



# Optimizing your SaaS solution

June 25, 2009



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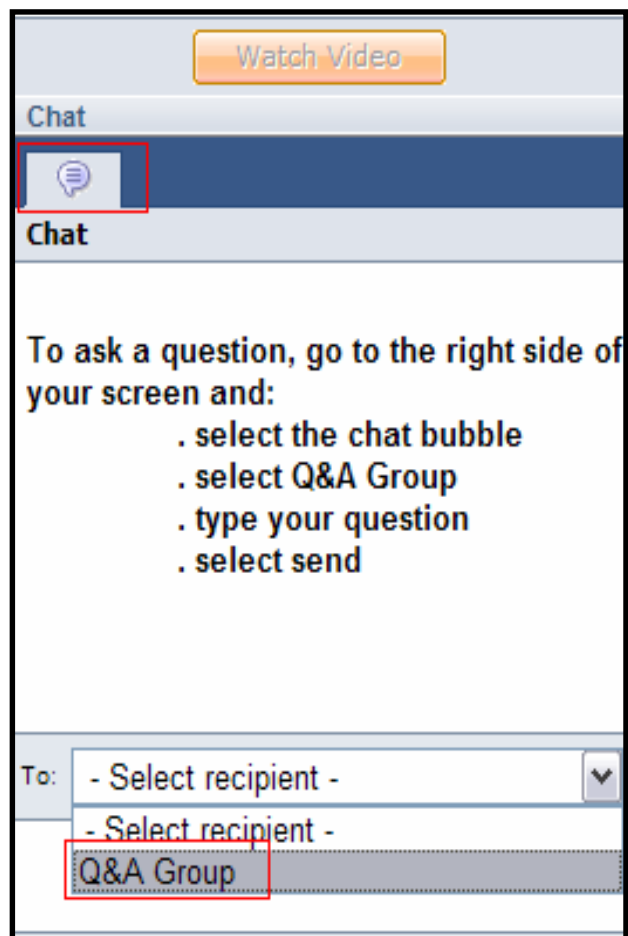
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## How to submit a question



1. Phone lines are muted for all attendees
2. Submit your questions using Chat feature of SameTime Unyte



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## Your speakers today

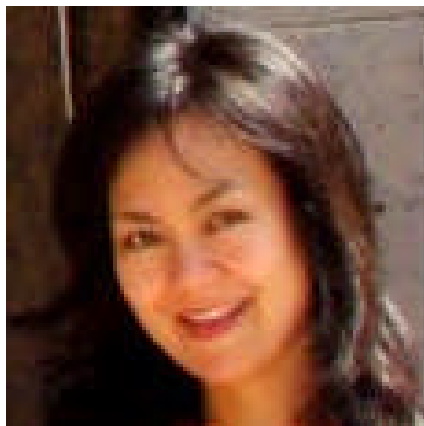


- **Bonnie Durkin**
- **IBM, Global Program Manager, Software as a Service**
- Bonnie is a Senior IBM Marketing Manager, responsible for the implementation of IBM's Software as a Service programs worldwide. Her focus is on program management and marketing support for ISVs deploying the SaaS business model.

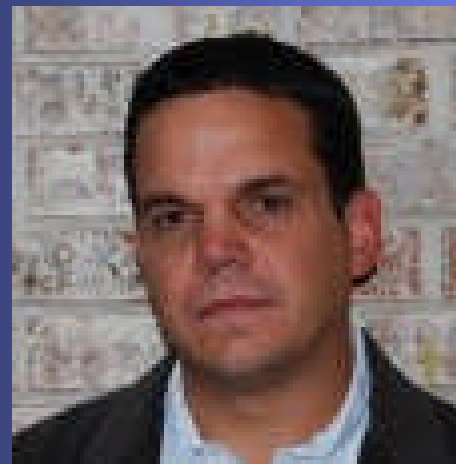


- **Andy Rubinson**
- **Akamai, Senior Product Marketing Manager**
- Andy Rubinson is a Senior Product Marketing Manager for Akamai's Application Performance Solutions. Prior to Akamai, Andy worked for Ariba, Inc., a leading SaaS provider in Spend Management, marketing their Sourcing solutions. Andy earned his MBA from the MIT Sloan School of Management.

## Your speakers today



- **Michelle Liu**
- **Technical Account Manager**
- Michelle Liu is a Technical Account Manager specialized in ILOG's Visualization product line. She has 10+ years of experience with the design and implementation of user interface. Michelle brings her expertise to various activities including technical presales, consulting, training and marketing.



- **Dana Schmidt**
- **SaaS / ISV Market Director, IBM Software**
- Dana is responsible for driving the program and product strategy for the Cognos Software group at IBM in support of ISVs and SaaS vendors. Over the past 12 years, Dana has been working with software providers in all aspects of the product life cycle to define, architect, integrate and market business intelligence and performance management applications.

# Objectives

## 1. Introduced you to three distinct solutions that can help you optimize your SaaS solution as your business grows:

- Optimize the business impact of your SaaS applications by maximizing performance, availability, and scalability
- Enhance decision-making speed and ability by making vast quantities of complex data more manageable for users
- Leverage business intelligence to extend your user community, increase revenue, and elevate renewal rates

## 2. Provide a forum for education, questions and answers

# Agenda

- Andy Rubinson, Akamai
  - Optimize the business impact of your SaaS applications by maximizing performance, availability, and scalability
  
- Michelle Liu, ILOG
  - Enhance decision-making speed and ability by making vast quantities of complex data more manageable for users
  
- Dana Schmidt, Cognos
  - Leverage business intelligence to extend your user community, increase revenue, and elevate renewal rates
  
- Questions and Answers



Optimize the business impact of your SaaS applications by maximizing performance, availability, and scalability

Andy Rubinson  
Sr. Product Marketing Manager, APS  
Akamai Technologies



# Akamai



- Serving the Cloud for a Decade
  - NASDAQ – 100
  - S&P 500
- Forbes' 25 Fastest-Growing Technology Companies in US
- Delivery Services
  - Rich media
  - Dynamic web sites
  - Web- and IP-based applications
- 2,800+ customers
  - 20%+ of Global 500



# SaaS Application Delivery Challenges



## Fast, Reliable User Experience - Always

- Provide installed experience
- Customer Acquisition
- End-user Adoption
- Contract Renewal



## Reach Markets/Users - Immediately

- Locally
- Nationally
- Globally

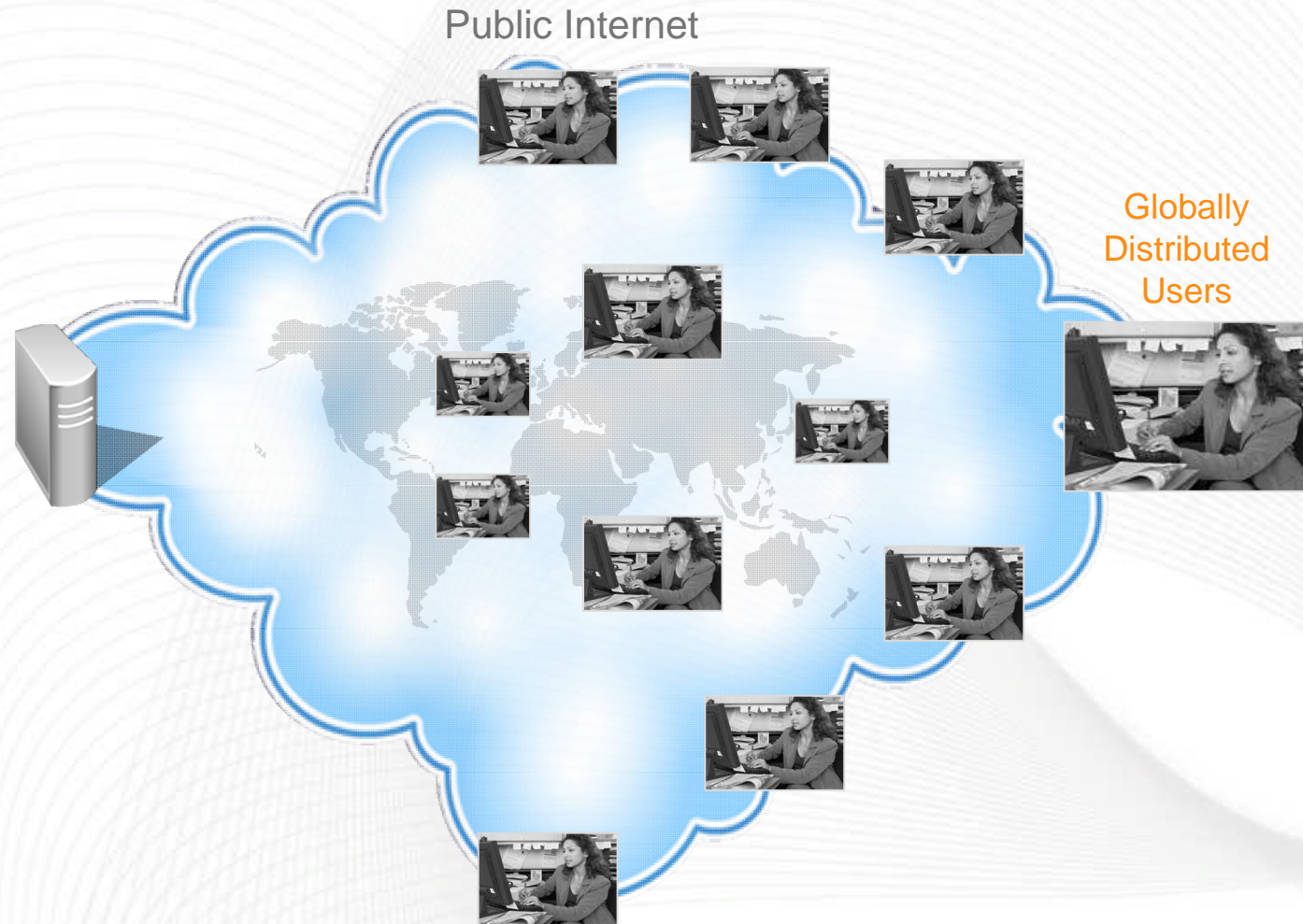


## Minimize Costs – But Scale

- Centralize Infrastructure
- Capacity On-Demand
- Minimize Call-Center Volumes/Complaints

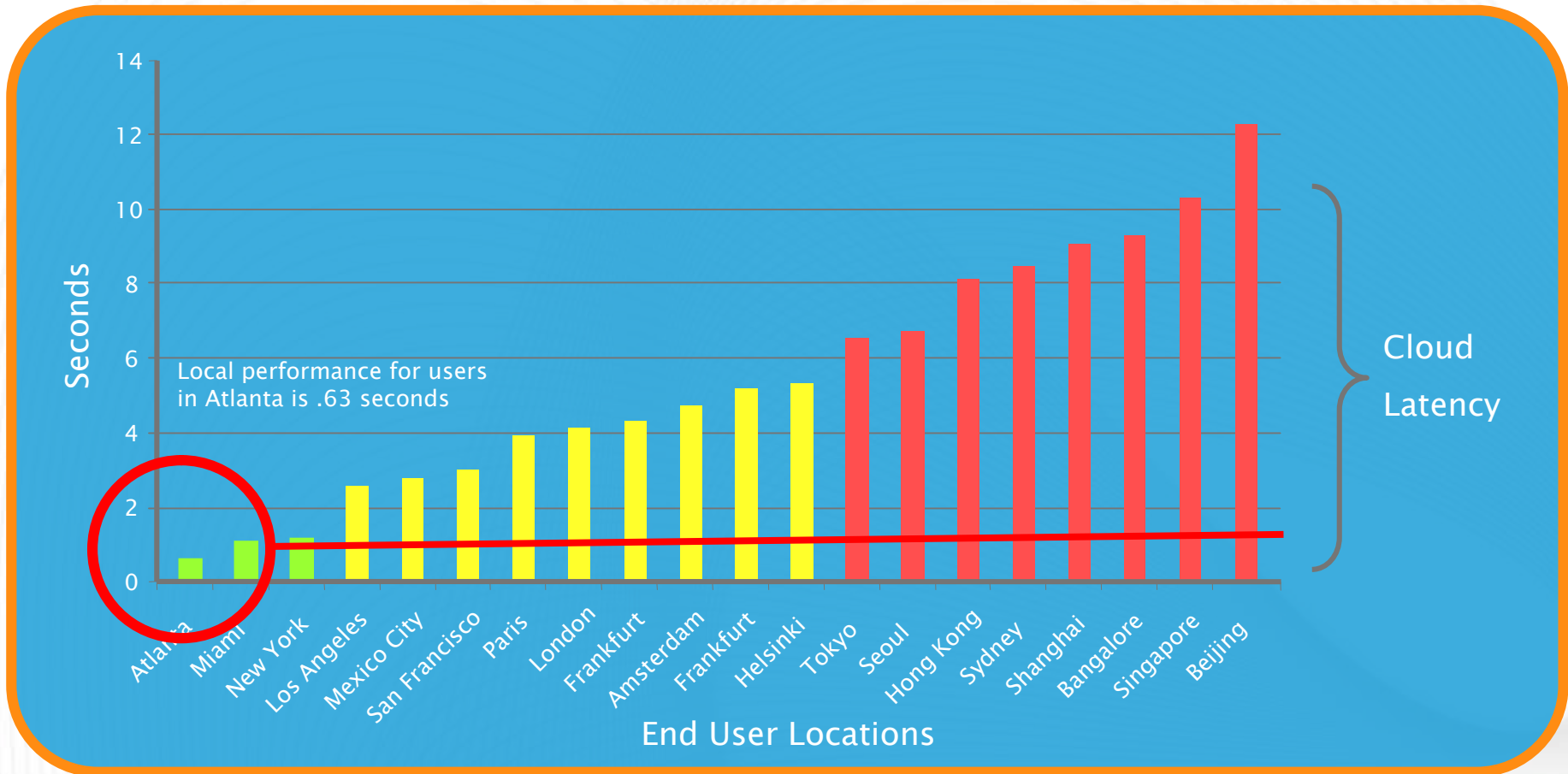


# SaaS Application Delivery Challenges



The distance between users and application does not change

# Why does distance matter?

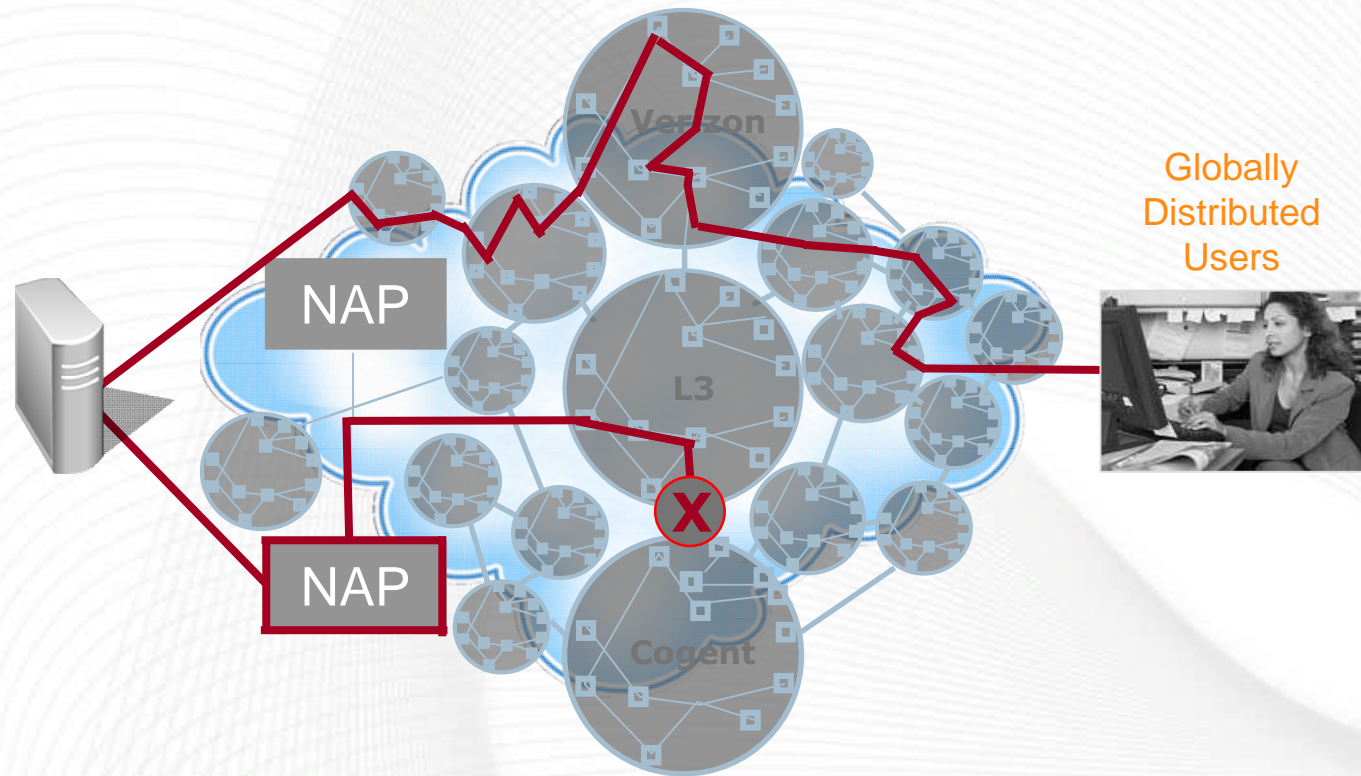


User Experience Performance Zones

- Good
- Acceptable
- Unacceptable

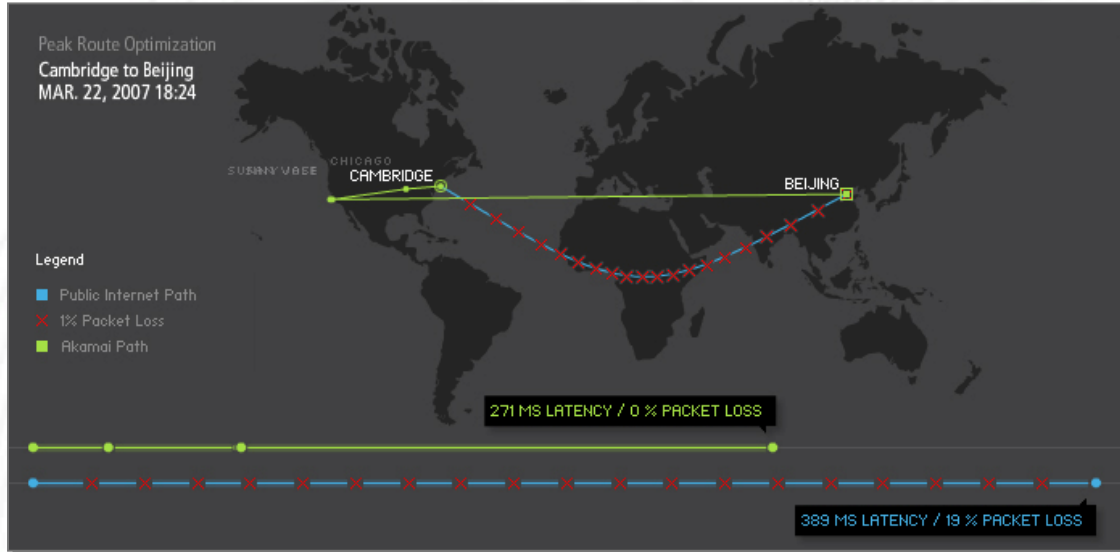
# The Reality of the Internet "Cloud"

*Unreliable by Nature & Not Optimized for Performance*



13,000 Networks. Largest single network carries 8% traffic.

# Internet Routing Inefficiency

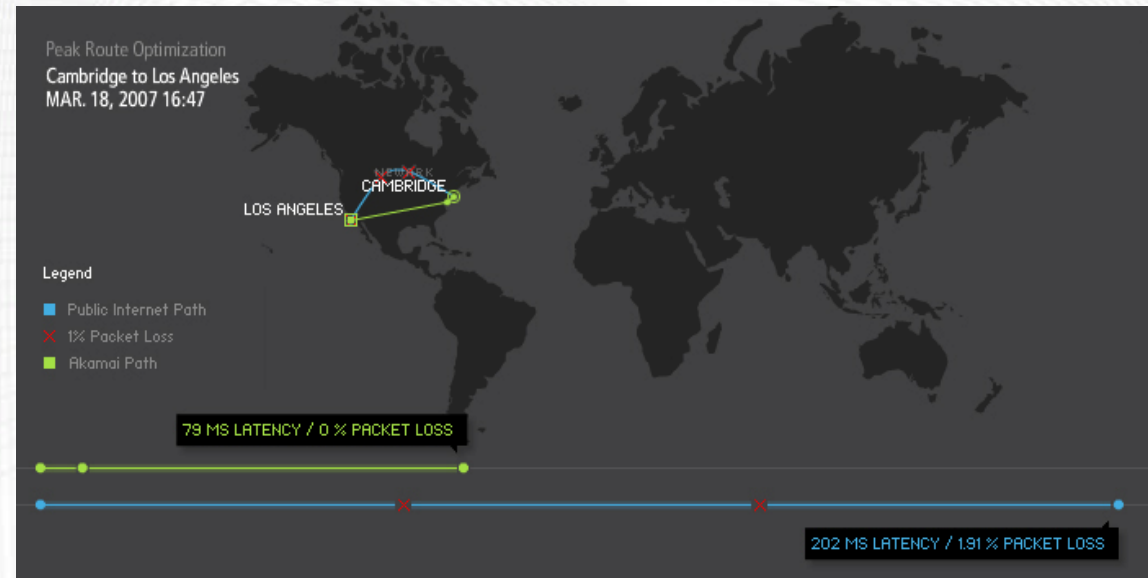


## Cambridge >> Shanghai

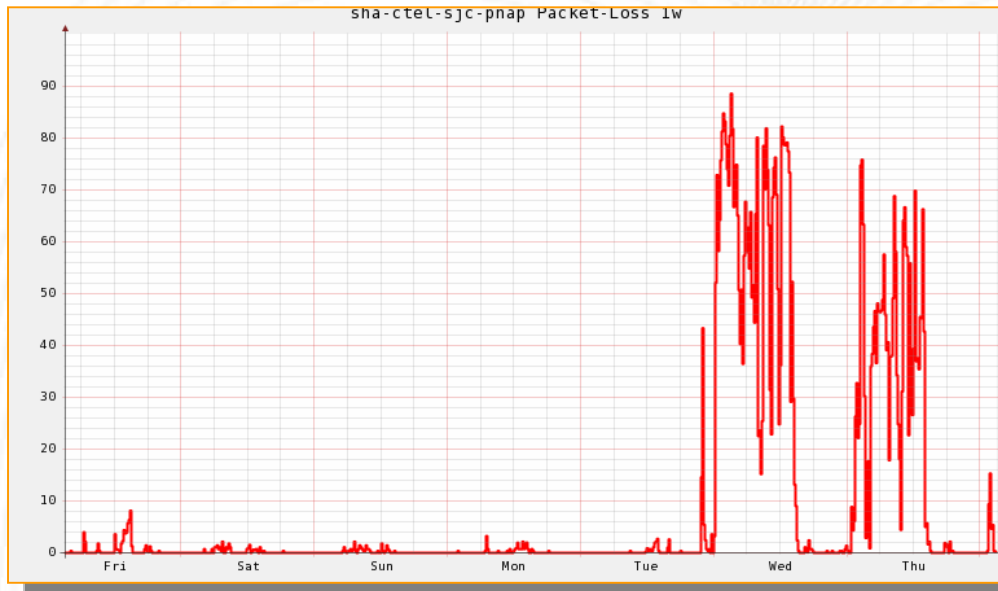
- Standard Route: 389ms; 19% loss
- Optimized Route: 271ms; 0%

## Cambridge >> Los Angeles

- Standard Route: 202ms; 1.91% loss
- Optimized Route: 79ms; 0%



# Real World - Packet Loss common and high, adding to instability



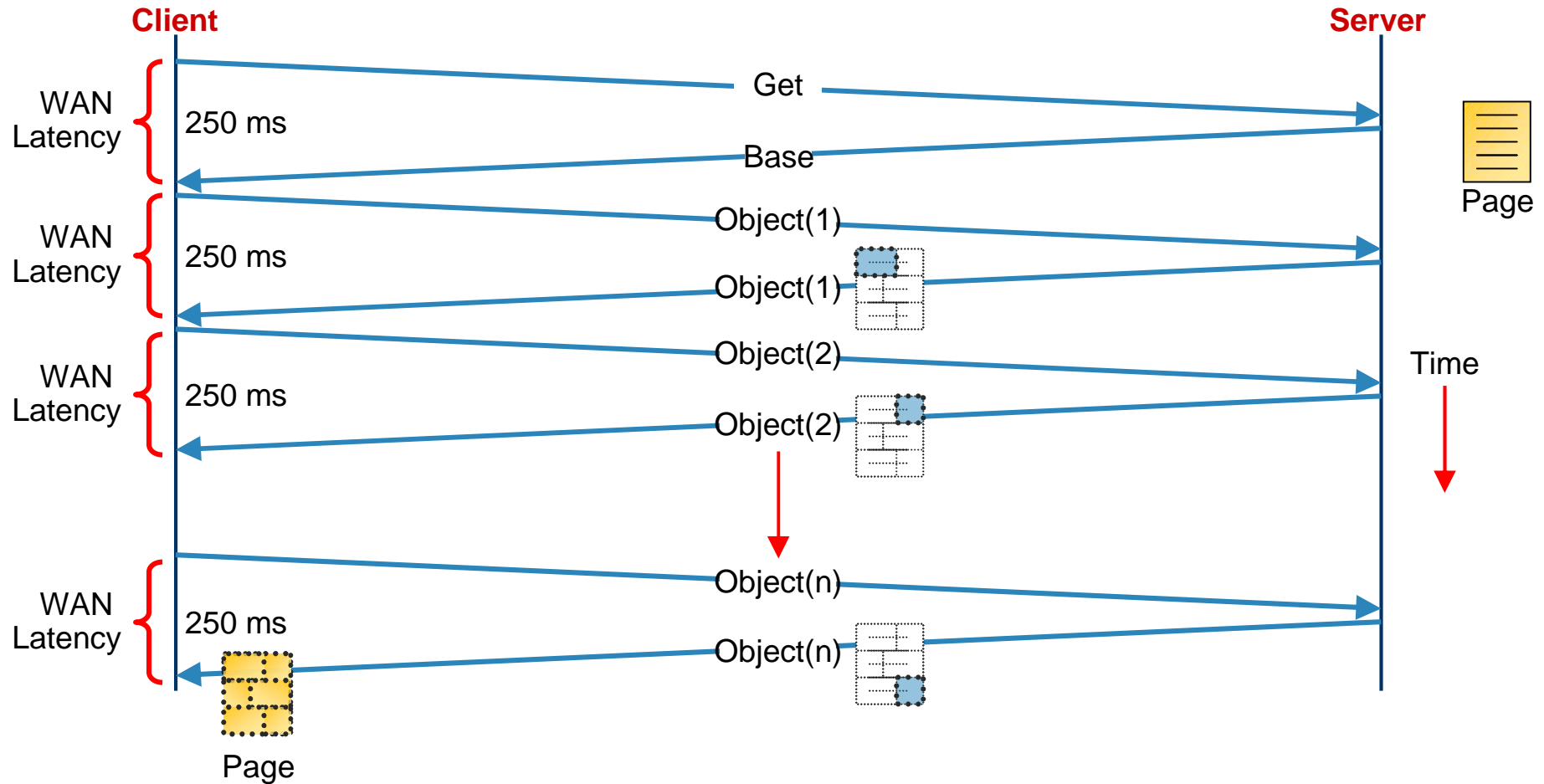
**1-Week Packet Loss – Shanghai, China**

## Key Observations

**Packet loss from 1.8% - 100.0%**

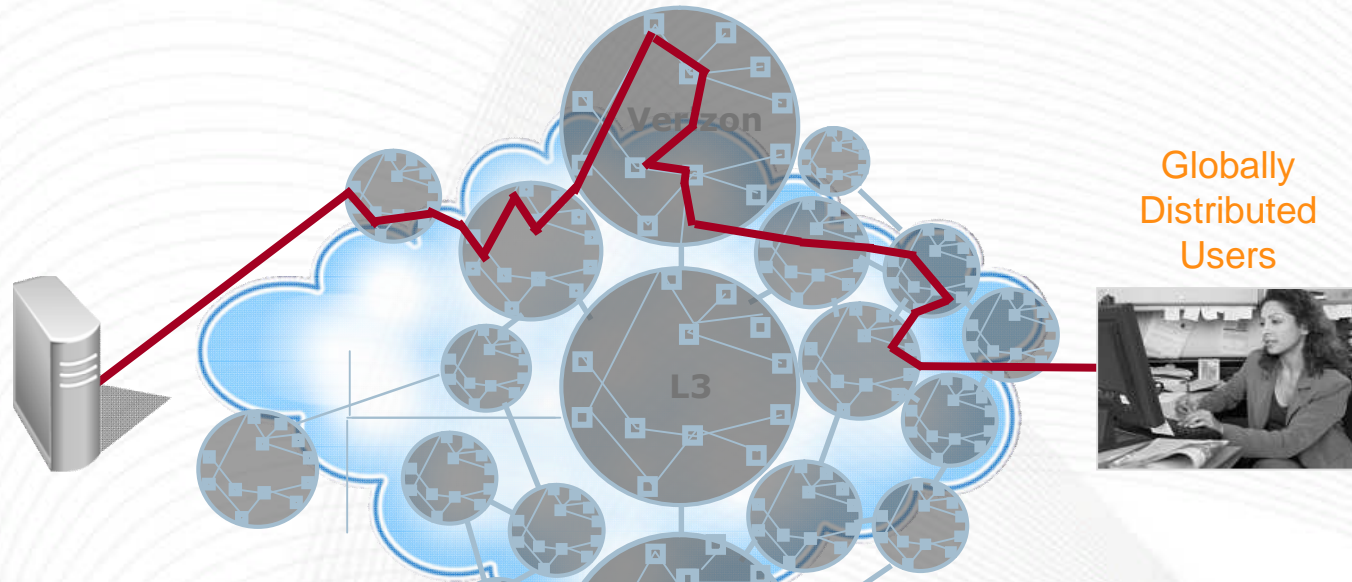
Location	Max Packet Loss (%)
Chicago, USA	2.7%
London, England	100.0%
Brazil	2.5%
Manila, Philippines	4.3%
Hong Kong, China	6.1%
Shanghai, China	89.0%
Tokyo, Japan	3.9%
New York, USA	1.8%
Santiago, Chile	11.5%
Perth, Australia	23.0%

# Protocol Inefficiency Create 'Chatiness'





# Example: Impact of the Internet Cloud on Web App Performance



First Mile	Middle Mile	Last Mile
Application processing time and content generation	Round Trip Time (RTT) X # Round Trips	Bandwidth-related transfer time
0.25 s	250ms x 31 round trips = 7.75 s	0.20 s

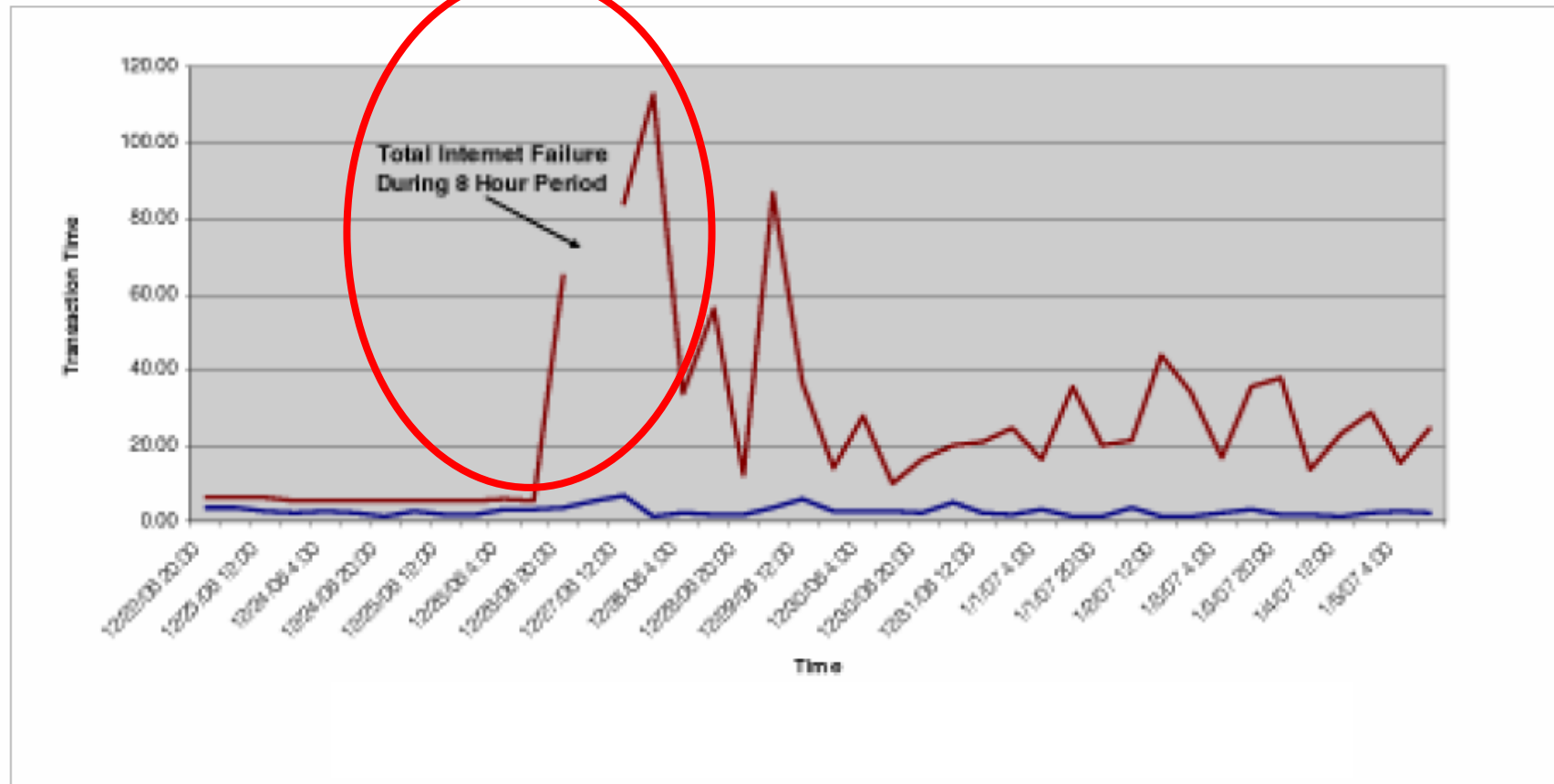
Total response time = 8.20 sec

**95%** of total response time is due to the Middle-Mile

And then...unplanned Events – Earthquakes, Cable Cuts,...



### Web Transaction Data (Dec. 22nd – Jan. 5th)



# Traditional CDN approach not designed for today's enterprise Web apps – much less IP-based apps



Application



End User



Majority of Application is Dynamic Non-Cacheable

**Email or Priority Club#:**  
[input field]  
**PIN#:**  
[input field] **GO**  
 Don't remember me.  
Forgot/Need PIN#?

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City/Town: [input field] | Check-Out Date: [input field]  
mm/dd/yyyy  
Within [input field] [input field] MI [input field] KM [input field] | Adults: [input field] | Children: [input field] | Rooms: [input field]  
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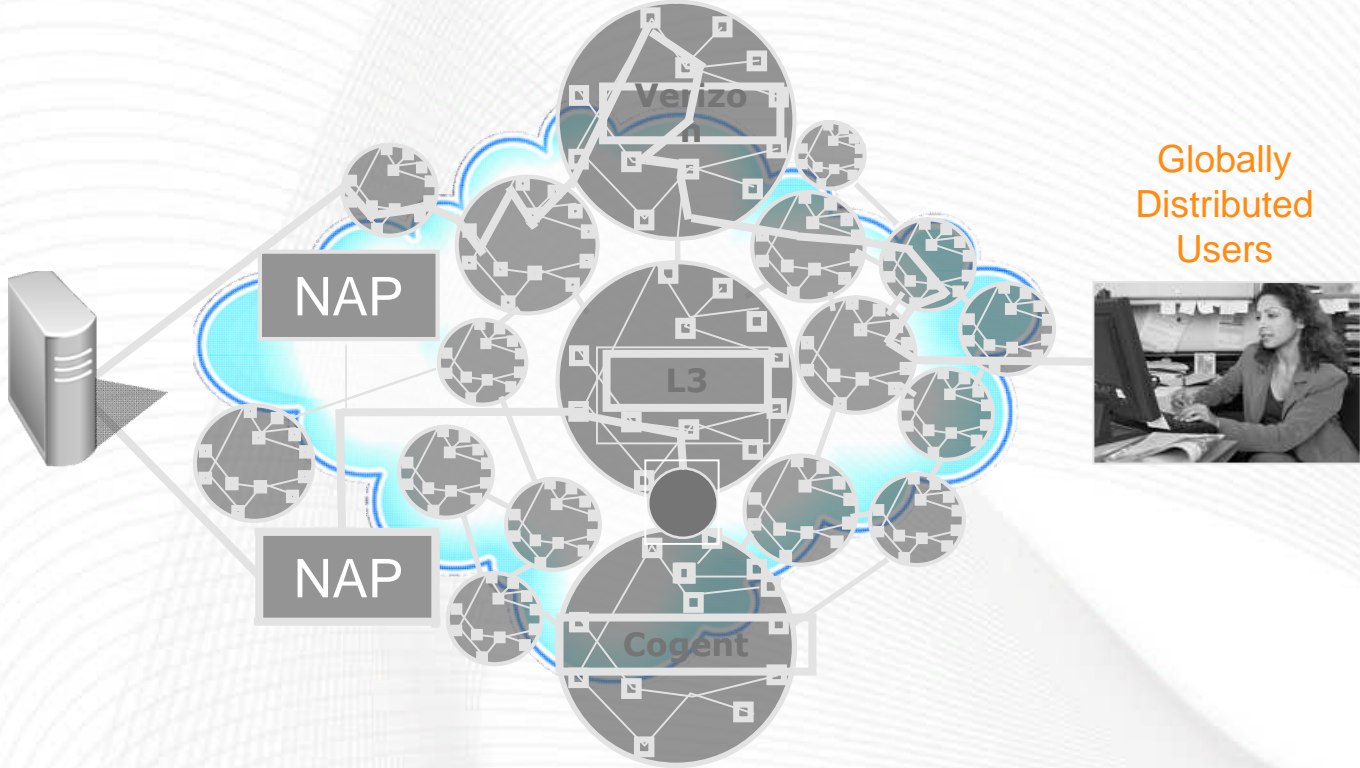
Approach –  
Make the application feel 'local' to the end user



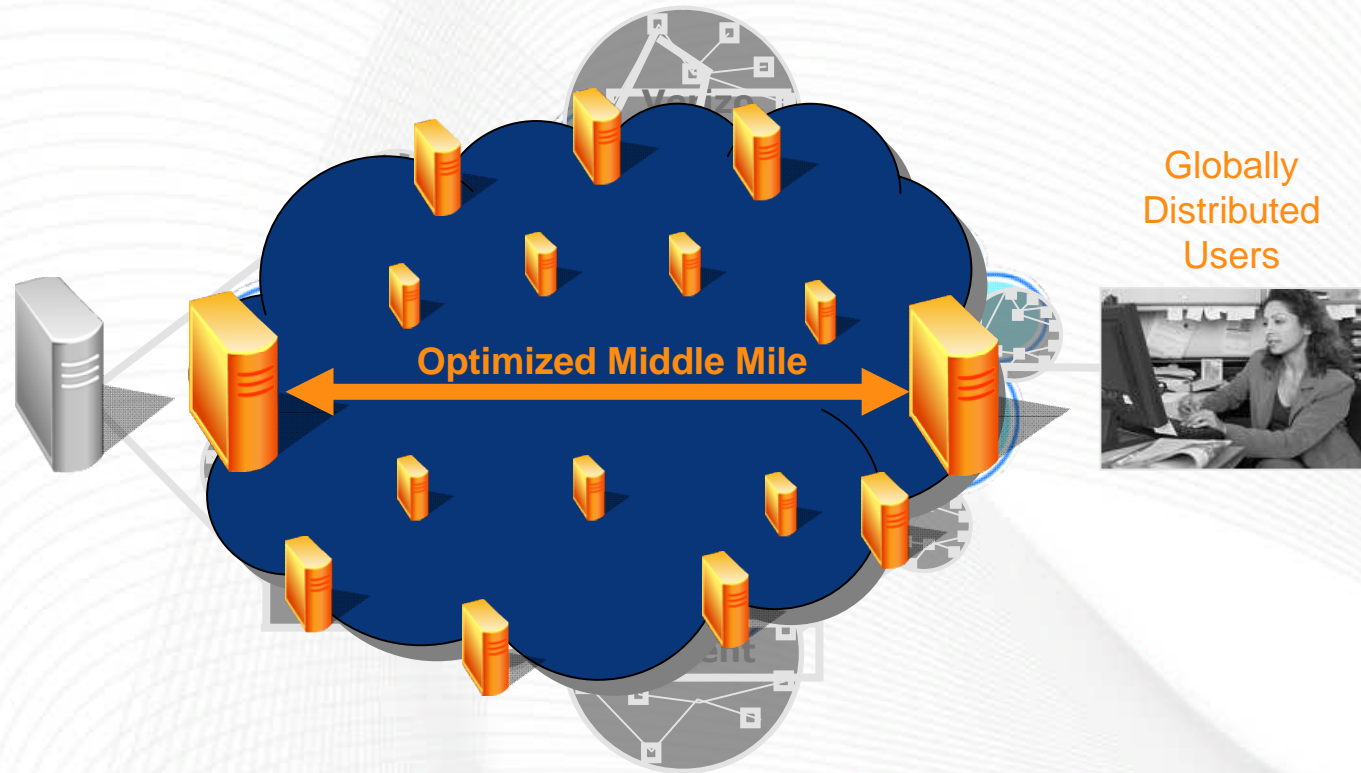
Public Internet



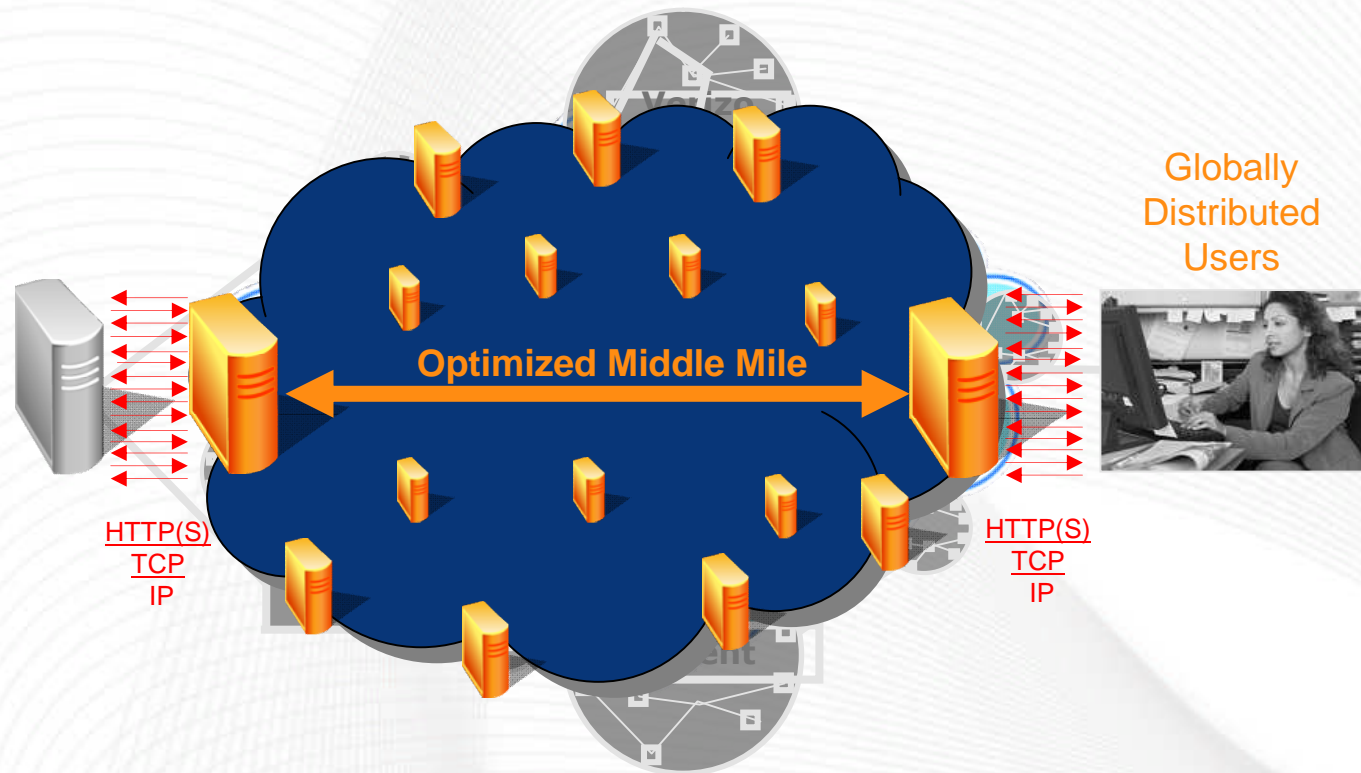
Solution –  
Intelligent overlay network



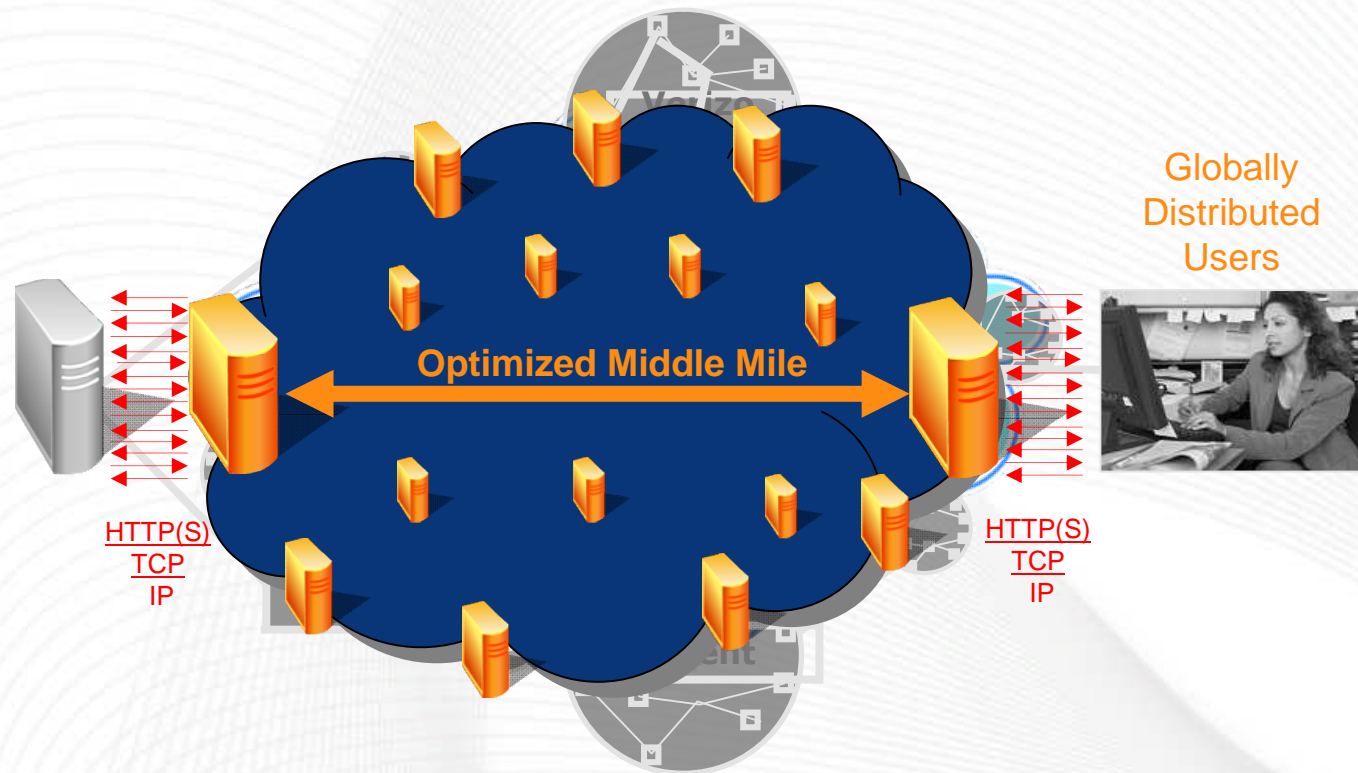
Solution –  
Intelligent overlay network



# Solution – Intelligent overlay network



# Solution – Intelligent overlay network

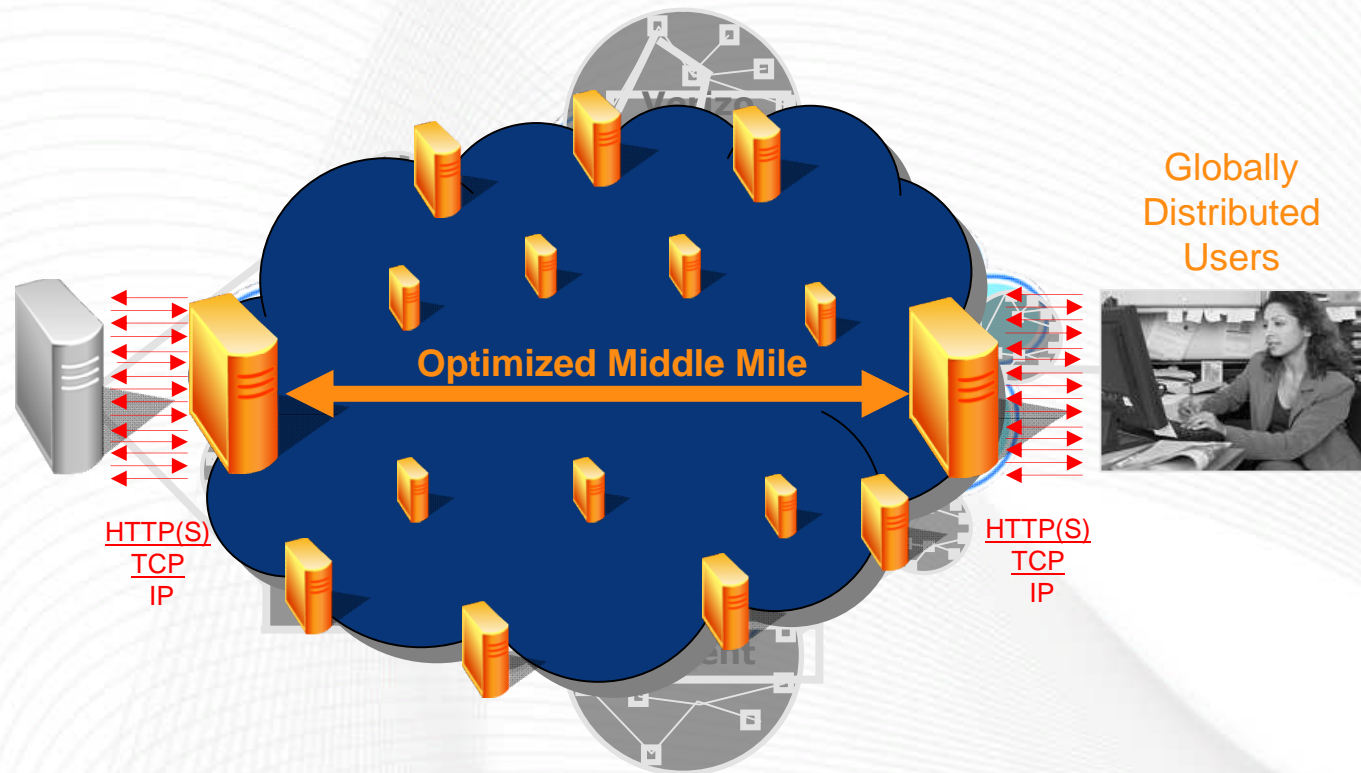


## Route

Dynamically find shortest latency path between end-user and application origin; Route around congestion and packet loss



# Solution – Intelligent overlay network

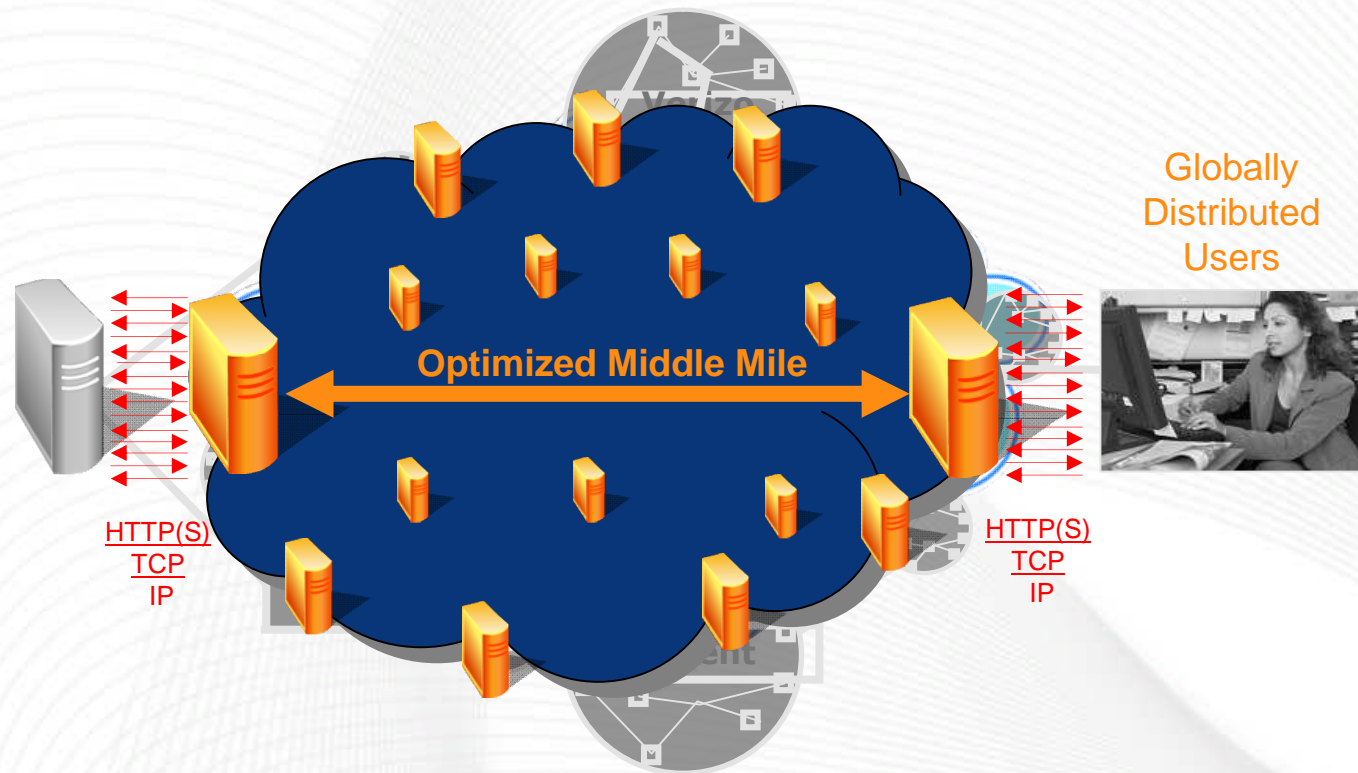


**Route**  
**Transport**

Dynamically find shortest latency path between end-user and application origin; Route around congestion and packet loss

Eliminate round trips and maximize throughput on optimized path

# Solution – Intelligent overlay network



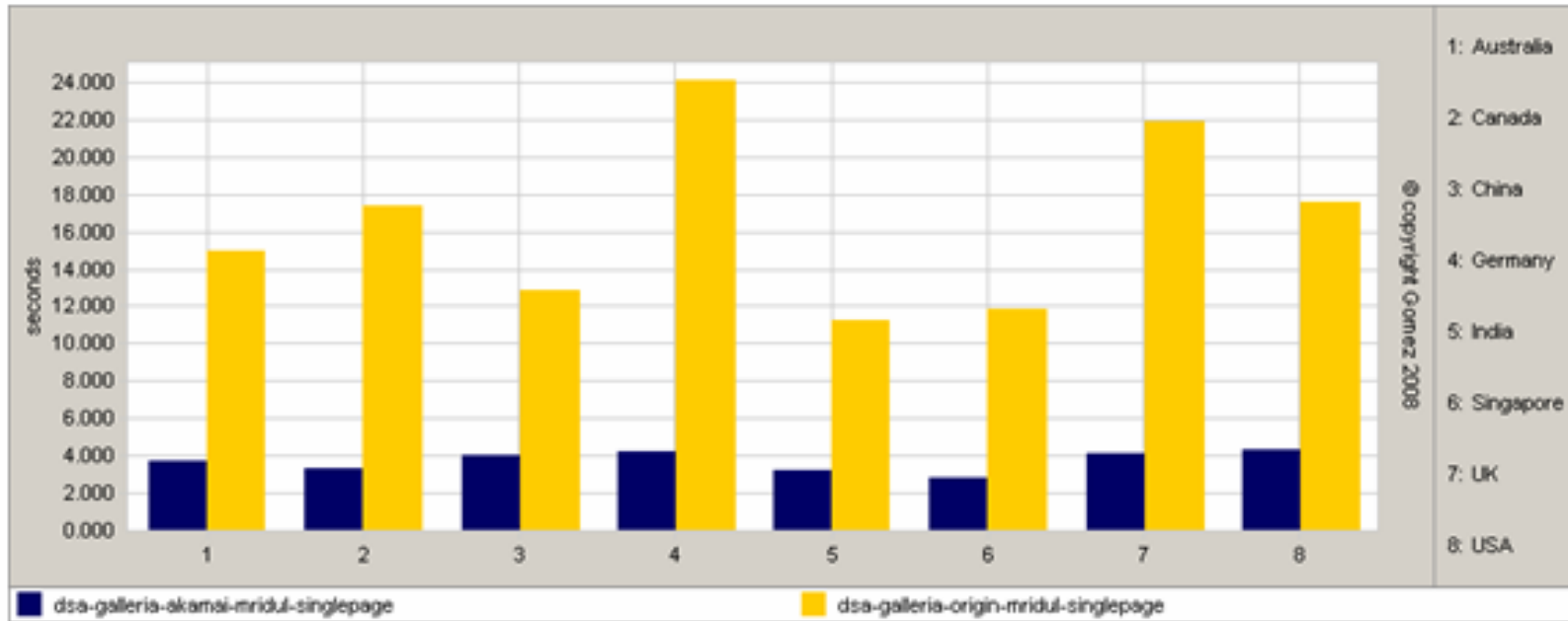
**Route**  
**Transport**  
**Application**

Dynamically find shortest latency path between end-user and application origin; Route around congestion and packet loss

Eliminate round trips and maximize throughput on optimized path

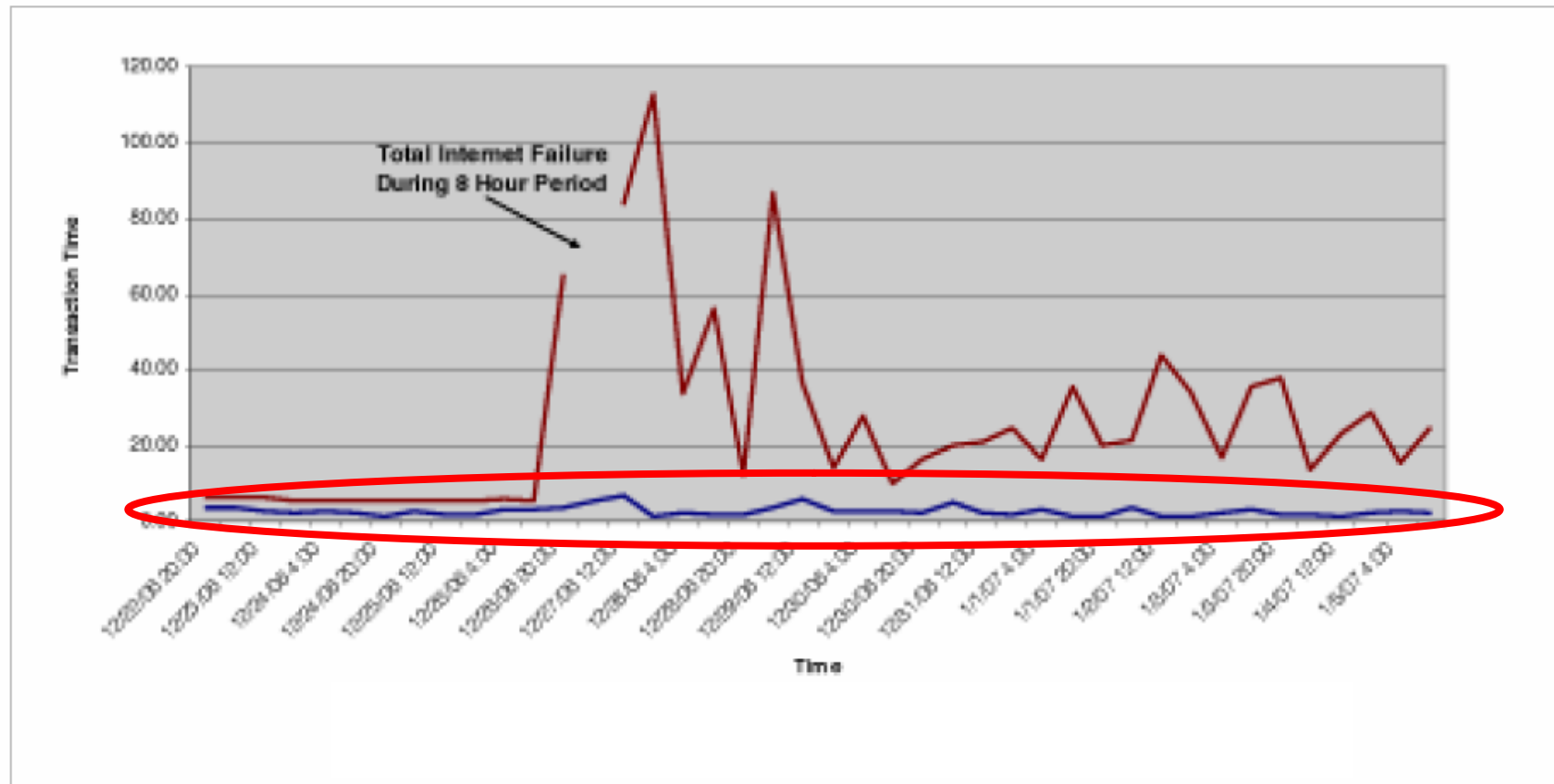
Speed end-user response time with intelligent pre-fetching, compression and advanced caching

# Performance



Country	Origin (s)	Akamai (s)	Avg Improvement (%)	X Faster
China	12.9	4	223%	3.2
Canada	17.4	3.3	427%	5.3
Germany	24.1	4.2	474%	5.7
India	11.2	3.2	250%	3.5
Singapore	11.8	2.8	321%	4.2
Australia	14.9	3.7	303%	4.0
UK	21.9	4.1	434%	5.3
USA	17.5	4.3	307%	4.1

## Web Transaction Data (Dec. 22nd – Jan. 5th)



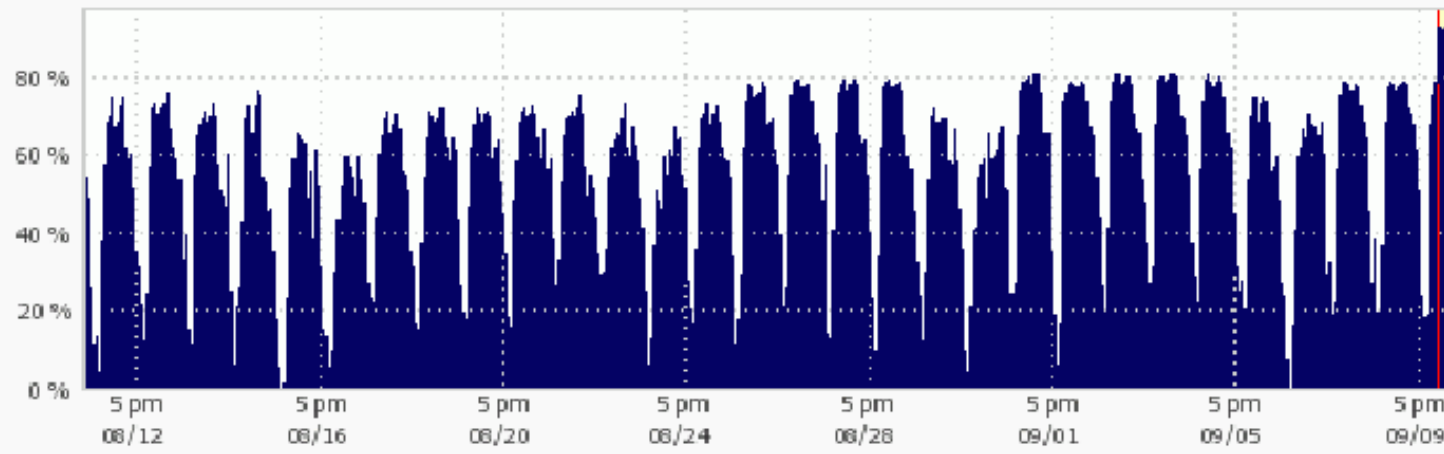
# Scale



## Origin Offload of Hits

This graph shows the extent to which Akamai Edge Servers reduced the number of hits on your origin.

Origin Hits Reduction: **70.3%**



Pacific Daylight Time (US & Canada)

Estimated data begins at 3:00am

Reduction in HTTP requests to Origin: **70%**

# Summary



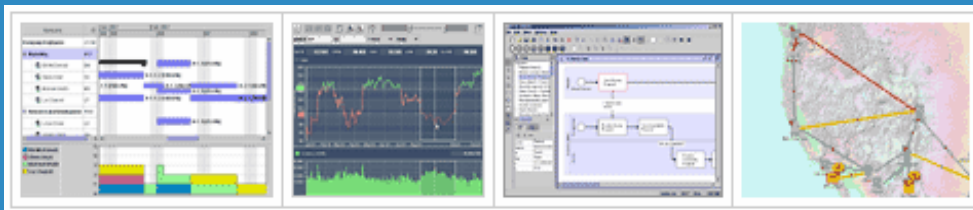
## SaaS Considerations

- User Footprint
  - Content Type
  - Customer Experience
  - Ability to Scale
- 
- For More Information  
[www.akamai.com/aps](http://www.akamai.com/aps)  
[arubinso@akamai.com](mailto:arubinso@akamai.com)  
Twitter: @akamai



# ILOG Visualization

Enhance decision-making speed and ability by making vast quantities of complex data more manageable for users

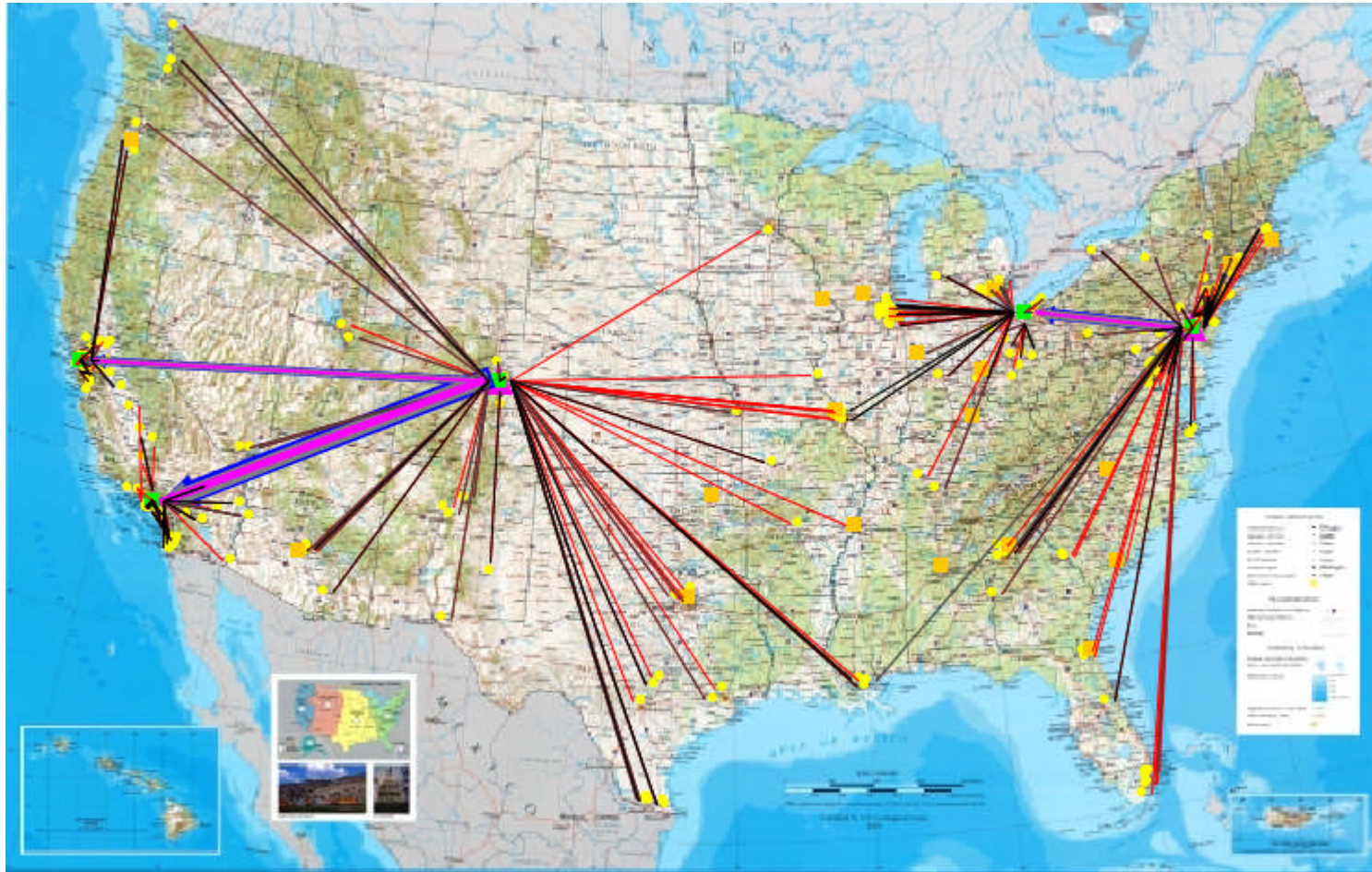


Michelle Liu, Technical Account Manager [liumich@us.ibm.com](mailto:liumich@us.ibm.com)

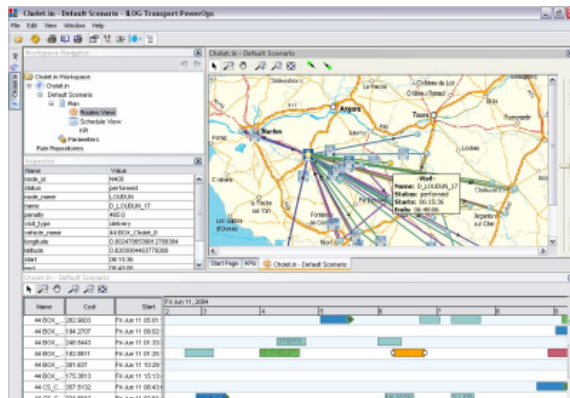
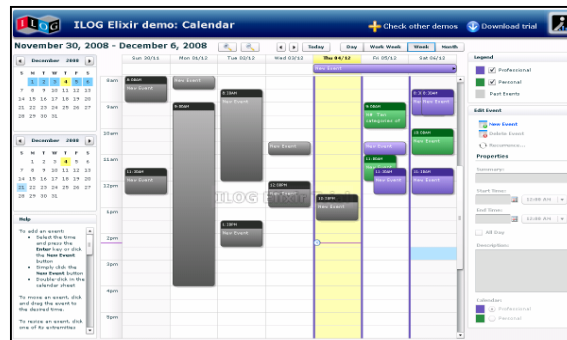
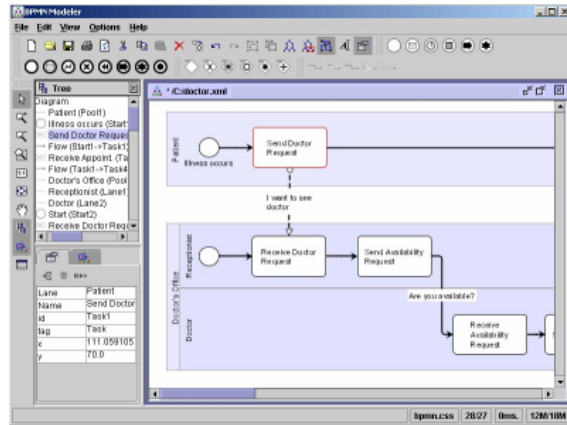




# ...Or this graphical display by ILOG Visualization?

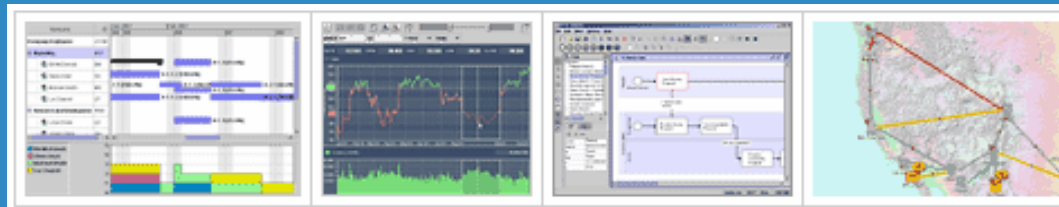


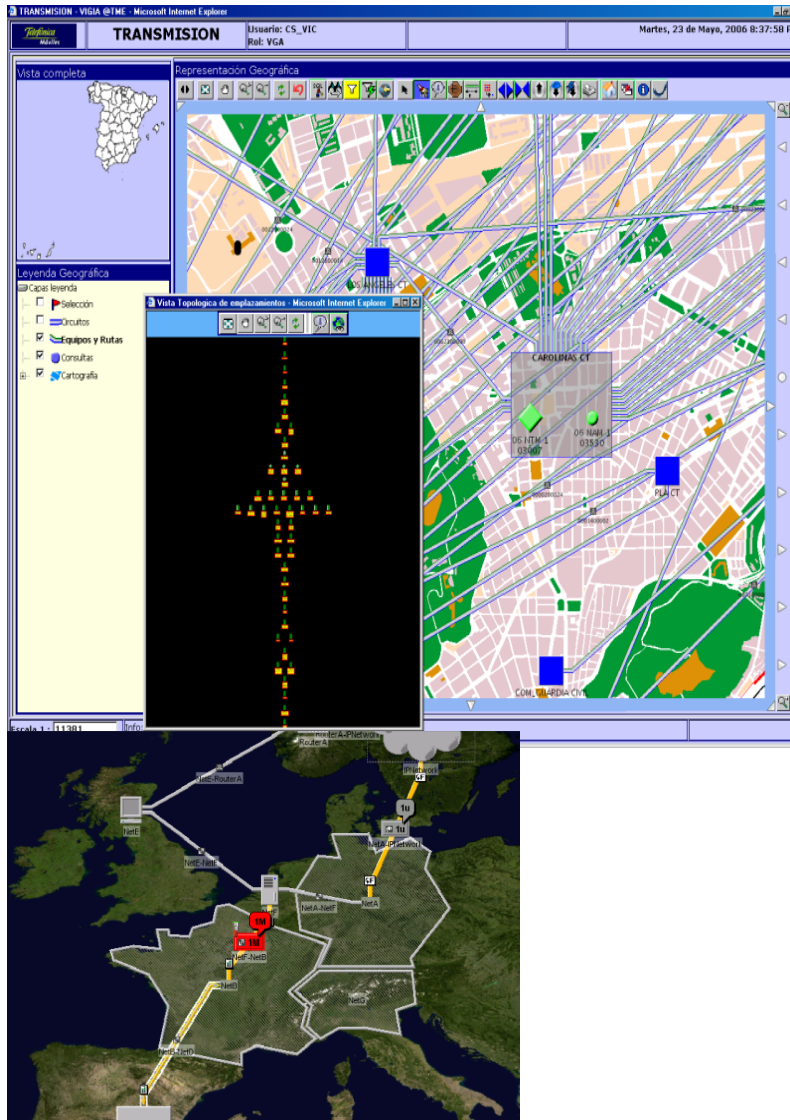
# ILOG Visualization



- Since 1987
  - Graphical components for developing UI
  - Visualization products in Java, .NET, C++, Eclipse, AJAX, Flex/Air
- Three areas
  - Visual modeling applications
  - Visual monitoring
  - Analysis applications
- Added Values
  - Complex customized user interfaces
  - We bring innovation to the interface
  - We provide customizable building blocks
  - We can handle “headaches”
    - Huge data sets
    - Fast screen redraws

# Typical Use Cases and References





## ■ Goal

- Provide administrators with an intuitive view of their equipment and quality of service

## ■ Features

- Pre-built symbols (networks, equipment)
- Smart network topology displays
- Real-time updates
- Desktop and web

Tivoli. software

ERICSSON  
TAKING YOU FORWARD

france telecom

Deutsche Telekom

HUAWEI

InfoVista

NOKIA  
Connecting People

ALCATEL

NTT

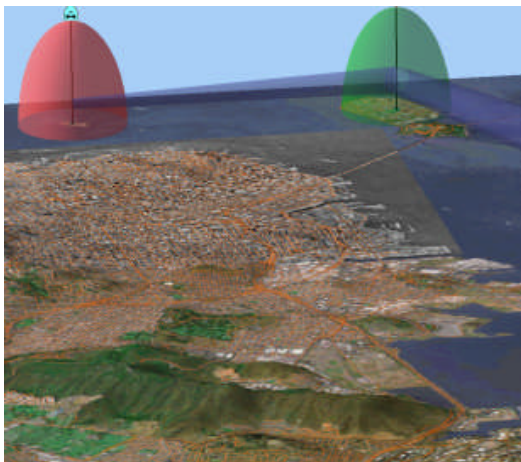
Telefonica

EMC

bmc software

NORTEL  
NETWORKS

Nakina  
Systems

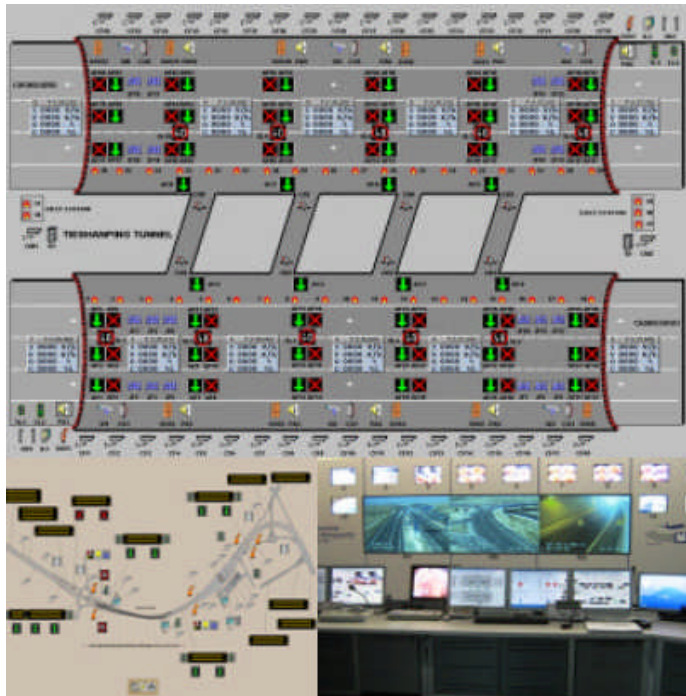


- **Goal**
  - Real-time dynamic tactical displays
  - Symbols and maps
- **Benefits**
  - Customizable, high-performance displays for land, air, sea displays
  - Real-time alternative to ESRI

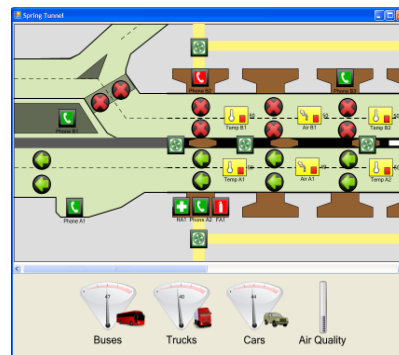
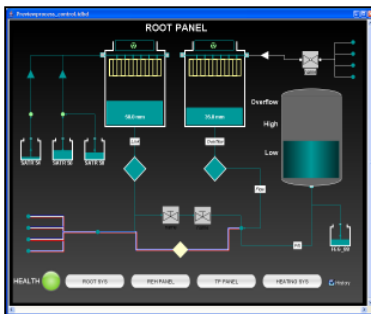


**THALES**

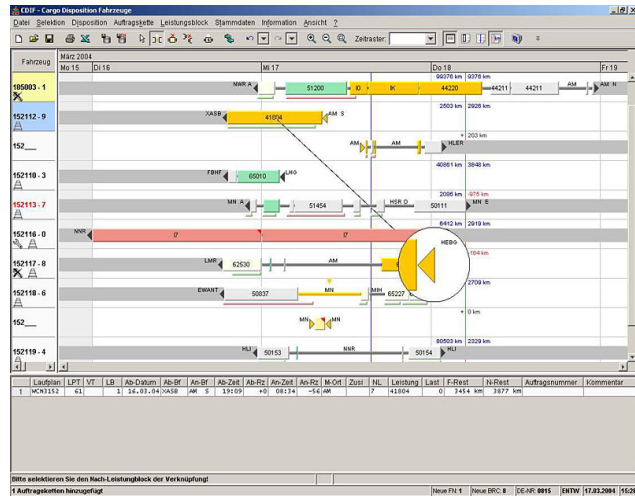
# Industrial Supervision



- Goal
  - Real-time supervision of infrastructures (SCADA)
- Features
  - Pre-built symbol and screen editors
  - High performance refreshes
  - Fully customizable
  - Desktop or Web



# Planning and Scheduling

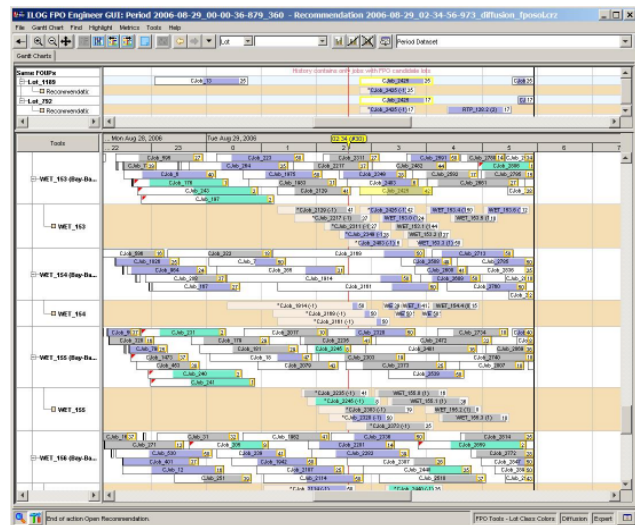


## Goals

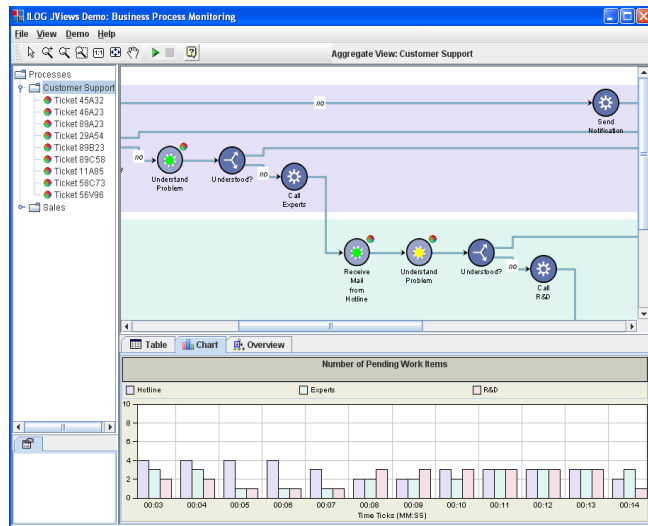
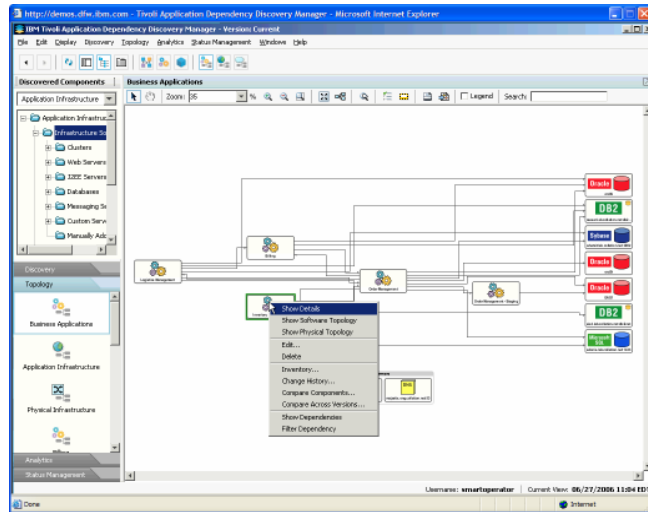
- Visualizing and editing plans, schedules, projects, resource charts
- Tailored symbols and interactions

## Features

- Scalability and full customization
- Desktop and Web



# Diagramming, Visual Modeling



- Goal:
  - Displaying complex diagrams
  - Offering visual modeling capabilities to final users
  - Supporting specific notations
- Features:
  - Graph layout arrange diagrams automatically
  - Pre-built editing tools to bootstrap dev
  - Pre-built notations
    - BPMN support
    - Any other notation (UML, etc) by customization
  - Desktop or Web





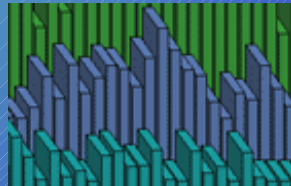
# About ILOG JViews



Gantt



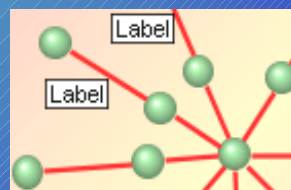
Charts



Maps



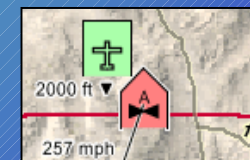
Diagrams



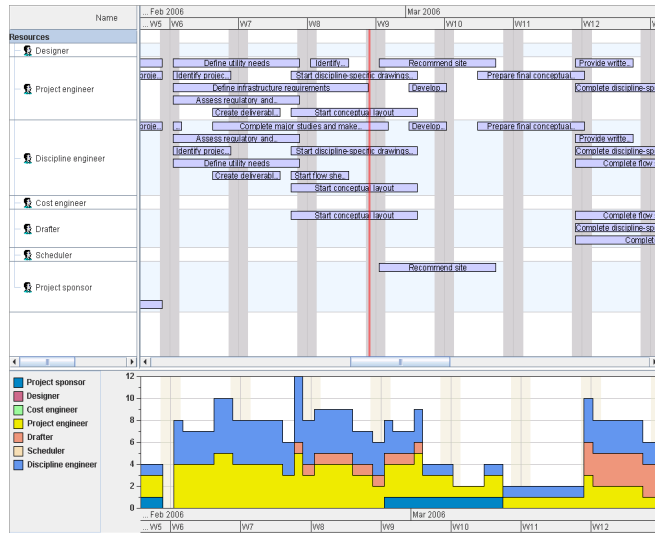
Telecom



Defense

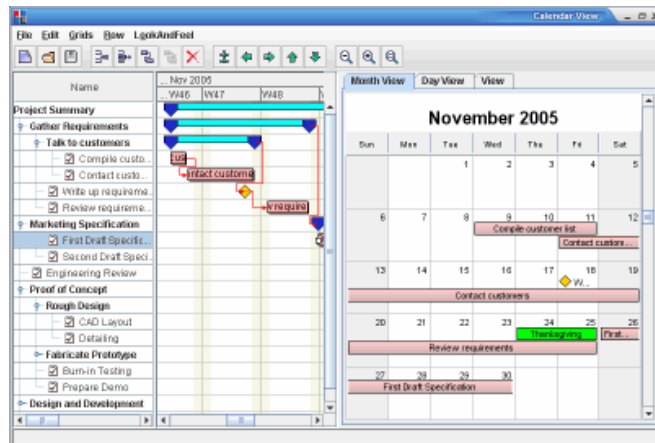


# ILOG JViews Gantt

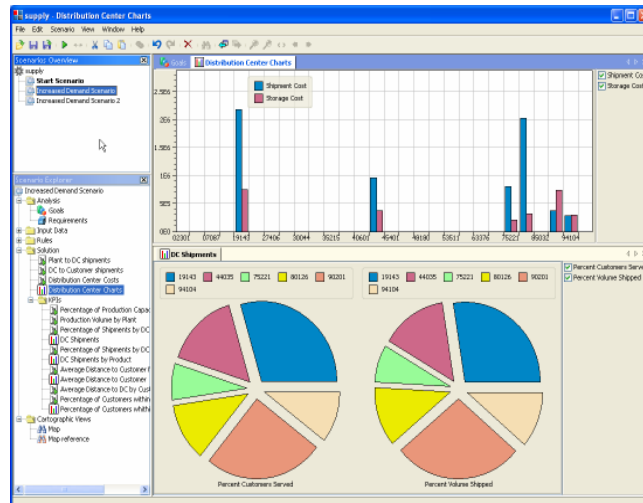
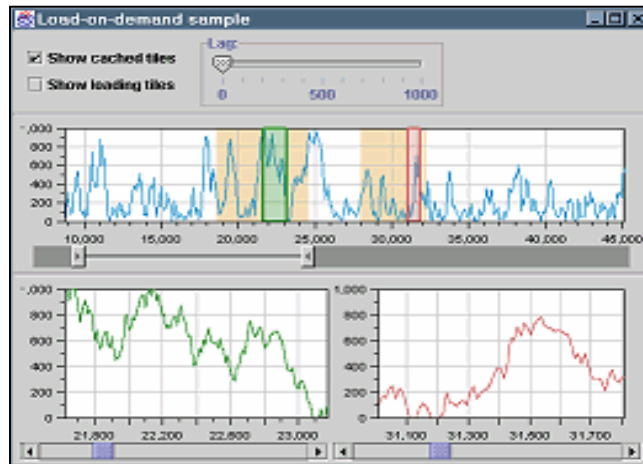


## ■ Interactive schedules and plans

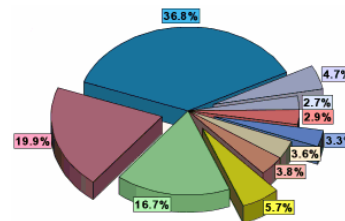
- Task or resource oriented views
- Resource load chart
- Calendar view for final user
- Critical path computation
- Navigation and filtering through tree table



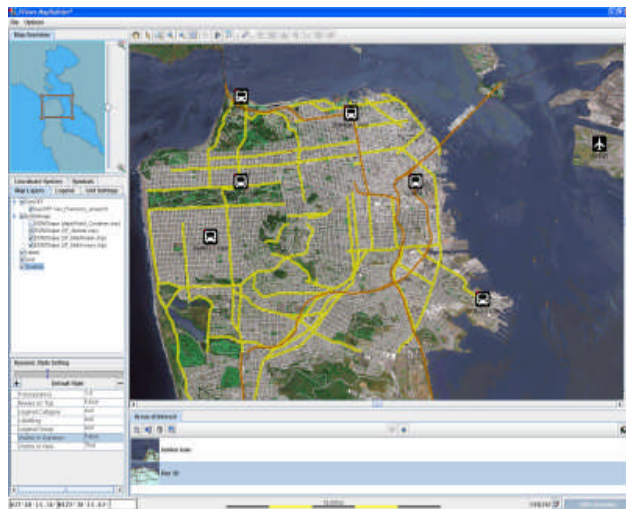
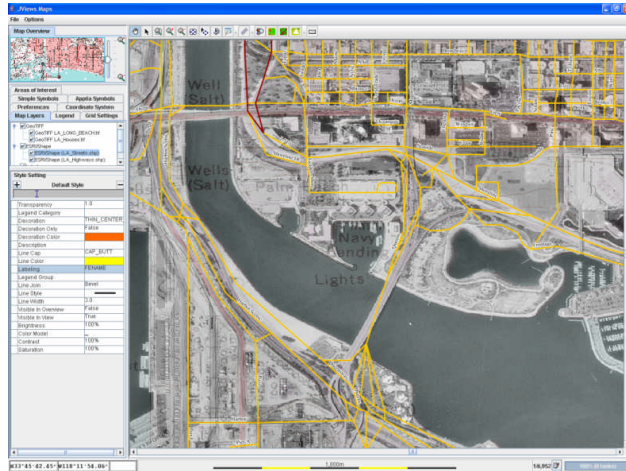
# ILOG JViews Charts



- Interactive high-performance charts
  - Wide variety of business, scientific, and data exploration charts
  - Real-time performance
  - Custom interaction
  - Scale to large data sets
  - 3D support

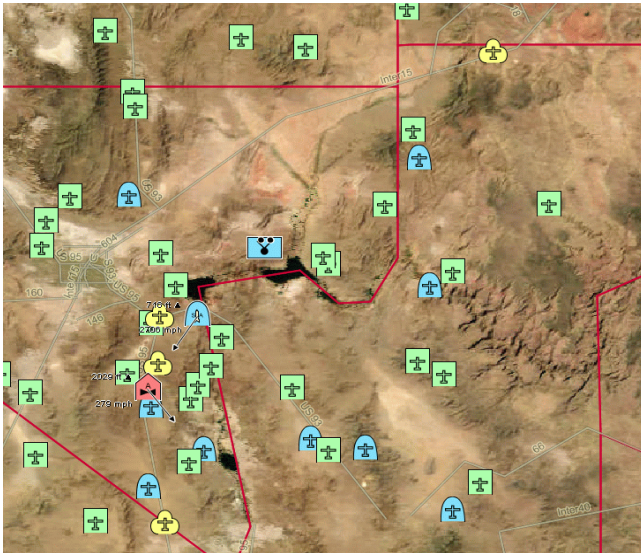
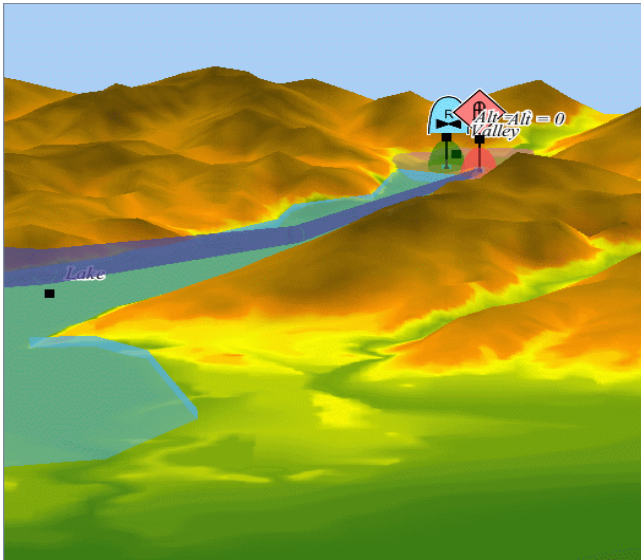


# ILOG JViews Maps



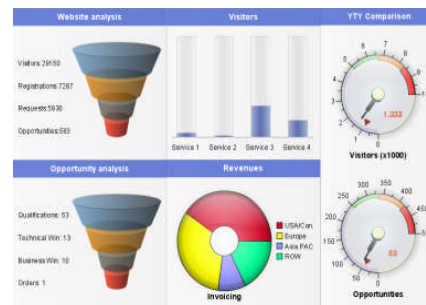
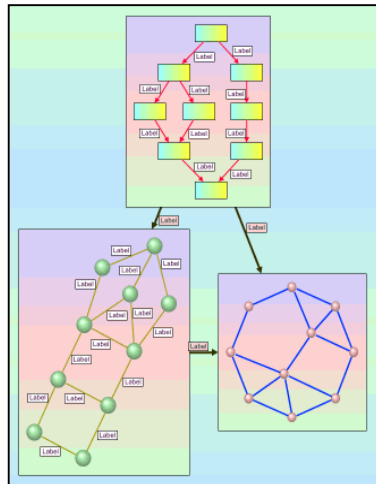
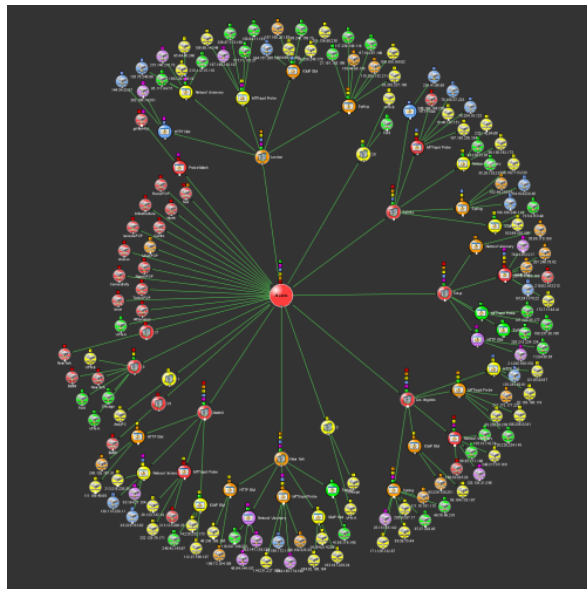
- Interactive high-performance maps
  - Map data fusion from most popular formats
  - Overlaid with animated objects
  - Multi-threaded load on demand
- Support most map formats
  - Shapefile, MID/MIF, Tiger/Line, GeoTIFF, GIF, JPEG, DTED, DXF, KML, KMZ, etc
  - Free maps CDROM + Connection to 100's of OpenGIS compliant WMS servers

# ILOG JViews Maps for Defense

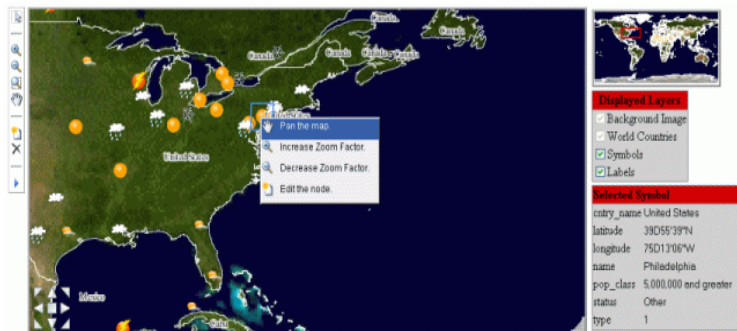
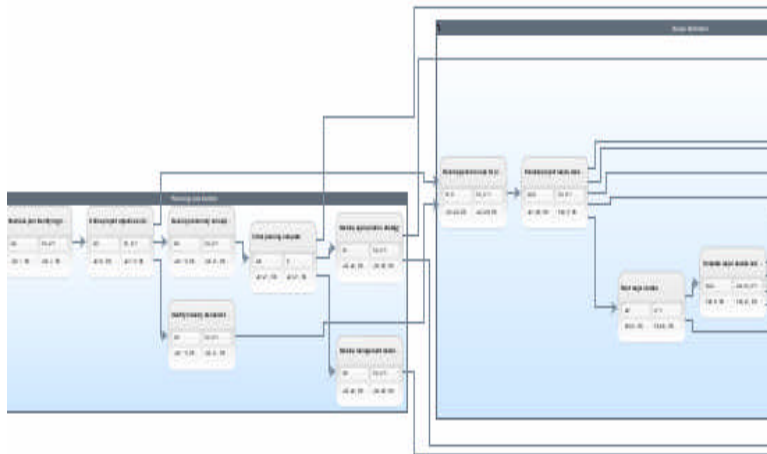


- Complements JViews Maps
- Military Map formats
  - CADRG, ASRP, USRP, S57/S52, DAFIF
- Military Symbol sets
  - NATO APP6a
- Terrain Analysis Features
  - Line of sight, area of visibility, terrain shading, etc.
- True 3D views
  - On the flight visualization
  - Fly-through
  - 3D symbology

# ILOG JViews Diagrammer



- Interactive diagrams
  - Custom dynamic nodes and links
- Complex diagrams kept readable
  - Graph layout algorithms
  - Sub-graphs, expand/collapse
  - Dynamic Symbol decluttering
  - Custom data indicators
- BPM and SOA support
  - BPMN, swimlanes, BPMN modeler



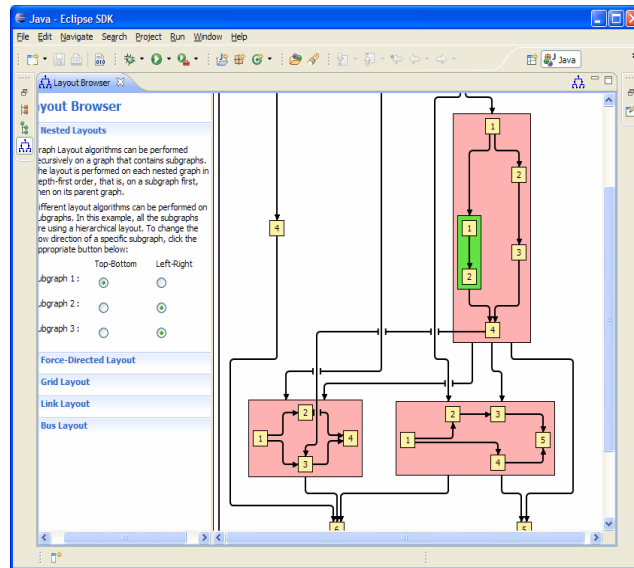
## ■ Integrate with JViews Gantt

- Transform a Gantt view into a Logical view
- Pert Chart View

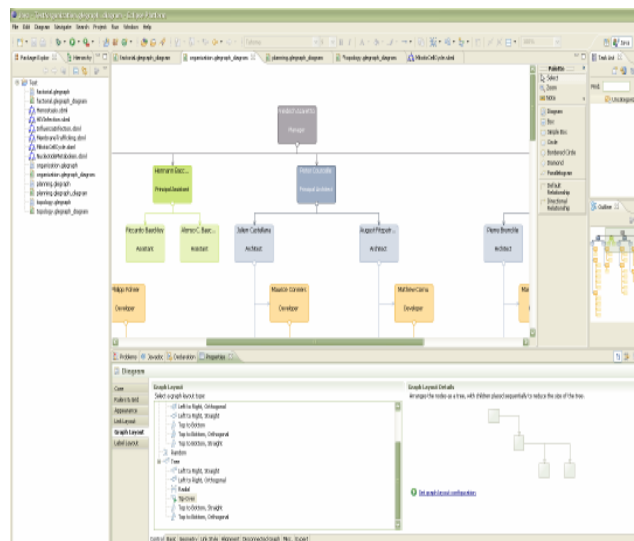
## ■ Integrate with JViews Map

- Physical Map-based display
- Geo-referencing graphic overlay

# ILOG JViews Graph Layout for Eclipse

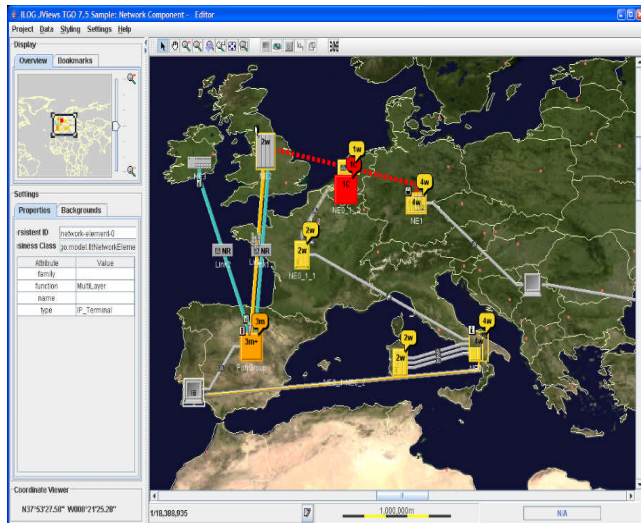


- Graph Layout algorithms for Eclipse EMF, GEF and GMF based applications
- Non-intrusive integration Design



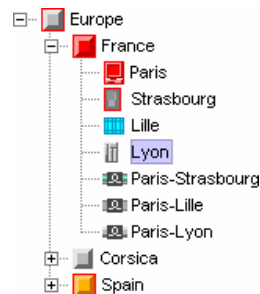
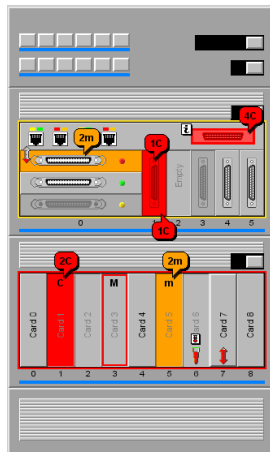


# ILOG JViews Telecom Graphic Objects



- Ultimate GUI for service, network, or equipment management

- Supports many standards, including OSS/J and TMF
- Complete network visualization
  - Logical and physical views
  - Graph layout



Object	Severity	Trend	Ack
Mux0	Cleared	Green arrow	✓
Mux0	Warning	Yellow arrow	
Mux0	Minor	Green arrow	✓
Mux0	Minor	Green arrow	
Mux1	Warning	Green arrow	
Mux1	Major	Red arrow	
Mux1	Warning	Yellow arrow	✓
Mux1	Indeterminate	Blue arrow	
Mux1	Major	Red arrow	
Mux1	Minor	Yellow arrow	
Mux2	Critical	Red arrow	
Mux2	Minor	Yellow arrow	
Mux2	Critical	Red arrow	

- Unified look-and-feel
- Easy front-to-back integration

# Why People Choose ILOG JViews



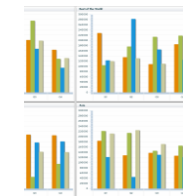
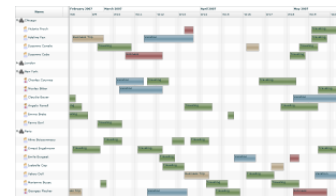
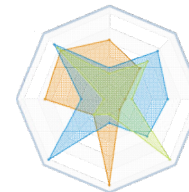
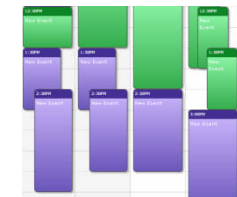
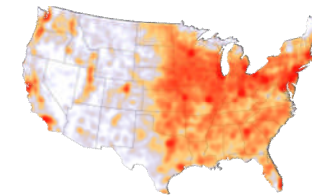
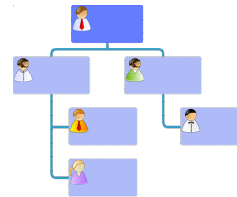
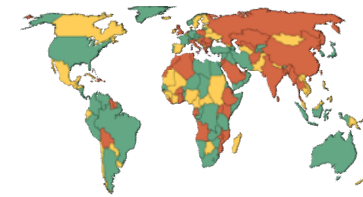
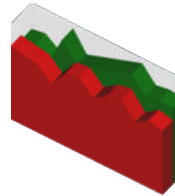
- Products for building intuitive and interactive displays
  - Custom Displays
    - Diagrams, dashboards, maps, schedules, charts, editors
  - Specialized features for Telecom, BPM, Defense
  - High performance: large sets of data, fast responses
  - Deployment to the desktop or web
- Benefits:
  - Improves end-user productivity: Visualize better and react better
  - Speeds time to market
    - Embeddable, Customizable, Scalable
    - Save at least 80% of development time
  - Support and maintenance

# ILOG Elixir 2.0 - Components



- 11 data display components

- 3D charts
- Gauges & dials
- Vector Maps
- Calendar view
- Gantt resource chart
- Gantt task chart
- Organization chart
- Pivot charts
- Heat map
- Treemap
- Radar chart



# Why People Choose ILOG Elixir



- Ready to use components
  - Dynamic Web Sites
  - Pure client-side Adobe Flex components with no external dependencies
  - Available on Windows, Mac & Linux in English and Japanese
  - Integrated into the Adobe Flex Builder
- Off-the-shelf component provider
  - Save development time
  - Support and maintenance

- Java: ILOG JViews
  - <http://www.ilog.com/products/jviews/demos/>
- Flex: ILOG Elixir
  - <http://www.ilog.com/products/ilogelixir/demos/>
- .NET:
  - ILOG Gantt for .NET
    - <http://www.ilog.com/products/diagramnet/demos/>
  - ILOG Diagram for .NET
    - <http://www.ilog.com/products/ganttnet/demos/>
- C++: ILOG Views
  - <http://www.ilog.com/products/views/demos/>



*Cognos Software*

Software Vendor Resource Portal

***Leverage Business Intelligence to Extend your User Community, Increase Revenue, and Elevate Renewal Rates***

**Dana Schmidt, SaaS/ISV Market Director, IBM Software,  
Business Intelligence and Performance Management**

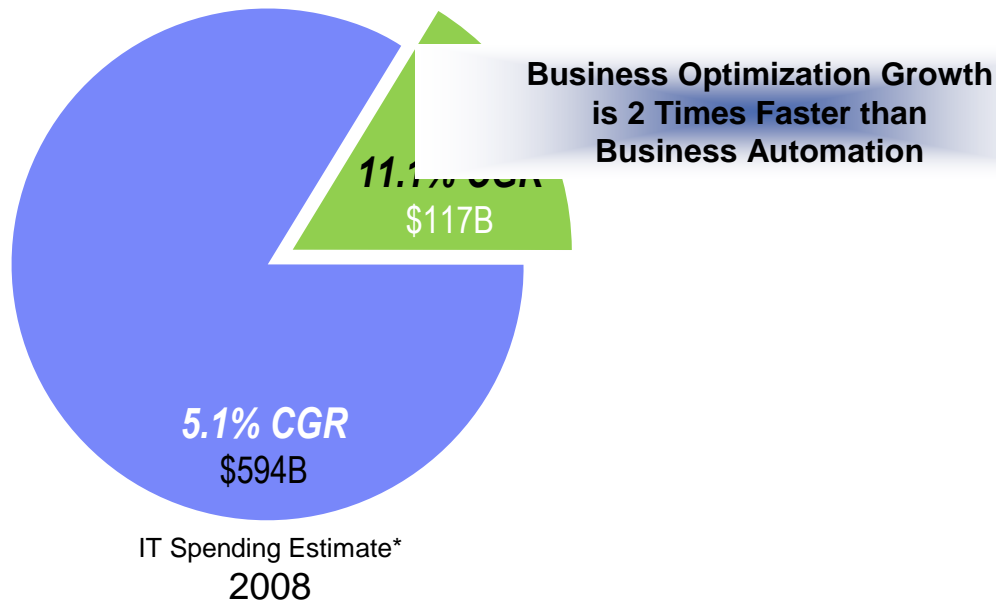
**Cognos.**  
software

**Information Management**

© 2009 IBM Corporation

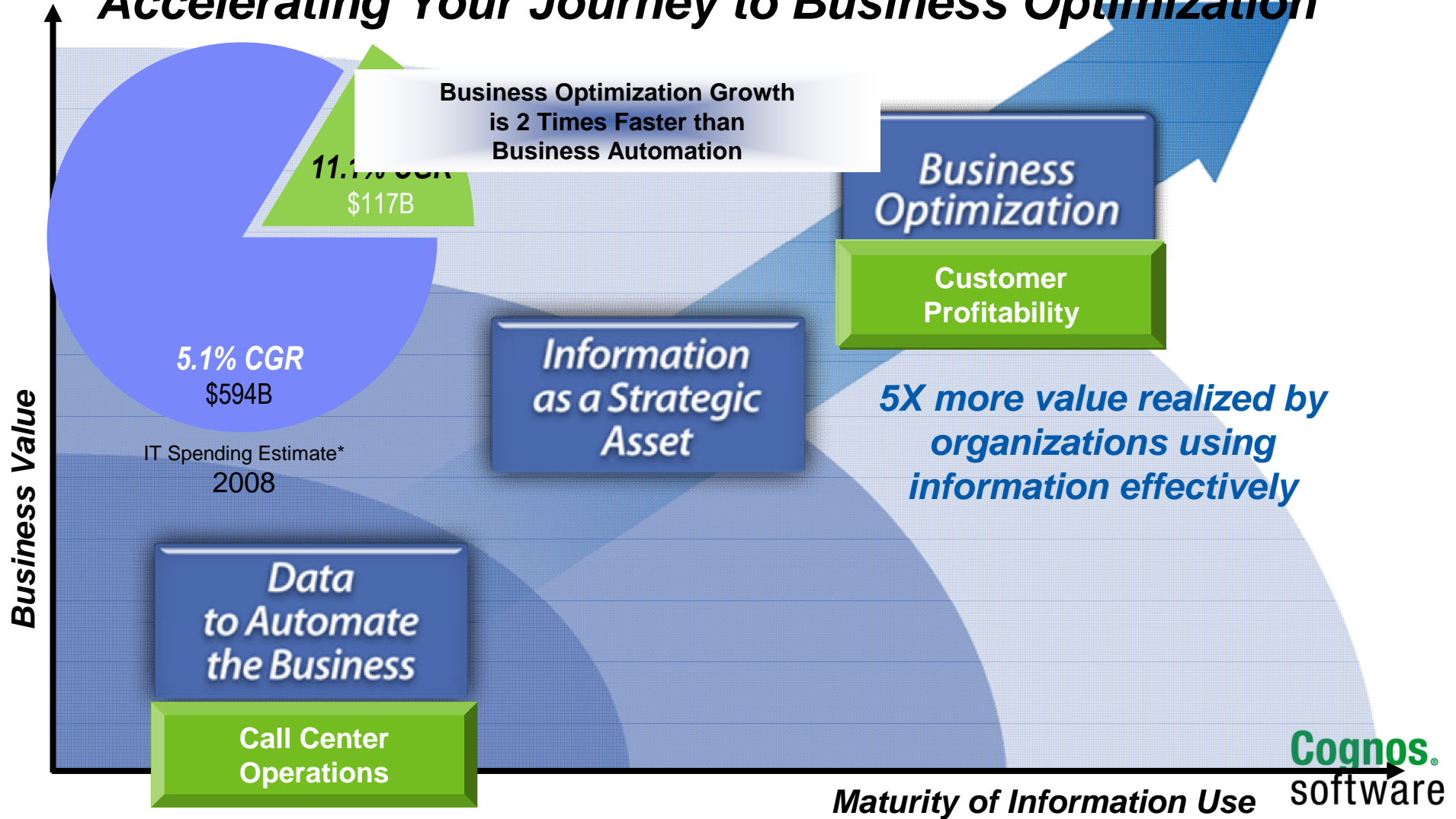


# Accelerating Your Journey to Business Optimization





# Accelerating Your Journey to Business Optimization



**Information Management**





## Software Provider: Business Optimization Value

*Driving Revenue, Differentiation, and Customer Satisfaction*

### Driving Revenue

- Extend your End User Community
- Increased Product Unit Sales
- Increase Renewal Rates

### Competitive Differentiation

- Direct Value to Economic Buyer
- Elevated Optimization Message/Strategy

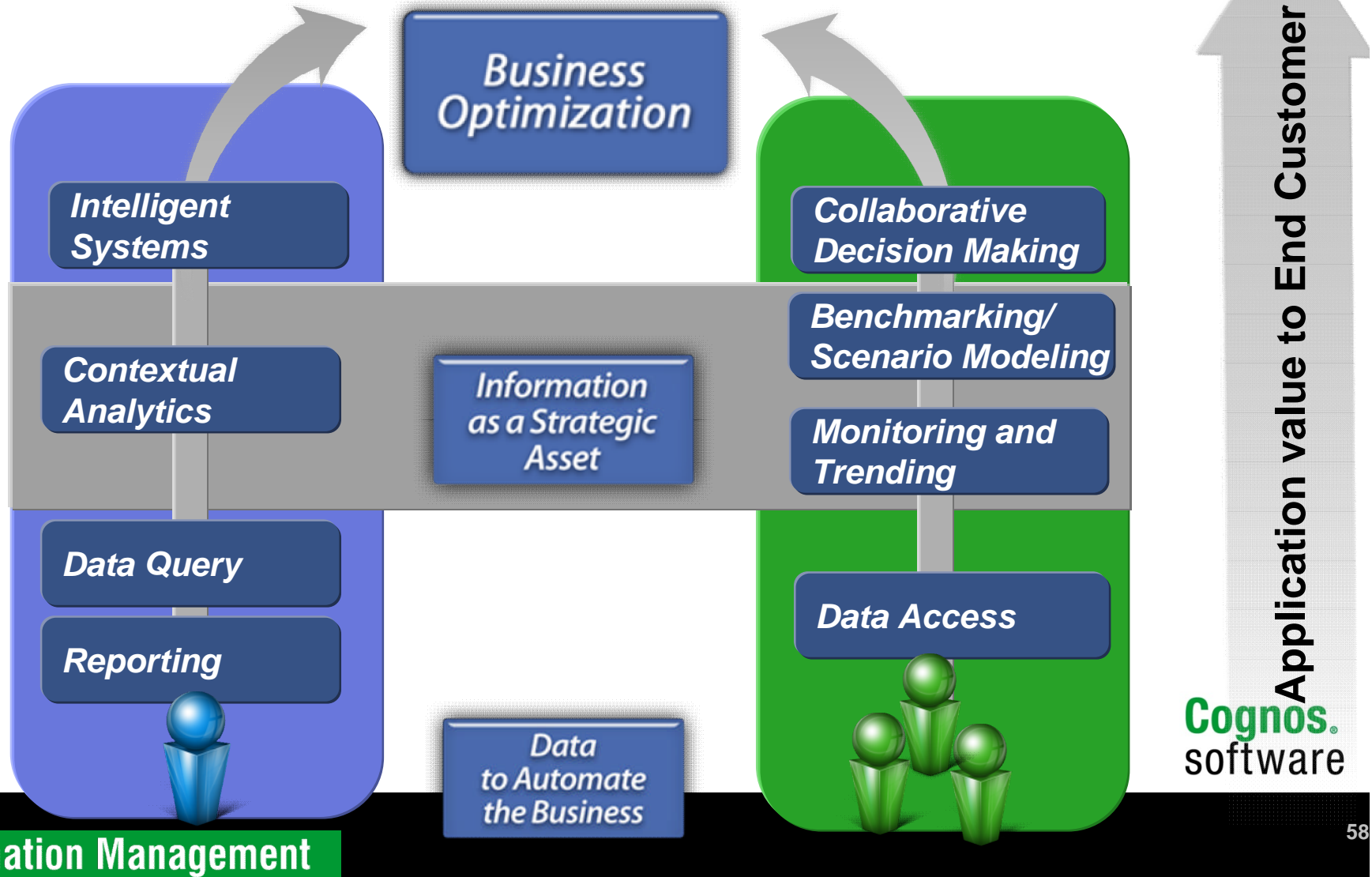
### Customer Satisfaction

- Simplified Data Access
- More Effective Business Processes
- Increased Confidence of Users/Management



# Software Provider – Business Optimization Maturity Model

Moving from Reporting and Business Intelligence to Actionable Decision Support System



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software



## Partner/Customer Needs

- Pervasive, Timely Access to Information
- Adapt to changing business conditions and process
- Extendibility to new environments
- Seamless Integration – UI and Workflow

## Cognos Invests

- Broad Purpose-built End User Capabilities
- Flexible, Adaptable metadata and metric definitions
- SOA Platform
- Service API:
  - Open Web Service Interface
- Contextual Content API:
  - Cognos Mashup Service (REST, SOAP)



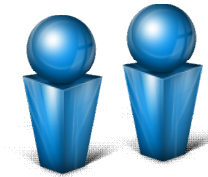
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software



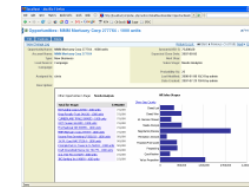
Cognos Software

# Extending your Application Reach with Cognos 8

Delivering on Business Optimization

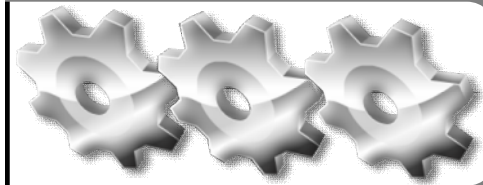


## Cognos Leverage



### Any UI

HTML, AJAX, Flex, etc.



### Any Server

J2EE, .Net, PHP, etc.



### Any Source

Security, All Data, Messaging

**Cognos.**  
software

Extend Your Application Platform

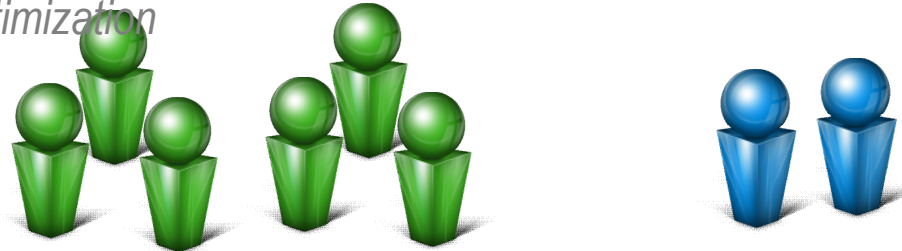
Information Management



Cognos Software

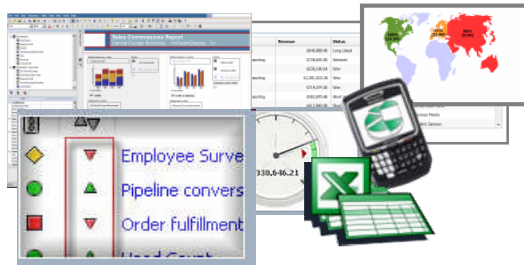
# Extending your Application Reach with Cognos 8

Delivering on Business Optimization

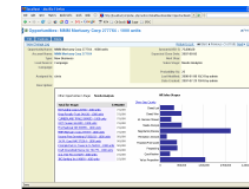


## Cognos Mashup Service

Content API – Embed, Extend



- Reporting
- Analysis
- Dashboards
- Scorecards
- Planning
- Mobile/Office
- Collaboration



## Cognos Leverage

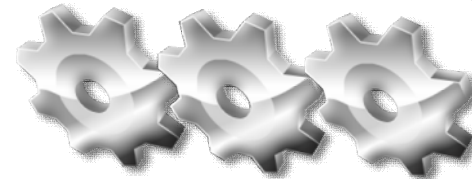
### Any UI

HTML, AJAX, Flex, etc.

## Cognos Service API

SOAP API to All Services

# Cognos 8 Services



### Any Server

J2EE, .Net, PHP, etc.

## Data Management/Access

OLAP, Data Mart



### Any Source

Security, All Data, Messaging

## Application Platform – Extended

## Your Application Platform

# Cognos. software

# Information Management



## IBM Cognos OEM Go-to-Market Program

Beyond industry leading technology and aligned OEM business model, IBM partners with Software providers from design to sales execution to deliver proven results.

### 1 Define and Enable

- Project Kickoff
- ISV Development Guide
- Dedicated Technical Account Management
- Partner Training and Consulting Services

### Develop and Deploy 2

- Strategic Project Advisors
- ISV Integration Suite
- SaaS and Cognos Proven Practices
- Code-Level Support
- Open Branding and Documentation

### 3 Market and Sell

- Co-Marketing Programs
- Launch Events/Sales Kickoffs
- Sales and Pre-Sales Workshops
- PartnerWorld
- SaaS Partner Advisory Workgroup

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“The **complete zero footprint** architecture of IBM Cognos 8 maps well to Infor’s offerings, and its **scalability** meets the enterprise-class needs our customers have come to expect of our hosted solutions.”



“IBM Cognos 8 is **increasing our average deal size** through driving single silo application sales into application suite sales.”

“Cognos platform was clearly the SaaS friendliest, and Cognos understood the value of SaaS and it’s future.”





**“Partnering with Cognos  
provided us with  
More than just reports it  
provided the  
room to grow our offering  
into Analytics, Metrics, etc.”**

daptiv™

Cognos.  
software



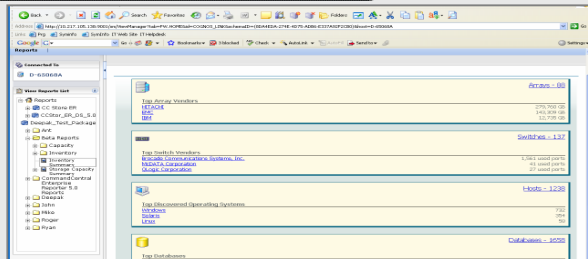


# What type of Applications need BI...most

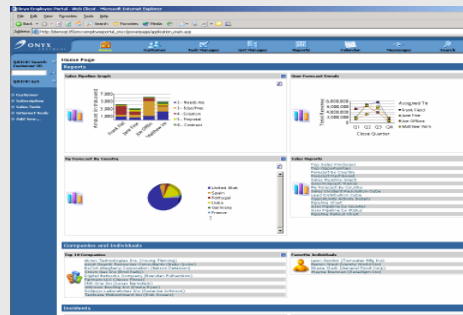
## IT Storage Management



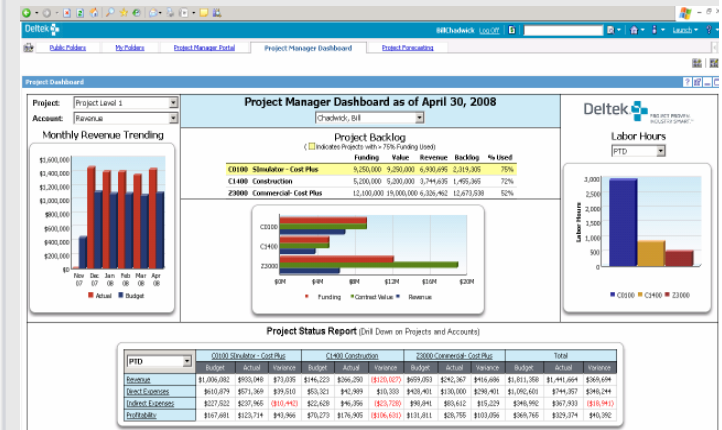
Confidence in a connected world.



## CRM ONYX



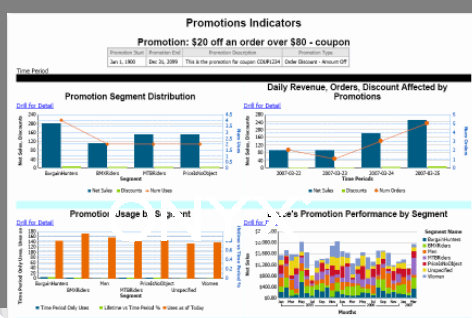
## Project Focused ERP



## Project Portfolio Management



## eCommerce





## Business Intelligence vs. Visualization

### Cognos. software

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- End User Centric Functionality
- Broad BI Capabilities
  - Dashboarding
  - Reporting
  - Authoring
  - Analysis
  - Scorecards
  - What-if Modeling
- Open, Embeddable
- Integrates with ILOG Visualization



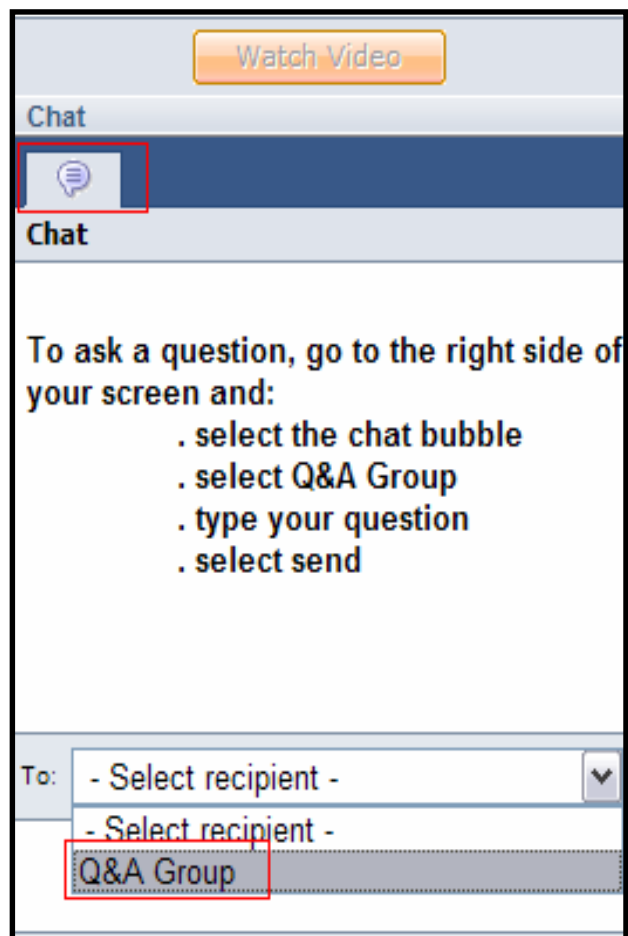
### ILOG Visualization

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- Developer Centric Visualization tool kit
- Robust and Specialized Visualizations
  - Planning and Scheduling
  - Diagramming, Visual modeling
  - Map displays for Telecom, Defense, Supply Chain
  - Industrial Supervision
- Open, Embeddable
- Integrates with IBM Cognos 8

Cognos.  
software

## How to submit a question



1. Phone lines are muted for all attendees
2. Submit your questions using Chat feature of SameTime Unyte

The IBM logo is positioned in the top left corner of the white rectangular box. It features the letters 'IBM' in a bold, blue, sans-serif font with horizontal lines through the letters.

*Thank you!*