



## HIPS v6.1.3.1 to HIPS v7.1.1 Functional Change Log

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### Summary

This document provides an overview of the changes for each HIPS release and can be used to identify the defect fixes and functional enhancements that have been incorporated.

### HIPS 7.1.1

ID	Summary	Change description
278	GUID seen in place of patient MRN in embedded views.	In HIPS UI the Embedded pages and Patient Summary page has been modified to display an IHI in place of an MRN if the pattern matches a HIPS generated GUID format.
504	Change Advanced Search "View Episode" action help text to "Enter Discharge Summary".	Advanced Search has been modified to display "Enter Discharge Summary" helper text instead of "View Episode" for the Discharge Summary action help text.
505	Advanced Search action icons should be unique.	Advanced Search has been modified to each use a unique icon for each action.
518	Session timeout resulting in double login being required.	On occasion after a session timeout a user would be forced to re-login twice. This double login no longer occurs.
519	HIPS incorrectly rejects ORU message when ReportID is present and OBX 3.4 is not provided and also when ReportID is not present and OBX-3.4 is empty string.	HIPS will now check if OBX-3.4 is null or empty before it proceeds to validate Report ID vs OBX-3.4 or Accession ID vs OBX-3.4.
520	UI.HideLogoutLink should hide logout link only in embedded view.	The UI.HideLogoutLink setting now only affects embedded view. When the hide logout link setting is enabled, normal users can log out of the application, while embedded users can simply close the window.

ID	Summary	Change description
521	Rename "Remove Documents" feature to "View and Remove Uploaded Documents".	<p>Menu items on the top menu bar and bottom menu of HIPS UI screens updated to show "View and Remove Uploaded Documents" instead of "Remove Documents".</p> <p>Action tooltip in Advanced Search results shows "View and Remove Uploaded Documents" instead of "Remove Documents".</p> <p>"Remove Document" page has been renamed "View and Remove Uploaded Documents".</p>
522	ADT message with only first and last name should not return an error.	<p>HIPS now accepts ADT messages with PID-5 Patient Name that contains only a family name and first given name like  FAMILY^FIRST . All components of Patient Name are now optional, however at least a family name and one given name is required to search for an IHI.</p>
524	Demo Harness showed an error after submitting a PAS message.	<p>Demo Harness can now submit ADT messages and show IHI lookup audits without error.</p>
529	Patient Summary screen is displayed as a landing page while switching between health services.	<p>HIPS UI now showing facility name as read only text and add a new clickable text "Select Facility" to allow user to change facility. "Select Facility" will only appear when the user is on pages that are not patient specific.</p> <p>Pages allow user to select facility:</p> <ul style="list-style-type: none"> <li>Home/Index</li> <li>DataIntegrity/Patients</li> <li>DataIntegrity/PatientsWithoutIhiView</li> <li>DataIntegrity/DuplicatePatientsView</li> <li>DataIntegrity/OtherAlertsView</li> <li>DataIntegrity/OverriddenDemographics</li> <li>HpiiSearch/SearchById</li> <li>HpiiSearch/SearchByDemographics</li> <li>AssistedRegistration/Unregistered</li> <li>DisclosureManagement/Patients</li> <li>PcehrView/Patients</li> <li>PcehrView/Lookup</li> <li>ConsentManagement/Patients</li> <li>DocumentManagement/Patients</li> <li>DocumentUpload/Patients</li> <li>Patient/AdvancedSearch</li> </ul>
530	DB Update breaks Availability Group.	<p>HIPS deployment documentation has been updated to provide guidance on deploying HIPS databases in a clustered SQL Server environment.</p>
532	Document how to protect HIPS UI against BREACH Attack.	<p>Documentation has been added to the Initial and Clean Installation Guide (UI) with a recommendation and guidance on how to protect HIPS UI from the BREACH attack vulnerability.</p>

## Functional Change Log

ID	Summary	Change description
534	Review and update Module Guides with 7.1 functionality.	Module Guides for Core and UI have been reviewed to find and update any information that was out-of-date with respect to HIPS 7.1 functionality.
537	FailureReason not being populated in HL7MessageLog for Path/DI Uploads.	HIPS Core has been modified to log a failure reason in HL7MessageLog for HL7 ORU Pathology and Diagnostic Imaging uploads when an error occurs.
538	CDA validation of partial dates and fractional seconds in Specimen Collection Date and Imaging Date.	HIPS will now fail document upload queue operations with a validation error if a partial date or a date with fractional seconds is found in the creationTime, serviceStartTime and serviceStopTime metadata in upload requests, including but not limited to the specimen collection date for pathology reports, and the imaging date for diagnostic imaging reports.
543	Sorting on 'View My Health record' column on PcehrView/Patients page hides all the 'View My Health Record' icons.	In HIPS UI the sorting option has been removed from the Action column on the View My Health Record page.
544	Review and update Service Catalogue (Core) to add missing information about queue query services.	The Service Catalogue (Core) documents the web service operations and all data types used in the requests and responses for the queue query services added to IPcehrServiceV3 in HIPS 7.0.
546	Missing Medicare/DVA in ORU messages were aborted by HIPS but QueueStatusId is still 1.	A missing Medicare/DVA in HL7 ORU caused messages to be marked as pending and get stuck in the queue. HIPS will now correctly mark the messages as failed on the queue.
548	Invalid DOB in ORU messages were aborted by HIPS but QueueStatusId is still 1.	An invalid DOB in HL7 ORU caused messages to be marked as pending and get stuck in the queue. HIPS will now correctly mark the messages as failed on the queue.
549	HL7 ORU validation of partial dates and fractional seconds in Specimen Collection Date and Imaging Date.	HIPS will now return a validation error if a partial date or a date with fractional seconds is provided in OBR-7 for HL7 ORU messages.
550	Overridden Demographics documentation.	Documentation for Overridden Demographics functionality has been improved in the Module Guide for HIPS UI.
553	Error window observed while clicking 'Continue' on the session logout window.	Users of HIPS UI now see a friendly message that informs them of the need to log out if they click Continue on the session timeout warning after the session has already ended.
554	Change PSML template.	Updated the default document code in the HIPS Core hips.DocumentFormat table for Pharmacist Shared Medicines List to 1.2.36.1.2001.1006.1.237.1.
564	Failed Gain Access causes exception when representing hospital has not been set.	HIPS UI will now display a suitable error when a user with no representing hospital attempts to Gain Access to a patient's My Health Record.

ID	Summary	Change description
567 / 568	Sundry issues with Monitoring Tool.	The following issues with the HIPS Monitoring Tool have been resolved: The Monitoring Tool showed an incorrect pending item count. For large databases, a timeout-related error may have been displayed when attempting to save a document that failed to upload.
578	Poor System Interaction Log query performance when joining based on metadata.	Improves performance of queries joining audit and system interaction log data in the HIPS Core database by establishing foreign key relationships between audit and system interaction log tables.
579	UI should show patient summary after gaining emergency access for patient with RAC.	Previously the behaviour of the IsPcehrAdvertised service would use a locally cached result if it was last retrieved within the configured period. The service has been modified to always use the My Health Record system. The IsPcehrAdvertisedLocal service should be used to retrieve a cached version instead.
580	Module Guide (Core) should describe how setting PcehrExistsReuseIntervalMinutes affects each HIPS Core web service.	The Module Guide (Core) has been updated to describe how the PcehrExistsReuseIntervalMinutes settings affects each HIPS Core web service.
581	Log off security issue with HIPS.	HIPS UI, to the extent possible, prevents client-side caching of data, by setting “no cache” headers to be respected by web browser clients.
398	Deployment enhancements.	Enhancements to the installation improvements introduced previously by EHISC-398 Scripted installation, including: Replacing component installation switches with an enumerated list Ensuring installation of prerequisites based on requirements of specified components Simplifying & standardising PowerShell file naming across HIPS products All HIPS product documentation has been updated to reflect these enhancements.

## HIPS 7.1.0

ID	Summary	Change description
227	UploadDischargeSummaryLevel1A validation fault does not show target location.	Previously UploadDischargeSummaryLevel1A validation faults did not show the detail require to resolve the validation issue. HIPS has been modified to include this important detail.

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228	Wrong error message for invalid document ID.	<p>Previously an invalid CDA document ID sent to the UploadOrSupersedeDocument service would incorrectly return an error indicating the document type code was unknown to HIPS.</p> <p>HIPS will now return an appropriate error message in the response indicating the document ID is invalid.</p>
229	Database error when patient given name not supplied in ORU message.	<p>Previously a HL7 ORU message submitted to HIPS without a given name would cause a database error.</p> <p>HIPS has been modified to immediately return a validation error in the response indicating that a given name and family name are required.</p>
230	Precision and time zone offset of date/time in HL7 not preserved in CDA.	<p>HIPS Core has been modified to preserve the original precision indication (year, month, day, hour, minute, second or fractional seconds &amp; time zone) of date/time value in a pathology or diagnostic imaging report HL7 message. See also EHISC-476.</p>
234	Browser gets stuck in a redirect loop when user not assigned to any healthcare facilities.	<p>Previously if a user of HIPS-UI was not assigned to any healthcare facilities they would be shown an error message upon first log in, but if they attempted to access any screens requiring a healthcare facility, their session would enter an infinite redirect loop, resulting in an unusable session.</p> <p>This behaviour has been corrected such that any attempt to access a screen requiring a healthcare facility displays a similar error message and does not result in an unusable session.</p>
236	Drop-down menu in the top right of the HIPS UI stand-alone header displays off the right edge at 1024x768 resolution.	<p>Previously in HIPS UI, the user preference drop-down menu was displayed off screen at 1024x768 resolution.</p> <p>HIPS UI has been modified to ensure the user preference menu is visible at all supported resolutions.</p>
275	Direct access to Remove Document screen.	<p>Previously in HIPS UI, pressing "Trash Can" icon to remove the document firstly displays the document. The user then has to press the "Remove" button to navigate to the Remove screen</p> <p>HIPS UI has been modified to navigate directly to the Remove screen when user presses the "Trash Can" icon.</p>
277	HIPS UI Login Failure after session expires in High Availability configuration.	<p>New configuration is added to handle session in an environment with multiple load-balanced HIPS UI servers.</p>
324	Background clean-up process fails when Healthcare Identifiers (HI) Service Certificate not configured.	<p>Previously sites that had not configured HIPS to interact with the HI Service would have errors logged by the background IHI and My Health Record lookup retry process after activating the DatabaseLoaderService.</p> <p>This behaviour has been corrected and HIPS will now respect the BypassHIService flag when the background process runs.</p>

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326	Include patients with unusable IHI in the "Patients missing an IHI" function.	<p>Previously in HIPS UI, 'Patients Missing IHI' screen only shows patients where HIPS has never found an IHI, but not patients whose IHI is currently unusable because of an outstanding alert.</p> <p>HIPS UI has been modified to show the patients in three separate tabs (Patients without IHI, Duplicate Patients &amp; Other IHI Alert).</p>
329	Invalid UUID to OID conversion in DocumentUploadInvoker and DocumentRemovalInvoker when in document id format UUID^extension.	<p>Previously HIPS would accept and attempt to process document supersede or remove operations where the document identifier consisted of both a root and extension and the root was a UUID. This document identifier form is not accepted by the My Health Record system. HIPS now rejects such requests.</p>
330	New document format codes not inserted during upgrade if DocumentFormatId already used.	<p>Resolves an issue that may be experienced by sites with a previously installed version when attempting to upgrade the HIPS-Core database.</p>
331	Unable to upload Level 1A Discharge Summary for a duplicate resolved IHI.	<p>Resolves an issue where an IHI marked as duplicate was not being validated prior to CDA document creation. Validation after document creation replaced a resolved IHI with a new active IHI and that did not match the IHI in the document.</p>
332	Duplicate document uploads do not produce an error.	<p>Resolves an issue where an attempted document upload for a patient marked as a potential duplicate did not result in an error being logged by HIPS.</p>
333	Compulsory fields of HPI-I Search and the Discharge Summary page.	<p>Improved HIPS-UI with client-side validation on the following pages:</p> <p>HPI-I Search: If the user selects the Australian Address section to enter as search criteria, the Suburb, State and Postcode fields are now required. If the user selects the International Address section, the Country field is required.</p> <p>Discharge Summary: When creating a discharge summary and the Document Format Code setting indicates provision of an HPI-I is enforced, the HPI-I fields are now required.</p>
335	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.	<p>Previously HIPS would return an unrelated error when creating a CDA document if contact information for the related facility was unavailable.</p> <p>This has been corrected as follows:</p> <p>A Diagnostic Imaging report can now be created if contact information is unavailable.</p> <p>An attempt to create a Pathology report or Discharge Summary when required contact information is unavailable will result in an appropriately descriptive error message being returned.</p>
358	Put facility code next to MRN on View Patient Summary page.	<p>In HIPS UI, the facility code is now displayed after the patient's MRN on the View My Health Record page to improve contextual information.</p>

## Functional Change Log

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359	Change action hover text to 'View My Health Record'.	In HIPS UI, the action hover text for viewing a patient's My Health Record from both the Patient List and Advanced Search pages has been changed from the internal name "View Patient Summary" to "View My Health Record".
360	Not specified and All Facilities should not be both available in Advanced Search.	Previously users had access to 'All Facilities' and 'not specified', however, now access is limited to search only all 'facilities' in order not to have access to unauthorised facilities.
362	Advanced Search should require a minimum set of criteria to avoid matching too many patients.	<p>Previously in HIPS UI, Advanced Search only required the user to provide any one field of the search criteria. This may return a very large result set.</p> <p>HIPS UI has been modified to enforce one of the following key criteria is provided:</p> <ul style="list-style-type: none"> <li>Given names</li> <li>Family name</li> <li>MRN</li> <li>IHI</li> <li>Enterprise ID</li> <li>Medicare Number</li> <li>DVA Number</li> <li>DOB</li> </ul>
364	Advanced Search - Show episode date and relevant details to help identify episodes.	The Advanced Search results now allow the user to view additional details of an episode by expanding each row.
368	Allow reusing the Filler Order Number to upload a report to a different patient record after Incorrect Identity removal, and realign Report ID and Accession ID.	<p>Previously in HIPS Core, the filler order number of a removed document is retained, and the same filler order number is not allowed to be uploaded again to a different patient record.</p> <p>HIPS Core has been modified to delete the filler order number when a document is removed with "Incorrect Identity" reason, which allows the document to be re-uploaded to the correct patient record.</p> <p>Additionally, the methods of providing the Report ID and Accession ID have been realigned for consistency between pathology and imaging.</p> <p>HIPS will now use the Report ID if specified in OBX-3.4 of Pathology messages, no matter whether there is one or multiple OBR segments.</p> <p>HIPS will now allow the Accession ID to be provided in the UploadOrRemoveImaging SOAP request and supports using OBX-3.4 for specifying the Accession ID for imaging, like the Report ID is for pathology.</p> <p>HIPS maps Report ID/Accession ID in the following hierarchy:</p> <ul style="list-style-type: none"> <li>SOAP Report ID/Accession ID</li> <li>OBX3.4 Observation ID Alternate ID from the OBX whose with the PDF</li> <li>OBR3.1 Filler Order Number, if the same in all OBRs, otherwise return a validation error</li> </ul>

ID	Summary	Change description
371	HIPS is sending incorrect information to ESB for Refresh Participation status request.	<p>Previously HIPS would send the doesPCEHRExist request to the My Health Record system using the HPI-O of the disclosure facility and not the HPI-O of requesting facility. This caused the result to be stored in the hips.HealthProviderOrganisationPatient table with the HealthProviderOrganisationId for disclosure facility and not for requesting facility.</p> <p>HIPS will now perform IHI validation using the requesting facility not the disclosure facility and store the result against the requesting facility in the [hips].[HealthProviderOrganisationPatient] table.</p>
372	Upload ACK message for HPI-I not found error message formatting.	<p>Previously HPI-I errors returned in an upload ACK message contained irrelevant and duplicate details.</p> <p>The error has been modified to be more relevant, and the HPI-I has been added to the log properties, of the HL7Reports log file.</p>
374	HL7MessageLog HospitalId is null for ADT A36 merge messages.	HospitalId is now recorded in the HL7MessageLog for merge and move messages. Previously these types of messages stored null in this field.
376	DBUpgrade 20160627 1611 New DocumentType data deletes DocumentType referenced by ClinicalDocument.	Resolves an issue that may be experienced by sites with a previously installed version when attempting to upgrade the HIPS-Core database.
377	Merge process does not respect BypassHIService application setting.	<p>Previously sites that had not configured HIPS to interact with the HI Service were unable to process merge messages for duplicate patients due to logic that always attempted IHI lookups against the HI Service.</p> <p>This behaviour has been corrected and HIPS will now respect the BypassHIService flag when merging patients.</p>
378	DBUpgrade Update DocumentType table Description should update by Code not ID.	Resolves an issue that may be experienced by sites with a previously installed version when attempting to upgrade the HIPS-Core database.
381	HIPS now handles state/province for non-Australian patient addresses in Pathology and Imaging HL7 messages.	<p>Previously HIPS Core ignored State/Province for non-Australian addresses.</p> <p>HIPS Core has been modified to store the State/Province for non-Australian patient addresses and populate this information when creating CDA documents.</p>
383	Episode type filters on View My Health Record patient list.	Allows user to filter patient list for various episode types without updating user preferences.



## Functional Change Log

ID	Summary	Change description
395	DBUpgrade script 5.0.0.0 20150924 1635 should move network ID not organisation ID.	<p>Previously the HIPS DB Upgrade tool had a defect which incorrectly copied the HealthProviderOrganisationId in place of the HealthProviderOrganisationNetworkId when moving data from HealthProviderIndividual to HealthProviderIndividualHpil.</p> <p>This script has been modified and now correctly copies the HealthProviderOrganisationNetworkId.</p>
396	Paginated tables on screens do not show tooltips on second and subsequent pages of results.	<p>All screens within HIPS-UI now show tooltips on first page and on all subsequent pages on paginated tables.</p> <p>Pages affected: Advanced Search, View My Health Record, Patient Summary, Withdraw Consent, Remove Document, Register Current Patients, Disclose Hidden Record, Discharge Summary.</p>
430	Action buttons in UI Remove document page are not always displayed on the same line.	<p>Previously a long report name would cause the action buttons to wrap onto a second line.</p> <p>HIPS UI has been modified to allow enough space in the Action column to avoid wrapping of buttons.</p>
431	HIPS-UI: Different login methods may result in different user details being audited in HIPS-Core for the same user.	<p>Previously HIPS Core stored different user details in the database.</p> <p>HIPS Core has been modified to use standard user details.</p>
458	Diagnostic Messages infinite retry loop with invalid Medicare.	<p>Previously HIPS Core had a static configuration for handling HI Service errors and defaulted any unknown errors to be retryable.</p> <p>A new table, [hips].[HiServiceErrorCode], has been added and HIPS logic modified, to enable the addition of new HI Service error codes as they are introduced and control of whether they should be retried or not without the need for code change.</p>
460	HIPS-UI: Avoid wasteful loading of patient list when viewing patient summary.	<p>The View My Health Record screen in HIPS-UI has been modified to more intelligently retrieve details for the patient being viewed, improving the initial response time for the screen.</p>
461	HIPS-UI: Unnecessary retrieval of document list on initial load of patient summary.	<p>The View My Health Record screen in HIPS-UI has been modified to avoid an unnecessary interaction with the My Health Record system to retrieve a list of documents, improving initial response time for the screen and avoiding a wasteful interaction.</p>
462	HIPS-UI: Cache additional views.	<p>The View My Health Record screen in HIPS-UI has been modified to enable caching for the following previously uncached views, improving response time for the screen when a user returns to the screen while views are cached: Pathology Report View, Diagnostic Imaging Report View, Health Record Overview View.</p>

ID	Summary	Change description
463	HIPS-UI: Process requests required by Patient Summary in parallel.	The View My Health Record screen in HIPS-UI has been modified to enable concurrent processing of requests for content when displaying the patient summary for a specific patient, improving the initial and total response time for the screen. Further, it is now recommended where possible to configure HIPS-UI for access via HTTP/2 for multiplexing of requests from the browser.
465	Support Filler Order Number from multiple LIS and RIS applications and facilities.	Previously HIPS required the Filler Order Number to be unique per instance of HIPS. This was a potential issue for sites with multiple Applications and/or Facilities generating Filler Order Numbers that could conflict.  HIPS has been modified to require the combination of Filler Order Number, Sending Application and Sending Facility to uniquely identify a pathology or diagnostic imaging report.
467	Wrong namespace in HI error message should be handled gracefully.	The HI B2B Client library that HIPS makes use of to interact with the HI Service contained a defect which did not handle SOAP namespace errors gracefully. A new vendor library was released and updated in HIPS to resolve this defect.
477	Validation of Medicare numbers in HL7 ORU messages.	A provided Medicare number in HL7 ORU PID segment will now be validated using the following set of rules: 10 or 11 digits pass the check digit routine the first digit in the range 2 to 6 the 10th digit (issue number) in the range 1 to 9 the 11th digit (IRN), if supplied, in the range 1 to 9
478	Patient pinning not scalable for large databases and numbers of users.	The display of patient lists in HIPS UI is more responsive as the number of users increases, due to an enhancement to the patient pinning data model, services and caching strategy.
488	Contact formatting of 0 causes Path/DI report upload failure.	HIPS will correctly detect Australian mobile numbers and fixed line phone numbers and format them appropriately, while not reformatting invalid phone numbers with spaces.
489	Issue with Long MRNs in HIPS UI.	Previously HIPS was not able to load patient with MRN longer than 20 characters.  HIPS has been modified to accept MRN with maximum 40 characters.
490	Advanced Search: Improved default values.	The following fields on the Advanced Search page in HIPS UI have had their default values set to "Not Specified": In Hospital? With Valid IHI? With My Health Record?

## HIPS 7.0.2

ID	Summary	Change description
485	Optimisation of the Queued Pcehr Operation view	Corrects the following issues with the QueuedPcehrOperation view introduced in HIPS 7.0.0: The view incorrectly referenced columns from the PcehrAudit table that may be removed as part of audit data migration; the view performed poorly for large data sets.

## HIPS 7.0.1

ID	Summary	Change description
321	Forward to Different Logout Screen Depending on Entry Route	<p>HIPS UI has been modified to keep track how the user is logged in. In HIPS UI standalone mode, a user can log in using a username and password or select the 'Windows' button which will use the currently logged in Windows account to attempt to log in to the HIPS UI. Otherwise, in Embedded mode, HIPS UI is launched from a CIS in patient context and optionally a JWT is passed to HIPS to bypass the login screen.</p> <p>If user is logged in via username &amp; password or selecting the 'Windows' button, when the user logs out or the session times out, HIPS UI will redirect the user to the normal login page as in the image below, and the user will have two options to log back in HIPS UI.</p>
320	Auto Forward to a Logout Screen	<p>HIPS UI has been modified to detect the duration since the last communication with the server. A new configuration setting will be added to indicate when a timeout warning should be displayed to the user.</p> <p>A timeout warning will be displayed after a given period of no communication with the server. For example, when a user is scrolling through a document, or switching tabs in a page, there is no communication with the server. The timeout warning is to inform the user that they will be logged out in a certain number of hours, minutes and seconds. If the number of hours is zero, the hours component will not be shown. If the number of hours and minutes are zero, then only the seconds component will be shown. The timeout warning allows the user to either continue the session or log out immediately. If continue is selected, the current session will be extended, whilst log out will end the current session and redirect the user to the appropriate logged out screen. In case no action is taken by the user, HIPS UI will automatically redirect the page to the appropriate logged out screen when the timer reaches zero.</p>
349	Move Lookup by MRN above table of current patients on View My Health Record page	<p>HIPS UI has been modified to show Lookup By MRN above table of current patients on View My Health Record page.</p> <p>For further information consult the HIPS - Module Guide (UI) document.</p>
509	HPI-I Batch Retrieve result not returned in V1 SOAP response	HIPS now returns additional information returned by the HI Service for HPI-I Batch Retrieve operations.

ID	Summary	Change description
510	HPI-I Batch Retrieve result returned in V2 SOAP response does not include service messages	HIPS now returns additional information returned by the HI Service for HPI-I Batch Retrieve operations.
464	Extend GetPatientParticipationStatus service operation to return additional information	HIPS now provides the following additional fields as part of the PatientParticipationStatus DTO class of the GetPatientParticipationStatus service: MedicareNumber MedicareIrn DvaNumber

## HIPS 7.0.0

ID	Summary	Change description
99	Make the Medicines View accessible from a tab like other views	<p>The HIPS UI My Health Record View has been modified to provide a 'Medicines View' tab and function and removed from 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 for the user.</p> <p>HIPS Core has also been modified to remove existing documents that are already displayed in their associated tabs from the 'Other Documents' list.</p>
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".

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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 IhiService/GetValidatedIhi 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. 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> <p>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.”</p> <p>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.</p> <p>Additional information available in the response from the HI Service is populated into the HipsResponse as follows:</p> <p>The ResponseCode is set to the code of the first highest severity service message returned from the HI Service.</p> <p>The ResponseCodeDescription is set to the reason of the first service message returned from the HI Service.</p> <p>The ResponseCodeDetails is set to string constructed from the values of each service message (including any detail elements) returned from the HI Service.</p> <p>The ValidatedIhi element does not contain any values.</p> <p>An appropriate corresponding error is logged to the HIPS System Error Log, including details returned from the HI Service.</p>
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>

ID	Summary	Change description
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> <p>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.</p> <p>Support the following configuration for retries on database lock error:</p> <p>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.</p> <p>Retry delay: The delay in milliseconds between the retry attempt. Via the new “DBLockRetryDelay” configuration setting.</p> <p>Support the logging of the retry for an upload operation for system diagnostic purposes.</p> <p>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.</p>
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>
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>

ID	Summary	Change description
140	Improvements to HIPS performance	<p>The following improvements have been made:</p> <p>Introduced the HIPS 7.0 - Topology and Configuration Guide document as part of the HIPS release package documentation</p> <p>Reduced excessive interactions with HI Service to obtain and validate IHI:</p> <p>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.</p> <p>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".</p> <p>Reduced excessive interactions with My Health Record system to determine if My Health Record exists:</p> <p>In previous versions of HIPS, HIPS executed a doesPcehrExist operation against the My Health Record system in the following circumstances:</p> <p>For a new episode or a new HL7 pathology or diagnostic imaging report</p> <p>After it has obtained a valid IHI from the HI Service</p> <p>When the following HIPS services are explicitly invoked: IsPcehrAdvertised, RefreshPatientParticipationStatus</p> <p>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".</p>
141	Include previous custom functionality in standard HIPS product	<p>HIPS has been extended with the following previously custom functionality:</p> <p>IHI Reconciliation report</p> <p>Override Report</p> <p>Disclose hidden record for the root health organisation</p> <p>For further information consult the HIPS 7.0 - Module Guide (Core) and HIPS 7.0 - Module Guide (UI) documents.</p>

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ID	Summary	Change description
142	High Availability	HIPS is now deployable in the following High Availability configurations: No High Availability High Availability for viewing only High Availability for all functionality For further information consult the HIPS 7.0 - Topology and Configuration Guide.

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ID	Summary	Change description
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> <p>Separate Audit &amp; System Interaction Data. HIPS Core has been modified to utilise a separate table named SystemInteractionLog that provides a generic data structure for storing data about interactions with remote systems such as the HI Service &amp; My Health Record. Contextual audit information continues to be written to the interaction-specific tables (HpiiLookupAudit, lhiLookupAudit, PcehrAudit), while system interaction data is now written to the new SystemInteractionLog table.</p> <p>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.</p> <p>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 will not affect recording the full request and response message for unsuccessful interactions nor the capture of mandatory contextual audit information – these are always captured. 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 SystemInteractionLogConfiguration table in the HIPS Core database.</p> <p>Data Migration. The HIPS DbUpgrade command-line utility has been extended to provide a new option to migrate audit data. For further information refer to the HIPS 7.0 - Upgrade Instructions document.</p>

ID	Summary	Change description
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 HIPS 7.0 - Module Guide (UI) document.</p>
148	Throttling HIPS upload to My Health Record using a back-off algorithm	<p>HIPS has been extended to:</p> <p>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).</p> <p>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).</p>
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 HIPS 7.0 - Initial and Clean Installation Guide (Core) and HIPS 7.0 - Initial and Clean Installation Guide (UI) documents.</p>

ID	Summary	Change description
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 patients' 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 backwards compatibility, the default behaviour is to not allow access to the patient's My Health Record until the duplicate IHI or duplicate patient alert has been resolved.</p>
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>
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>
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 HIPS 7.0 - Initial and Clean Installation Guide (Core) document.</p>

ID	Summary	Change description
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.
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 HIPS 7.0 - Initial and Clean Installation Guide (Core) document.</p>
179	Order ID has incorrect organisation HPI-O	<p>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.</p>
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 HIPS 7.0 – Topology and Configuration Guide document.</p> <p>For further information on installing and configuring the new HIPS Core Queue Consumer component consult the HIPS 7.0 – Initial and Clean Installation Guide (Core) document.</p> <p>For information on upgrading a previous HIPS version to HIPS 7.0 and impacts arising from the MSMQ replacement consult the HIPS 7.0 – Upgrade Instructions document.</p>
332	Duplicate document uploads don't 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.
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. Descriptions with trailing spaces can cause country matching to fail when using the description rather than Code.</p>

ID	Summary	Change description
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><b>Documentation</b></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><b>Binary ZIP files</b></p> <p>Structural &amp; 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 &amp; execute any site-specific scripts post the database upgrade.</p> <p>The runtime subfolder contains subfolders for each sub-component, e.g. 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><b>Source Code ZIP files</b></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>
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> <p>HIPS 7.0 - Initial and Clean Installation Guide (Core)</p> <p>HIPS 7.0 - Initial and Clean Installation Guide (UI)</p> <p>HIPS 7.0 - Upgrade Instructions</p>

ID	Summary	Change description
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.
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.
401	Temporary removal of P2P product	HIPS components previously distributed as part of the "P2P" product should be removed from the HIPS binary and source code packages and all documentation.  Key improvements are currently underway to the national infrastructure for provider directories, which are essential for the utilisation of the HIPS P2P functionality.  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.
429	Two DoesPcehrExist calls for Pathology and Diagnostic Imaging uploads	Pathology and Diagnostic Imaging uploads both perform an extra DoesPcehrExist call when first loaded.

## HIPS 6.2.2

ID	Summary	Change description
348	Improve handling of Ninject binding scopes in HIPS UI.	Change to HIPS UI Ninject module to close connections to HIPS Core after each request, supporting more concurrent use of HIPS UI. Regression testing found the change to Ninject does not affect other functions of HIPS UI. (v6.2.2)

## HIPS 6.2.1

ID	Summary	Change description
8	Wrong reply from HIPS to ESB for consumer PCEHR participation status	HIPS web services now return the correct My Health Record participation status when a patient is admitted to a second facility within 24 hours.

## Functional Change Log

<b>ID</b>	<b>Summary</b>	<b>Change description</b>
13	Support for Windows 2012	Documentation has been updated in this version to reflect that HIPS supports Windows Server 2012 R2 and list the Windows feature names applicable to this version in the installation guide.
25	Display of pre-admission episodes in UI	New configuration has been added to allow a Health Organisation to display pre-admit episode types on the View My Health Record screen in HIPS Web UI.
29	HIPS error messages referring to wrong document types	HIPS services now return errors relating to the correct document type rather than returning errors relating to Discharge Summary when the document in question is of a different type.
52	eHISC UI: Registration fails for new patients with only DVA number	HIPS UI now allows assisted registration to create a My Health Record for consumers using a DVA file number rather than a Medicare card number as an identifier.
62	Discharge Date not cleared when Cancel Discharge event (A13) received	The ADT interface now clears the stored discharge date when a message containing a Cancel Discharge event is received.
63	Disable Login buttons once pressed	The HIPS Web UI now disables the Login button once it has been clicked.
64	Improved handling of multiple episodes of care	The episode matching logic is now consistent between the patient list and episode list screens so there is no longer a situation where the HIPS Web UI can display 'Multiple' for episodes of care on the Withdraw Consent screen and then display only one episode on the next screen.
65	Missing steps in installation guide	The HIPS Core Installation Guide has been updated to include configuration required for NASH certificate validation.
66	XSD filename mismatches in WSDL collection	The files in the WSDL package now reference the correct file names for the other WSDL and XSD files so they import cleanly into SOAP tools.
67	Embedded Document Upload dialog not displayed correctly	In the HIPS Web UI, the Level 1A Discharge Summary upload functionality includes a patient list page, episode list page and document upload form. The link from the episode list page to the document upload form now respects the state of the page, whether it is in embedded view or not, and the document upload form is displayed correctly in embedded view.
68	New filter to display non-inpatients only	New configuration has been added to allow a Health Organisation to display non-inpatient episode types on the My Health Record View screen in HIPS Web UI.
70	Introduce a global configuration flag to prevent issuing of dummy MRNs	A new site-wide configuration option has been added to the HIPS Core to allow a HIPS implementer to disable the creation of a dummy MRN when a validated IHI identifier is used and the patient is not registered in the current facility.

ID	Summary	Change description
75	Support for new provider identifier types	HIPS P2P can now add new provider identifier types to the LHSD when an identifier of an unexpected type is encountered in data obtained from NHSD. The size of database columns for provider organisation name and description, provider location description, and street name were increased to accommodate unexpectedly long values in the production data load.
76	Alert should be generated when NEPS indicates an HPI-I change	HIPS P2P now includes functionality that revalidates a provider's HPI-I when NEPS indicates a provider's name or HPI-I has changed, and raises an alert if the HPI-I is invalid.
77	Original delegate URI should be stored and used for validation	HIPS P2P now stores the original delegate URI of each ELS interaction record and includes the delegate URI in requests to validate the interaction record.
78	Patient Merge Issue	The ADT interface now correctly resolves IHI alerts for potential replica patient records when merging a patient without an IHI into a patient with an IHI alert.
79	Unable to display SHS with multiple provider phone number within HRO	HIPS Web UI no longer displays an error in the Health Record Overview screen when the author of the latest Shared Health Summary has multiple phone numbers.
82	Support for SQL Server 2014	HIPS databases have now been successfully tested on SQL Server 2014 in addition to SQL Server 2008 R2 and SQL Server 2012 that were previously supported.
83	Support for SQL Server 2014	The HIPS Web UI layout has been corrected so that the popup that allows registration of a new patient to disclose the existence of a hidden My Health Record now displays within the bounds of the popup window.
84	Pathology Report View errors not shown	The HIPS Web UI now shows Pathology Report View errors on the View My Health Record screen.
85	Path: Requester Order ID should be left empty if not unique	HIPS Pathology Report upload functionality now leaves the Requester Order ID blank if the Order ID value is not unique across all OBR segments.
87	Support for local provider identifiers in generated CDA documents	<p>HIPS Pathology and Diagnostic Imaging functions now support healthcare organisations that are granted an exemption from the requirement to provide the HPI-I of the author and reporting pathologist / radiologist.</p> <p>HIPS services now allow the OID for local provider identifiers to be specified via a mapping table in HIPS so that local provider identifiers can be included in the generated CDA document without the provider's HPI-I needing to be stored into the HIPS provider table first.</p>
88	Upload of path/DI documents should return document set ID	A new PCEHRServiceV3 has been added to return the Document Set ID and Admission Date Time when the web services are called to upload or pathology or diagnostic imaging reports. This allows implementers to use the Remove web service to remove pathology or diagnostic imaging reports from the My Health Record.



## Functional Change Log

ID	Summary	Change description
89	Bundling of HIPS Monitoring tool	The HIPS Monitoring tool has been included in the HIPS software package. This allows all HIPS implementers to make use of this tool to monitor HIPS.
94	New version of clinical document gets uploaded as new document	HIPS services no longer upload amended documents as new documents when the database load being high causes a timeout on the look up of previous document versions.
95	EPMI patient information not displayed for patient not registered in target hospital	The Health Record Overview no longer displays an informational message 'Invalid Patient' when attempting to view the embedded view for an enterprise patient ID.
100	Path / DI V2 Adapter, Lookup by MRN gets the wrong Patient Master	HIPS pathology and diagnostic imaging upload services now correctly handle messages where patient records with the same MRN exist in multiple healthcare facilities.
101	HIPS Pathology V2 Adapter Report ID element	HIPS pathology upload service now supports specifying the Pathology Report ID via mappings from OBR-3 Filler Order Number (when there is one OBR segment) and from OBX-3.4 Alternate Identifier (when there is more than one OBR segment) and from a new "ReportID" parameter.
102	HIPS Path & DI V2 Adapter - Patient's Date of Births formatted with zero time	The patient date of birth in pathology and diagnostic imaging reports generated by HIPS no longer includes the specific time of day.
103	Employment element nullFlavor="NI" Path & DI V2 Adapter	<p>HIPS pathology and diagnostic imaging upload services no longer include an "asEmployment" element with no "employerOrganization" element when the requesting organisation name is not supplied. For requesting organisation to be populated, the organisation name must be supplied in the requester assigning facility namespace ID subcomponent. The requesting organisation HPI-O may optionally be supplied in the universal ID subcomponent using the OID form of HPI-O and the universal ID type "ISO".</p> <p>For Pathology Report, the asEmployment element is optional and will be omitted entirely when the organisation name is not specified.</p> <p>For Diagnostic Imaging Report, the asEmployment element is mandatory, so the name element at the XPath <code>/ClinicalDocument/participant/associatedEntity/associatedPerson/asEmployment/employerOrganization/asOrganizationPartOf/wholeOrganization/name</code> will have the attribute <code>nullFlavor="UNK"</code> if the organisation name is not specified.</p>
104	1A Discharge Summaries to be uploaded without a discharge date	<p>HIPS Core web services now allow a Level 1A Discharge Summary to be created and uploaded by HIPS when a patient discharge date and time is not provided.</p> <p>When the discharge date is not specified, the encounter period will have a low value (admit date) and no high value (discharge date).</p>

ID	Summary	Change description
106	Make provider given name optional in HIPS HL7v2 Adapter	HIPS pathology and diagnostic imaging upload services no longer place an empty given name element in the CDA documents produced when the source HL7® v2 message has an empty string for the given name of the provider. The given name element is now omitted in this case.
108	Database timeout if too many future outpatients	<p>The HIPS Web UI no longer shows all patients with future outpatient appointments in lists of current patients, which sometimes led to database timeouts.</p> <p>Patient lists now show current inpatients and patients with appointments on the current day, as well as the configured number of days before admission, after discharge or after service.</p>
109	Empty patient list displayed for very large patient numbers	<p>Large data tables in HIPS Web UI no longer encounter an error where the generated JSON data length would exceed the default value of the maximum JSON length property (2 MB).</p> <p>The HIPS UI screen Remove Document is configured by default to show patients for 30 days after discharge and in some healthcare organisations this triggered a JSON length limit error. Patient lists can now reliably support over 50,000 patients.</p>
113	Storage of Secure Messaging Interaction Records	HIPS P2P now supports retrieval of Interaction Records for Secure Message Delivery from the NEPS service operation 'Get Interaction Records for Provider Organisation' for all organisations that have an HPI-O identifier.
114	Remove PDI document with PI type patient identifier	Pathology and diagnostic imaging documents can now be removed from My Health Record using an HL7® message with a PI type patient identifier. Patient identifier extraction logic was modified to find the primary identifier from the sending facility for both uploading and removing documents.
115	Removal of Path and DI documents fails if not in message log table	Pathology and diagnostic imaging documents can now be removed from My Health Record using an HL7® message where there is no existing record in the HL7MessageLog table matching the sending application, sending facility, message control ID and message time.
116	Removal of Path and DI documents without sending facility universal ID fails	Pathology and diagnostic imaging documents can now be removed from My Health Record using an HL7® message where the universal ID component of the sending facility is not supplied. The namespace ID component alone is sufficient.
119	Removal of Path and DI documents fails if patient has multiple docs uploaded in one minute	Pathology and diagnostic imaging documents can now be removed from My Health Record where the patient has multiple documents uploaded within 1 minute of the original document upload. HIPS services no longer create a multiple episode stub and raise an error in this situation.
120	Support for secondary patient identifiers in Path and DI Report documents	HIPS pathology and diagnostic imaging upload services can now populate secondary patient identifiers from an HL7® message into the CDA document. For secondary identifiers to be populated, the applicable root OID must be supplied in the patient identifier assigning authority universal ID subcomponent and "ISO" in the universal ID type subcomponent.

## Functional Change Log

ID	Summary	Change description
122	Missing healthcare facility logo in Path and DI Report documents	HIPS pathology and diagnostic imaging upload services now add the healthcare facility logo configured in the Logo column of the Hospital table to the CDA documents generated for pathology and diagnostic imaging reports.
123	XSD filename mismatches in WSDL collection	The HIPS 6.1 distribution contains WSDL files with referenced XSD files that are a prerequisite for software developers wanting to integrate with the HIPS web services.  Resolved issue where the names of some of these XSD file references did not match their corresponding references in the WSDL/XSD files.
133	Generate diagnostic imaging report without observation date in the narrative.	Removed the column for observation date from the narrative of diagnostic imaging reports generated by HIPS, because the observation date is always the same as the image date, being mapped from the same field in the source HL7 message, and so was redundant information.
134	Generate diagnostic imaging report without Result Name in the narrative, if same as the Procedure name.	Removed the column for result name from the narrative of diagnostic imaging reports generated by HIPS, in cases where the result name is the same as the imaging examination procedure name, and so is redundant information.
135	Generate diagnostic imaging report without Anatomical Region in the narrative.	Removed the column for anatomical region from the narrative of diagnostic imaging reports generated by HIPS, because there is no mapping from the source HL7 message for this data item.
160	Possible CSRF (Cross-site request forgery) - Security Test Issue on HIPS 6.2	Additional forms in HIPS-UI include mitigation against cross-site request forgery.
161	ASP.NET MVC version disclosure - Security Test Issue on HIPS 6.2	The version of the ASP.NET MVC framework is no longer disclosed in headers.
162	Clickjacking: X-Frame-Options header missing - Security Test Issue on HIPS 6.2	The HIPS-UI can be configured to include an X-Frame-Options header to disallow embedding or restrict embedding to a trusted CIS.
163	Broken links - Security Test Issue on HIPS 6.2	Pages in the HIPS-UI no longer link to a missing JavaScript file.
164	Content type is not specified - Security Test Issue on HIPS 6.2	Error pages in the HIPS-UI now include a Content-Type header.
169	Demo Harness fails to start without access to a P2P database	HIPS demo harness can now start without access to a HIPS P2P database.
170	Demo Harness Episode Not Found fault not caught and displayed	HIPS demo harness will no longer crash when HIPS returns an error that no episode is found for a Level 1A discharge summary upload.

ID	Summary	Change description
171	Error updating ClinicalDocumentVersion when Package of previous document is null	HIPS can successfully supersede a document after the archiving script has removed the CDA package of the previous version from the database.
172	IHI validation should happen after document is taken off queue	HIPS will perform IHI validation for pathology and diagnostic imaging report upload operations after the ORU message is consumed from the HIPS queue, as in HIPS v6.1. This corrects an unintentional behaviour change in HIPS v6.2.
175	Path/DI HL7 messages limited to 4 MB by MSMQ	Pathology and diagnostic imaging report HL7 messages with embedded PDF files are no longer limited to less than 4 MB by an MSMQ limitation.
181	Requester Role is hard-coded to General Medical Practitioner	Requester role in pathology and diagnostic imaging reports is now set to the code for "Referring Provider" from HL7 table 0286 rather than the code for "General Medical Practitioner" from ANZSCO.
192	Support for PCML documents	My Health Record B2B Library has been upgraded to v1.1.0 which includes support for Pharmacist Curated Medicines List document uploads. The upload of these documents is untested.
195	HIPS UI - Path and DI View switch to first page of stand-alone mode after viewing a report	An issue has been corrected where on the second and later pages of the results table for the pathology and diagnostic imaging views, clicking on the action button to view a document would open the document on a new page rather than a modal popup. This resulted in reverting from the embedded view layout to that of the standalone UI and exposing menu functions and banners that are not meant to be visible.
174	HL7 message date time in future causes endless retry	Resolved an issue that occurs when the MessageDateTime in the HL7 is ahead of the DateCreated field in the HL7MessageLog table. The HL7MessageLog DateCreated field is now only compared when the UserHL7MessageDateTime parameter is set to false.
176	UTC offset in CDA date/time does not include daylight savings	Corrected the offset from UTC included in date/time fields in CDA documents generated by HIPS when daylight savings was in effect at the applicable date/time. Previous versions of HIPS would include the base offset for the server's time zone without accounting for daylight savings, so summer date/times would be off by one hour.
177	CCD defect - Original text "Diagnostic imaging study" not found in narrative	Resolved a conformance defect in diagnostic imaging reports generated by HIPS where they included an original text element "Diagnostic imaging study" in atomic data but no corresponding text in the narrative. The resolution was to remove the original text element.
178	CCD defect - Request date/time	Resolved a conformance defect in pathology and diagnostic imaging reports generated by HIPS where the Request Date/Time was set to the same value as the Report Date/Time. HIPS will map the HL7 message fields ORC-9 and OBR-27.4 as the Request Date/Time and check that they are consistent.
506	AckQueue contract wrong in web.config	Corrected the AckQueue contract in the web.config to resolve an issue where the endpoint could not be found.

## Functional Change Log

ID	Summary	Change description
173	Database error saving name change for local provider	Resolved a database issue when attempting to update a local Health Provider Individual record, which prevented the upload of pathology and diagnostic imaging reports for a provider when the HPI-I of the provider required validation.
184	HPI-I Relaxation not working in No-HI-Service mode	Relaxed the validation check that a pathology or diagnostic imaging report HL7 message must contain the HPI-I of the document author when HPI-I exemption is enabled.
420	Limit number of entries on MSMQ	To avoid time outs and processing errors we have found that putting a limit on the number of entries accepted by HIPS onto the queue (MSMQ) is beneficial. The limit can be configured and was set to 1,000 during testing but could easily be lower without impacting performance. Once 1,000 entries are on MSMQ, HIPS will send a fault back to the Integration Engine (e.g. Mirth Connect) and so Mirth will then queue the messages until HIPS starts to consume messages again. This effectively uses Mirth to queue any backlog rather than HIPS. That is what Mirth (or similar integration engines) are designed to do.
421	Throttling of inbound HL7 ORU pathology and imaging report messages	<p>Configuration to limit the rate at which HL7 pathology and diagnostic imaging reports are accepted.</p> <p>A wait time can be set in HIPS configuration and was set to 350ms, which applies in between HIPS accepting messages from the integration engine. This keeps the inbound message throughput to approximately 2 per second and avoids a continual heavy burst of messages after an outage which could overload HIPS.</p> <p>To ensure inbound messages are processed serially required moving the UploadOrRemoveImaging and UploadOrRemovePathology operations from PCEHRService to a new web service PathologyImagingService that is configured to allow one message to be processed at a time.</p>
507	Optimise HIPS to allow reliable high volume ADT and Pathology uploads	Optimisations for 8 stored procedures have been back-ported into HIPS 6.1.2 from HIPS 7.0 to avoid timeouts occurring when retrieving information from the database.
423	Proactive retries after database timeouts	In previous versions HIPS returned a negative acknowledgement (NACK) to the integration engine when a database timeout occurred during HL7 ORU message processing. This meant the integration engine needed to re-process the message. To avoid this being necessary HIPS now identifies this situation and retries the processing as it is highly likely that HIPS will be able to re-process the message successfully when database load has reduced.

ID	Summary	Change description
424	Proactive retries after failure of HI Service or MHR lookups	<p>In previous versions HIPS returned a negative acknowledgement (NACK) to the integration engine when HIPS was unable to obtain or validate the IHI because the HI Service was unavailable, or when HIPS was unable to check whether the patient had a My Health Record because the Does PCEHR Exist service was unavailable, during HL7 ORU message processing. This meant the integration engine needed to re-process the message. To avoid this being necessary HIPS now identifies this situation and retries the processing as it is highly likely that HIPS will be able to re-process the message successfully when the respective service is available.</p>
425	Prevent concurrent processing for a patient	<p>Concurrently processing messages for the same patient has been observed to cause database locking failures and deadlocks. Some Laboratory Information Systems output multiple panels as separate report messages within a short time, increasing the likelihood of encountering this issue.</p> <p>To reduce concurrent processing of messages for the same patient, upon receipt of an HL7 ORU message, HIPS will now check if another HL7 message for the same patient is pending in the queue or being processed. If so, the message will be rejected, and a fault (transport acknowledgement) will be sent to the integration engine.</p> <p>The improved Mirth channel will try to send that message again in 10 seconds but will continue processing messages on other threads which have messages to send to HIPS with a different patient ID.</p>
427	Multiple threads from Mirth to HIPS for concurrent patient processing	<p>The supplied Mirth channels for pathology and diagnostic imaging have been configured to run 40 threads with modulation by patient ID to ensure messages are processed in the correct sequence for a patient. A retry delay of 10 seconds is applied on a Mirth thread if a negative transport acknowledgement (SOAP fault) is returned from HIPS. During the retry delay, the channel continues processing messages on other threads which have different patient IDs.</p>
428	Store ORU PDF attachments separately while being queued	<p>The supplied Mirth channels for pathology and diagnostic imaging have been enhanced to minimise memory requirements for queueing messages inside Mirth. The channel extracts the embedded PDF from the OBX segment and stores it as an attachment in the database. The embedded PDF is re-inserted when the message is sent to HIPS. This enables the Mirth queue to grow large (at least 1,000,000 messages; actual limit has not been determined).</p>
179	CCD warning - Order ID has wrong organisation HPI-O	<p>Review of conformance testing results found that HIPS is populating the requester's order ID using the HPI-O based identifier pattern but including the uploading organisation's HPI-O rather than the requester's HPI-O as the assigning authority for the order ID. HIPS will now populate 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.</p>

## Functional Change Log

ID	Summary	Change description
508	Error in View MyHR from session with JWT authentication	A pre-release of HIPS 6.2.1 would show an error "Sequence contains more than one matching element" when accessing the View My Health Record function from a session established using JWT authentication. This issue has been corrected in the current release.

## HIPS 6.1.5

ID	Change description	Notes
69	Data Tables error in Discharge Summary episodes page	The episode list page within the Level 1A Discharge Summary upload function in HIPS Web UI no longer displays a "data tables" error when the patient has withdrawn their consent to upload documents to the My Health Record for one of the displayed episodes. (v6.1.5,v6.2.1)
511	Caching issue in the document list on the Remove Document page	Using the Lookup by IHI function no longer shows out-of-date information from the cache, but instead clears the cache and reloads the latest information from the database, both for the entered IHI and for all MRNs in the current facility that have the entered IHI assigned to them. (v6.1.5)

## HIPS 6.1.4

ID	Change description	Notes
512	Refresh button now shows updated results in Internet Explorer	The Refresh button on the Remove Document page was loading cached data instead of loading the latest data from the database. This issue only occurred in Internet Explorer. The Refresh button was loading the data using AJAX Get method and Internet Explorer would cache the result by default and return the cached result when the Refresh button was clicked again. The Refresh button has been modified to use AJAX Post method because the Post method never caches the result and it will make sure the Refresh button always loads the latest data from the database in all browsers. (v6.1.4)

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