Department of Veterans Affairs

Emergency Department Integration Software

EDIS 2.1

Project Glossary

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Version 1.9

Revision History

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1. Introduction

1.1 Summary

This glossary supports formal and informal project documentation for Emergency Department Integration Software (EDIS). The glossary is a work in progress. As the project moves forward, the terms and acronyms contained herein will reflect additions to the project's technical vocabulary while maintaining its historical vocabulary.

1.2 Scope

This glossary contains terms, definitions, acronyms, and abbreviations included in the following documents:

- *Emergency Department Integration Software User Guide*
- *Emergency Department Integration Software Technical Manual*
- *Emergency Department Integration Software Installation Guide—M Server*

The number of documents on this list will grow as the project moves through the iterative development lifecycle (IDL).

2. Acronyms and Definitions

Acronyms	Definition
ADT	Admission, Discharge, and Transfer
AITC	Austin Information Technology Center
AMS	Medical Automation Systems
API	Application Program Interface
ASIS	Application Structure and Integration Services
BCMA	Barcode Medication Administration
CAA	Clinical Assistance Agents
CACs	Clinical Applications Coordinator
CC	Configuration Control
CCB	Configuration Control Board
CCHIT	Certification Commission for Healthcare Information Technology
CCOW	Clinical Context Object Workgroup

Acronyms	Definition
CDS	Common Data Services
CHDR	Clinical Data Repository/Health Data Repository (Interoperability Project)
CI	Configuration Item
CIO	Chief Information Office
CM	Configuration Management
CMP	Configuration Management Plan
CMMI	Capability Maturity Model® Integration
COTS	Commercial Off-The-Shelf
CPE	Clinical Practice Environment
CPRS	Computerized Patient Record System
CPRS-R	Computerized Patient Record System – Reengineering
CPT	Current Procedural Terminology
CR	Change Request
CRDC	Capital Region Data Center
CSA	Configuration Status Accounting
CSF	Critical Success Factor
CSP	Caché Server Pages
CVA	Configuration Verification and Audit
DFN	Data File Number (field .001 in the VistA FileMan Patient file)
DoD	Department of Defense
DSM-III	Diagnostic and Statistical Manual of Mental Disorders
DSS	Decision Support Services
EARS	Enterprise Archives
E3R	Electronic Error and Enhancement Request

Acronyms	Definition
ECCB	Environment Change Control Board
ED	Emergency Department
EIE	Enterprise Infrastructure Engineering
EMFAC	Emergency Medicine Field Advisory Committee
EPS	Enterprise Product Support
ERT/DS	Enterprise Reference Terminology/Data Standardization
ESM	Enterprise Systems Management
EVEAH	Enhance the Veterans Experience Access to Healthcare
EVE	Client Server Program – System Manager
EVS	Enterprise VistA Support (now Enterprise Product Support)
FCA	Functional Configuration Audit
GPO	Group Policy Objects
GTS	Generic Traffic Shaping
GUI	Graphical User Interface
HDR	Health Data Repository
HEC	Health Eligibility Center
HeVD	HealtheVet Desktop
HIMS	Health Information Management Service
HIPAA	Health Insurance Portability and Accountability Act
HIS	Indian Health Services
HITC	Hines Information Technology Center
HIV	Human Immunodeficiency Virus
HL7	Health Level 7
HPS	Health Provider Systems

Acronyms	Definition
HSITES	Health Systems Implementation Training and Enterprise Support
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
iaw	In accordance with
ICD	International Classification of Diseases
ICE	Integrated Collaborative Environment
IDL	Iterative Development Lifecycle
IE	Internet Explorer
IEN	Internal Entry Number (for VistA FileMan Files)
IOC	Independent Out-Patient Clinics
IP	Internet Protocol
IRA	Initial Requirements Analysis
IRM	Information Resources Management
ISP	Internet Service Provider
ITAC	Information Technology Advisory Committee
IV&V	Independent Verification and Validation
Java EE (formerly J2EE)	Java Platform, Enterprise Edition—Formerly Java 2 Platform Enterprise Edition
JAWS	Job Access with Speech
JDBC	Java Database Connectivity
JSF	JavaServer Faces
JSP	JavaServer Pages
KAAJEE	Kernel Authentication and Authorization for Java 2 Enterprise Edition
KIDS	Kernel Installation & Distribution System
KPI	Key Performance Indicator

Acronyms	Definition
LCD	Liquid Crystal Display
LOINC®	Logical Observations, Identifiers, Names, and Codes
LVN	Licensed Vocational Nurse
MPI	Master Patient Index
MPR	Medication Possession Ratio
MRTG	Multi Router Traffic Grapher
MTBF	Mean Time Before Failure
MTTR	Mean Time To Repair
MUMPS (or M)	Massachusetts General Hospital Utility Multiprogramming System
MVC	Model View Controller
MXML	Macromedia Flex Markup Language
NOIS	National Online Information Sharing
NSR	New Service Request
NT&EO	National Training and Education Office
OED	Office of Enterprise Development
OI	Office of Information
OI&T	Office of Information and Technology
OMB	Office of Management and Budget
ORT	Operational Readiness Testing
PCE	Patient Care Encounter
PCMM	Patient Care Management Module
PKI	Public Key Infrastructure
PIMS	Patient Information Management System
PITC	Philadelphia Information Technology Center

Acronyms	Definition
PMAS	Performance Management Accountability System
POC	Point-of-Care
POJO	Plain Old Java Object
PTF	Patient Treatment File
PWS	Performance Work Statement
QA	Quality Assurance
QOS	Quality of Service
RALS	Point 0f Care IT Connectivity System
RAM	Random Access Memory
RDV	Remote Data Views
RDMS	Relational Database Management Systems
REST or RESTful	Representational State Transfer
RIA	Rich Internet Application
RPC	Remote Procedures Calls
RQM	Rational Quality Manager
RR	Risk Register
SCM	Software Configuration Management
SDD	System Design Document
SD&D	Systems Design and Development
SDS	Standard Data Services
SLA	Service Level Agreement
SNOMED CT	Systematized Nomenclature of Medicine Clinical Terms®
SOA	Service Oriented Architecture
SQA	Software Quality Assurance

Acronyms	Definition
SQL	Structured Query Language
SRS	Software Requirements Specification
TBD	To Be Determined
TIU	Text Integration Utilities
TRRB	Team Risk Review Board
TSPR	Technical Services Project Repository
TWG	Technical Working Group
UAT	User Acceptance Testing
UCM	Unified Change Management
UFT	User Functional Testing
URI/URL	Uniform Resource Identifier/Uniform Resource Locator
VA	Veterans Affairs
VAMC	Veteran Affairs Medical Center
VBECS	VistA Blood Establishment Computer Software
VCIOC	VISN CIO Council
VDL	VistA Documentation Library
VDSI	VistA Data Systems and Integration
VERA	Veterans Equitable Resource Allocation
VHA	Veterans Health Administration
VISN	Veterans Integrated Services Network
VistA	Veterans Health Information Systems and Technology Architecture
VOB	Voice Object Base
VPR	Virtual Patient Record
WBS	Work Breakdown Structure

Acronyms	Definition
XML	Extensible Markup Language
XSLT	Extensible Stylesheet Language Transformation

3. Additional Terms

3.1 Approved Initial Requirements Analysis

An Information Technology Advisory Committee (ITAC)-approved document containing a project's initial requirements.

3.2 Application Structure and Integration Services (ASIS)

An organization within the Veterans Administration (VA) Office of Information (OI) that is responsible for overseeing Health*e*Vet-VistA development efforts.

3.3 Asynchronous JavaScript and XML (Ajax)

This is a technique for developing interactive Web applications. The technique uses a suite of technologies (extensible markup language, extensible hypertext markup language, cascading style sheets, HttpRequest, JavaScript and other scripting languages, etc.) to make Web pages feel more responsive.

3.4 Barcode Medication Administration (BCMA)

A national program to improve healthcare by using barcodes to track and monitor the dispensing and administration of medications; software that tracks medication dispensing and administration in inpatient settings by using barcodes and barcode readers.

3.5 Build

This is a test version of software, usually designated by a series of numbers. Developers usually increment the previous test version by one when they create a new test version.

3.6 Caché

An InterSystems multidimensional database that supports Java objects (plain old java objects [POJOs] and Enterprise Java Beans) and structured query language access.

3.7 Caché Server Pages

This is an InterSystems architecture and toolset for building interactive Web applications.

3.8 Capability Maturity Model® Integration (CMMI)

This is a Software Engineering Institute (of Carnegie Mellon University) process-improvement approach that provides essential elements for creating effective processes. CMMI guides process improvements for the Department of Defense (DoD), other federal agencies, and private enterprises.

3.9 Care Management

A Veterans Health Administration (VHA) Java application that extends the current Computerized Patient Record System (CPRS) application by adding multi-patient views of order-related and other information. Care Management also includes alerting and tasking functionality.

3.10 Certification Commission for Healthcare Information Technology (CCHIT)

A private, non-profit certification program for electronic health records (EHRs). The U.S. Department of Health and Human Services officially designated this de facto authority for EHRs as a recognized certification body (RCB).

3.11 CLIN4, Product Support Team

This is the OIT, Product Development, and Clinical Support Team, which supports the EDIS software.

3.12 Clinical Assistance Agent (CAA)

A computer tool to help healthcare professionals make clinical decisions.

3.13 Clinical Context Object Workgroup (CCOW)

A standards-based protocol that uses Health Level 7 (HL7) messages to enable disparate applications to synchronize on common data at the interface level.

3.14 Clinical Domain

Functions and information that are specific to a particular clinical context. For example, medication-ordering functions and medication-related data are specific to the pharmacy domain.

3.15 Clinical Practice Environment (CPE)

A team-based, multi-patient, multi-provider, knowledge- and workflow-driven clinical care environment.

3.16 Commercial Off-the-Shelf (COTS)

Software that outside (non-Veterans Administration [VA]) vendors produce and make commercially available.

3.17 Computerized Patient Record System (CPRS)

A single graphical user interface through which users can access multiple Veterans Health Information Systems and Technology Architecture (VistA) applications. CPRS is a Delphi application.

3.18 Computerized Patient Record System – Reengineering (CPRS-R)

A terminated project to move Computerized Patient Record System to an updated platform that supports the Veterans Administration's (VA's) Health*e*Vet technology direction.

3.19 Decision Support Services (DSS)

Veterans Health Administration (VHA) software that extracts information from Veterans Health Information Systems and Technology Architecture (VistA) systems. DSS software makes data extracts temporarily available for local reporting activities. For permanent report storage, DSS transmits the information to the Austin Automation Center for upload into a reporting database from Eclipsys, Transition System, Inc.

3.20 Eclipse

An open-source, platform-independent framework for developing rich-clients—as opposed to Web- or thin-client—applications.

3.21 Enterprise Reference Terminology/Data Standardization (ERT/DS)

A Veterans Health Administration (VA) Office of Information (OI) project to implement a common set of data standards throughout the VHA healthcare system.

3.22 Extensible Markup Language (XML)

A World Wide Web Consortium (W3C) standard. This markup language is widely used to facilitate Web-based information interchanges.

3.23 Flash Player

A multimedia and application player from Adobe Systems. Flash Player runs Flash and Flex applications.

3.24 Flex

A collection of technologies from Adobe Systems for developing and deploying cross platform, rich Internet applications (RIAs) that run within the Adobe Flash platform.

3.25 Flex Player

An application player for displaying Adobe Flash and Adobe Flex applications.

3.26 Gap Analysis

An analysis aimed at identifying necessary requirements that are missing from a project's requirements documents. Gap analyses are important because omitted requirements can cause loss of needed end-user functionality, financial loss, non-compliance with federal regulations and laws, and an overall loss of confidence in a project.

3.27 Graphical User Interface (GUI)

An application component that uses graphical images, text, and widgets. GUIs provide the interface through which users can interact with computers or computer applications.

3.28 Health Data Repository (HDR)

A national repository for Veterans Health Administration (VHA) clinical data.

3.29 Health*e*Vet Desktop (HeVD)

A Java Swing framework that supports the Veterans Administration's (VA's) Care Management application.

3.30 Health*e*Vet-VistA

A Veterans Health Administration (VHA) development effort to provide legacy VistA services on an updated technology platform.

3.31 Health Level 7 (HL7)

An American National Standards Institute (ANSI) standards-development organization; a standard for exchanging, integrating, and retrieving electronic health information. Many Veterans Health Administration (VHA) applications use HL7 messages to exchange data.

3.32 Hibernate

An open-source technology for mapping Java classes to relational database tables and Java data types to structured query language (SQL) data types. Hibernate automates common data-handling tasks for Java developers.

3.33 Hypertext Markup Language (HTML)

A markup language that enables Web designers to describe the structure of Web pages.

3.34 Hypertext Transfer Protocol (HTTP)

A World Wide Web Consortium (W3C) and Internet Engineering Task Force (IETF) standard response/request protocol for transferring or conveying information over the Internet.

3.35 Impact Analysis

A type of analysis in which analysts examine a project's requirements to determine whether—and how—changes to these requirements would affect other project requirements.

3.36 Independent Verification and Validation (IV&V)

A Veterans Health Administration (VHA) organization that provides and manages Veterans Health Information Systems and Technology Architecture (VistA) components for systems development and software quality assurance (SQA) activities.

3.37 Information Technology Advisory Committee (ITAC)

A committee that reviews initial-requirements-analysis documents and approves or rejects them.

3.38 Integrated Collaborative Environment (ICE)

A virtual environment that integrates collaboration, workflow, document-management, and social networking capabilities.

3.39 Iterative Development Lifecycle (IDL)

A software-development model in which developers proceed sequentially through each stage of development several times; each pass through a sequence of stages is called an iteration.

3.39.1 Inception Phase

The stage of software development in which a project team defines its preliminary vision of an application, including the application's main features and architecture. The project team also clarifies the project's overall scope during this stage of the iterative development lifecycle (IDL).

3.39.2 Elaboration Phase

The stage of software development in which a project team refines its vision for—and the scope of—its development effort. The project team also defines and baselines the software's architecture and

formulates a more precise development and deployment plan. During this phase, developers also design prototypes to test areas of concern.

3.39.3 Construction Phase

The stage of software development in which developers build software and deliver selected components to end users for feedback and testing.

3.39.4 Transition Phase

The stage of software development in which developers deliver the software to end users. For the Veterans Administration (VA), this entails transitioning software to the field (that is, deploying and delivering software, training end users and technical support staffs, and supporting and maintaining the software).

3.40 Java

An open-source, object-oriented, platform-independent programming language. (Java's proprietor, Sun Microsystems, released the Java source code to the open-source community.)

3.41 Java Database Connectivity (JDBC)

A Java application program interface (API) that enables Java applications to access (read) and modify (add, delete, or change) data within a database.

3.42 Java Platform, Enterprise Edition (Java EE—Formerly J2EE)

An open-source platform for developing and running multi-tier, enterprise Java applications. Before the release of Java EE 1.5, this platform was known as Java 2 Platform Enterprise Edition (J2EE).

3.43 JavaServer Pages (JSP)

A technology for dynamically generating Web content (Hypertext Markup Language [HTML], Extensible Markup Language [XML], or other kinds of documents) in response to requests from Web-clients.

3.44 Java Servlet

An application program interface (API) through which software developers can add dynamic content to Web servers using the Java platform. Servlets receive requests from and generate responses to requesting applications.

3.45 Kernel Authentication and Authorization for Java 2 Enterprise Edition (KAAJEE)

A Health*e*Vet-VistA authentication and authorization application specifically for supporting applications running on Java Platform, Enterprise Edition (J2EE). KAAJEE is the only VA-approved security package for these applications.

3.46 Logical Observations, Identifiers, Names, and Codes (LOINC®)

An American Clinical Laboratory Association-endorsed data system that provides a set of universal names and codes for identifying individual laboratory results. The committee responsible for introducing new codes includes representatives from the Veterans Health Administration (VHA).

3.47 Massachusetts General Hospital Utility Multiprogramming System (MUMPS or M)

A late 1960s programming language. MUMPS (or M) was, and in some cases continues to be, the language of choice for many healthcare systems and databases—including the Veterans Health Information Systems and Technology Architecture (VistA) system.

3.48 Master Patient Index (MPI)

A Veterans Health Administration (VHA) nation-wide index of unique patient identifiers. The VHA's Remote Data Views (RDV) application relies on this index to retrieve clinical information from multiple sites.

3.49 Medication Possession Ratio (MPR)

The amount of a medication (number of pills or number of doses) that a patient currently possesses divided by the prescribed amount of the medication. This ratio is useful for determining when to refill prescriptions for chronic conditions or if patients are taking their medications as directed.

3.50 Mockup

A graphical illustration of a software application, system, or system component. Mockups often form the basis for prototypes, which are usually working models of applications, systems, or system components.

3.51 Model View Controller (MVC)

An architectural pattern that many in the software-development community regard as a best-practices approach to software design. This pattern separates database actions from business-logic components that request the actions, and business logic from the user interface that calls the logic. The intermediate component that sits between each layer of this three-tier architectural pattern is called a controller.

3.52 MXML

An Extensible Markup Language-based user-interface markup language that works with Adobe ActionScript in Adobe Flex applications.

3.53 NetBeans

A platform for developing Java desktop applications and an integrated development environment (IDE) that is based on the NetBeans platform.

3.54 .NET Framework

A Microsoft Windows software component that comprises a framework for developing applications that run on the Windows operating system.

3.55 Patient Information Management System (PIMS)

A modular system of Veterans Health Information Systems and Technology Architecture (VistA) applications that help medical-administration personnel complete hospital-operations tasks.

3.56 Plain Old Java Object (POJO)

An ordinary—as opposed to special—Java object.

3.57 Primary Care Management Module (PCMM)

A Veterans Health Information Systems and Technology Architecture (VistA) application that helps facilities implement and manage primary-care activities. Nationally, the Veterans Health Administration (VHA) uses this application for its national database of patients' primary-care assignments.

3.58 Remote Data Views (RDV)

A Veterans Health Information Systems and Technology Architecture (VistA) application that enables Computerized Patient Record System (CPRS) users to query and view data from all Veterans Health Administration (VHA) medical centers and from available Department of Defense (DoD) treating facilities.

3.59 Representational State Transfer (REST or RESTful) Web Services

A set of architectural principles for designing Web applications. The Web itself is a key example of existing REST design.

3.60 Scope Creep

The result of piggy backing unapproved requirements on approved requirements. Scope creep often creates significant development and implementation delays and cost overruns.

3.61 Service Oriented Architecture (SOA)

A software architecture that relies on independent, loosely coupled services to support application functionality. Because services are reusable, this architecture can significantly reduce development time and offer application-wide consistency that reduces user-training time.

3.62 Spring Framework

An open-source application framework for developing Java Web-based applications.

3.63 Stakeholder

Anyone who could be materially affected by a system or application.

3.64 Structured Query Language (SQL)

A popular computer language for adding, deleting, changing, and manipulating data that resides in relational database management systems.

3.65 Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)

A College of American Pathologists system of standardized medical terms. SNOMED CT is a U.S. federal government data standard for electronic clinical data.

3.66 Text Integration Utilities (TIU)

A Veterans Health Information Systems and Technology Architecture (VistA) application that simplifies the management of clinical documents for clinical and administrative staff. TIU integrates with Computerized Patient Record System (CPRS), enabling authorized users to view and manage documents from within the CPRS system.

3.67 Uniform Resource Identifier/ Uniform Resource Locator (URI/URL)

An Internet standard for identifying and locating Web content.

3.68 Use Case

A technique for capturing requirements for software systems or systems of systems.

3.69 Veterans Health Information Systems and Technology Architecture (VistA)

A hospital information system that more than 1,300 Veterans Administration (VA) facilities use to maintain electronic health records for over five million veterans.

3.70 Virtual Patient Record (VPR)

A structured query language (SQL) database that can pull and organize information from any backend data source. It caches data for fast read access and automatically updates cached data via an event-based update module.

3.71 VISN CIO Council (VCIOC)

An action group aligned under the Veterans Health Administration (VHA) National Leadership Board (NLB) Informatics and Data Management Committee (IDMC). VCIOC formulates Veterans Integrated Services Network (VISN) requirements relating to the technology direction, policy, and products of Veterans Administration (VA) information-technology projects.

3.72 VistA Blood Establishment Computer Software (VBECS)

A Veterans Health Administration (VHA) project that will create an improved blood-bank system for providing veterans with high-quality blood products and services. This standards-compliant software will, as its name suggests, integrate with the Veterans Health Information System and Technology Architecture (VistA).

3.73 VistAWeb

An application that enables users to view remote data from within Computerized Patient Record System (CPRS). VistAWeb also includes a standalone interface for users who require special-user access (such as access for researchers or people who are working to mitigate national disasters).

3.74 Wagner Chronic Care Model

An Improving Chronic Illness Care (ICIC) model that identifies essential elements for promoting high-quality chronic disease care. (ICIC is a national program that the Robert Wood Johnson Foundation supports with direction and technical assistance from Group Health Cooperative's MacColl Institute for Healthcare Innovation.)

3.75 Widget

A reusable graphical user interface (GUI) component that provides a specific set of user interactions. For example, the grid widget displays information in customizable, sortable, relational tables that are called grids.

3.76 Wiki

A collaborative Web site that is capable of allowing visitors to add and edit site content.

Template Revision History

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12/28/2011	1.0	First Edition	Karla Hollingshed