



Innovapost: safeguarding \$14 million worth of e-shipping transactions every day

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October 7th, 2009

More Information

- Case study featured in the April edition of *Government Purchasing Magazine*
- Upcoming GTEC presentation in October, “*Using IT to Add Value to Canada’s Postal Services*”
- Any questions, my email: brent.kirwan@innovapost.com

INFORMATION TECHNOLOGY



Case Study: Canada Post

Electronic services assist with the delivery of documents and packages.

By Jimmy Fulton

One of the most important applications in Canada Post’s online portfolio is its Electronic Shipping Tool.

Canada Post, a crown corporation, is responsible for delivering approximately 40 million pieces of mail every day and has almost 72,000 employees. The organization’s overall goal today is to develop innovative physical and electronic delivery services that create better value for its users.

Innovapost, for example, is Canada Post’s information technology (IT) partner, responsible for managing hundreds of complex systems, including one of the largest deployments in Canada of technology from software provider SAP.

Since 2003, Innovapost has reduced application support costs by 20 per cent and IT infrastructure service costs for Canada Post by as much as 30 per cent. Innovapost also develops, maintains and manages Canada Post’s electronic commerce (e-commerce) website, which is the largest in the country in terms of the number of visits and volume of online transactions. Due to its ever-increasing e-commerce presence, one of the most important applications in Canada Post’s online portfolio is its Electronic Shipping Tool (EST).

Presentation Overview

- Innovapost Overview
 - Challenge
 - Technology
 - Solution (CA Wily Introscope)
 - Questions & Answers
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- Some numbers to remember
 - 20,000
 - 14 million
 - 14,000
 - 3 billion

About Innovapost

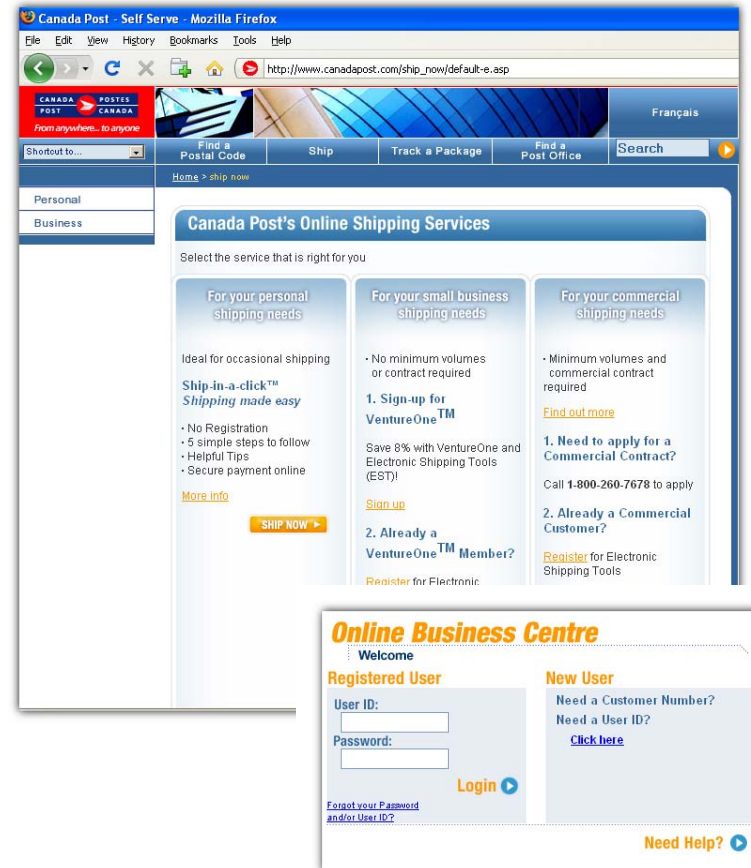
- Innovapost is a leading provider of IT solutions and services to the Canada Post Group of Companies, with a specialization in SAP, e-business, IT transformation, retail and mobility solution development
- Since the company was founded in 2002, Innovapost has delivered to its clients over \$300 million in operational cost savings
- For Canada Post alone, application support costs decreased by 20%, and infrastructure costs decreased by 30% – turning costs into assets without off-shoring
- Innovapost's 800 employees in Ottawa, Mississauga and Toronto have raised \$1.4 million dollars for charity since the company was founded

Electronic Shipping Tools (EST)

- Innovapost is responsible for modernizing and managing hundreds of complex applications for Canada Post, including the company's online portfolio of products
- “Electronic Shipping Tools” (EST) is the most important application in Canada Post's online portfolio
- EST is the largest e-Commerce site in the country in terms of the number of visits and the volume of online transactions
- EST consistently runs at 99.5 percent availability (our SLA)
- Our job: safeguard revenues, maximize availability of EST, ensure EST can scale to meet increased demand

Electronic Shipping Tools (EST)

- Utilization of the e-shipping tool has doubled in the last four years
- Used by small / medium sized businesses
- Communications and distribution
- We need to know about any faults with the e-shipping tool as quickly as possible - before they affect customers

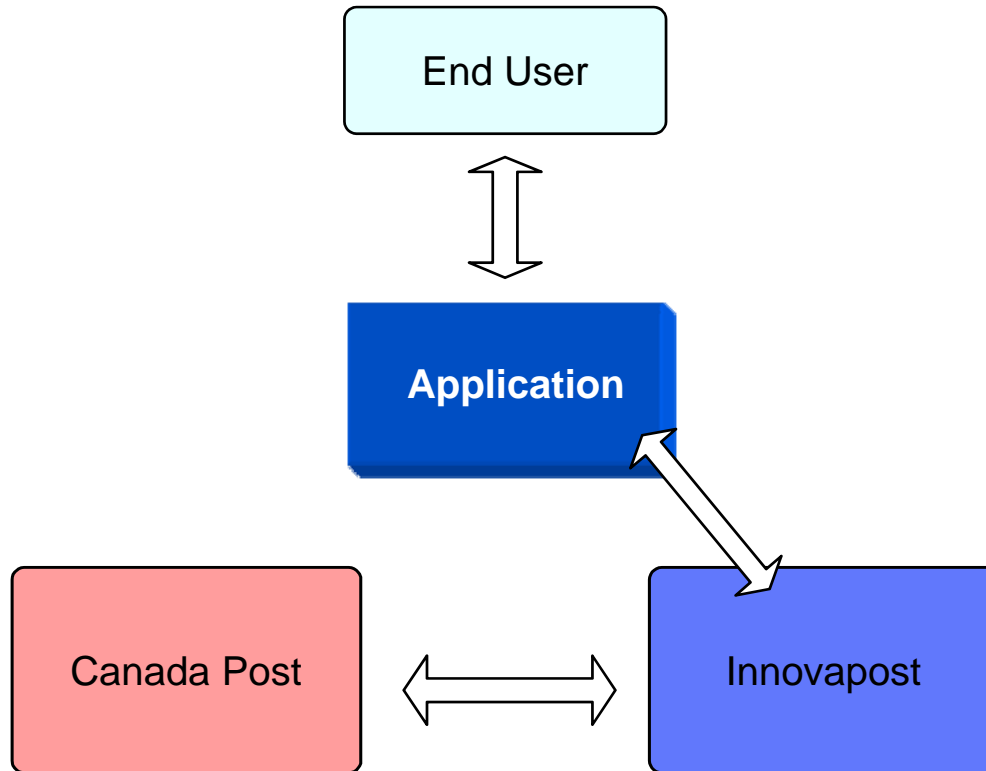


Challenges 'on the ground'

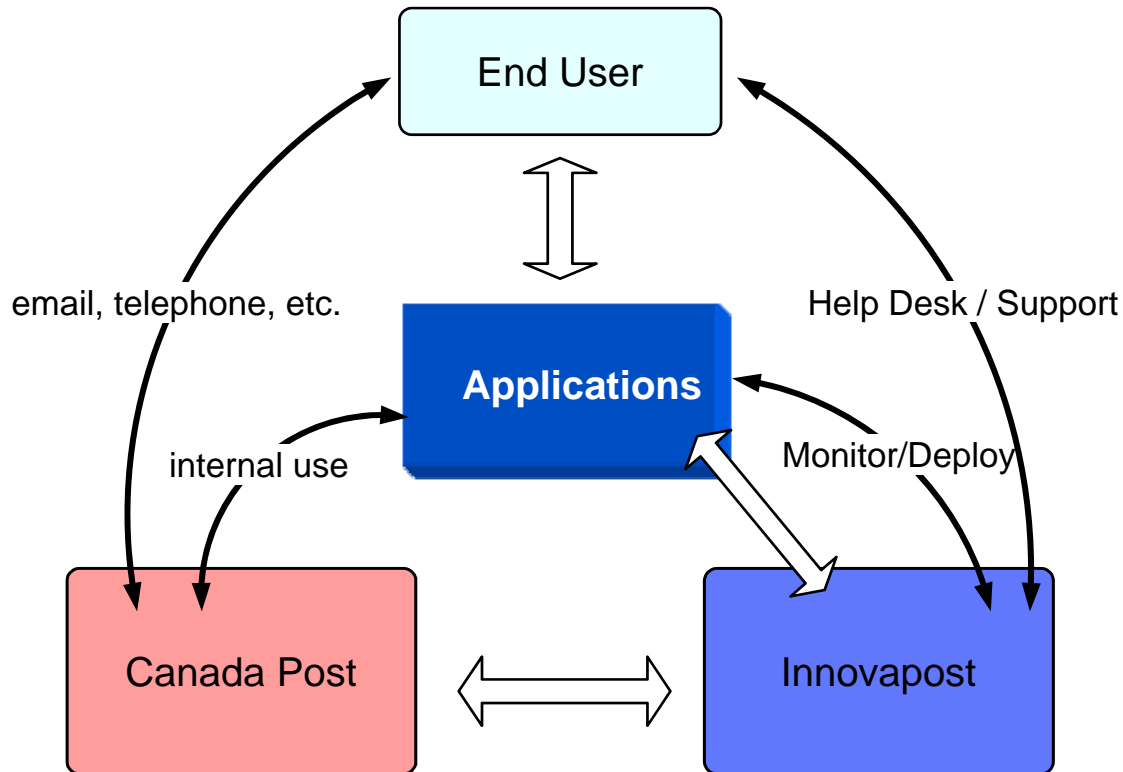
- Supply CPC with answers quickly
- We need to know what is wrong
- Is it my application?
- Or?



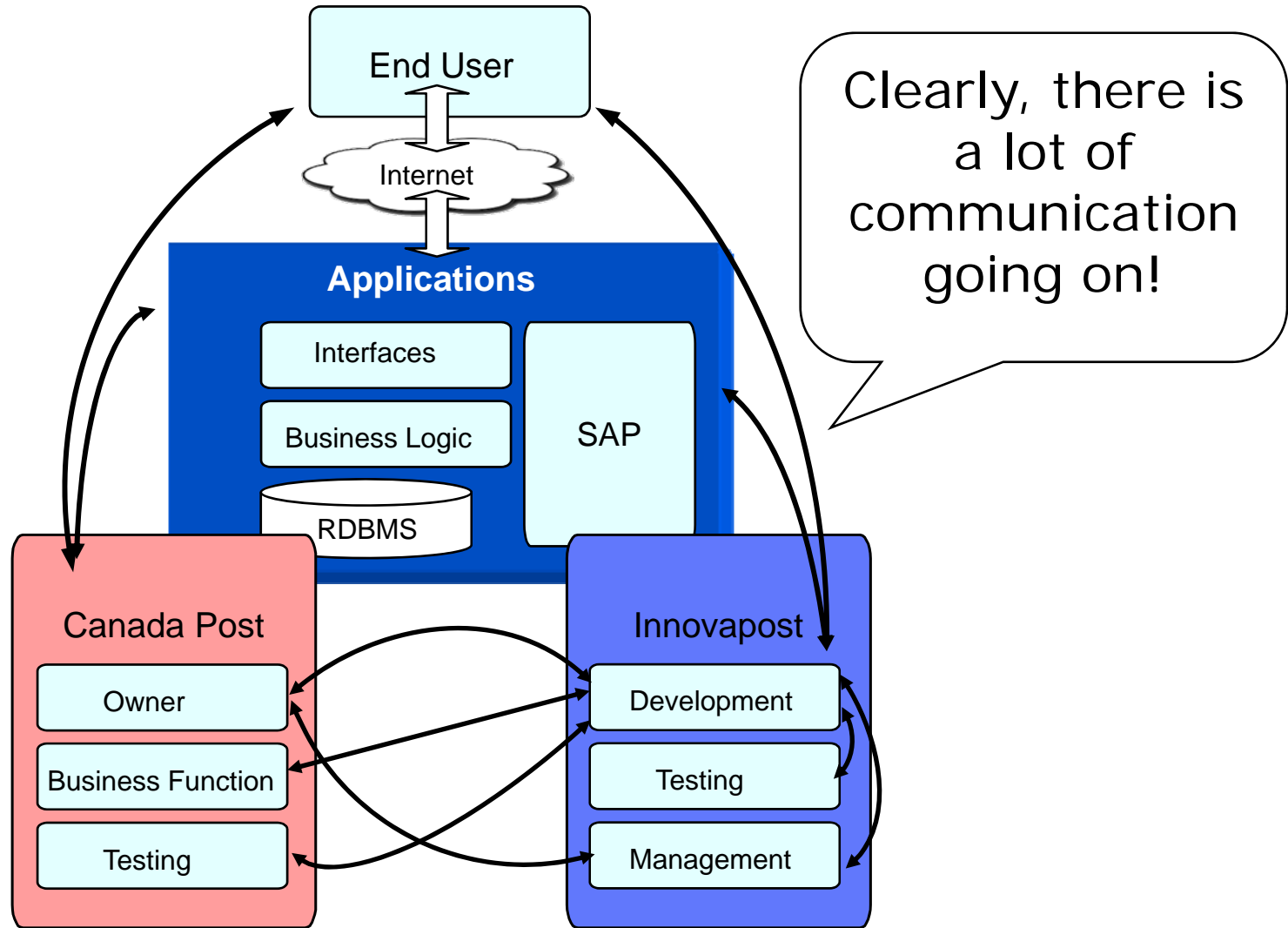
Application Stakeholders - Idealized



Application Stakeholders - Approaching Reality



Application Stakeholders – Reality!



Canada Post needs to know...

- Is the EST application available?
- Is it running smoothly?
- Customers getting good response?
- Can we add more users?
- Something is wrong. What is it?



EST Service Level Agreement (SLA)

- An SLA is maintained for each application
- We are measured by how well we meet the SLA
- Our client values accurate information (good or bad) as soon as possible in order that they may update their stakeholders
- Canada Post's e-shipping application consistently runs at 99.5 percent availability

Performance Monitoring

A Definition:

- Gathering, displaying, and interpreting various metrics to determine the state of an application



Profiling and Benchmarking

- Profile
 - The set of metrics that are representative of your application
- Benchmark
 - How well your application does on a specific platform or load specification

4 Classic Metrics

- Throughput *events per unit time*
- Latency *time from request to result*
- Utilization *% capacity in use*
- Efficiency *throughput / utilization*

Remember Those Numbers?

- On an average day:
 - 20,000 orders are inducted into EST
 - 12 million dollars revenue
 - 14,000+ users across Canada
 - About 3 billion per year, approaching 50% of Canada Post's annual revenue



EST Ecosystem

- Java
- WebLogic
- Oracle
- SAP R/3
- Sun Solaris



ORACLE®



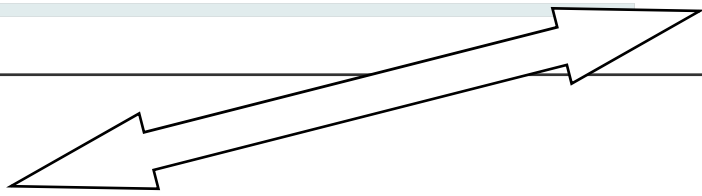
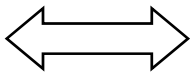
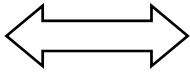
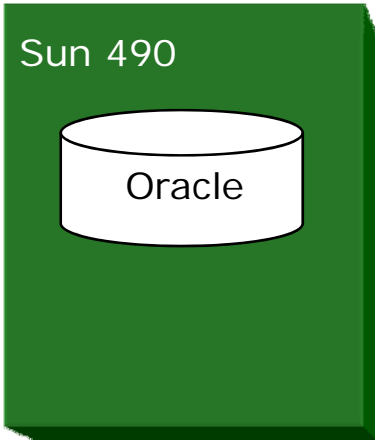
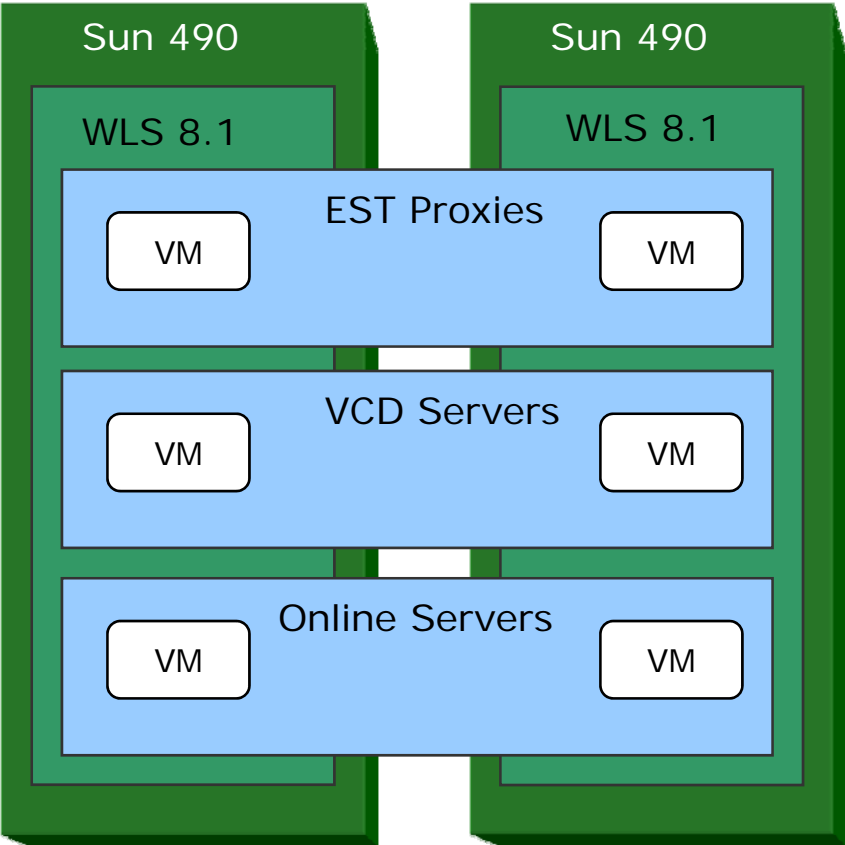
EST Architecture



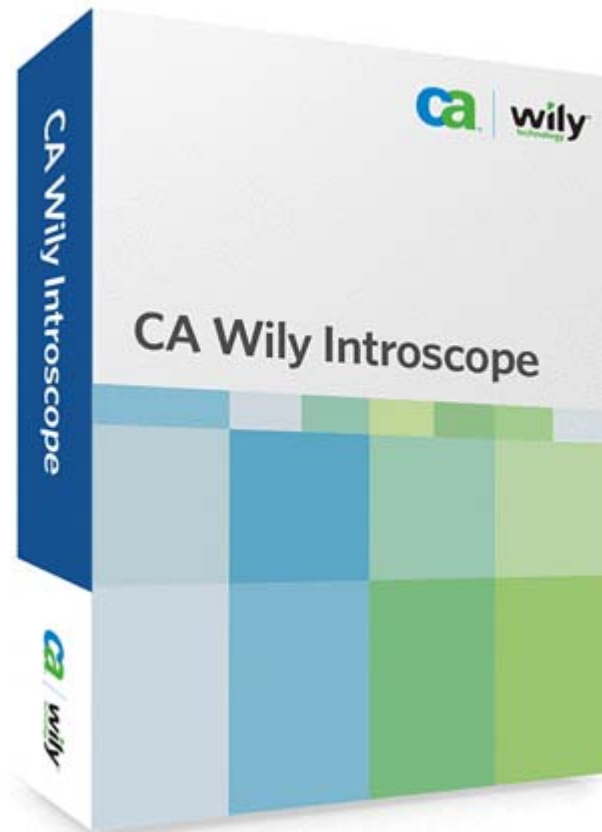
Datacenter
(Montreal)



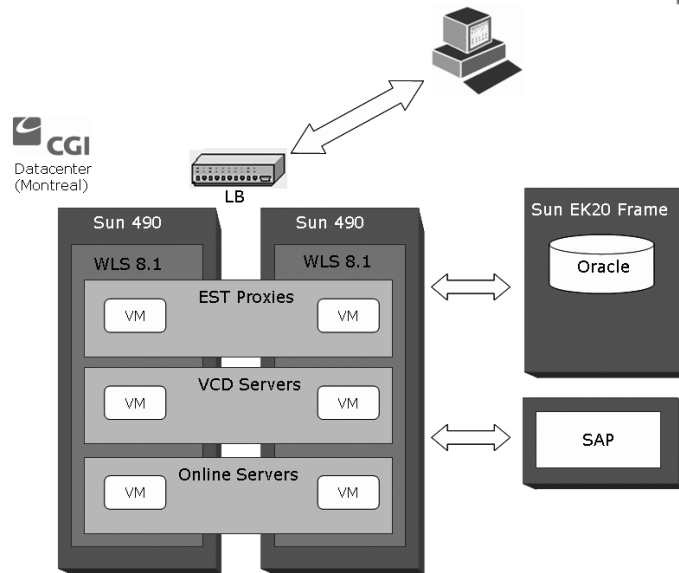
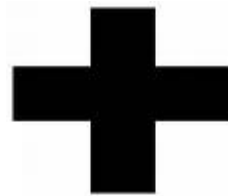
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Solution?



Application with Introscope



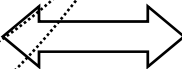
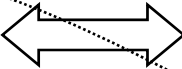
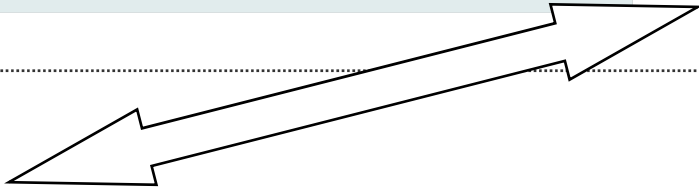
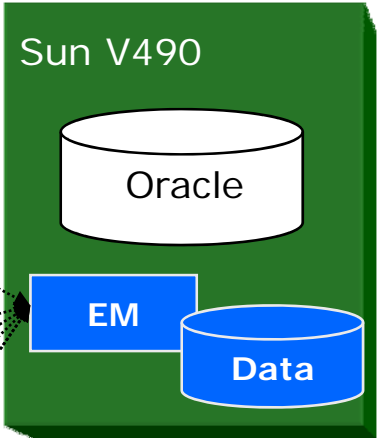
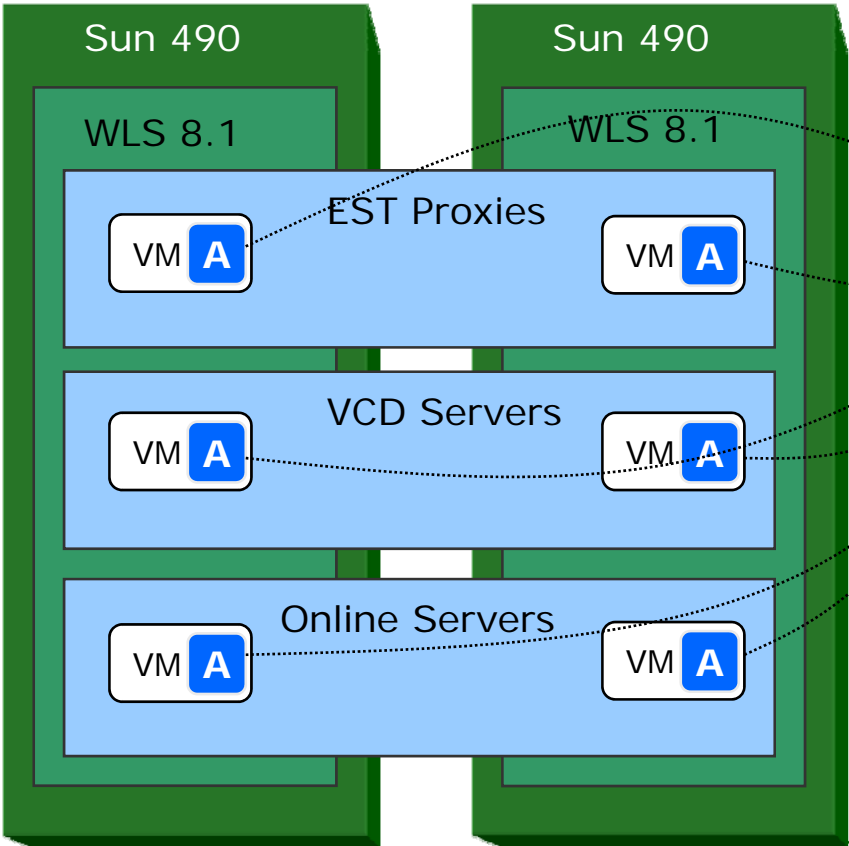
EST – Architecture with Introscope



Datacenter
(Montreal)

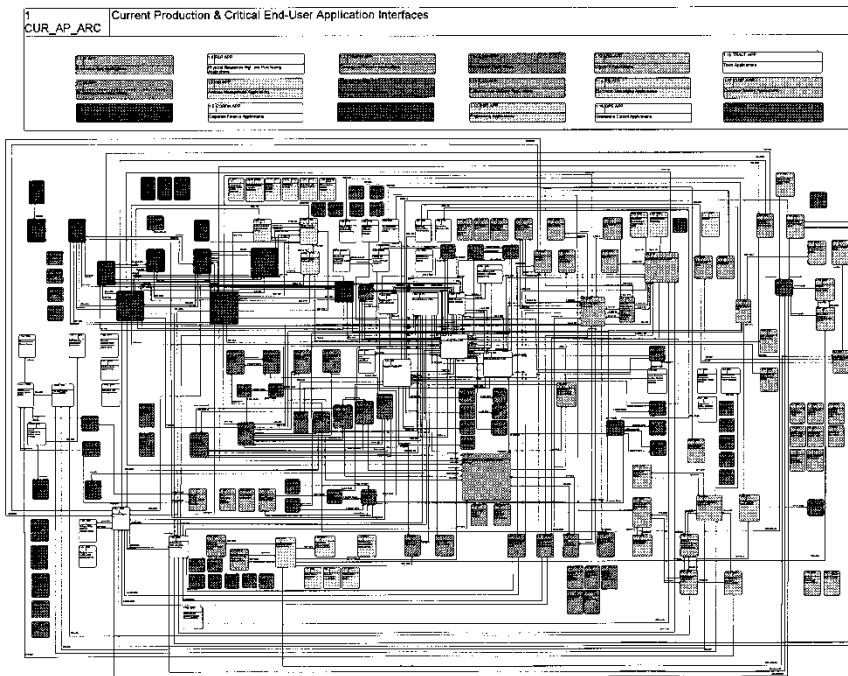


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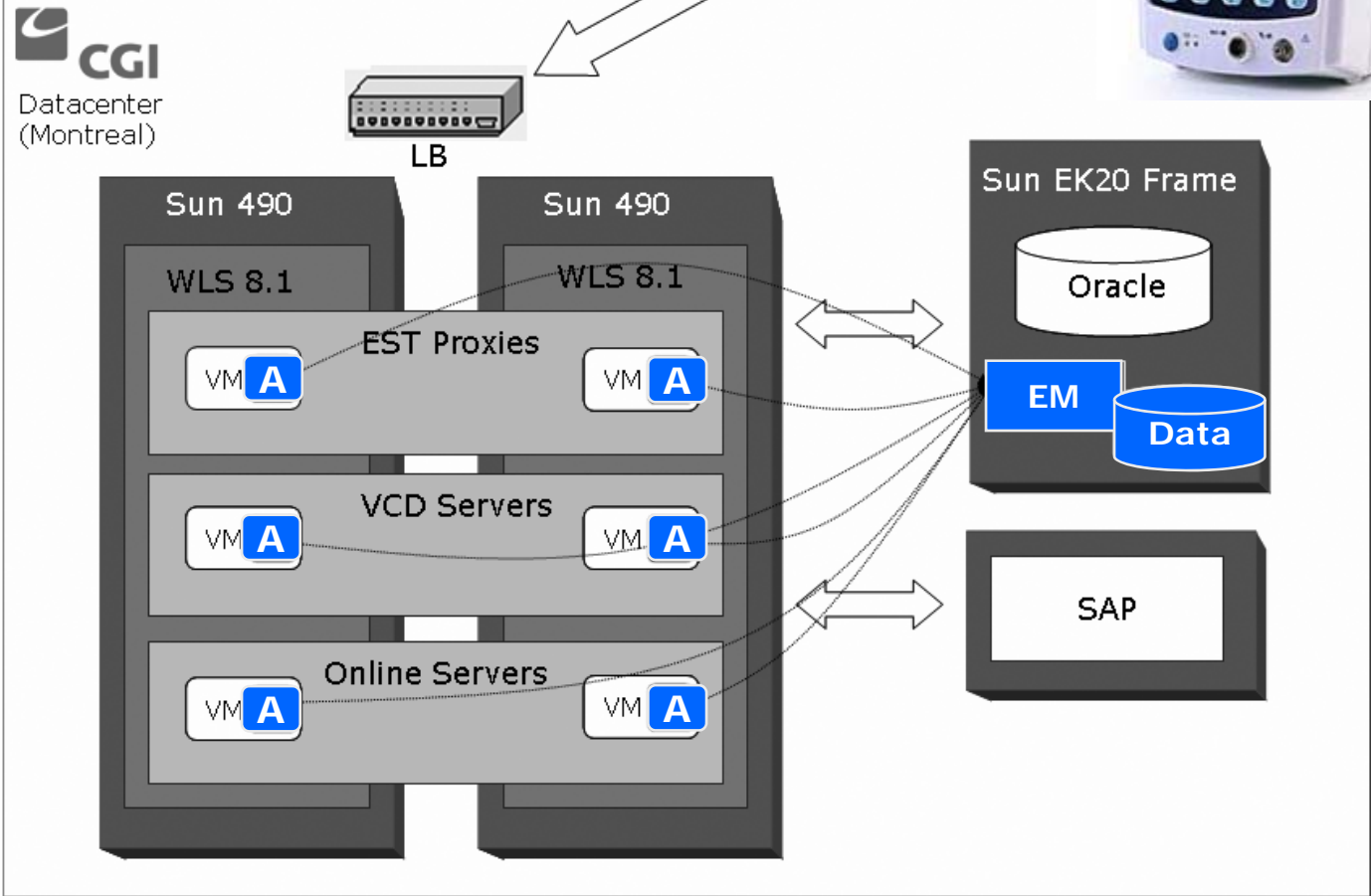


Before Introscope

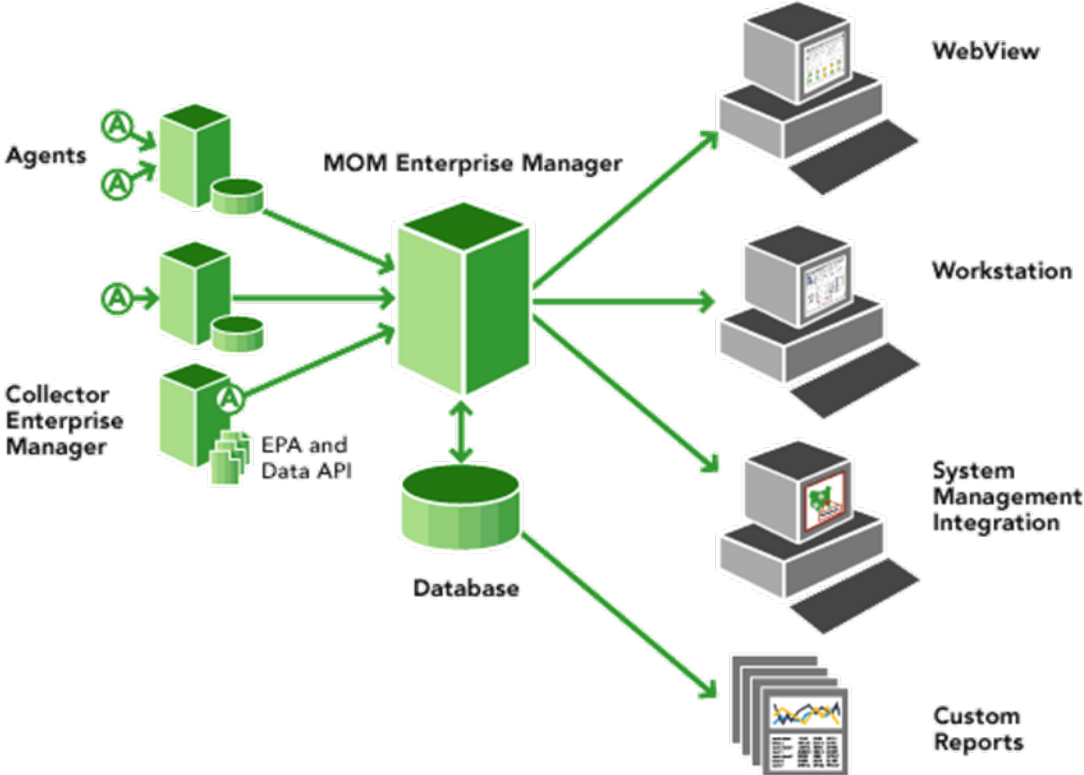
- Many customized, ad hoc scripts
- Primitive diagnostics – the system is either *up* or *down*



Instrumented Application!



Introscope



What can Introscope do?

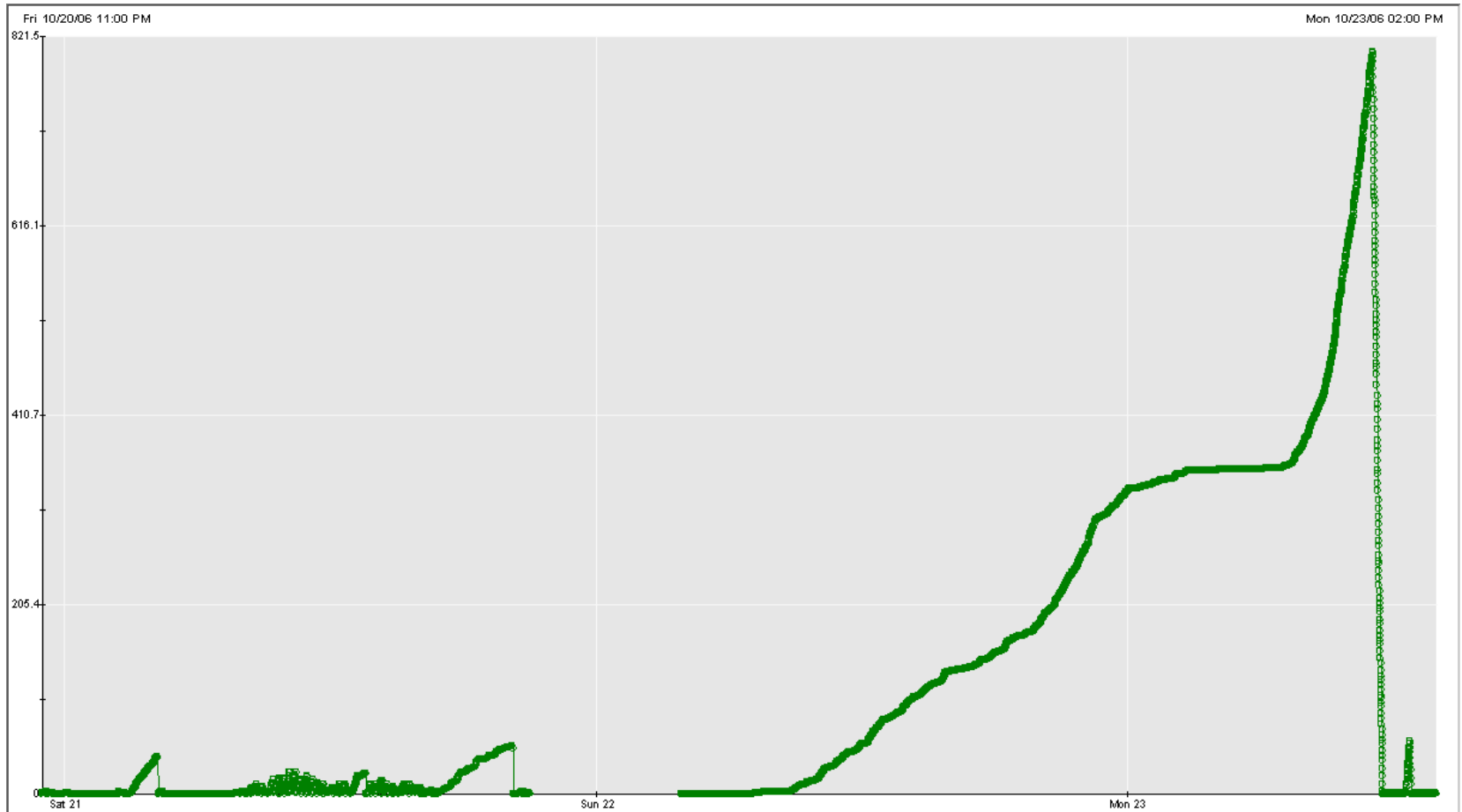
See issues before your
customers do



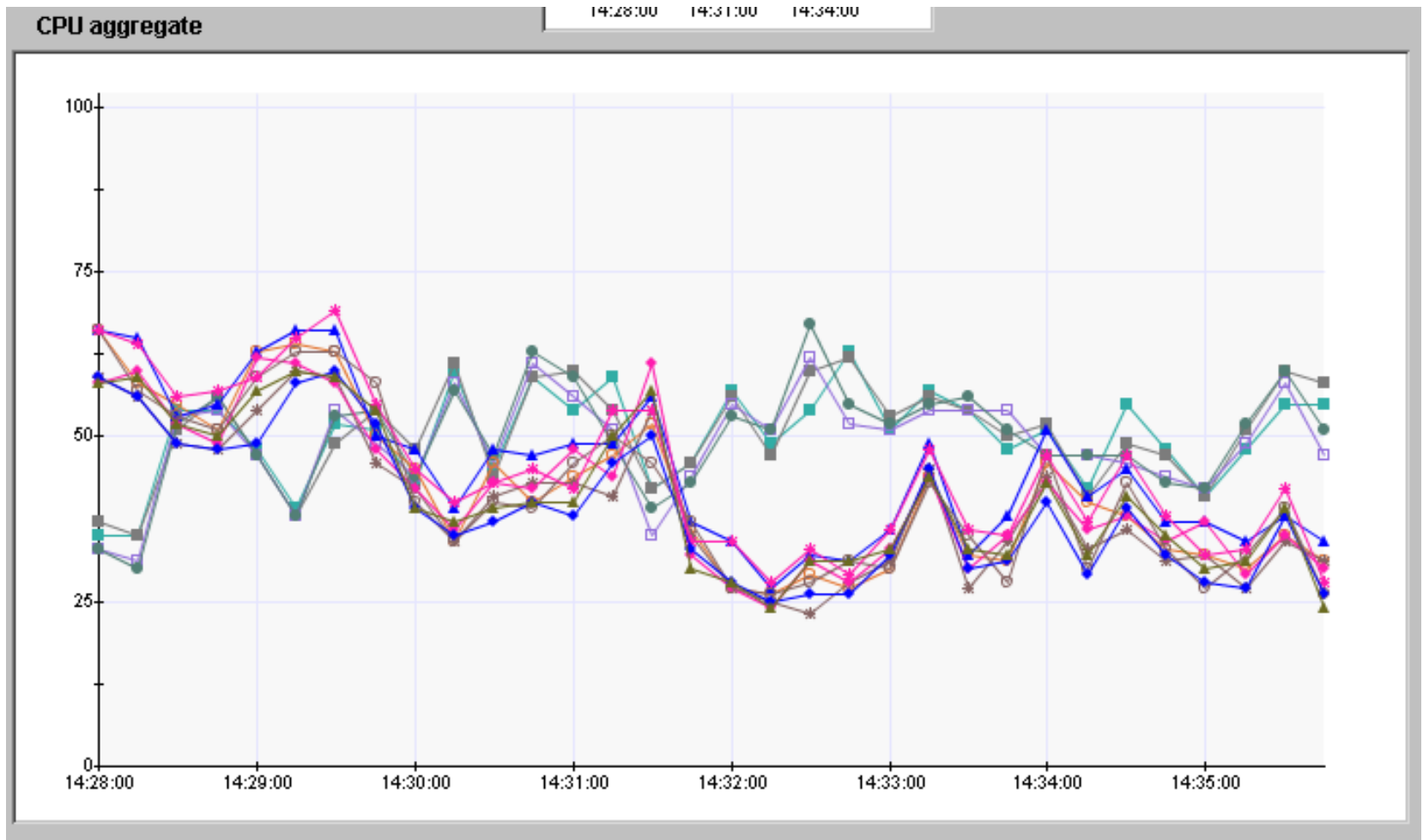
Delivering on the Promise of Application Performance Management

- If the VM knows, so does Introscope
- Memory (heap size)
- CPU utilization
- EJB metrics
- Database queries
- A lot more

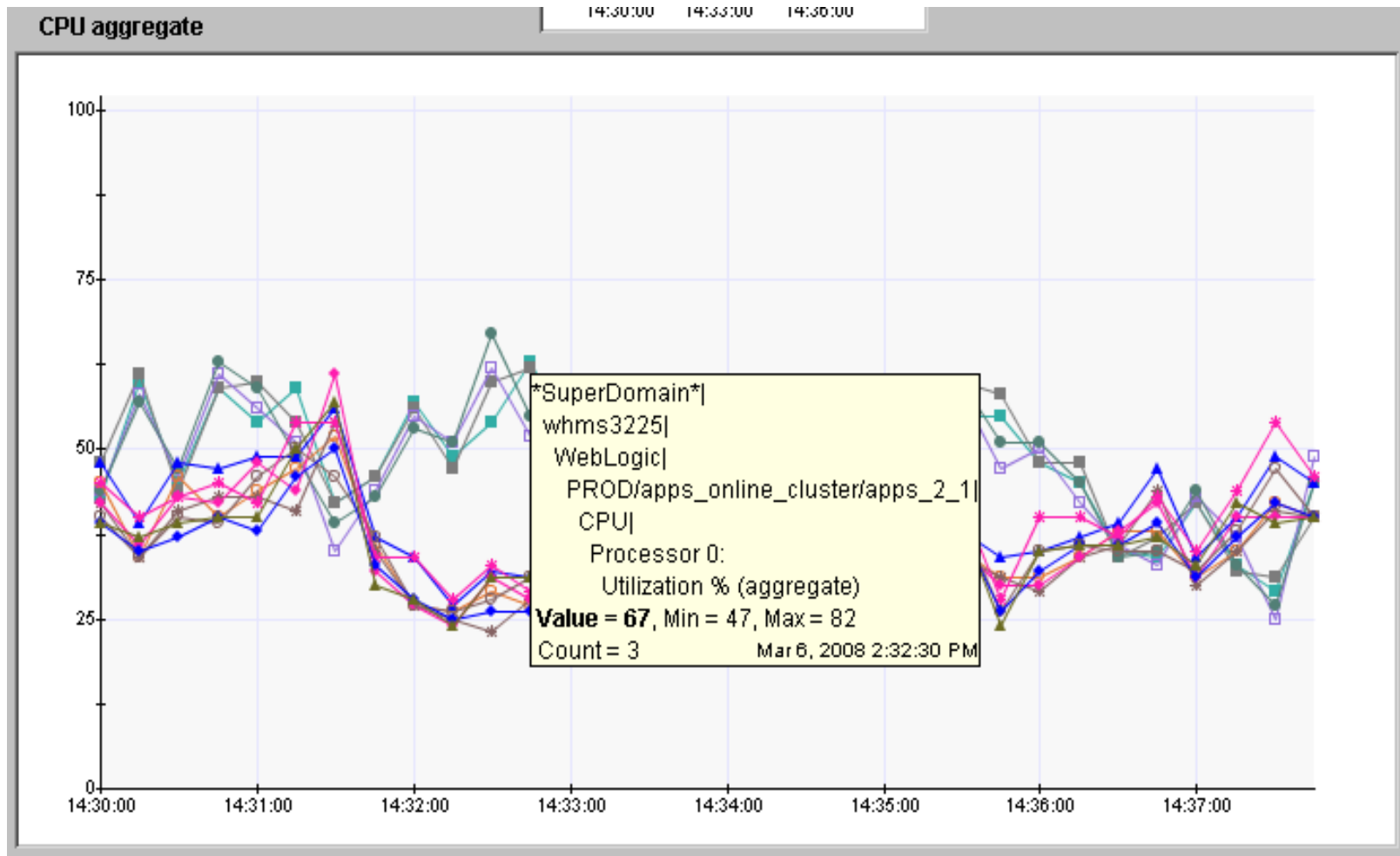
Example: Queued Data to SAP



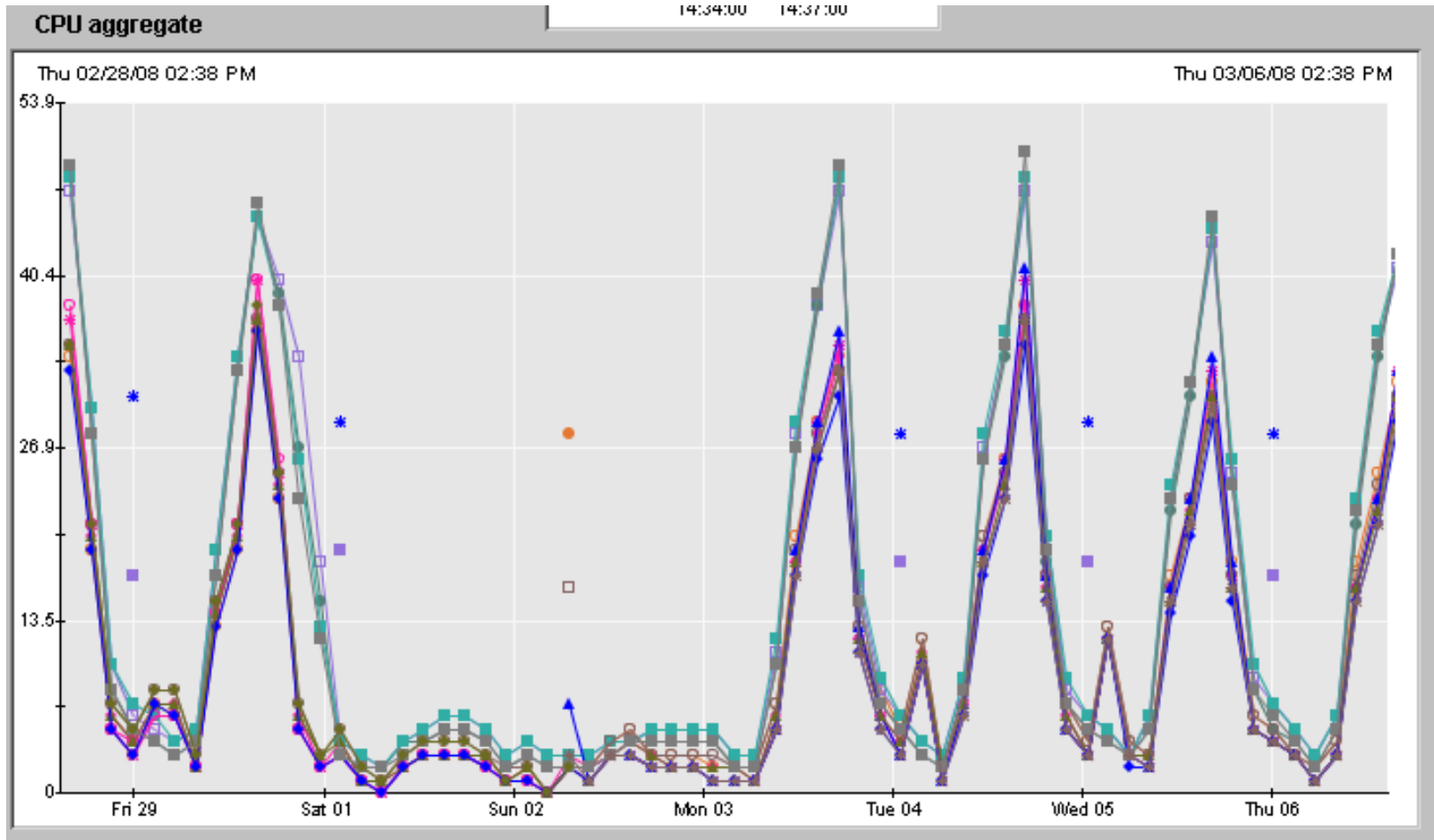
Example: CPU Utilization



Example: CPU Utilization Pick a Point



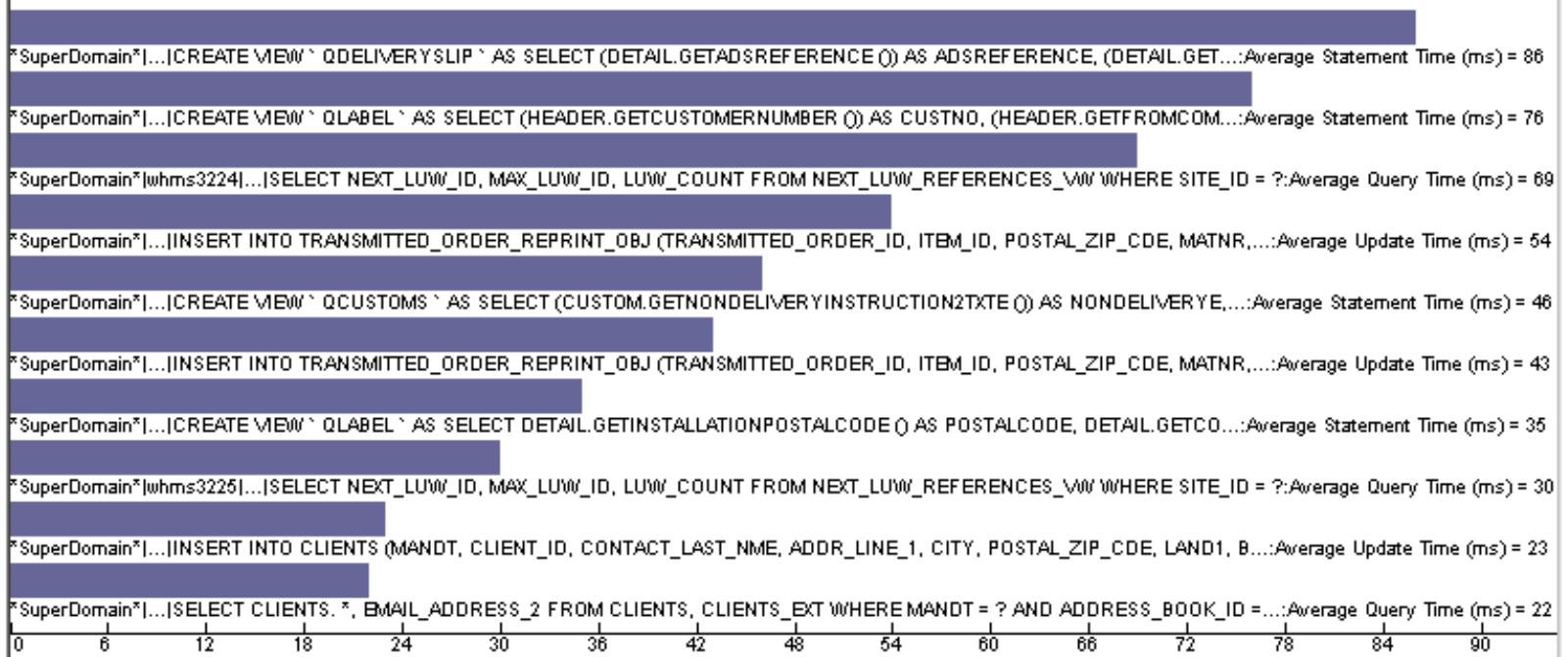
Example: CPU Utilization (Last 7 days historical)



Example: Top 10 db queries (real time)

Top 10 Database queries

Displaying Top 10



Benefits Summary

- Introscope enables Innovapost to proactively manage our EST service levels
- Application in production
 - Real-time, configurable monitoring
 - We can see what is happening “under the hood” as customers use the application
 - No guesswork for metrics: comprehensive statistics for performance evaluation and capacity management

Benefits Summary

- Testing Phase
 - Ability to profile and benchmark
 - Need to know, release to release
- Development Phase
 - Essential tool in our arsenal

Introscope Going Forward

- Started with 4.1
- Migrated to 5.3.1
- Currently 7.0
- Any ongoing new “CPO” project – both commercial and consumer – will have Introscope **mandated**

Questions and Answers

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Introscope

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