5921 ESR Reference System (Operations in a Virtual Machine)

Introduction
The 5921 ESR is a software router based on Cisco IOS. The 5921 can be installed directly on Linux, or can be run in a virtual machine (using VMware ESXi or KVM hypervisors). To facilitate troubleshooting of potential 5921 problems, Cisco employs the concept of a reference system. The reference system is simply an attempt to describe a common environment for isolating 5921 problems.

This document describes a reference platform for running the 5921 in a virtualized environment. Whereas the "bare metal" reference platform provides a detailed list of hardware components, this "VM" version focuses more on VM setup and configuration. From a hardware perspective, integrators/partners should ensure that their hardware platforms conform to any requirements specified by the hypervisor vendor.

> **Please note**: The reference platform is <u>not</u> an attempt to define a customer solution or architecture. It does not describe an intended or recommended production deployment. The reference platform is simply a set of guidelines describing the system configuration we will use when troubleshooting 5921 platforms.   Cisco requests that 5921 partners/customers employ a similar system for 5921 troubleshooting, so that we work from a common foundation.

Hardware Requirements
Intel x86 processor based systems. Refer to your hypervisor documentation (VMware ESXi or KVM) for more details on the hardware requirements/recommendations associated with these virtualized environments.

Supported Hypervisors
- VMware ESXi version 5.1 or higher
- KVM RHEL version 6.1 or higher

VM Configuration Guidelines (per new VM)
- Configuration Type: Typical
- Guest OS: CentOS 6 32-bit (version 6.6 or later)
- Network: at least two vNICs (Connect at Power-On enabled)
- Memory: 1 GB
- vCPU: at least 1
- Disk Provisioning: Thin
- vDisk: at least 20 GB

Cisco 5921 ESR
- Once the VM is created and the guest OS installed, the 5921 can be loaded into the VM, as per the standard installation procedures described in the Cisco 5921 ESR Integration Guide.

- Running the 5921 in a VM requires Cisco IOS version 15.5.1T or later. Earlier versions of IOS will not support VM operations.

- Cisco Smart Licensing is required if running the 5921 in a virtual machine.