



LAN Management Solution Version 2.2 and 2.5 — Performance Test Results

For Restricted License (with 300 Devices)

March 2005

Comparison of Sun UltraSPARC III and II

Cisco.com

Performance comparison:

- **LMS 2.2 on Sun UltraSPARC III**
- **LMS 2.2 on Sun UltraSPARC II**
- **LMS 2.5 on Sun UltraSPARC III**
- **LMS 2.5 on Sun UltraSPARC II**

Platform Configuration

Server configuration used for this test:

- **RAM – 2 GB**
- **Sun UltraSPARC II 650 MHz Single CPU**
- **Sun UltraSPARC III 1200 MHz Single CPU**

Performance Measurements

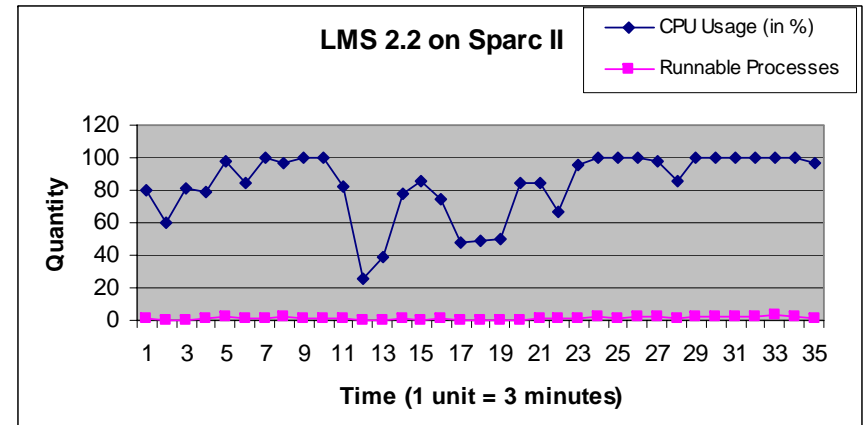
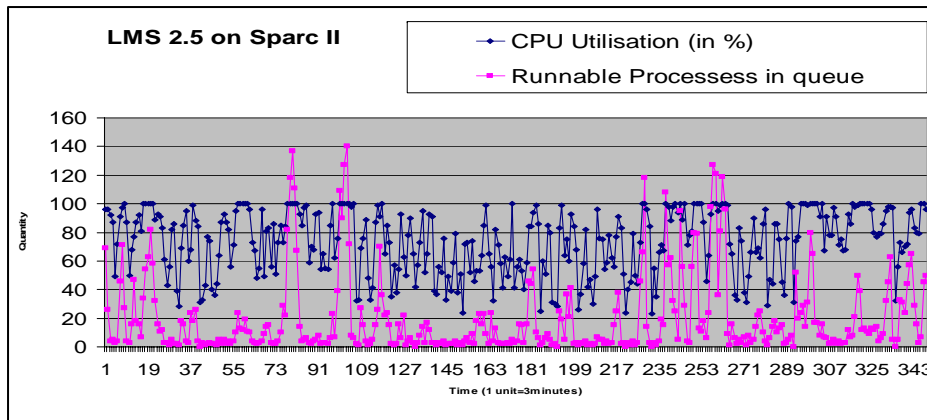
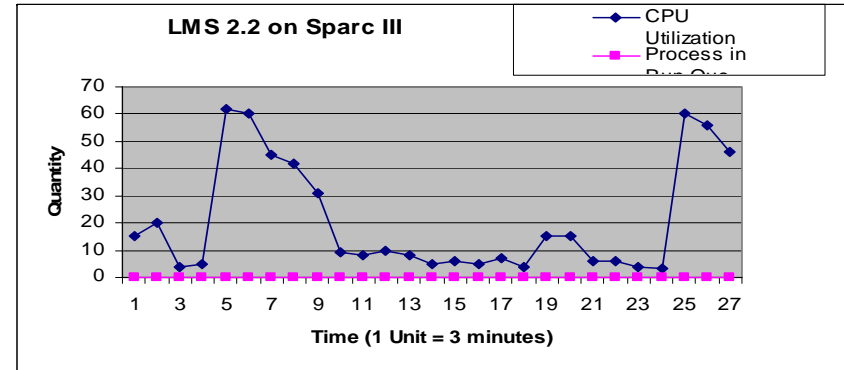
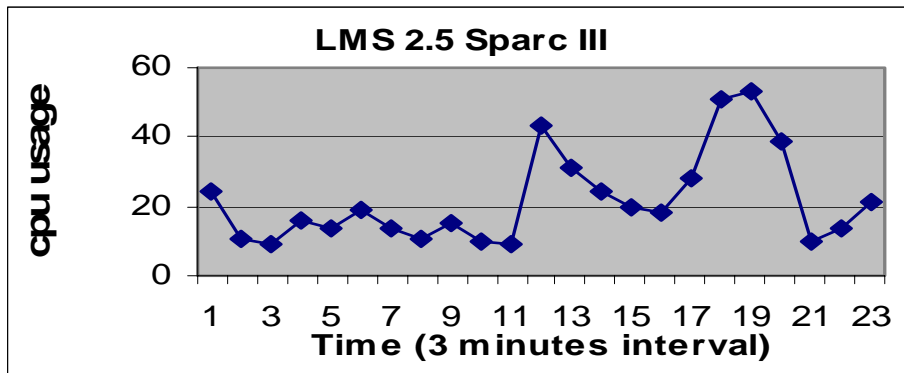
The performance measurements for combinations (as in slide 2) had this CiscoWorks configuration:

- **300 Devices in RME, CM, and DFM**
- **2000 Collectors in IPM**
- **1000 RME Jobs**
- **100,000 Syslog messages from managed devices**
- **50,000 Syslog messages from unmanaged devices**
- **2 Syslogs per second from managed devices**
- **1 Syslog per second from unmanaged devices**
- **4 traps per minute are sent to the server**
- **HPOV manages 1000 nodes**

LMS 2.5 and 2.2 on Sun UltraSPARC III and II

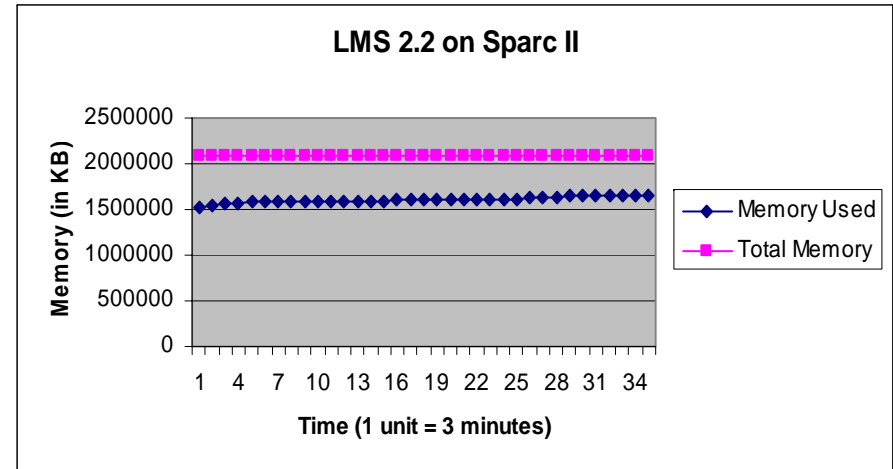
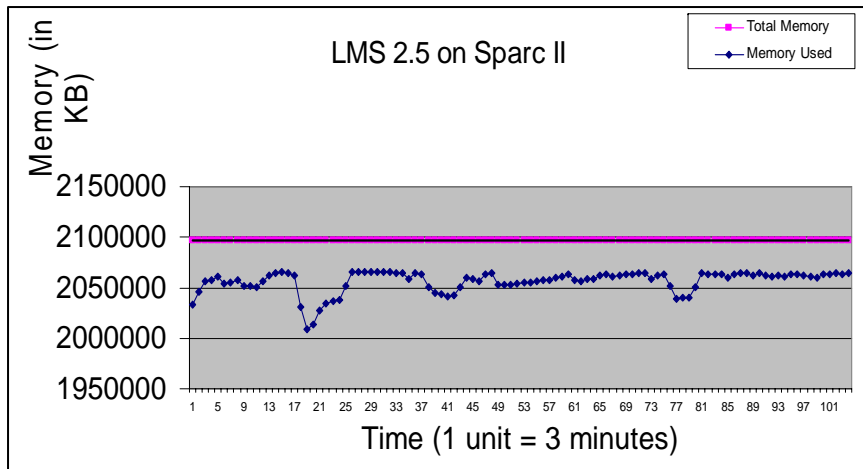
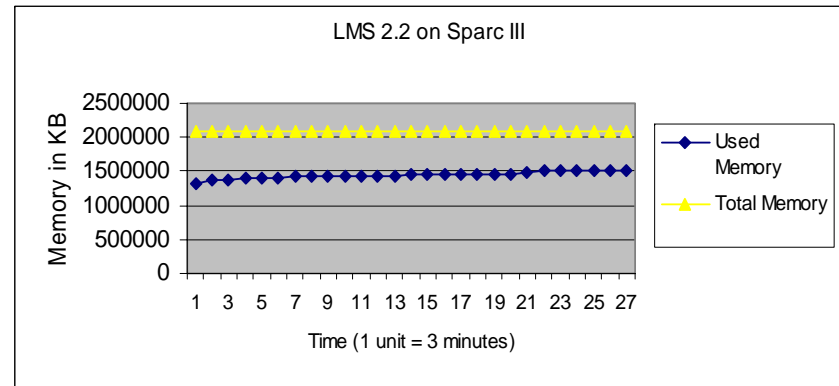
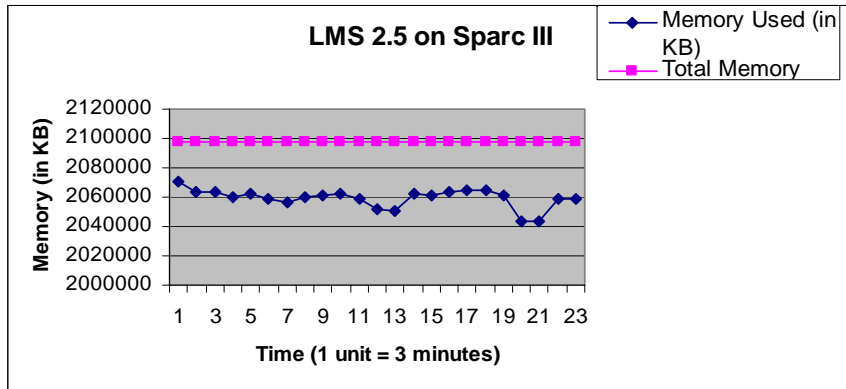
Sun UltraSPARC III		
	LMS 2.5	LMS 2.2
Max CPU Usage	67%	62%
Max RAM Usage	1.97 GB	1.49 GB
Max SWAP Usage	Info Not available	1.16 GB
Max Run Queue	Info Not available	0
MaxResponse Time	Launch CV: 15.66s 24 CA Report: 7.66s Launch TOPO: 19.66s Launch IPM: 6.33s Launch AAD: 8.33s	Launch CV: 6s 24 CA Report: 10s Launch TOPO: 20.67s Launch IPM: 7.33s Launch AAD: 5s
Sun UltraSPARC II		
Max CPU Usage	100 %	100%
RAM	1.97 GB	1.69 GB
SWAP	3.17 GB	1.45 GB
Run Queue	140	5
Max Response Time	Launch CV: 1m 6.66s 24 CA Report: 49.33s Launch TOPO: 1m 3.33s Launch IPM: 15.33s Launch Mon Console: 1m 0.66s	Launch CV: 10.33s 24 CA Report: 1m 2s Launch TOPO: 59.33s Launch IPM: 27.33s Launch Mon Console: 6.66s

CPU Utilization and Runqueue



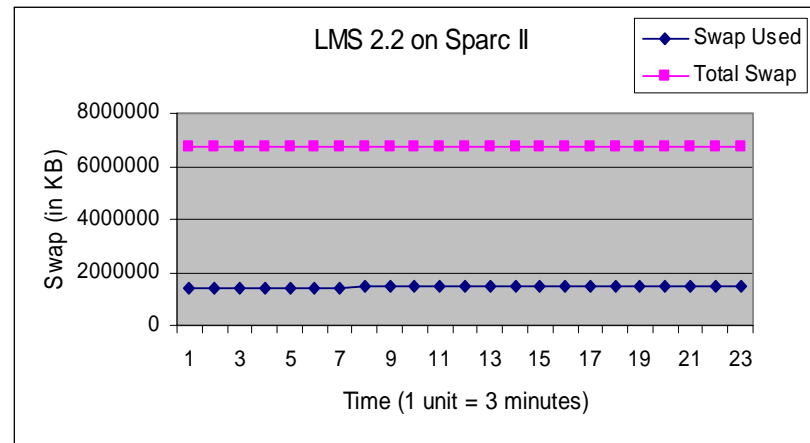
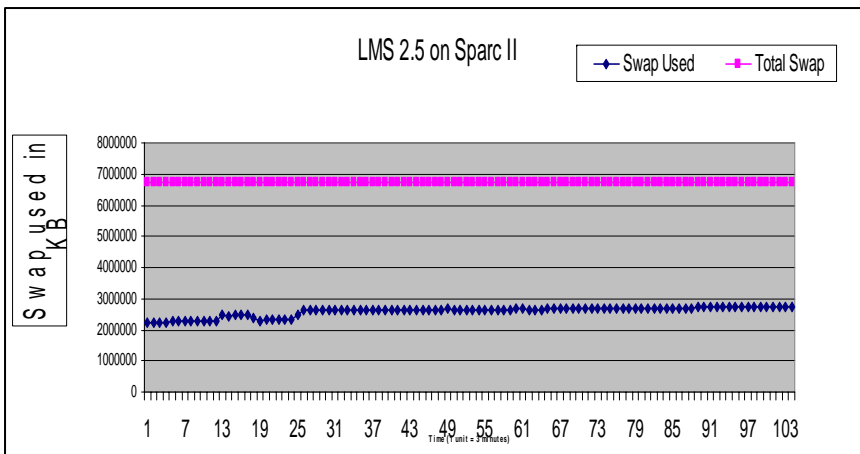
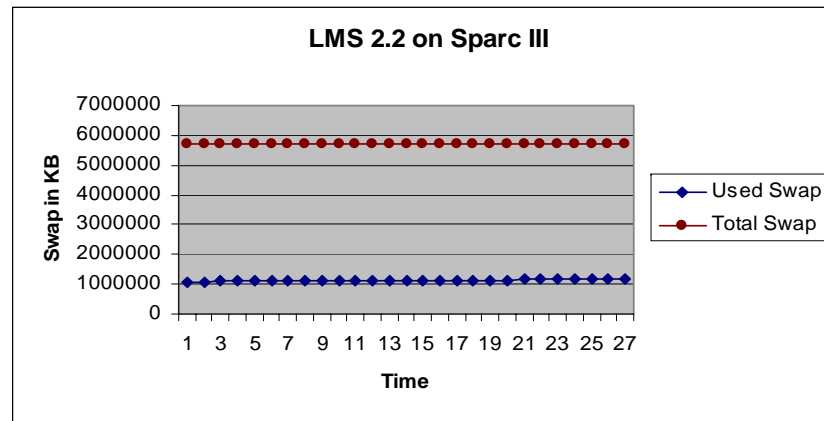
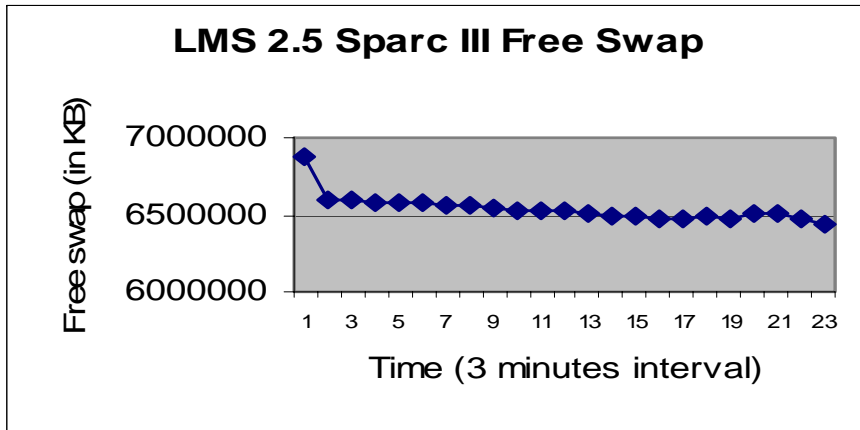
Note: The CPU usage on Sun UltraSPARC III machine did not cross 70%. On an average it was well below 40%. On Sun UltraSPARC II it is above 80% and 90% for LMS 2.5 and LMS 2.2, respectively.

Memory Usage



Note: No memory bottlenecks observed.

Swap Usage



Note: No virtual memory bottlenecks observed.

Observations

- **LMS 2.2 performs better on Sun UltraSPARC III than on Sun UltraSPARC II machine.**
- **LMS 2.5 performs better on Sun UltraSPARC III than on Sun UltraSPARC II machine.**
- **On Sun UltraSPARC II machine, LMS 2.2 performs better than LMS 2.5.**
- **On Sun UltraSPARC III machine, both LMS 2.2 and LMS 2.5 did not have any bottlenecks.**

Observations (continued)

- **LMS 2.5 performance on Sun UltraSPARC II had excessive CPU usage. The NetMon process (HPOV) and other OV used more CPU resources. This caused performance degradation.**
- **Some LMS 2.5 processes used more CPU cycles, individually. For example:**
 - **IPM: Data collection and SNMP processes**
 - **RME: DIServer (IC Server) process, Essentials DBEngine, Change Audit process**
 - **DFM: DFMServer Process, FH DBEngine, and LMS JRun Proxy Server.**
- **No memory (real and virtual) bottlenecks in any of the four combinations (as in slide 2).**

Recommendation

- **Sun UltraSPARC II machine is not recommended for LMS 2.5 with HPOV on the same server.**
- **Insufficient data on IPM Data Collection Process. May need to adjust the default interval of 1 hour for data collection.**