



This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

# Conversation Manager Product Guide

Performance and Sizing Data

4/10/2025

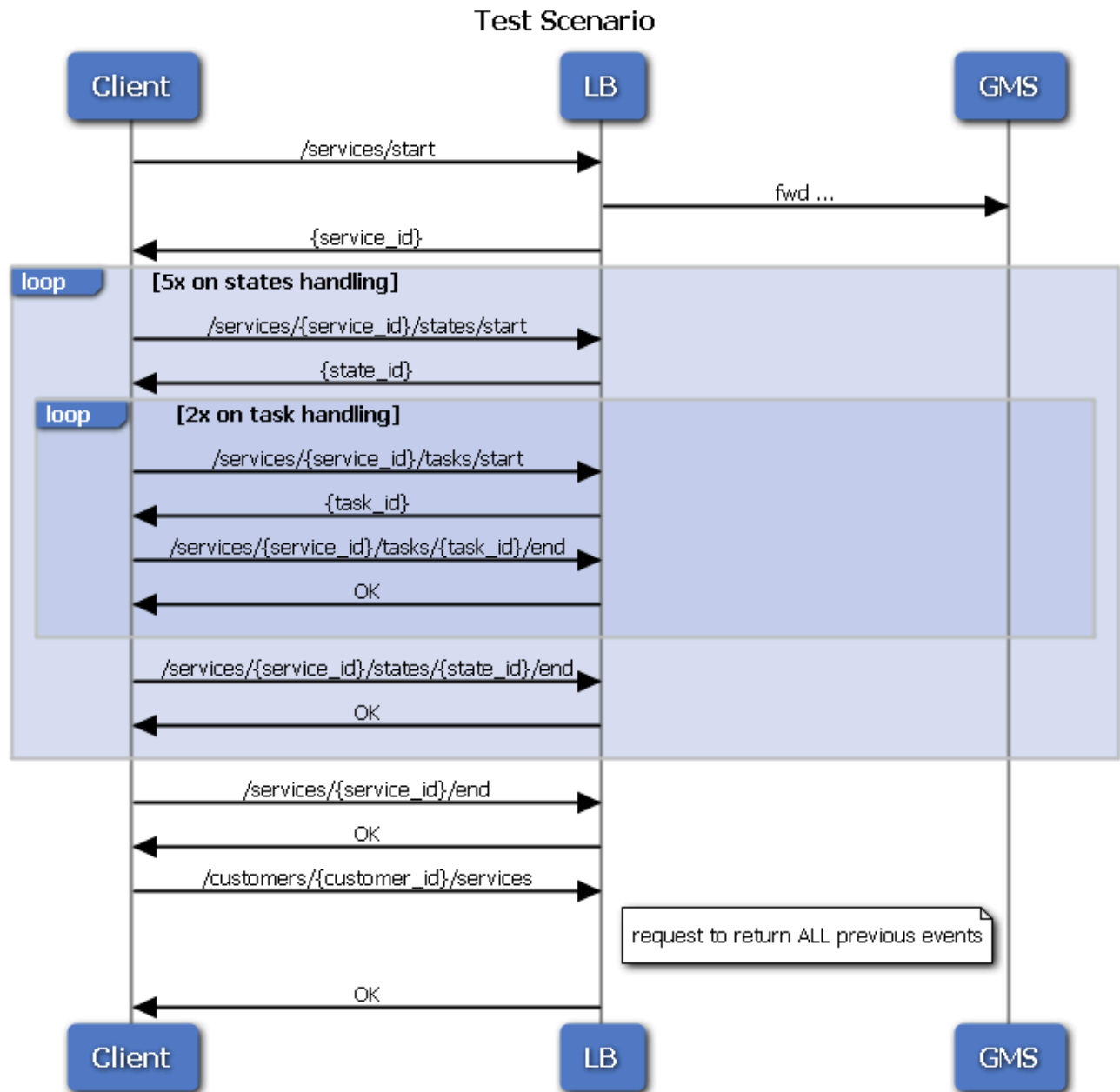
# Performance and Sizing Data

This page provides an example of sizing and performance for Context Services in a GMS deployment.

## Contents

- **1 Performance and Sizing Data**
  - 1.1 Sizing Scenario
  - 1.2
  - 1.3 Sizing Settings
  - 1.4 Sizing Results

## Sizing Scenario

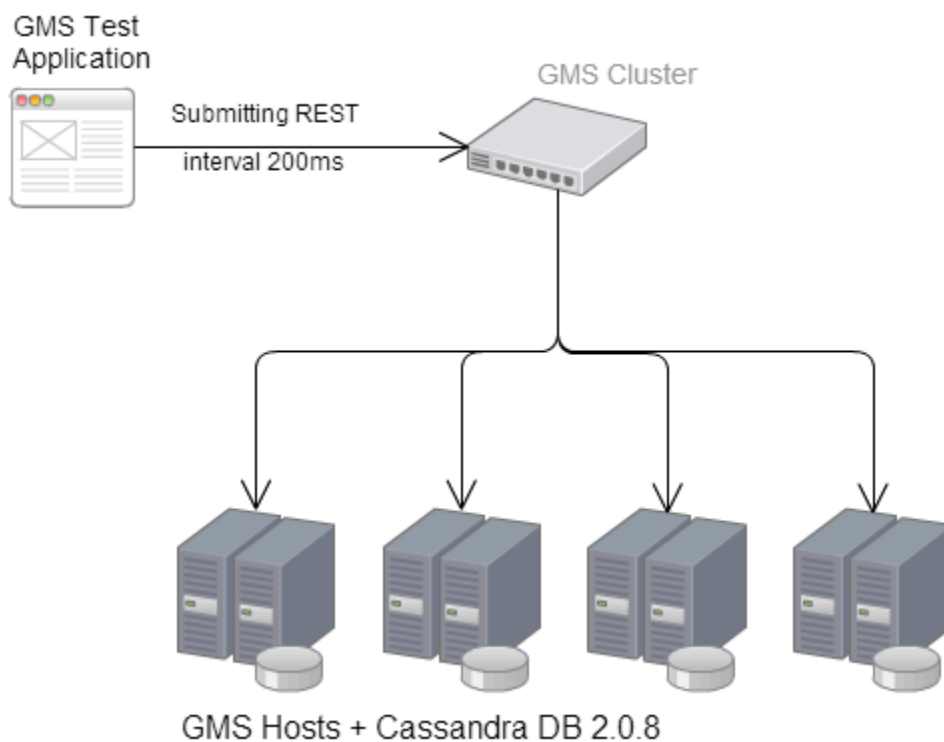


A Load Balancer (LB) receives the REST queries and dispatch them to GMS applications.

Our test scenario create a conversation implemented with one service including 5 states and tasks, which are equivalent to **33 REST queries** to handle on GMS side.

- 1 to 4 extension attributes are submitted in start events for services, states, and tasks.
  - All the event attributes are set in Start and complete events using random values for integer a strings.
- 

## Sizing Settings



Number of hosts in use	4 (one per GMS cluster node)
Host Specifications	<ul style="list-style-type: none"> <li>• Windows Server 2008 R2 Standard SP 1</li> <li>• Intel Xeon X3440 @ 2.53 GHz, quad core</li> <li>• 8 GB RAM</li> <li>• Low Price disks</li> </ul>
Components	<ul style="list-style-type: none"> <li>• GMS 8.5.003.00+</li> <li>• Cassandra 2.0.8 external</li> </ul>
GMS Configuration	<ul style="list-style-type: none"> <li>• Constant average CPU of 50%</li> <li>• Cassandra 2.0.8 (database of 2.5GB dat each node)</li> <li>• Replication Factor = 2</li> </ul>

## Sizing Results

Captured measure	Value	Comments
CPU	~20% to 60%	Each node was around an average of 30% with peaks to 60% from time to time.
Database size	68 GB / node (after 120h) = 272 GB	272 GB corresponds to 16.5 M conversations or 264 M service/state/task events, for a ratio of 0.54KB per conversation (1 service, 5 states, 10 tasks).
I/O Disk	~3 MB /s (Cassandra measure)	Disk I/Os are fluctuating a lot (between 0 MB/s and 20 MB/s)
I/O Network	~3 MB /s	Between 20Mbps and 60Mbps.
Memory	2.4GB	For each GMS processes. Less than 2 GB for Cassandra processes.
Size of conversation (1 service, 5 states, 10 tasks)	~10kB in JSON	This matches a conversation (1 service, 5 states, 10 tasks), for 33 REST queries events, including extension data returned with queries by CustomerId.

## Performance and Sizing Data

---

Captured measure	Value	Comments
Throughput	~1000 queries/s (~30,5 scenario/s)	Constant through 24 hours of testing