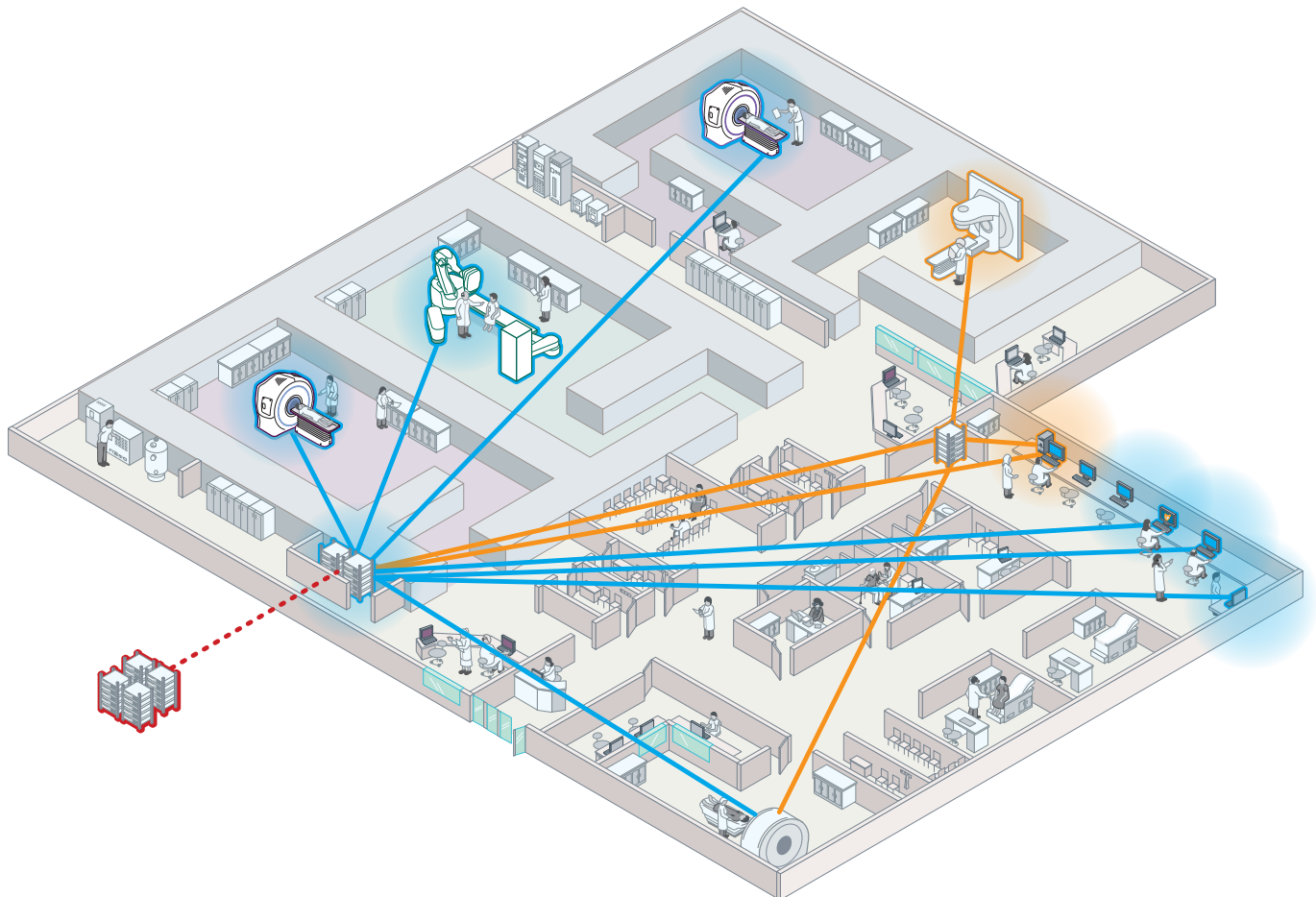


# iDMS<sup>®</sup> DATA MANAGEMENT SYSTEM

Technical Specifications



The new iDMS® Data Management System offers an integrated database supporting all compatible Accuray products.

## 1. Key Features and Benefits

- Provide full integration with Accuray Precision® Treatment Planning System and data management for use with all compatible Accuray delivery systems (Radixact®, CyberKnife®, and TomoTherapy® Treatment Delivery Systems)
- Provide an Integrated department workflow management through OIS connectivity, report administration, and remote access services
- Provide data security and privacy, and storage capacity with disaster recovery
- Support for RayStation Treatment Planning Systems for use with compatible Accuray delivery systems (Radixact, CyberKnife, and TomoTherapy Treatment Delivery Systems)
- Multiple machines can utilize a common database for planning, imaging, and treatment data
- Easy plan transfer between machines using the same iDMS® system data server

## 2. iDMS® Data Management System Specification

The iDMS Data Management System offers an integrated data management solution for all compatible Accuray systems on the same local area network.

iDMS SPECIFICATIONS (minimum system capabilities)

<b>CPU</b>	Intel Xeon E5-2620v3
<b>Memory</b>	32 GB DDR4 2133 MHz
<b>Volume C:</b> (operating system and application software)	2 TB (2x 2 TB - RAID 1)
<b>Volume D:</b> (current/active patient data)	1 TB (4x 600 GB - RAID 6)
<b>Volume E:</b> (backup data)	3.6 TB (4x 2 TB - RAID 6)
<b>Network</b>	Two gigabit ports
<b>Power Supplies</b>	Redundant power supplies
<b>OS</b>	Microsoft Windows Server 2012 R2
<b>Database</b>	Microsoft SQL Server 2014

The following items are housed in a rack enclosure (dimensions: 59 in./150 cm H x 24 in./61 cm W x 36 in./92 cm D): Data Server (iDMS System), Gateway, UPS, network components, Remote Registration Review/Approval (optional software feature), and PreciseART® Adaptive Radiation Therapy and PreciseRTX® Retreatment Options (optional software features).

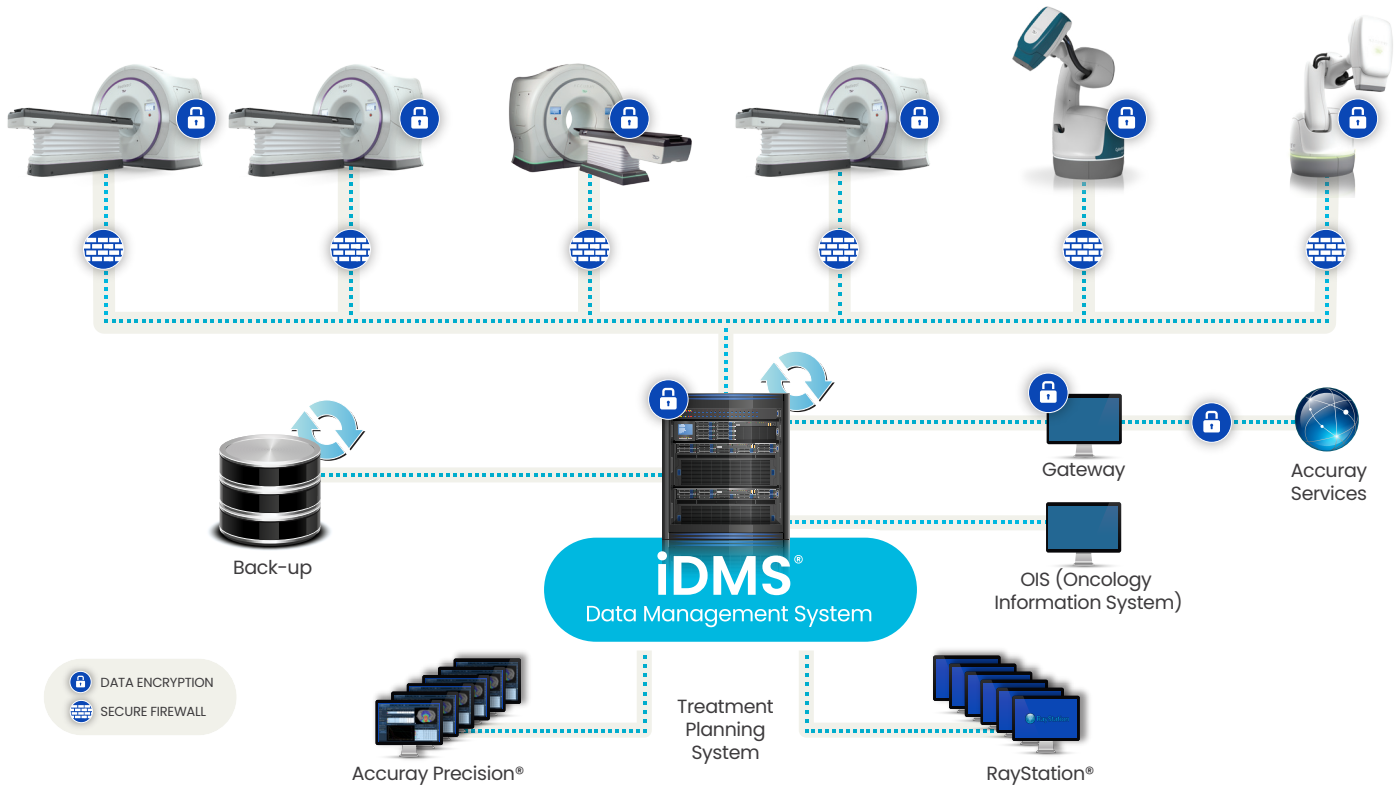
## 3. Storage Vault (option)

The Storage Vault option provides automated storage of patient records based on user specified configurations, such as number of days since last access or number of records in active database, and enables quick access to previously treated patient files.

STORAGE VAULT SPECIFICATIONS (minimum system capabilities)

<b>CPU</b>	Intel® quad core Xeon 3.1GHz
<b>Memory</b>	4 GB DDR3 ECC DIMM
<b>Drive Configuration</b>	44 TB Usable Storage
<b>RAID Configuration</b>	RAID 6
<b>Network Interface</b>	2 x Gigabit Ethernet Ports
<b>Power Supplies</b>	2x redundant/hot swappable 350W PSUs
<b>OS</b>	GuardianOS®

## 4. Typical System Interfaces



Standard system interfaces

## 5. External System Interfaces

### DICOM Import

The following DICOM image studies are supported for import by the iDMS® Data Management System for use in treatment planning:

#### TYPE

**Computed Tomography (CT)**

(Required Primary Image Set)

**Magnetic Resonance (MR)**

**Positron Emission Tomography (PET)**

**X-Ray Angiography (XA)**

#### SUPPORTED PATIENT POSITIONS

Axial HFS, FFS, HFP, FFP

Axial HFS, Sagittal HFS, Coronal HFS

Axial HFS

Axial HFS, Coronal HFS

In addition to the above image studies, the system may also import DICOM RT-Structure Sets allowing third-party systems to be used for contouring if required.

## 5. External System Interfaces *(continued)*

### DICOM Export

The following DICOM objects may be exported to third-party systems and clinical/research databases:

- DICOM-CT Image Set
- DICOM-RT Structure Set
- DICOM-RT Plan
- DICOM-RT Dose
- DICOM-RT Treatment Record

### OIS Interface Software

The OIS Interface software provides the ability to interface the iDMS® Data Management System-based suite of products with a compatible Oncology Information System (OIS). Elekta MOSAIQ®, Varian ARIA®, ONCOCHART®, and RayCare® OIS systems are currently supported. The software facilitates greater integration of Accuray products into the radiation oncology department, by:

- Allowing scheduling of treatments on the OIS
- Allowing review of the Radixact® and TomoTherapy® Systems' CTrue™ MVCT images and 3D registrations\*
- Allowing review of the Radixact® Systems' ClearRT™ Helical kVCT images and 3D registrations\*
- Providing automatic capture of treatment procedures on the OIS, including dose recording and accumulation for the treatment plan's primary prescriptive target
- Aiding in charge capture and billing (where applicable)
- Aiding in integrating treatments into patients' electronic medical records, via the OIS

The OIS Interface Software is based on DICOM-RT Worklist communication, as specified in DICOM Supplements 74 and 96

\* Export of the 3D CTrue MVCT images/ ClearRT Helical kVCT images and registration review may not be available in all Oncology Information Systems. Please check with your OIS vendor for compatibility.

### Data Backup and Disaster Recovery Features

The iDMS® System includes a number of features and functionality to protect the system's data in the case of a catastrophic event:

- The iDMS System data server includes three separate data drive volumes (C: Operating system and application software, D: current/active patient data and E: backup data) to increase system redundancy and to provide efficient service and support
- C drive on iDMS server is RAID1; D and E drives are RAID6 arrays, allowing the system to stay on-line with up to two disk failures
- iDMS System software monitors iDMS System hardware/RAID configuration and posts system events in the event of failure, allowing monitoring by System Administrators on-site, plus allowing visibility by Accuray Support Personnel
- iDMS System software is equipped with full automatic backup once a day, differential backup every eight hours and transactional backup every two hours (intervals are configurable) to the E drive. Comprehensive backup is therefore performed with no requirement for user interaction, plus the configurable backup intervals allow optimization of the backup process according to the clinic workload
- iDMS System software is also equipped with Data Mirroring capabilities, allowing the iDMS System to be configured to mirror the database backup (E: drive) to a location on the facility network

### Patient Data Archive and Restore

iDMS System allows data to be archived to a network storage location configured by the site via its Patient Record Archive and Restore (PRAR) software. iDMS System retains the root patient record in the system database and the PRAR software enables access to archived data for easy search and restore of patient records as needed.

iDMS®

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### Important Safety Information

Most side effects of radiotherapy, including radiotherapy delivered with Accuray systems, are mild and temporary, often involving fatigue, nausea, and skin irritation. Side effects can be severe, however, leading to pain, alterations in normal body functions (for example, urinary or salivary function), deterioration of quality of life, permanent injury and even death. Side effects can occur during or shortly after radiation treatment or in the months and years following radiation. The nature and severity of side effects depend on many factors, including the size and location of the treated tumor, the treatment technique (for example, the radiation dose), the patient's general medical condition, to name a few. For more details about the side effects of your radiation therapy, and if treatment with an Accuray product is right for you, ask your doctor.