



HHS 2020

**Person-Centered
Health and Human Services**

Solution Design Expectations

V. Vilensky

Enterprise Architect

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HHS 2020 Designs progress from Abstract to Concrete

- At each level designs must cover:
 - Logical Design to meet functional and non-functional requirements
 - Static Structure
 - Interaction Sequences
 - Physical Components
 - Inter-component relationships
 - Component packaging for deployment purposes
 - Environment Architecture
 - Computing Nodes and cross-node relationships
 - Network configuration
 - Component package deployment into nodes
- Reference Technical Architecture
 - Global (single instance)
 - Technology-independent
 - PADU
 - Mostly about patterns to achieve significant capabilities
 - AR: State, rCIV: Vendors
- System Design Documentation
 - One per vendor
 - Technology-specific elaboration of TRA elements
 - An approach to each category of functionality with details about most significant components
 - AR: Vendor, CIVS: State
- Promotion-Specific Design Documentation
 - One per promotion + workstream combination
 - Code-level designs based on guidance established in SDD
 - AR: Vendor, CIVS: State

RTA Operates in Concepts

- Logical
 - Plain English element naming
 - Coarse-grained, technology-independent, logical Components (e.g. ESB, BRE, portal) with stereotypes (e.g. COTS, orchestration)
 - Interfaces implemented and used by Components
 - Component grouping into Packages, which may be stereotyped (e.g. layer, sub-system, framework)
 - Conceptual Data Model elements
 - Sequences of component-to-component interactions fulfilling key capabilities
- Physical
 - Reuse logical components in place of physical
- Environment
 - Environment patterns (lower non-load-balanced, lower load-balanced, higher load-balanced, cloud-based DR) comprised of computing Nodes, node-to-node associations representing networks, boundaries grouping Nodes into sub-nets
 - Key component deployments into Nodes



SDD makes RTA concepts technology-specific

- Logical
 - Element naming in accordance with actual technologies
 - Coarse-grained, mostly technology-specific, logical Components (e.g. OSB, Oracle Web Gateway, Liferay) with stereotypes (e.g. COTS, orchestration)
 - Interfaces implemented and used by Components
 - Component grouping into Packages, which may be stereotyped (e.g. layer, sub-system, framework)
 - Logical Data Model elements
 - Sequences of component-to-component interactions fulfilling key capabilities
- Physical
 - Reuse logical components in place of physical
- Environment
 - Environment designs comprised of computing Nodes, node-to-node associations representing networks, boundaries grouping Nodes into sub-nets
 - Key component deployments into Nodes
 - Component-to-component network communication designs

Detailed designs align with implemented solution elements

- Logical
 - Element naming in accordance with implementation conventions
 - Mostly fine-grained, technology-specific, stereotyped logical Classes (e.g. script, orchestration, adapter, message), but may be mixed with a few (particularly COTS) Components
 - Interfaces implemented and used by Classes and Components
 - Elements grouping into Packages, which may be stereotyped (e.g. layer, sub-system, framework)
 - Physical Data Model elements
 - Sequences of interactions fulfilling key capabilities
- Physical
 - Actual deployment units with Manifest relationships to Classes, Components and Interfaces
- Environment
 - Unit deployments into Nodes

Thank You!



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