

# Guest and HA Application Monitoring SDK Release Notes

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For vSphere 6.7 GA. Last document update: 17 APR 2018

Check for additions and updates to these release notes.

## About the Guest and HA Application Monitoring SDK

You can download the Guest SDK for monitoring guest virtual machine statistics, and with facilities for High Availability (HA) Application Monitoring. The SDK version number is 10.2.

**HA Application Monitoring.** The vSphere High Availability (HA) feature for ESXi hosts in a cluster provides protection for a guest OS and applications running in a virtual machine by restarting the virtual machine if a failure occurs. Using the HA Application Monitoring APIs, developers can write software to monitor guest OS and process heartbeat.

**Guest SDK.** The vSphere Guest SDK provides read-only APIs for monitoring various virtual machine statistics. Management agents running in the guest OS of a virtual machine can use this data for reacting to changes in the application layer.

## Compatibility Notices

**HA Application Monitoring applications must be recompiled** to work with vSphere 6.0 because of changes to the communication interface (see below).

For vSphere 6.0, HA Application Monitoring communication was revised to use the VMCI (virtul machine communication interface). The VMCI driver is preinstalled in Linux kernel 3.9 and higher, and in earlier kernel versions can be installed with VMware Tools. On Windows, VMware Tools must be installed to obtain the VMCI driver.

This SDK supports C and C++ programming languages. You can support Java with wrapper classes, as in JNI.

## Changes and New Features

The `checksystem` utility to verify proper `glib` version was added in the vSphere 6.5 release.

Tools for fetching extended guest statistics were added in vSphere 6.0, but not publicly documented until April 2015.

In the vSphere 6.0 release, high availability VM component protection, and FT (fault tolerance) has been extended for symmetric multiprocessing (SMP). Also, the communication interface was changed to use VMCI.

In the vSphere 5.5 release, the HA application monitoring facility was changed to reset the guest virtual machine if the application monitoring program requested a reset. Before HA application monitoring had to determine when the guest stopped sending a heartbeat.

In vSphere 5.1, HA Application Monitoring facilities were merged into the Guest SDK previously available.

## Known Issues and Workarounds

Security enforcement for the Guest and HA application monitoring SDK using the secure authentication VMX parameter `guest_rpc.rpci.auth.app.APP_MONITOR=TRUE` does not work for FT (fault tolerant) VMs. The vSphere platform supports only the non-secure channel for FT virtual machines.

The sample code for HA Application Monitoring does not yet demonstrate use of the new API to request reset of the guest virtual machine, `VMGuestAppMonitor_PostAppState`.