



horizons

Sun's SOA & Composite
Application Summit **2006**

JAMES (JIM) WEDBERG
DIRECTOR, ENTERPRISE ARCHITECTURE
SECURUS TECHNOLOGIES, INC.

**JAVA™ COMPOSITE APPLICATION
PLATFORM SUITE (JAVA™ CAPS)
SOA INTEGRATION, PERFORMANCE
AND SCALING ON A BUDGET**

May 18, 2006



Agenda



- Introduction
- Business Needs
- The Way We Were
- The Plan...and Some Speed Bumps
- Sun Server Current Configurations
- Performance Metrics
- Summary

Introduction — Securus Technologies

- Publicly held
- Telecommunication services
- Penal institutions as primary customers
- Merger of 9 companies within 8 years
- Approximately \$500M in revenue

Business Needs

- Multiple mergers
 - = multiple business process flows
 - = multiple internal support systems
 - = multiple customer-facing application systems
 - = multiple types of premise-based systems
- Size and scale of operation had increased dramatically

Business Needs

- Data stored everywhere ... but nowhere
- Competitor driven needs for:
 - Speed
 - Flexibility
 - Adaptability
 - Vision

The Way We Were...

- Microsoft Certified Partner shop
 - Windows OS
 - .NET
 - SQLServer
 - C++
 - C#
 - VB
- Business logic embedded in SQLServer
 - Stored procedures
 - Triggers

The Way We Were...

- Tightly coupled systems
- Poor SDLC processes
- Poor change management processes
- Poor version control processes
- Duplicated systems & functionality

The Plan...

- Introduce Java™ Platform Enterprise Edition (Java™ EE) as a strategic architecture
- Deliver loosely-coupled, Open systems
- Build an asynchronous message based framework built with Java Technology
- Implement Linux for UNIX feel + \$, Oracle for HA
- Introduce SDLC, CM/VC rigor

And Some Speed Bumps...

- Culture/skills paradigm shift
- Early SeeBeyond problems
(SQLServer eWay™ Adaptor, IDE, etc.)
- Supported Linux version problems
- Oracle-on-Linux RAC problems

Sun Server Current Configurations

- Dell PowerEdge 2850s
 - 4 - 3.6 GHz CPUs
 - 8 GB RAM
 - Windows Server 2003, SE, SP 0

Sun Server Current Configurations

- Sun/SeeBeyond
 - Java CAPS version 5.05
 - Multiple ESRs
 - eDesigner, Logical Host
 - Multiple repositories

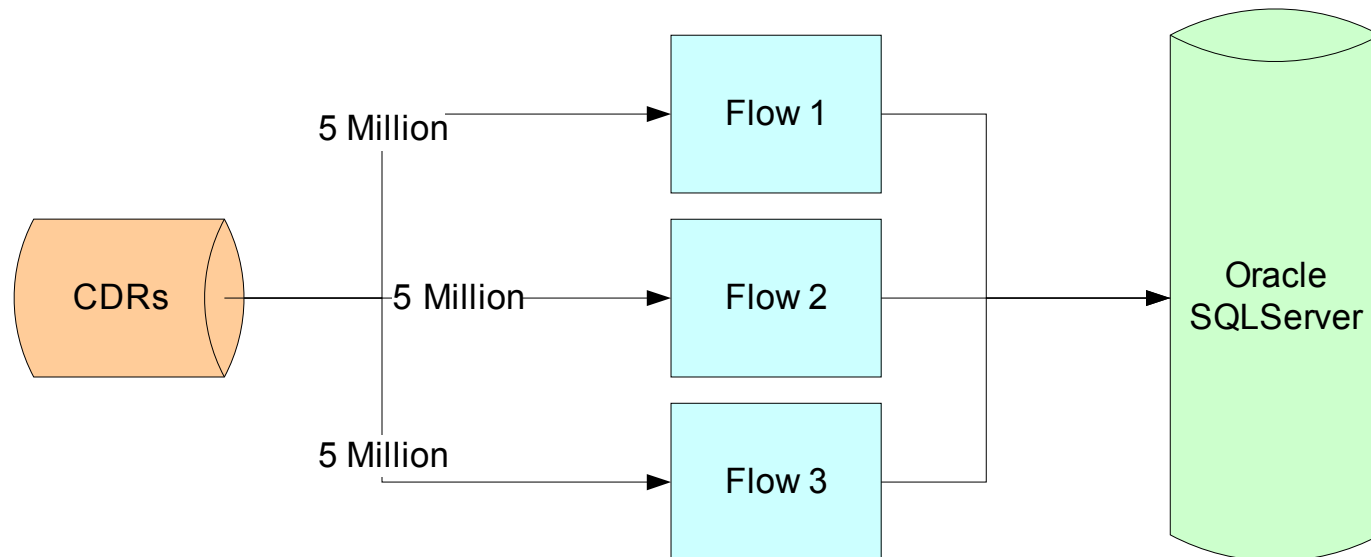
Performance Metrics

5 million a day source – 15 million thru various paths

70% of CDRs processed in 5 hr. window

300-400 sustained TPS, 3kb avg. msg size

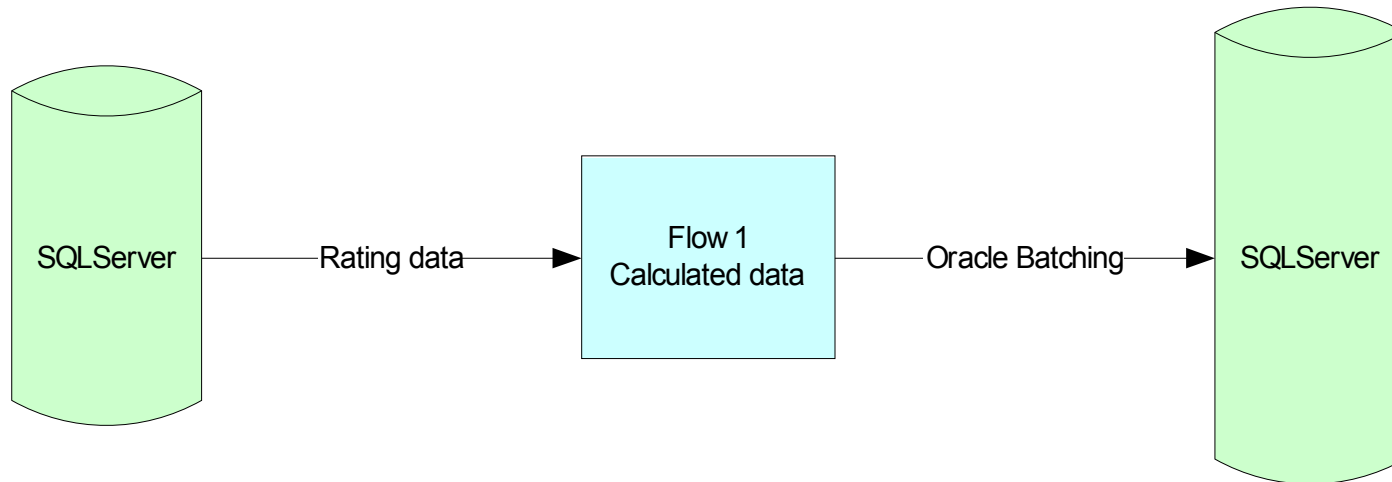
Normal Message Process Flow



Performance Metrics

Irregular Batch Flow

200 million inserts in a 5 hour window
Oracle batching used – no eWay



Summary

- 4 Production App Servers
- 3 repositories, moving to 10
 - Scaling
 - Java™ Virtual Machine (JVM™) control
- 34 Packaged projects
- 100 JCDs — Primarily as topic/queues

Summary

- 120 JCDs planned — Primarily as web services
 - WSDL
 - SOAP
 - HTTP
- Scalability
- Flexibility
- Reuse

James (Jim) Wedberg

Director, Enterprise Architecture

Securus Technologies, Inc.

972.277.0342

jwedberg@securustechnologies.net

www.securustech.net

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