Department of Veterans Affairs

Enterprise Military Information Service (MIS)

Service Description Document



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Version 1.29

Revision History

**Note:** The revision history cycle begins once changes or enhancements are requested after the Service Description has been baselined.

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# Introduction

## Document Purpose

The purpose of this document is to describe the interactive interfaces to and from the MIS Service. This document is intended to be a technical integration guide for those resources within the Department of Veteran Affairs that must interface with the MIS Service to support Military Information processes. This document contains a high level overview of the MIS Service and service interfaces as well as low level communication and message payload structures and definitions. All communications to the MIS Service MUST be authorized and verified. Each consumer is required go through the MIS Governance process to be prioritized for analysis of their AS-IS and expectations for the TO-BE integration with MIS. The outcome of the governance process will be a signed RSD outlining the “to-be” integration pattern and identification of the MIS Service operations that will be performed/utilized by the consumer of the service.

## Purpose and Scope of Service

The MIS servce and it’s suite of operations is intended to evolve into the VA’s authoritative source for the DoD’s Authoritative Military Service Record (AMSR). This will ensure consistent and fair decisions for all business processes due to the single source of AMSR data consumed by all systems and responsibility roles for sound business decisions.

The scope of the Service Description Document is the full definition of MIS so that it can be effectively and appropriately consumed by applications or other services. This document does not contain information about consumers of this service because this service has no direct dependency or knowledge of its consumers. This document will not contain information about the execution context because it may be implemented and deployed in different environments.

This purpose and scope of the service was described at a high level in the service charter document.

## Roadmap

This Service Roadmap for implementation of the service may be found here:

(Link to Service Roadmap)

Future evolution of this service wil include the tracking of changes to the AMSR through the use of business notifications. This ensures that if an AMSR is changed, all systems subscribing to the notification will be informed of the changes. This could be either a positive change (addition) or a negative one (removal, or change from a verified to an unverified status).

Systems and Responsibility roles (e.g., a claims adjudicator) can revisit previous decisions made in business processes that need to be reviewed to ensure that the decision was the best decision made on behalf of the Veteran or beneficiary.

## Service Identification

This section is a high level tabular representation of the use cases provided by the MIS suite of services. A tabular representation of the eleven use cases web service implementations can be found in section 3.2.1 Action Model. Also included in this section is the current status of each use case development and sprint scheduling information

Table : Use Case Development and Sprint Scheduling Information

| Service Attribute | Value |
| --- | --- |
| Name and Alias (if any) |  |
| Overview | A set of services that will provide access to authoritative Military Service Record.  *The use cases and their associated status are covered below.*   * MilitaryInformationService   + getMilitaryServiceEligibilityInfo (RRC TBD)   + getMilitaryServiceEpisodes (RRC 637011)   + getGuardReserveServicePeriods (TBD)   + getDeployment   (RRC 637128)   + getMilitaryOccupation (RRC 637083)   + getDisabilities (  RRC 637940)   + *getUnitInformation (RRC TBD)*   + getRetirement (RRC 695008) * VeteranStatusService   + getVeteranStatus (RRC 637945) * PaymentService   + getCombatPay (RRC 637078)   + getReserveDrillDays (RRC 637080)   + getSeperationPay (RRC 637079)   + getRetirementPay (RRC 637077) * MedalsAndAwardsService (Future enhancement)   + getMilitaryAward (RRC 637081) * DD214Service (Future enhancement)   + getDD214 (RRC 639000) |
| Version | 1.0 |
| Status History | 12-15-2015 Development - Design |
| Service Type | Information |
| Architecture Layer | Information |
| Business Domain | VA VBA |
| Service Domain | MIS |
| Business Owner | Laurie Baker [laurie.baker@va.gov](mailto:laurie.baker@va.gov) |
| Technical Owner | Mitch Zocchi [Mitch.Zocchi@va.gov](mailto:Mitch.Zocchi@va.gov) |

Table : Use Case Status

|  | Use Case Name | Status | Comments | Sprint (TO BE PROVIDED) |
| --- | --- | --- | --- | --- |
| 1 | Military Service Episodes | Design | Data Dictionary Complete |  |
| 2 | Deployments | Design | Data Dictionary Complete |  |
| 3 | Military Occupation | Design | Data Dictionary Complete |  |
| 4 | Disabilities | Design | Data Dictionary Complete |  |
| 5 | Retirement | Design | Data Dictionary Complete |  |
| 6 | Guard Reserve Service Periods | Design | Data Dictionary Complete |  |
| 7 | Unit Information | Design | Data Dictionary Complete |  |
| 8 | Military Service Eligibility Information | Design | Data Dictionary Complete |  |
| 9 | Separation Pay | Design | Data Dictionary Complete |  |
| 10 | Combat Pay | Design | Data Dictionary Complete |  |
| 11 | Reserve Drill Days | Design | Data Dictionary Complete |  |
| 12 | Retirement Pay | Design | Data Dictionary Complete |  |
| 13 | Veteran Status | Design | Data Dictionary Complete |  |
| 14 | Medals and Awards | Design | Future |  |
| 15 | DD214 | Design | Data Dictionary Complete |  |

# Interface

This section contains all information necessary to fully describe an interface published by the MIS suite of services needed for integration by an MIS service consumer. All of the details required here only relate to the interface to be used by the service consumer, and not to the details of the implementation. Details of the implementation belong separately in the System Design document.

## Information Model

This section contains the MIS Logical Data Model. It contains data definition gathered from the existing VADIR database definition as well as new attribute that were defined as part of the VADIR to MIS gap analysis discovery process. Parameters of the MIS web service operations map to entities and attributes of this model. This mapping is facelifted by the Logical Data Model Dictionary.

### Logical Data Model



### Logical Data Model Data Dictionary

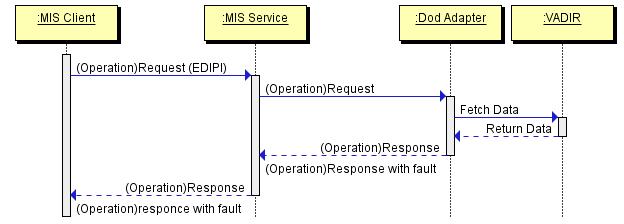


## Behavior Model

This section contains a tabular representation of the eleven use cases web service implementations. These tables can be found in section3.2.1 Action Model.

Additionally this section contains a pictorial representation of the MIS web service portType elements (i.e., wsdl:operation, wsdl:input message, wsdl:output message and wsdl:fault). This pictorial representation can be found in section Process Model**.**

Generic Sequence Diagram with EDIPI (Applies to all operations



### Action Model

This section is a logical tabular representation of operations and associated input/output artifacts that are provided by the MIS suite of services. Concrete web service artifacts can be found in section 3.3.4 Interfaces

Details of the Policies needed to remediate a Fault Codes termination are detailed in section 4.1 Error Processing and Appropriate Remediation Strategy Policy.

Table .0 : SOAP Header

| Attribute | Type |
| --- | --- |
| Transaction ID | String |
| User ID | String |
| Source System Name | String |

Table : getMilitaryServiceEligibilityInfo

| Operation Name | getMilitarySvcEligibilityInfo |
| --- | --- |
| Description | This operation takes person identifier and returns Military Service Eligibility data (RRC TBD) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISmilitaryServiceEligibilityRequest  (EDIPI – Web Service) |
| Return Parameter | |  | | --- | | eMISmilitaryServiceEligibilityResponse | |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getVeteranStatus

| Operation Name | getVeteranStatus |
| --- | --- |
| Description | This operation provides veteran’s status information for supplied identifier (RRC 637945) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISveteranStatusRequest  (EDIPI – Web Service) |
| Return Parameter | eMISveteranStatusResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getMilitaryServiceEpisodes

| Operation Name | getMilitaryServiceEpisodes |
| --- | --- |
| Description | This operation takes person identifier and returns Military Service Episode data (RRC 637011) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISserviceEpisodeRequest  (EDIPI – Web Service) |
| Return Parameter | eMISserviceEpisodeResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getGuardReserveServicePeriods

| Operation Name | getGuardReserveServicePeriods |
| --- | --- |
| Description | This operation provides Guard/Reserve Service Periodinformation for supplied identifier (RRC 637945) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISguardReserveServicePeriodsRequest  (EDIPI – Web Service) |
| Return Parameter | eMISguardReserveServicePeriodsResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getDeployment

| Operation Name | getDeployment |
| --- | --- |
| Description | This operation provides deployment information for supplied identifier (RRC 637945) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISdeploymentRequest  (EDIPI – Web Service) |
| Return Parameter | eMISdeploymentResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getMilitaryOccupation

| Operation Name | getMilitaryOccupation |
| --- | --- |
| Description | This operation provides military occupation information for supplied identifier (RRC 637945) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISmilitaryOccupationRequest  (EDIPI – Web Service) |
| Return Parameter | eMISmilitaryOccupationResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getUnitInformation

| Operation Name | getUnitInformation |
| --- | --- |
| Description | This operation provides unit information for supplied identifier (RRC 637945) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISunitInformationRequest  (EDIPI – Web Service) |
| Return Parameter | eMISunitInformationResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getRetirement

| Operation Name | getRetirement |
| --- | --- |
| Description | This operation takes person identifier and returns retirement information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | Retire eMISretirementRequest  (EDIPI – Web Service) |
| Return Parameter | eMISretirementResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getCombatPay

| Operation Name | getCombatPay |
| --- | --- |
| Description | This operation takes person identifier and returns combat pay information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMIScombatPayRequest  (EDIPI – Web Service) |
| Return Parameter | eMIScombatPayResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

Table : getReserveDrillDays

| Operation Name | getReserveDrillDays |
| --- | --- |
| Description | This operation takes person identifier and returns reserve drill days’ information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISreserveDrillDaysRequest  (EDIPI – Web Service) |
| Return Parameter | eMISreserveDrillDaysResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

* Table : getSeperationPay

| Operation Name | getSeperationPay |
| --- | --- |
| Description | This operation takes person identifier and returns separation pay information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISseparationPayRequest  (EDIPI – Web Service) |
| Return Parameter | eMISseparationPayResponse |
| Fault | SOAPError (See Section 2.2.1.1 Error Handling) |

* Table : getRetirementPay

| Operation Name | getRetirementPay |
| --- | --- |
| Description | This operation takes person identifier and returns retirement pay information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISretirementPayRequest  (EDIPI – Web Service) |
| Return Parameter | eMISretirementPayResponse |

* Table : getDisabilities

| Operation Name | getDisabilities |
| --- | --- |
| Description | This operation takes person identifier and returns disability information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | eMISdisabilitiesRequest  (EDIPI – Web Service) |
| Return Parameter | eMISdisabilitiesResponse |

* Table : getDD214

| Operation Name | getDD214 |
| --- | --- |
| Description | This operation takes person identifier and returns DD214 information (RRC 695008) |
| Message Exchange Pattern | SOAP |
| Input Parameter | Reti eMISdd214Request  (EDIPI – Web Service) |
| Return Parameter | eMISdd214Response |

### Error Handling

All MIS errors will follow the SOAP Fault definitions as described in this section.

When a Web service request is being processed, if an error is encountered, the nature of the error needs to be communicated to the client, or sender of the request. Because clients can be written on a variety of platforms using different languages, there must exist a standard, platform-independent mechanism for communicating the error.

The SOAP specification (available at [**http://www.w3.org/TR/soap/[Opens a new window](http://www.w3.org/TR/soap/)**](http://www.w3.org/TR/soap/)) defines a standard, platform-independent way of describing the error within the SOAP message using a *SOAP fault*. In general, a SOAP fault is analogous to an application exception. SOAP faults are generated by receivers to report business logic errors or unexpected conditions.

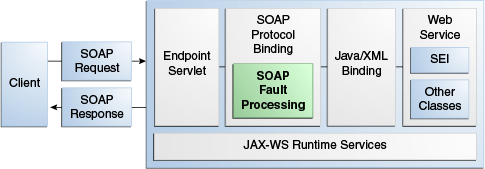
In JAX-WS, Java exceptions (**java.lang.Exception**) that are thrown by your Java Web service are mapped to a SOAP fault and returned to the client to communicate the reason for failure. SOAP faults can be one of the following types:

MIS implements the Modeled SOAP fault type which maps to an exception that is thrown explicitly from the business logic of the Java code and mapped to **wsdl:fault** definitions in the WSDL file, when the Web service is deployed. In this case, the SOAP faults are predefined.

The faults are returned to the sender only if request/response messaging is in use. If a Web service operation is configured as one-way, the SOAP fault is not returned to the sender, but stored for further processing.

The following illustrates how JAX-WS handles SOAP fault processing during SOAP protocol binding. The SOAP binding maps exceptions to SOAP fault messages.

***How SOAP Faults Are Processed***



### Contents of the SOAP Fault Element

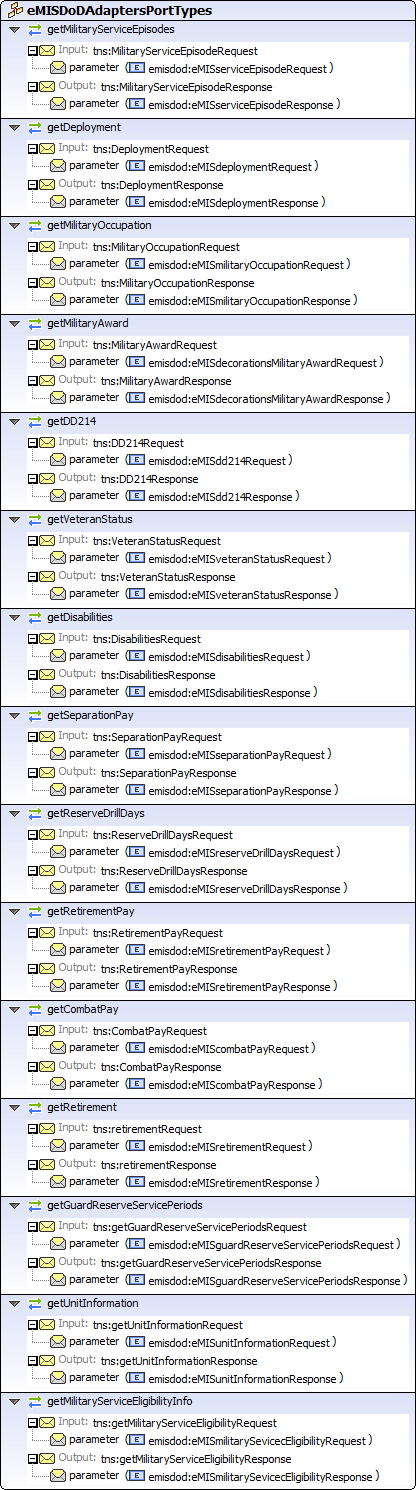
The SOAP **<Fault>** element is used to transmit error and status information within a SOAP message. The **<Fault>** element is a child of the body element. There can be only one **<Fault>** element in the body of a SOAP message.

### SOAP <Fault> Element Contents

|  |  |  |
| --- | --- | --- |
| Subelement | Description | Required? |
| env:Code | Information pertaining to the fault error code. The **env:Code** element consists of the following two subelements:   * **env:Value** * **env: Subcode**   The subelements are defined below. | Required |
| env:Value | Code value that provides more information about the fault. A set of code values is predefined by the SOAP specification, including:   * **VersionMismatch**—Invalid namespace defined in SOAP envelope element. The SOAP envelope must conform to the**http://schemas.xmlsoap.org/soap/envelope** namespace. * **MustUnderstand**—SOAP header entry not understood by processing party. * **Sender**—Message was incorrectly formatted or is missing information. * **Receiver**—Problem with the server that prevented the message from being processed. * **DataEncodingUnknown**—Received message has an unrecognized encoding style value. You can define encoding styles for SOAP headerblocks and child elements of the SOAP body, and this encoding style must be recognized by the Web services server. | Required |
| env:Subcode | Subcode value that provides more information about the fault. This subelement can have a recursive structure. | Optional |
| env:Reason | Human-readable description of fault.  The **<env:Reason>** element contains one or more **<Text>** elements, each of which contains information about the fault in a different language. | Required |
| env:Node | Information regarding the actor (SOAP node) that caused the fault. | Optional |
| env:Role | Role being performed by actor at the time of the fault. | Optional |
| env:Detail | Application-specific information, such as the exception that was thrown. | Optional |

### Process Model

This section contains a pictorial representation of the MIS web service portType elements (i.e., wsdl:operation, wsdl:input message, wsdl:output message and wsdl:fault).



## Interface Technical Specifications

Is there an ASD effort to implement the use of WebSphere Service Registry and Repository (WSRR) from an enterprise perspective?

### Service Invocation Type

SOAP over HTTP S

### Service Interface Type

WSDL via Web Service 1.1

### Service Name

MilitaryInformationService

### Interfaces

**Implementation and support for ICN has been descoped from this release of MIS and will be implemented at a later time. A service request containing an ICN will be rejected with an error.**

This section contains the WSDL for the suite of MIS Services documented in various section of this document.



### End Points

End point will be provided by the development team for each deployed environment (Dev.Test etc.).

### Message Schemas

This section contains the XSDs for the suite of MIS Services documented in various sections of this document.

Note : In the XML Schema (XSD), for all date type attributes, use the “yyyy-mm-dd” format.

****

### Schema Dependencies

The following diagram captures the various schema dependencies.



# Policies

A policy is an expression of constraints. This section details the currently identified General Policy definitions of the MIS suite of services. Additionally this section will define Policies that detail error processing and the appropriate remediation strategies that should be implemented by the MIS service consumer.

## General Service Policy

Security: Consuming apps of MIS are expected to comply with all provisions of VA Security Policy including VA Directive 6500.

Privacy: Consuming apps of MIS are expected to comply with all provisions of VA Privacy Policy including VA Directive 6500.

Reporting: Consuming apps of MIS are expected to include the MIS Program manager within the notification procedures in incident response plans. The MIS PM should be notified of security and privacy breaches within 24 hrs when a breach of the consuming application has a potential impact to MIS Service.

Access: Consuming apps of MIS are expected to develop appropriate controls for user and system accounts. Password and access procedures for these should follow VA directives.

Authorization: Consuming apps responsible for ensuring that personnel viewing PII through their system are appropriate based on VA policy, Need to know, and VA Policies and directives.

Boundaries: Consuming apps of the MIS Service should ensure that appropriate security measures are in place for PII and / or sensitive data outside these boundaries.

Non Repudiation: Consuming apps of MIS are expected to provide controls that link individual users with each MIS transaction with a reasonable amount of non repudiation.

Data Ownership: Consuming apps are responsible for all data accessed and security of any data extracts.

Interfaces / Services: Consuming apps will use HTTPS – Any connection outside the VA boundary HTTP- within the VA network.

## Error Processing and Appropriate Remediation Strategy Policy

The section will define Policies that detail error processing and the appropriate remediation strategies that should be implemented by the MIS service consumer.

Each error scenario will be defined using the following format:

**Response Results:**

* Result from web service invocation

**Completion State:**

* Successful
* Recoverable
* Non-recoverable

**Remediation Strategy:**

* Appropriate remediation strategy

## Error Codes

|  |  |  |
| --- | --- | --- |
| Error Code |  | Code Description (text) |
| MIS-ERR-001 | MISSING\_ICN | Invalid Request – No ICN Provided |
| MIS-ERR-002 | MISSING\_EDIPI | Invalid Request – No EDIPI Provided |
| MIS-ERR-003 | INVALID\_IDENTIFIER | Invalid Parameter Identifier |
| MIS-ERR-004 | ICN\_BAD\_FORMAT | ICN Incorrectly Formatted |
| MIS-ERR-005 | EDIPI\_BAD\_FORMAT | EDIPI Incorrectly Formatted |
| MIS-ERR-006 | ICN\_NOT\_FOUND | ICN not recognized by MVI |
| MIS-ERR-007 | NO\_CORRESPONDING\_EDIPI | No EDIPI returned from MVI |

# Service Level Definition

## General Provisions

This section will provide General Provision information for consumers of the MIS suite of services

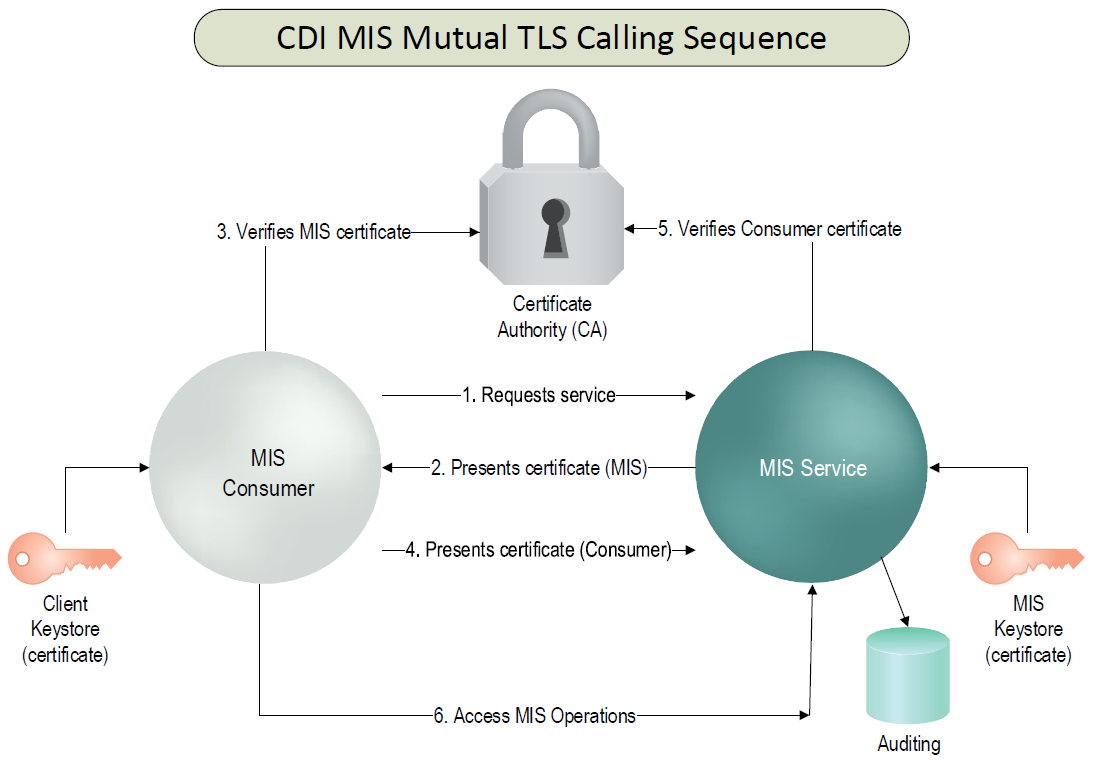
### Security Level

The following diagram depicts the security protocols used by the MIS services. MTLS via SOAP is used to initiate the handshake between the service consumer and MIS. All subsequent communication between the various components throughout the VIERS system components are also conducted through MTLS protocol via SOAP. The communication between the Weblogic cluster and VADIR as the source database is through JDBC/MTLS. The directional arrows shown are the connection initiation pathways between systems.



### MIS MTLS Calling Sequence

The following depicts the MIS Mutual TLS Calling Sequence in order for the Consumer to be able to access the MIS operations. The sequence begins with a service request from the consumer to the MIS service (#1). The MIS service presents its certificate to the consumer (#2). The consumer verifies the authenticity of the MIS certificate with the VA Certificate Authority (#3). The consumer then presents its certificate to the MIS service (#4). MIS then verifies the authenticity of the consumer certificate with the VA Certificate Authority (#5). Finally, the consumer is granted access to the MIS operations to execute (#6). The sequence as described below will occur only at the initial service request by the consumer. Thereafter, the session will cached by the MIS web service and all subsequent operations will not require further authentication.



### Service Level for Supporting Operations

Service Level Agreements (SLAs) for CDI/VIERS are in place and fully funded for FY16.

VIERS is designated as Routine Support for Disaster Recovery (DR). The DR location is at the Hines Information Technology Center (HITC). This level of support will acquire replacement processing capacity after an AITC disaster declaration.  The recovery time objective (RTO) is that it will be operational when the AITC resumes regular processing services or no later than 30 days after a disaster declaration. The recovery point objective (RPO) is 24 hours, and data will be restored from the last backup.

The Introscope monitoring tool will be used in production. New dashboards and alerts are created as a part of the deployment and will be set up for Increment 1. Each Interface Control Document (ICD) will be reviewed to set the appropriate service alert level.

### Change and Release Management

Change and release management of the service artifacts owned by the TI team will be implemented using a VA SharePoint repository. Artifacts that are categorized as in a development state, by the TI team, will be hosted by the TI team’s internal SharePoint repository until which time the artifacts can be promoted to the VA SharePoint repository.

Artifacts owned by the development team will be maintained using their Change and Release Management infrastructure.

Deployments to the appropriate environments will be the responsibility of the development team.

Unit testing will be the responsibilities of the development team.

Integration testing, load testing and if necessary pre-production system feature testing will be done by the TI team.

### Conflict Resolution

The Parties agree to make all reasonable efforts, in good faith, to resolve any dispute arising from implementation of this Service Description and the Service Level Agreement signed by the parties through informal discussions and the development of mutually satisfactory options.

Matters that cannot be resolved at the working level or that impact on multiple areas of interest will be referred to the Triage Team for decision.

## Performance

### Availability

### Definition

99.9% (8.76 hours down time) 24x7

### Measurements

MIS is designed to meet the SLAs agreed upon with the business. Service measurements will be available through the Enterprise Operations team via existing reporting tools. There are no additional requirements for MIS in these areas

### Scheduled Maintenance

Overnight between the hours of 12 AM and 5 AM CST

### Unscheduled Maintenance

All unscheduled downtown counts against availability. Notice will be sent in advance outage if possible, to the service reporting mail group [***To***](file:///C:/Documents%20and%20Settings/vhaiswmongeg/My%20Documents/VRM/SOA%20related%20templates/Example.rx.stats.rss.va.gov) ***Be Determined***, and via ANR.

Notice will be sent again when the service is online and operational.

### COOP and DR

This service will be hosted in the VIERS environment on VIERS application servers and ESB. The COOP and DR for VIERS is pending review by the VIERS ISO to determine the impact of adding CDI to the existing VIERS ATO. Information is forthcoming,

### Responsiveness and Latency

### Percentage Time Latency Allowed

The following information is based on the BRD defined requirement of 6 million calls per year and the understanding that these services will need to support significantly higher rates during common high-demand times.

Table : Percentage Time Latency Allowed

| **Operation** | **Guarantee** | **Degraded** | ***Percent Guarantee*** | **Details** |
| --- | --- | --- | --- | --- |
| getMilitarySvcEligibilityInfo | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getVeteranStatus | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getMilitaryServiceEpisodes | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getGuardReserveServicePeriods | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getDeployment | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getMilitaryOccupation | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getUnitInformation | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getPayGrade | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getRetirement | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getCombatPay | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getReserveDrillDays | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getSeperationPay | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getRetirementPay | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getDisabilities | 1000ms | >250ms | 99 | Based on 1M calls/year |
| getDD214 | 1000ms | >250ms | 99 | Based on 1M calls/year |

### Measurement

Measurement of the latency will be gathered from the application server(s) hosting the service logic. Each service will measure and log the amount of time the service call takes to provide the response.

### Processing Rates and Capacity Levels

The following information is based on the BRD defined requirement of 1 million calls per year and the understanding that these services will need to support significantly higher rates during common high-demand times. A Poisson distribution of the 1 million calls/year was performed and the guarantee was selected at the 99th percentile. Degraded was considered less than 3x the guarantee.

A Poisson distribution provides the probability that an event occurs over an interval, following the formula:

P(k events in interval) = \frac{\lambda^k e^{-\lambda}}{k!}

where

*  \lambda is the average number of events per interval
* *e* is the number 2.71828... ([Euler's number](https://en.wikipedia.org/wiki/E_(mathematical_constant))) the base of the natural logs
* *k* takes values 0, 1, 2, …
* *k*! is the [factorial](https://en.wikipedia.org/wiki/Factorial) of *k* = k \* (k-1) \* (k-2) … \* 2 \* 1

For 6 million requests per year and using our peak 15 hours a day (0600-2100),  \lambda  = 1000000/(60\*60\*15\*365) = .0508

Looking for the 99th percentile, solve the following for k

.01 = (((.0508^k)\*(2.71828^-.0508))/k!)

y = (((.0508^x)\*(2.71828^-.508))/x!) and look for the y=.01 location.

Table : Performance and Capability Level Metrics

| Operation | Guarantee | Degraded | Maximum Percent Degraded | Details |
| --- | --- | --- | --- | --- |
| getMilitarySvcEligibilityInfo |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getVeteranStatus |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getMilitaryServiceEpisodes |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getGuardReserveServicePeriods |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getDeployment |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getMilitaryOccupation |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getUnitInformation |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getPayGrade |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getRetirement |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getCombatPay |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getReserveDrillDays |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getSeperationPay |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getRetirementPay |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getDisabilities |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |
| getDD214 |  | <10 calls/sec | 20% | Based on 1M calls/year. 99th percentile Poisson distribution. |

### Measurement

Measurement of the processing rate will be gathered from the application server(s) hosting the service logic. Each service will log upon the completion of a service call. These logs will be gathered from all servers to provide the processing rate.

## Support

### Service Level Management

### Service Level Issue Management

See below in 4.3.1.2. The National Service Desk (NSD) will be used for the initial reporting of a problem or issue by the consumer/user of the MIS service. The NSD then assigns a problem ticket number and will address or raise it to the CGS Administrative Tier II/III help desk. The CGS technical team will then begin the analysis in line with 4.3.1.2 below.

### Help Facilities

It is expected the National Service Desk (NSD) will be used for the initial reporting of a problem or issue. The NSD then assigns a problem ticket number and will address or raise it to the CGS Administrative Tier II/III help desk. This is a part of the CGS contract and is Tier II/III. Note the NSD will need to be coordinated with related to new categories of CIS tickets and email groups used to send the tickets to. The current NSD is set up for D2D tickets only.

Response times are set in the CGS contract as:

Available Monday through Friday from 8:00am to 5:00pm EST. Closed on weekends and all Federal Holidays.

There are two ways to contact the CGS HD:

1. Phone (number needs to be assigned): If a technician is not available, the customer shall have the option to leave a voice message. The HD shall respond to the voice message within two hours during the hours of operation.

2. Email via a system administrator email group to be provided by VA (NSD groups). The HD shall respond to email requests within two hours of the request when received during the hours of operations. Responses to emails received after the normal hours of operation shall be made within two hours of the start of the next business day within the hours of operation.

More specifics are:

Provide Tier 2 support of the production system by performing technical analysis and resolution of software defects impacting critical system functionality. If Tier 2 support is needed, the expectation is that a response would be made within 2 hours to start the analysis to determine if there is a production outage. In the case of a production outage, the expectation is a 2 hour response time and the team would be working in conjunction with VA CDCO. Tier 3 support is provided by the VA product development team.

Provide Tier 3 problem resolution in support of VIERS and VADIR O&M and Tier 1 and Tier 2 help services. The Contractor shall respond to routine VIERS and VADIR incident reports within 2 business days of receiving an incident notification. The Contractor shall respond to emergency incident reports within 12 business hours of receiving an incident notification.

### Notification

Notifications are sent out by the NSD Incident Management team to their email group or groups.

The CGS HD would (as authorized) communicate with the reporting customer on the status of their ticket and or on more specifics related to the problem being encountered. Communication will be either via phone or email, with email being the priority so that problem or incident tracking is accomplished.

### Escalation

There is no set escalation process from the CGS team standpoint. Specific capacity needs for CIS and or usage profiles are unkown. Expect this type of process needs to be developed.

### Usage Management

CGS develops the web service that are the middle tier between the user front end and the storage/information repository. CGS is not aware of usage profiles. CGS works with the AITC EO team for Interscope monitoring of the web services, CPU, and memory utilization. These reports are sent to the CGS technical team as required on a set schedule. The AITC also monitors utilization and reports to CGS when thresholds are reached/exceeded.

### Escalation

There is no set escalation process from the CGS team standpoint. Specific capacity needs for MIS and or usage profiles are unkown. Expect this type of process needs to be developed

### Failure and Recovery

Failure and recovery fall under the VIERS support agreement with the AITC. This calls for a 30 day recovery of services in the event of a disaster at the AITC.

In the event a customer feels their data is not transmitted, the CGS team requests log files from the AITC and or interfacing systems of the MIS service and reviews them to track the data submitted and any errors. If required, the customer is then notified to retransmit if the initial data is lost. In the event of downtime, the customer requests will likely result in an error response and the requests will need to be retransmitted once the service or interfacing systems are back on line and operational.

## Metrics and Reporting

MIS is designed to meet the SLAs agreed upon with the business. Service metrics will be available through the Enterprise Operations team via existing reporting tools.

### Service Level Metrics

1. Service Availability as up time or down time
2. Number of requests by operation by hour
3. Graph of requests by operation by hour to show peak usage

### Business Metrics

1. The number of DPRIS declines over time
2. Random sampling of personnel or surveys that show that the need for the Veteran to provide the paper DD214 has diminished
3. The number of correction requests submitted is greater than 0
4. The number of additional information submissions is greater than 0
5. The number of military service changes based on automated notifications processed is greater than zero
6. The number of AMSR changes processed is greater than zero

### Management Reports

The EO group makes available detailed reports by service and operation that include metrics and graphs of service performance including:

* Transaction processing time
* Number of transactions by hour with minimum and maximum response time
* Average response time and percentile analysis
* Actual vs. SLA comparisons

## Responsibilities

This service will be hosted in the VIERS environment on VIERS application servers and ESB. As a result It will follow the existing party responsibilities paradigm defined for VIERS.

### Service Provider

### Capacity Planning

The service being built is a web service and the utilization of that is monitored by the AITC’s Introscope Tool. Introscope reports are sent daily for review on utilization of the services being supported. Based on the results, a capacity analysis and planning document is developed every six (6) months as prescribed in the web service developers contract. The VA PMO for CGS would then be able to share the document. Also based upon the results, and using VA-approved capacity modeling tools, server utilization trends will be measured and future capacity needs will be analyzed. The latter helps predict server requirements for a given application, service, or general time period. Workload will be defined, including the unit of work and identification of service level for each workload. Capacity planning includes measurements of such service levels, and comparison to objectives. Capacity planning also includes measurements of overall resource usage, and component response time.

### Service Testing

The web service developer provides limited integration testing as a part of its development process and deployment to the Cert environment. The end to end integration testing is then performed during UAT and by the Technical Integration (TI) team as part of the process.

### Additional Provider Responsibilities

No additional responsibilities are defined.

### Service Consumer

### Capacity Planning

The wording of this section should be determined by TI in discussion with the current/planned consumers.

### Increased Usage

The wording of this section should be determined by TI in discussion with the current/planned consumers.

### Unusual Load Conditions

The wording of this section should be determined by TI in discussion with the current/planned consumers.

### Service Updates

Consumers will migrate to new version of the service within *x* time to ensure the most recent improvements are utilized. Older services will be deprecated and removed from service per notifications.

### Service Testing

Consumers agree to test updates to the service during defined integration testing windows in the Cert and Preprod environments as part of the User Acceptance Testing (UAT).

### Additional Consumer Responsibilities

No additional responsibilities are defined.

## Billing Details

There will be invoicing for the use of MIS. The VA will transfer invoiced funds to a specific account dedicated for this purpose. This will allow for funds to be tracked.

# Standards Complied or Used

|  |  |  |
| --- | --- | --- |
| Standard | Version | Comments |
| [VA Handbook 6500](http://vaww.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FType=2) | Jun-05 | VA Information Security Handbook |
| [VA Technical Reference Model](http://www.va.gov/trm/) | v16.2 | Approved products |
| [FISMA](http://www.gpo.gov/fdsys/pkg/STATUTE-116/pdf/STATUTE-116-Pg2899.pdf) | Jun-05 | Federal Security Act |
| [FIPS 199](http://www.nist.gov/manuscript-publication-search.cfm?pub_id=150439) | Jun-05 | Standards for Security Categorization of Federal Information and Information Systems |
| [FIPS 200](http://www.nist.gov/manuscript-publication-search.cfm?pub_id=50835) | Jun-05 | Minimum Security Requirements for Federal Information and Information Systems |
| [NIST 800-53](http://dx.doi.org/10.6028/NIST.SP.800-53Ar4) | Jul-05 | Security and Privacy Controls for Federal Information Systems and Organizations |
| [NIST 800-59](http://csrc.nist.gov/publications/nistpubs/800-59/SP800-59.pdf) | Jun-05 | Guideline for Identifying an Information System as a National Security System |
| [NIST 800-60](http://csrc.nist.gov/publications/nistpubs/800-60-rev1/SP800-60_Vol1-Rev1.pdf) | Jul-05 | Guide for Mapping Types of Information and Information Systems to Security Categories |
| [Enterprise Secure Messaging Enterprise Design Pattern](http://www.techstrategies.oit.va.gov/docs/designpatterns/AAA%20Enterprise%20Secure%20Messaging%20Design%20Pattern_Ver_1_05142015_508.pdf) | Aug-15 | SOA message security |
| [Non-Person Entity Security Enterprise Design Pattern](http://www.techstrategies.oit.va.gov/docs/designpatterns/1.5%20Non-Person%20Entity%20Security%20Design%20Pattern%20%2810-20-2015%29.pdf) | Nov-15 | System to System security. |
| [Enterprise Auditing Enterprise Design Pattern](http://www.techstrategies.oit.va.gov/docs/designpatterns/1.6%20Enterprise%20Auditing%20Design%20Pattern%20(020116)_final.pdf) | Feb-15 | Enterprise auditing of systems. Primarily aimed at OS and device level audit. |
| [Enterprise Messaging Capabilities and Message Exchange Patterns Enterprise Design Pattern](http://www.techstrategies.oit.va.gov/docs/designpatterns/VA%20Enterprise%20Design%20Patterns%20-%20Overview%20of%20Enterprise%20Messaging%20Capabilities%20and%20Message%20Exchange%20Patterns%20-%20FINAL%20(4-22-15)_508.pdf) | Feb-15 | Enterprise messaging design patterns |
| [Enterprise SOA Enterprise Design Pattern](http://www.techstrategies.oit.va.gov/docs/designpatterns/2.5%20Enterprise%20SOA%20Design%20Pattern%20(10-20-2015).pdf) | Oct-15 | Core enterprise pattern that defines ESS. |
| [WSDL 1.1](https://en.wikipedia.org/wiki/Web_Services_Description_Language) |  | Web Services Description Language |
| [SOAP 1.2](https://en.wikipedia.org/wiki/SOAP) |  | Simple Object Access Protocol |
|  |  |  |

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VA Process Management. (n.d.). ProPath 508 Process Maps. *ProPath Project Initiation.docx(ProPath Release 25)*. Retrieved September 24, 2015, from ProPath.

VA. (n.d.). VA Handbook 6500. *VA Handbook 6500.pdf*. Retrieved March 2016, from http://www.va.gov/vapubs/viewPublication.asp?Pub\_ID=342&FType=2

Note that WebSphere MessageBroker is using Java 1.6.

**IHE HL7 v3.0 PIX/PDQ** (<http://www.ihe.net/Technical_Framework/upload/IHE_ITI_Suppl_PIX_PDQ_HL7v3_Rev2-1_TI_2010-08-10.pdf>)

**XSD**

<ftp://ftp.ihe.net/TF_Implementation_Material/ITI/schema/HL7V3/NE2008/multicacheschemas/>

**SOAP**

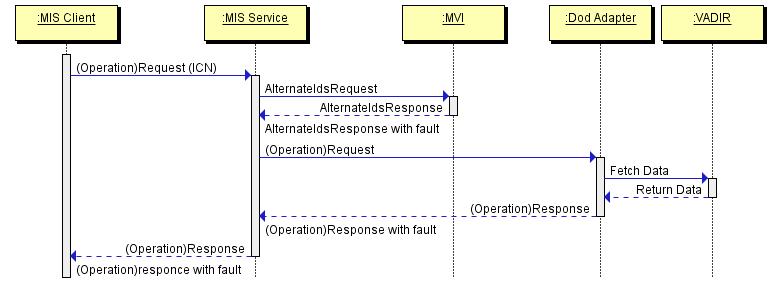
(<http://www.w3.org/TR/soap/>)

**HL7**

(<http://www.hl7.org/>)

# Scope Postponed

Sequence Diagram with ICN (Applies to all operations)



# Appendix A

**Title 38 Status Code Translation**

V1 = Title 38 Veteran

V2 = VA Beneficiary

V3 = Military Person, not Title 38 Veteran, NOT DoD-Affiliated

V4 = Non-military person

V5 = EDI PI Not Found in VADIR (service response only not stored in table)

V6 = Military Person, not Title 38 Veteran, DoD-Affiliated

Notes: 1. V3 and V6 are currently all translated to V3 in eMIS and in the SR-147 service, meaning a generic Military Person, not Title 38 Veteran, with no ability to differentiate DoD-Affiliated from NOT DoD-Affiliated. Recommend this be changed.

2. These values not currently included in this release they might be added to the service in future release. They are included here for information purposes only.