VMware Cloud Automation Design and Deploy IaaS Service

AT A GLANCE

The VMware Cloud Automation Design and Deploy IaaS Service expands the power of virtualization and moves IT services away from existing infrastructure delivery methods to a new model in which virtual machine infrastructure and applications are delivered as a service. The service provides infrastructure services in a production environment. The cloud automation solution includes VMware recommended practices in a practical design.

BENEFITS

- Reduce costs of managing IT by optimizing the provisioning process through a self-service portal to provide on-demand access to personalized infrastructure services.
- Increase time to value by reducing the provisioning time from days down to hours.
- Increase agility not only by standardizing the provisioning process, but also by addressing the computing resources life cycle, allowing the IT team to redirect resources to revenue-generating projects.
- Leverage the value of existing infrastructure investments, IT processes, and ecosystem and support extensibility for any new services.

Overview

This solution delivers the following capabilities:

- Provides enterprise scale architecture for the delivery of Infrastructure as a Service (IaaS).
- Provides a self-service portal for consumers to request and manage IaaS.
- Provides a service catalog with automation and approval workflows.
- Provides logical separation (for example, service catalog and provisioned items) for each business unit.
- Provides infrastructure service offerings for virtual machine consumption.
- Provides policy based placement for infrastructure workloads.

The solution consists of the following products:

- VMware vSphere®
- VMware vRealize™ Automation™
- VMware vRealize Orchestrator™

VMware consultants will work with Customer team to do the following:

- Conduct a solution overview workshop.
- Identify business and IT requirements, and discuss details of the use cases.
- Assess the current state and conduct a gap analysis for the target state.
- Conduct solution design review workshops.
- Deploy the solution and validate the deployment.
- Conduct solution knowledge transfer sessions to administrators and operators.

Upon conclusion of the engagement, VMware consultants will deliver a set of documents as specified in the Deliverables section. The resulting cloud automation solution deployment from this engagement is an operational production infrastructure to deliver virtual machine infrastructure services to the consumers.

Customer Profile

VMware Cloud Automation Design and Deploy IaaS Service is right for companies that are

- Working to enhance their service portfolio by integrating the best products from physical, virtual, and cloud layers with automation, orchestration, and lifecycle management capabilities
- Embarking on an initiative to provide an on-demand IT-as-a-Service (ITaaS) solution
- Looking to gain business agility and operational efficiency by automating the governance and delivery of infrastructure services

Project Scope

The scope of this project includes the design and deployment of a production IaaS solution in a single site. The following will be implemented in the distributed production environment with high availability:

- Implementation and validation of the solution design for a distributed installation within a single data center.
- Installation and configuration of one (1) vRealize Automation Identity appliance.
- Installation and configuration of up to two (2) vRealize Automation Café appliances with Postgres database replication.
- Installation and configuration of vRealize Automation IaaS Server components to include the following:
  - Installation and configuration of up to two (2) vRealize Automation IaaS web servers.
  - Installation and configuration of up to two (2) vRealize Automation manager servers and orchestrator DEMs.
  - Installation and configuration of up to two (2) vRealize Automation worker DEMs and VMware vCenter™ agents.
- Installation and configuration of vRealize Automation components including the configuration of the following:
  - One (1) VMware vSphere endpoint.
  - One (1) vRealize Orchestrator endpoint.
  - One (1) tenant.
  - One (1) service catalog:
    - One (1) IaaS service definitions (group of services) with up to three (3) IaaS blueprints (Windows or Linux using the existing templates in the customer environment).
    - Up to one (1) XaaS service definition (group of services) with up to one (1) catalog item using the Advanced Service Designer:
      - Configuration of the vRealize Orchestrator plug-in for Advanced Service Designer.
      - Build one (1) service blueprint using built in workflows from the vRealize Orchestrator plug-in.
      - Publish the service blueprint to the service catalog.
  - Up to two (2) business groups with the following for each business group:
    - Up to two (2) reservations.
    - Up to two (2) entitlements.
    - Up to two (2) approval policies.
    - Configuration of IP allocation through vRealize Automation with the configuration of up to two (2) network profiles.
    - Configuration of native email notifications.
- Installation and configuration of one (1) vRealize Orchestrator external appliance.
- Configuration and integration of vRealize Automation with vRealize Orchestrator.
  - Configuration of one (1) sample out-of-the box workflow to demonstrate execution of the vRealize Automation plug-in for vRealize Orchestrator to include managing the orchestration of up to one (1) of the following IaaS machine states through the use of custom properties:
    - Building machine.
    - Machine provisioned.
    - Destroying machine.
- As time and budget allow, VMware will configure one, or more, of the following three (3) items:
  - Standard Active Directory integration extension.
  - Custom virtual machine host name plug-in.
  - Custom property dictionary controls.

Note: Integrations and extensions are not covered by the VMware Product Support agreement. Support for integrations and extensions might be available through a Custom PS Support offering. The Custom PS Support offering requires a separate support SOW agreement, distinct from the SOW that provided the integration and extensions.

Estimated Schedule

VMware estimates that the duration of this project will not exceed seven (7) weeks. VMware consulting services will operate according to a schedule agreed to by both parties. Typically, consulting services are performed during normal business hours and workdays (weekdays and non-holidays).

Project Activities

ACTIVITIES / WEEK	1	2	3	4	5	6	7
Phase 1: Planning							
Phase 2: Kickoff							
Phase 3: Solution Overview							
Phase 4: Assess							
Phase 5: Design							
Phase 6: Deploy							
Phase 7: Validate							
Phase 8: Knowledge Transfer							
Phase 9: Project Conclusion							

Phase 1: Planning

After the SOW is signed and the purchase order is received, VMware will conduct a pre-engagement planning call with Customer to initiate the project. One team member from each area of Customer's project team (for example, infrastructure, applications, and project manager) must attend the planning call. It is recommended that at least one person from the Customer project team attend vRealize Automation Foundation training prior to the engagement.

Topics to be discussed include the following:

- Project scope and objectives.
- Project timelines, scheduling, and logistics.
- Identify key customer project team members to work with the VMware team.
- Review the work streams, phases, and use cases selected for this engagement.
- Review the hardware infrastructure needed to support the scoped deployment of the solution.
- Identify and agree to key Customer activity completion dates.
- Review the engagement prerequisites and progress toward completing them.
- Availability of appropriate facilities, including meeting rooms, work locations, whiteboards, projectors, special access needs, any other pertinent information needed prior to VMware consultant arriving on site.
- Review the engagement prerequisites and other preparation required before the project kickoff (for example, vSphere, vRealize Orchestrator, vRealize Automation).
- Issue tracking and escalation processes.

Customer will complete the prerequisites specified in the *Service Checklist* document prior to the arrival of VMware consultants on site.

Deliverables:

- Pre-engagement call(s)
- Service Checklist document

Phase 2: Kickoff

The VMware team will lead Customer project sponsors and stakeholders in a project kickoff meeting to review expectations about the purpose of the engagement, the delivery approach and timelines, the amount of time and effort required from the participants, and the expected activities and deliverables. The following are the objectives of the meeting:

- Introducing the VMware team, roles, and responsibilities.
- Describing the project goals, phases and key dates.
- Explaining the expected project results and deliverables.
- Agreement on communication and reporting processes.
- Validating the project expectations and clarifying roles and responsibilities.
- Confirming that all of the prerequisites specified in the Service Checklist have been met prior to the start of the engagement.
- Review project change control process and communications plan for escalations and scope changes.
- VMware Engagement Manager will deliver a project plan document to Customer.

Deliverables:

- Engagement kickoff meeting
- *Kickoff* presentation

Phase 3: Solution Overview

A solution overview knowledge transfer workshop will be conducted to provide Customer with the baseline solution knowledge and key features of vRealize Automation. This includes the following topics:

- Solution and product overview
- Solution concepts and features
- Review of the relevant use cases
- Installation and configuration overview

Deliverables:

- Solution overview workshop
- *Solution Overview* presentation

Phase 4: Assess

Customer business requirements, solution requirements, and solution use cases will be reviewed. VMware will interview key customer personnel and conduct an interactive session to gather the appropriate objectives, policies, and constraints that must be considered in the implementation of the infrastructure services solution using vRealize Automation. This includes the following:

- Use cases review/validation.
- Requirements review.
- Overview of:
  - Current services and SLAs.
  - Self service capability and self-service portal.
  - Infrastructure service catalog with automation and approval processes and templates.
  - Service lifecycle (request, approval, provisioning, management, archive, termination).
  - Orchestration and policy-based placement for infrastructure workloads.
  - Service/tenant roles and responsibilities.
- Perform interviews and analysis covering the following:
  - Provisioning and automation.
  - Current services, service level agreements.
  - Self service capability and self-service portal.
  - Infrastructure service catalog with automation and approval processes, templates.
  - Orchestration and policy based placement for each infrastructure workload.
  - Service life cycle management (service definition, costing, design, development, release, monitor).
  - Service/tenant focused roles, responsibilities, and skillsets.
- Create service definition for foundational use cases.
- Perform gap analysis and remediation recommendations.
  - Document gap analysis and recommendations.

The requirements and use case definition is captured by the VMware consultants in the *Solution Requirements* document.

Deliverables:

- Solution Requirements workshop
- *Solution Requirements* document

Phase 5: Design

The design workshop includes review and capture of system requirements, and the following design topics:

- Prerequisites for appropriate configuration and segregation of the infrastructure.
- Architecture design and configuration to support the environment sizing, availability, scalability, and business needs.
- Design considerations for distributed deployment.
- VMware vRealize Automation components and services.
- Database considerations.
- Web services and portals.
- DEM worker / orchestrator and agent endpoints.
- Infrastructure service catalog, catalog management.
- Portal, self-service and administration.
- Request approval roles, policies, and workflows.
- Organization administrators, users, roles.
- Networking, storage, machine blueprints.
- Automation and orchestration.
- Build profiles, image deployment, and management best practices.
- Naming conventions.

The architecture design is captured by the VMware consultant in the following documents:

- *Architecture Design* document.
- *Configuration Workbook* document.

Deliverables:

- *Architecture Design* document
- *Configuration Workbook* document
- *Validation Workbook* document
- *Customer Use Case Validation Workbook* document

Phase 6: Deploy

VMware will work with the Customer project team to deploy the cloud automation infrastructure services solution in Customer's environment. The solution is based on the *Architecture Design* document discussed in the Design phase and defined in the *Configuration Workbook* document. This phase includes the following:

- Assisting Customer's team as they complete infrastructure readiness activities to implement the required hardware and software prerequisites, in addition to the virtualization, network, storage, and security systems. Customer is responsible for the infrastructure readiness activities, while VMware will provide technical guidance and track progress.
- Working with the Customer's team to perform the installation of vRealize Automation according to the *Architecture Design* document.
- Working with the Customer's team to build and configure the environment according to the *Architecture Design* document and *Configuration Workbook* document.

Deliverables:

- *Installation and Configuration Procedures* document
- *Customer Use Case Validation* document

Phase 7: Validate
VMware works with the designated Customer staff to validate the overall solution and the implementation of the use cases. This phase also involves Customer user acceptance testing of the solution.

Deliverables:

- *Validation Plan* document completed
- *Customer Use Case Validation Plan* document completed

Phase 8: Knowledge Transfer
VMware provides Customer operators and administrators with a knowledge transfer session on the deployment and operating procedures for the cloud automation solution using the *Operating Procedures List* document as a reference.

Phase 9: Conclusion
The project review and conclusion activities include a presentation that summarizes the engagement activities performed for the resulting cloud automation solution.

Out of Scope
The following are out of scope for this service:

- SQL failover and CDK development work are out of scope for this engagement.
- Remediation work associated with any problems resulting from the content, completeness, accuracy, and consistency of any data, materials, or information supplied by Customer.
- Third-party software or technical services that are not applicable to VMware components.
- Multitenancy
- Extending beyond out of the box capabilities to provide other services (X) as a service, such as desktop, storage, or backup.
- Application release process automation and software development lifecycle process.
- Enabling Dev/Ops through configuration management and integration with third-party solutions.
- Anything not specified in the Project Scope section is considered out of scope.

Roles and Responsibilities

The VMware team will be comprised of multiple roles and might vary in the level of effort. VMware will utilize the following resources to deliver the consulting services outlined in this data sheet.

Engagement Manager
VMware will assign an Engagement Manager to the engagement when the project starts. The Engagement Manager identifies personnel resources, project structure, communication plan, project plan tools, and overall project management techniques to be used to manage the engagement: objectives for duration, cost, and provider commitment. The Engagement Manager will assist the Customer Project Manager with the following:

- Provides overall customer relationship and project management.
- Planning and pre-engagement preparation.
- Identifies the project team, roles and responsibilities and assignment dates.
- Overall project timeline including deliverables, activities, duration and task owners.
- Identifies final deliverables.
- Project status reporting and weekly update meetings.
- Resource scheduling.
- Establishes the communication plan, directs formal Customer communication, and coordination with Customer Project Manager.
- Provides escalation triage and maintains risk register.
- Logistics including security, remote access and facility access.
- Provides final versions of all project documents.

Infrastructure Architect
- Leads requirements, use case, and design workshops.

Infrastructure Senior Consultant
- Supports requirements, use case, and design workshops.
- Deploys and configures the VMware vCloud Suite® components that are part of the cloud automation solution.
- Deploys the integration and extension services components.
- Runs validation activities on the installed environment.
- Prepares the final project documents for delivery to the client during the Conclusion phase.

The VMware technical resources are all VMware Certified Professionals and have significant technical expertise with VMware products.

Customer Project Team
Customer will provide a Project Manager knowledgeable in pertinent internal Customer processes and able to collaborate with the VMware Engagement Manager as specified in this data sheet.

Customer's Project Manager must have the authority to make project decisions and represent Customer in all matters related to this data sheet. Customer's Project Manager will provide a single consolidated response to any review, approval, change, or decision request.

Customer will support and provide representation at project review meetings at a mutually agreed upon time and location to discuss the project status, issues, new requirements, and overall project satisfaction. These meetings might also cover performance status updates, schedule updates, pending changes, open issues, and action items.

Customer will actively participate in this engagement, and individuals with relevant domain, business, and/or technical expertise will be available as required. These participants are the acknowledged spokespersons for the areas they represent, and the VMware project team requires regular and timely access to them. If participants are unable to attend a scheduled meeting, then the Customer Project Manager becomes the final authority on all items of discussion.

VMware Responsibilities

VMware will coordinate activities of all VMware resources and will be providing Customer with VMware resources that have the skills and expertise necessary to properly execute the requirements and services set forth in this data sheet.

Assumptions and Customer Responsibilities

This section describes the responsibilities of Customer to VMware with regard to this project.

- Customer is responsible for, and assumes any risk associated with any problems resulting from the content, completeness, accuracy and consistency of any data, materials and information supplied by Customer.
- Any change to the scope of work explicitly described in the Scope of Work section, and any associated additional fees, must be mutually agreed in writing by filling out a Project Change Request form.
- Customer will provide access to facilities and computer systems as required for VMware team to perform tasks as outlined in this data sheet.
- For engagement activities that need to occur at Customer work locations, VMware expects Customer to make reasonable facilities accommodations for our project team at the Location. These accommodations will include a desk/cubicle, voice telephone, Internet connection (for Web browser access), permission to operate mobile telephone within customer work locations, and shared access to laser printer, copier, fax, and conference room facilities.
- Customer will provide a suitable environment for knowledge transfer session(s) (overhead projector and conference facilities).
- Customer will be solely responsible for procuring product support for all software to be used in connection with this data sheet. Such product support will be in place and available no later than when VMware consultants first arrive on site.
- Customer is responsible for executing all items discussed in the *Service Checklist* prior to arrival of the VMware consultant on site. Any additional time required of VMware personnel to perform the duties of this data sheet as a result of Customer's lack of completion of these checklist items will be considered billable time payable by Customer.
- Customer will have a fully installed and configured infrastructure as required and communicated in the *Service Checklist*.

Terms and Conditions

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VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com