, workflow and business process management tools.

workFile solution

There are many solutions on the market for organisations to review. Many of these are fragmented and offer solutions to individual problems. Some larger vendors such as FileNET and Documentum offer product suite solutions, comprising of numerous applications that can integrate together.

The workFile product set offers a unique solution that meets and exceeds the business requirements aforementioned within this document. The solution also helps organisations in a number of other ways, such as administration, maintenance and ease of use.

Solution Overview

The workFile application presents itself to organisations as a 128bit encrypted SSL web site. This can be used across the web within an outsourcing environment or within an intranet environment. This allows users within the organisation to interact with, and use the system as any other application.

NAS, SAN, Grau data storage units, or your preferred choice of storage unit, are used to house and store physical electronic files. These can range from simple office documents to CCTV footage; the storage units will allow any form of electronic files to be stored securely. Files are stored within designated areas on magnetic disk space. This can be termed as an MSAR solution. All files are written to the system tape drives (WORM tape) to ensure that the original files can not be tampered with. (This function is offered by Grau Data Storage units only)

The workFile product suite provides rich functionality through its numerous modules. Each module can run as an individual business solution or be fully integrated together. The product suite gives users the simple, clean, web environment front ends that provide the business functions to users.

The workFile storage module manages the electronic files, how they are stored, where they are stored and what retrieval information is stored for a file. This allows workFile to provide rich searching functions for files through any of the modules and interfaces supplied by workFile. It also allows the workFile suite to logically manage the vast amount of data storage space within today's storage units. All electronic files and storage units are managed through the workFile storage module and repository services.

Business requirements, such as document, content, records, case, customer relationship management, business process management and workflow are supplied through the workFile product suite. All of these systems / functions are delivered to users through a secure address (URL). The URL can and does operate within a 128 bit encrypted SSL.

Users of the system and workFile modules simply interact with the system through a web site. Data storage, archives, document, content, records and image management files etc. are simply uploaded through the workFile web application and consequently managed and stored within workFile storage module and workFile repository.

Application integration can also be offered, with Microsoft office "snap-ins" directly interacting with the workFile repository and product suite. This allows documents to be loaded in word directly from the workFile repository. In addition such "snap-ins" allows users to save directly from word into the workFile repository, never needing to open their internet browser.

Line of business application integration is offered through a comprehensive XML Web Services API layer. These can be consumed by any application on any platform. In addition bespoke application front ends can be delivered to customers to meet 100% of their integration requirements.

workFile Architecture Overview

Organisations and users connect to workFile through a dedicated thin client / web site. This site exposes the workFile user interfaces within a secure environment using SSL 128 bit encryption (if desired).

The workFile user interface interacts with the workFile modules and repositories through the workFile .NET API layer. This API layer “wraps” the workFile module which in turn interacts with the workFile repository directly. This repository interacts with the storage unit(s). [Figure 1: workFile architecture overview](#) gives an overview of the core components and the architecture of the solution. The example shows a Grau data storage unit.

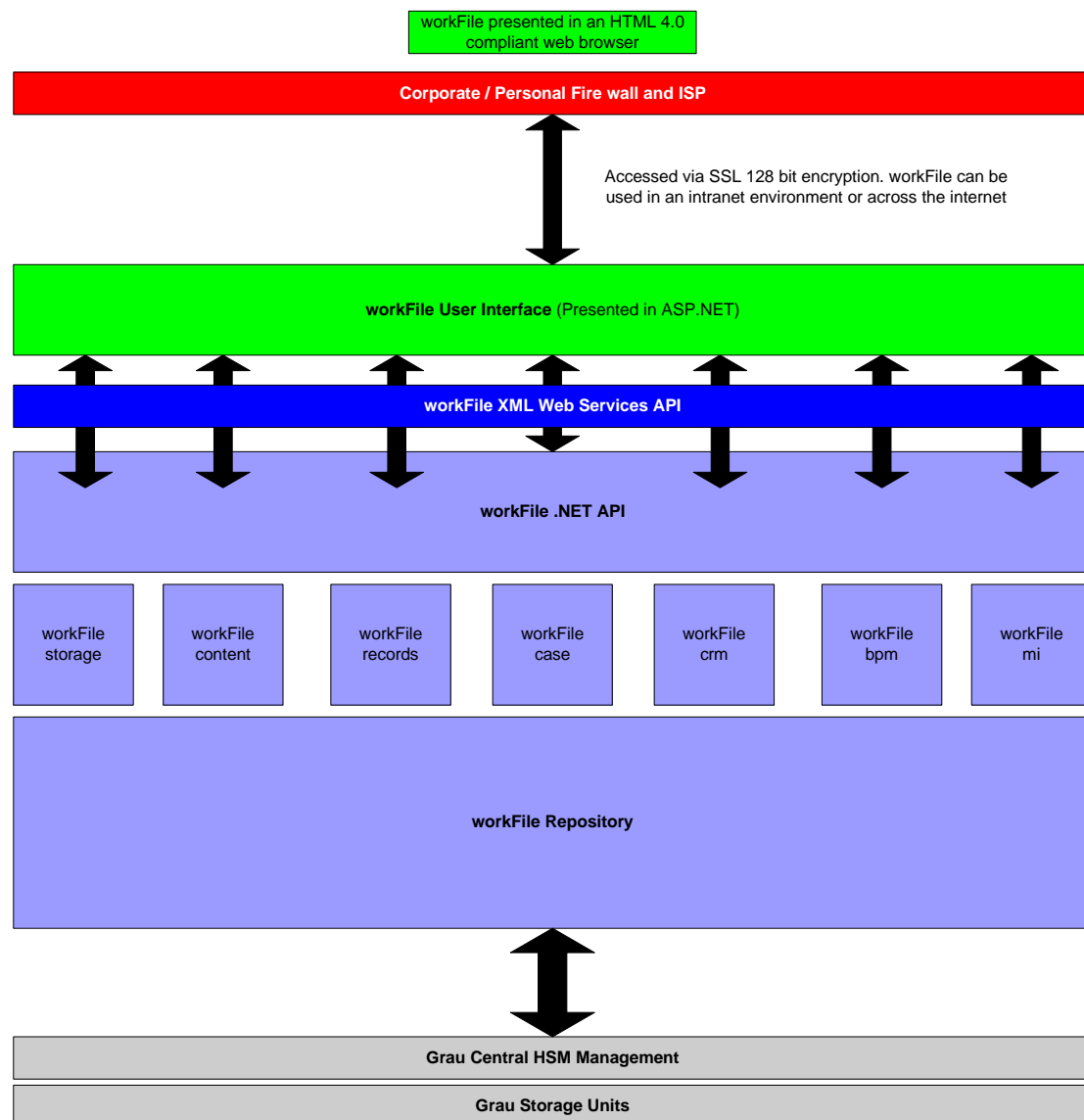


Figure 1: workFile architecture overview.

The workFile suite

The workFile suite comprises of a number of modules. These modules are;

- Storage
- Content
- Records
- Case
- CRM
- BPM
- MI

Organisations can “pick and chose” the modules they wish to use. Modules can be used as standalone solutions, or be fully integrated with each other to give a single desktop experience for all modules.

Each module provides a “naked client” user interface (runs within a web browser and requires no downloads or ActiveX controls to be present on the client machine). This allows users to have a single click point of entry to the system and removes the requirement for machines to be deployed, managed or upgraded to run the software. The client interface runs inside a 128 bit encrypted SSL environment to provide full security to users and files. All interfaces are provided through ASP.NET. If a thick client option is chosen, this is delivered through either VB.NET or C#.NET.

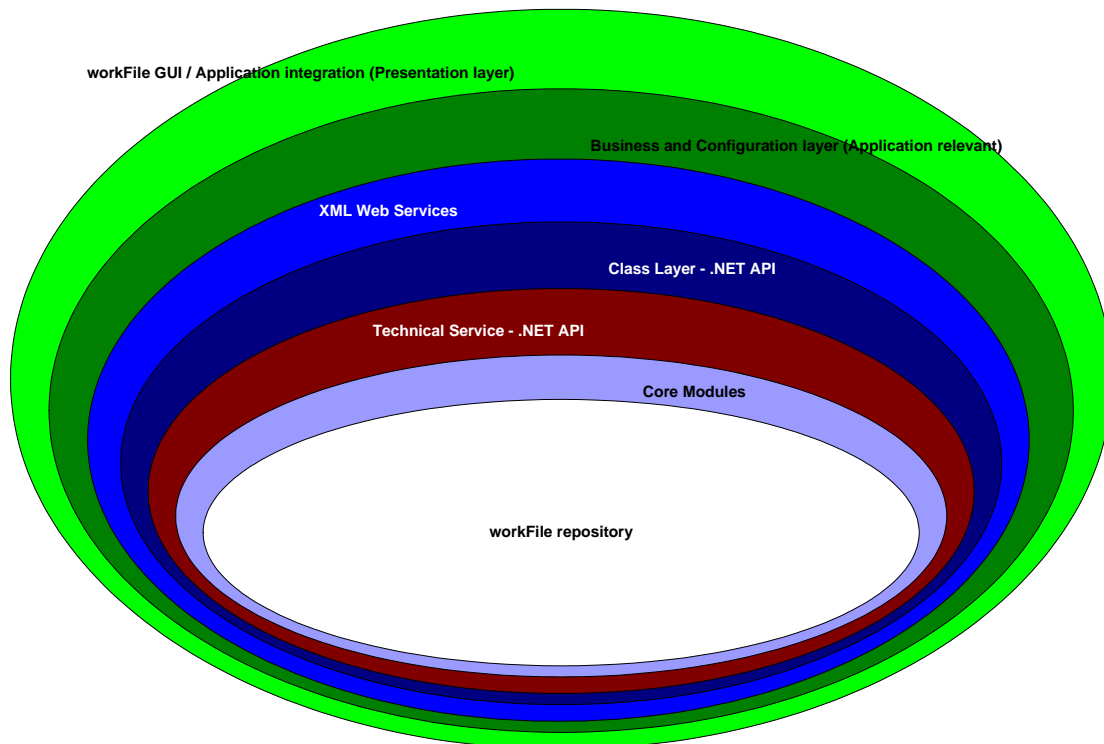
All modules have an event driven architecture. This allows the system to react to events as and when they occur. Because of this subscription, automated tasks, notifications etc can occur on any of the events associated with content or records within the workFile repository. Events within workFile often relate to an action taken by the system or by a user. An example of an action is of a file being added to the repository.

Software Architecture

The workFile suite is architected to provide a stateless environment that promotes transactional performance and scalability. Access to the repository is controlled and carried out through an extensive Microsoft.NET API and XML Web Services API. This is split into two main layers, the technical service (TS) layer and the transport / class layer (CL).

The class layer provides a transactional transport layer between its calling level and the technical service. This layer is portrayed as an independent layer (within many diagrams); however its **objects can be transported directly to any other layer**. It is this class layer that allows ease of implementation with regards to providing the XML Web Service layer and strongly typed objects to third party products. Class layer objects are typically passed between the applications and the Technical Service.

The user interfaces and application delivery is carried out through Microsoft’s ASP.NET technology. It is the CL layer that interacts with the user interfaces directly. The user interfaces make use of their own layered design, splitting layers into business and configuration. [Figure 2: The layers of workFile](#), illustrates the layers of workFile.



This diagram shows the layers within the workFile architecture. The outer layers are 'closer' to the user, with the **GUI** being the interaction point with the end user. Alternatively this could be a third party application utilizing workFile. The **Business and Configuration layer** deals with bespoke business rules, UI, and the configuration of the third party integration or workFile front end.

The **XML Web Services** layer provides cross platform application integration options. It also allows applications to integrate with workFile when workFile is within an Internet or outsourced solution. This XML Web Services layer interacts directly with the **Class Layer**. This layer is transactional based for performance and scalability. Its interaction with the **Technical Service** layer can be implemented in a .NET remoting solution to further improve scalability and global performance.

It is the **Technical Service** layer that provides the core interaction with the core modules. These core modules are; **storage, content, records, case, crm, bpm and mi**. These are directly linked to the workFile repository, at the center of our layered ellipse.

Figure 2: The layers of workFile

The workFile repository database is implemented using Microsoft SQL 2000. This allows workFile to store classification information and retrieval field information for files and records stored within the repository. It can only be controlled and used via the workFile .NET API.

Seeding for records and files is **not used**, instead the workFile repository service generates **unique GUIDs** to identify objects and events found within the repository and database.

This architecture allows a distributed environment for workFile and promotes high speed performance and vast scalability. Individual repositories can scale to some 30 Petabyte, and there is no limit to the number of repositories that can be configured within a solution. Each repository can define any number of storage units to store electronic files on. This allows workFile to take advantage of any number of Grau storage units for example or other NAS, SAN storage devices, within a single repository.

[Figure 3: workFile API Tier](#) illustrates the workFile API and how the workFile solutions are architected. You will notice that the .NET API is also wrapped by a XML Web Service layer. This layer can be utilised by applications wishing to integrate with workFile or bypassed if they can consume .NET objects.

Note that the **class layer** acts as a transactional layer, this layer is utilised by the front end applications. The class layer directly relates to the **technical service layer**. It is this layer, the technical service that carries out the actual operations with the workFile repository.

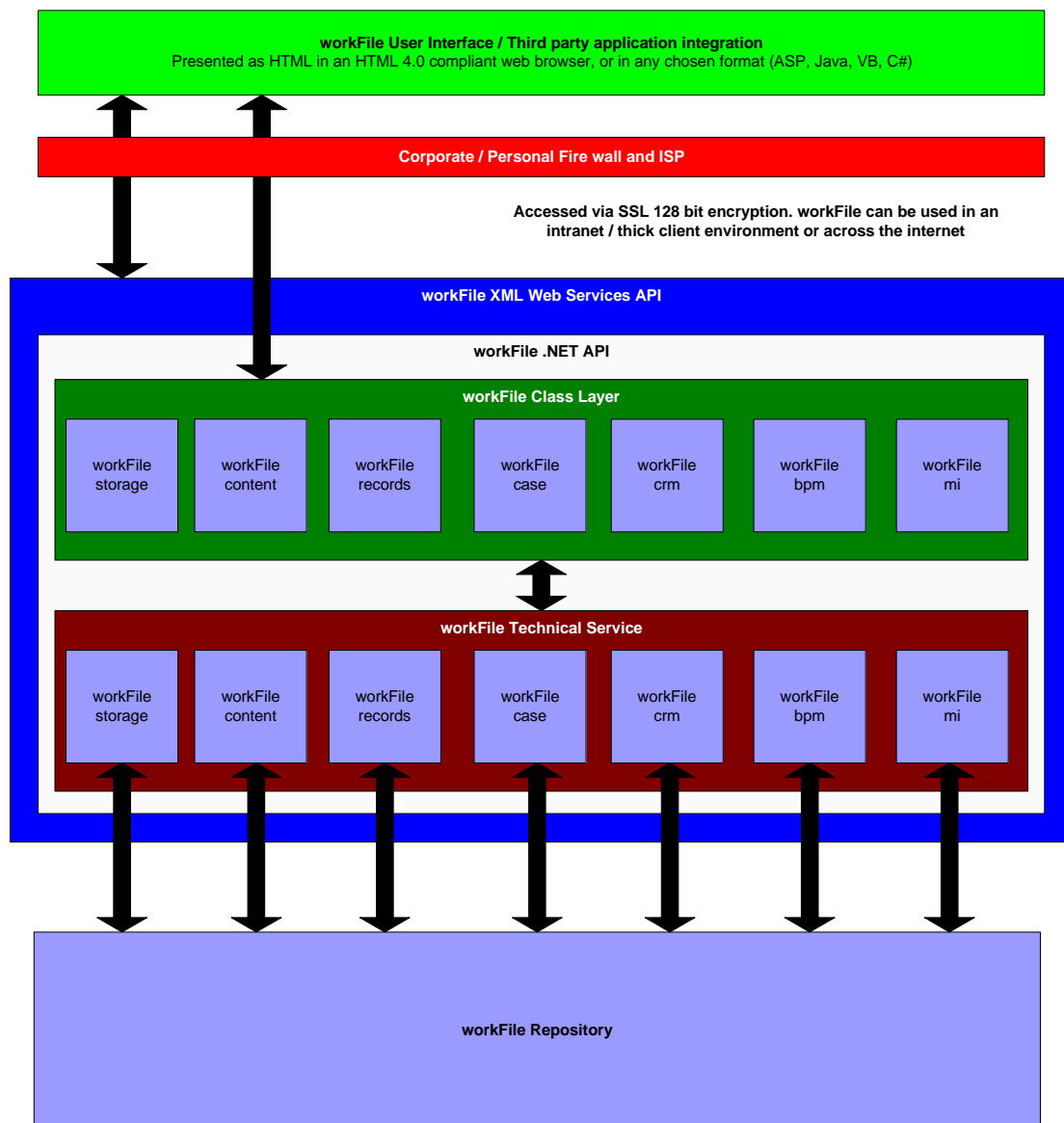


Figure 3: workFile API Tier

Storage module

The workFile storage module forms the base of the workFile product suite. It acts as a storage repository allowing any type of electronic file to be classified and stored. Any number of repositories can be created, giving logical separation between organisations, departments or even file types.

The workFile storage module assigns classification information to files. For example application forms may form a type of classification. These forms may be stored as PDF files, word document files or scanned images, this format of the files is un-important. Within this classification are a number of retrievable fields / indexes. These fields have values assigned to them that help identify the file to be stored. An example could be Policy number, with a value of "11111W" assigned to it. Users can now locate this file, and others, where the policy number matches "11111W".

System audit trails, interactions can be stored as records within the records module. This gives greater visual awareness of how a system and its stored content are being accessed.

Figure 4: What makes the storage module shows how the storage module is broken up, how it interacts with the repository service and how this in turn manages and communicates with the Grau HSM in this example.

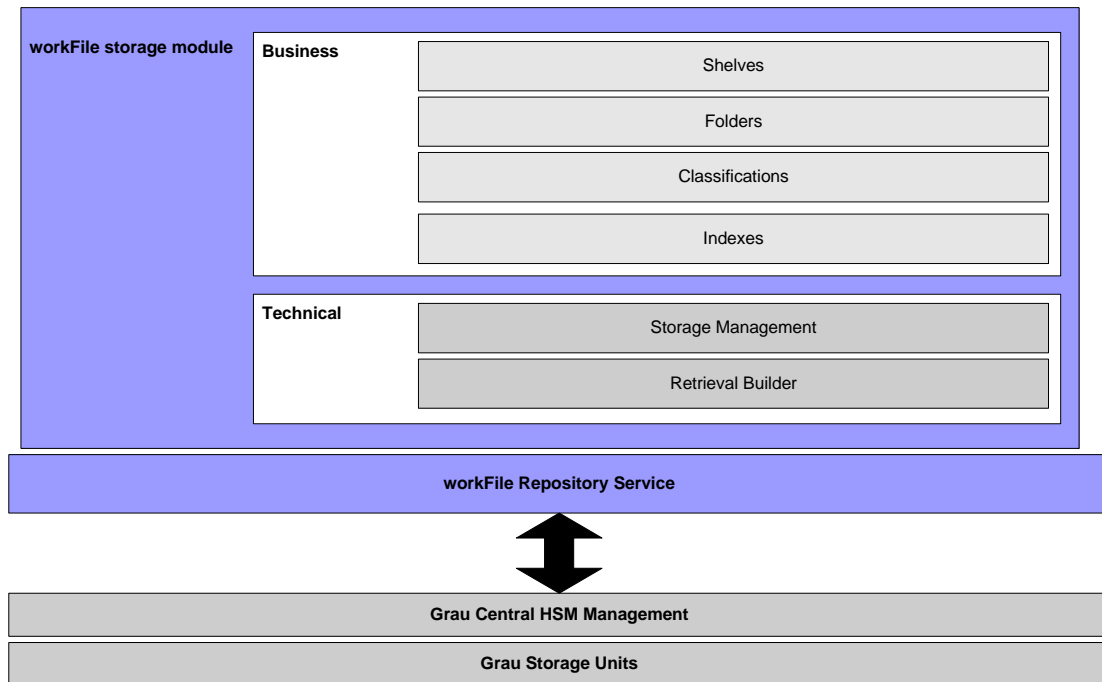


Figure 4: What makes the storage module

Note that this diagram applies for many of the modules within workFile. Each module is self contained and stores business specific information. This is found within the business partition of the module. This business partition and its components interact with the technical partition and the technical services provided to meet the business requirements.

This module and all its functions are available for use through the workFile .NET API. In addition XML Web Services are provided to allow cross platform and internet integration.

The storage module provides data storage, archive and image management functionality.

Content module

The workFile content module extends the functionality of the storage module. It allows typical document management functions, but does not limit this to documents. The content module is named so as it handles any form of electronic content and allows organisations to take control of that content and manage it within a single repository.

Such functions as versioning, publishing, lifecycles etc can all be handled for any electronic file. For example data backups, CCTV footage, documents, presentations, videos etc can all be versioned through the system.

The actual location of the file is managed through the [Storage module](#). The content module extends the storage module. By this it inherits the storage module and utilises the functions provided by the module. Additional functions are self contained, again within a business and technical partition.

It is this OO approach to the design and architecture of each module that allows the modules to be self contained or interact with each other seamlessly. In the case of the content module, the storage module has to be used as it forms the core of the content module.

Full system audits and interactions can be recorded and stored as records for a particular piece of content. This allows content to be completely monitored highlighting users viewing content, versioning, distributing, new content being added, source of content, interactions etc.

This module and all its functions are available for use through the workFile .NET API. In addition XML Web Services are provided to allow cross platform and internet integration.

The content module provides all the functions of a document management, content management and image management solution.

Records module

The records module allows complex records and structured data and entities to be created, stored and managed. A record, in its simplest term, is a piece of structured data. This could be customer's personal details for example.

The records module has no dependencies within the workFile suite. Its business functions and technical functions are executed in a stand alone fashion. However the module can be consumed and utilised by other modules, such as content, case, CRM and BPM.

The records module allows structured record classifications to be made. These record classifications can have a number of fields that make up that type of classification. For example a customer record classification could be created. This classification may contain such fields as, name, surname, address and post code. Records can be retrieved on any of the fields that make that record classification. This means that a record on a customer could be retrieved by post code, name or **any other field that comprises that classification**. In addition sub records can be created and joins made between the types of record classifications. This allows records to relate to other records.

The OO architecture of the records module allows any number of joins between objects to be formed. This can be in the form of records referencing other records, content etc or records are assigned parents / owning records / content. It is this model that allows great flexibility in modelling a businesses structured data requirements. This gives organisations the power to create records management solutions that meet all of their structured and unstructured data storage requirements.

This module and all its functions are available for use through the workFile .NET API. In addition XML Web Services are provided to allow cross platform and internet integration.

The records module provides such business functions as structured data capture and storage, customer details etc, contact management and records management.

Case module

The case module is built upon and is dependent on the records management module within workFile. The case module extends the records management module and provides its own user interface.

The case module allows case (record) containers to be created. These containers contain pieces of work / sub records. A case container can contain any number of work records. This allows multiple pieces of work to be generated by a single parent records, system interaction or content. Work records act as containers for task records. Again, any number of task records can be allocated to a work record.

Both work records and task records expose named properties to give business meaning to the end user. It is this concept of record abstraction that allows the case module to be highly flexible and meet many organisations case management requirements.

Records can contain sub records, in the case of work records and task records, property records can be added. Such property records allow business data to be stored against a task or work record. Such business data can typically include, name, service level agreement, creation date and time, parent object, object type.

Case and work creation can be triggered by any of an organisations business process, for example a customer calls to lodge a complaint. This complaint requires that a number of tasks be carried out to resolve the issue. The case module allows a containing case to be created; within it is the item of work called "complaint lodged". Work can be selected from a configured menu field. Within this item of work are a number of tasks that are to be completed to resolve the complaint issue. These tasks can be selected from a configured menu field, allowing processes to be configured to only provide functions for particular pieces of work.

Cases or work can be held / diarised until a given date or until another interaction occurs. Cases or work can be referred to other departments or users for review or for the work to be carried out.

Agents / users can quickly locate cases / items of work through a workFile search interface, allowing the case details to be quickly found and reviewed by users.

The case module allows records and content to be referenced from within the case. This allows the case module to store any form of structured and un-structured data that relates to a case. In addition all the functionality of the content module and storage modules can be exposed through the case module to give a seamless set of tools and business functionality.

This module and all its functions are available for use through the workFile .NET API. In addition XML Web Services are provided to allow cross platform and internet integration.

The case module provides business functionality that relates to case management, simple one step workflows and limited customer relationship management functions.

C.R.M module

The CRM module provides workFile with a contact and customer management interface. It works similarly to the case module and its integration with the records module. The CRM module is focussed on the management of customers and contacts, and utilises the records management module to provide these functions. In addition it can be image / storage / document / content management enabled.

Each customer is treated as a parent record, with customer details being stored within the record classification. Interactions and types of interactions can be stored within the customer record. Each interaction is again stored as a child record of the customer record.

Interactions can be any form of interaction between, the customer and the organisation, or the staff within that organisation and the customer records. This makes the CRM module highly beneficial to organisations that have a great deal of interaction with their customers and who wish to provide quality and speedy customer services.

The CRM module is dependent on the records module. In addition the CRM module allows the actual interactions be stored within workFile storage and content modules. This gives organisations and their agents a full 360 degree view of all the interactions made between the customer and the organisation and the actual interaction data.

The CRM module can be used with the case module. This allows interactions that spawn work to then be carried through the case management module. This is not to be confused or viewed as business process management or workflow.

This module and all its functions are available for use through the workFile .NET API. In addition XML Web Services are provided to allow cross platform and internet integration.

The CRM module provides all the functionality of a Customer Relationship Management solution.

BPM module

The BPM module allows simple to complex business processes to be mapped. This mapping relates to how workFile functions and what information is presented to the user at a given point within the process. Each process is made up of a number of steps or tasks. Each step / task can expose any level of information for the work to be completed. Guidance notes can be provided as to can data fields that must be updated / completed. The ability to upload content, view and modify content is configured at the map design phase for each step. Once all the tasks / data have been captured from that step, the item of work may progress through the process.

Functions such as, hold, diary, refer and review can be exposed through the interface when appropriate. These rules are all built within the business process modelling functions of the BPM module. In addition automated steps can be generated. These steps spawn automation processes / events from within the BPM module or within workFile.

With the BPM module, work can be split into multiple processes, allowing multiple teams to carryout their processes simultaneously. This helps speed up business processes allowing the organisation to provide shorter service level agreements and raises customer satisfaction levels.

The BPM module can be fully integrated with the storage, content, CRM and records modules. This gives user a single desktop experience with these business functions and systems being exposed through a single web site. It can also link in structured data and information from third party applications.

Some of the BPM functions are made available for use through the workFile .NET API. Limited use of the XML Web Services is provided on request.

The BPM module provides business functions such as business process management or workflow. These functions can be used for any process within any department of an organisation. Multiple processes can be created for an organisation, and / or a department and / or even a single business process.

MI module

The MI module allows management and administrators to monitor the workFile repository. In an outsourced scenario many of these features are made available only to Grau and one degree consulting administration staff members. However, the MI module allows information to be extracted from the repository to give comprehensive reporting information. In addition, the system allows trends to be identified, usage and the tracking of key items of work.

The MI module is to be used in conjunction with the administration and security services that are provided by each of the workFile modules. These administration tools allow team leaders and management staff to monitor, interact and administer the content and events within the repository.

Solution Benefits

Some of the technical benefits are listed below:

- A single storage and archive repository system
- A single document management, content management, records management , customer relationship management case management and business process management solution
- “Naked client” applications providing a “zero footprint” on client machines
- Zero deployment issues
- HTML 4.0 compliant
- .NET technologies used
- XML Web Services providing internet, cross platform and application integration possibilities
- Technology life span
- Module flexibility due to OO and event architecture
- System performance and scalability
- Utilise best of breed data capture environments
- Utilise windows authentication for security
- Data protection and compliance standards met
- Secure storage environment
- Application “snap-ins” available for office
- Powerful and flexible thin client management and administration tools
- Bespoke development and configuration offered by one degree consulting ltd.
- Outsourcing solution available

Typical implementation

This section gives an overview of a typical workFile implementation and the implementation options available to organisations.

Configuration

The system can be configured in a number of ways. The workFile product gives real flexibility to meet organisations requirements of the system.

The workFile repository service should be installed on a separate and dedicated server station. The MS SQL database instance can be installed on the same machine or for scalability and backup reasons is installed on its own database server. This allows organisations to maintain their databases in a dedicated database environment.

The workFile .NET API can also be installed on a separate machine, this API can be used in a Remoting fashion allowing a true application server implementation to be chosen. The XML Web Service layer can be installed on the workFile web server or again on its own web server.

Storage devices

The workFile system, when using the storage module or modules that require the storage module, requires the use of storage devices. These devices are used to physically store electronic files. A storage device is configured within workFile as a data location shelf, these shelves can relate to any location on a network or within a particular storage device.

Typical storage devices include SAN, NAS, OSAR and MSAR. The workFile repository can make use of any device that can present itself to the operating system as an additional drive on the network.

Example

[Figure 5: Example implementation](#) shows a typical implementation. It does not show the full flexibility of the configurations possible, rather it illustrates a typical workFile organisational implementation.

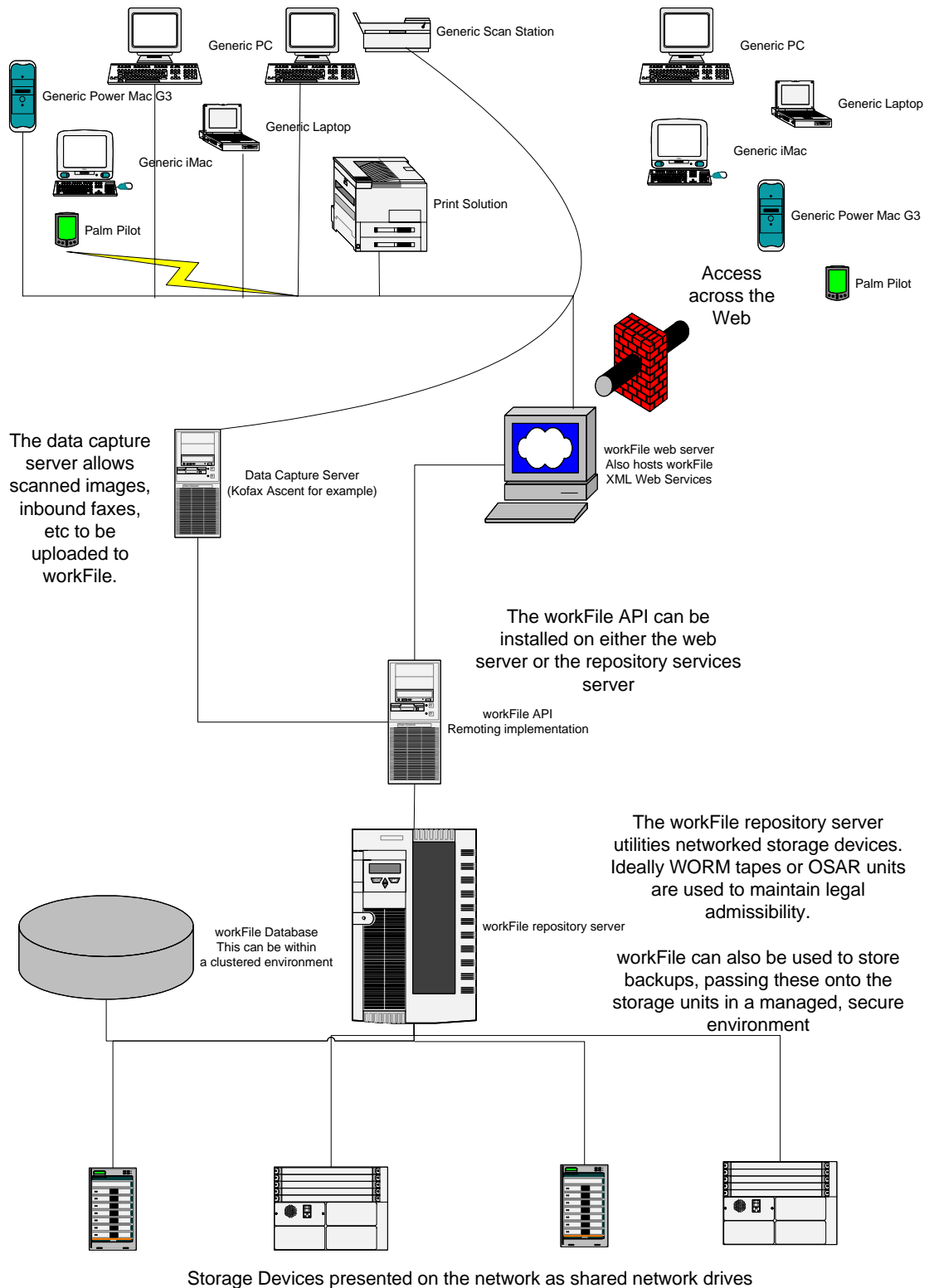


Figure 5: Example implementation

Retrieve your data / exit plan

Data recovery is an important issue to all organisations. With the workFile solution data recovery is handled automatically. With regards to retrieving your data to allow your organisation to migrate to a different solution, if you wish too, Grau and one degree consulting provide you with all the tools and data necessary.

Full repository extracts can be made giving a complete schema of data and the data itself. These extracts can be for example in the format of CSV files, or excel spreadsheets. Any electronic files will also be extracted. This data may be delivered via downloadable files across the web, or through DVD's, ZIP drives, Magnetic tape or removable hard drive storage media. This allows for ease of uploading current data into the chosen solution.

If a termination of services request is made to one degree consulting, then a strict time table is followed. This seven step timetable is to help organisations deal with the transition from the workFile solution to their chosen provider. An outline of this timetable is shown below;

Step	Details
1. Stop further data capture (5 day period).	Addition additional files, records etc will be phased out within a 5 day period. After this time period, users will not be able to add data into the repository. This time period can be negotiated and will not be enforced strictly.
2. Take initial extract snap shot.	An initial data snap shot is taken. This is in the form of complete data extracts and file extracts from the repository. These are in the form of CSV files and copies of the actual stored electronic files. These extracts can be used to then upload into another solution / test application.
3. Allow simultaneous execution and additional extracts.	By allowing organisations to use both their new system and the workFile solution, this lowers the risk of the new project and handover periods.
4. Receive final termination confirmation.	The organisation gives a final termination date. From this date, the organisation will no longer be able to use the workFile solution.
5. Deliver final extract.	The final extract of both structured and unstructured data is made. All data files and electronic files are delivered to the organisation with the complete data schema.
6. Remove organisations data.	On official receipt of the final extract and files, the files and data will be removed from the workFile solution. From this point organisations data will no longer exist within the solution or be held by one degree consulting.
7. Termination of contract.	The outsourcing / licensing contract is officially terminated.

Detailed recovery and exit plans can be tailored to suit the organisations requirements as and when an organisation wishes to terminate their outsourcing contract or use of the workFile repository. The back out seven step timetable is a template for back out procedures. It illustrates how easy the data retrieval and back out strategy can be made.

Implementation

Implementation is made simple and consists of a simple 3 step business process. The steps that make this business process are examined within this section. When choosing to implement workFile, a detailed timescale will be agreed.

Step one: Requirement analysis

A small fact finding project must be undertaken to gather the system requirements. This project provides a fully documented system configuration and data collation details for your given organisation or department. This document typically highlights the following;

- File and record classifications
- Retrieval / index field definitions
- Repository shelf and storage configuration
- Security model
- Users, groups and roles
- Total number of users
- Integration requirements

If detailed integration is required from within the workFile application front ends, further requirement and functional specification work will be carried out in conjunction with the organisation and application provider.

This step can be as little effort as 1 man day. This is dependent on the system requirements.

Step two: Configuration and system review

one degree consulting professional services will be used to administer workFile. Configuration will be tailored to meet the business requirements found from the requirement analysis phase. If bespoke front end development or system integration is part of the requirement, then these changes / developments will be carried out by the one degree consulting professional service and development department.

Once the configuration and any bespoke work is complete, the solution will be made available to the organisation to test, and confirm that all the business requirements have been satisfied. In an outsourcing environment this is done by providing customers with a URL. In a purchased solution, a test partition is configured for use within the actual system.

User training can then take place on the "test / pilot" system.

Step three: Role out

The system is agreed and users are given a short cut on their desktop to the desired web page. User login details are also distributed.

The test partition is removed and the system now runs in a live environment configuration.

Maintenance and Support

All system maintenance work is carried out by one degree consulting technical consultants. Any system downtime is agreed with an organisation in advance. All system upgrades / maintenance work is carried out outside of working hours whenever possible. Working hours are viewed to be 8:30am – 5:30pm.

Maintenance contracts are drawn up with individual customers to meet their own requirements.

Help desk support

Help desk support is offered as part of the outsourcing solution. This gives users, departments and organisations a point of contact with regards to support. Support teams can be contacted via telephone, eMail or the web. Typically organisations internal help desk teams will deal with an issue. If it cannot be resolved then they alone may contact the one degree consulting support teams.

Once a support call has been made it is logged within the one degree consulting support centre application. This can be accessed through the one degree consulting web site. If a resolution is made straightaway the support centre application will show this. Users can track the progress of their problems through the support centre at all times. In addition they may call the help desk support phone line and request information over the phone. All information regarding a case / incident is logged and stored within the one degree consulting support centre. This allows organisations and users to view the issues that have arisen, the resolutions and the progress of current outstanding support issues.

If the help desk require input from technical staff within one degree consulting, then this is recorded in the support centre log and allocated to a member of the technical teams. The technical team then take ownership of this issue.

Technical support team

The technical support team take ownership of incidents that cannot be fixed by the help desk support team. The technical support team have the power to make modifications to configuration in order to address an issue. All interactions / work carried out in the resolution of an incident is again logged within the support centre.

If a problem is within the workFile product, then this will be raised to the development teams of workFile. Depending on the severity of the problem, the resolution will be worked into the product roadmap. If the issue is server then the product will be updated as soon as possible.

Additional resources to review

For additional information on workFile please review the following:

- <http://www.consulting-onedegree.com/solutions/workFilestorage.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilecontent.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilerecords.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilecase.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilecrm.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilebpm.aspx>
- <http://www.consulting-onedegree.com/solutions/workfilemi.aspx>
- <http://www.consulting-onedegree.com/outsourcing/service.aspx>
- <http://www.consulting-onedegree.com/reviews/workfile.aspx>
- <http://www.consulting-onedegree.com/downloads/articles/The%20arrival%20of%20workfile.pdf>

Information on workFile can be obtained from info@consulting-onedegree.com