



EDUCATION SERVICES

OPEN VIRTUALIZATION ESSENTIALS

COURSE DESCRIPTION

Wind River® Open Virtualization bridges the worlds of embedded Linux and infrastructure as a service (IaaS). Open Virtualization is an optional add-on to Wind River Linux that allows you to create a cloud computing platform with industry-leading determinism. This course focuses on the practical aspects of building and deploying the components of Open Virtualization.

After this course, participants will be able to perform the following:

- Build and deploy the basic Open Virtualization images: host and guest
- Build and deploy the Open Virtualization oVirt images
- Configure an oVirt Node using the oVirt Engine
- Perform basic debugging of end-user host and guest applications
- Tune an Open Virtualization system
- Benchmark the virtual node

PRODUCTS SUPPORTED

- Wind River Linux 5
- The following lab target is available: DELL E64xx4

COURSE FORMAT

- This two-day expert-led course consists of lectures and lab sessions.
- Attendees use Wind River Linux 5.0.
- Participants receive individual guidance from an expert engineer who has extensive experience with Wind River technologies.

AUDIENCE

- Application developers
- Platform developers
- System architects
- Testers

PREREQUISITE SKILLS

- Understanding of embedded programming concepts

Course title:	Open Virtualization Essentials
Duration:	Two days
Format:	Instructor-led lectures and hands-on lab sessions available
Content:	Day 1: Introduction to Open Virtualization; Building Open Virtualization; Deploying Open Virtualization; libvirt Day 2: Open Virtualization Networking Essentials; Application Debugging; oVirt; Introduction to Tuning; Introduction to Benchmarking; Getting Support

- One year of experience on Linux/UNIX
- Experience and familiarity with Wind River Linux 5

PREREQUISITE COURSES

- Wind River Linux and Workbench Essentials

SYLLABUS

Day 1

INTRODUCTION TO OPEN VIRTUALIZATION

- Open Virtualization virtual node architecture
- Product layers

BUILDING OPEN VIRTUALIZATION

- Open Virtualization build overview
- Open Virtualization QEMU Guest platform build
- Modifications for Linux containers
- Open Virtualization host platform build
- Open Virtualization platform build with oVirt
- **LAB: Building Open Virtualization images**

DEPLOYING OPEN VIRTUALIZATION

- Open Virtualization deployment considerations
- The installer image
- PXE and NFS booting
- Launching QEMU Guest
- Launching Linux containers
- **LAB: Deploying Open Virtualization**

LIBVIRT

- libvirt overview
- Using virsh
- **LAB: Launching a VM using virsh**

Day 2

OPEN VIRTUALIZATION NETWORKING ESSENTIALS

- Open Virtualization networking overview
- QEMU networking
- LXC networking
- **LAB: Inter-VM networking**

APPLICATION DEBUGGING

- Debugging a VM from Wind River Workbench
- Debugging a VM from target
- **LAB: Debugging a VM application using Workbench**

OVIRT

- Introduction to oVirt
- ovirt-node
- ovirt-engine
- **LAB: Managing VMs from oVirt Engine**

INTRODUCTION TO TUNING

- Open Virtualization tuning overview
- Tuning the virtual node
- Node hardware requirements
- UEFI configuration
- **LAB: Launching a VM with an isolated CPU**

INTRODUCTION TO BENCHMARKING

- What to benchmark
- How to benchmark
- **LAB: Running a latency benchmark**

GETTING SUPPORT

- Telephone support
- Online support (Wind River Support Network)
- Support request checklist
- Support process
- Support offerings

GLOBAL REACH OF WIND RIVER EDUCATION SERVICES

With more than 30 years of device software experience, Wind River provides education services in every region of the world. Our private classes can be tailored to your needs by adding or removing topics from multiple courses. If you have more specific project challenges, Wind River Mentoring provides coaching by experienced engineers to help you integrate Wind River solutions into your environment. And when you're too busy to attend a whole class, our On-Demand Learning options provide around-the-clock access to advanced and specialized topics. All of our education services are led by expert engineers who are closely connected to the Wind River technical community for access to specific expertise.

CONTACT US

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