ICONICS
Running on Marathon Servers

APPLICATION NOTE

September 2013

Description: Guide to setting up ICONICS products on a Marathon solution.
OS Requirement: Vista x64/ Windows 7 x64/ Windows 8 x64/ Windows Server 2008 x64/ Windows Server 2008 R2 x64/ Windows Server 2012
General Requirement: Installation of GENESIS32 or GENESIS64.

Introduction

ICONICS GENESIS32 and GENESIS64 solutions provide the versatility to run in many different environments. In the case a Marathon environment is desired, ICONICS can provide the necessary configuration information to maintain the High Availability or Fault Tolerant scenario desired.

ICONICS has tested our products with Marathon's EverRun FT line of servers and also their EverRun MX line of servers. GENESIS32 was tested on both platforms, and GENESIS64 was tested only on MX (as EverRun FT does not support 64-bit operating systems).

Marathon everRun FT with GENESIS32

To the end user of a Marathon system, the system appears as follows:

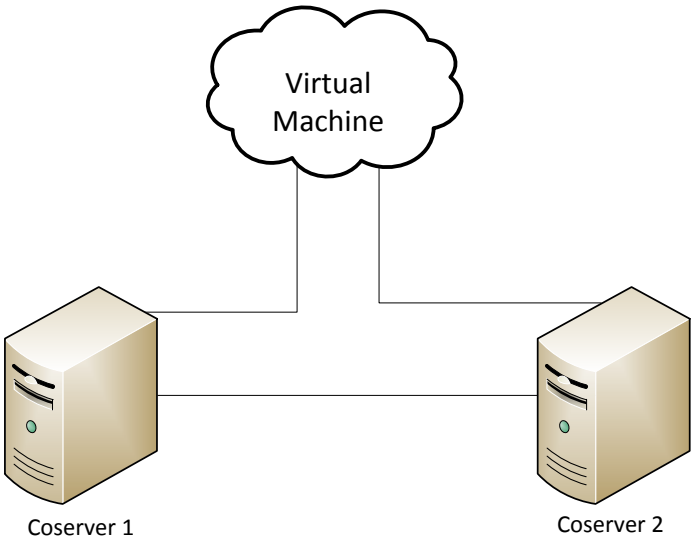

Figure 1- Setup of Marthon everRun FT with GENESIS32

In this setup, each of the Coservers runs on Windows 2003R2 sp2 (32-bit). This allows for a few possibilities for licensing.

Local software licensing

In this case, you will install your software license on the virtual machine itself that is running GENESIS32. You only need one license, and it's transparent to the user whether it's booted from Coserver 1 or Coserver 2.

Remote Software licensing

If you want to have a bit more redundancy in your system, you can set up remote licensing. You will want to have two software licenses that will be used on two servers so that you don't have a single point of failure. In this case, you can set up each of the coservers to have a license. As each of these coservers shouldn't have much software running on it (they each only have 256MB or 512MB of memory), you should just install ICONICS software licensing and ICONICS GenBroker. On your VM running GENESIS32, you should alter your GenBroker configuration so that it points to your coservers for its primary and secondary license servers.

Remote Hardware licensing

In this case, the process is the same as Remote Software licensing, but you will be running a hardware key on each of the coservers instead of software licenses. You must be sure that the ICONICS USB Key driver is installed.

Local Hardware licensing

It's not possible to connect a USB device directly to the VM (due to hypervisor limitations) which makes local hardware licensing a bit difficult. The simplest workaround to this is to use a USB Concentrator device (e.g. AnywhereUSB). This is a device that has USB ports on it and connects to the network. One networked machine can connect to the device, and after running the configuration software, any USB devices (including hardware key) that's plugged into the AnywhereUSB will appear on the system as if it is plugged into it directly. However, this does mean that the system does now have a single point of failure, so you would want to configure some secondary license server on another machine.

Marathon everRun MX with GENESIS32 or GENESIS64

To the end user of a Marathon system, the system appears as follows:

Copyright 2013 ICONICS, Inc.

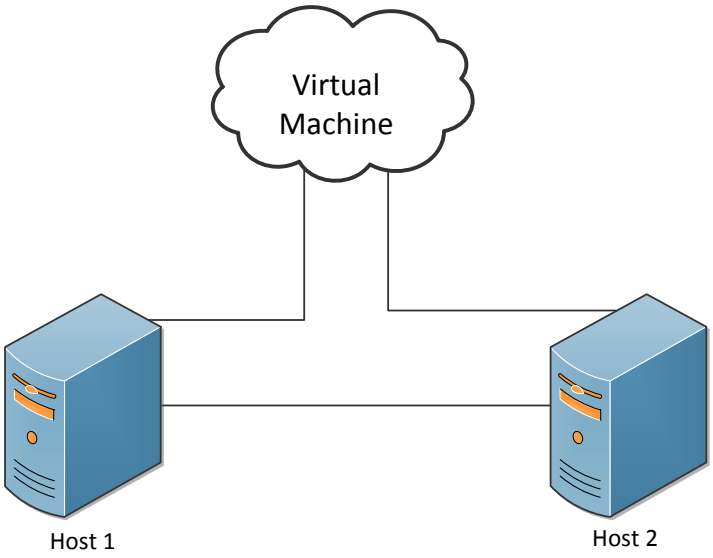

Figure 2 – Setup of Marthon everRun MX with GENESIS32/GENESIS64

The underlying technology is different, so there are some different options for licensing. Unlike the everRun FT/HA solutions, the host machines in everRun MX do not use Windows. This means that users cannot install Windows based software or drivers on the underlying host, including ICONICS software licensing and hardware drivers.

Local software licensing

In this case, you will install your software license on the virtual machine itself. You just need one license and it's transparent to the user whether it's booted from Host 1 or Host 2.

Remote Software licensing

If you want to have a bit more redundancy in your system, you can set up remote licensing. You will want to have two license servers so that you do not have a single point of failure. Because you cannot install software licensing on the host machines, this approach will require two additional servers to act solely as license servers.

Local hardware licensing

It's not possible to connect a USB device directly to the VM (due to hypervisor limitations) which makes local hardware licensing a bit difficult. The simplest workaround to this is to use a USB Concentrator device (e.g. AnywhereUSB). This is a device that has USB ports on it and connects to the network. One networked machine can connect to the device and after running the configuration software, any USB devices (including hardware key) that's plugged into the AnywhereUSB appears on the system as if it is plugged into it directly. However, this does mean that the system does now have a single point of failure, so you would want to configure some secondary license server on another machine

Tested HW failure types

ICONICS has tested GENESIS32 and GENESIS64 on the Marathon platforms to verify that there are no license failures after a failure on the Marathon system. The results of our tests can be found below.

Table 1 - GENESIS32 9.22 with everRun FT (version 7.1.1 HF34)

	Remote HW license (through CoServer)	Local HW license (through AnywhereUSB)	Local Software license
Restart Coserver	OK*	OK	OK
Pull plug on coserver	OK	OK	OK
Disabling coserver	OK	OK	OK
Restart VM	OK	OK	OK
Disable network (production network)	OK	OK	OK

Table 2 - GENESIS32 9.22/GENESIS64 10.61 with everRun MX (version 6.1 HF6)

	Local HW license (through USB anywhere)	Local Software license
Host restart	OK	OK
Host pull plug	OK	OK
Restart VM	OK	OK
Disabling Host (disk)	OK	OK
Pull production network	OK	OK
Pull A-link	OK	OK