



HIPS

Release Note

22 January 2019 v7.0
Approved for external use
Document ID: DH-2793:2019

Related end product identifier: EP-2796:2019

Release rationale

HIPS v7.0 is a major product release that significantly improves the performance of HIPS for very high load scenarios, particularly for the upload of Pathology Report and Diagnostic Imaging Report documents.

It consolidates a number of previous branch releases and customisations, making it a suitable target release for upgrades of outdated HIPS installations.

The following key improvements are included in this release:

- Significant performance improvements for very high upload scenarios, particularly for Pathology Report and Diagnostic Imaging Report documents.
- Improved recovery from temporary outages of the My Health Record and the HI Service.
- Proactive monitoring and reporting of key alert conditions.
- Unified logging of errors from all HIPS components.
- Significant size reduction of the audit log, reducing storage requirements.
- Improved support for HPI-I relaxations.
- Support for All Facilities searches and searches for non-inpatients.
- Incorporation of customisations of previous HIPS releases (NT, SA).

For a comprehensive list of changes, please refer to the Change Details section below.

The structure of the HIPS end product has been modified in this version. All documentation is now bundled in the separate Documentation Package instead of being incorporated in the Source Code and Binary Software packages.

Package inclusions

New

DH-2801:2019	<i>HIPS – Documentation Package v7.0</i>
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Updated (supersedes previous version)

DH-2794:2019	<i>HIPS – Binary Software Package v7.0</i>
DH-2792:2019	<i>HIPS – Product Data Sheet v7.0</i>
DH-2793:2019	<i>HIPS – Release Note v7.0 (this document)</i>
DH-2795:2019	<i>HIPS – Source Code Software Package v7.0</i>

Change details

The following items are addressed by this release:

EHISC	Summary	Change description
EHISC-99	Make the Medicines View accessible from a tab like other views	The HIPS UI My Health Record View has been modified to provide a “Medicines View” tab and function, which used to be part of the “Other Documents” tab. The new function automatically retrieves and renders the CDA document within the frame of the “Medicines View” tab for ease of view by the user. HIPS Core has also been modified to remove existing documents that are already displayed in their associated tabs from the “Other Documents” list.
EHISC-110	Database command timeout should be configurable outside of HIPS code	Implementers can now configure the database command timeout for both HIPS Core and HIPS UI via the new configuration setting “Database.CommandTimeout”.

EHISC	Summary	Change description
EHISC-124	Misleading ValidateIHI error	<p>In previous product versions, in the case where a patient had been registered in the HIPS database with an incorrect and/or invalid DVA number, when a call was subsequently made to the HIPS <i>IhiService/GetValidatedIhi</i> service operation, HIPS was unable to validate the IHI with the national HI Service but returned a misleading response message stating “Retuning a stale IHI because HI Service was unavailable” and some minimal IHI information.</p> <p>This behaviour has been modified as follows when the interaction with the HI Service to obtain a validated IHI returns an error and no IHI is available locally:</p> <ul style="list-style-type: none"> • The message contained in the HipsResponse/HipsErrorMessage element states: “An error prevented HIPS from successfully contacting the HI Service to retrieve a validated IHI and no IHI is available locally.” • The status contained in the HipsResponse/Status element is “HiServiceError”, reflecting that the HI Service returned an error that prevented a validated IHI being obtained. • Additional information available in the response from the HI Service is populated into the HipsResponse as follows: <ul style="list-style-type: none"> ○ The ResponseCode is set to the code of the first highest severity service message returned from the HI Service. ○ The ResponseCodeDescription is set to the reason of the first service message returned from the HI Service. ○ The ResponseCodeDetails is set to string constructed from the values of each service message (including any detail elements) returned from the HI Service. • The ValidatedIhi element does not contain any values. • An appropriate corresponding error is logged to the HIPS System Error Log, including details returned from the HI Service.
EHISC-132	Configuration to allow removal of zero padding for local identifiers	<p>Implementers can now configure via the HIPS Core configuration setting “Mrn.Padding” to how many characters HIPS pads local identifiers (MRNs). The setting supports values between 0 and 40. A post-installation T-SQL script is also provided to migrate data stored for existing local identifiers (MRNs) to a desired state.</p>

EHISC	Summary	Change description
EHISC-136	HIPS database locks under high load preventing the upload of documents to the MHR	<p>In previous product versions, when HIPS receives a high load of uploads and other requests to be processed HIPS may encounter database locking errors. When these errors were encountered before a document upload request was placed onto the HIPS queue, the error was not handled within HIPS and consequently the uploads fail, and it is up to the ESB or source system to handle these errors and attempt to retry the upload.</p> <p>HIPS has been modified to:</p> <ul style="list-style-type: none"> • Support the automatic retry of document uploads when database locking errors are encountered within HIPS before the document is added to the queue for processing. • Support the following configuration for retries on database lock error: <ul style="list-style-type: none"> ○ Number of retries: The number of retries attempts of the operation when a database lock error is encountered before the upload fails. Via the new “DBLockMaximumRetry” configuration setting. ○ Retry delay: The delay in milliseconds between the retry attempt. Via the new “DBLockRetryDelay” configuration setting. • Support the logging of the retry for an upload operation for system diagnostic purposes. • Add configuration to allow continued support for the existing HIPS function added in v6.1.2 that rejects Pathology and/or Diagnostic Imaging HL7 uploads when an existing HL7 operation for the same patient is in a Pending state. Via the new “PathologyImaging.CheckForPendingMessages” configuration setting.
EHISC-138	Server-side filtering of large datasets before display in HIPS UI	<p>In previous product versions, all existing HIPS UI screens provided patient lists with client-side filtering of results. While this is sufficient when there are a limited number of results, in high-throughput scenarios (such as pathology and radiology providers) with a large number of results, these screens are expected to perform poorly.</p> <p>HIPS UI has been modified to provide an Advanced Search function that can be accessed from the main navigation (dependent on user authorisation). The Advanced Search function supports searching for patients and episodes using a range of criteria. Search results are displayed for any matching patients and episodes, with individual search results providing a set of actions applicable to that result (dependent on user authorisation). Each action navigates to the applicable existing HIPS UI screen for the selected patient and episode.</p> <p>HIPS Core has also been modified to provide a new “patient search” service operation that supports the requirements of the Advanced Search screen.</p>
EHISC-139	Improvements to Stored Procedures	<p>Stored procedures in the HIPS databases that retrieve records (“get” stored procedures) using multiple optional criteria have been modified to utilise dynamic SQL to improve query plan performance.</p>

EHISC	Summary	Change description
EHISC-140	Improvements to HIPS performance	<p>The following improvements have been made:</p> <ul style="list-style-type: none"> • Introduced the HIPS 7.0 - Topology and Configuration Guide document as part of the HIPS release package documentation • Reduced excessive interactions with HI Service to obtain and validate IHI: <ul style="list-style-type: none"> ○ In previous versions of HIPS, where configured to obtain IHIs itself, HIPS performed an IHI lookup to obtain and validate an IHI from the HI Service for each ADT message received and prior to each interaction with the My Health Record system. HIPS used a sequential set of searches executed against the HI Service using various combinations of patient demographics, ordered in possible likelihood of available demographic data obtaining a valid result. This approach was potentially wasteful, because regardless of whether it was the first or tenth set of search criteria that succeeded, each time HIPS performed an IHI lookup it started from the first search criteria again. ○ HIPS has been modified such that it now stores the most recent previously successful search criteria for some configurable period, such that this search criteria is the first used when a subsequent IHI lookup is requested within the configured period; and that in the case that all available criteria were unable to obtain an IHI this is also stored to prevent a repeated lookup where the criteria have not changed in the configurable period. This is configured via the new configuration setting "IhiSearchCriteriaReuseIntervalMinutes". • Reduced excessive interactions with My Health Record system to determine if My Health Record exists: <ul style="list-style-type: none"> ○ In previous versions of HIPS, HIPS executed a doesPcehrExist operation against the My Health Record system in the following circumstances: <ul style="list-style-type: none"> a For a new episode or a new HL7 pathology or diagnostic imaging report b After it has obtained a valid IHI from the HI Service c When the following HIPS services are explicitly invoked: IsPcehrAdvertised, RefreshPatientParticipationStatus ○ HIPS has been modified such that in the case of (a) and (b) it stores the result of a successful doesPCEHRExist invocation for some configurable period, such that when a subsequent request is made within the configured period the locally stored result is used in preference to another interaction with the My Health Record system. This is configured via the new configuration setting "PcehrExistsReuseIntervalMinutes".

EHISC	Summary	Change description
EHISC-141	Include previous custom functionality in standard HIPS product	<p>HIPS has been extended with the following previously custom functionality:</p> <ul style="list-style-type: none"> • IHI Reconciliation report • Override Report • Disclose hidden record for the root health organisation <p>For further information consult the <i>HIPS 7.0 - Module Guide (Core)</i> and <i>HIPS 7.0 - Module Guide (UI)</i> documents.</p>
EHISC-142	High Availability	<p>HIPS is now deployable in the following High Availability configurations:</p> <ul style="list-style-type: none"> • No High Availability • High Availability for viewing only • High Availability for all functionality <p>For further information consult the <i>HIPS 7.0 - Topology and Configuration Guide</i>.</p>

EHISC	Summary	Change description
EHISC-144	Reduce audit log size by redesign of audit logs and archiving	<p>HIPS audits interactions with the HI Service and My Health Record System by writing details of each interaction to its database. Each audit record stores contextual information related to the interaction, as well as a complete copy of the request and response message sent during the interaction. Due to the frequency with which HIPS can interact with these remote systems and the data stored in each audit record, over time the size of the HIPS audit logs can grow significantly, impacting data storage requirements and potentially database performance.</p> <p>To address this, the HIPS audit mechanism has been re-analysed to identify the minimum mandatory events and data to be audited for each interaction with the HI Service and My Health Record System. The HIPS audit mechanism has been extended to better separate contextual information from request and response messages, and to enable through configuration when all or only desired events and data are audited.</p> <p>This consists of the following changes:</p> <ol style="list-style-type: none"> 1 Separate Audit & System Interaction Data. HIPS Core has been modified to utilise a separate table named <i>SystemInteractionLog</i> that provides a generic data structure for storing data about interactions with remote systems such as the HI Service & My Health Record. <i>Contextual audit information</i> continues to be written to the interaction-specific tables (<i>HpiiLookupAudit</i>, <i>IhiLookupAudit</i>, <i>PcehrAudit</i>), while <i>system interaction data</i> is now written to the new <i>SystemInteractionLog</i> table. 2 Capture Minimum Contextual Audit Information. HIPS has historically captured a comprehensive audit trail by auditing all interactions with the HI Service and My Health Record System, and for both, capturing some level of contextual audit information in dedicated fields in its audit log, and then relying on capturing the complete request and response message for the remainder. HIPS has been modified to ensure that all mandatory data items are captured in dedicated fields, making the storing of the full request and response messages optional. 3 Provide Configurability of Auditing Options. The HIPS Core auditing mechanism has been extended to support configurable filtering when recording interactions with the HI Service and My Health Record System. The configuration will affect recording the full request and response message for successful interactions, but <u>will not affect</u> recording the full request and response message for unsuccessful interactions, nor the capture of mandatory contextual audit information: <u>these are always captured</u>. This will provide potential benefits to reduced storage for full request and response messages. An implementer can configure filtering for each interaction in the new <i>SystemInteractionLogConfiguration</i> table in the HIPS Core database. 4 Data Migration. The HIPS <i>DbUpgrade</i> command-line utility has been extended to provide a new option to migrate audit data. For further information refer to the <i>HIPS 7.0 - Upgrade Instructions</i> document.

EHISC	Summary	Change description
EHISC-145	SA Health Viewing Requirements	<p>HIPS UI has been modified to enable viewing the My Health Record across all facilities, including patients that have not yet been admitted into the HIPS database as an inpatient via an ADT feed. Authorised users are now able to register and update details for a patient manually, which can allow a user to subsequently search for a patient and view their My Health Record details.</p> <p>For further information refer to the <i>HIPS 7.0 - Module Guide (UI)</i> document.</p>
EHISC-148	Throttling HIPS upload to My Health Record using a back-off algorithm	<p>HIPS has been extended to:</p> <ul style="list-style-type: none"> Prevent any attempt to upload a CDA document for which upload has not previously been attempted if the number of CDA documents for which upload is already being retried exceeds a specified maximum number of concurrently retrying operations (via the new “QueueConsumer.MaximumRetrying” configuration setting available for the new HIPS Core Queue Consumer component). Support the ability to automatically increase the period between retry attempts when a CDA document upload operation has failed due to a temporary failure in the previous upload attempt (via the new “QueueConsumer.MessageRetryPolicy”, “QueueConsumer.RetryDelay” and “QueueConsumer.MaximumRetryDelay” configuration settings available for the new HIPS Core Queue Consumer component).
EHISC-149	Centralised logging	<p>All HIPS products now consistently use log4net for configurable logging, including where available identifiers applicable to the context of the message being logged. For further information consult the appendices of the <i>HIPS 7.0 - Initial and Clean Installation Guide (Core)</i> and <i>HIPS 7.0 - Initial and Clean Installation Guide (UI)</i> documents.</p>

EHISC	Summary	Change description
EHISC-150	Allow document uploads despite detected IHI duplication	<p>In previous product versions, HIPS raised alerts when a duplicate patient or duplicate IHI had been detected. A duplicate patient alert (IHI Status ID 101) occurs when HIPS receives two patients (Patient A and Patient B) admitted to the same health facility with the identical demographics and found to have the same IHI. A duplicate IHI alert (IHI Status ID 100) occurs when it receives two patients (Patient A and Patient B) admitted to the same health facility with slight differences in the demographics but identical IHIs are obtained from the HI Service.</p> <p>Once an IHI alert has been raised, the My Health Record could not be accessed, and clinical documents could not be uploaded against the patient's My Health Record until the IHI alert was resolved. The IHI alert status can be resolved after analysing the patients and if found to be the same patient, merging the patient details together to create one patient record for the health facility.</p> <p>For certain implementations of HIPS valid duplication of patients is required and in these cases this logic was blocking the reporting and patient care. Other organisations that do process the merge and resolve the IHI alerts were also blocked until this resolution took place.</p> <p>HIPS has been enhanced to allow all HIPS operations to the My Health Record against patient records when either a duplicate IHI alert or duplicate patient alert exist. The IHI Date Last Validated for duplicate records will be updated to require validation to ensure only the current record is used for the My Health Record access, until other records' IHI is revalidated.</p> <p>The IHI alert status messages have been updated to state the local identifier of all duplicate patients so the system administrators can easily identify which patients have either a duplicate IHI or are duplicate patients.</p> <p>This new functionality has been implemented as a new configuration setting "Ihi.AllowMHRAccessForDuplicates". For backward compatibility, the default behaviour is to <u>not</u> allow access to the patient's My Health Record until the duplicate IHI or duplicate patient alert has been resolved.</p>
EHISC-151	Require implementers to change default Vendor in web.config	<p>Implementers must now modify the HIPS Core configuration setting "PcehrVendorId" from its default value. If the value is not changed, HIPS Core will log and return an error response for all attempts to interact with its provided web service operations.</p>
EHISC-152	Support for Windows Server 2016 and SQL Server 2016	<p>HIPS components have been tested for use on Windows Server 2016 and SQL Server 2016.</p>
EHISC-153	Update list of temporary and permanent error codes and hold the list in a reference database table for updating by the system administrators	<p>A new table named "PcehrErrorCode" has been introduced to the HIPS Core database. This table contains all codes that may be returned from the My Health Record system, and for each identifies how HIPS interprets the error code. For further information consult the appendices of the <i>HIPS 7.0 - Initial and Clean Installation Guide (Core)</i> document.</p>

EHISC	Summary	Change description
EHISC-154	Ensure Monitoring tool distributed with version 6.2 functions the same in Version 7.0	The HIPS Monitoring Tool has been updated to ensure it is compatible with the other changes made in the v7.0 release.
EHISC-155	Proactive reporting of alert conditions	<p>A new HIPS System Health Agent has been created as a Windows service that runs in the background alongside HIPS to assist HIPS system administrators in monitoring HIPS is running as expected. The items monitored and their associated thresholds, and frequency of check are configurable to allow for flexibility for each HIPS installation. The monitored items when they become outside of the threshold are alerted via configured logs.</p> <p>For further information consult the appendices of the <i>HIPS 7.0 - Initial and Clean Installation Guide (Core)</i> document.</p>
EHISC-179	Order ID has incorrect organisation HPI-O	For Pathology Report and Diagnostic Imaging Report documents, HIPS now populates the Requester Order ID using the requester’s HPI-O, if available. If the requester’s HPI-O is not supplied in OBR-16.14.2 then the Requester Order ID will be omitted from the document.
EHISC-185	MSMQ Replacement	<p>With the My Health Record transitioning to an opt-out model and more widespread use of HIPS, the message throughput requirement for HIPS is expected to grow significantly. Since its first release, HIPS has utilised Microsoft Message Queuing (MSMQ) to realise its requirement for a queuing component. Following a review of HIPS queuing a decision was made by the Agency to move HIPS queuing into SQL Server, making MSMQ redundant.</p> <p>MSMQ has been replaced by extending the existing message handling provided by the HIPS database. Separate background processing services to process queued messages are now hosted in one or more Windows services deployed to each application server, connecting to the HIPS Core database to consume messages as they become available. The new queuing mechanism simplifies the HIPS application architecture and better supports scale-out and high availability topologies.</p> <p>For further information on HIPS components and topologies consult the <i>HIPS 7.0 – Topology and Configuration Guide</i> document.</p> <p>For further information on installing and configuring the new HIPS Core Queue Consumer component consult the <i>HIPS 7.0 – Initial and Clean Installation Guide (Core)</i> document.</p> <p>For information on upgrading a previous HIPS version to HIPS 7.0 and impacts arising from the MSMQ replacement consult the <i>HIPS 7.0 – Upgrade Instructions</i> document.</p>
EHISC-332	Duplicate document uploads do not produce an error	When a duplicate patient document fails to upload there is no information logged, it is marked as a failure in the queue.
EHISC-390	Country descriptions	<p>Values in the [Description] column of the [hips].[Country] table in the HIPS Core database have had trailing space characters removed.</p> <p>Descriptions with trailing spaces can cause country matching to fail when using the description rather than Code.</p>

EHISC	Summary	Change description
EHISC-397	Restructure of release package	<p>The HIPS release package has been restructured as described in the corresponding Product Data Sheet document. The key changes are:</p> <p>Documentation</p> <p>HIPS release documentation is now included in its own ZIP file at the root of the release package, rather than included in both the Binary and Source Code ZIP files.</p> <p>Binary ZIP files</p> <p>Structural & content changes to HIPS-AppServer and HIPS-Web components:</p> <p>The database subfolder contains a “DbUpgrade” executable that can be used by implementers to install or upgrade their database to HIPS 7.0. The executable detects the installed HIPS version and executes all scripts required to ensure the database is at the correct version. The only manual steps required now are to configure & execute any site-specific scripts post the database upgrade.</p> <p>The runtime subfolder contains subfolders for each sub-component; for example, the “App Server” runtime folder contains subfolders for the Core web services, background processes such as the new queue consumer and alert monitor components, and shared configuration data. This enables the various components to be installed and configured separately if desired, for instance in a scale-out or high availability topology.</p> <p>The setup subfolder contains Windows PowerShell script files and configuration data files that are used to install or remove HIPS runtime components. These automate the majority of the previously manually executed steps to install and configure a HIPS component. The installation and upgrade documentation provided as part of the release package has also been updated to reflect an implementer configuring and executing these scripts rather than manually performing steps.</p> <p>The wsdl subfolder (HIPS-AppServer only) contains all of the exported WSDL files for the built version of the “Core” web services.</p> <p>Source Code ZIP files</p> <p>All required SQL scripts are now included in the source code for each “DbUpgrade” project.</p> <p>We no longer include WSDL in as part of the Source Code package as it is not source code, it corresponds to a built version of the HIPS Core “App Server” and hence is included in the Binary package.</p>
EHISC-398	Scripted installation	<p>Installation of HIPS products has been modified to utilise PowerShell scripting more extensively to make installation more automated and consistent. The following documents now reflect the use of these revised installation scripts:</p> <ul style="list-style-type: none"> • HIPS 7.0 - Initial and Clean Installation Guide (Core) • HIPS 7.0 - Initial and Clean Installation Guide (UI) • HIPS 7.0 - Upgrade Instructions.

EHISC	Summary	Change description
EHISC-399	Extend size of System Error Log Message & ExceptionMessage columns	The size of the Message and ExceptionMessage columns in the hips.SystemErrorLog table has been modified to be varchar(max) to ensure content is not truncated. Parameters to the associated hips.SystemErrorLogInsert stored procedure have also been modified accordingly.
EHISC-400	Change to behaviour of GetRecentPatientParticipationStatus web service	When a clinical system requests a list of patients who have changed participation status since a certain date via method "GetRecentPatientParticipationStatus", HIPS v7.0 will include all patients for whom the existence of a My Health Record has been checked. Previous versions would only include patients who have been found to have a My Health Record. This change will increase the quantity of records that are returned by the method. If the quantity of records returned is too high, systems that call this method may need to call it more frequently with a smaller date range in order to reduce the quantity of records returned.
EHISC-401	Temporary removal of P2P product	<p>HIPS components previously distributed as part of the "P2P" product should be removed from the HIPS binary and source code packages and all documentation.</p> <p>Key improvements are currently under way to the national infrastructure for provider directories, which are essential for the utilisation of the HIPS P2P functionality.</p> <p>The removal of P2P components from the HIPS product is temporary. They will be reinstated in a future HIPS release, once the necessary national infrastructure service for provider directories are in place.</p>
EHISC-429	Two DoesPcehrExist calls for Pathology and Diagnostic Imaging uploads	Pathology and Diagnostic Imaging uploads both perform an extra DoesPcehrExist call when first loaded.

Audience

This document is intended for:

- Healthcare provider organisations
- Diagnostic service provider organisations
- System integrators
- Software vendors.

Assurance

HIPS v7.0 has undergone the following conformance assessments:

- Healthcare Identifiers (HI) service:
 - Notice of Connection (NOC)
 - CCA assessment by NATA-accredited external test laboratory.
- My Health Record system:
 - Notice of Connection (NOC)
 - Execution of all conformance test cases applicable to the functionality of HIPS.

Due to the sample code nature of HIPS v7.0, implementers will have to undergo their own set of conformance assessments. This particularly applies to those conformance requirements for the My Health Record system that relate to functionality and processes outside the scope of HIPS v7.0.

Documentation of conformance assessments performed for HIPS v7.0 is available from the Agency Help Centre at help@digitalhealth.gov.au or by phoning 1300 901 001.

Licence

The HIPS Binary Software is licensed under the *HIPS Binary Software – Software License Terms and Conditions* (included in the HIPS Documentation Package).

The HIPS Source Code is licensed under the *Source Code License and Production Disclaimer* (included in the HIPS Documentation Package).

Support

The HIPS product represents sample code that implementers are free to modify, customise and integrate with their own software implementations. For this reason, the ability of the Australian Digital Health Agency to provide technical support is limited. Third party technical support is available from commercial partner organisations. Implementers are encouraged to take out support contracts with suitable support providers to ensure the successful implementation and operation of HIPS.

For further information about the product or to provide feedback, please email the Agency Help Centre at help@digitalhealth.gov.au or phone 1300 901 001. Your views on the scope and usability of HIPS will inform future releases.

Future releases

HIPS will be released on an ad hoc basis, based on providing new functionality or other changes as required.

Known Issues

ID	Summary	Issue description
EHISC-227	UploadDischargeSummaryLevel1A validation fault does not show target location	UploadDischargeSummaryLevel1ARequest validation does not show the target location which makes it difficult to determine which item has the validation error.
EHISC-228	Incorrect error message for invalid document ID	HIPS returns an error suggesting the document type code is unknown, when the error is caused by an invalid document id in a CDA document.
EHISC-229	Database error when patient given name not supplied in ORU message	A SQL error caused by a missing stored procedure parameter is returned when the patient given name is not provided in an ORU message.
EHISC-230	Precision and time zone offset of date/time in HL7 not preserved in CDA	When HIPS parses a date/time in a pathology or diagnostic imaging report HL7 message, it converts the date/time to local time and discards the original precision indication.
EHISC-232	HealthProviderIndividual.Hpii table does not have foreign key relationships	<p>To ensure referential integrity of the HIPS Database, it should have foreign keys to:</p> <ul style="list-style-type: none"> • HealthProviderIndividual.HealthProviderIndividualId • HealthProviderOrganisationNetwork.HealthProviderOrganisationNetworkId • HpiiStatus.HpiiStatusId
EHISC-233	HIPS UI: Medicare Overview - Handling User Credentials Timeout	Performing an action after a timeout on the Medicare Overview tab in HIPS UI causes the page to go blank instead of redirecting to the login page.
EHISC-234	HIPS UI: Browser gets stuck in redirect loop when user not assigned to any HPOs	When accessing HIPS UI with a user who does not have access to any HPOs, an appropriate error message is displayed. However, if the user clicks on any link from there, they are redirected to the "Select HPO" page and get caught in a redirect loop.
EHISC-235	HIPS UI: JavaScript errors in IE 8 emulation mode	A DataTables error appears on the Patients Without IHI and View My Health Record pages when the emulation mode in Internet Explorer 11 is set to IE 8.
EHISC-236	HIPS UI: User drop-down displays off right of screen at 1024x768 resolution	The user drop-down menu in the top-right of the header of all screens in "Standalone" mode (not embedded mode) is displayed off the right edge of the screen at 1024x768 resolution.
EHISC-237	HIPS UI: Consent withdrawn with IHI Alert error	HIPS core returns an error to HIPS UI and does not return the list of episodes if the patient has an unresolved IHI alert.

ID	Summary	Issue description
EHISC-277	HIPS UI: Login fails on after session expires in HA Configuration	When a user is directed to another server (session expires, or the current server is stopped) the browser attempts to use expired token from the previous server, and this results in an error when attempting to login for the first time. The second login attempt is successful. This occurs in a High Availability configuration only.
EHISC-321	HIPS UI: Redirected to login page when connecting using JWT via HTTP	Connecting to HIPS UI using JWT for authentication and using HTTP with web.config settings httpCookies, httpOnlyCookies=" true" and requireSSL="false" (required to use HTTP instead of HTTPS) results in the user being redirected to the login page. While the use of HTTP is not recommended for Production environments, it may be useful in non-Production environments.
EHISC-324	Background cleanup process fails when HI Service Certificate not configured	Not having a HI Service certificate configured is causing a problem with the background process that repeats IHI lookups and MyHR exists checks for patients.
EHISC-329	Invalid UUID to OID conversion when document id in UUID^extension format	HIPS uploads CDA documents successfully, but fails to supersede or remove them, where the CDA document ID is in the following format, where root is a UUID and extension has a value: <id root="{UUID}" extension="{extension}" /> HIPS will need to convert the UUID into OID format before submitting the document ID to the My Health Record system in the document's metadata.
EHISC-330	New document format codes not inserted during upgrade if DocumentFormatId already used	A database upgrade script has a defect in that it inserts rows with fixed values for DocumentFormatId into the DocumentFormat table. It checks and does not insert the row if the DocumentFormatId already exists but should instead be checking if the Code already exists.
EHISC-331	Unable to upload Level 1A Discharge Summary for unresolved IHIs	When a Level 1A Discharge Summary upload is attempted for a patient with a resolved IHI an exception is thrown. HIPS compares the validated IHI from the CDA with the new resolved IHI from the HI Service and throws an exception because they do not match. A second attempt at the upload then behaves as expected, as the IHI has been validated.
EHISC-333	HIPS UI: Compulsory fields are not validated in HIPS UI	HPI-I Search page: Suburb, State, and Postcode are compulsory but there is no indication to the user. Discharge Summary page: HPI-I field is mandatory but there is no indication to the user.
EHISC-335	An unrelated error is returned when creating a CDA document	An unrelated error is returned when creating a CDA document if the required types of ContactMethod are not in the [hips].[Contact] table for the related facility. These include; Work Phone and Work Fax.
EHISC-371	HIPS sends incorrect information to ESB for Refresh Participation status request	HIPS can send incorrect information to ESB for Refresh Participation status request. Contact the Agency for more information.

ID	Summary	Issue description
EHISC-372	Upload ACK message for HPI-I not found error message formatting	<ul style="list-style-type: none"> - The identity of the provider whose HPI-I was not found is not given. - The identity of the message is expressed in HIPS internal keys. - The error message is repeated three times. It need only be given once. - There is bad formatting such as extra full stops, out of date terminology and camel cased words.
EHISC-374	HL7MessageLog HospitalId is null for ADT A36 merge messages	The HospitalId column is not populated for A36 merge messages and the messages are not consistent with other ADT messages.
EHISC-375	A database timeout can cause duplicate uploads rather than a supersede	When a document is successfully uploaded to the My Health Record system, but the details of the uploaded document are not saved in the HIPS database due to a database timeout, HIPS will throw a retrieable queue exception, and attempt to upload again. This will result in a warning from the My Health System that the ID is a duplicate with an existing document, and HIPS will then save the document into the database as a successful upload.
EHISC-377	Patient merge does not respect Bypass HI setting	HIPS cannot process a merge ADT-A36 message unless a HI Service certificate is configured. This is because the merge process does not check the Bypass HI Service flag, and always attempts to check the patient's IHI with the HI Service.
EHISC-380	Path/DI Defaulting Australia as a Country	When no matching country can be found in an HL7 ORU message, HIPS will default to Australia for the patient's address.
EHISC-381	Path/DI not mapping state/province for Non-Australian Addresses	If in the HI7 message there is an international address and contains a province, it will not be mapped to the InternationalStateCode in the address table.
EHISC-395	DBUpgrade script 5.0.0.0 20150924 1635 should move network ID not organisation ID into HealthProviderIndividualHpII table	The hips.HealthProviderIndividualUpdate stored procedure fails to return any data because an upgrade script moved incorrect data from HealthProviderIndividual to the HealthProviderOrganisationNetworkId column.
EHISC-396	Data tables on multiple screens do not show tooltips on second and subsequent pages of results	Multiple screens within HIPS UI that show paged tables of results, only show tooltips on action buttons on the first page of results, subsequent pages do not show tooltips. So far encountered on the following pages: Advanced Search, View MyHR, Withdraw Consent, Remove Document, Register Current Patients, Disclose Hidden Record, Discharge Summary.
EHISC-433	HpIIBatchSubmit service has been disabled	<p>Points of non-conformance have been identified with the HpIIBatchSubmit method of the HIPS HpIIService web service.</p> <p>The HpIIBatchSubmit method has been disabled in this HIPS release.</p>

Previous releases

Date	Version
November 2018	<p>HIPS v6.2.2</p> <p>Controlled release for users upgrading from HIPS v6.2.1 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS resolves a starvation (“Ninject binding”) issue for the HIPS User Interface that can cause the user interface to stall in case of larger numbers of parallel user sessions.</p>
October 2018	<p>HIPS v6.2.1</p> <p>Controlled release for users upgrading from HIPS v6.1 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS provides a substantial number of enhancements and defect fixes, including:</p> <ul style="list-style-type: none"> • Inclusion of the HIPS Monitoring Tool in the main HIPS product. • Support for automated removals of Pathology Report and DI Report documents: Document Set ID returned for each uploaded HL7 ORU message. • Database timeout errors no longer lead to duplication of document sets. • Support for display of pre-admission episodes. • New filter to display only non-inpatients. • EPMI information now displayed for patients not registered in target hospital. • New configuration flag to prevent issuing of dummy MRNs. • Login button automatically displayed as disabled after being pressed. <p>This version includes the reliability improvements for the HIPS Core from HIPS v6.1.2 that improve the stability for scenarios with very large numbers of uploaded Pathology Report and Diagnostic Imaging Report documents.</p>
October 2018	<p>HIPS v6.1.5</p> <p>Controlled release for users upgrading from HIPS v6.1.4 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS resolves HIPS User Interface defects affecting the upload function for Level 1A Discharge Summary documents and the display of outdated information in the document list of the Remove Document page.</p>
September 2018	<p>HIPS v6.1.4</p> <p>Controlled release for users upgrading from HIPS v6.1.3 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS resolves a HIPS User Interface issue with the Remove Document page affecting users of Internet Explorer, in which the Refresh button led to the display of potentially outdated information.</p>
December 2018	<p>HIPS v6.1.3.1</p> <p>Controlled release for users upgrading from HIPS v6.1.3 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS resolves a starvation (“Ninject binding”) issue for the HIPS User Interface that can cause the user interface to stall in case of larger numbers of parallel user sessions.</p>

Date	Version
August 2018	<p>HIPS v6.1.3</p> <p>Controlled release for users upgrading from HIPS v6.1.2 who are not yet ready to upgrade to HIPS v7.0.</p> <p>This version of HIPS improves the HIPS User Interface workflow for removing pathology and diagnostic imaging reports.</p>
November 2018	<p>HIPS v6.1.2.1</p> <p>Controlled release for users upgrading from HIPS v6.1.2 who are not yet ready to upgrade to HIPS v6.1.3.</p> <p>This version of HIPS resolves a starvation (“Ninject binding”) issue for the HIPS User Interface that can cause the user interface to stall in case of larger numbers of parallel user sessions.</p>
June 2018	<p>HIPS v6.1.2</p> <p>Controlled release for users upgrading from HIPS v6.1.1 who are not yet ready to upgrade to HIPS v6.2.1.</p> <p>This version of HIPS is focused on improving the reliability of the HIPS Core for very large numbers of uploaded Pathology Report and Diagnostic Imaging Report documents.</p>
April 2018	<p>HIPS v6.1.1</p> <p>Controlled release for users upgrading from HIPS v6.1 who are not yet ready to upgrade to HIPS v6.2.1.</p> <p>This version of HIPS contains multiple minor enhancements and defect fixes for both HIPS Core and HIPS UI.</p>
07-11-2016	<p>EP-2448:2016 HIPS v6.1</p> <p>Release note</p> <p>Release rationale</p> <p>Version 6.1 of HIPS merges the functionalities of the previously released eHealth Integration Sample Code (eHISC) and HIPS products. HIPS v6.1 supersedes and combines the functionality of HIPS v5.0 and eHISC v6.0.</p> <p>This version and all future releases of the merged product will be published as HIPS releases only. HIPS v6.1 introduces support for the following views of the My Health Record system:</p> <ul style="list-style-type: none"> • Pathology Report View • Diagnostic Imaging Report View • Health Record Overview. <p>The following functionality from HIPS v5.0 that was not part of eHISC v6.0 has been included in this release:</p> <ul style="list-style-type: none"> • Support for Secure Message Delivery (SMD) • Integration with national directory services (NHSD, NEPS).

Date	Version																		
12-04-2016	<p data-bbox="363 297 1023 327">EP-2258:2016 eHealth Integration Sample Code (eHISC) v6.0</p> <p data-bbox="363 338 509 367">Release note</p> <p data-bbox="363 378 560 407">Release rationale</p> <p data-bbox="363 418 1385 515">Version 6.0 of the eHealth Integration Sample Code (eHISC) lets you upload pathology and diagnostic imaging reports to the My Health Record system without needing to generate CDA documents.</p> <p data-bbox="363 526 1445 651">This eHISC release introduces the ability to upload HL7 v2 pathology and diagnostic imaging reports to the My Health Record system as CDA documents. eHISC automatically converts HL7 v2 ORU messages into eHealth Pathology Report and eHealth Diagnostic Imaging Report CDA documents for upload to the My Health Record system.</p> <p data-bbox="363 663 1445 788">The conversion capability supports ORU messages containing a PDF version of the diagnostic report. The resulting CDA documents do not contain any structured report information but instead refer to the PDF report, which is extracted from the ORU message and attached to the CDA document.</p> <p data-bbox="363 799 1445 902">eHISC accepts ORU messages via both its SOAP web service interface and its new low-level MLLP interface. MLLP offers an easy-to-use integration path, as it is already widely supported by existing laboratory and radiology information system implementations.</p>																		
02-02-2016	<p data-bbox="363 920 1043 949">EP-2199:2016 eHealth Integration Sample Code (eHISC) v2.0.3</p> <p data-bbox="363 960 509 990">Release note</p> <p data-bbox="363 1001 560 1030">Release rationale</p> <p data-bbox="363 1041 999 1070">The enhancements made to eHISC v2.0.3 are listed below.</p> <table border="1" data-bbox="363 1081 1445 1948"> <thead> <tr> <th data-bbox="363 1099 588 1128">Change description</th> <th data-bbox="655 1099 724 1128">Notes</th> </tr> </thead> <tbody> <tr> <td data-bbox="363 1155 635 1184">PCEHR NOC compliance</td> <td data-bbox="655 1155 1362 1216">eHISC 2.0.3 includes changes made to the system for PCEHR NOC compliance.</td> </tr> <tr> <td data-bbox="363 1243 635 1272">PCEHR CCA compliance</td> <td data-bbox="655 1243 1406 1339">Changes made to the system for PCEHR CCA compliance: Removal of DVA number from Level 1A Discharge Summary, change to Mode of Separation display names.</td> </tr> <tr> <td data-bbox="363 1366 580 1395">HI CCA compliance</td> <td data-bbox="655 1366 1426 1426">Changes made to the system for Healthcare Identifier CCA compliance: Duplicate IHI alerting. Non-active HPI-I warning.</td> </tr> <tr> <td data-bbox="363 1453 509 1482">PCEHR View</td> <td data-bbox="655 1453 1401 1514">Handle the error if a patient has more than 1000 documents of their PCEHR.</td> </tr> <tr> <td data-bbox="363 1541 571 1601">PCEHR Advertised improvements</td> <td data-bbox="655 1541 1437 1637">Add a new method IsPcehrAdvertisedLocal to look up a patient's PCEHR status in the local data without connecting to the PCEHR. This was requested due to the UI making a large number of calls to the PCEHR.</td> </tr> <tr> <td data-bbox="363 1664 635 1724">NEHTA CDA® Generator Library</td> <td data-bbox="655 1664 1410 1760">Updated the NEHTA CDA Generator Library to only generate a single section in the CDA document when creating a Discharge Summary 1A document.</td> </tr> <tr> <td data-bbox="363 1787 564 1816">Patient Summary</td> <td data-bbox="655 1787 1426 1883">Added a date range selector to allow the user to reduce the number of documents retrieved from the PCEHR. This is to work around the 1000 document limitation on the PCEHR.</td> </tr> <tr> <td data-bbox="363 1910 580 1939">NEHTA Stylesheets</td> <td data-bbox="655 1910 1166 1939">Update the NEHTA Stylesheets to version 1.2.9</td> </tr> </tbody> </table>	Change description	Notes	PCEHR NOC compliance	eHISC 2.0.3 includes changes made to the system for PCEHR NOC compliance.	PCEHR CCA compliance	Changes made to the system for PCEHR CCA compliance: Removal of DVA number from Level 1A Discharge Summary, change to Mode of Separation display names.	HI CCA compliance	Changes made to the system for Healthcare Identifier CCA compliance: Duplicate IHI alerting. Non-active HPI-I warning.	PCEHR View	Handle the error if a patient has more than 1000 documents of their PCEHR.	PCEHR Advertised improvements	Add a new method IsPcehrAdvertisedLocal to look up a patient's PCEHR status in the local data without connecting to the PCEHR. This was requested due to the UI making a large number of calls to the PCEHR.	NEHTA CDA® Generator Library	Updated the NEHTA CDA Generator Library to only generate a single section in the CDA document when creating a Discharge Summary 1A document.	Patient Summary	Added a date range selector to allow the user to reduce the number of documents retrieved from the PCEHR. This is to work around the 1000 document limitation on the PCEHR.	NEHTA Stylesheets	Update the NEHTA Stylesheets to version 1.2.9
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Date	Version
	Assisted Registration Improved error information displayed to the user so they have a greater opportunity to resolve the issue and register the patient.
	Logout A new configuration setting has been added allowing the Logout button to be removed for implementations that do not want users to be able to logout.
	eHISC UI user security improvements As part of the test deployment of eHISC 2.0.3, issues were found with the integration with some Active Directory installations involving multiple domains with one-way trusts. The Active Directory integration has been updated to make it more flexible.
	Demographic mismatch status An issue was found that prevented the demographic mismatch alert status from being saved into the IHI record after a Medicare or DVA number change.
	Prescription and Dispense View Fixed a bug the prevented users from seeing a patient's Prescription and Dispense View if the patient had no other documents loaded to the PCEHR.
	Gain Access Fixed a bug where Gain Access would fail for patients without a current episode.
	Withdraw Consent Fixed a bug that prevented withdraw of consent to all of a patient's episodes if any of them had a document already uploaded.

27-02-2015

[EP-2036:2015 eHealth Integration Sample Code \(eHISC\) v2.0](#)

[Release note](#)

Release rationale

eHISC v2.0 had multiple enhancements, as listed below.

Change description	Notes
Patients Without IHI in Web UI	New web service operations and Web UI enhancements to allow viewing and printing a list of admitted patients whose IHI was not found.
Withdrawal of Consent in Web UI	New web service operations and Web UI enhancements to allow listing and searching for patients and recording their withdrawal of consent to upload documents to the PCEHR system on an episode-by-episode basis.
Disclosure of Hidden PCEHR in Web UI	New web service operations and Web UI enhancements to allow listing and searching for patients and recording their disclosure of the existence of a hidden PCEHR record.
Removing Documents from PCEHR in Web UI	New web service operations and Web UI enhancements to allow listing and searching for patients, viewing uploaded documents and removing uploaded documents from the PCEHR system.
Patient Landing Page in Web UI	Web UI enhancements to support embedding the eHISC PCEHR Web Viewer into existing clinical applications.
Upload Level 1A Discharge Summary in Web Services	New web service operation to allow clinical systems to supply a discharge summary in PDF format along with minimal required metadata, to create a Level 1A CDA document with the PDF as the non-CDA body item, and upload this package to the PCEHR system.

Date	Version
Registered Date of Birth	Enhancement to the IHI processing where, when enabled, eHISC will store the date of birth used in a successful IHI search along with the other patient demographics.
Enterprise ID	Enhancement to the patient identifiers to allow a new type of identifier called Registered Enterprise Patient. This identifier holds the same information as the current State Patient Identifier but will create a Hospital Patient record if one does not currently exist for the patient.
Upload Pathology Report and Diagnostic Imaging Report	This release includes support for uploading Pathology Report and Diagnostic Imaging Report documents to the PCEHR system.
CSP and Multitenant	<p>The Multi-Tenant and CSP project has extended the eHISC-Core product to support the use of eHISC in an environment where a Contracted Service Provider (CSP) operates HIPS on behalf of several Healthcare Provider Organisations (HPO) that may not be permitted to share Healthcare Identifiers.</p> <p>Multi-Tenant for IHI ensures that each HPO must obtain a patient's IHI from the HI Service separately, and cannot use the cached value that is stored by another HPO.</p> <p>CSP for HI Service allows a CSP that operates HIPS to connect to the HI Service for IHI and HPI-I lookups using a Medicare certificate issued to the CSP, instead of connecting with the Medicare certificate issued to each HPO.</p> <p>CSP for PCEHR allows a CSP that operates HIPS to connect to the PCEHR system using a "NASH PKI Certificate for Supporting Organisations" issued to the CSP, instead of connecting with the "NASH PKI Certificate for Health Provider Organisations" issued to each HPO.</p> <p>Note: a CSP that does not have access to the NASH certificate for each HPO will not be able to upload documents to the PCEHR, because the HPO certificate is required for CDA packaging. Viewing the PCEHR is still possible in this scenario.</p>
SQL Server 2012 Compatibility and High Availability Disaster Recovery through SQL Always On	<p>Modifications of all databases in the solution to upgrade all SQL scripts to ensure compatibility with Microsoft SQL Server 2012, whilst ensuring that all SQL scripts are still backward compatible with SQL Server 2008 R2.</p> <p>Ensuring that the eHISC server database solution is able to be implemented and supported in a Microsoft SQL Server 2012 Always On Cluster.</p>
Document Upload HPI-O Validation	<p>eHISC 1.0 added extra validation of a CDA document before uploading it. One of these steps was in error as the custodian does not need to have the same HPI-O as the uploading organisation, but the validation required it to be the same HPI-O.</p> <p>In lieu of validating the HPI-O directly with the HI Service, the resolution applied in this release is to allow the custodian HPI-O to be any of the HPI-O numbers registered within the same eHISC instance, as the validity of these numbers is checked by the eHISC system administrator during configuration.</p>

Date	Version
	<p>HealthProviderOrganisationPatient Advertised Status Update Fix</p> <p>A fix was applied for updates to the HealthProviderOrganisationPatient table to only update the PCEHR advertised or PCEHR disclosure status for a specific HPI-O against a specific Patient Master. In the previous version of eHISC all records for a singular, specific Patient Master in the HealthProviderOrganisationPatient table were updated regardless of the HPI-O being specified. This was restricted to records that were already existing in the HealthProviderOrganisationPatient table, which can be added via a positive check for a PCEHR status or a PCEHR disclosure, where the patient had flipped their PCEHR status to hidden in a hospital after previously having the PCEHR visible and then declaring the PCEHR at a subsequent visit.</p>
15-04-2014	<p>EP-1685:2014 eHealth Integration Sample Code (eHISC) v1.0</p> <p>Release note</p> <p>Release rationale</p> <p>The eHealth Integration Sample Code comprises the source code and associated documentation for the Healthcare Identifier and PCEHR System (HIPS) software, developed by a third party vendor on behalf of a number of states and territories.</p>