Australian Government
Australian Digital Health Agency

HIPS
Product Data Sheet

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Key features

- Middleware for seamless integration with the national digital health infrastructure components:
  - Healthcare Identifiers (HI) Service
  - My Health Record system.
- Packaging, upload, download and display of CDA™[1] documents.
- Generation of pathology and diagnostic imaging report CDA documents from HL7™v2 messages.
- Source code, binary code, and comprehensive documentation.

Usage (internal, external)

- Large-scale digital health implementations.
- Vendors of digital health systems.

Format

- Sample code, SQL scripts, WSDL and XML schema.
- Binary code.
- Comprehensive documentation.

Overview

The HIPS product enables the seamless integration of digital health systems with national digital health infrastructure services, such as the Healthcare Identifiers Service and the My Health Record system.

HIPS is a middleware product offering standards-based interfaces for seamless integration with systems like patient administration systems, clinical information systems, and laboratory and radiology information

[1] HL7 and CDA are trademarks of Health Level Seven International and are registered with the United States Patent and Trademark Office.

systems. It is aimed primarily at supporting large-scale digital health environments typically found in organisations such as hospitals and diagnostic service providers; however, it is also suitable for direct integration with digital health products.

Key features of HIPS include:

Infrastructure service	HIPS features
Healthcare Identifiers Service	• Search healthcare identifiers. • Retrieve healthcare identifiers. • Cache healthcare identifiers.
My Health Record system	• Assisted registration of patients. • Determine whether a patient has a My Health Record. • Upload of clinical documents. • Packaging and digital signing of clinical documents. • Conversion of HL7v2 pathology and diagnostic imaging reports: ○ HL7v2 ORU messages to CDA documents ○ ORU messages with attached PDF reports only ○ Seamless MLLP protocol for ORU message exchange. • Displaying a patient's My Health Record. • Download and display of clinical documents.

Background

The Australian Digital Health Agency has a strategic objective to support and facilitate the adoption of national digital health services across the health sector. A key element of delivering on this objective is supporting the implementation of solutions that integrate with the national Healthcare Identifiers Service and the My Health Record system.

The Agency also seeks to collaborate with stakeholders through its implementations projects. This includes the compilation of targeted information for implementers, particularly the sharing of lessons learned from previous implementation projects.

One result of this work is the development of the HIPS middleware solution, which has successfully been used by both jurisdictional and private implementation projects to build the foundations for the Australian digital health ecosystem.

Product components

The HIPS end product consists of the following product components:

Component	Description
Binary Software Package	• Core component: ○ Binary code ○ WSDL and schema files ○ Database installer and scripts ○ PowerShell scripts.

Component	Description

	• UI component:
	  ○ Binary code
	  ○ Database installer and scripts
	  ○ PowerShell scripts

Source Code Software Package	• Core component:
	  ○ Source code (predominantly C# & T-SQL)
	• UI component:
	  ○ Source code (predominantly C# & T-SQL)

Documentation	• Build Guide • Installation Guides (Core and UI) • Patient Administration HL7 Message Profile • Pathology Report HL7 Message Profile • Diagnostic Imaging Report HL7 Message Profile • Patient Record Merging Profile • Service Catalogue (Core) • Module Guides (Core and UI) • Evaluation Guide • Topology and Configuration Guide • Upgrade Instructions • HIPS licencing information
Product Data Sheet	This document
Release Note	Notes specific to a particular HIPS release

Documentation structure

The HIPS end product contains a substantial number of guidance documents. To ensure optimum benefit from this documentation, the Agency recommends reading the documents in a particular sequence, depending on the particular use case.

Use case	Recommended reading sequence
Product overview	1 *Product Data Sheet* 2 *Release Note* 3 *Module Guide (Core)* 4 *Module Guide (UI)*
Product installation and evaluation	1 *Build Guide* 2 *Initial and Clean Installation Guide (Core)* 3 *Initial and Clean Installation Guide (UI)* 4 *Topology and Configuration Guide* 5 *Evaluation Guide*

Use case	Recommended reading sequence
Integration with existing systems	1 *Pathology Results HL7v2 Profile* 2 *Diagnostic Imaging Results HL7v2 Profile* 3 *Patient Administration HL7v2 Profile* 4 *Patient Record Merging Profile* 5 *Service Catalogue (Core)*
Upgrades	1 *Upgrade instructions* 2 *Initial and Clean Installation Guide (Core)* 3 *Initial and Clean Installation Guide (UI)* 4 *Topology and Configuration Guide*
Legal terms and licences	1 *Source Code License and Production Disclaimer* 2 *HIPS Binary Software – Software License Terms and Conditions* 3 *Third-Party Software Licences*

System requirements

HIPS is based on a number of underlying platform software products and frameworks. This release of HIPS has successfully been tested against the products and product versions listed in the sections below.

Usage of HIPS with product versions other than those listed may require retesting of the product. This may include the need to repeat all required conformance and notice-of-connection tests.

HIPS incorporates a number of third-party libraries that are listed in the *Third-Party Software Licenses* document included in this release. These libraries are distributed as part of the HIPS product.

For the build of the HIPS components from its source code version, a number of software development tools are required. These tools are listed in the *Build Guide* included in this release.

HIPS Core component

The HIPS Core component is a server running on the following software platforms:

Operating system	Windows Server 2008 R2 or Windows Server 2012 R2 or Windows Server 2016
Framework	.NET 4.5.2 or higher
Database Management System	Microsoft SQL Server 2008 R2 or Microsoft SQL Server 2012 or Microsoft SQL Server 2014 or Microsoft SQL Server 2016

HIPS UI component

The HIPS UI component is running on a dedicated server or equivalent virtual machine based on the following software platforms:

Operating system	Windows Server 2008 R2 or Windows Server 2012 R2 or Windows Server 2016
Framework	.NET 4.5.2 or higher
Database Management System	Microsoft SQL Server 2008 R2 or Microsoft SQL Server 2012 or Microsoft SQL Server 2014 or Microsoft SQL Server 2016

The HIPS UI component is designed to interact with web browsers for the rendering of the user interface. The user interface has been tested on the following software platforms:

Operating system	Windows 7 or Windows 10
Web browser	Microsoft Internet Explorer 11; Google Chrome 60; Mozilla Firefox 55

Licence

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

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

Downloads

HIPS is available from the Agency website:

https://developer.digitalhealth.gov.au/specifications/implementation-and-adoption/

Support

The HIPS product represents sample code that implementers are free to modify, customise, and integrate with their own software implementations. For this reason, the Agency's ability to provide technical support is limited.

Third-party technical support is available from commercial partner organisations. Implementers are encouraged to take out support contracts with suitable support providers to ensure the successful implementation and operation of HIPS.

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

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