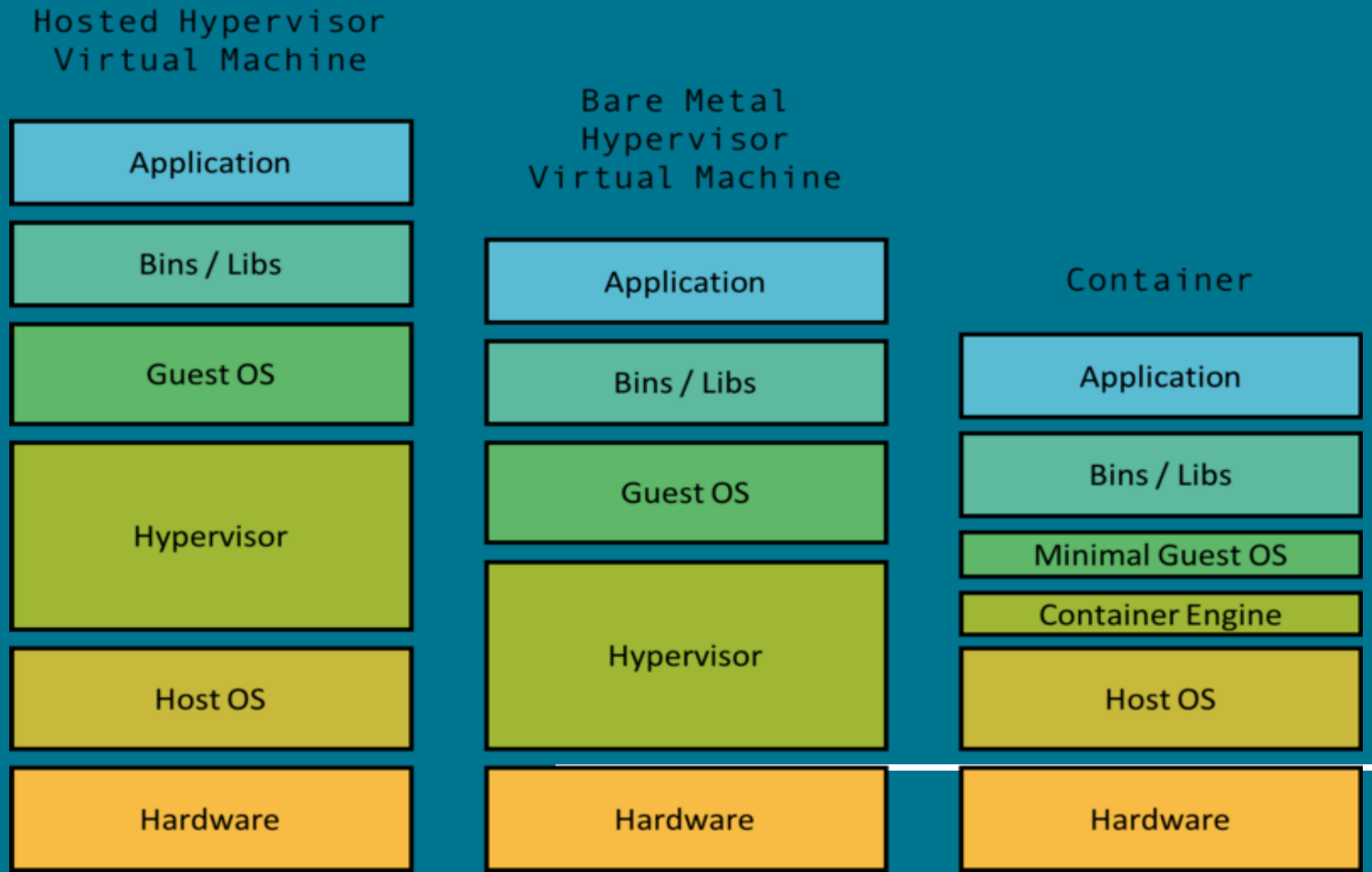
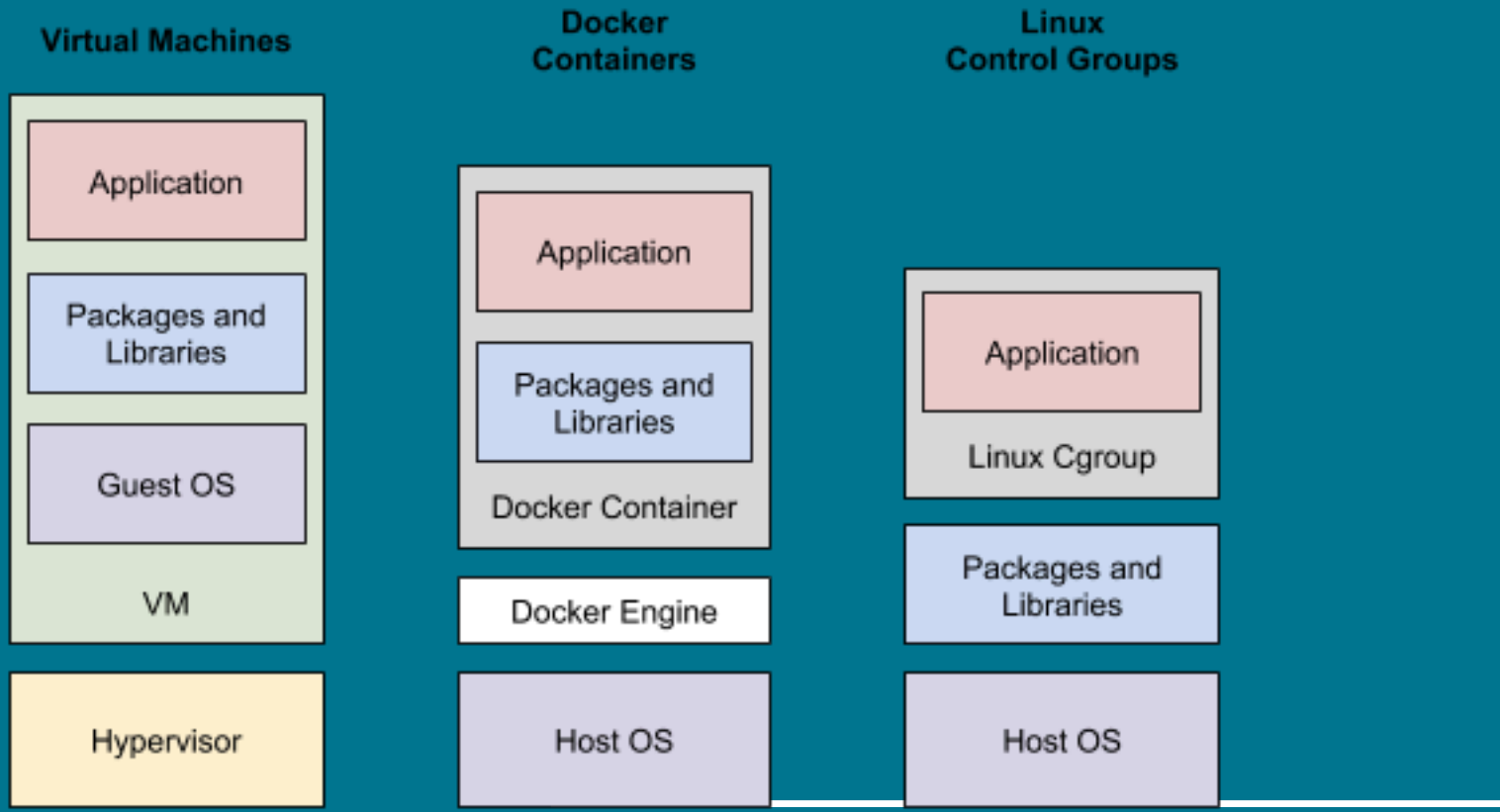
Operating System (OS) Level Virtualization

- Inserts a virtualization layer inside the Operating System
- Virtualized Environment is often called VE, VPS or simply Container
- Container is look like a real server
- Container has its own set of process, file system, user accounts, network interface, IP Address, routing table, firewall rules and other personal settings
- Share the same Operating System Kernel
- Also called Single-OS image virtualization

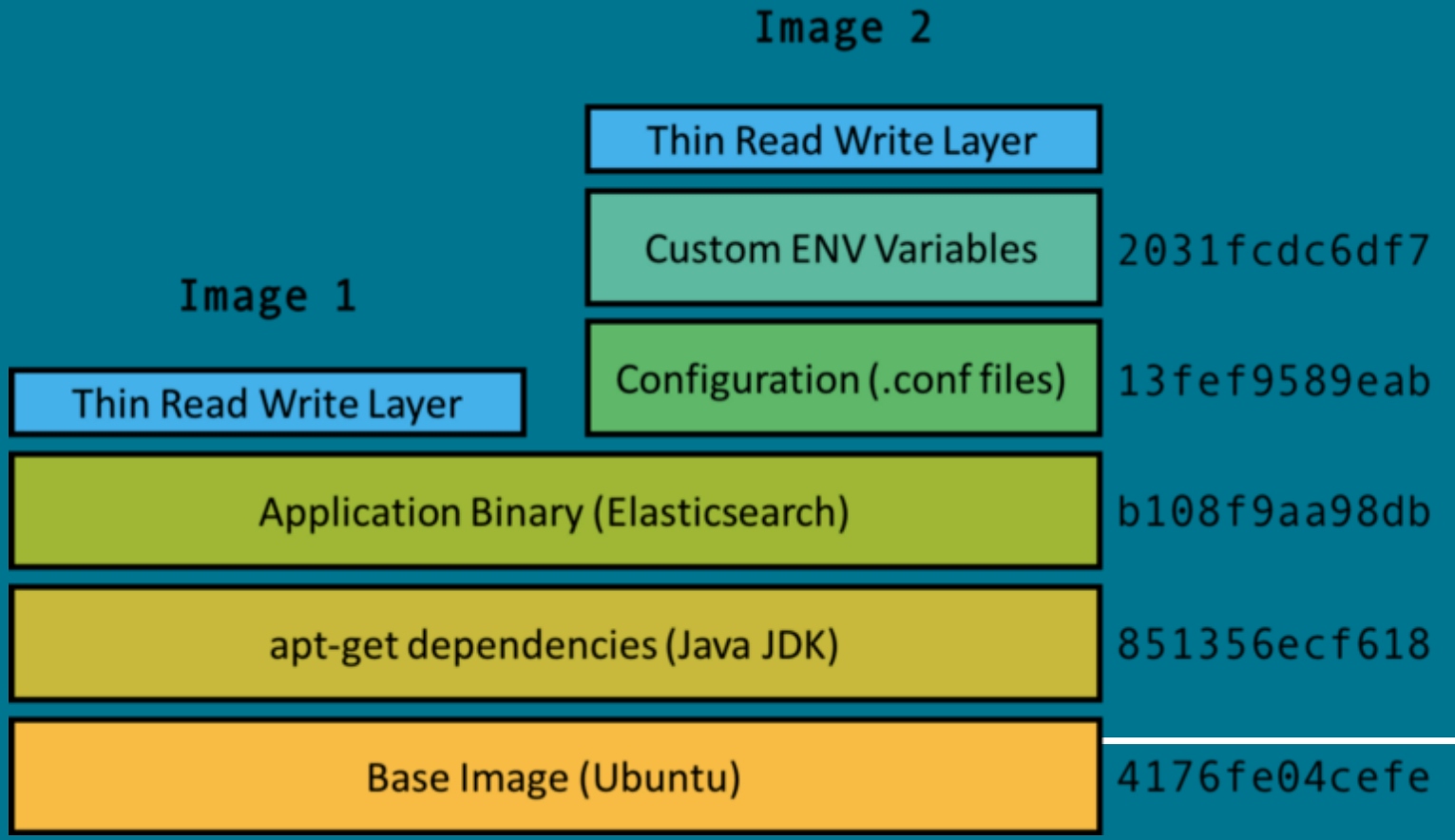
Hypervisor and Container Architecture



Architecture of Container



Architecture of Container



Benefits of Container Compare to VM

- Containers are lightweight, hence can run more containers per host
- Consume less resources
- Compatibility issues (different application runs on different platform)
- Share resources with underlying Host Machine with user space and process isolations
- Container can start nearly instantly
- Containers are portable and can regenerate a system environment with required software, irrespective of underlying Host Operating System