



# **KEMP Condor**

## **Product Overview**

*VERSION: 1.3*

*UPDATED: JULY 2014*

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## 1 Introduction

Condor is KEMP's multi-tenancy product. It is a product where multiple independent instances of the KEMP LoadMaster and GEO LoadMaster can operate. These instances can be referred to as tenants, clients and Virtual Network Functions (VNFs). Each LoadMaster instance within the KEMP Condor can be deployed, stopped, started and updated at will.

### 1.1 Licensing

Licensing is done in the Condor and is based on the maximum number of tenants that can be started. This means that the LoadMaster tenants do not need to be licensed individually. There are three different multi-tenancy license types available which provide a different number of maximum tenants – 10, 20 and 30. 10 is number of tenants for the default Condor license.

Apart from the differences listed in the above paragraph, licensing the Condor is the same as licensing a regular LoadMaster. For more information, and steps on how to license, refer to the **Licensing, Feature Description**.

### 1.2 Document Purpose

The purpose of this document is to provide an overview of the Condor which is KEMP's multi-tenancy product. For further information, such as instructional steps and a description of the Web User Interface (WUI) options, refer to the **Multi-Tenancy, Feature Description**.

### 1.3 Intended Audience

This document is intended to be read by anyone who is interested in learning about the Condor product.

## 2 Architecture

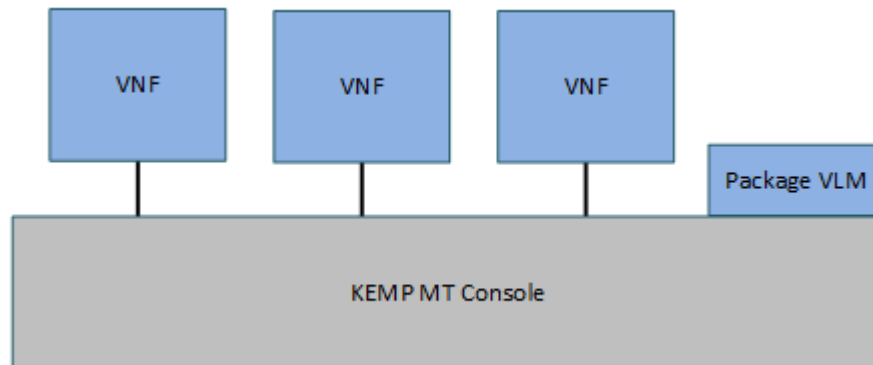


Figure 2-1: Multi-Tenancy Architecture

Condor has an Operating System (OS) running a hypervisor. The Condor does not perform any load balancing – it handles requirements of the “client” Virtual Network Functions (VNFs). VNFs are the individual tenant LoadMasters that are deployed within the Condor.

A package Virtual LoadMaster (VLM) template will be provided by KEMP which contains the relevant firmware. This package can be installed on the Condor. VLMs can then be started and configured from the Condor.

When a VNF is no longer needed, it can be deleted.

Each VLM is independent, so its disk space is also independent. The current version of the LoadMaster can require up to 16 GB per VLM. A VLM requires at least 1024MB of memory.

## 3 Features

Some of the Condor features are described in the sections below.

### **Ability to Create VLM Instances from Templates**

Multiple VNF package templates can be installed on the Condor. These are provided by KEMP Technologies. Each template can be a different type of VLM. VLM instances can be created from these templates.

When a VLM is created from a VNF package template, the number of CPUs and amount of RAM can be configured via the KEMP Condor

### **Application Templates Managed in the Condor**

Application templates make the setting up of Virtual Services easier by automatically configuring the parameters for a Virtual Service. Before a template can be used to configure a Virtual Service, it must be imported and installed on the Condor or a tenant LoadMaster.

When templates are added to the KEMP Condor, you can assign templates to specific VNFs as needed. The templates will then be available for use in the tenant LoadMaster when creating a new Virtual Service.

### **VLM Manipulation in the Condor**

VLMs can be created, configured, deployed, run and deleted in the Condor.

### **Upgrades**

It is possible to upgrade the Condor software. There is no impact to the virtual instances that are running when the Condor software is updated. It is also possible to install a new VLM package template. This means that any time there is a new VLM release from KEMP, the Condor administrator can add a new VLM template. You can create a VNF instance from any of the installed VNF packages.

Existing tenants need to be upgraded in the usual manner, via the LoadMaster WUI.

### **Backups**

It is possible to make backups of VNF instances at the Condor-level. It is also possible to view, download and delete backups that were previously taken.

## 4 Networking Configuration

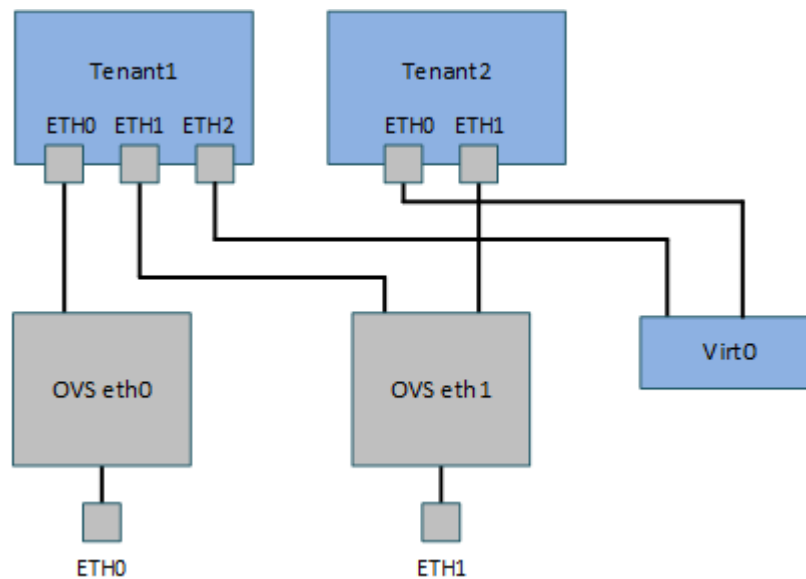


Figure 4-1: Multi-Tenancy Network Configuration

The Condor creates one Open vSwitch (OVS) per physical/VLAN interface. This is the Virtual Switch software in the Condor which allows multiple VLMs to share a common switch fabric. In addition, 10 host local networks are created. The tenant's vNICs connect either to one of these switches or to one of the host local networks. Each tenant can have up to 10 vNICs named **ETH0... 9**. The network interfaces can only be configured when the tenant is not running.



## References

Unless otherwise specified, the following documents can be found at <http://www.kemptechnologies.com/documentation>.

**Licensing, Feature Description**

**Multi-Tenancy, Feature Description**

**Web User Interface (WUI), Configuration Guide**

## Document History

Date	Change	Reason for Change	Version	Resp.
Jan 2014	Initial draft	First draft of document	1.0	LB
Apr 2014	Improvements made	General improvements	1.1	LB
May 2014	Release updates	Updates for MT_1.1-16 release	1.2	LB
July 2014	Minor change	Defect fixed	1.3	LB