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| --- | --- | --- | --- |
| Document filename: HSCIC-FNT-TO-TAR-0110.01 GP Systems Interface Mechanism Requirements V1 - 0.7 - Draft | | | |
| Directorate / Programme | Programme Delivery | Project | GPSoC |
| Document Reference | | HSCIC-FNT-TO-TAR-0110.01 | |
| Project Manager | Melissa Ruscoe | Status | Draft |
| Owner | Mike Curtis | Version | 0.10 |
| Author | Richard Ward | Version issue date | 15/07/2015 |

GP Systems Interface Mechanism Requirements V1

Document Management

Revision History

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| --- | --- | --- |
| Version | Date | Summary of Changes |
| 0.12 | 26 June 2013 | Draft version for internal comment, based on document previously distributed for supplier comment. Incorporates comments received from suppliers. HSCIC template. Incorporates description of relationship to SLS and to overall contractual obligations. |
| 0.2 | 4 July 2013 | Updates based on internal comments received. Final Draft. Wider distribution internally |
| 0.3 | 18 July 2013 | Minor updates following internal comments. |
| 0.31 | 5 August 2013 | Clean version for ITPD. |
| 0.4 | 15 Nov 2013 | Updates following bidder comments. Generally, requirements that were previously “should” have been moved to “shall”, but within the context of the categorisation of all requirements as “Entry” or “Standard” in Section 6. |
| 0.5 | 5 Feb 2014 | Includes clarification that scope includes support of Subsidiary Modules as defined in Schedule 2.1. |
| 0.6 | 22 May 2014 | Minor clarifications to requirements and a restructured RTM template |
| 0.7 | 14 August 2014 | Further clarifications after internal review.  Migrated four requirements from Patient Services into this document (GP-IM-4.4-2, GP-IM-4.4-3, GP-IM-4.4-4, GP-IM-4.4-5) |
| 0.8 | 17th November 2014 | Additional clarity around the nature of the security controls expected to be in place |
| 0.9 | 18th May 2015 | Withdrawn |
| 0.10 | 15th July 2015 | Added GP-IM-3.9-6  Clarified GP-IM-3.1-1, GP-IM-3.1-4, GP-IM-3.4-1 and GP-IM-4.4-4  Following discussions with consumers reviewed and updated consumer applicability flags in RTM (Column N)  Updated reviewers and approvers  Uplifted for consistency with other program documents  Elaborated terminology section to align with other program documents |

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Glossary of Terms

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| --- | --- | --- |
| Term | Acronym | What it stands for |
| NRD | NRD | National RBAC Database – a source of nationally defined roles and activities for system users. |
| PDS | PDS | Personal Demographics Service – a national application providing patient demographic data services |
| Principal Clinical System | PCS | Integrated system providing majority of clinical IT services within Practices. |
| Subsidiary Module | SM | Functionality that can be provided by an independent supplier, that integrates with Principal Clinical System via Interface Mechanism. Can also be provided as part of an integrated Principal Clinical System. |
| RBAC | RBAC | Role Based Access Control |
| UKTC | UKTC | United Kingdom Terminology Centre – responsible for the provision of clinical coding terminologies for use in Healthcare Systems including READ version 2, Clinical Terms Version 3 (CTV3) and SNOMED CT UK edition. |

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# Introduction

This document describes the functional Interface Mechanism requirements for GP systems. The purpose of the Interface Mechanism is to support the integration of multiple products and services with the Principal Clinical System in order to provide the optimal overall solution for that Practice, and to support online services for patients.

## Scope

The scope of this document includes the definition of a common set of interface requirements, from a functional rather than a technical perspective. It includes performance requirements to ensure that such capabilities are sufficient to meet the business requirements.

Commercial and assurance aspects around the provision, access, testing and use of such Interface Mechanisms, are not covered by this document.

This document covers what is described as “Phase One” of the Interface Mechanism arrangements, where suppliers are free to define the technical implementation of the Interface Mechanism capabilities that are described in this document. Therefore, requirements in this document are specified at the level of functional capability, rather than a technical specification.

In parallel with the delivery of these requirements, “Phase Two” will proceed to the definition and implementation of a set of common interfaces, and technical implementation of those interfaces, across all Principal Clinical Systems.

## Audience

The primary audience for this document is:

* Principal Clinical System suppliers
* Subsidiary Module Suppliers

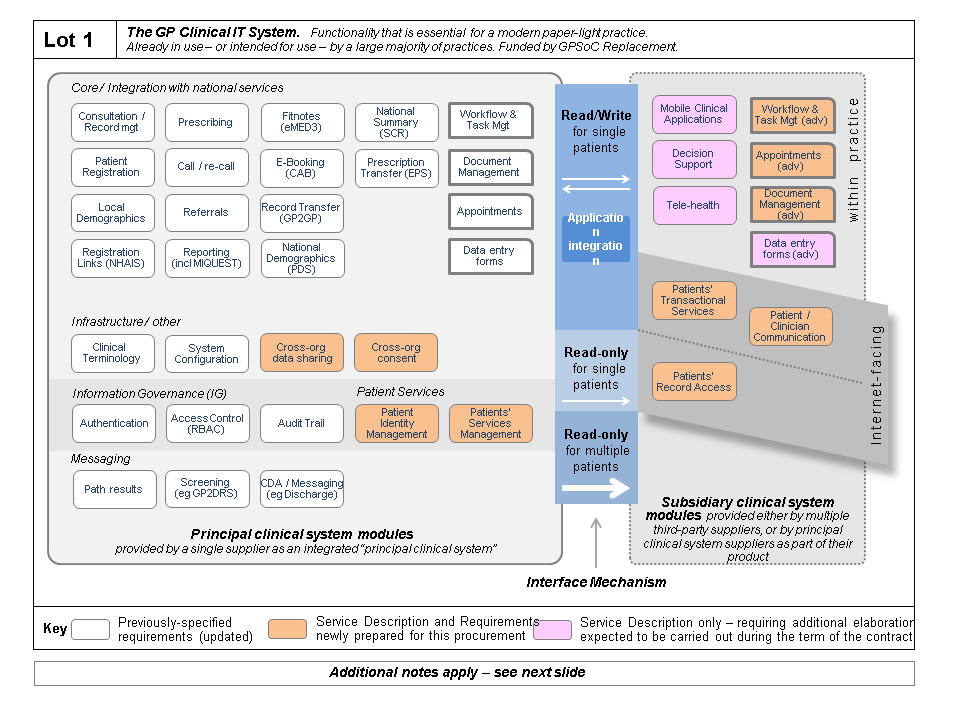
## Background

Suppliers of Principal Clinical Systems to General Practice are required to provide integration capability via an Interface Mechanism or mechanisms. This Interface Mechanism enables separate third-party systems to access (in bulk, or at an individual patient level) demographic and clinical data held within the system. This includes both the ability to read from, and write to, the system for purposes such as: data extraction to support secondary uses, data entry from medical devices, integration with specialist software applications such as pathology requesting systems and document management systems.

The two key scenarios for the use of this capability are:

* To support products, chosen by the Practice and used within the Practice, that need to integrate with Principal Clinical Systems;
* To support the use of internet-facing tools for patients (including record access and transactional services such as online appointment booking).

The relationship between Principal Clinical Systems, Subsidiary Modules and the Interface Mechanism is illustrated in the following diagram:



Note that Principal Clinical System suppliers may provide one or more Subsidiary Modules as part of their system, for users of those systems; if they do, they may choose to bypass public Interface Mechanism(s) for their own implementation of Subsidiary Modules. Where Principal Clinical System suppliers provide Subsidiary Modules intended for use with other Principal Clinical Systems, they must use the exposed Interface Mechanism(s) of those other systems.

Every Principal Clinical System must meet all of the requirements in the applicable sections (sections 3 and 4) of this document.

Some, but not all, Subsidiary Modules will need to meet all the requirements in the applicable sections of this document (sections 3 and 5). Whilst there are many different kinds of Subsidiary Modules that may take advantage of Interface Mechanisms exposed by Principal Clinical Systems, the functionality delivered by those modules, and the degree to which they store personal data themselves, will determine the degree to which they are also required to expose Interface Mechanisms themselves.

Specifically: a Subsidiary Module will be required to expose an Interface Mechanism to these requirements if (i) it stores personal data or (ii) there is a functional need for other Subsidiary Modules to integrate with it. For example, a subsidiary appointments module will need to provide an interface to the Principal Clinical System (to allow the Principal Clinical System to access details of booked appointments for a patient), as well as to other Subsidiary Modules (such as waiting room arrival systems, for example to send notification of attendance to the appointments system).

## Terminology

Where used in this document, the words “must” (or “shall” or “will”), “should” (or “recommended”) and “may” (or “could” or “optional”) are to be interpreted as described in Schedule 2.1. When used preceding a list of fields or options, the term “include”/”including” should be read as “including, but not limited to”.

The Requirement Category (“Entry” or “Standard”) specified within the embedded Requirements Traceability Matrix at the end of this document determines required timescales for delivery of requirements as defined within Schedule 2.1.

Please note that the use of terms within this document and the definitions in the following tables are for the purposes of these requirements only, hence are not necessarily consistent with the wider legal sense of a term.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Consumer | A system that takes advantage of an Interface Mechanism exposed by a Provider. |
| Interface Mechanism | The term “Interface Mechanism” means any mechanism by which any two systems (for example, a Principal Clinical System and Subsidiary Module) exchange data or otherwise integrate between themselves. It does not imply any particular technology (in Phase One) and interface providers are free to define the technical method(s) by which the requirements are met, which may include a degree of bespoke development involving the Principal Clinical System calling technical interfaces exposed by a Subsidiary Module |
| Patient | An individual registered as a Patient at the Practice. |
| Patient Facing | A combined term for the three OPS Subsidiary Module Services as defined by Schedule 2.1 of the GPSoC contract |
| Patient Record | An electronic record relating to a Patient, containing personal, administrative and clinical information about the Patient. |
| Practice | GP Practice using the Principal Clinical System (PCS, or the system) |
| Practice Facing | Products, chosen by the Practice and used within the Practice |
| Practice User | A member of the Practice staff using the Principal Clinical System. |
| PCS | Principal Clinical System – the system that provides the essential functionality to support clinical and administrative processes within the Practice. |
| Provider | A system that exposes an Interface Mechanism for other systems to use. This covers all Principal Clinical Systems, and some Subsidiary Modules. |
| System | Within these requirements the term ‘system’ refers to software supplied by a Principal Clinical System supplier or a Subsidiary Module supplier. |

## Document Structure

Section 2 describes:

* how the performance of Interface Mechanisms is to be defined and measured
* how the requirements in the main body of the document are to be satisfied in relation to the GPSoC contractual arrangements.

Subsequently, the main body of this document presents requirements in three sections:

* requirements that apply to both Provider and Consumer systems (section 3)
* requirements that apply only to Principal Clinical Systems (section 4)
* requirements that apply only to Subsidiary Modules (section 5)

Section 6 includes a Requirements Traceability Matrix (RTM) for the requirements in this document. This RTM includes the definition, for each requirement, as to whether it is an “Entry” or a “Standard” requirement (levels are to be interpreted as described in Schedule 2.1).

# GPSoC arrangements

## Service Levels

The GPSoC contractual arrangements include a Service Level Specification (SLS), covering the availability, performance and other aspects of all GPSoC services. The requirements in this document form the specification of an Interface Mechanism Service that forms part of the contract, and there are standards defined in the SLS that cover this service.

In particular, four physical transaction types (PTTs) have been introduced, so as to be able to distinguish between the different characteristics of the Interface Mechanism capabilities:

* PTT1 referring to system to system application integration: one application is informing another of a status change; querying the existence or availability of a service. Other than the NHS Number or Local Patient Id no patient data is transmitted).
* PTT2: Individual patient data read/write (not including attachments)
* PTT3: Individual patient data read/write (including attachments)
* PTT4: Bulk data reads

Where appropriate[[1]](#footnote-2), each requirement is annotated with the applicable PTT.

## GPSoC contractual obligations

It is a fundamental principle of the GPSoC contract that all systems provide Interface Mechanism capabilities meeting the requirements presented in this document. The existence of such Interface Mechanisms, suitable for live integration activities and for deployment and use across the live estate, is a prerequisite for delivery of GPSoC-R services.

To clarify the implications of these principles:

* All mandatory requirements (“must” or “shall”) – marked as “Entry” requirements in Section 6 – must be supported by the available Interface Mechanism(s) to be able to deliver any GPSoC service; requirements which are marked as “Standard” in Section 6, and which are not available by the start of the contract, must be delivered in accordance with the timescales described in Schedule 2.1;
* The term “Application Programming Interface (API)” is, deliberately, not otherwise used in this document. Whilst it is recognised that a technical API will very often provide the optimal delivery of required capability, other mechanisms are currently used, and may continue to be used during Phase One. This is why the term “Interface Mechanism” is widely used, reflecting that the technical implementation of required capability is to be defined by Provider system suppliers;
* An acceptable satisfaction of capability as defined in this document may be provided through bespoke development: where such development needs to be carried out when integrating between specific Provider and Consumer systems – during Pairing Integration Assurance (PIA) – as long as that can be achieved in mutually-agreeable timescales. It is anticipated that requirements in Section 3.4 may fall into this category; others may, too.

# Requirements applicable to both Provider and Consumer Systems

This section provides requirements that are common to all Provider, and in some cases Consumer systems, whether those systems are Principal Clinical Systems or Subsidiary Modules.

## Audit

The requirements in this section are intended to ensure appropriate levels of audit information are available in order to fulfil support activities.

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| GP-IM-3.1-1 | Provider and Consumer systems must ensure that all uses of mechanisms to support integration capability are recorded in an audit trail, and that audit trails must be subject to the standard IG audit requirements as defined in “IG Requirements for GP Systems V4” or as subsequently amended. |
| GP-IM-3.1-2 | Provider systems must record in an audit trail the following interface activity:   * Inbound requests or queries from Consumer systems * Outbound responses, including data[[2]](#footnote-3), to Consumer systems * Inbound data writes (including logical deletions) from Consumer systems * Outbound data pushed to Consumer systems or to holding areas for collection/use by Consumer systems, including any activity not in response to a request/query (e.g. daily extract of demographic changes) * Any other data changes made as a result of activity with Consumer systems through Interface Mechanisms. |
| GP-IM-3.1-3 | All interface messaging or other interactions must be associated with a unique identifier to support traceability. |
| GP-IM-3.1-4 | Provider and Consumer systems must record in an audit trail all successful and, where possible, unsuccessful[[3]](#footnote-4) interface activity. |
| GP-IM-3.1-5 | Provider systems must record in an audit trail all access and data changes within the system as a result of activity through an Interface Mechanism by a Consumer system in the same way that internal access and changes are required to be recorded. |
| GP-IM-3.1-6 | Provider systems must include the identity of the Consumer system in the audit data. This should include the product and the version number. |
| GP-IM-3.1-7 | Provider systems must, where a user initiates an exchange of data (as opposed to a system event), include the Consumer system user identity (including role) in the audit data. |

## Provenance

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| GP-IM-3.2-1 | All additions, amendments or logical deletions to administrative and clinical data made via an Interface Mechanism must be clearly identified at a data-structure level with information regarding the provenance of the data (e.g. timestamp, details of source system, details of user (including role)), so it is clear which information has been generated through an Interface Mechanism rather than through the Provider system itself.  A Consumer system may only logically delete information that has previously been entered using that service, and must always satisfy the logical deletion requirements that are specified in “IG Requirements for GP Systems V4” or as subsequently amended. Note that “logical deletion” in this context is intended to allow the correction of, for example, incorrectly-entered information, or information that is correct but which the patient wishes to be removed from the record, not to support correct business-level functionality such as the cancellation of a booking. |

## System Authentication

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| GP-IM-3.3-1 | The Provider system must provide mechanisms to authenticate, or otherwise control access to, Consumer systems that use an Interface Mechanism, so that only Authority assured Consumer systems can utilise the interface. |
| GP-IM-3.3-2 | Where interfaces are provided over a network both Provider and Consumer systems must ensure that the network connection used to expose and consume interfaces are secured such that:-   * Both parties can determine and be confident about the legitimacy of each end point * End points are known to both parties * Connectivity, on a supplier basis, can be easily grant/revoked as instructed by HSCIC * Communications are encrypted and conform to the Approved Cryptographic Standards published by the Authority. |

## System Context

This refers to the context of the Provider system within a user’s desktop/workstation session.

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| GP-IM-3.4-1  **PTT1** | The Provider system interface must support mechanisms for Consumer systems to be kept aware\* of its state and/or context, so as to support application-level integration. This must not require any user intervention, or necessarily require a user being logged into the Provider system or workstation.  \* Providers will notify Consumers of state/context changes; Consumers will not be required to poll or repeatedly call the Provider system to establish if there has been a change. |
| GP-IM-3.4-2 | The Provider system context information must include, where appropriate:   * The user * The selected patient, where one exists * Ability to accept Interface Mechanism requests (for example, whether the Principal Clinical System is in a modal application state) * Functional state (e.g. prescribing module selected, add appointment selected) * Data state (e.g. the drug selected, the problem/diagnosis selected) identified uniquely using the appropriate terminology |
| ~~GP-IM-3.4-3~~ | ~~The current provider system context information must include, where appropriate:~~  ~~Functional state (e.g. prescribing module selected, add appointment selected)~~ |
| ~~GP-IM-3.4-4~~ | ~~The current provider system context information must include, where appropriate:~~  ~~Data state (e.g. the drug selected, the problem/diagnosis selected) identified uniquely using the appropriate terminology~~ |
| GP-IM-3.4-5 | The Provider system context that is made available to the Consumer system must be kept up to date as the Provider system is used. |

## Appropriate use of integration capability

Where a Provider system includes alternative mechanisms to support an interface function (e.g. retrieve the demographics of a single patient, retrieve the demographics of multiple or all patients) the supplier must, where appropriate, provide guidance on when to use each mechanism. The documentation that describes the supplier’s technical implementation of these requirements must also indicate whether the use of any particular Interface Mechanism may adversely affect the performance of the system, e.g. extracting all the clinical data for all patients impedes general system performance and should be run during periods of low usage or when no users are using the system.

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| GP-IM-3.5-1 | Where a Provider system provides alternative Interface Mechanisms to support a function, and implementable guidance is provided over when each is to be used, the Consumer system must adhere to that guidance. |
| GP-IM-3.5-2 | When a Consumer-system user initiates an action where it is known to the Consumer system that the interface activity may cause adverse performance of either the Provider system or the Consumer system, then the Consumer system must warn the user, prior to the activity commencing, of the possible consequences. The warning must allow them to continue or to cancel the action. If the user decides to continue, it should be possible[[4]](#footnote-5) to cancel or abort the activity before it has completed. |
| GP-IM-3.5-3 | If the Consumer system supports non user-initiated actions/events that may affect either Provider or Consumer system performance then such actions/events should be able to be scheduled by the Consumer system, and should be scheduled, to occur at times that reduce the impact on either system (e.g. in the case of Practice Facing systems to occur outside business hours). Such scheduling may need to involve the Provider system supplier so as to maintain overall quality of service across all Consumer systems, and of the Provider system itself. |

## System Invocation

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| GP-IM-3.6-1  **PTT1** | The Provider system must provide mechanisms for a Consumer system to launch the Provider system and/or invoke specific key application functionality with appropriate parameters relevant to the function (e.g. launch system in the context of a user ID and a supplied patient identifier, launch system in the context of an object identifier (e.g. document, clinical data item)). |
| GP-IM-3.6-2 | Both Provider and Consumer systems must, where practicable, prevent such activity to cause loss of data, e.g. prompting a user to close/save their current session before allowing a Consumer system ‘request’ to be completed. |

## Interface Management

It is recognised that suppliers will need to update an Interface Mechanism from time to time. Given that the use of the interfaces support critical processes it is important that any such changes are managed in a way that prevents any systems failures and minimises any system downtime. Suppliers are therefore recommended to, wherever possible, implement updates in a manner that supports backward compatibility leaving existing interfaces working. Should this not be possible, suppliers must only make such changes with the agreement of the Practice(s) using that interface and in co-ordination with any suppliers using that interface, so that arrangements can be made for a managed update which minimises loss of functionality .

It is also accepted that versions of Interface Mechanisms cannot be expected to be supported forever and that suppliers will need to manage the deprecation of old interfaces. Management of such deprecations should be in agreement with Practices and suppliers using those interfaces.

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| GP-IM-3.7-1  **PTT1** | The version of the Interface Mechanism should be available to Consumer systems as a function of the Interface Mechanism. If, as is likely, the overall set of Interface Mechanism capabilities is delivered through multiple technical interfaces then each should be versioned separately. |
| GP-IM-3.7-2 | The version identifier should be included in all data exchanges between the Provider system and Consumer systems. |
| GP-IM-3.7-3 | The Provider system shall support multiple versions of the same Interface Mechanism simultaneously or provide backward compatibility. This provision covers Interface Mechanism(s) that may have existed prior to the contract Effective Date, as well as Interface Mechanism(s) provided from the contract Effective Date. Note that deprecation is expected, as described in requirement GP-IM-3.7-6. |
| GP-IM-3.7-4 | Any change to an Interface Mechanism mustnot cause a Consumer system using that interface to fail. |
| GP-IM-3.7-5  **PTT1** | The Provider system should provide a mechanism for consuming systems to discover the version of Interface Mechanism(s). |
| GP-IM-3.7-6 | Where interfaces are deprecated, this must be in a managed way, involving agreement with suppliers using those interfaces, and with Practices that use services that are dependent on those interfaces. |

## Error & failure handling

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| GP-IM-3.8-1 | Provider and Consumer systems must adopt failsafe error and failure handling mechanisms such that any detected error or failure:   * does not cause the system to halt or to lose any data * causes an appropriate message to be   + displayed to a user   + entered in a log   + sent to a Consumer system as applicable |
| GP-IM-3.8-2 | All errors and failures (detectable at the interface level) must be recorded in the system’s interface audit trail; this applies to both Provider and Consumer systems. |
| GP-IM-3.8-3 | Error/failure messages displayed to a user should indicate whether the error/failure is permanent or whether a ‘retry’ may be performed at a later time. (e.g. a locked patient record could be retried later, an invalid clinical code can’t be retried). |
| GP-IM-3.8-4 | The Provider system must provide facilities to manage the effects of Consumer systems that deliberately or inadvertently make use of Interface Mechanism capabilities which cause unexpected and damaging load on the Provider system. Controls must be provided on such capability to ensure that they are used only in controlled circumstances, given the potential impact on live service. |

## Practice Population Data

In order to support the needs of the Practice and its related organisations (e.g. commissioners, organisations responsible for public health) access to bulk clinical data that exists in Provider systems needs to be available, whilst being securely and appropriately controlled. Access to such data, and to Interface Mechanism(s) that provide such access, is governed by the Practice as Data Controller: the capability described in this section is only intended for use by consuming systems that the Practice has chosen or authorised.

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| ~~GP-IM-3.9-1~~ | ~~The Provider system must provide a mechanism to provide all the clinical data for all registered/active patients of a Practice to a Consumer system, and for deducted/inactive patients within 12 months of their inactivation.~~ |
| GP-IM-3.9-2  **PTT4** | The Provider system shall support via the Interface Mechanism the provision to Consumer systems of all the clinical data[[5]](#footnote-6) for:   * all registered/active patients of a Practice * all deducted/inactive patients within 12 months of their inactivation * a subset/cohort of the registered/active patients; as defined by the Consumer system |
| GP-IM-3.9-3 | Information provided by these mechanisms may exclude data that has been generated within 24 hours of the data being provided. |
| GP-IM-3.9-4 | Where a patient’s clinical data includes an attached/embedded file/document, the Provider system must either include such files in situ in the data, or separately. If provided separately, the system must include a reference in the patient data extract that uniquely identifies the associated file so that the Consumer systems can separately request such attachments, and correctly re-build the association between file and clinical data item. |
| GP-IM-3.9-5 | The Provider system Interface Mechanism should support the ability to request data both with and without such attachments. |
| GP-IM-3.9-6 | With every patient data extract the Provider system will provide an additional file or table with a total number of records held against the patient within the files or tables that make up the extract. This count would be per patient per table or file and the count would be calculated only against the records which are shared with the Subsidiary (e.g. it excludes records which can’t be shared because of data consent or any other reasons).  Example  For a particular patient the extract contained 5 records in “Journals” table, 10 in “Encounters” table. The check sum table will have the patient ID and the checksum values 5 and 10 (in relevant column).  After a few days the patient medical record has been amended with 3 new “Journals” records. The data extract will have only 3 records (delta) but the check sum will be 8 (5 bulk + 3 new) and 10 (10 bulk). |

# Requirements applicable to Principal Clinical Systems

This section provides a generic set of requirements that are intended to support a wide range of Subsidiary Modules (Consumers), ensuring that all Principal Clinical Systems provide a range of interface capability required by those modules.

## User and other non-Patient Data

The user data, data about the Practice and clinical terminology data held in the Principal GP systems are regarded as the authoritative source of this data. The clinical terminology reference data may be obtained from other authoritative sources (e.g. UKTC).

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| --- | --- |
| GP-IM-4.1-1 | The Principal Clinical System must provide mechanisms for Consumer systems to access the following data held in the system:   * registered/active users, including their ID(s) and access rights |
| GP-IM-4.1-2 | The Principal Clinical System shall provide technical or non-technical mechanisms for Consumer systems to access the following data held in the system:   * the version/release/edition of any clinical coding terminologies used * the version/release/edition of the dm+d drug database used * details of any local codes (i.e. codes other than those defined in national and international standards, or specified within national catalogues) |
| GP-IM-4.1-3 | The Principal Clinical System shall provide technical or non-technical mechanisms for Consumer systems to access the following data held in the system:   * clinical coding terminologies[[6]](#footnote-7) * other administrative data required for system setup, configuration and maintenance (e.g. organisation’s ODS code and name, messaging parameters) |

## Patient Demographic Data

From the perspective of consuming systems, Principal Clinical Systems are regarded as the authoritative source of demographic and administrative data for patients currently registered with the Practice. For Consumer systems that use patient demographics it is essential that mechanisms exist for these systems to have access to this information and for this to be up to date.

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| GP-IM-4.2-1  **PTT2** | The Principal Clinical System must provide mechanisms for consuming systems to access unique individual patient demographic records using appropriate selection parameters (e.g. NHS number, local ID). |
| GP-IM-4.2-2  **PTT2** | The Principal Clinical System must provide a mechanism that allows Consumer systems to search for a patient by providing patient demographic data items as search parameters and the system returning an NHS number/local ID and/or the full set of demographics for the matching patient(s). |
| GP-IM-4.2-3  **PTT4** | The Principle Clinical System must support via the Interface Mechanism the provision to Consumer systems of all demographic data for:   * all registered/active patients of a Practice * all deducted/inactive patients within 12 months of their inactivation |
| GP-IM-4.2-4 | The Principal Clinical System should provide a mechanism to allow Consumer systems to be informed of a complete set of changes (additions, deletions, amendments) to patient demographics on a regular basis (e.g. a daily change log or list of IDs of changed records). |
| GP-IM-4.2-5  **PTT2** | The Principal Clinical System may provide a mechanism for Consumer systems to amend patient demographics held in the system without the need to invoke any Principal Clinical System user interface. |
| GP-IM-4.2-6 | For any demographic data changes received via an Interface Mechanism the Principal Clinical System must treat a change received via an Interface Mechanism as if it was a change made by a local user, thus reflecting Principal Clinical System controls including RBAC, auditing, and any other events that would normally be triggered. |

## Patient Clinical Data

The term “all the clinical data” in the requirements in this section refers to all patient-specific data (whether coded or otherwise) that forms part of the clinical record within the principal system; specifically, but not limited to, the following elements of a patient’s record:

* Unique ID (where available)
* Effective/applicable date(s)
* Clinical code
* Clinical term
* Value(s)
* Other meta-data stored within the clinical record, such as issue status of repeat prescribing
* Free text notes
* Person making the entry
* Authorising person (if applicable)
* Date entry made
* Any attached file/document (where applicable) or a reference to it and a mechanism for retrieving it
* ID of parent clinical entry (where applicable), or other linked entities (such as the relationship between problems and medications)

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| GP-IM-4.3-1  **PTT2** | The Principal Clinical System must provide a mechanism for all the clinical data of a selected patient’s clinical record to be retrieved by a Consumer system. |
| GP-IM-4.3-2  **PTT2** | The Principal Clinical System shall provide a mechanism for a subset of a selected patient’s record to be retrieved by a Consumer system. |
| GP-IM-4.3-3 | It shall be possible to define a subset by:   * Effective/applicable date * Date entry made * Clinical code(s) * Author(s) * Data Type(s)\*   \*To be defined by the supplier. May include data types such as problems, medication, document type (e.g. referral), appointment, etc |
| GP-IM-4.3-4  **PTT2** | The Principal Clinical System must provide a mechanism for Consumer systems used within the Practice to add new coded clinical entries to the patient record held in the system without the need to invoke any Principal Clinical System user interface.  Any coded entries, or any other additions that are made by Patient Facing Consumer systems must be flagged as such, and be presented as “requests for change” (being visible to the Practice but subject to incorporation into the record only following clinician approval) rather than being directly added to the clinical record.  It must be possible to add such entries   * To existing Problems, i.e. to a ‘parent’ entry in the patient record.   As standalone unlinked clinical entries. |
| ~~GP-IM-4.3-5~~ | ~~It must be possible to add such entries to existing Problems, i.e. to a ‘parent’ entry in the patient record.~~ |
| ~~GP-IM-4.3-6~~ | ~~It must be possible to add such entries as standalone unlinked clinical entries.~~ |
| GP-IM-4.3-7  **PTT3** | It must be possible to include attached files (documents) when adding a clinical entry. |
| GP-IM-4.3-8  **PTT2** | It must be possible to add a reference to an externally held file (document) when adding a clinical entry. |
| GP-IM-4.3-9  **PTT2** | The Principal Clinical System should provide a mechanism for Consumer systems to add new problems to the patient record without the need to invoke any Principal Clinical System user interface. |
| GP-IM-4.3-10  **PTT2** | The Principal Clinical System should provide a mechanism for Consumer systems to logically delete entries, only those previously added by the Consumer system, subject to the requirements around deletion in “IG Requirements for GP Systems V4” or as subsequently amended. |
| GP-IM-4.3-11 | The Principal Clinical System must treat a change received via an Interface Mechanism as if it was a change made by a user of the Principal Clinical System itself. Any modification to patient clinical data as a result of interface activity that would, if made by a user of the system, result in an update to other data held in national systems (e.g. SCR, EPS, CAB) must result in such changes being communicated to those systems in the usual manner. |
| GP-IM-4.3-12 | In an environment where the Principal Clinical System provides information-sharing across clinical settings, data provided to Practice Facing Consumer systems should include all data (including that from other settings) that is visible to the Principal Clinical System user. Data provided to Patient Facing Consumer systems must only include data for which the Practice acts as Data Controller.  Where such data is provided to Consumer systems, it must be made clear to the Consumer system which data is managed by the Principal Clinical System within the context of the Practice, and which is visible as a result of information-sharing mechanisms.. |
| ~~GP-IM-4.3-13~~ | ~~Where such data is provided to Consumer systems, it must be made clear to the Consumer system which data is managed within the principal clinical system, and which is visible as a result of information-sharing mechanisms.~~ |
| GP-IM-4.3-14 | Information provided by the Provider system to a Consumer system about a single patient by any of the mechanisms described above must be up-to-date (must include all information that has been committed by the Provider system) and must be returned within a timeframe appropriate to the user scenario being supported, without subverting or disrupting the Consumer system user experience or adversely affect the performance of the Principal Clinical System. |

## Supporting Subsidiary Modules

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| GP-IM-4.4-1  **PTT2** | The Principal Clinical System must support the integration requirements of any Subsidiary Module as defined in Schedule 2.1, that provide services to Practices, or to patients (such as online appointment booking, requesting Repeat Prescriptions, Record Access & Patient-Practice Communications) |
| GP-IM-4.4-2 | The Interface Mechanism provided by the principal clinical system must be sufficient to support the requirements (including authentication, where provided) of the subsidiary modules that provide online services, and where applicable the requirements in this document. |
| GP-IM-4.4-3 | The Interface Mechanism must support the query of services (capabilities) that are available with respect to a specified Practice, and to a specific patient. |
| GP-IM-4.4-4 | The Interface Mechanism must support the Patient Facing Services requirements as defined in the GPSoC Principal Clinical System – Patient Facing Services (PPFS) Requirements V2 and GPSoC Subsidiary Modules – Patient Facing Services (SPFS) Requirements V2 |
| GP-IM-4.4-5 | The Interface Mechanism must support the query of which subsidiary modules that deliver online services have been accredited to use the Interface Mechanism. For each, the result must include a description of the capabilities offered, and an internet-accessible link to access the service. |

# Requirements applicable to Subsidiary Modules

The large variation in the functionality, and hence interface requirements, provided by Subsidiary Modules means that the requirements in this section do not necessarily apply to every Subsidiary Module. The nature of the system and its intended and/or expected use will determine which of the requirements in this section apply to specific Subsidiary Modules. In particular, if a Subsidiary Module stores personal data, all of these requirements will apply. In other circumstances, the degree to which these requirements are applicable will be based on need, and will be defined on a case-by-case basis as part of the assurance process for a specific Subsidiary Module.

## User Authentication & Access Controls

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| GP-IM-5.1-1 | If the Practice Facing Subsidiary Module provides stand-alone functionality (i.e. it can operate independently of a Principal Clinical System and/or it provides its own login facilities, it must support the defined IG requirements on user authentication and access controls (as defined in “IG Requirements for GP Systems V4” or as subsequently amended) |
| GP-IM-5.1-2 | When the Subsidiary Module is an integrated component of a Principal Clinical System, using the Principal Clinical System’s user authentication and access controls, details of the Principal Clinical System user must be included in all audit entries. |

## User Synchronisation

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| GP-IM-5.2-1 | The user records in the Practice Facing Subsidiary Module must be kept synchronised with the corresponding user record in the Principal Clinical System or, if SSO Smart Card and NRD support is provided, kept synchronised with the user’s corresponding entry in SDS.  Such synchronisation, as a minimum, must include:   * Whether the user is active or inactive * The user ID (as shared between the Provider and Consumer systems for audit purposes)   The user’s access rights so that access to appropriate functions/data is controlled within the system and when accessing data in the Principal GP system. |
| ~~GP-IM-5.2-2~~ | ~~Such synchronisation, as a minimum, must include:~~   * ~~• Whether the user is active or inactive~~ * ~~• The user ID (as shared between the Provider and Consumer systems for audit purposes)~~ * ~~• The user’s access rights so that access to appropriate functions/data is controlled within the system and when accessing data in the Principal GP system.~~ |

## Patient Demographic Data

The authoritative source of patient demographic data is the Principal Clinical System.

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| GP-IM-5.3-1 | If the Subsidiary Module holds patient demographic data it must synchronise this with the Principal Clinical System. |
| GP-IM-5.3-2 | Patient demographic data used[[7]](#footnote-8) by the Subsidiary Module must be no more than 24 hours old with respect to its synchronisation with the Principal Clinical System. |
| GP-IM-5.3-3  **PTT2** | If the Subsidiary Module allows demographic data to be amended it must also update the Principal Clinical System. |

## Patient Clinical Data

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| GP-IM-5.4-1  **PTT2** | The Subsidiary Module must provide a mechanism to allow Principal Clinical Systems or other eligible Subsidiary modules to access and retrieve all patient-specific clinical data held by the Subsidiary Module for a specified patient. |
| GP-IM-5.4-2 | Any clinical data written to a Principal Clinical System must use the same clinical terminology as that being used by the Principal Clinical System and this should be the same version/release of that terminology. |

## Supporting Other Subsidiary Modules

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| GP-IM-5.5-1 | The system must support the requirements of other Subsidiary Modules defined in Schedule 2.1 that provide services to Practices or to online services for patients, and that require access to data or functionality provided by the Subsidiary Module. |

# Requirements Traceability Matrix



1. Many requirements, for example, those that elaborate aspects of functionality rather than describing fundamental capabilities, do not need to be categorised in this way. [↑](#footnote-ref-2)
2. data associated with bulk data extracts do not need to be retained; the data associated with single-patient queries should be stored and need to be retained for the period as described IG Requirements for GP Systems V4” or as subsequently amended [↑](#footnote-ref-3)
3. From the point of view of either of the Provider or Consumer systems, including error responses that are generated for any reason [↑](#footnote-ref-4)
4. It is recognised that, depending on the nature of the Interface Mechanism, it may not be possible to stop an activity in an external system. [↑](#footnote-ref-5)
5. See section 4.3 for a definition of Patient Clinical Data. [↑](#footnote-ref-6)
6. Sufficient data to enable a Subsidiary Module to browse/search the terminology data in order to add coded clinical data to patient records. [↑](#footnote-ref-7)
7. On screen, on printouts or in other system outputs (e.g. messages) [↑](#footnote-ref-8)