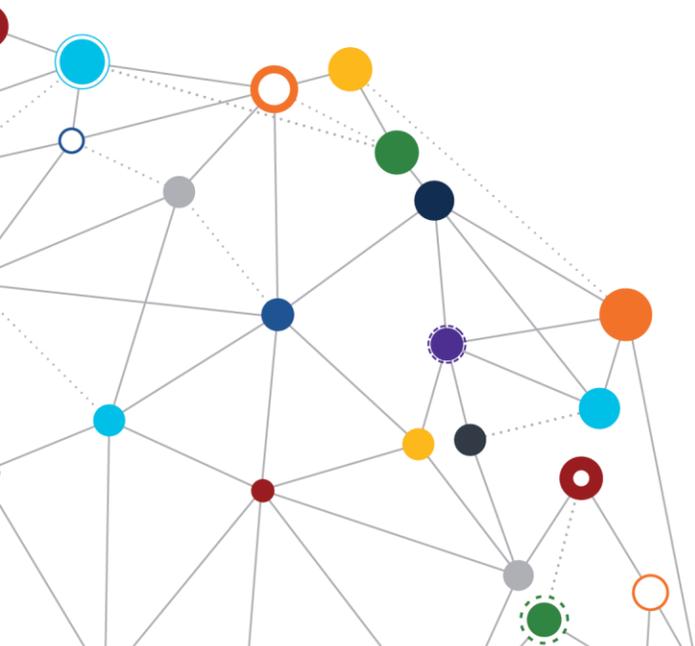


OFFICE OF  
INFORMATION  
AND TECHNOLOGY

# Application Programming Interface (API) Enterprise Design Pattern

*API Release Standard*

February 2019 | Enterprise Program Management Office



**VA**



U.S. Department of Veterans Affairs  
Office of Information and Technology



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*Table 1: Change Matrix*

Version	Date	Description of Updates
<b>1.0</b>	6/29/2018	API EDP Segment 2 document approved
<b>2.0</b>	2/22/2019	Updated implementation, tools, testing, inventory guidance

## 1 Context

Application programming interfaces (APIs) enable business agility across the Department of Veterans Affairs (VA). The practice of *consistently applying standard approaches* to developing and releasing APIs, enables VA project teams to adapt to change, implement new capabilities, and reuse existing capabilities. The outcome provides the ability to efficiently and expeditiously enhance valuable information technology (IT) functionality to the VA community, improving services to our Nation's Veterans.

## 2 Problem

Currently, there are challenges in adopting, developing, and implementing APIs within VA. This includes a *lack of centralized resources and standardized methods* for indexing, accessing, and invoking APIs.

## 3 Approach

To resolve the current VA API challenges, this document focuses on *API standard guidance and practices* for the *Product Phase of development*, which is depicted as part of the VA's Veteran-focused Integration Process (VIP) Lifecycle in Figure 1. Projects may benefit from considering this information in earlier or later API lifecycle stages.

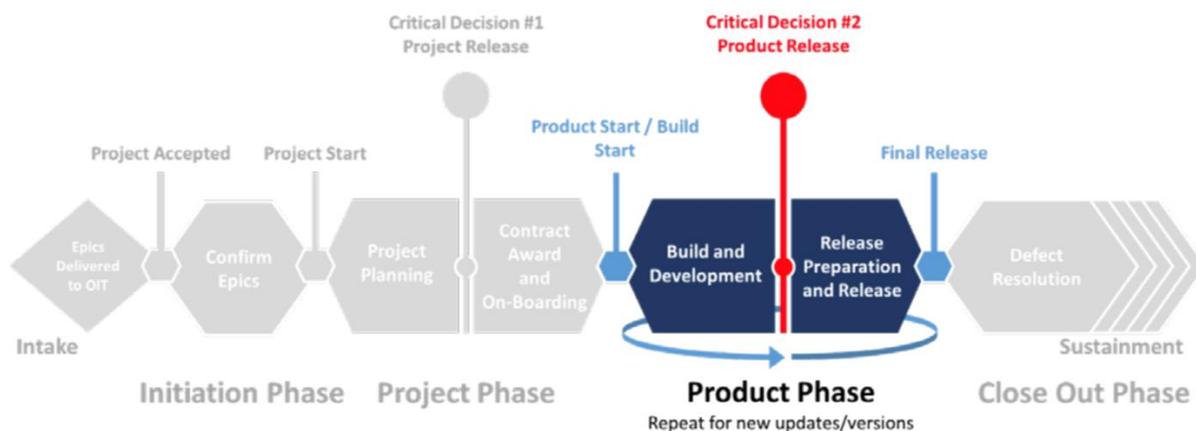


Figure 1: Product Phase Activities within the VA VIP Lifecycle

Activities that make up each project's build can be divided into the following phases: design, develop, test, and release.<sup>1</sup> This is an *iterative* process that may be repeated multiple times for new developments and for improvements upon existing APIs and services.

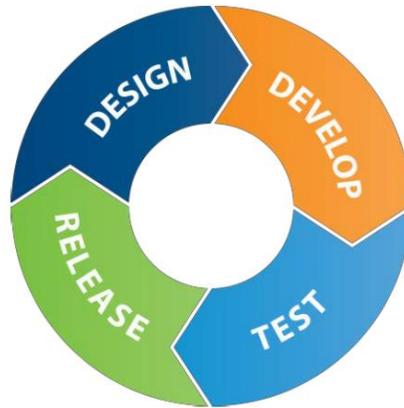


Figure 2: Build Development Lifecycle

### 3.1 Complete Design Phase Activities

During the design phase activities, VA project teams should:

- Where possible, use RESTful APIs,<sup>2</sup> and document them using attributes in the OpenAPI specifications.<sup>3</sup> Refer to the *API Documentation* and *Documenting API Security* Enterprise Design Patterns (EDP) for guidance.<sup>4</sup> Software tools are available to facilitate the creation of this documentation.
- Plan to deploy sandboxes,<sup>5</sup> virtual environments, and testing tools to aid developers in *testing API functionality*. Developers should provide self-service access to APIs so that other developers can more easily integrate, test, and iterate. Note that pre-production environments and developmental software should take precautions not to misuse personally identifiable information (PII), protected health information (PHI), or other protected information. One technique used to avoid data leaks is to use *example* data

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<sup>1</sup> These activities are based on the VA Veteran-focused Integration Process, version 3.2, page 15, product phase activities; they are also generally applicable to alternative development approaches. Projects that use a modified version of this development process may find value in select phases of this activity (e.g., acquisition heavy projects may benefit mostly from the test and release activities).

<sup>2</sup> RESTful APIs are based on the Representational State Transfer (REST) architectural style.

<sup>3</sup> For more information on OpenAPI specification, refer to <https://github.com/OAI/OpenAPI-Specification>.

<sup>4</sup> Refer to the *API Documentation* EDP at <https://www.oit.va.gov/library/recurring/edp/>.

<sup>5</sup> For more information on using the sandbox service of the VA's API Developer Portal, refer to <http://portal.lighthouse.vaftl.us/#!/getting-started>.

that is free of PII or PHI; project teams should avoid PII or PHI in pre-production environments.

- Create and use an automated build pipeline process to facilitate delivery of each version of the API and service. Such a pipeline can facilitate planning, development, and building; continuous integration; testing; deployment; and release; and continuous inspection and monitoring. Use of these tools can aid in debugging the API codebase. In the future, features of an automated build pipeline may be provided by the VA API Management Group.
- When conducting initial architecture and design activities, research existing VA APIs to identify reuse opportunities. Teams should reference the following repositories:
  - The VA API Developer Portal<sup>6</sup>
  - The Enterprise Services Collaboration Portal (ESCP)<sup>7</sup>
  - The VA Enterprise Architecture Repository (VEAR)<sup>8</sup>
  - WebSphere Service Registry and Repository (WSRR)<sup>9</sup>
  - Integration Hub<sup>10</sup>
- Consult relevant external and public support communities when using third party or open data APIs.
- For applications processing health information, use the Health Level Seven (HL7) Fast Healthcare Interoperability Resources (FHIR) standard,<sup>11</sup> and the Substitutable Medical Applications Reusable Technology (SMART)<sup>12</sup> standard in API and service design.
- Design the API with a focus on its purpose (e.g., presentation/experience, orchestration, or system) to support reasoning and decision-making for implementation/security.<sup>13</sup> This affects the planning, design, security, traffic management, and other considerations for the API.
- Analyze privacy implications for documenting APIs throughout VA. Each individual API program with privacy implications should have a documented privacy threshold analyses

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<sup>6</sup> Refer to the VA API Developer Portal at <https://developer.va.gov>.

<sup>7</sup> APIs used by internal VA projects and teams should be documented in the ESCP at <https://escp.va.gov>. The catalog is accessible from multiple venues (e.g., use the search functionality and select the icon next to the service catalog title to download the entire current catalog as a CSV file, or collect the catalog from the Reports page).

<sup>8</sup> Refer to the VEAR at <https://vaausdarapp82.aac.dva.va.gov/ee/request/home>. Also, refer to the OMB API Report in VEAR at <https://vaausdarapp41.aac.dva.va.gov/ee/request/filter?id=29247&pageSize=20>.

<sup>9</sup> Refer to WSRR at <https://vaausemiihtwgdev12.aac.va.gov/ServiceRegistryDashboard>.

<sup>10</sup> Refer to the Integration Hub at

<https://qacrmnac.np.crm.vrm.vba.va.gov/WebParts/Documentation/Documentation/ServiceIndex>.

<sup>11</sup> For more information on the HL7 FHIR standard, refer to <https://www.hl7.org/fhir/index.html>.

<sup>12</sup> For additional information on SMART, refer to the SMART Application Authorization Guide at <http://docs.smarthealthit.org/authorization/>.

<sup>13</sup> Typically, an organization has one public facing entry into a given data or business orchestration/choreograph of supporting APIs that are lower level and not typically exposed to sets of domain consumers.

(PTAs) and privacy impact assessments (PIAs).<sup>14</sup> These may necessitate the need for access management tools, such as audit logs.

- Design the API to maintain consistency in nomenclature and methods across the VA and with related APIs.
- Consider designs that are decomposed into individual functions and methods that are easier to use rather than creating a large monolith API.<sup>15</sup>

### 3.2 Complete Develop Phase Activities

When completing development phase activities for APIs and the associated services,<sup>16</sup> project teams should consider the following:

- Consult the VA repositories during architectural and design activities to investigate options for reusing existing APIs. These repositories include the following:
  - VA API Developer Portal<sup>17</sup>
  - ESCP<sup>18</sup>
  - VEAR<sup>19</sup>
  - WSRR<sup>20</sup>
  - Integration Hub<sup>21</sup>
- Create example code for subsequent teams to reuse the API in the future. Project teams should also begin documenting the API<sup>22</sup> and should create training material.
- Implement the service or services that the API calls in a scalable manner through a platform, such as the VA Enterprise Cloud (VAEC);<sup>23</sup> or Veterans Data Integration and

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<sup>14</sup> Refer to OMB Memorandum 03-22 at [https://obamawhitehouse.archives.gov/omb/memoranda\\_m03-22/](https://obamawhitehouse.archives.gov/omb/memoranda_m03-22/).

<sup>15</sup> For additional information, refer to the *Microservices* EDP at [https://www.oit.va.gov/library/programs/ts/edp/cloud/Microservices\\_V1.pdf](https://www.oit.va.gov/library/programs/ts/edp/cloud/Microservices_V1.pdf).

<sup>16</sup> The API is an interface to services that perform IT processing and management.

<sup>17</sup> Refer to the VA API Developer Portal at <https://developer.va.gov>.

<sup>18</sup> Refer to the ESCP at <https://escp.va.gov>. The catalog is accessible from multiple venues (e.g., use the search functionality and select the icon next to the service catalog title to download the entire current catalog as a CSV file, or collect the catalog from the *Reports* page).

<sup>19</sup> Refer to the VEAR at <https://vaausdarapp82.aac.dva.va.gov/ee/request/home>. Also, refer to the OMB API Report in VEAR at <https://vaausdarapp41.aac.dva.va.gov/ee/request/filter?id=29247&pageSize=20>.

<sup>20</sup> Refer to WSRR at <https://vaausemiihtwgdev12.aac.va.gov/ServiceRegistryDashboard>.

<sup>21</sup> Refer to the Integration Hub at <https://qacrmnac.np.crm.vrm.vba.va.gov/WebParts/Documentation/Documentation/ServiceIndex>

<sup>22</sup> Refer to the *API* EDP segment, *API Documentation Standard*, at [https://www.oit.va.gov/library/files/edp/apis/APIEDP\\_DocumentationStandard\\_v1.pdf](https://www.oit.va.gov/library/files/edp/apis/APIEDP_DocumentationStandard_v1.pdf).

<sup>23</sup> For more information on VAEC, refer to the VAEC SharePoint Site at <https://vaww.portal.va.gov/sites/ECS/SitePages/Home.aspx>. VAEC is intended to be the main platform for the hosting of cloud services.

Federation Enterprise Platform (VDIF-EP); to support VA enterprise and partner adoption.<sup>24</sup>

- When using open data or third-party APIs, follow the security guidelines and implementation practices offered by the providing organization.
- Where possible, use standard data interchange formats in API implementations (e.g., JavaScript Object Notation (JSON), Extensible Markup Language (XML)).
- Design APIs with the technical safeguards specified by the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and its subsequent rulings. Implement procedures and controls specified in the National Institute of Standards and Technology (NIST) Special Publication 800-66 Rev 1, *An Introductory Resource Guide for Implementing the Health Insurance Portability and Accountability Act (HIPAA) Security Rule*.<sup>25</sup> These actions will ensure that API data exchanges properly handle PHI, PII, and personal health records (PHR).
- Use authorization and authentication for API access and communications. Further details on documentation are provided in the *Documenting API Security* EDP and by other security-focused EDPs.<sup>26</sup>
- Align project efforts that invoke or consume APIs with the VA mission, initiatives, strategy, and governance.<sup>27</sup> The efforts should include alignment to VA Enterprise Architecture (EA). The APIs should be aligned to services for Veterans and have a Veteran-focus.
- Align implementation to agile value processes, including epics and user stories.<sup>28</sup>
- When integrating with the VA API Management Platform, consult example code.<sup>29</sup>

### 3.3 Complete Test Phase Activities

VA projects should test APIs according to the following guidelines:

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<sup>24</sup> For more information on cloud implementation, refer to the *Platform-as-a-Service (PaaS)* EDP at [https://www.oit.va.gov/library/programs/ts/edp/cloud/PlatformasaService\\_v1.pdf](https://www.oit.va.gov/library/programs/ts/edp/cloud/PlatformasaService_v1.pdf); and *Software-as-a-Service (SaaS)* at [https://www.oit.va.gov/library/programs/ts/edp/cloud/SoftwareAsAService\\_V1.pdf](https://www.oit.va.gov/library/programs/ts/edp/cloud/SoftwareAsAService_V1.pdf)

<sup>25</sup> Refer to the National Institute of Standards and Technology (NIST) Special Publication 800-66 Rev 1, *An Introductory Resource Guide for Implementing the Health Insurance Portability and Accountability Act (HIPAA) Security Rule*, at <https://csrc.nist.gov/publications/detail/sp/800-66/rev-1/final>, October 2008.

<sup>26</sup> Copies of these documents can be found at <https://www.oit.va.gov/library/recurring/edp/>.

<sup>27</sup> Example: VA Digital Modernization Strategy, April 11, 2018, at [https://vawww.ea.oit.va.gov/wp-content/uploads/2018/08/DigitalModernizationStrategy\\_080118.pdf](https://vawww.ea.oit.va.gov/wp-content/uploads/2018/08/DigitalModernizationStrategy_080118.pdf).

<sup>28</sup> Refer to Section 4 of this document for more details on relevant user stories.

<sup>29</sup> When integrating with the VA API Management Platform, consult example code at <https://github.com/department-of-veterans-affairs/vet-api-clients>.

- Ensure that API implementations are testable, both as individual functional service units, and as an integrated service. Run testing before each commit to the software’s source code repository, and before each release.
  - Develop unit tests to verify the functionality of pieces of software.
  - Finalize with integration testing, showing overall API performance.
- Automate API testing using unit, integration, security, standards compliance, and performance testing tools.<sup>30</sup> These tools aid in testing edge cases, corner cases, conditional software flow, and circumstances that invoke multiple APIs. Complex APIs may also invoke a wide range of input parameters and conditions that are better tested in an automated fashion.<sup>31</sup>
- Separate testing activities from development activities to provide testers an objective position from which to evaluate an API and its underlying service.
- Use sandboxes, testing, and/or virtual environment tools to aid developers in testing the functionality of APIs prior to being deployed and placed in inventory.<sup>30</sup> Benefits of the utilization of a development sandbox include:
  - Available 24/7
  - Able to host multiple virtual APIs
  - Allows unlimited users to log in and use the virtual API
- Use the VA API Management Platform’s test accounts while developing each VA API platform-based application.
- Conduct both functional and security testing of VA APIs as a standard required practice.<sup>32</sup>

### 3.4 Complete Release Activities

Project teams completing release activities should look to the publishing and inventorying guidelines that follow for enterprise best practices.

#### 3.4.1 Publish APIs and Services

VA projects that implement APIs and the underlying services should:

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<sup>30</sup> Refer to the VA Technical Reference Model (TRM) to identify approved applications and standards on the internal VA network at <http://trm.oit.va.gov/>. External vendors may utilize a less comprehensive site at <https://www.oit.va.gov/services/trm/>.

<sup>31</sup> Refer to the ASG API Playbook for more details on unit testing at [https://github.com/department-of-veterans-affairs/ES-ASG/wiki/07.00-ASG\\_API-Playbook\\_Unit-Testing\\_Section](https://github.com/department-of-veterans-affairs/ES-ASG/wiki/07.00-ASG_API-Playbook_Unit-Testing_Section).

<sup>32</sup> For specific API security related testing and techniques, refer to the VA Application Programming Interface Security Pattern by the Cybersecurity Architecture Office of the Office of Information Security (OIS), June 2018.

- Use GitHub as a source code repository and community site for VA projects. Where possible, in accordance with Office of Management and Budget (OMB) Memorandum 16-21,<sup>33</sup> use the public VA GitHub presence<sup>34</sup> to promote open source initiatives. Otherwise, use the GitHub Enterprise service.<sup>35</sup> Additional information on Git and GitHub can be found in the ASG API Playbook.<sup>36</sup> Perform a code review of anything posted to GitHub to prevent accidental release of secrets including keys, passwords, and other restricted data.
- Where possible, use the standardized VA Terms of Service (TOS).<sup>37</sup>
- Ensure that cross-origin resource sharing (CORS) is supported for API proxies. CORS enables client-side cross-origin requests.<sup>38</sup>
  - CORS should be disabled for Representational State Transfer (REST) APIs, if cross-domain calls are not supported or required.
- Ensure that VA's Open Data APIs are published in the VA Open Data Portal and made public there.<sup>39</sup>
- Adhere to documentation guidelines from the API EDP segment, *API Documentation Standard*,<sup>40</sup> to include versioning (e.g., URI, String, Header, Media) and other specified parameters.
- Align to API management concepts described in the *API Management EDP*.<sup>41</sup>
- Make the API available in a self-service environment. Document a standardized path to production for use of the API.
- Where possible, include release notes with each release. These may aid the team and other future developers when performing API updates.

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<sup>33</sup> Refer to OMB Memorandum 16-21 at

[https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m\\_16\\_21.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m_16_21.pdf).

<sup>34</sup> VA's public GitHub presence is available at <https://github.com/department-of-veterans-affairs>.

<sup>35</sup> Enterprise GitHub enrollment is possible as a service request at

<https://vaww.portal.va.gov/sites/ECS/SitePages/Home.aspx>. For additional background information on GitHub, refer to GitHub Learning Lab at <https://lab.github.com/>.

<sup>36</sup> Refer to the ASG API Playbook at [https://github.com/department-of-veterans-affairs/ES-ASG/wiki/06.00-ASG\\_API-Playbook\\_Configuration-Management\\_Section](https://github.com/department-of-veterans-affairs/ES-ASG/wiki/06.00-ASG_API-Playbook_Configuration-Management_Section).

<sup>37</sup> Refer to VA terms of service, reviewed by the Office of the General Counsel (OGC), at

<https://developer.va.gov/explore/terms-of-service> and <https://github.com/department-of-veterans-affairs/vets-api-clients/blob/master/TermsOfService.md>.

<sup>38</sup> For more information on CORS, refer to <https://www.w3.org/TR/cors>.

<sup>39</sup> Refer to VA's Open Data Portal at <https://www.data.va.gov/>.

<sup>40</sup> Refer to the API EDP segment, *API Documentation Standard*, at

[https://www.oit.va.gov/library/files/edp/apis/APIEDP\\_DocumentationStandard\\_v1.pdf](https://www.oit.va.gov/library/files/edp/apis/APIEDP_DocumentationStandard_v1.pdf).

<sup>41</sup> Refer to the *API Management EDP* at <https://www.oit.va.gov/library/recurring/edp/>.

### 3.4.2 Inventory APIs and Services

The API inventory should be centralized and accessible. The inventory should include an accurate count and possess an accurate description for each API. The following is the standard for managing the API inventory within VA:

- Use the ESCP<sup>42</sup> or the API Developer Portal<sup>43</sup> as repositories for APIs.<sup>44</sup> In the future, these sites will be merged into one central repository across all of VA.
- Document any currently maintained or new APIs, using the set of attributes referenced in API EDP segments, *Documentation Standard* and *Documenting API Security*.
- Add information to the VA's enterprise data inventory, based on the VA's Open Data policy.<sup>45</sup> APIs are required to be listed in the enterprise data inventory.

## 4 Application

Project teams using the VIP,<sup>46</sup> or developing or retaining APIs, **must** comply with the approved standards in the VA Technical Reference Model (TRM);<sup>47</sup> and map to the DEA user stories below. Future changes in the standard will be reflected in the TRM; and in pertinent DEA user stories that are related to both API consumption and provisioning.

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<sup>42</sup> Refer to the ESCP at <https://escp.va.gov>.

<sup>43</sup> Refer to the API Developer Portal at <https://developer.va.gov>.

<sup>44</sup> The Office of Management and Budget (OMB) API Report in VEAR is referenced at <https://vausdarapp41.aac.dva.va.gov/ee/request/filter?id=29247&pageSize=20>. The API listing that VA provided to OMB is also listed in the VEAR.

<sup>45</sup> VA's Open Data Policy can be found at <https://www.data.va.gov/sites/default/files/7836847%20Quarterly%20Data%20Asset%20Collection%20Requirements.pdf>.

<sup>46</sup> Refer to the VIP) 3.1 Guide, April 2018, at <https://www.voa.va.gov/documentlistpublic.aspx?NodeID=27>.

<sup>47</sup> Refer to the VA TRM to identify approved applications and standards on the internal VA network at <http://trm.oit.va.gov/>. External vendors may utilize a less comprehensive site at <https://www.oit.va.gov/services/trm/>.

Table 2: DEA User Stories<sup>48</sup>

DEA User Story	Title	User Story Text	Relevant User Story Acceptance Criterion
DEA 04.24.01	Service Design and Documentation	As an Enterprise Architect, I need consistent and reusable service design and documentation so that interactions between systems are known, costs can be lowered through reuse, and consumer discovery.	(1/2)-100% of Enterprise Shared Services (ESS) are reviewed for compliance with published guidelines, including being published in the VA Service Registry, if applicable  (2/2)-100% of APIs that meet the OpenAPI specification standard <b>must</b> be documented according to the API Enterprise Design Pattern, <i>API Documentation Template</i> , and published in the VA Enterprise Architecture Repository (VEAR).
DEA 04.24.03	Conceptual Design Documentation	As an Enterprise Architect, I need a standardized architecture and engineering conceptual design so that stakeholders can determine whether the product concept meets real customer needs and is technically feasible. Standard conceptual diagrams provide consistent, reusable, and modifiable documentation, which support compliance reviews, maintainability, and security of the VA Enterprise.	(3/5)-The product architecture and design documentation includes a Conceptual Software Design Component Diagram that depicts the high-level software components of the product.

<sup>48</sup> Source: Design, Engineering, and Architecture (DEA) User Stories, version 2.3, October 11, 2018, at [https://vaww.portal2.va.gov/sites/asd/TechStrat/IPTS/External%20Documents/DEA%20User%20Stories%20v2.3%20\(ACTIVE\).doc](https://vaww.portal2.va.gov/sites/asd/TechStrat/IPTS/External%20Documents/DEA%20User%20Stories%20v2.3%20(ACTIVE).doc).

DEA User Story	Title	User Story Text	Relevant User Story Acceptance Criterion
<b>DEA 04.24.04</b>	Detailed Design Documentation	As an Enterprise Architect, I need standardized architecture and engineering detailed design so that stakeholders have consistent, reusable, and modifiable documentation, which supports compliance reviews, maintainability, and security of the VA Enterprise.	(4/5)-The product architecture and design documentation includes an Application Design Component Diagram that depicts the software components of the product, the attributes and operations, and the public and private interfaces.
<b>DEA 04.25.02</b>	Integration Control Registrations (ICRs) <sup>49</sup>	As an Enterprise Architect, I need Integration Control Registrations (ICRs) so that I have a mechanism for identifying and documenting integration points with VistA, including application logic available for reuse by consuming applications, while reducing the risk to custodial and consuming applications.	(1/2)-ICRs are in an active status prior to application installation in a production system.  (2/2)-Updates to ICRs are successfully completed without a negative impact to consuming applications.
<b>DEA 04.26.02</b>	Programming Standards	As an Enterprise Architect, I need software development to adhere to VA programming standards so that standards and best practices are followed, resulting in higher quality, readable, and maintainable source code.	(1/1)-All software solutions will be checked by automated source-code scans, the results of which are documented, using the VA Technical Reference Model (TRM) - approved software. Examples (subject to change) include XINDEX for M or Massachusetts General Hospital Utility Multi-Programming System (MUMPS); CheckStyle for Java; and StyleCop for .NET. Documented scan results should include errors and warnings. Results of scans

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<sup>49</sup> VistA ICRs help define the interactions of different VistA packages.

DEA User Story	Title	User Story Text	Relevant User Story Acceptance Criterion
			should be manually verified and corrected, as applicable.

Future updates of this document will reflect updates to the DEA compliance criteria to reflect the guiding principles for API release. Compliance with these standards apply to the following major project scenarios:

- All new development efforts that leverage the VAEC
- All new and existing APIs that expose Authoritative Data Sources (ADS) data
- All new and existing APIs that provide endpoints for approved Enterprise Shared Services (ESS)

Currently, project teams should register APIs in the ESCP or API Developer Portal. In the future, one repository will be used across all of VA for API information. Future updates of this document will reflect the change and provide associated guidance for the release of APIs.

## 5 Impacts

If API standards are not implemented, the following have the potential to impact product delivery:

- Errors in API usage can result when testing is not thorough and comprehensive. Problems from edge cases, corner cases, and other circumstances may not be evaluated and resolved.
- If there is no standard API repository used, APIs may not be discovered and used.
- If appropriate API tools are not used, a lack of consistency in how APIs are developed and inventoried may occur.

## Appendix: References

### References:

- VEAR: <https://vaausdarapp82.aac.dva.va.gov/ee/request/home>
- VEAR API OMB Report: <https://vaausdarapp41.aac.dva.va.gov/ee/request/filter?id=29247&pageSize=20>
- Integration Hub: <https://qacrmnac.np.crm.vrm.vba.va.gov/WebParts/Documentation/Documentation/ServiceIndex>
- VA API Developer Portal: <https://developer.va.gov>
- 18F GSA API Standards: <https://github.com/18F/api-standards>
- VA API Terms of Service: <https://github.com/department-of-veterans-affairs/vets-api-clients/blob/master/TermsOfService.md>
- VA GitHub: <https://github.com/department-of-veterans-affairs>
- VA Digital Modernization Strategy, April 11, 2018
- VA DEA Assessment Guidance: [https://vaww.portal2.va.gov/sites/asd/AERB/DEA\\_Assessment/DEA%20User%20Story%20Alignment/Home.aspx](https://vaww.portal2.va.gov/sites/asd/AERB/DEA_Assessment/DEA%20User%20Story%20Alignment/Home.aspx)
- VA Directive 6551: [https://www.va.gov/vapubs/viewPublication.asp?Pub\\_ID=829&FType=2](https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=829&FType=2)

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