

# CA Unified Infrastructure Management for Oracle Solaris Zones



## At a Glance

Oracle Solaris Zones offer powerful virtualization capabilities to segregate and isolate hardware resources for virtual use—essentially giving you the capability to have all the advantages of a physical server within a virtual environment. This capability results in a new layer of functionality within the Solaris environment that increases the complexity of monitoring. With CA Unified Infrastructure Management (CA UIM, formerly CA Nimsoft Monitor) for Oracle Solaris Zones, organizations can efficiently and effectively gain the insights needed to maintain the performance and uptime of Solaris Container instances, and quickly remediate outages when they occur.

### Key Benefits/Results

#### Improved performance and uptime.

Proactive monitoring and alerting accelerates identification of performance issues—enabling response before end-user productivity is affected.

**Enhanced resource optimization.** Centralized, cohesive view of performance delivers insights into opportunities for resource optimization and “right sizing” of hardware investments.

**SLA compliance.** Instant alerts and realtime dashboards notify service managers in advance of SLA compliance breaches.

### Key Features

#### Real-time Solaris performance monitoring.

CA UIM compiles, analyzes and monitors performance data to provide real-time monitoring of Solaris virtualized infrastructures. It delivers this vital information via alarms, operator consoles, business dashboards, long-term trend reports and SLA compliance reports.

#### End-user response time monitoring.

Through its extensive support for response time solutions across a range of applications, CA UIM provides vital insights into what is really happening from an end-user perspective, offering a range of capabilities for simulating transactions that end users conduct with business applications.

## Business Challenges

While virtualization technologies have ushered in a world of potential benefits, they have also brought an entirely new world of challenges from a monitoring perspective.

Oracle Solaris offers a powerful virtualization technology that allows IT to create Solaris Zones or virtual machines (VM) that are completely isolated from each other. When virtualization is implemented on Solaris, an entirely new layer of “moving parts” gets added to the mix, and dramatically increases the complexity of monitoring business applications and the infrastructure upon which they rely.

How can organizations efficiently this virtualized infrastructure? How can they confirm that the virtualized infrastructure and all the applications that run in this virtual environment are optimized?.

## Solution Overview

With CA UIM for Oracle Solaris Zones, organizations can harness a comprehensive solution for monitoring Oracle Solaris hosts and virtual machines. CA UIM enables organizations to monitor and fully optimize their Solaris implementations. Plus, with CA UIM, organizations can monitor and manage the operating systems and business applications that run in this virtualized environment— and get insights into the performance end users experience from these business applications.

By offering this comprehensive monitoring picture through a centralized solution, CA UIM helps administrators take a more holistic and service-led view of the virtualized environment—and much more effectively optimize the performance, utilization and reliability of the entire infrastructure.

## Critical differentiators

CA UIM uses a Message Bus Architecture as a core element that is streamlined, comprehensive and efficient. It enables all monitoring components to communicate with each other, without direct program-to-program connections and acts as an abstraction layer between the core system and the monitoring probes. This leads to significant improvements in reliability, scalability and development agility.

**Monitoring OS and apps running on virtual machines**

CA UIM offers capabilities for monitoring the following:

- All major Solaris and Linux based operating systems
- A host of common business applications, including Microsoft Exchange, Microsoft Active Directory, Microsoft IIS, Lotus Notes, SAP, WebSphere, e-commerce applications and custom-built applications
- All prevalent databases, such as Oracle, Microsoft SQL Server and Sybase

**Monitoring response times of end-user applications**

Through its extensive support for response time solutions across a range of applications, CA UIM provides vital insights into what is really happening from an end-user perspective. CA UIM offers a range of capabilities for simulating transactions that end users conduct with business applications. With CA UIM, these simulations are easy to implement and automate, and they yield a wealth of practical insights and alerts if end-user processing is degraded or down.

**Critical performance data: When and how it’s needed**

CA UIM compiles, analyzes and monitors performance data to provide

real-time tracking of Solaris virtualized infrastructures. CA UIM delivers this vital information via alarms, operator consoles, business dashboards, long-term trend reports and SLA compliance reports..

**Supported Environments**

- Oracle Solaris 10

**Comprehensive coverage**

With CA UIM, administrators can monitor the following metrics:

	Global zone	Global zone		Global zone	Global zone
<b>System</b>			<b>Disk</b>		
Execution state	x	x	Block reads per second	x	x
1 Minute load average	x	x	Block writes per second	x	x
5 Minute load average	x	x	Logical reads per second	x	x
15 Minute load average	x	x	Logical writes per second	x	x
Message queues	x	x	Physical reads per second	x	x
Run queue length	x	x	Physical writes per second	x	x
Semaphores	x	x	Read cache hit percentage	x	x
Total executing processes	x	x	Write cache hit percentage	x	x
Zonepath	x	x	Percent disk used (per disk)	x	x
			Percent free space (per disk)	x	x
<b>CPU</b>			File system (per disk)	x	x
Percent CPU utilization	x	x	Free space (per disk)	x	x
Average CPU user time	x		Used space (per disk)	x	x
Average CPU idle time	x		Total size (per disk)	x	x
Average CPU system time	x		Disk read throughput (per disk)	x	x
Major faults (per CPU)	x		Disk write throughput (per disk)	x	x
System time (per CPU)	x		Reads per second (per disk)	x	x
User time (per CPU)	x		Writes per second (per disk)	x	x
Waiting time (per CPU)	x				
			<b>Network</b>		
<b>Memory</b>			Packets in (per device)	x	x
Installed memory	x	x	Packets out (per device)	x	x
Free memory	x	x	Input packet error rate (per device)	x	x
Memory size	x	x	Network collision percentage (per device)	x	x
Memory utilization ratio	x	x	Network collision I/O error packet percentage (per device)	x	x
Page size	x	x			
Pages scanned	x	x	<b>Resource control</b>		
Resident memory size	x	x	CPU shares	x	x
Shared memory segments	x	x	Maximum locked memory	x	x
Shared memory size	x	x	Maximum LWPs	x	x
Swap available	x	x	Maximum message Queue IDs	x	x
Swap total	x	x	Maximum semaphore IDs	x	x
Swap used	x	x	Maximum shared memory	x	x
			Maximum shared memory IDs	x	x
<b>Resource pool</b>			Maximum swap space	x	x
Free (per pool)	x	x			
Load (per pool)	x	x			
Size (per pool)	x	x			
Used (per pool)	x	x			

For more information, please visit [ca.com/uim](http://ca.com/uim)

CA Technologies (NASDAQ: CA) creates software that fuels transformation for companies and enables them to seize the opportunities of the application economy. Software is at the heart of every business, in every industry. From planning to development to management and security, CA is working with companies worldwide to change the way we live, transact and communicate – across mobile, private and public cloud, distributed and mainframe environments. Learn more at [ca.com](http://ca.com).