

vmware®



VMWARE
HANDS-ON LABS

HANDS-ON LABS

OFFICIAL 2017 GUIDE

vmworld® 2017

Introduction

In this guide are the Hands-on Labs that will be available at VMworld 2017. The labs are divided into 11 focus area: Application and Desktop Virtualization, Challenge Labs, Cloud Management Platform, Cloud Native Applications, Emerging Technologies, Hybrid Cloud, Hyper-Converged Infrastructure, Network Virtualization, Software Defined Data-Center, Solution Labs and Unified End-point Management. Within each lab, you will find several modules available for test driving VMware products.

Key to deciphering the Lab Module table:

#	This is the Module number
Title	The title of the Module
Time	This is the estimated time in minutes to complete this Module
15 or 30	Lightning Lab - Lab Modules that are 15 or 30 minutes in duration
45 or 60	Full Length Lab - Lab Modules that are 45 or 60 minutes in duration
Level	
(B)eginning	These Modules are designed to introduce you to a product or solution
(A)dvanced	These Modules cover more Advanced topics

- Modules are independent of one another and can be completed in any order
- Modules with an estimated time of 15 or 30 minutes are classified as Lightning Labs. These Modules offer a great way to quickly become familiar with a specific topic or technology.

For more information, please visit our site at <http://hol.vmware.com>

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New for VMworld 2017

Hands-on Labs Hybrid Labs

We are very excited about introducing new Hybrid Cross Cloud Hands-on Labs. The Hybrid labs will let our users explore the integration between VMware products and third-party clouds like Amazon Web Services. We have a wide range of labs covering our Cross-Cloud strategy and invite you to experience this new generation of labs. Look for VMware NSX Cloud - Secure Native Workloads in AWS, Wavefront - Real-Time Metrics Analytics, VMware Cloud on AWS - Getting Started and all the Airwatch Hands-on Labs.

Hands-on Labs Interactive Simulations

Interactive Simulations allow us to present content in the Hands-in Labs that we have never been able to share before due to the amount of resources they would require. While the Interactive Simulations are not live environments, they still give you the ability to click through a product and introduce you to some important concepts, like VMware Cloud Foundation, VMware Cloud, and Network Functions Virtualization.

Solution Labs

This year, we are introducing Solution Labs. These labs focus how VMware products can help solve business challenges. VMware speeds our customers' digital transformation, empowering them to compete and succeed with software that reinvents the foundation of computing and mobile user experiences. With a common operating environment that lets customers use any cloud they choose, end-to-end security solutions, and simple, secure digital workspaces, our solutions and services enable customers to build exactly what they need, the way they need it for today and tomorrow.

HOL-1700 Series Labs Retirement

The labs we currently have in our catalog, the lab SKUs with 1700 in their title, will be retired to our Archive catalog as the new 1800 series labs are made available in the HOL Online tenant in October. The 1700 series labs will live in our Archive catalog until December 1st, 2017, when they will be permanently removed.

Application and Desktop Virtualization Labs

The Application and Desktop Virtualization labs focus on the Horizon Suite products.

HOL-1851-01-ADV - Horizon 7.1 Enterprise - Getting Started

Learn about the new features of Horizon 7.1 and understand the components of the Just-in-time Management Platform (JMP). This platform uses Horizon Instant Clones to quickly provision VDI desktops and RDS Host, App Volumes to instantly provision applications, User Environment Manager to provide a context based user experience, and Workspace One to launch solutions.

This lab is available in **English**

#	Title	Time	Level
1	What is Horizon 7.1	15	B
2	What's New in Horizon 7.1	15	B
3	JMP for Applications	45	B
4	JMP for Desktops	30	B
5	Workspace ONE and Identity Manager for Horizon	30	B

HOL-1851-02-ADV - Horizon 7.1 Instant Clones

Discover how Instant Clones technology fits into the Just-in-time Management Platform (JMP). Work with RDS Host Farm Provisioning and Desktop Pool Provisioning with Instant Clones. Explore operational topics such as pool updates and maintenance.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Instant Clones	15	B
2	RDS Farm Provisioning	30	B
3	Desktop Pool Provisioning	30	B
4	Advanced Provisioning	30	A

HOL-1851-03-ADV - VMware App Volumes - Getting Started

Provision applications using AppVolumes as part of the Just-in-time Management Platform (JMP). Learn how applications are captured, managed and entitled. Explore user installed applications and persona management with the AppVolumes Writable Volume. Advanced design topics such as scalability and storage considerations are also covered.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to App Volumes	30	B
2	AppStack Management	30	B
3	Entitling Applications via AppStacks	30	B
4	Writable Volumes	45	B
5	Application Isolation with ThinApp	45	B
6	Advanced Topics / App Volumes	45	A

HOL-1851-04-ADV - VMware User Environment Manager - Getting Started

Discover how User Environment Manager manages profiles and policies as part of the Just-In-time Management Platform (JMP). Configure shortcuts, printer mappings, and folder redirection using context based conditions. Complete exercises in application and privilege elevation, Horizon Smart Policies and see how the user experience can be controlled based upon changing context.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to User Environment Manager	60	B
2	Application Blocking	30	B
3	Privilege Elevation	30	B
4	Horizon Smart Policies	45	A

HOL-1851-05-ADV - VMware Workspace One and VMware Horizon 7.1

Learn about VMware Workspace One and how it can be used to simplify access to VMware Horizon 7 Applications and Desktops. VMware Identity Manager can deliver Horizon Applications and Desktops, ThinApps, and SAML based web applications. Multi-factor authentication enhances security.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Identity Manager and Workspace ONE	30	B
2	Integrating Identity Manager with Horizon 7.1	30	A
3	Integrating Identity Manager with ThinApp	30	B
4	Multifactor Authentication using RADIUS	30	A
5	Integrating Identity Manager with SAML-based Web App	30	A

HOL-1851-06-ADV - VMware Horizon 7.1 for Linux Desktops

Learn how to provision Linux desktop pools and about the features supported in Horizon for Linux.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Horizon for Linux	30	B
2	Linux Desktop Master Image	30	A
3	Install Horizon Agent	15	B
4	Create Linux Desktop Pool	15	A
5	Connecting to Horizon for Linux Desktop	30	B
6	Horizon for Linux Concepts	15	A

HOL-1851-07-ADV - Horizon 7.1 - Advanced Operational Concepts

You will explore operational concepts of VMware Horizon 7 by optimizing Windows images with VMware OS Optimization Tool, configuring Group Policies for the Horizon environment, and automating solutions using PowerCLI. Also experience integration with Log Insight and the Horizon specific dashboards within vRealize Operations Manager.

This lab is available in **English**

#	Title	Time	Level
1	Optimize Windows Images	30	A
2	Management with Group Policies	30	A
3	Management using PowerCLI for Horizon	30	A
4	Reporting with vRealize Log Insight	15	A
5	vRealize Operations for Horizon	30	A

HOL-1851-08-ADV - Horizon 7.1 - Advanced Architectural Concepts

Exercise the common architectural concepts and considerations used to design a robust Horizon environment. Design multi-site and large-scale implementations, while providing a robust end-user experience. Examine Load balancing, Cloud Pod Architecture, and user remote experience.

This lab is available in **English**

#	Title	Time	Level
1	Horizon Cloud Pod Architecture	45	A
2	Integrating Identity Manager with Horizon 7.1 with Cloud Pod Architecture	60	A
3	Load Balancer Concepts	15	A
4	Load Balancing for Horizon Connection Servers	30	A
5	Load Balancing for Horizon Unified Access Gateway	15	A
6	Load Balancing for Horizon App Volumes	15	A
7	The Remote Experience	15	A
8	Horizon Pod and Block Design Considerations	30	A

HOL-1851-09-ADV - Horizon 7.1 Security - Advanced Concepts

Experience the security features of Horizon 7 such as the Unified Access Gateway and TrueSSO. Integrate Horizon 7 with VMware NSX and explore multi-factor authentication. Configure security features and provide a rich user experience through demonstration use cases.

This lab is available in **English**

#	Title	Time	Level
1	Security Considerations	15	A
2	VMware Unified Access Gateway	30	A
3	SSL Certificates	30	A
4	True SSO	30	A
5	Governance and Compliance	30	A
6	Multifactor Authentication	30	A
7	NSX for Horizon	60	A

HOL-1851-10-ADV - Horizon 7.1 - Graphics Acceleration for 3D Workloads and vGPU

Learn the 3D desktop and application capabilities of Horizon 7. Through an interactive simulation you will install an NVIDIA VIB on a vSphere host, select vGPU profiles, and create virtual desktop and application pools.

This lab is available in **English**

#	Title	Time	Level
1	3D Options in Horizon 7	15	B
2	NVIDIA Graphic Processing Unit (GPU) Manager VIB Installation	15	A
3	Virtual Graphics Processing Unit (vGPU) Profiles	15	A
4	Creating a 3D Horizon Desktop Pool	15	A
5	Creating a Horizon Remote Application Pool	15	A

HOL-1855-01-ADV - Horizon FLEX and Mirage - Getting Started

Get started with VMware Horizon FLEX and VMware Mirage. You will manage containerized desktops for Build-Your-Own (BYO) and Mac users using VMware Horizon FLEX. Use interactive simulations to learn about image management and OS migration using VMware Mirage.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to VMware FLEX and Mirage	30	B
2	Mobile Users and Remotely Managed Desktops with BYO	30	B
3	Contractors, Temporary Workers, and BYO	30	B
4	Building a Custom VMware Horizon FLEX VM	30	A
5	Introduction to VMware Mirage	15	B
6	Manage and Deploy Endpoints with VMware Mirage	30	B
7	Using Mirage for in-place Windows 7 to Windows 10 Migration	60	B

HOL-1856-01-ADV - VMware Horizon Cloud - Getting Started

Get started with a basic setup and configuration of VMware Horizon Cloud. You will learn what desktop as a service (DaaS) means, contrast it with typical virtual desktop infrastructure (VDI), and see why VMware Horizon Cloud is the market-leading offering.

This lab is available in **English**

#	Title	Time	Level
1	Horizon Cloud Hosted Infrastructure Overview	15	B
2	Initial Tenant Setup	15	B
3	Administration Console Overview	15	B
4	Publish a Desktop	15	B
5	Desktop Management	15	B
6	Management of an Application	30	B
7	Management of User Environment Settings	15	B
8	Integration of Workspace One with Horizon Cloud	30	B

HOL-1859-01-ADV - F5 Integration with VMware Horizon 7 Enterprise

Learn about load balancing and the advantages of the F5 solution with VMware Mobility solutions. You will integrate F5 BIG-IP with VMware Horizon 7, VMware App Volumes, and VMware Identity Manager.

This lab is available in **English**

#	Title	Time	Level
1	F5 LTM with Horizon Connection Servers	45	B
2	F5 LTM with Horizon Unified Access Gateways	45	B
3	F5 APM with Horizon Alternative Gateway	45	A
4	F5 DNS with Horizon for Multi-Site Deployments	45	A
5	F5 APM with VMware UEM Smart Policy Integration	30	A
6	F5 LTM with AppVolumes	45	A
7	F5 LTM with VMware Identity Manager Integration	45	A

Challenge Labs

The Cloud Management catalog includes products and solutions in the vRealize Suite family.

HOL-1801-05-CHG - vRealize Operations Application Monitoring - Challenge Lab

Put on your thinking cap to save the day! Your challenge is to create a three-tier application, create super metrics, modify the policy, create a dashboard and set up all resources for monitoring the application in vRealize Operations. See if you can complete this lab.

This lab is available in **English**

#	Title	Time	Level
1	Configuring a custom application	15	A
2	Configuring metrics and the policy for the application	30	A
3	Building the application monitoring dashboard	30	A
4	Publishing the application monitoring dashboard	15	A
5	Challenge solution	45	A

HOL-1804-02-CHG - vSphere 6.5 - Challenge Lab

Put your knowledge to the test! Each challenge provides a scenario in which you must fix common problems that vSphere administrators and integration engineers face every day. Challenges include fixing a PowerCLI script, updating VMware Tools, troubleshooting poor performance and troubleshooting common vSphere issues. Learn how to resolve common issues. Challenge your vSphere knowledge.

This lab is available in **English**

#	Title	Time	Level
1	Let's Start with the Basics	30	B
2	Basic Operations Management	30	B
3	Basic Resource Management	30	B
4	Advanced Operations Management	45	A
5	Advanced Resource Management	45	A

HOL-1808-02-CHG - vSAN v6.6 - Challenge Lab

vSAN is "radically simple" to setup and get going, but how about configuring it for advanced use cases or troubleshooting performance and availability issues? You will be challenged to scale-out a vSAN cluster and to recover from misconfiguration issues, learn how to troubleshoot vSAN, and restore it to full health.

This lab is available in **English**

#	Title	Time	Level
1	vSAN Configuration	30	B
2	vSAN Day-2 Operations	30	B
3	vSAN Troubleshooting (Basic)	30	B
4	vSAN Troubleshooting (Advanced)	45	A
5	vSAN Interoperability	30	B
6	vSAN Encryption	30	B

HOL-1890-01-CHG - vRealize Automation - Challenge Lab

Put your knowledge of vRealize Automation to the test! Each challenge provides a scenario in which you must fix common problems that cloud administrators and integration engineers might face. Try it and hone your skills.

This lab is available in **English**

#	Title	Time	Level
1	Introduction	30	B
2	Cloud Administration, Basic Challenge	30	B
3	Cloud Extensibility, Basic Challenge	45	B
4	Cloud Administration, Advanced Challenge	45	A
5	Cloud Extensibility, Advanced Challenge	45	A

HOL-1891-01-CHG - Horizon - Challenge Lab

Resolve the top challenges that customers experience in their End User environments. From creating just-in-time desktops, to securing and automating your VDI, you will leverage the latest technology, including Horizon, App Volumes, User Environment Manager, NSX, and PowerCLI to solve these challenges.

This lab is available in **English**

#	Title	Time	Level
1	First day at work: Introduction to the Environment	30	B
2	Just-in-time Management Platform (JMP) Desktops	45	A
3	Just-in-time Management Platform (JMP) Applications	45	A
4	Just-in-time Management Platform (JMP) User Configuration	30	A
5	Horizon Published Apps	30	A
6	Securing your Horizon Environment	60	A
7	Horizon Automation	30	A

HOL-1892-01-CHG - VMware NSX - Challenge Lab

Test your networking and security knowledge. Implement a security strategy to protect your applications from attack. Exploit vulnerabilities in common operating systems and applications. Implement changes to the networking topology to support a growing demand on the applications in your environment.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to the Environment	15	B
2	Protecting the Application	45	B
3	Configuring the Virtual Network	30	B
4	Network Tasks	30	A
5	Troubleshooting	30	A

Cloud Management Platform Labs

The Cloud Management catalog includes products and solutions in the vRealize Suite family.

HOL-1801-01-CMP - vRealize Suite Standard - Cloud Planning and Optimization

You can gain insights into your infrastructure and compare the costs of running workloads in your private cloud versus select public clouds. You can also optimize compute resource utilization and improve planning and forecasting. vRealize Operations and vRealize Business for Cloud improve operational efficiency by increasing capacity utilization and resource reclamation. Experience better consumption tracking, visibility into the cost of resources, and streamlined capacity planning and forecasting.

This lab is available in **English**

#	Title	Time	Level
1	Business Alignment with Insights into Infrastructure Costs for Private Cloud	60	B
2	Cost Transparency and Comparison of Costs across Private and Public Clouds	30	B
3	Capacity Management: Alerting, Reclamation, Right-sizing, Capacity Trending, Costing, and Capacity Correlation	60	B
4	vSphere Capacity Planning Projects based on Demand and Consumption	30	B
5	Infrastructure Compliance with vSphere Hardening Guide, PCI and HIPAA	30	B

HOL-1801-02-CMP - vRealize Suite Standard - Automated and Proactive Management

vRealize Operations works in conjunction with vSphere to automatically balance workloads between hosts both within and across clusters to alleviate existing or predicted resource contention. Also learn about the vRealize Operations action functionality that allows alert-driven automated remediation of problems.

This lab is available in **English**

#	Title	Time	Level
1	Automated Workload Placement and Predictive DRS	60	B
2	Automated Remediation of Issues	30	B

HOL-1801-03-CMP - vRealize Suite Standard - Manage the SDDC

Use vRealize Operations and vRealize Log Insight to troubleshoot issues, look for performance improvements, avoid disruption, and proactively manage the Software Defined Data Center (SDDC) with integrated performance and health monitoring across compute, network, storage and applications.

This lab is available in **English**

#	Title	Time	Level
1	360-degree Troubleshooting with Metrics and Logs	30	B
2	Health and Performance Monitoring	30	B
3	Software Defined Data Center and Multi-Cloud Monitoring	30	B
4	Operating System and Application Monitoring	30	B
5	Extending Monitoring through the Stack - From Physical to Application	30	B

HOL-1801-04-CMP - vRealize Operations - Advanced Topics

Take your vRealize Operations skills to the next level! Craft your own policies, create custom dashboards and custom Views and Reports. Discover End-point Operations for operating system and application monitoring, work with the vRealize Operations API for Inbound integrations, webhook shims for outboard integration, and use PowerCLI with vRealize Operations.

This lab is available in **English**

#	Title	Time	Level
1	Operating System and Application Monitoring with Endpoint Operations	30	A
2	Creating Custom Dashboards and Super Metrics	30	A
3	Managing Policies	30	A
4	Working with Views and Reports	30	A
5	Using the API for Inbound Integration	30	A
6	Using Webhook Shims for Outbound Integration	30	A
7	Using PowerCLI for vRealize Operations	45	A

HOL-1801-06-CMP - vSphere Optimization Assessment and Hybrid Cloud Assessment

Learn the value of the vSphere Optimization Assessment (VOA) and the Hybrid Cloud Assessment (HCA).

This lab is available in **English**

#	Title	Time	Level
1	Introduction to VMware Assessments	30	B
2	Installing vRealize Operations Manager	30	B
3	Installing vRealize Business for Cloud	30	B
4	Showing the Value of VMware Assessments	60	B
5	Selling VMware Cloud Management	15	B

HOL-1802-01-CMP - Wavefront - Real-Time Metrics Analytics

Explore the VMware Wavefront solution. Wavefront is a cloud-based metrics analytics and monitoring product. It empowers developers and application owners to get a handle on all aspects of their applications and infrastructure.

This lab is available in **English**

#	Title	Time	Level
1	Getting Started with Wavefront	45	B
2	Intelligent Alerting and Correlation	15	B
3	Application Monitoring and Alerting	30	B

HOL-1806-01-CMP - vRealize Suite - Getting Started

Walk through the integration points of the vRealize Suite, including vRealize Operations, vRealize Automation, vRealize Business for Cloud, and Log Insight. The vRealize Code Stream Management Pack demonstrates how to keep multiple environments synchronized. These powerful individual components work even better together, with less time, cost, and effort.

This lab is available in **English**

#	Title	Time	Level
1	vRealize Automation & vRealize Operations Integration	45	B
2	vRealize Log Insight & vRealize Operations Integration	30	B
3	vRealize Business for Cloud & vRealize Automation Integration	30	B
4	vRealize Code Stream Management Pack for IT DevOps	45	B

HOL-1806-03-CMP - vRealize Business for Cloud - Getting Started

Proactively manage the costs, quality, and performance of IT services through insightful dashboards that help align IT to the demands of the business. VMware vRealize Business for Cloud automates cloud costing and consumption analysis, delivering the insight you need to efficiently deploy and manage cloud environments.

This lab is available in **English**

#	Title	Time	Level
1	Computing the Cost of your Private Cloud	30	A
2	Viewing Public Cloud Information	30	B
3	Comparing Clouds models in vRealize Business for Cloud	30	B
4	vRealize Business for Cloud Reports	15	B
5	vRealize Business Stand-Alone Mode	15	B

HOL-1821-01-CMP - vRealize Automation 7 - Getting Started

See the basic features of vRealize Automation. Whether you're interested in blueprinting and IaaS provisioning, the powerful lifecycle and governance engine, or just want an introduction to core concepts, this is a great place to begin your journey.

This lab is available in **English**

#	Title	Time	Level
1	What can vRA 7 Do for You?	30	B
2	Introduction to Administration	30	B
3	Basic Service Authoring	60	B
4	Policy Based Lifecycle Management and Governance	30	B

HOL-1821-02-CMP - vRealize Automation 7 - Advanced Topics

Learn all about the advanced capabilities of vRealize Automation. This deep-dive covers more complex service authoring capabilities, including new NSX integration capabilities, creating applications using Containers, vRealize Automation Health Monitoring and much more.

This lab is available in **English**

#	Title	Time	Level
1	Blueprinting Applications with vRealize Automation	60	B
2	Blueprinting and Managing Network Topologies with vRealize Automation	60	B
3	Using vRealize Automation to Discover, Deploy and Manage Containers	60	B
4	Introducing the vRealize Automation Health Broker	30	B

HOL-1821-03-CMP - vRealize Automation 7 - Advanced Extensibility

Dive deep into how vRealize Automation can connect to, expand and leverage your existing processes and toolsets. Use Event Broker to call external services, integrate with IPAM solutions like Infoblox NIOS, communicate with configuration management systems like Puppet Enterprise, or create completely new automation functionality using XaaS.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Extensibility	30	A
2	Infoblox IPAM Integration with vRealize Automation	45	A
3	Integrating vRealize Automation with ServiceNow	45	A
4	Puppet Integration with the Configuration Management Framework	45	A
5	Creating and Managing Custom Resources with vRealize Automation	45	A

HOL-1821-04-CMP - vRealize Code Stream - DevOps Solutions

Learn how to use vRealize Code Stream to orchestrate DevOps release processes and continuous application delivery. Apply the same

This lab is available in **English**

#	Title	Time	Level
1	Introduction to vRealize Code Stream	30	B
2	Using vRealize Code Stream for Application Release Automation	60	A
3	vRealize Code Stream for IT DevOps	45	A

HOL-1821-05-CMP - vRealize Orchestrator - Getting Started

Use vRealize Orchestrator to simplify the automation of IT tasks. Explore the vRealize Orchestrator development environment and learn important development concepts by building and testing basic workflows, then put those workflows to use inside vRealize Automation to create reusable processes.

This lab is available in **English**

#	Title	Time	Level
1	vRealize Orchestrator Overview	30	A
2	Creating a Basic Orchestrator Workflow	30	A
3	Introduction to Parameters, Attributes and Scripting Objects	30	A
4	Using Actions in vRealize Orchestrator	30	A
5	Creating and Managing Resource Elements	45	A
6	Creating Advanced Orchestrator Workflows	45	A
7	Error Handling and Troubleshooting	45	A

Cloud Native Applications

Labs in the Cloud Native Applications catalog focus on Photon, vSphere Integrated Containers, Harbor and Admiral.

HOL-1830-01-CNA - Photon OS and Container Basics - Getting Started

If you are new to containers and looking to jumpstart your journey into this exciting technology, this lab is for you. Learn the basic concepts of containers. Gain hands-on experience by deploying a classic three-tier application using PhotonOS, the VMware container-optimized operating system. Take a peek at more advanced topics, such as multi-component deployment and container networking.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Containers	15	B
2	A Quick Tour of Docker	15	B
3	Deploying a Docker Application on VMware PhotonOS	15	B

HOL-1830-02-CNA - vSphere Integrated Containers - Getting Started

Containers provide a small footprint via the Docker platform and ease of application packaging and sharing. Many organizations are now struggling with how to deploy these applications in production. VMware Integrated Containers (VIC) provides the best of both worlds. You can use the container form factor and they look and behave just like virtual machines. Use familiar tools and workflows to manage these new workloads. Explore the VIC platform and two other VMware open-source tools for easing container management. Harbor is an enterprise class registry server for docker images. Admiral is a lightweight Container Management platform for deploying and managing applications.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to vSphere Integrated Containers	15	B
2	Setting up vSphere Integrated Containers	15	B
3	Using vSphere Integrated Containers	15	B
4	VMware Harbor - An Enterprise-class Registry Server	15	B
5	Container Management with VMware Admiral	15	B

HOL-1831-01-CNA - Kubernetes - Getting Started

Explore the components of the Kubernetes system, understand the role of each component, then build, deploy and manage container-based applications with Kubernetes running on vSphere.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Kubernetes	30	B
2	Kubernetes Deep Dive	45	A
3	Deploy and Manage a Multi-Tiered Application	30	A

Emerging Technologies

The Emerging Technologies catalog contains labs that are focused on new and upcoming technology.

HOL-1820-01-EMT - VMware Integrated OpenStack (VIO) – Getting

Get started with VMware Integrated OpenStack (VIO). See how you can use vSphere and NSX with Openstack Ocata.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to VMware Integrated OpenStack	30	B
2	Getting Started with VIO	60	B
3	VIO Basic Networking	60	B
4	Using VMware Realize Solutions to Operationalize OpenStack	30	B
5	VIO API Consumption and Automation	60	B
6	Advanced VIO Topics	30	A

HOL-1885-01-EMT - VMware Learning Platform - Deliver Your Own Hands-on Labs

Use VMware Learning Platform to deliver your own content to your own students. A tenant administrator can use the platform's administration user interface (Admin UI) to complete lab creation tasks and utilize more advanced features.

This lab is available in **English**

#	Title	Time	Level
1	Connecting your Cloud Resources to VMware Learning Platform	15	B
2	Delivering a Lab to your Users	30	B
3	Accessing VMware Learning Platform's Rich Statistics	15	B
4	Making the Admin UI and Lab Console's Look/Feel your Own	30	B
5	Localizing your Lab	30	B
6	Delivering an Instructor-Led Lab	30	B
7	Managing an Event	30	B
8	Setting Up a 3rd Party Learning Application	30	B

HOL-1886-01-EMT - vCloud Network Functions Virtualization - Getting Started

VMware vCloud NFV is a Network Functions Virtualization (NFV) services delivery, operations and management platform, developed for Communications Service Providers (CSPs). For this lab, we have partnered with Cloudify and Athonet. We will demonstrate the end-to-end lifecycle of VNF management and orchestration.

This lab is available in **English**

#	Title	Time	Level
1	Getting Started	15	B
2	TOSCA based Blueprinting & Modeling	30	B
3	VoLTE Solution Deployment	30	B
4	Lifecycle Management of a VoLTE core	30	B

HOL-1886-02-EMT - vCloud Network Functions Virtualization - Advanced Topics

VMware vCloud NFV is a Network Functions Virtualization (NFV) services delivery, operations and management platform, developed for Communications Service Providers (CSPs). You will install VMware Integrated Openstack (VIO) into the vCloud NFV Platform, deploy Metaswitch from a heat template and upgrade VIO.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to the IP Multimedia Subsystem (IMS)	15	A
2	VMware Integrated OpenStack Deployment	15	A
3	Upgrading VMware Integrated OpenStack	15	A
4	Metaswitch vIMS and vSBC Deployment	15	A
5	Operational Tools for Managing vIMS and vSBC deployments	15	A

HOL-1887-01-EMT - VMware Cloud on AWS - Getting Started

Be among the first to see the new VMware on AWS solution. You will interact with the VMware Cloud interface to perform basic tasks and manage your public cloud capacity.

This lab is available in **English**

#	Title	Time	Level
1	Deploying an SDDC Through the User Interface	30	B

Hybrid Cloud Labs

In the Hybrid Cloud catalog, you will explore labs that highlight the integration between VMware products and third-party clouds.

HOL-1881-01-HBD – VMware HCX – Getting Started with Cross-Cloud Mobility

This lab helps you get quickly acclimated on how the promised land of Application portability across VMware cloud infrastructures - Private or Public, can be achieved. Along with the capabilities of Secure bi-directional VM migrations and Hybrid DR.

This lab is available in **English**

#	Title	Time	Level
1	Establishing a State of Hybridity	60	B
2	Bi-Directional Cloud Migration	30	B
3	Hybrid Disaster Recovery (DR)	30	B
4	Datacenter Designer	15	B

HOL-1883-01-HBD – VMware Cloud Provider Program – Tools and Offerings

Explore vCloud Director interoperability with NSX, vSAN, vRealize Operations, vRealize Log Insight, vCloud Availability, and Usage Meter.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to vCloud Director	30	B
2	vCloud Director Consumption	15	B
3	vSAN and vCloud Director	30	B
4	vRealize Operations with vCloud Director	45	B
5	vRealize Log Insight and vCloud Director	30	B
6	Usage Meter	30	B
7	vCloud Availability	30	B

HOL-1884-01-HBD - VMware Cloud Services - Getting Started

VMware Cross-Cloud Services deliver a unified approach with end-to-end visibility into public and private cloud usage, costs, networks and security rules. Use the Discovery Service, Cost Insight Service, and Network Insight Service across AWS, Azure and VMware Private Clouds.

This lab is available in **English**

#	Title	Time	Level
1	VMware Discovery	15	B
2	VMware Cost Insight	45	B
3	VMware Network Insight	45	B

Hyper-Converged Infrastructure Labs

In the Hyper Converged Infrastructure catalog, you will find labs focused on storage, vSAN and VxRail.

HOL-1808-01-HCI - vSAN v6.6 - Getting Started

VMware vSAN is a radically simple, enterprise-class shared storage solution for hyper-converged infrastructure optimized for today's all-flash performance. Learn how easy it is to enable vSAN and use it to store your VMs. Also, explore vSAN's features including data-encryption at rest, deduplication and compression, RAID 5/6 erasure encoding, stretched-clustering enhancements & iSCSI Target support.

This lab is available in **English**

#	Title	Time	Level
1	vSAN 6.6 Setup and Enablement	15	B
2	vSAN Scale Out with Configuration Assist	30	B
3	vSAN All Flash Capabilities	30	B
4	vSAN iSCSI Target	30	B
5	vSAN Encryption	30	B
6	vSAN PowerCLI and ESXCLI	30	B
7	vSAN Stretched Cluster	30	B

HOL-1827-01-HCI - VMware Storage - Virtual Volumes and Storage Policy Based Management

Software Defined Storage is here today. VMware delivers a complete set of storage capabilities, available on-demand and created dynamically. Use exciting new solutions such as Storage Policy Based Management (SPBM), Virtual Volumes (VVol) and PowerCLI. Manage policies in this new model and deliver storage services optimized for your applications and VMs. Also, explore new vVol Capabilities in vSphere 6.5 including replication support for vVols.

This lab is available in **English**

#	Title	Time	Level
1	Overview and Requirements	30	B
2	Virtual Volumes Architecture	30	B
3	Provisioning Virtual Volumes	45	B
4	Storage Policy Based Management with Virtual Volumes	30	B
5	Virtual Volumes New Features	45	B

HOL-1828-01-HCI - VxRail - Getting Started

VxRail is the hyper-converged infrastructure appliance from Dell EMC and VMware. Stand up a fully virtualized Software Defined Data Center in rapid time. It provides simple, resilient, scalable, and cost-effective solutions for nearly every application and workload.

This lab is available in **English**

#	Title	Time	Level
1	VxRail Initial Configuration	15	B
2	VxRail Management, Monitoring and Maintenance Features	15	B
3	Troubleshooting HDD Failure	15	B
4	Striping and Storage Policy Based Management	15	B
5	VxRail One Click Upgrade	15	B
6	VxRail One Click Shutdown	15	B

Network Virtualization Labs

In the Network Virtualization catalog, you will find labs focused on VMware NSX

HOL-1803-01-NET - VMware NSX - Getting Started

VMware NSX is the premier platform for network virtualization. You will gain hands-on experience with Logical Switching, Distributed Logical Routing, Dynamic Routing, Distributed Firewall and other Logical Network Services.

This lab is available in **English**

#	Title	Time	Level
1	NSX Manager Installation and Configuration	15	B
2	Logical Switching	30	B
3	Logical Routing	60	B
4	Edge Services Gateway	60	B

HOL-1803-02-NET - VMware NSX - Distributed Firewall and Micro-Segmentation

Learn more about VMware NSX and Micro-Segmentation, including in-depth reviews of the Distributed Firewall, Service Composer UI and Application Rule Manager. Collapse a segmented network, intelligently group servers, micro-segment an application and implement user based security.

This lab is available in **English**

#	Title	Time	Level
1	Service Composer and Distributed Firewall Overview	45	B
2	Collapse 3-Tier Application Feature Walk-Through	15	B
3	Intelligent Grouping	30	B
4	User Based Security with a Jump Box	45	B
5	NSX Application Rule Manager	30	B

HOL-1803-03-NET - VMware NSX - Operations and Visibility

You will gain hands on experience with NSX tools such as Traceflow, CentralCLI, Flow Monitoring, Application Rule Manager, and Endpoint Monitoring. Work with dashboards specific for NSX with Log Insight. Utilize NSX native capabilities in support of production NSX deployment.

This lab is available in **English**

#	Title	Time	Level
1	Log Insight Management Pack Review	15	B
2	Log Insight Dashboards for NSX	15	B
3	Flow Monitoring Configuration	30	B
4	Traceflow with NSX	30	B
5	The NSX Central CLI	15	B
6	Endpoint Monitoring with NSX	15	B

HOL-1822-01-NET - VMware NSX Cloud - Secure Native Workloads in AWS

VMware NSXaaS provides you the ability to manage Networking and Security policies in Public Cloud environments such as AWS. You will explore how NSXaaS provides micro-segmentation to native instances running in AWS.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to the AWS Console	15	B
2	Verify Application Functionality	15	B
3	Introduction to NSX Management Components	30	B
4	Securing Applications with NSX	60	B

HOL-1823-01-NET - Palo Alto Networks VM-Series on NSX - Next-Gen Security for your SDDC

Accelerate the deployment of business-critical applications without compromising security. Define dynamic security policies to protect against advanced threats. Enforce advanced security in a multi-tenant environment. VMware and Palo Alto Networks enable transparent service insertion to secure your Software-Defined Data Center (SDDC). Deploy and configure Palo Alto Networks VM-Series virtualized next-generation firewall on VMware NSX.

This lab is available in **English**

#	Title	Time	Level
1	Palo Alto Networks VM-Series and VMware NSX Dynamic Security Policy Configuration	30	B
2	Deploying Palo Alto Networks VM-Series with VMware NSX to protect a multi-tier application in a multi-tenant environment	45	B
3	Using Distributed FireWall (DFW) to Protect Intra-tier Traffic	30	B
4	Using Advanced Palo Alto Networks Security Policy to Protect Application Tiers	45	B
5	Panorama Driven Workflows for NSX	30	B

HOL-1824-01-NET - Check Point vSEC and NSX - Advanced SDDC Security

Check Point vSEC integration with VMware NSX enables complementary, advanced security capabilities in VMware SDDCs. vSEC enhances the distributed firewall services provided by NSX DFW with a next generation firewall, application and data security, advanced threat prevention, and forensics analysis. Check Point Security Management enables seamless management of Check Point physical and virtual appliance gateways along with compatibility across the VMware suite of operations-focused products.

This lab is available in **English**

#	Title	Time	Level
1	Check Point Introduction, Configuration	30	B
2	Dynamic Policy Application with vCenter and NSX Objects	30	B
3	Advanced Security Seamlessly Embedded into NSX	30	A

HOL-1825-01-NET - VMware NSX - Advanced Consumption

Cover advanced NSX topics and extend NSX into a dual vCenter environment. Build on concepts from prior VMware NSX experience. Dive deep to expand your NSX knowledge.

This lab is available in **English**

#	Title	Time	Level
1	VMware NSX REST API	15	A
2	Review Pre-Configured Multi-Site	30	A
3	Creation of Universal Constructs	30	A
4	Active / Active Multi-Site	15	A

HOL-1825-02-NET - VMWare NSX and SRM - Active-Standby Solution

Cross-VC NSX resolves some of the difficult challenges faced by traditional disaster recovery solutions such as changing of networks and IP addresses and synchronizing security policies. You will simulate a full 3-Tier application failover from Primary Site to Protected site with minimal changes to the environment.

This lab is available in **English**

#	Title	Time	Level
1	Review Pre-Configured Multi-Site NSX and Configure Site-Local Routing	45	A
2	Site Recovery Manager Configuration	45	A

HOL-1826-01-NET - VMware NSX-T - Getting Started

Build developer clouds and host next-gen apps with VMware NSX-T. You will look at NSX-T multi-hypervisor capabilities and learn how to configure logical switching, routing and distributed firewall.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to NSX-T	15	B
2	Host Preparation and Logical Switching	45	B
3	Logical Routing	60	B
4	DHCP and NAT	30	B
5	Distributed Firewall, Spoof Guard, and Tools	45	B

HOL-1826-02-NET - VMware NSX-T with Kubernetes

Explore what Kubernetes is and how to leverage NSX-T with Kubernetes to control and manage the virtual network of your containers.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Kubernetes and NSX-T	15	B
2	Kubernetes namespaces and NSX-T	45	B
3	Kubernetes Services and Ingress rules	30	B
4	Security with NSX-T and Kubernetes	15	B

HOL-1829-01-NET – vRealize Network Insight – Getting Started

Explore the functionality of vRealize Network Insight (vRNI) through use case scenarios. Discover how vRNI helps with micro-segmentation, compliance, optimizing network performance across networks, ensuring health and availability of NSX, and management of AWS networking.

This lab is available in **English**

#	Title	Time	Level
1	Micro-Segmentation and Security	30	B
2	360 Degree Visibility Across Virtual and Physical Networks	45	B
3	Advanced NSX Management & Operations	45	B
4	Manage Security for Public Clouds (AWS)	30	B

HOL-1841-01-NET - Securing Horizon with Trend Micro and NSX

There are new and exciting ways to secure your Horizon environment. Secure the end-point with an identity-based dynamic firewall such as Trend Micro Deep Security to secure the desktop. These skills can apply to Health Care, Aerospace, Manufacturing, Telecom, and Retail among others.

This lab is available in **English**

#	Title	Time	Level
1	Installation and Configuration of Trend Deep Security	30	B
2	Protecting Horizon Desktops with NSX and Trend Micro Deep Security	45	B
3	Protecting Web Servers against exploits with NSX and Trend Micro Deep Security	30	B
4	Securing and protecting internal access using NSX load balancing	45	B
5	Securing and protecting external access using VMware Horizon access servers	45	B

HOL-1842-01-NET - VMware AppDefense - Secure Datacenter Endpoints

VMware AppDefense leverages the hypervisor to manage and maintain a secure posture for your data center applications. The hypervisor is close enough to gain detailed visibility into an application runtime and isolated enough to not be compromised in the event of an attack. When anomalies are detected, AppDefense uses the VMware infrastructure to perform live scans of process memory, and remediate issues through the security policy layer within NSX.

This lab is available in **English**

#	Title	Time	Level
1	Overview of VMware App Defense	15	B
2	Securing Application Endpoints with App Defense	45	B

Software Defined Data Center Labs

In the Software Defined Data Center catalog, you will find labs focusing on our core platform, vSphere and vSphere with Operations Management, VMware Site Recovery Manager, Performance and Benchmarking.

HOL-1804-01-SDC - vSphere 6.5 - Performance Diagnostics and Benchmarking

Learn best practices and performance-related features of vSphere 6.5. Work with new performance tools developed by VMware like Weathervane and DVD Store 3 to characterize application and database VM performance. You will also look at the new vSphere HTML 5 Client and learn how to right-size VMs with regards to virtual NUMA in vSphere 6.5.

This lab is available in **English**

#	Title	Time	Level
1	Application Performance Testing with Weathervane	45	B
2	Database Performance testing with DVD Store	30	B
3	Right-Sizing vSphere 6.5 VMs for Optimal Performance	45	B
4	vSphere HTML5 Client vs. the vSphere Web Client	15	B
5	CPU Performance, Basic Concepts and Troubleshooting	15	B
6	CPU Performance Feature: Power Policies	15	B
7	Memory Performance with X-Mem	30	B
8	Storage Performance and Troubleshooting	30	B
9	Network Performance, Basic Concepts and Troubleshooting	15	B
10	Advanced Performance Feature: Latency Sensitivity Setting	45	B
11	Advanced Performance Tool: esxtop CLI introduction	30	B

HOL-1805-01-SDC - Site Recovery Manager - Data Center Migration and Disaster Recovery

Learn all you need to know about VMware Site Recovery Manager (SRM). Fail over a Virtual Machine, execute a Disaster Recovery plan,

This lab is available in **English**

#	Title	Time	Level
1	Lighting Lab: Failing over a site with Site Recovery Manager	15	B
2	Executing a Disaster Recovery Plan using Site Recovery Manager	60	B
3	Site Recovery Manager Advanced Topics	30	A
4	Automating Site Recovery Manager tasks with vRealize Orchestrator	30	A
5	SRM integration with NSX and Storage Policy Based Protection Groups and Stretched Storage	30	A

HOL-1810-01-SDC - Virtualization 101: Introduction to vSphere

This introductory lab demonstrates the core features and functions of vSphere and vCenter. This is an excellent place to begin your experience with VMware vSphere.

This lab is available in **English, 한국어, 日本語, 简体中文, Português.**

Lab Modules

#	Title	Time	Level
1	Introduction to Management with vCenter Server	60	B
2	Introduction to vSphere Networking and Security	60	B
3	Introduction to vSphere Storage	60	B

HOL-1811-01-SDC - vSphere v6.5 - What's New

Explore some of the new features of vSphere 6.5 including VM Encryption, vCenter High Availability, and the new HTML5 vSphere Client. You will also learn about the improved vCenter Server Appliance and how to migrate from a Windows-based vCenter Server installation.

This lab is available in **English**

#	Title	Time	Level
1	What's New in vSphere 6.5	60	B

HOL-1811-02-SDC - vSphere with Operations Management - Getting Started

Explore the capabilities of vSphere with Operations Management (vSOM). Learn key vSOM features, and their use cases. Deploy and manage upgrades, migrations, availability, workload performance and log management. This is an excellent place to begin your experience with VMware vSphere with Operations Management!

This lab is available in **English**

#	Title	Time	Level
1	vCenter Server Appliance as a First Choice	60	B
2	Next Generation Management Clients	45	B
3	Getting Familiar with vRealize Operations	30	B
4	Introduction to vRealize Log Insight	30	B
5	Administration Basics	60	B
6	Upgrading vCenter	30	B
7	vCenter Server Appliance Migration	30	B
8	High Availability and Business Continuity	60	B

HOL-1811-03-SDC - vSphere with Operations Management - Advanced Topics

vSphere with Operations Management (vSOM) adds new architecture options that can improve availability and manageability. Advancements in storage and networking capabilities leave the competition generations behind! Explore advanced content including Content Library, Distributed Switches, Storage and more.

This lab is available in **English**

#	Title	Time	Level
1	Advanced Storage Features	30	A
2	Advanced Networking Features	30	A
3	Cross vCenter vMotion	15	A
4	Creating and Managing the Content Library	30	A
5	Host Lifecycle Management	45	A

HOL-1811-04-SDC - vSphere Security - Getting Started

Experience new security features of vSphere 6.5, including VM Encryption, Audit Quality Logging, Encrypted vMotion, Key

This lab is available in **English**

#	Title	Time	Level
1	Automating Password Complexity for ESXi Users	15	B
2	Forensic Security with vRealize Log Insight	30	B
3	VM Encryption and Encrypted vMotion	60	B
4	Secure Boot for Hosts and VMs	15	B
5	No-Cryptography Administrator Roles and Permissions	15	B

HOL-1811-05-SDC - vSphere Automation with PowerCLI

Get hands-on with VMware PowerCLI. Gain familiarity with the tool, and then dive deeper into the functionality available with real world ex

This lab is available in **English**

#	Title	Time	Level
1	Automate configuration activities for ESXI Hosts	30	B
2	Automate configuration activities for vCenter Server	30	B
3	Automate Virtual Machine management	30	B

HOL-1811-06-SDC - vSphere Automation and Development - API and SDK

The vSphere Automation API and SDK are developer friendly and have simplified interfaces. You will use the API and SDK for Virtual Machine

This lab is available in **English**

#	Title	Time	Level
1	API and DCLI	45	A
2	Python and the vSphere API	45	A
3	Java and the vSphere API	45	A
4	API Explorer	30	A

HOL-1811-07-SDC - vSphere HTML Client SDK - Build a Plugin

Build and deploy intuitive vSphere Client plugins from scratch and dive into vSphere Client extensibility mechanisms. You will use the vSphere Client SDK and a leading-edge HTML UI stack, including Angular, Typescript, and the new VMware Clarity Design System (<https://vmware.github.io/clarity/>)

This lab is available in **English**

#	Title	Time	Level
1	Build a vSphere Client Plugin the Easy Way	60	A
2	Lifecycle of a vSphere Client Plugin	30	A

Solution Labs

In the Solution Labs catalog, you will find labs that focus on how to solve real-world problems using VMware products.

HOL-1806-02-SLN - Automate IT - Making Private Cloud Easy

SDDC use cases for automating the delivery of IT services using vRealize Automation. You will automate the deployment of application-centric networking and security with NSX and application-centric storage and availability through integration with SPBM. You will also extend your private cloud to integrate with existing IT tools.

This lab is available in **English**

#	Title	Time	Level
1	Better Together: vRealize Automation and NSX App Centric Networking & Security	45	B
2	vRealize Automation Day 2 Actions for NSX	30	B

HOL-1844-01-SLN - Modernize Infrastructure with VMware Cloud Foundation

VMware Cloud Foundation (VCF) provides a simple way to deploy and operate a private cloud using the VMware unified SDDC platform. You will learn how to deploy VCF on a privately managed infrastructure, image a new physical rack, and perform the "bring-up" process for a VCF setup. You will also do multiple configuration changes to an installed VCF instance.

This lab is available in **English**

#	Title	Time	Level
1	Deploying the Cloud Foundation Imaging Appliance	15	B
2	Image a New Cloud Foundation Rack	15	B
3	Cloud Foundation Bring-Up	15	B
4	Creating a Virtual Infrastructure (VI) Workload Domain	15	B
5	Creating a Virtual Desktop Infrastructure (VDI) Workload Domain	15	B
6	Expanding a Workload Domain	15	B
7	Deleting Workload Domain	15	B
8	Automate Patching and Upgrades	15	B

HOL-1844-02-SLN - VMware Cloud Foundation - Hybrid Cloud

VMware Cloud Foundation (VCF) provides an easier way to deploy and operate a hybrid cloud. Learn how to deploy VCF in a hosted (public cloud) environment and explore operating and managing VCF running in this hosted environment. Gain an understanding of the value proposition of having a common SDDC platform across private and public clouds such as IBM Cloud.

This lab is available in **English**

#	Title	Time	Level
1	Hybrid Cloud Introduction	15	B
2	Deploying VMware Cloud Foundation in a Public Cloud	15	B
3	Extending vRealize Automation to the Public Cloud	15	B
4	Expanding Public Cloud Capacity	15	B
5	Apply Software Updates in the Public Cloud	15	B
6	Security & Compliance Automation on IBM Cloud with HyTrust	15	B

HOL-1845-01-SLN - Modernize Infrastructure - Build Your Own SDDC

The VMware Software Defined Data Center (SDDC) delivers value through modernized infrastructure. Discover the process and requirements to extend compute, storage, and network virtualization across the data center and add intelligent operations management.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Modernizing IT	15	B
2	Compute Virtualization - vSphere 6.5	30	B
3	Storage Virtualization - vSAN 6.6	30	B
4	Network Virtualization - NSX 6.2	30	B

Unified End-point Management Labs

In the Unified End-point Management Labs catalog, you will find labs that focus on AirWatch and integration points with other end-point solutions.

HOL-1857-01-UEM - VMware AirWatch - Getting Started

Enable your organization with the power of mobility by starting with the basics. Create a device policy, then get hands on with an iPad and enroll the device into your newly configured environment. Remotely wipe the enterprise settings from the device leaving any private and personal data completely intact.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to AirWatch	30	B
2	Basic Apple macOS Management	45	B
3	Basic Windows 10 Management	30	B
4	AirWatch Console Roles	30	B
5	Branding the AirWatch Console, SSP and SCL	30	B

HOL-1857-02-UEM - VMware AirWatch - Unified Endpoint Management for Windows 10

VMware AirWatch features a new and more efficient approach to Windows lifecycle management across any use case. Deploy OSs to remote workers, onboard employee's BYO machines, deploy across your branch offices and manage special lines of business terminals.

This lab is available in **English**

#	Title	Time	Level
1	Deploying Office 365 ProPlus	30	B
2	Secure Windows 10 BYOPC for your Workforce	30	B
3	Real-Time and Automated Security Protection and Compliance	30	B

HOL-1857-03-UEM - VMware AirWatch with Workspace ONE

Looking for the latest on the VMware Workspace ONE solution? Integrate VMware AirWatch and VMware Workspace ONE to enable Single Sign-On from any device to any application, and deploy applications through Workspace ONE.

This lab is available in **English**

#	Title	Time	Level
1	Workspace ONE Setup and Configuration	60	B
2	Password Vault	30	B

HOL-1857-04-UEM - VMware AirWatch - Productivity Apps

Setup and configure productivity apps that your employees actually want to use. VMware Boxer provides better-than-native email experience with turbo-charged features and integrated mail, calendar and contacts. AirWatch School Manager allows organizations to configure and deploy the Apple Classroom app. VMware AirWatch Browser provides you with an intuitive browsing experience and seamless access to backend services while protecting sensitive corporate data.

This lab is available in **English**

#	Title	Time	Level
1	VMware Boxer	30	B
2	AirWatch School Manager	45	B
3	VMware Browser	45	B

HOL-1857-05-UEM - VMware AirWatch - Mobile Application Management and Developer Tools

VMware AirWatch Mobile Application Management (MAM) functionality can manage mobile applications, deploy them to devices and secure the applications with compliance policies. Use Developer Tools, such as AppConfig, AirWatch SDK, AirWatch REST API, and the Continuous Integration Plugin. Utilize Adaptive Access to provide a better user experience to your employees without compromising security.

This lab is available in **English**

#	Title	Time	Level
1	Introduction to Mobile Application Management	60	B
2	AppConfig	30	B
3	AirWatch REST API	30	B
4	Per-App VPN using AirWatch Tunnel	30	B
5	Introduction to AirWatch Android SDK	45	B
6	Jenkins Continuous Integration Plugin for AirWatch	45	B

HOL-1857-06-UEM - VMware AirWatch - Directory and Certificate Authority Integration

Integrate AirWatch with Active Directory to allow users to enroll with their AD accounts. Configure your PKI with AirWatch, allowing you to issue trusted certificates to mobile devices securely. Secure WiFi, VPN, Email, and other internal services and enable two-factor authentication.

This lab is available in **English**

#	Title	Time	Level
1	Advanced AirWatch Configuration, AD Integration/Certificates	60	A

HOL-1857-07-UEM - VMware AirWatch - Android Management

Dive deep into how to provide a separation of work and personal information and apps at the Android operating system level while maintaining the consistent native user experience. Learn how to deploy Android apps while protecting your enterprise data with security policies.

This lab is available in **English**

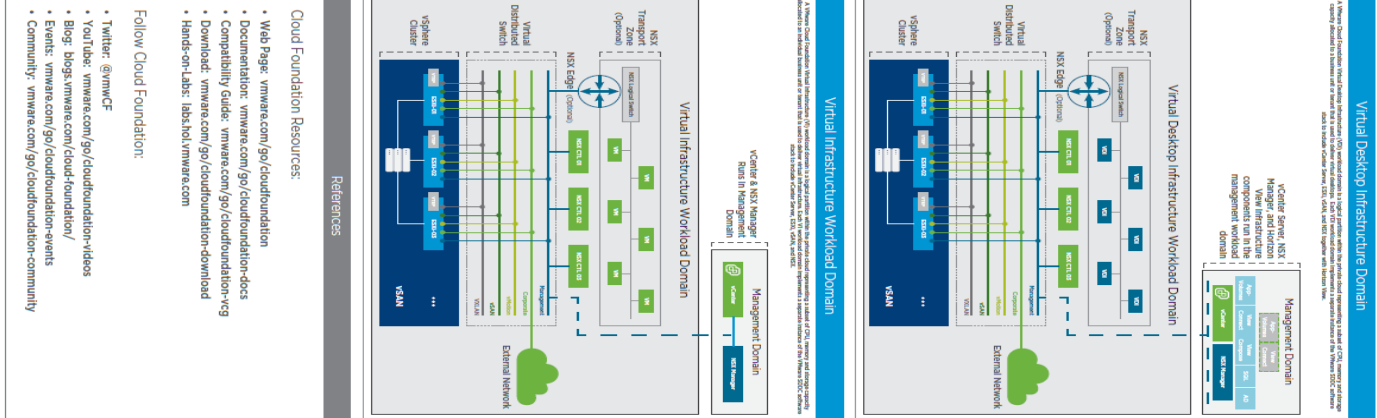
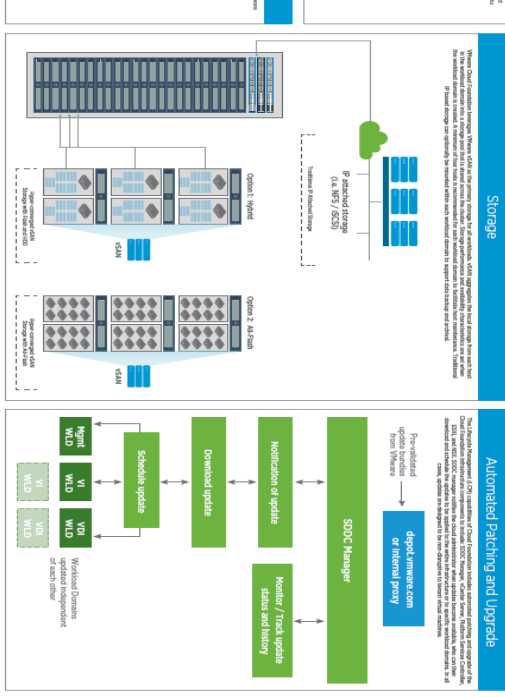
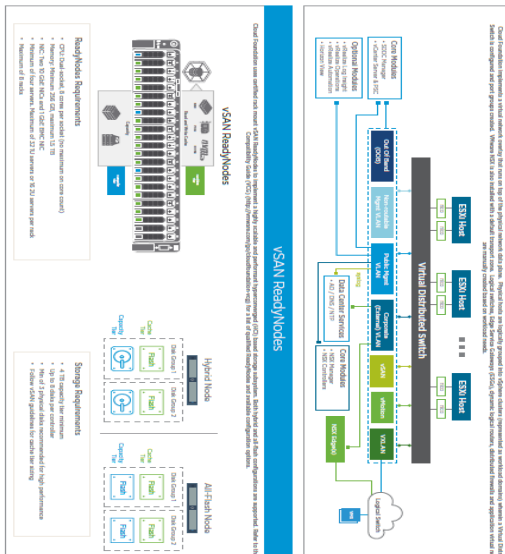
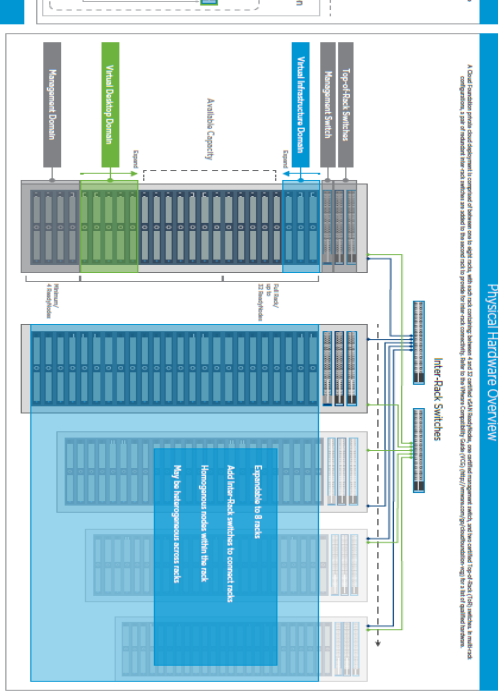
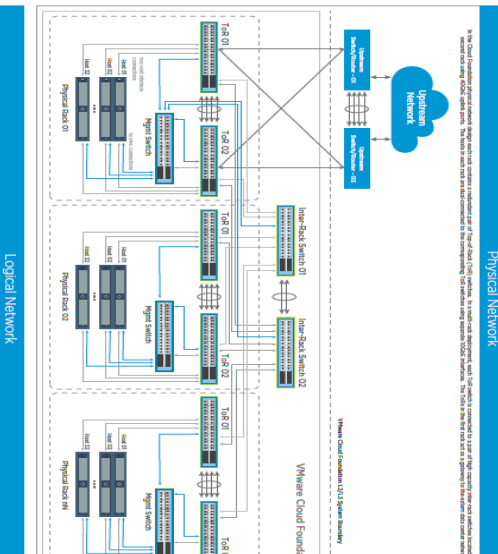
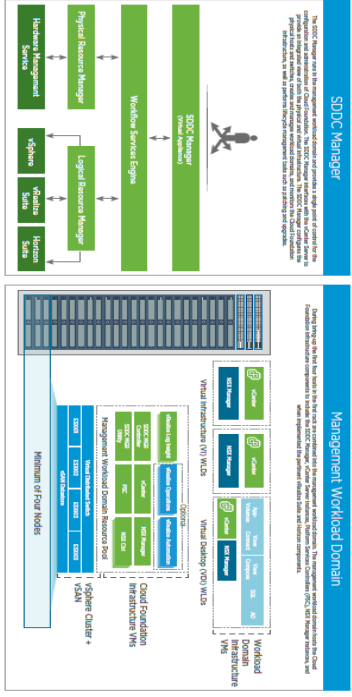
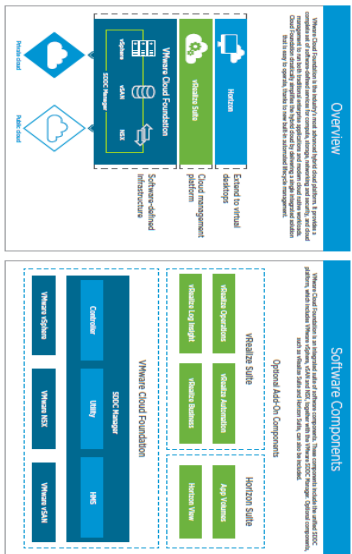
#	Title	Time	Level
1	Android in the Enterprise - Work Profile	30	B
2	Android in the Enterprise - Work Managed Enrollment	30	B

HOL-1857-08-UEM - VMware AirWatch - Technology Partner Integration

Users, applications, and even data centers are located outside the traditional business perimeter, increasing the complexity of managing access to your corporate resources. F5 unified access solutions make it easier to manage global access from a strategic point of control. Provide secure access to your applications by utilizing Per-App VPN profiles and F5 Access Policies.

This lab is available in **English**

#	Title	Time	Level
1	F5 Integration with AirWatch	30	B





VMWARE HANDS-ON LABS

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