



Long-term archiving: open, modular, flexible and expandable with HP iCAS

Increasing digitalization has introduced new requirements regarding the handling of important business information. This affects the digital archive in particular: a few years ago it was sufficient to file data, today's requirements are e.g. organizational workflow management combined with the respective legal specifications. Audit-proof archiving demands amongst others extensive data migration, high scalability and avoidance of media breaks.

Digital archives must not become company-wide separate data cemeteries. Therefore seamless integration into existing and future IT infrastructures is essential. HP iCAS offers a future-proof solution – designed for optimal use, administration and structuring of your data, and based on standardized, open system platforms.

No wonder, companies attach high significance to the topic of compliance. Whether it's tax-relevant information, product documentation, construction data, patient data, correspondence, insurance, financial or research data: preventing manipulation and ensuring that audits can be performed at any time.

Audit-proof archiving guarantees information provision ability of the management and traceability of business transactions required by tax auditors or prosecuting attorneys. Anyone who works negligently puts oneself at risk to legal and economic consequences which may also affect the ranking of a company.

The need for an effective storage strategy

Data volumes grow rapidly – volumes of unstructured data even exponentially and are thus a massive cost factor. Commonly, only approx. 10% of the data are frequently changed being dynamic content. The remaining are mainly fixed content. Although never changed, these data stress your daily data storage and backup, and lead to delays and expensive investments in backup and ILM concepts in case of recovery.

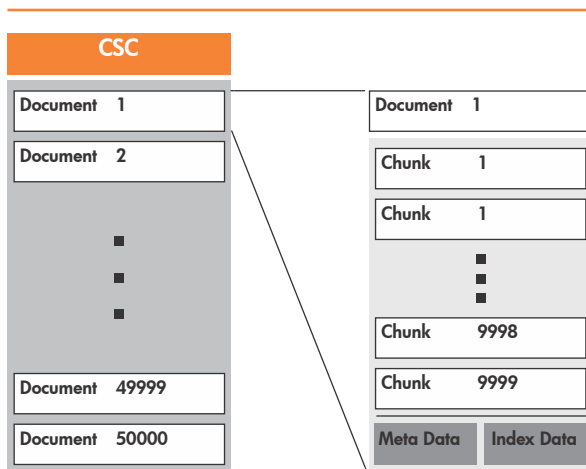
HP iCAS with its patented CSC technology can help

HP iCAS is a highly scalable, hard drive based archive. With the patented and certified Content Storage-Container technology (CSC) the system compresses and encrypts your data using future-proof HMAC-SHA-512-bit hashes.

The CSC technology compiles the archived data and documents with its corresponding index data, creation and retention date (legally required safekeeping period) into a data container. It can be stored onto any storage medium, yet remains verifiable. By doing so HP iCAS compresses your data up to 50% and allows for better storage utilization.

Data security is essential for long-term availability and the migration towards new technologies.

HP iCAS provides the possibility to move or to copy file containers on system level.



Isolated storage due to proprietary solutions and media breaks will instantly become history. With HP iCAS containers can be moved to NAS storage media avoiding complex and expensive backup and restore procedures. High performance is guaranteed during data migration since file service functions are used instead of copy functionalities of ECM applications.

The HP NAS-to-SAN-Fusion principle provides the customer with the advantage to use existing or newly acquired hardware more efficiently and to save costs as investments in hardware, software and training are protected. Existing file servers and SAN systems can be easily expanded with HP iCAS in order create the frequently requested 'Unified Data Storage'.

Open and standardized:

Consequently, data archived with HP iCAS can be saved and replicated with existing standard software. A dedicated database is also not required since all information is located in container files in the file system. The file size is not restricted by HP iCAS. Only limitations of the used file system apply, e.g. NFS or CIFS.

Small to large:

HP iCAS can be scaled for SMB and enterprise businesses. This makes it ideal for new acquisitions of any size, existing customers and can also replace high-maintenance and slow jukeboxes. Load balancing and clustering ensure a high data throughput, availability and security for archive operation.

Moreover IT managers profit from the use of the known HP storage portfolio: an administrator may e.g. make use of SAN-arrays such as HP EVA and HP MSA or other StorageWorks products as storage and backup platforms. Once capacity limits are reached, SAN storage can be expanded. Maintenance of a separate and isolated storage system is no longer required.

Now and in the future:

Migration to media which allows for easy outsourcing to external locations (e.g. LTO-4 tapes). Thus additional administration effort does not arise as backup and recovery do not require special solutions. Available tools can still be used for this purpose.

HP iCAS integrates seamlessly into any type of storage structure within a company. Furthermore it is based on open industry standards which guarantee that your data can be migrated into future storage architectures and technologies.

Certified compliant archive solution:

Safekeeping periods (retention periods) mandated by law can be managed flexibly for each container. Deletion is not possible before the configured period has expired. Once the period has expired, the data can be deleted according to the specifications of the U.S. Department of Defense.

The conformity with respective regulations, e.g. SOX, EUROSOX, HGB, AO, GDPdU, GOB, SGB, Basel II, UStG,... is guaranteed: HP iCAS appraised and certified legally. HP iCAS exclusively uses certified storage systems in order to assure smooth operation of your archive.

All HP StorageWorks storage products were extensively tested for compatibility with HP iCAS and successfully certified.

ECM integration with HP iCAS:

For the use of ECM systems, integration of the archiving solution into the ECM system must be taken into account. HP iCAS provides an API and a file system interface for this purpose.

All documents are copied to the storage or archiving media including all metadata. The ECM database contains the information on the archiving location. A copy of the metadata is stored in XML files and allows the index-database to be recreated even after a full system crash.

Thus HP iCAS ensures adherence to compliance regulations and provides additionally extensive data management features.

The compatibility of HP iCAS and selected ECM systems is certified.

HP iCAS – highly scalable, multi-subscriber capable:

Depending on the requirements, HP iCAS can be used as a solution with integrated (but expandable) storage, e.g. with HP AiO (All-In-One-Systems), HP Proliant storage servers or in combination with externally connected HP disk array systems, as well as the direct use with the HP Scalable NAS/PolyServe Data Base Utility which is based on HP PolyServe Matrix-Cluster technology.

In order to adjust the data throughput to your requirements, the performance of single systems can be increased with standard options such as memory and processors; alternatively, parallel use of multiple HP iCAS systems is possible: any data volume starting at a few hundred GB up a number of petabyte is possible.

The multi-subscriber capability of HP iCAS allows departments, parts of companies, subsidiaries and customers to archive separately of each other. Different storage paths can be defined for each subscriber which assures spatial separation of data.

High availability with redundancy:

Thanks to its modular design HP iCAS can be run redundantly, and depending on the configuration with load balancing. This assurance of availability can be achieved through different configurations – amongst others:

- Parallel use of HP iCAS Servers
- HP iCAS with Microsoft Cluster
- HP iCAS with Storage Mirroring
- HP iCAS/EVA and Continuous Access for EVA
- HP iCAS with HP PolyServe Matrix Cluster Technology

Open for software integration:

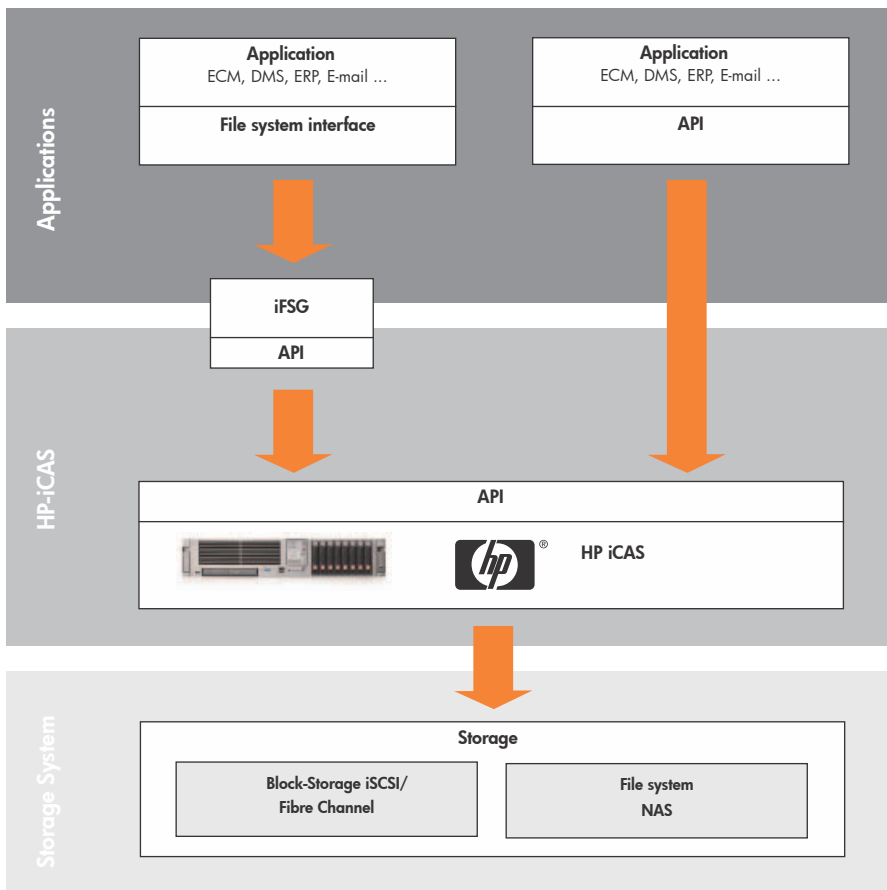
The HP iCAS API is supported by a number of leading DMS/ECM systems as well as MS Office, Exchange and SAP applications. The API is based on a web service into which any application can be integrated straight away. Using the interface, the HP system can be embedded into a 'Service Oriented Architecture' (SOA). Code examples are available in various programming languages for simple API integration.

In the future HP iCAS will also support the new XAM standard. Applications which have not had the API included yet can easily be integrated using the optional integrated file system interface (iFSG).

Open for file systems: iFSG

The iFSG (File System Gateway) is a client application integrated into HP iCAS which provides 'virtual' drive letters to any application. Data located on such drive are archived with the HP iCAS web service API.

The iFSG behaves transparently like a normal drive and is therefore available to Windows commands and applications. The drive letter created by iFSG can be made accessible to users on the network using standard OS functionalities, e.g. CIFS or NFS share.



HP iCAS: In a nutshell:

- Scalability
 - Open, modular design and based on standards
 - Flexible: standalone file servers, consolidated NAS SAN storages and anything in between
 - Simplest extension and integration into existing storage environments with HP NAS-SAN-Fusion
 - Migration-proof and open for future changes in technology
- Cost efficiency
 - Excellent value of new acquisition
 - Unbeatable cost advantages for expansions of existing HP storage systems Integrated data compression saves up to 50% storage space
- Security
 - No additional training requirements for HW, SW
 - Concise, simple and cost-effective licensing model
- Security
 - Minimal implementation and migration requirements (today and in the future)
 - Cluster functionality
 - Open file system: support of common tools for backup, recovery and high availability
 - Legally-compliant certification
 - HW support by HP Service

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