IBM

IBM Cloud VMware Implementation Services

Service Definition

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SOLUTION DESCRIPTION OF VMWARE CLOUD FOUNDATION ON IBM CLOUD

VMware Cloud Foundation is the Software Defined Data Center (SDDC) Platform of virtualized compute, storage and networking.

Clients can onboard with VMware Cloud Foundation and start small, with a single base deployment, and then seamlessly expand and retract additional workload capacity as needed.

IBM Cloud provides the enhanced security of a single tenant, with air gap architecture throughout the environment, including bare metal servers, network and storage.

VMware Cloud Foundation provides you full, native access to the entire VMware stack, including vSphere Enterprise Plus, NSX, and Virtual SAN, allowing you to move your workloads to and from the cloud without changing your workloads, tooling, scripts or investing in new skills.

This is the true definition of hybrid cloud. VMware Cloud Foundation is available for purchase via a predictable OPEX monthly subscription that includes all infrastructure and software licenses.

Cloud Foundation Configuration:
• • 4 X IBM IBM Cloud Bare Metal Servers

VMware Licenses included:
• • VMware vSphere Enterprise Plus (compute virtualization),
• • VMware vCenter Server (virtualization management)
• • VMware NSX (network virtualization)
• • VMware Virtual SAN™ (storage virtualization)
• • VMware SDDC Manager
• • IBM CloudDriver Lifecycle Management

Backup of the SDDC management system Included
Options include:
• • Zerto Disaster Recovery
• • Trusted Security & Compliance with Intel TXT & Hytrust
• • Veeam Data Backup
• • vRealize Management and Orchestration

However, these options are not included in this Services SoW

The minimum allowed configuration of four servers, this is expandable in increments of 1 server.

Through advanced provisioning automation, IBM Cloud provides you your own dedicated, supported Cloud Foundation environment in just days instead of weeks.

SCOPE OF WORKS - VMWARE CLOUD FOUNDATION ON IBM CLOUD

IBM will provide an implementation services for a VMware Cloud Foundation on IBM Cloud.

The Cloud design is based on the VMware SDDC on IBM Cloud Standard Architecture.

https://www.ibm.com/devops/method/content/architecture/virtualizationArchitecture#1_0

At the chosen IBM Cloud Global DataCentre, IBM will provision:

4 Bare Metal Servers for a VMware Cloud Foundation for the following Workloads:
- Management
- Edge
- Compute

and a Private Virtual Server for Jump Server

The Customer DataCentre will be linked to the IBM Cloud Datacentre by IPSeC VPN.

All post implementation activities including:
- Creation of VM's
- Migrating Workloads
- Installation of Operating Systems and Applications
- Security Hardening
- Backup of Applications
- Infrastructure and Application Monitoring and Management

will be provided by Customer using their own products, processes, staff & facilities.

Activity 1 - Project Initiation

The purpose of this activity is to facilitate a kick-off meeting for a mutually agreed number of Customer and IBM participants, for up to two hours, at an agreed date and time, via a conference call.

IBM Responsibilities:

IBM will:

1. Introduce the IBM project participants
2. Discuss project team roles and responsibilities
3. Review and document the project objectives
4. Provide a "Build Requirements" sheet
5. Discuss the steps required to complete the sheet
6. Provide the IBM Build Team's User IDs to enable the Customer team to create the necessary administration users within the IBM Cloud Portal

Customer Responsibilities:

Customer will:

1. Attend the kick off call with relevant Technical and Management resources who will work on the project
2. Provide IBM a list of Customer team members participating in the project and their associated roles
3. Provide details on which IBM Cloud Datacenter location will be used for deployment
4. Ensure a IBM Cloud account has been created
5. Provide the IBM Build Team adequate access and authorization to the IBM Cloud account
6. Complete build requirement sheet no more than two weeks after received

Deliverable Materials:

1. Provide to the Customer a list of current IBM Build Team members and their associated roles within the project
2. Provide to the Customer a Build Requirements sheet to enable Customer to provide detailed information for the deployment
3. Provide to the Customer the IBM Build Team's User IDs to enable the Customer team to create the necessary administration users within the IBM Cloud Portal

Completion Criteria:

This activity completes at the conclusion of the project.

Activity 2 - Develop Design

The purpose of this activity is to analyse the proposed solution as defined in the Build Requirements document, and then to update the design to include the connectivity requirements.
To review and validate the proposed solution A technical workshop may be requested by either party, for a mutually agreed number of Customer and IBM participants, for up to two hours, at an agreed date and time; via a conference call, or at the Customers location.

IBM Responsibilities:

IBM will:

1. Review the Customer supplied Build and Connectivity requirements
2. Attend a technical workshop (if required)
3. Validate connectivity requirements between Customer and IBM Cloud DataCentres (IPSeC VPN, NSX VxLAN's)
4. Produce the Build document

Customer Responsibilities:

Customer will:

1. Provide at the commencement of this activity, the Build Requirements document for incorporation to the Build document
2. Provide Fully Qualified Domain Names (FQDN) to all IBM Cloud Infrastructure components including both Cloud Central and Cloud Region
3. Provide at the commencement of this activity, details of the proposed connectivity between the Customer datacentre and the IBM Cloud DataCentre
4. Confirm availability of IP's for NSX UnderLay Network (for VPN)
5. Provide Bring Your Own IP (BYOIP) addresses for NSX OverLay Networks
6. Provide relevantly trained and experienced personnel to participate in any technical workshop to finalise the VPN and/or NSX configurations to facilitate Customer Network connectivity to IBM Cloud DataCentre
7. Review and provide comments within 3 working days of the Build Document being supplied
8. Sign off the Build document prior to commencement of the Build phase
9. Create and deliver proposed test plan

Deliverable Materials:

1. Provide to the Customer a Build Document
2. Provide to IBM a proposed test plan

Completion Criteria:

This activity will be complete when IBM has successfully demonstrated the build

Activity 3 – Build Infrastructure to Design

The purpose of this activity is to build the environment based on the agreed proposed Detailed Design

IBM Responsibilities:

IBM will:

1. Provision and configure all the hardware and software components as defined in the Build Document; including:
   • 4x Bare Metal Servers, forming the VMware Cloud Foundation cluster
   • VMware vSphere Enterprise Plus (compute virtualization),
   • VMware vCenter Server (virtualization management)
   • VMware NSX (network virtualization)
   • VMware Virtual SAN™ (storage virtualization)
   • VMware SDDC Manager
   • IBM CloudDriver Lifecycle Management
   • Windows Jump Sever for Out of Band (OOB) Management
2. Provide any VMWare Licences purchased for Servers, as part of VMware Cloud Foundation; vSphere, vCenter, NSX and VSAN.
3. Configure as defined in the Build document, at the IBM Cloud DataCentre:
   • IPSeC VPN tunnel between Customer DataCentre and IBM Cloud Datacentre
   • NSX UnderLay and OverLay Networks
4. Utilize temporary use of local administration accounts for authentication
5. Utilize temporary hosts file or temporary DNS service for infrastructure hostname lookup
6. Perform functional testing to ensure readiness for acceptance testing by Customer

Customer Responsibilities:

Customer will:

1. Designate the Master User for the IBM Cloud account
2. Create IBM Cloud portal users for the IBM build team to implement solution
3. Deploy a Customer vCenter
4. If Bring Your Own License (BYOL), provide licencing for these VMware components
5. Provide Bring Your Own IP (BYOIP) addresses for NSX overlay networks
6. Install and configure the Customer Network and Internet Connection to facilitate Customer Network connectivity to IBM Cloud DataCentres
7. Configure as defined in the Detailed Design document, at the Customer DataCentre:
   o NSX UnderLay and OverLay Networks
   o IPSeC VPN tunnel between Customer DataCentre and IBM IBM Cloud Datacentre

Deliverable Materials:

IBM to provide functional test results to Customer

Completion Criteria:

This activity will be complete when IBM has demonstrated the build.

Activity 4 - User Demonstration

The purpose of this activity is to analyse the proposed architecture to determine how to tailor the proposed cloud solution and then update the deployment automation to accommodate the customization requirements.

IBM Responsibilities:

IBM will provide:
- Skills Transfer
  - o Accessing the IBM Cloud Portal and vCentre of VMware Cloud Foundation
  - o using the IBM Cloud Portal to Monitor, Manage and Modify IBM Cloud infrastructure and Networks

Provide a Hands-on Skills Transfer sessions of 4 hours (for up to 5 client personnel) on:
Post Implementation Support

Provide 8 hours remote Post Implementation Assistance and Support

Customer Responsibilities:

Customer will:

1. Review and accept the servers as built to the design
2. Designate up to 5 relevantly trained and experienced personnel to attend skills transfer session
3. Ensure adequate facilities are made available for conducting the skills transfer session

Deliverable Materials
- • None

Completion Criteria:
- • This activity will be complete when IBM has completed the skills transfer

Activity 5 - Customers Post Implementation Tasks

After IBM have concluded the implementation and handed over the VMware Cloud Foundation to the Customer; the following are activities that may be required by the Customer to enable VMware Cloud Foundation to be integrated to their existing VMware environments.

Post Implementation activities:

1. Configure Active Directory (AD) integration with Customer AD Services
2. Configure DNS integration with Customer DNS services
3. Integration with Products and Processes for: `o Service Desk`
o Service Monitoring and Management
o Event Management
o Patch Management
4. Planning, Design, Implementation and Testing of any vSphere or 3rd party:
   - Backup and Restore of Applications
   - High Availability

- Disaster Recovery

5. Creation of VM's
6. Installation of Operating Systems and Applications
7. Security Hardening
8. Handover to Day 2 Steady State support
9. Migration of existing workloads from source platforms:

- Physical to Cloud (P2C)
- Virtual to Cloud (V2C)
- Cloud to Cloud (C2C)

We are Here to Help

This document provides an overview of our service with context about how our services can support you and how we work. You can also find out more about us and our work at ibm.com.
However, every organisation faces unique challenges and our specialists are available to answer your questions and discuss how our services can be tailored to your needs. You can reach us by email, and we are here to help.

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