



# Magentus Software Limited

Data Management Services (DMS) / SQLSuite -  
Service Definition Document



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## Document Control

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# Data Extraction Service – Service Definition Document

## Overview

Magentus' Data Extraction Service extracts data from all principal GP clinical supplier systems. Customised data extracts from each GP system are presented in the same format. Data extracts can be anonymised at source. Different technologies are used to extract data from central (remote hosted) or local (LAN) principal GP clinical supplier systems following an appropriate and approved consent process. Data can be left at the GP Practice or securely delivered to a third party/ICBs /NHS Organisation, via HSCN. The data extraction service is automatic and does not require involvement from GP Practice staff.

The Magentus Data Management Services (MDMS) Data Extraction Service typically provides data extracts to ICBs, NHS England, Public Health, and other healthcare providers / analytics providers to enable the data to be used for:

- Risk Stratification Analysis (Anonymised or Patient Identifiable)
- Statistical Analysis
- Compliance/Concordance Analysis
- Disease Management Analysis
- Medicines Management Analysis
- Patient Care Management Analysis
- Financial Analysis
- Clinical Research Analysis
- Clinical Audits
- Disease Surveillance
- Patient Recruitment

Magentus data extraction software is compatible with:

- Emis Web & PCS
- TPP SystemOne
- Vision Hosted and LAN

Extracted Data is provided, typically in CSV, Excel or XML format and can include:

- Bulk data consisting of the full medical history for currently registered patients and the full history for deducted patients for TPP and Vision systems and 20 years for EMIS systems.
- MDMS can also provide outputs to Database, FHIR/HL7, MiQuest, and/or can develop bespoke output mechanisms for customers upon request.
- Delta and incremental datasets to provide regular updates to patient data (all records updated).



The data specification is unique and customised for each Customer. A typical set of files for data extraction comprise of the following datasets:

- Metadata
- Patient data
- Staff data
- Event data
- Consultation data
- Prescription data
- Immunisation data
- Referral data
- Demographic data
- Appointment data

## Service Features

- Fully identifiable, pseudonymised or anonymised datasets can be created. It is possible to provide a patient identifiable dataset within a GP practice and send an anonymised or aggregated dataset to the nominated third party.
- Strong, approved consent model and process.
- Variable frequency of data extraction, such as daily, weekly, monthly or ad-hoc. Data extracts can be scheduled to run on any day including Saturday and Sunday.
- A GP can partake in more than one study/project and provide data for more than one model concurrently. Extracts from separate projects can be scheduled to run at different frequencies.
- Fully managed automated extraction service. Magentus software does not require the GP practice staff to undertake any tasks. (GP staff may be required to arrange access for installation of software through their ICB/Local IT provider).
- Secure encrypted data transfer to end user (via NHS HSCN network).
- Changes to dataset can be implemented automatically. As requirements change or new codes are added, queries can be amended, and changes implemented automatically. No GP Practice Interventions are required.
- Normalised outputs. Data extracted across all principal GP systems can be normalised into a single format.
- Compatible with all clinical coding systems, such as SNOMED, READ2 & CTV3.

## Service Benefits

- Single source for all data requirements regardless of GP Practice system



- Data is provided in a standard format regardless of the originating GP system to support the onward amalgamation of data into a common form
- Magentus has a proven track record of delivery of data for local, regional, and national studies/projects.
- Magentus project manage implementation from scoping to go-live using recognised methodologies such as PRINCE2 and MSP.
- Magentus provides a fully managed service from implementation to go-live, guiding and advising the customer on the best methods and processes to achieve their goals.
- Assist customers with data specification. Magentus understands the nuances of data between each of the clinical systems and can advise customers on the most appropriate dataset to meet their demands.
- Assist Customers with IG and Consent Models. Magentus is very familiar with IG rules and regulations and will guide customers in obtaining the appropriate consent.
- Remotely monitored support service with 9:00 – 17:00 service desk.

## Accreditation

- Magentus is accredited to provide services under NHS IG Toolkit as a Secondary Use Organisation
- Magentus data extraction interfaces are accredited directly with principal system providers where required. Magentus' data extraction software has been developed over a period of 23 years; it is continually evolving to keep pace with changes to Principal Clinical Systems providers' software including changes from locally hosted to centralised systems and conformance with latest patient data Information Governance rules.
- NHS Digital GPSOC accreditation for its IM1 Bulk interface to all principal/foundation GP systems (EMIS, TPP, Vision and Microtest) and is a supplier on the NHS GP IT Futures Framework.

## Data Extraction Process and Key Components

Magentus' Data Extraction software/process is detailed below:

1. **Data Load and Transform Service** - This takes the data in the different format that each principal supplier provides and transforms it into a dataset that can be queried upon by Magentus SQLSuite.
2. **SQLSuite** - This is Magentus' proprietary software that enables data extract queries to be written and run against the unique Magentus dataset. SQLSuite can be provided with a set of pre-determined reports that can be run locally by GP Practice staff if desired, providing data in the same format across the four main clinical systems.
3. **Apollo Automated Audit (A3)** - This software enables Magentus Operations Team to automatically schedule and run queries in SQLSuite at the desired frequency (daily, weekly, monthly, etc.). Updated queries can be rolled out automatically as requirements change. It is possible to run different queries for different projects at different frequencies.



4. **Apollo (A2)** - This software enables data extracts to be transferred from point of extraction to point of use, using the NHS HSCN network if required. All data is encrypted prior to transfer using a combination of AES 256-bit and RSA 2048-bit public key cryptography, then decrypted upon receipt on the customer's server.

## Description of Service Implementation

Implementation of Magentus Data Extraction Services follows a typical process comprising of:

1. Sales Consultancy
2. Customer signs agreed contract and provides a purchase order.
3. Scoping - Magentus and the Customer will enter a collaboration phase where the detailed data specification requirements are discussed, agreed and signed off. At this point the relevant consent model is agreed and signed off by all parties.
4. Development of Queries - The individual queries will be developed for each clinical system and tested on Magentus' in-house systems.
5. Pilot - Pilot on several Customers' nominated GP Practices is required. Data Extracts require to be signed off by the Customer before implementation.
6. Implementation - Magentus will implement the data extract solution to all participating GP practices.
7. Go Live - followed by managed services delivering data at chosen frequency.

## Service Management for Data Extract Service

- Magentus will schedule and run data extracts for each Customer at the desired frequency.
- Magentus' Operations Team will monitor and support the service without Customer intervention.
- Customers must report missing or incomplete data anomalies to Magentus for investigation within 2 days of receipt of data.
- Magentus will apply service targets to the service, typical EXAMPLE below:

| Type of Extract    | Frequency and Run Parameters | Description                                                                          | Successful Data Extracts Target (%) |
|--------------------|------------------------------|--------------------------------------------------------------------------------------|-------------------------------------|
| <b>Bulk</b>        | Quarterly                    | Run Bulk Extract Query once per quarter in place of monthly extract                  | 90%                                 |
| <b>Incremental</b> | Monthly                      | Run incremental data extracts once a month                                           | 90%                                 |
| <b>Delta</b>       | As requested                 | All deletions, amendments and new records recorded since the extract query last ran. | 90%                                 |



- Magentus will provide a regular report (depending on extract frequency) that will indicate status and any issues for each GP Practice data extraction in a simple table (Excel) format.
- Magentus will undertake periodic regular conference calls with operations team as required and will receive periodic visits from the nominated Sales/Account Manager to review service.

## Customer Responsibilities

Customers are responsible for:

- Ensuring appropriate project management is assigned and project governance is in place.
- Ensuring all ICBs/Local IT/GP Practice and any other third parties/other staff are aware of the project.
- Obtain consent for the extraction of patient data and for storage of any data sent to them by Magentus from the GP Practice data controller and ICB if applicable.
- Nomination of a key project contact/project manager who will liaise with other parties and act as point of contact for Magentus.
- Define the data extract, working collaboratively with Magentus to agree detailed technical specification that queries will be developed against
- Nomination of a CSU/CCG IT representative who will be responsible for provision of access for Customer and Magentus to open up firewalls, and other IT technical tasks as necessary to enable the installation and support of both the Customer and Magentus software solutions.
- Provision of a suitable secure endpoint location and a PC or server in which to receive data and for the installation of Apollo A2 data transfer service.



## Appendix 1 – SQLSuite GP Practice Reports

SQLSuite can be provided with a set of pre-determined reports that can be run locally by GP Practice staff if desired. The additional GP practice reports will run alongside the automated data extract service. SQLSuite provides a user interface for GP Practice staff to select and run reports. SQLSuite provides a standard set of reports with data output in the same format, providing consistency across the data from the four main clinical systems.

GP Practice reports can be administered to all practices in a ICB or other local or regional or national alliance, where automated data extracts are not required to be sent to a third party. Local reporting will work alongside the automatic data extract service.

Magentus will provide bespoke reports for GP Practices. Reports can be created that will allow GP Practice staff to apply bespoke selection criteria. Changes to reports required by changes in legislation, changes to clinical systems, changes applied by external entities like the National Information Board (NIB) and changes to clinical coding can all be accommodated. Reports can be updated, amended and distributed automatically.

### **GP Practice Report Features**

- Simple user interface to select and run reports
- Reports can be updated/amended automatically remotely by Magentus
- Outputs can be created in Excel, graphical, CSV and XML
- Can be configured, if required, to identify patients to provide input to a third-party patient communications Mailing Module
- Can be used for trend analysis, monitoring medication, to find patients at risk, to check clinical coding, etc.