



HIPS Mobile

Release Note

24 June 2022 v3.0
Approved for external information
Document ID: DH-3657:2022

Related end product identifier: EP-3652:2022

Release rationale

HIPS Mobile allows clinicians in the hospital setting to have mobile device access to patient My Health Record information while engaging with patients in ward and bed-side settings or remotely off-site.

Clinicians in public and private hospitals already widely rely on mobile devices (smart phones and tablets) for accessing their patients' clinical information, so HIPS Mobile will add My Health Record patient data access to their repertoire.

HIPS Mobile v3.0 is the next major release, featuring the following major improvements and defect fixes:

- Allows connection to multiple Active Directories
- Addition of biometric authentication
- Login experience improvements
- Wildcard search on patient names
- Installation process improvements
- Data archiving functionality
- Security enhancements

Package inclusions

Updated

Identifier	Name and version
DH-3657:2022	<i>HIPS Mobile – Release Note v3.0 (this document)</i>
DH-3654:2022	<i>HIPS Mobile – Binary Software Package v3.0</i>
DH-3656:2022	<i>HIPS Mobile – Product Data Sheet v3.0</i>
DH-3655:2022	<i>HIPS Mobile – Functional Change Log v3.0</i>

Audience

- Healthcare provider organisations
- System integrators
- Software vendors

Change details

The following items are addressed by this release.

ADO ID	Summary	Change description
Enhancement 18153	Number of circles on PIN entry screen should be the number of digits in the user's PIN and should auto submit	The number of circles shown on the enter PIN page now matches the PIN length for the user and the PIN is submitted as soon as the user enters the correct number of digits.
Enhancement 19010	Support showing password text on login screen	The login page in HIPS Mobile UI has been extended to include an eye button on the password field which shows the user what they have entered. This will help users confirm they have entered their password correctly.
Enhancement 19162	Support inline links in PDFs	Inline attachment links were not supported in earlier versions of HIPS Mobile. This release of HIPS Mobile now features inline attachment links that the user can tap on to open attachments.
Enhancement 19220	Support HIPS Mobile connecting to multiple Active Directory instances	HIPS Mobile now supports users from multiple configured domains. Domains can be registered in the HIPS Mobile database, and will be made available on the login screen for users to choose from when logging into the application. If a single domain is configured, the domain selection will be defaulted to that single domain and the user can simply enter their username and password to login.
Enhancement 19239	Multi-factor authentication (MFA) with Fast Identity Online (FIDO) Web Authentication (WebAuthn) including unlock with PIN, device security, biometric, face and fingerprint recognition	Device security authentication has been added as a new login option - this enables supported devices to login to HIPS Mobile using the device's built-in authentication capability, including fingerprint or face recognition where the user has enabled these on their device. HIPS Mobile can be configured to enforce combined PIN and device security, device security only or PIN only. In addition to this, the PIN security has been enhanced to verify the PIN on the HIPS Mobile server rather than the client, so that a user's PIN is better protected against brute-forcing, and a minimum PIN length can be configured.

ADO ID	Summary	Change description
Enhancement 19281	Improve deployment scripts to support specifying a 'certificate domain subject' instead of a thumbprint for token signing and HTTPS binding certificates	The deployment configuration has been altered to specify the certificate name (from the certificate subject) rather than relying on a certificate thumbprint and will now use this to select certificates for HTTPS bindings and token signing. The deployment script will locate a certificate in the configured certificate store. If more than one is found, the script will take the certificate with the longest expiry date. This change ensures the configured deployment package can be re-run in the future without needing to update a thumbprint that may have expired since first deployed; this may be useful in disaster recovery situations.
Enhancement 19284	Ensure good appearance of the patient card for patients with no episodes	The patient cards shown in patient lists, search results and when viewing a patient have been modified such that they only show relevant information, such as when the patient does not have an associated episode, the episode fields are not shown on the card.
Enhancement 19285	Add configuration option to hide MRN for sites where the MRN is not useful, such as a GUID format	A new configuration setting has been added to HIPS Mobile to enable sites to control whether the UI should display MRN details, such as in patient cards, search forms, document viewers and help text. This feature is useful for sites who primarily create patients in HIPS using the ValidatedIhi identifier type, which results in HIPS generating a GUID for the MRN which has no relevance to such sites. The new configuration setting can be configured at the global scope, meaning it applies to the entire HIPS Mobile instance.
Enhancement 19286	Add option to hide the different patient lists for non hospital settings	New configuration settings have been added to HIPS Mobile to control the visibility of each patient list in the navigation menu and facility overview pages. Sites that do not use certain episode types can hide the applicable patient list by modifying the HideAllocatedPatients, HideInpatients, HideOutpatients, HideEmergencyPatients or HideAllPatients settings at a global scope to apply across the entire application, or at the facility scope if only required for specific facilities.

ADO ID	Summary	Change description
Enhancement 19407	Implement HIPS Mobile Archiving Utility	HIPS Mobile now has a dedicated data archiving utility to extract data from the database and store in BCP files. This utility follows the same standard as the HIPS data archiving utility, and is important to run to ensure the database remains at a manageable size for consistent performance.
Enhancement 19435	Notify administrator when a feedback item has been added	The feedback feature was introduced in the initial version of HIPS Mobile, however there was no mechanism to alert an administrator when feedback was submitted. Guidance on how to configure notifications for feedback using SQL Server functionality has been documented in the HIPS Mobile online documentation.
Enhancement 19460	Pop-up warning if device is not supported	HIPS Mobile now presents a pop-up alert when the app is opened notifying the user if their device is not supported. This message appears when an unsupported OS, OS version, or browser/OS combination is used. The user of an unsupported device/browser can continue to use the app at their own risk.
Enhancement 19462	Interface to populate list of allocated patients for each clinician	New allocated patient API endpoints has been added to enable sites to integrate HIPS Mobile with hospital information systems to auto-generate lists of allocated patients for clinicians, rather than clinicians having to search for patients individually and add them in themselves. This will make the workflow more streamlined for clinicians, and takes away the barrier of the less tech-familiar people. This also makes the application more practical to use, and aligns with what some clinical teams currently do, which is have a patient list printed out for them each day/round.
Enhancement 19463	Interface to retrieve list of allocated patients for each clinician	New allocated patient API endpoints have been added to HIPS Mobile to support allocated patient functionality in the HIPS Mobile UI, and to enable sites to retrieve allocated patient details when integrating their clinical systems with HIPS Mobile.
Enhancement 19464	Display list of allocated patients for each clinician	HIPS Mobile can now display an allocated patients list for sites who wish to integrate their clinical information systems with HIPS Mobile. This list can be disabled across the application, or for specific facilities if not required by modifying the HideAllocatedPatients configuration setting.

ADO ID	Summary	Change description
Enhancement 19465	Allow wildcard search on given name and surname	HIPS Mobile now has an improved search capability and now supports wildcard search for patient given names and surnames. Wildcard searching can be used by including an asterisk in the search query.
Enhancement 19679	Displaying the EMPI ID field in the search form should be configurable	A new configuration setting called EnterpriseIDFieldEnable has been added to HIPS Mobile to control the visibility of the EMPI ID field. Sites that do not use this field can configure the setting to hide the field from the advanced search criteria.
Enhancement 20190	Display the Anatomical Region field in the Diagnostic Imaging Report View	HIPS Mobile will now display the anatomical region information in Diagnostic Imaging Report View cards. This change means more useful information is surfaced on the list and can help clinicians find useful documents faster.
Enhancement 20694	Disable unrequired identity server endpoints - to avoid clickjacking being raised by Acunetix	The HIPS Mobile Authentication API has been modified to disable identity server's unused endpoints. Disabling these endpoints that are not required for HIPS Mobile mitigates potential clickjacking attacks.
Enhancement 20697	HPA APIs and UI - Configure HSTS with includeSubdomains	The HIPS Mobile app, API and Authentication API have been modified to specify the "includeSubdomains" flag in the HTTP response header "Strict-Transport-Security" as per HTTP Strict Transport Security (HSTS) best practice.
Enhancement 20700	Update from .NET Core 3.1 to .NET 6 (LTS)	Components of HIPS Mobile that run on the .NET platform have been updated to use .NET 6.0.
Enhancement 20740	Enhancements to application logging for HIPS Mobile APIs	The HIPS Mobile APIs have been modified to use the log4net logging framework which will provide sites with more options for logging events from HIPS Mobile.
Enhancement 20776	Use standard error message style on login page when user tries to create an insecure PIN	On the create PIN page, error messages are shown when a user tries to configure an insecure PIN. These messages were displayed using an old modal style with an "OK" button, which is inconsistent with the rest of the application. These messages have been changed to the standard pop-up style message used throughout the application.
Enhancement 21398	The filtered document information should be consistent across pages	There was an issue that the filtered document information was not consistent across MHR list pages. The issue has been fixed.

ADO ID	Summary	Change description
Enhancement 22921	DBUpgrade add permissions to set up service accounts	The HIPS Mobile database creation and permissions can now optionally be set during the deployment.
Enhancement 25879	Update HIPS Mobile UI third party reference packages	To ensure we maintain the supportability of the application we have updated dependent packages to the latest stable versions, which includes using Angular 13.
Enhancement 25968	Update RunTimeSettings to make more secure for UI	HIPS Mobile settings and runtime settings API requests have additional security validation to ensure that the UI cannot retrieve sensitive settings.
Enhancement 27178	Document how sites can enforce password complexity for HIPS Mobile according to Agency recommended standard	Advice is given on the Security Model page to assist HIPS sites to comply with the password complexity requirements in the My Health Record rules when using Active Directory for authentication.
Enhancement 27446	Enable ISM recommended TLS 1.2 and 1.3 cipher suites	The security configuration applied during deployment of HIPS Mobile has been extended to ensure the server has only the ISM recommended TLS 1.2 and TLS 1.3 cipher suites enabled. Note: TLS 1.3 cipher suites are currently only supported on Windows Server 2022.
Enhancement 27621	Entered PIN should be cleared out automatically when an insecure PIN is entered while creating a PIN	The PIN validation has been modified so that when creating a new PIN and entering one that is not secure, the entered PIN is cleared so that the user can enter a more secure PIN instead.

ADO ID	Summary	Change description
Enhancement 26454	Migrate APIs and CLI from Self-Contained Deployment to Framework Dependent Deployment	In the HIPS Mobile 2.0 release, the HIPS Mobile API, HIPS Mobile Authentication API and HIPS Mobile Configuration CLI components were built with .NET Core 3.1 and published using the Self-Contained Deployment (SCD) model. This meant these components could run on a server without the .NET Core runtime installed because the .NET Core runtime files were bundled with each component. Several downsides to the SCD model led to a decision to change to the Framework Dependent Deployment (FDD) model with HIPS Mobile 3.0, including increased deployment package size and the inability to apply security patches without upgrading. Sites will benefit from the change to the FDD model with much smaller release packages, components sharing the same .NET runtime already installed on the server, which will reduce the disk space and memory requirements, and most importantly, the ability for HIPS Mobile components to utilise security updates to the .NET 6.0 runtime binaries on the application server without requiring the installation of a HIPS Mobile patch release.
Defect 26552	URLs in attachments are not working when clicked on	There was a defect in HIPS Mobile 2.0 that the user could not open HTTPS, HTTP, or FTP links in documents. This defect has been fixed.
Defect 26981	Long text is not getting wrapped into next line in Allergies and reactions details	There was an issue that long text was not wrapped in the Allergy and Adverse Reaction list (Substance/Agent property) and the Medicines list (Brand property). These issues have been fixed.
Defect 27859	CLI configuration file in installation package should not be modified by the deployment script	A defect was found where the HIPS Mobile deployment scripts would modify the original copy of the appsettings.config file for the configuration CLI in the installation package, in addition to the deployed copy of the file in the target folder. This resulted in subsequent deployments not picking up changes to URLs or client secrets that were made in the Configuration.psd1 file. Now, when the configuration CLI is installed into the target folder for HIPS Mobile, the original configuration file is not updated, meaning subsequent installations of the CLI utility will use the configuration settings defined in the Configuration.psd1 file each time, allowing for changes to be made in the Configuration.psd1 file.

ADO ID	Summary	Change description
Defect 27881	Invalid accessibility attribute aria-orientation="vertical" on some elements	There were accessibility issues in the home screen facility list and the menu. Accessibility issues have been fixed.
Defect 27975	API Deployment Script does not check the error code from DB Upgrade	If an error is encountered in the dbupgrade process the installation script will stop any further processing.
Defect 26376	Facility Overview shows error on first load for a facility	There was an issue where the facility overview did not load successfully on the first attempt. This issue has been fixed.
Defect 26378	Table sections with image objects are not displayed correctly in document viewer	HIPS Mobile 2.0 was not displaying table sections with image objects correctly in the document viewer. The issue has been fixed.
Defect 21375	Pathology Report and Imaging Report days ago text should be calculated based on the local time	The relative time text displayed after dates such as "27-Sep-2021 (25 days ago)" was calculated using the UTC time zone. The relative time text is now calculated using the local time zone of the device running the HIPS Mobile UI.
Defect 20743	Unexpected breadcrumb behaviour when using search	There was a search breadcrumb on top of the My Patients list page, which has been removed. In addition to that, when the user pressed the "X" close button without typing any search text, there was an incorrect display message in the patient search result list. The message has been updated.
Defect 20737	HIPS Mobile UI - Host header attack (Medium)	To mitigate a host header attack vulnerability in which an attacker could manipulate the Host header seen by the web application and cause the application to behave in unexpected ways, we have added support for supplying the hostname in the Bindings sections of the Configuration.psd1 file. When configured, the hostname will be set against the bindings in IIS and will be used when verifying the URI during deployment. Note: setting the hostname will prevent the APIs and UI being accessible on localhost, the hostname must be used.
Defect 20738	HPA UI - Clickjacking: X-Frame-Options header (Low)	To improve the security of HIPS Mobile, the HIPS Mobile UI web.config file has been modified to include X-Frame-Options with frame-ancestors directive as a custom header.

ADO ID	Summary	Change description
Defect 20739	HPA UI - Content Security Policy (CSP) not implemented (Informational)	To improve the security of HIPS Mobile, the HIPS Mobile UI web.config file has been modified to include a Content Security Policy in the HTTP headers.

Known issues

The following open issues exist in this release:

ADO ID	Summary	Issue description
18003	Screen is not blurring correctly on any iPhone with Safari when switching apps	A feature was added for Android devices which blurs the content of the app when switching between apps on a device. This feature does not currently work on iPhones. The workaround for this is to encourage users to log out when finished using the app or when sharing a device with other people to ensure patient details are secured.

Assurance

HIPS Mobile v3.0 has undergone the following conformance assessments including execution of all conformance test cases applicable to the functionality of HIPS Mobile:

- Conformance Test Specification for Clinical Document Rendering
 - CDA Rendering
 - CDA Rendering Detail Fields
 - Pathology Report
 - Diagnostic Imaging Report
- Conformance Test Specification for My Health Record Views
 - Medicare Overview
 - Pathology Report View
 - Diagnostic Imaging Report View
- Conformance Test Specification for Clinical Information Systems connecting to the My Health Record system
 - Check if an advertised My Health Record exists
 - Gain access without code
 - Gain access with code
 - Download a clinical document
 - Download a view

Implementers are required to perform their own testing of My Health Record conformance test cases that relate to functionality outside of HIPS and declare conformity of their clinical systems in conjunction with HIPS to the My Health Record System Operator.

Documentation of conformance assessments performed for HIPS Mobile v3.0 is available from the Agency Help Centre at help@digitalhealth.gov.au or by phoning 1300 901 001.

Licence

The HIPS Mobile Binary Software is licensed under the *HIPS Binary Software Licence Terms and Conditions* (included in the HIPS Mobile Binary Software Package).

Support

The HIPS Mobile product is provided in binary code form.

The Agency provides support to sites that use the Agency-provided binary version of HIPS, and this support is extended to HIPS Mobile.

Sites using HIPS binaries built from source code are generally not supported by the Agency. 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.

Implementers who do this must undertake comprehensive conformance testing with the Healthcare Identifiers (HI) Service and the My Health Record system.

Please contact the Agency for details of available support services.

For further support or to provide feedback, please email help@digitalhealth.gov.au

Future releases

HIPS Mobile will be released on an ad hoc basis, based on providing new functionality or other changes as required. Typically, this has a cadence of one annual major release and 2-3 minor releases per year, with patch releases as required.

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