VMware Cloud Automation Design and Deploy IaaS Service

Overview

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 where virtual machine infrastructure is 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.

This project includes the following module:

• Design a cloud automation foundation – Tailored design to provide a foundation for the automated delivery of a base Infrastructure-as-a-Service (IaaS). The service includes an assessment of platform prerequisites, the design for virtual machine automation technology based on VMware vRealize Automation, and a knowledge transfer session.

• Deploy a cloud automation foundation – Deployment of the vRealize Automation platform in a highly available solution to help Customer create a Private Cloud environment for provisioning virtual workloads.

• Enable custom hostnames for virtual workloads – Custom host name configuration of provisioned workloads enables Customer to apply naming conventions that align with their standards.

• Leverage cloud automation for workload placement based on requestor input – Configuration of VMware vRealize® Automation™ to allow the Customer to provide tailored placement based on reservation and storage tier. This also allows for tailored placement into specific VMware vSphere® constructs.

The following are the high-level activities included in this project:

• Design – Solution design through a series of workshops and consultation.

• Implement – Deployment and verification of the solution.

• Knowledge Transfer – Knowledge transfer of the design, deployment, and operations procedures.

This project requires the following VMware On-Premises, VMware SaaS and third-party products, with vendor-supported versions as agreed to by VMware and Customer at project kickoff, but limited to those that are in general availability (GA) on the date of SOW signing:

VMware vRealize® Automation™

This solution provides the following capabilities:

• Automate workload provisioning

• Provide a self-service portal for IT users

IT Outcomes Developed

The service being delivered by VMware Professional Services contributes to the delivery of the following IT outcomes:

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 is 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.

KEY 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.
• A unified service portal for users to access applications, infrastructure, and platforms on demand
• Automated IT service requests
• Reduced delivery time
• Automation and standardization will allow linear growth following the business pace
• Being perceived as business partner for new solutions and rapid business development
• Expedite service requests
• Faster time to market of service for specific use case
• Increased agility
• Shorter reaction time to business requests

Project Scope
The scope of the service includes the following:

Design a cloud automation foundation
Tailored design to provide a foundation for the automated delivery of a base Infrastructure-as-a-Service (IaaS). The service includes an assessment of platform prerequisites, the design for virtual machine automation technology based on VMware vRealize Automation, and a knowledge transfer session.

Deploy a cloud automation foundation
Deployment of the vRealize Automation platform in a highly available solution to help the Customer create a Private Cloud environment for provisioning virtual workloads.

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>PARAMETERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>vRealize Automation sites</td>
<td>Up to one (1)</td>
<td>Unique sites for which vRealize Automation is designed.</td>
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<th>SPECIFICATION</th>
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<tbody>
<tr>
<td>vRealize LifeCycle Manager Installation</td>
<td>Up to one (1)</td>
<td>Deployment and configuration of vRealize LifeCycle Manager for the purpose of deploying vRealize Automation.</td>
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<tr>
<td>Load Balancer</td>
<td></td>
<td>Guidance on configuration of DNS CNAME records and Load Balancers for the virtual IP addresses of the following: vRealize Automation Appliances, IaaS web servers, and IaaS Manager servers.</td>
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<tr>
<td>Distributed High Availability Installation using vRealize LifeCycle Manager</td>
<td>Up to one (1)</td>
<td>Using vRealize LifeCycle Manager a deployment of a distributed installation of vRealize Automation within a single data center with support for provisioning workloads.</td>
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<tr>
<td>vRealize Automation Appliances</td>
<td>Up to three (3)</td>
<td>Using vRealize LifeCycle Manager the vRealize Automation appliances will be installed and configured with embedded database replication.</td>
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</tbody>
</table>
Enable custom hostnames for virtual workloads
Custom host name configuration of provisioned workloads enables Customer to apply naming conventions that align with their standards.

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<td>Environments</td>
<td>Up to one (1)</td>
<td>vRealize Automation environment is in scope.</td>
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<tr>
<td>Tenants</td>
<td>Up to one (1)</td>
<td>vRealize Automation tenant per environment is in scope.</td>
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<tr>
<td>Blueprints</td>
<td>Up to two (2)</td>
<td>vRealize Automation blueprints per environment are in scope.</td>
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Leverage cloud automation for workload placement based on requestor input

Configuration of VMware vRealize Automation™ to allow the Customer to provide tailored placement based on reservation and storage tier. This also allows for tailored placement into specific VMware vSphere® constructs.

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<td>Up to two (2)</td>
<td>vRealize Automation blueprints per environment.</td>
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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

The services provided in this data sheet are organized in the work streams and phases shown in the following table.

<table>
<thead>
<tr>
<th>ACTIVITIES / WEEK</th>
<th>1</th>
<th>2</th>
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<th>6</th>
<th>7</th>
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<tbody>
<tr>
<td>Phase 1: Planning</td>
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<td>Phase 2: Kickoff</td>
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<td>Phase 3: Solution Overview</td>
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<td>Phase 4: Assess</td>
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<td>Phase 5: Design</td>
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<td>Phase 6: Deploy</td>
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<td>Phase 7: Validate</td>
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<td>Phase 8: Knowledge Transfer</td>
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<td>Phase 9: Project Conclusion</td>
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Out of Scope
The following are the out of scope items for this project:

General
- Installation and configuration of custom or third-party applications and operating systems on deployed virtual machines.
- Operating system administration including the operating system itself or any operating system features or components.
- Management of change to virtual machines, operating systems, custom or third-party applications, databases, and administration of general network changes within Customer control.
- Remediation work associated with any problems resulting from the content, completeness, accuracy, and consistency of any data, materials, or information supplied by Customer.
- Installation or configuration of VMware products not included in the scope of this document.
- Installation and configuration of third-party software or other technical services that are not applicable to VMware components.
- Configuration of VMware products used for the service other than those implemented for the mutually agreed to use cases.
- Customer solution training other than the defined knowledge transfer session.

Project Activities
Phase 1: Initiate
The VMware Project Manager hosts one (1) project initiation call with key Customer and VMware stakeholders. Topics to be discussed include the following:

- Project business drivers, scope, and objectives.
- Project deadlines, estimated timelines, scheduling, and logistics.
- Identification of key Customer team members with whom VMware will work to perform the tasks defined in this SOW.
- Participating team members are confirmed and contact details are exchanged to schedule the project kickoff meeting.

Deliverables
- One (1) project initiation call

Phase 2: Plan
VMware leads one (1) project kickoff meeting with Customer project sponsors and stakeholders to review expectations about the purpose of the engagement, the delivery approach, and estimated timelines. The following are the objectives of the meeting:

- Introducing the VMware team, roles, and responsibilities.
- Describing the project goals, phases, and key dates.
- Agreeing on communication and reporting process and creating a communications plan.
• Validating the project expectations and clarifying roles and responsibilities.
• Confirming prerequisites are met as detailed in the solution checklist for specified solutions.
• Presenting the solution overview for specified solutions including expected project results and deliverables.

The VMware Project Manager and the Customer Project Manager collaborate to develop the project plan.

**Deliverables**
- Private Cloud solution checklist
- Private Cloud solution overview presentation
- IaaS solution checklist
- IaaS solution overview presentation
- Communications plan
- One (1) project kickoff meeting
- Project plan

**Phase 3: Execute**
The key activities for this phase are organized in the following sub-phases:
- Design
- Implement
- Knowledge Transfer

**Execute: Design**
VMware leads the Customer project team in a series of workshops to develop a design. VMware does the following:
- Conducts up to seventy-two (72) hours of design workshops.
- Documents the design for the specified VMware solutions in the solution design document(s).

**Deliverables**
- Up to seventy-two (72) hours of design workshops
- Private Cloud solution design document
- IaaS solution design document

**Execute: Implement**
VMware implements the solution according to the VMware solution specification. VMware does the following:
- Conducts up to twenty-four (24) hours of implementation workshops.
- Implements the specified solutions as detailed in the specification workbooks.
- Verifies the implementation and documents results in the verification workbooks for the specified solutions.

**Deliverables**
- Up to twenty-four (24) hours of implementation workshops
- Private Cloud solution specification workbook
- Private Cloud solution verification workbook
- IaaS solution specification workbook
- IaaS solution verification workbook
Execute: Knowledge Transfer

VMware conducts knowledge transfer sessions covering the design, implementation, and operational considerations relating to the scope of this project. VMware does the following:

• Conducts up to twenty-seven (27) hours of knowledge transfer sessions for appropriate Customer representatives.
• Provides an adoption guide document(s) containing operational guidance for the specified solutions.

Note: For the avoidance of doubt, the Knowledge transfers herein do not comprise VMware product training or certification courses as offered by the VMware Education unit (http://mylearn.vmware.com/mgrreg/index.cfm).

Deliverables
• Up to twenty-seven (27) hours of knowledge transfer sessions
• Private Cloud adoption guide document
• Private Cloud knowledge transfer workshop presentation
• IaaS adoption guide document
• IaaS knowledge transfer workshop presentation

Phase 4: Close

The VMware Project Manager conducts one (1) closure meeting with Customer covering project status, next steps, and how to engage further with VMware.

Deliverables
• Engagement summary presentation
• One (1) closure meeting

Appendix – Service Checklist

Customer is responsible for executing all items discussed in the Service Checklist prior to arrival of VMware consultants on site.

The participation of the following Customer stakeholders is required for the Service to be performed:

• Entire VMware operations team
• Application operations leads
• Enterprise Architect
• Infrastructure Architect
• Server provisioning team leads
• Active Directory architects
• Network Architecture team leads
• Director IT
• Cloud Architect
• Cloud Service Architect
• Cloud Operations Manager
• VMware operations team leads
The following prerequisites are required to enable VMware to perform this Service:

Deploy vRealize Automation for use in a private cloud.

- **Virtual Appliance Virtualized RAM Capacity (GB).** Defined minimum: 18GB
- **Virtual Appliance Virtualized CPU Capacity (GHz).** Defined minimum: 4 vCPU
- **Virtual Appliance Virtualized Storage Capacity (GB).** Defined minimum: 140GB
- DNS must be configured and tested for forward, reverse, short and long name resolution
- **Virtualized RAM capacity (GB).** Defined minimum: 8GB for IaaS Virtual Machines
- **Active Directory Certificate Services**
- **Virtualized storage capacity (GB).** Defined minimum: 40GB for IaaS Virtual Machines
- **Virtualized CPU capacity (GHz).** Defined minimum: 2 vCPU for each IaaS Virtual Machine
- **Number of Active Directory service accounts.** Defined minimum: 1.0

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VMware Professional Services transform IT possibilities into business outcomes. Our comprehensive portfolio of services uncovers and exploits the unique opportunities made possible by VMware technology. Drawing on our unparalleled product expertise and customer experience, we collaborate with your team to address the technical, people, process, and financial considerations for IT transformation to deliver results that are positive, tangible, and material to IT and your business.