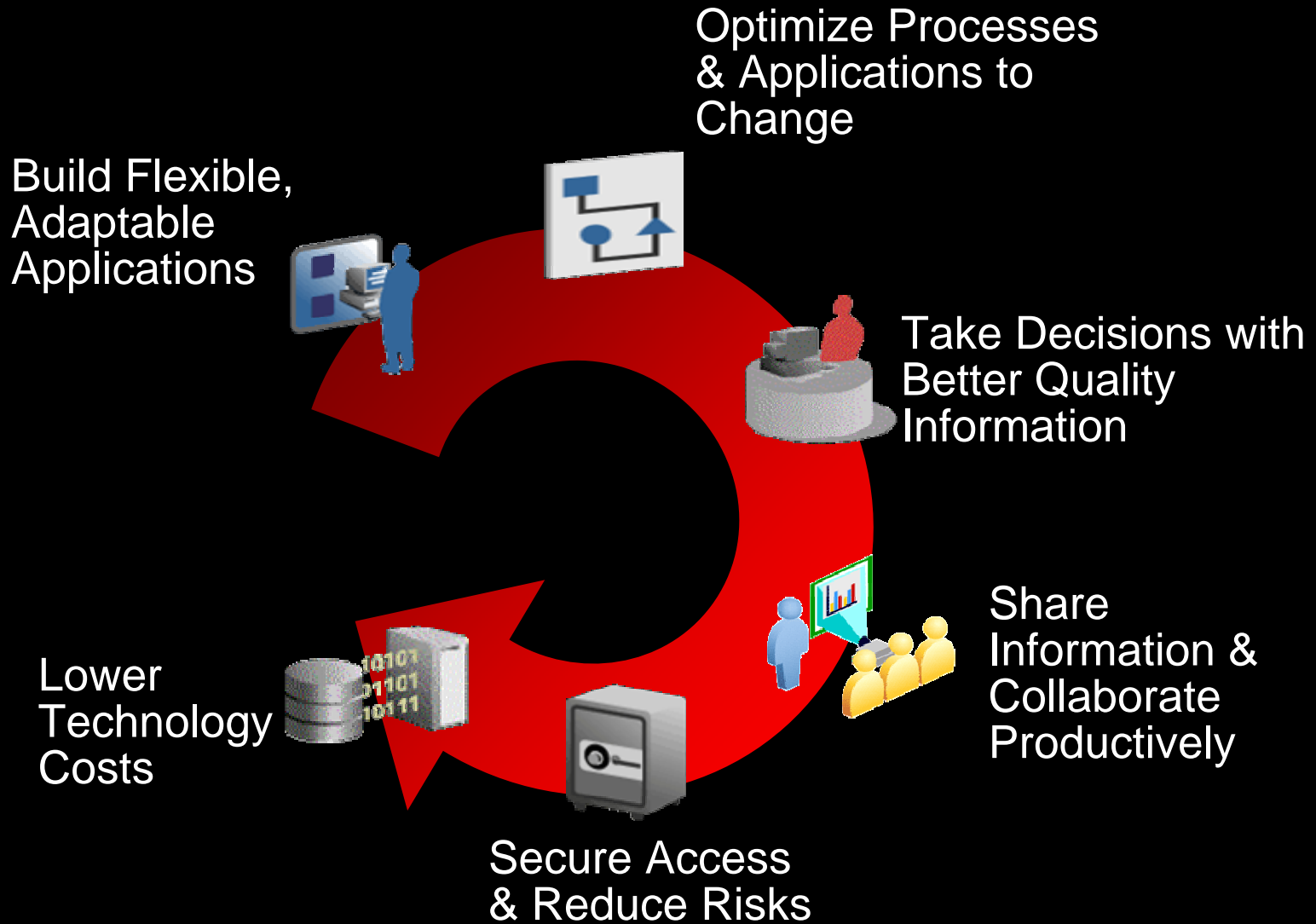


Oracle Business Activity Monitoring

Thriving on Change: BAM in a Real-Time Enterprise



Customer Needs



What is BAM?

“BAM defines the concept of providing real-time access to critical business performance indicators to improve the speed and effectiveness of business operations.”

Gartner Group

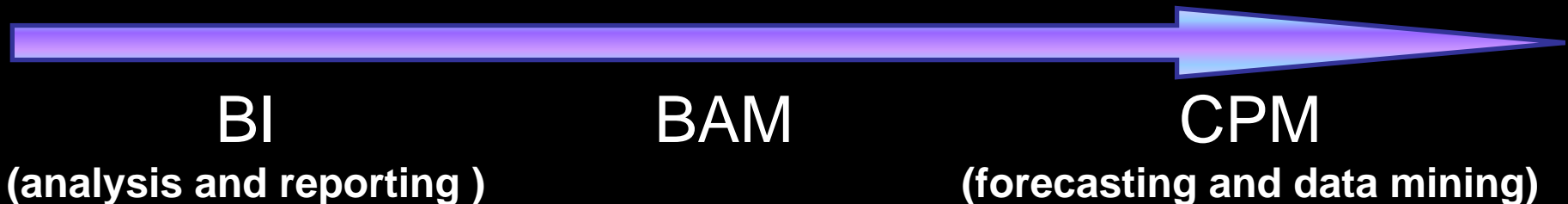
What is BAM?

- BAM is largely *born-of*, and is reshaping, two previously distinct technology markets:
 - Analytics and decision making of Business intelligence market
 - Real-time and business process linkage of Enterprise Application Integration (EAI)
- BAM focuses on what **is** happening, not what has, or might happen
- BAM sits *in-between* the historical and analytical focus of BI and the forward business planning of Corporate Performance Management

“Has happened”

“Happening”

“Could/Should Happen”



BI + BAM :

- ✓ **BAM adds real-time information to Business Intelligence**
- ✓ **Business Intelligence adds information context to BAM**

Who Needs BAM?



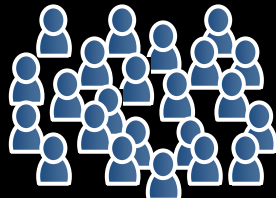
IT Administrators
Systems Management



Business Analysts
Business Intelligence

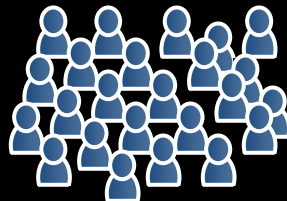
Business Operations
Business Activity
Monitoring

Sales



Alert me if a order has not been delivered by a particular time

Service



Are we meeting our SLAs in the last hour? today?

Customers



Alert me when prices change!

Partners



Alert me when a shipment that I am tracking is expected to get delayed

Oracle BAM Customers



Real-Time Trading Analytics

i-Deal, a financial services software provider to the fixed income, equity and Municipal markets, provides their customers instantaneous Web-based updates on subscription levels and deal milestones



Event Based Alerting

Silver Line Windows has created an event-based manufacturing and logistics notification system that delivers alerts to Blackberry RIM devices worn by expeditors on the manufacturing floor. The result is a reduction in time-to-invoice from 4-days to 1-day and a reduction in manufacturing cycles by 7—10 days.



Business Process Monitoring

The Nevada Department of Education monitors the data transfer process from all 17 districts to the central state system to ensure it runs smoothly as data is transmitted, consolidated, and cleansed.



Root-Cause Analysis

E-470, a 47-mile long toll highway that runs across the Denver Metropolitan area uses BAM to monitor toll violations, traffic patterns and faulty sensors equipment.

Business Challenge

- **Real-Time, Event-Driven Business Operations**
 - Capture real-time data
 - Analyze processes, trends, and context
 - Immediately deliver information to business users

#1 – Capture Real-Time Data

Business Apps



- Business Events, state transitions



Business Process Mgmt.

- Monitoring activities, states



RFID and Sensors

- Active and Passive
- Location, Moisture, Motion, etc.



System Management

- Performance metrics, alerts, logs

Messaging Systems

- JMS, AQ, MQSeries



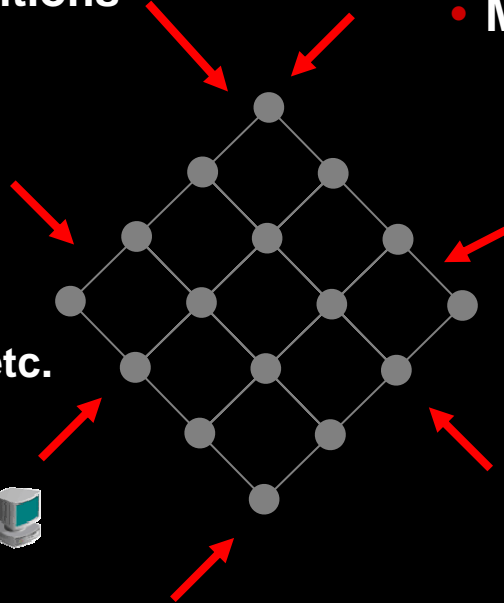
Security

- Authentication, authorization, audit trail



Database

- Streams



#2 – Analyze Processes, Trends, and Context

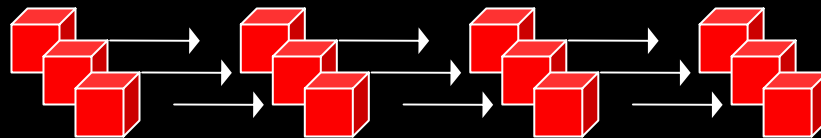
Monitor a Single Process

Track each process step
Identify failures



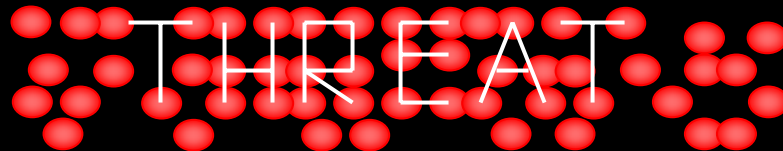
Process Aggregations

Averages, KPIs, SLAs
Identify bottlenecks



Complex Event Processing

Correlate independent events
Identify threats & opportunities



Context

Historical performance
Rolling average



Jan '04



Jan '05



Past 4
Hours

#3 – Interface for Business Users

Personalized Dashboards

Role-based access
User defined and built



Personalized Alerts

User defined alert rules
Multi-channel delivery



Embedded Actions

One-button response
Initiate response workflow



Oracle Business Activity Monitoring

Product Overview

Oracle BAM Platform

- **Active Data**

- Streaming updates— Data pushed to the browser without page refresh
- Incremental Calcs— Aggregate changes do not require recalculation/re-query
- Low Data Latency— 2-4 second interval from update to browser access

- **Event-driven, Message-based Activity Monitoring**

- Intelligent In-Memory Caching
- High-Volume Data Integration— Up to 57,000 message updates per second
- Event-Based Alerts— Data changes, non-events managed incremental calculations

- **Scalable, Web-based UIs with Rich Visualization**

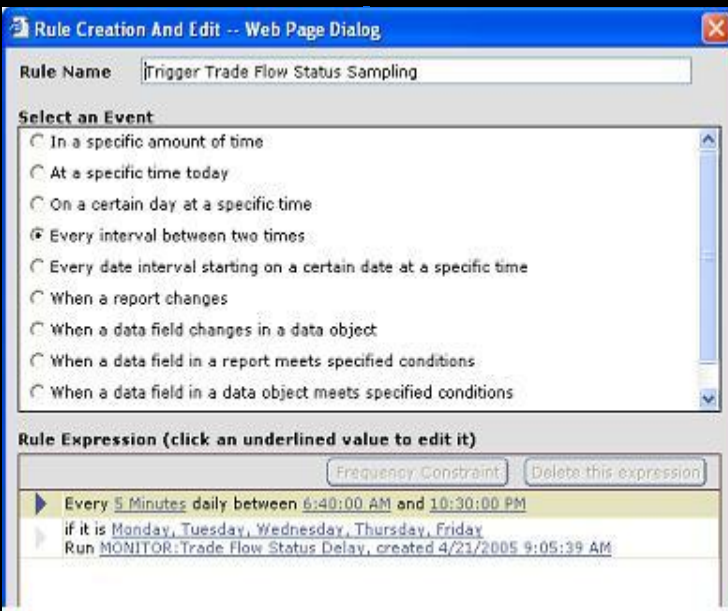
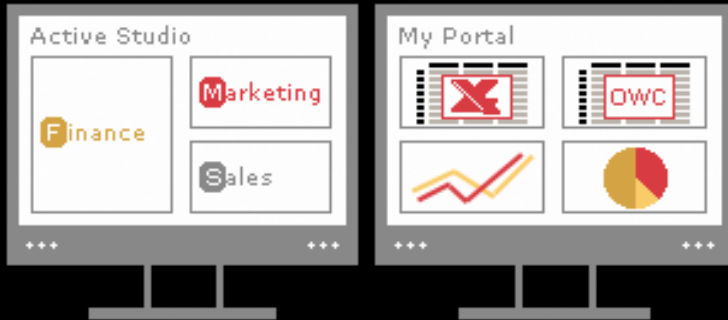
- Highly Scalable— Up to 1,000 users on a single 4 CPU machine
- Completely Thin-Client— No downloads, no installs
- Best-practice Visualizations-- 38 active view-types available, 2D/3D

BAM Active Viewer



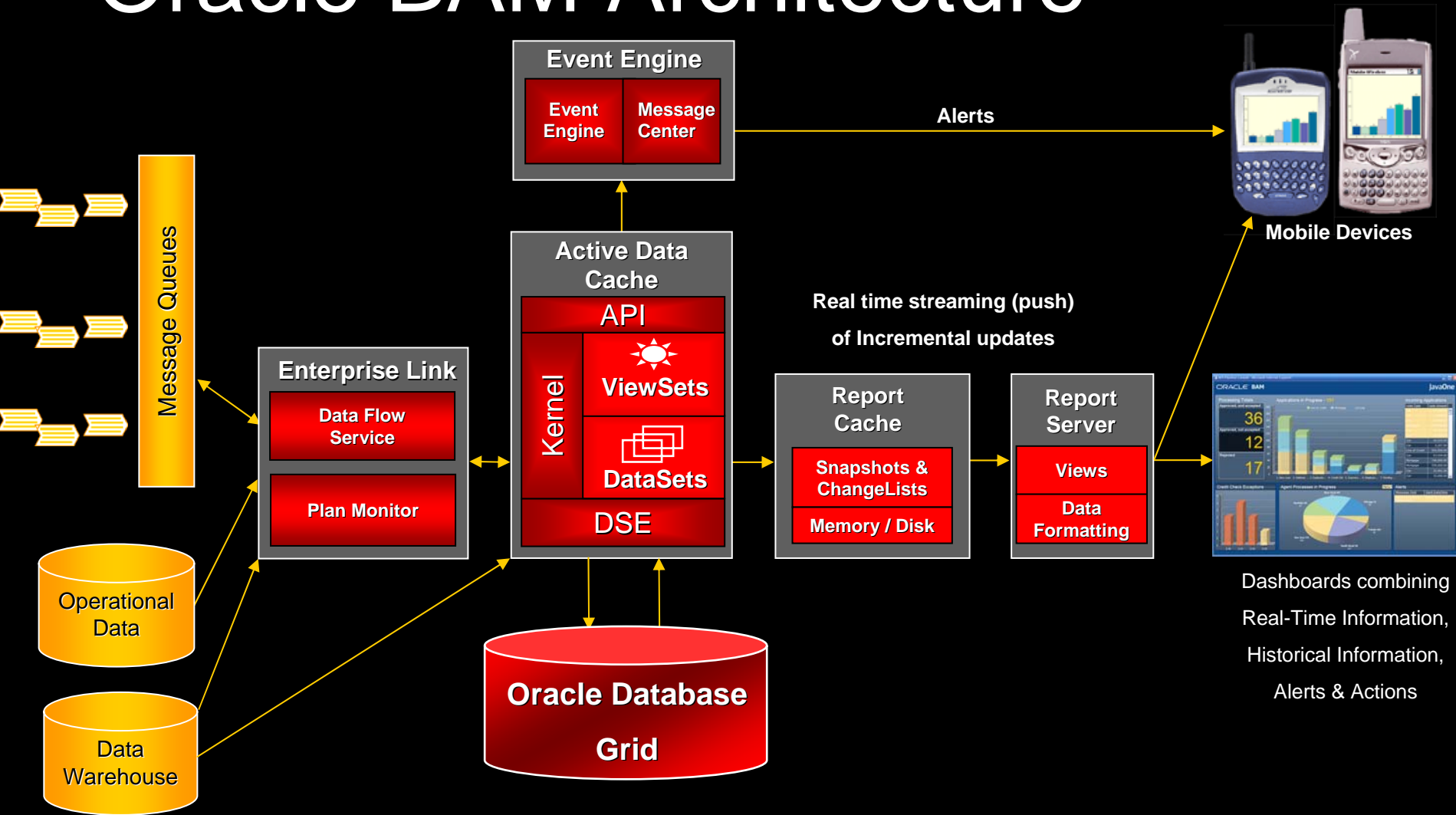
- Real-Time KPIs
- Thin Browser GUI
- Role-Based Access
- Live Display Technology
- Portal Compatible
- Embedded Actions

BAM Active Studio



- Template-Driven Design
- User Defined Alert Rules
- Integrated analytics
- Business reporting using drill through and drill-across concepts
- Multiple displays in a report like Charts, Graphs, Lists, KPI's, Excel

Oracle BAM Architecture



More Examples...

Financial Services

Trade settlements QoS, straight through processing analytics, fraud detection pattern matches, regulation and compliance violation detection in real-time

Healthcare

Claims processing, monitoring disease outbreaks and patterns, drug testing & approval

Telecom

Tracking orders in complex provisioning processes that spawn multiple different processes

Retail

Trade management, demand monitoring, shipments tracking, real-time inventory analysis, product recalls
