

# IBM Rational Software Development Conference 2008

WHERE TEAMS ARE **R-HEROES**



## What's New in IBM Rational ClearCase 7.1?

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# *What's All This Fuss Over a Point Release?*



## *ClearCase 7.1 is a Major Offering*

- **At a Glance ...**
  - ▶ **CCRC advances toward ClearCase Common Client**
  - ▶ **New, modern and scalable CM Server for CCRC and CQ Web**
  - ▶ **Java-based, WAN-friendly API**
  - ▶ **Administrative simplification through ClearCase MultiSite Monitoring**
  - ▶ **Consolidated Install Technology**



# Why Use ClearCase?

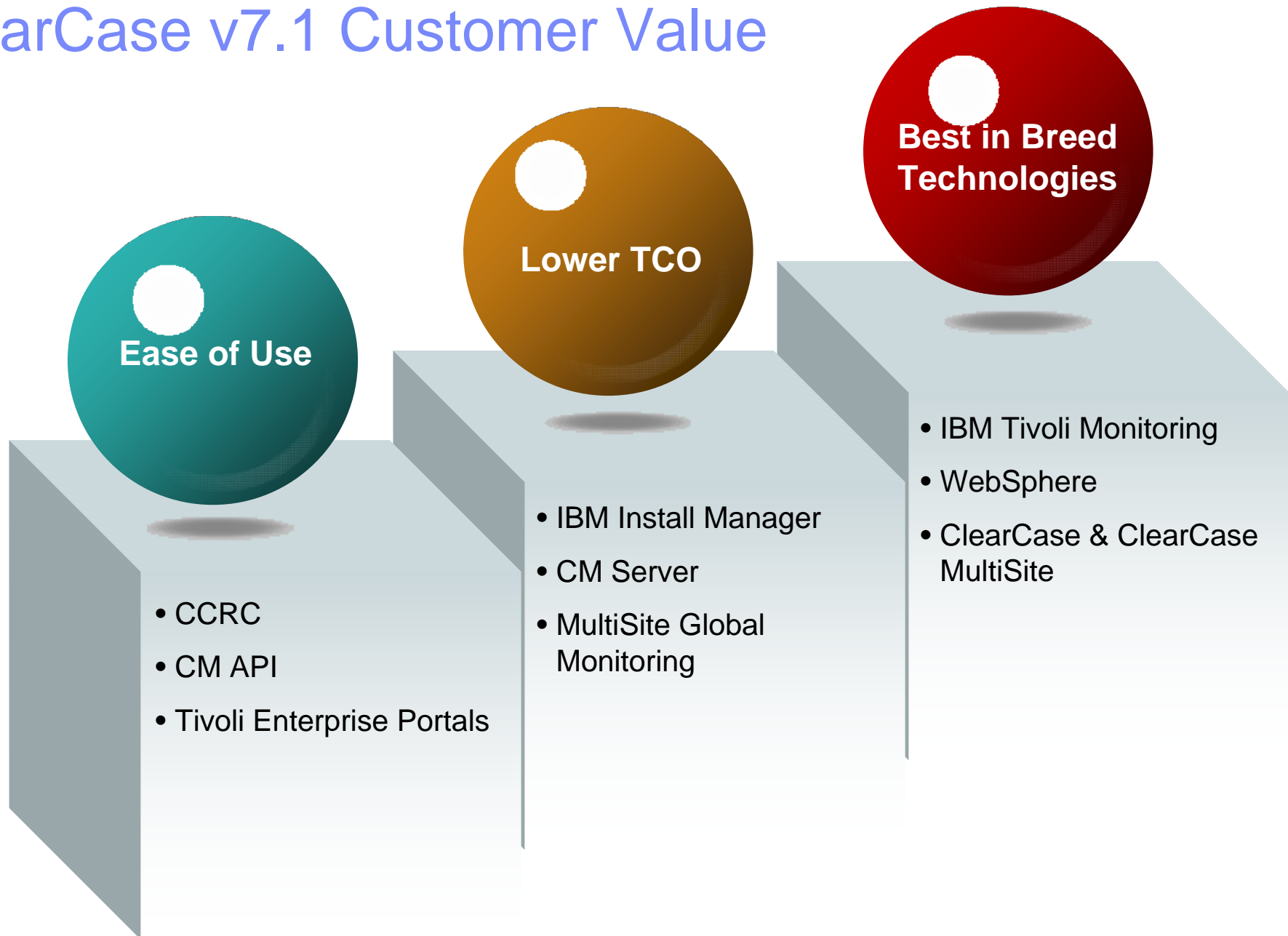
- **ClearCase Has Led Configuration Management for An Entire Era**
  - ▶ In Every Evolutionary System, Maturity is the Ultimate Indicator of Success
    - ... and the surest indicator of resilience and adaptability
- **ClearCase Has Repeatedly Solved Enterprise-Scale Problems**
  - ▶ ClearCase MultiSite is the Most Widely Used GDD Development Solution
  - ▶ ClearCase UCM Sets the Standard for Development Process
  - ▶ ClearCase Dynamic Views Give Unsurpassed Parallel Development Flexibility
- **ClearCase Success is Built on Innovation; ClearCase Innovation is Built for Customers**

Large, Medium and Small, ClearCase Has Won Customers Since Its Introduction

*... And ClearCase Continues to Solve Customers' Problems ...*

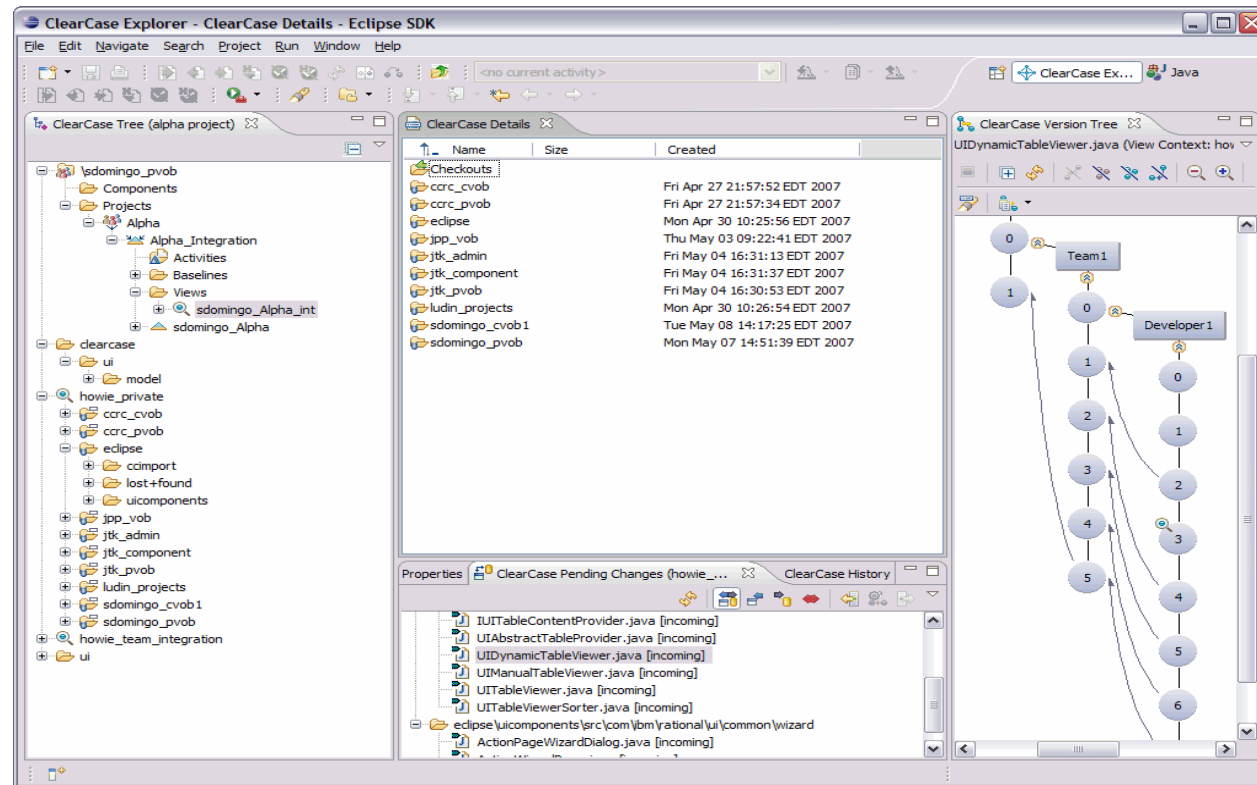


# ClearCase v7.1 Customer Value



# ClearCase 7.1 – CCRC

- Agile Process support
- Usability
  - ▶ Customizable GUI Framework
- CQ Integration
  - ▶ Navigator, Queries & Forms
- GUI extension point
- CCRC (RCP) Unix
- Macintosh OS support



# ClearCase 7.1 - CCRC Agile Process support

- Pending Changes View
  - ▶ Supports both base ClearCase and UCM
- Explorer enhancements to show “buried” changes without expansion
- Scoped common operations to take advantage of that knowledge
  - ▶ Undo Checkout/Hijack
  - ▶ On Views, Projects, Directories, Activities
- Recursive Add To Source Control, Checkout and Hijack, with filtering
- Deliver and Rebase
  - ▶ “Default” option for single button operation under optimal conditions
    - Settings for default streams/views, silent checkin, automatic completion
  - ▶ “Advanced” option for complete control
- Scheduled updating, notification of changes from integration branch/stream



## ClearCase 7.1 - CCRC Usability

- New and Improved Developer Usage
  - ▶ Stream, Component, VOB creation
  - ▶ Configuring and loading views
  - ▶ Complete preference control for common operations
  - ▶ Consolidated explorer views
    - including ClearQuest Wan Forms & Queries
  - ▶ Revised menu structure – true context menus
  - ▶ Support for Eclipse Diff/Merge tools, possibly third party tools
  - ▶ Improved comparison support
  - ▶ Activity Toolbar
  - ▶ ***More than 170 Customer Requests for Enhancement Implemented!!***

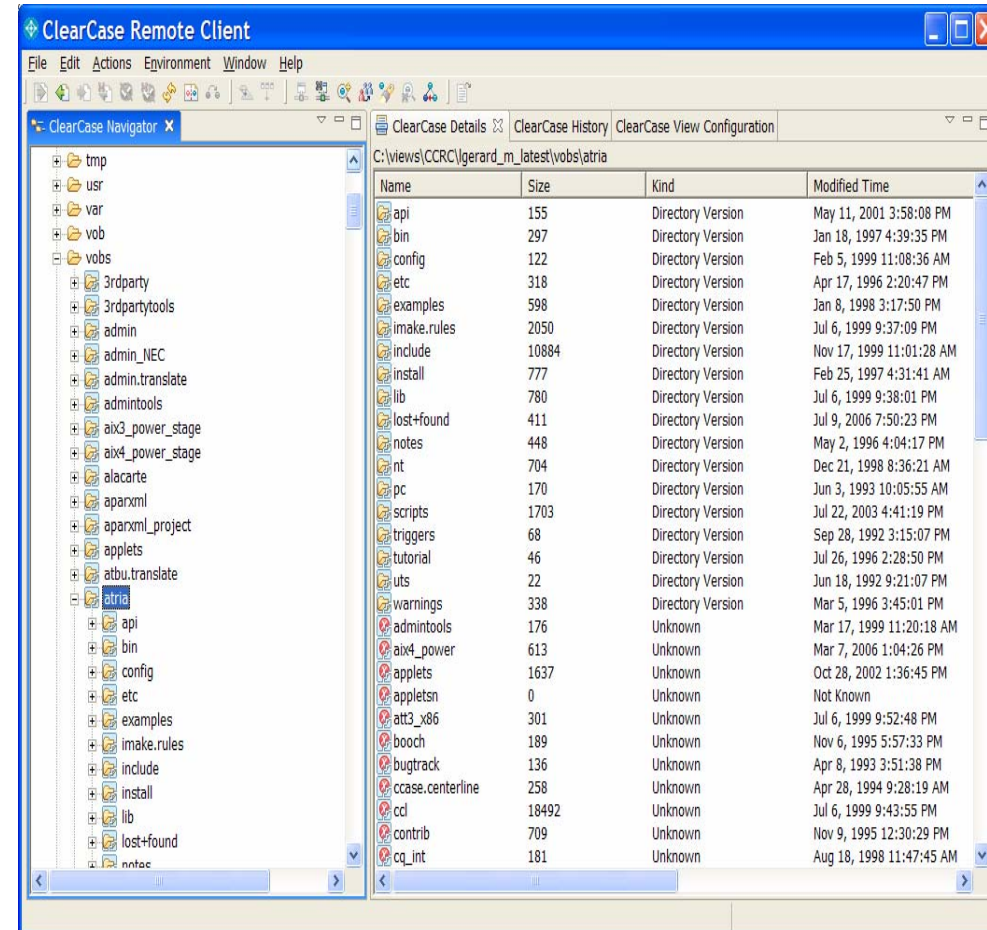




# ClearCase 7.1 - CCRC Performance Enhancement

## ■ Filtering

- ▶ Easily and quickly create filters that bring you directly to the objects you want
  - Avoid repetitive navigation deep into the directory structure
  - Named, persistent across sessions
  - Work disconnected with loaded resources
  - Add and remove elements from existing filters as needs change
  - Rules using logical expressions for additional customization
- ▶ Import and Export filters for sharing between installations, users



# ClearCase 7.1 - CCRC Filtering

**Unfiltered**

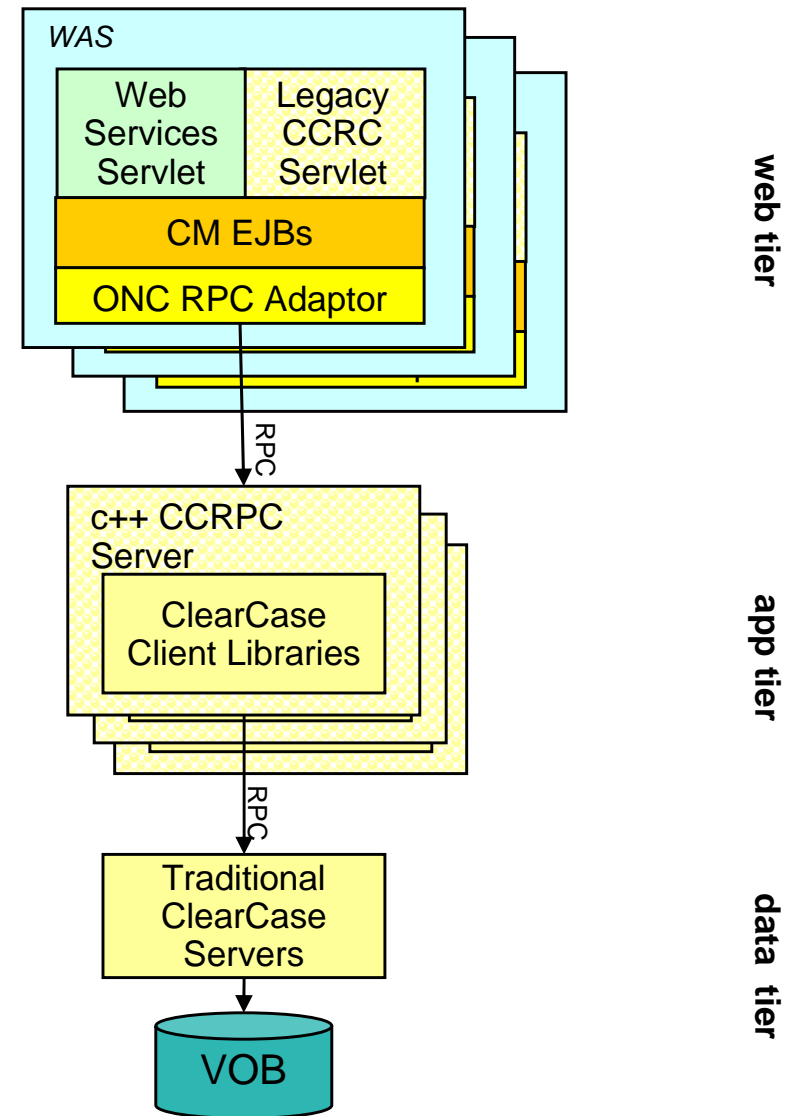
The 'Unfiltered' screenshot shows the 'ClearCase Tree' window. It displays a hierarchical view of the ClearCase environment. The 'Personal Queries' folder is expanded, showing a list of queries including 'Aging Charts', 'Customers', 'Distribution Charts', 'Email Rules', 'PrintReportFormats', 'Report Formats', 'Reports', 'Trend Charts', 'All Defects', 'Keyword Search', 'My Hot List', 'My To Do List', and 'Needs Verification'. The 'My Views' folder is also expanded, showing a list of views including 'baltic\_mr1\_ti\_mstern', 'mstern\_BALTIC\_MR1\_intg\_t60', 'mstern\_baltic\_mr1\_ti\_ccrc\_int', 'mstern\_balticmr1ticrcss\_dev', 'mstern\_integration\_view', 'mstern\_scm\_BALTIC\_MR1\_t60', 'mstern\_TestProject', 'mstern\_TestProject\_Integration', 'mstern\_view\_1', 'mstern\_view\_for\_design', 'orval\_mstern\_view\_1', and 'qvm069\_mstern\_view\_1'.

**Filtered**

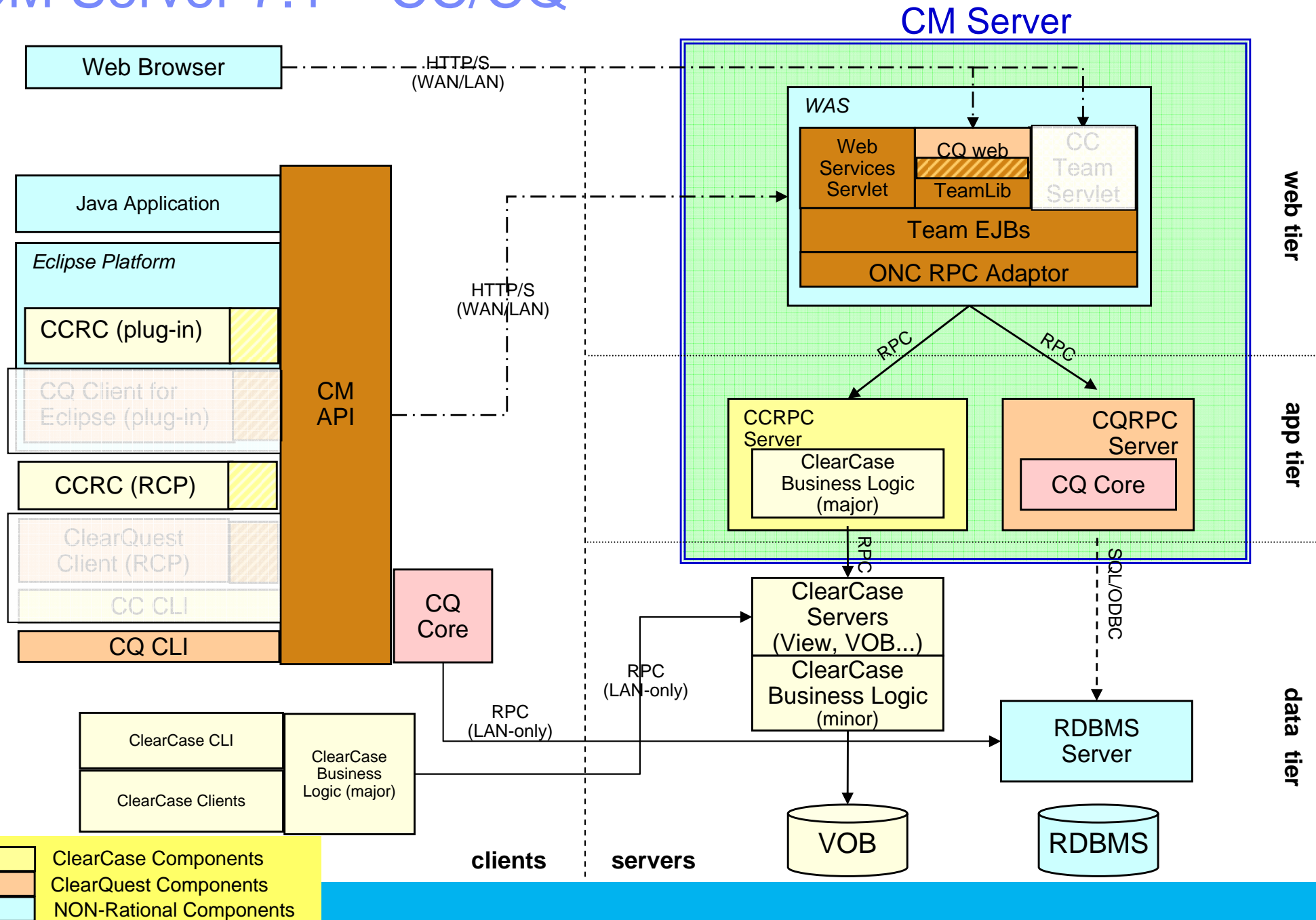
The 'Filtered' screenshot shows the 'ClearCase Tree (My new filter)' window. It displays a filtered view of the ClearCase environment. The 'All Defects' folder is expanded, showing a list of filtered results including 'ccrc\_test\_proj1\_Int', 'ccrc\_test\_pvob', and 'qvm069\_mstern\_view\_2'. The 'My Views' folder is also expanded, showing a list of filtered views including 'baltic\_mr1\_ti\_mstern', 'mstern\_BALTIC\_MR1\_intg\_t60', 'mstern\_baltic\_mr1\_ti\_ccrc\_int', 'mstern\_balticmr1ticrcss\_dev', 'mstern\_integration\_view', 'mstern\_scm\_BALTIC\_MR1\_t60', 'mstern\_TestProject', 'mstern\_TestProject\_Integration', 'mstern\_view\_1', 'mstern\_view\_for\_design', 'orval\_mstern\_view\_1', and 'qvm069\_mstern\_view\_1'.

# ClearCase (& ClearQuest) 7.1 – CM Server

- A high-performing server based deployment model that's easily managed, administered and upgraded
  - ▶ Single technology stack for CQ and CC servers
    - CCRC
    - CQ web
  - ▶ Provide infrastructure for WAN based clients
  - ▶ Provide WAS based servers
  - ▶ Highly scalable – scales horizontally & vertically
  - ▶ Backward/Forward compatible with clients/other servers

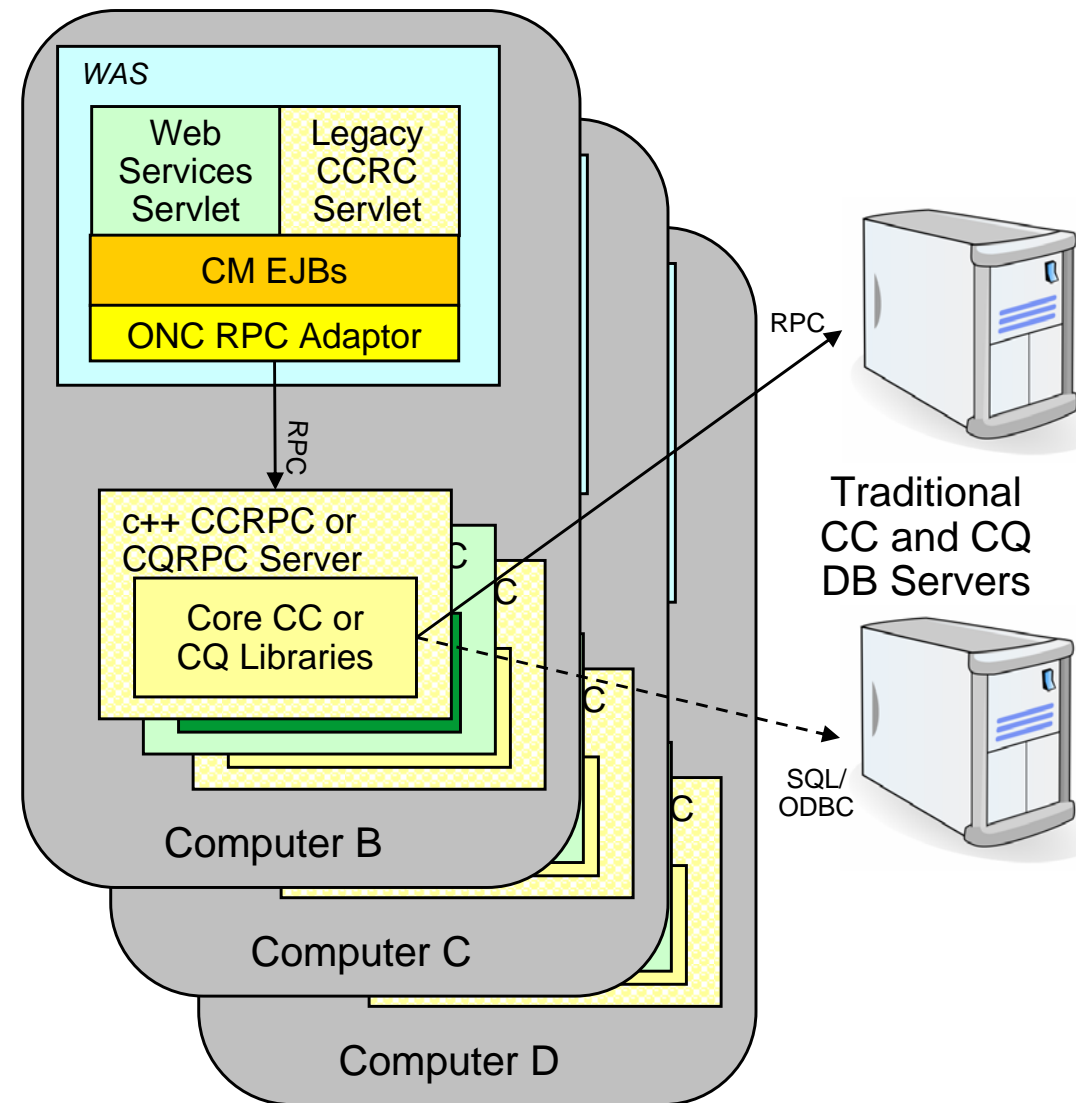


# CM Server 7.1 – CC/CQ



# CM Server 7.1 – Performance & Reliability

- Single User benchmarks - Preliminary Data -Improvement over 7.0.x
  - MakeDevStream , Create View , 30%
  - CreateActivity, GetAct (40%),
  - Other transactions comparable to 7.0.1



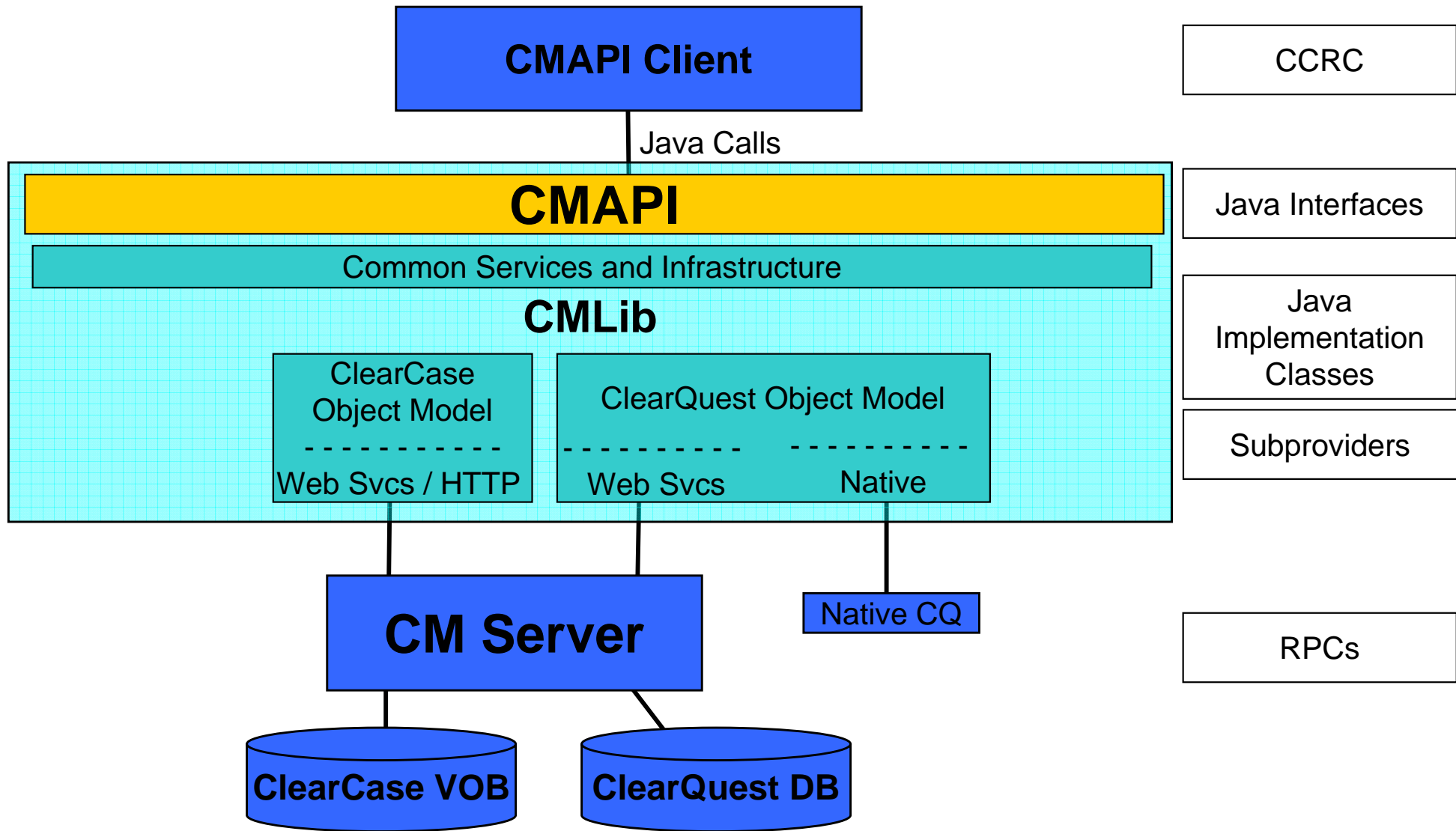
## ClearCase 7.1 - CM API

- A unified client-side Java API for access to ClearCase and ClearQuest artifacts
- Based on the JSR-147 proposed standard: WVCM
- OS and platform independent
  - ▶ ClearCase / ClearQuest APIs
    - Windows, Linux, AIX, Solaris, HP-UX, etc...
- Provides a common Team data model and domain specific services
- Supports the full life cycle of software product development
- Supports customer and partner developer ecosystem



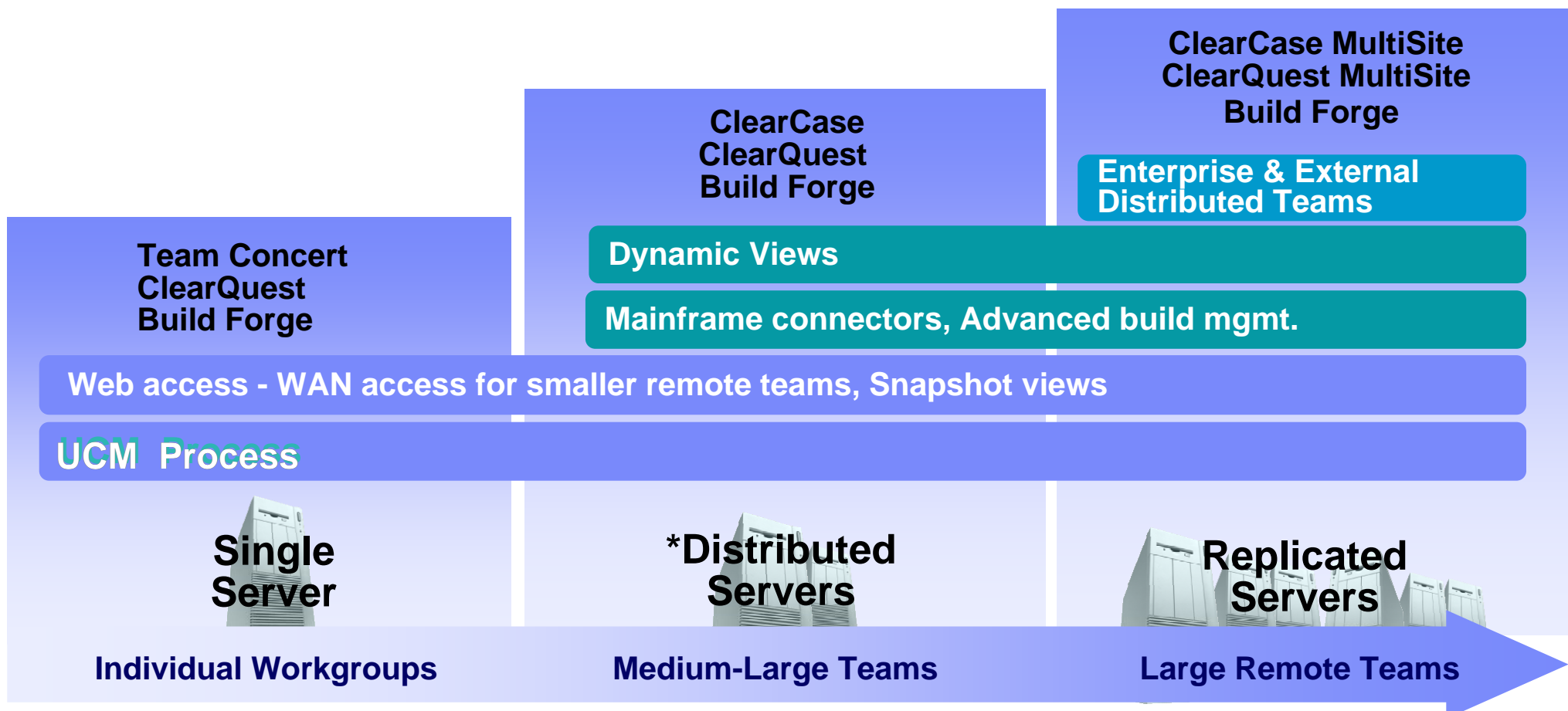


# CMAPI / CMLib Architecture



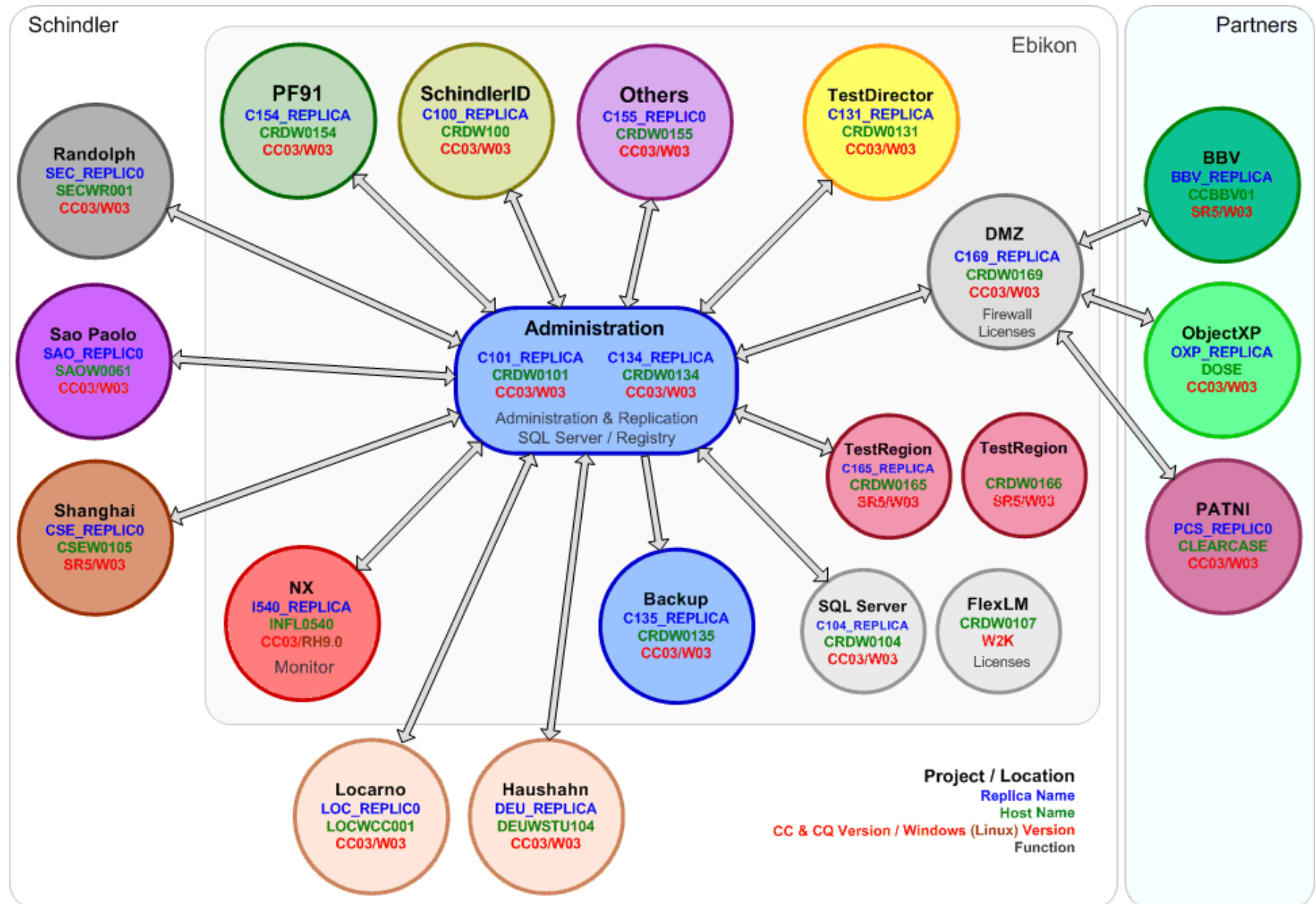
# ClearCase - From Workgroup to Enterprise

- **Only IBM Rational ClearCase can support distributed servers** so that every software asset is available to every development project
- **Only Rational ClearCase and Rational ClearQuest** have single company deployments that manage **hundreds of terabytes of data** across many **tens of replicated sites**.





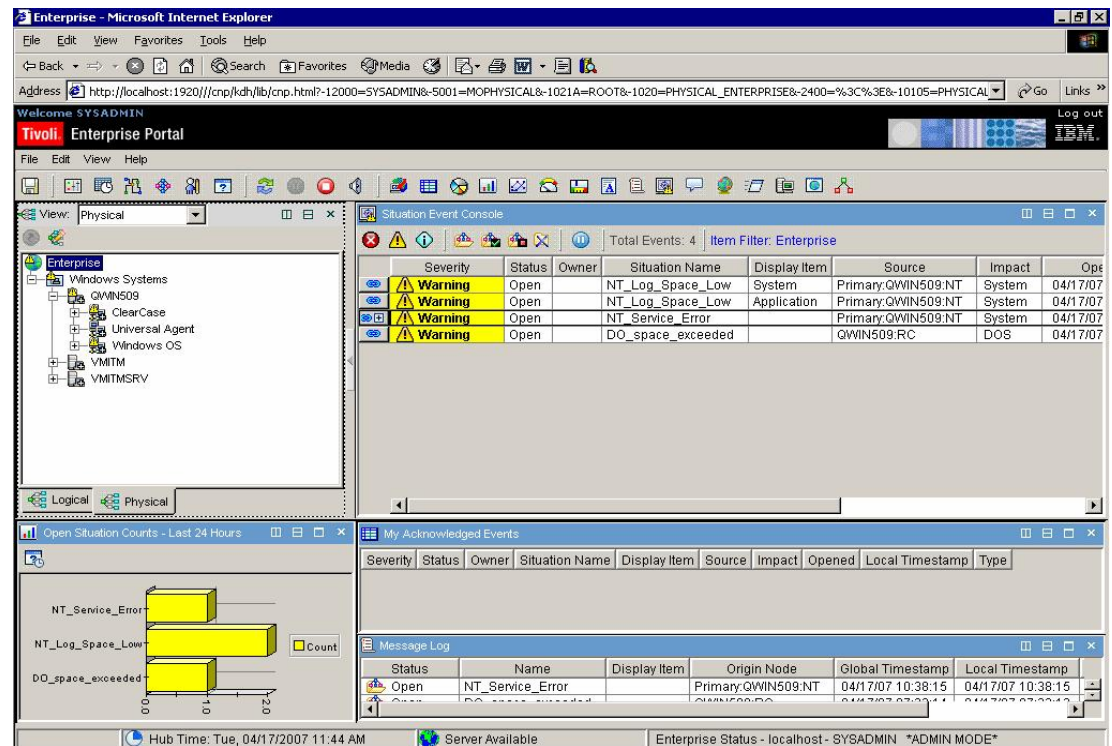
# Does This Look Like Your World?



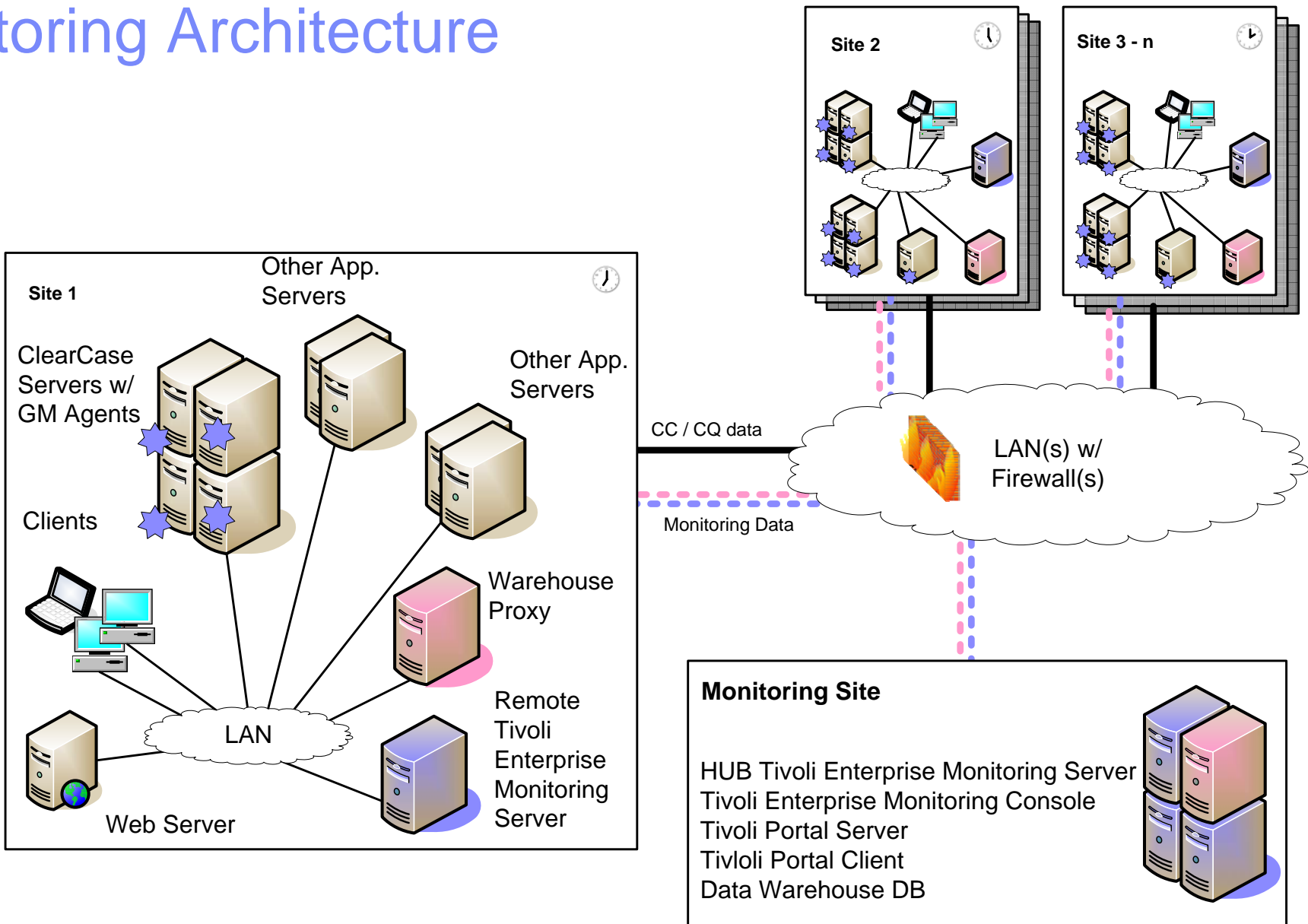
# ClearCase 7.1 - Global Monitoring

Provides administrator view of CC & CCMS deployment from anywhere in the world!!

- Monitors
  - ▶ VOB & View Servers
- Monitor for Events
  - ▶ Customizable Event settings
    - User specified Thresholds and Severity
  - ▶ Expert Advice on Events
  - ▶ OS Agent:
    - Memory usage, Disk Space, CPU
  - ▶ ClearCase Agent :
    - Shipping Bay Threshold Issues
    - Multisite Import/Export Failures
    - ALBD Process Failures
  - ▶ Historical collection of data
    - Reporting Templates (BIRT)
- Replaces Monitoring capabilities of
  - ▶ CCMS Admin console and CC Admin Console



# ClearCase 7.1 - Global Monitoring Architecture



# ClearCase & ClearQuest 7.1

## IEHS Based Help

- Deploying ClearCase and ClearQuest docs as Infocenters
  - ▶ Hosted at ibm.com
    - ClearCase:  
<http://publib.boulder.ibm.com/infocenter/cchelp/v7r0m0/index.jsp>
    - ClearQuest:  
<http://publib.boulder.ibm.com/infocenter/cqhelp/v7r0m0/index.jsp>
  - ▶ Initially deployed Q406
  - ▶ Updates planned for each release (7.x.x, 7.x, 8.0, ... )
  - ▶ Feedback links on each page provide readers with a fast path back to the authors
    - Feedback reviewed daily
    - Errors corrected in next release (or sooner, if serious enough)
    - RFEs factored into UA planning
- Building a new Help system
  - ▶ Ships as part of the product
  - ▶ Available in 7.1
  - ▶ Includes Infocenter content and applet help



# ClearCase and ClearQuest - IBM Eclipse Help System (IEHS)

- A stand-alone version of the Eclipse Help System
  - ▶ Designed to provide “Infocenter” services from a centralized server
  - ▶ Designed to be used by non-Eclipse applications as a help system
  - ▶ Corporate sponsorship, with a dedicated development team
  - ▶ Brings the benefits of Eclipse Help to all applications
    - Powerful search tools
    - Sophisticated navigation and filtering
    - On-demand content update (push or pull)
    - Content customizable by end users
    - Greatly simplifies translation process and localized content deployment
    - Modular packaging supports component-based offerings
    - UA updates no longer tied to product releases



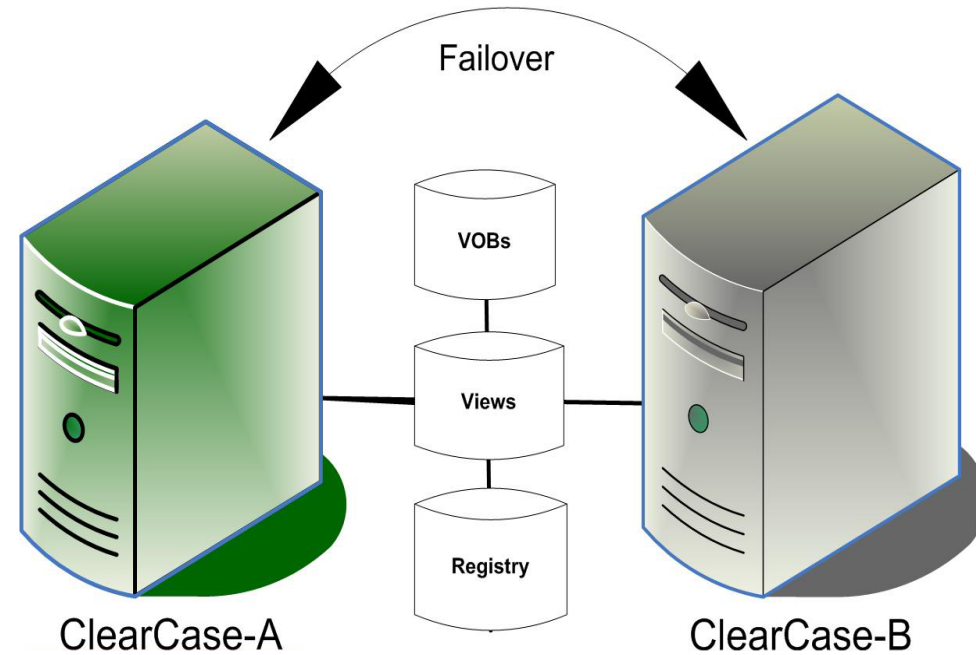
## ClearCase and ClearQuest 7.1 - Install

- Moving to IBM Installation Manager technology
  - ▶ Brings many improvements in usability and consumability
    - Streamlined Patches, Updates and Rollback
    - Clean Upgrades and Silent Install
    - Built-in License Management
- Improving our client integration interface tests
  - ▶ Version 7.0 allows Suite point products to be installed independently
    - But still need to run at same version
  - ▶ 7.1 Focus on testing Integration APIs to support mixed client versions



# ClearCase 7.1 - Side by Side Server UNIX installs

- Save server downtime during upgrades!!!
  - ▶ Process
    - Pre-condition
      - ClearCase vX installed and vob/view server running
    - Steps
      - Install new image v 7.1 in new directory
      - Shut down VOB/View servers
      - Reconfigure machine process with new software
      - Start up View/VOB servers
      - Delete old image
    - Rollback process?
      - Yes, Reverse the process





# ClearCase & ClearQuest 7.1 Release Reports

- Customer Value
  - ▶ Customers Can Leverage Our Testing
  - ▶ Reduced Cost of Ownership
  - ▶ Increased Time to Value
- ClearCase:
  - ▶ Tech Note Available when Released
- ClearQuest
  - ▶ Tech Note Available when Released

## Rational ClearCase v7.0.1 Release Report

1	Introduction.....	2
2	Summary .....	3
3	Rational ClearCase v7.0.1 features, enhancements and quality.....	4
3.1	Capability.....	4
3.2	Usability and consumability .....	5
3.3	Performance, scalability, and availability .....	5
3.4	Security .....	6
3.5	Serviceability .....	6
3.6	Reliability.....	7
3.6.1	Defects found in the 7.0.1 Release.....	7
3.6.2	APAR and non-APAR backlog defects closed in v7.0.1.....	9
4	Testing effort.....	10
4.1	Functional Verification Testing .....	10
4.2	System Verification Testing.....	11
4.3	Globalization Verification Testing.....	11
4.4	Translation Verification Testing.....	12
4.5	In-House Deployment .....	12



# ClearCase & ClearQuest 7.1 Performance Reports

- Customer Value
  - ▶ Leverage our Testing
    - Reduced Cost of Ownership
    - Increased Time to Value
- Available on: [www.ibm.com/developerworks/rational/performance](http://www.ibm.com/developerworks/rational/performance)

developerWorks > Rational >

## Performance

### Resources for IBM Rational ClearCase and ClearQuest

↓ Whitepapers, tech notes and technical articles

A collection of performance resources for Rational ClearCase and ClearQuest.

#### Whitepapers, tech notes and technical articles

##### 2007

- [IBM Rational ClearCase Core 7.0.1 Single User Performance Report \(RedHat Linux\)](#)
- [IBM Rational ClearCase Core 7.0.1 Single User Performance Report \(Windows\)](#)
- [IBM Rational ClearCase Remote Client 7.0.1 Performance Report \(Windows\)](#)
- [IBM Rational ClearCase Remote Client 7.0.1 Performance Report \(Solaris\)](#)
- [IBM Rational ClearCase Remote Client 7.0.1 Performance Report \(RedHat Linux\)](#)
- [IBM Rational ClearCase 7.0.1 UCM Component Scalability Performance Report](#)
- [IBM Rational ClearQuest Web: Comparing Browser-to-Server Single-User Network Traffic between 2003.06.16 and 7.0.1](#)
- [IBM Rational ClearQuest 7.x Web Windows Performance Comparisons with 2003.06.15 \(SR5\) and 2003.06.16 \(SR6\) using SQL Server 2000](#)
- [IBM Rational ClearQuest Web 7.0.1 Windows Reliability Report using SQL Server 2000](#)
- [IBM Rational ClearQuest Web 7.0.1 Memory Profiles of Multi-Request Manager Configurations](#)

##### 2006

- [IBM Rational ClearCase 7.0.0.0 MultiSite replica synchronization performance reports](#)
- [IBM Rational ClearCase Core 7.0.0.0 single user performance reports](#)
- [IBM Rational ClearCase Remote Client \(CCRC\) 7.0.0.0 performance reports](#)
- [IBM Rational ClearQuest 7.0.0.0 MultiSite replica synchronization performance report \(Windows\)](#)



## Performance Whitepapers

- Take our Guidance
  - Modulate your own testing using our experience
    - Decrease your time to deployment
    - Increase your time to value
- Available on: [www.ibm.com/developerworks/rational/performance](http://www.ibm.com/developerworks/rational/performance)



## Performance Benchmarking Kit (PBK)

- Designed To Help Customers Baseline Their Environment
- Consists Of:
  - ▶ Instructions (.Doc)
  - ▶ RPT Project (.Zip File)
  - ▶ Sample Spreadsheet For Reporting Results (.xls)
- Available For Download\*
- Customer-distributable Performance Test Scripts
- Customers Can Objectively Evaluate Performance In Their Environment

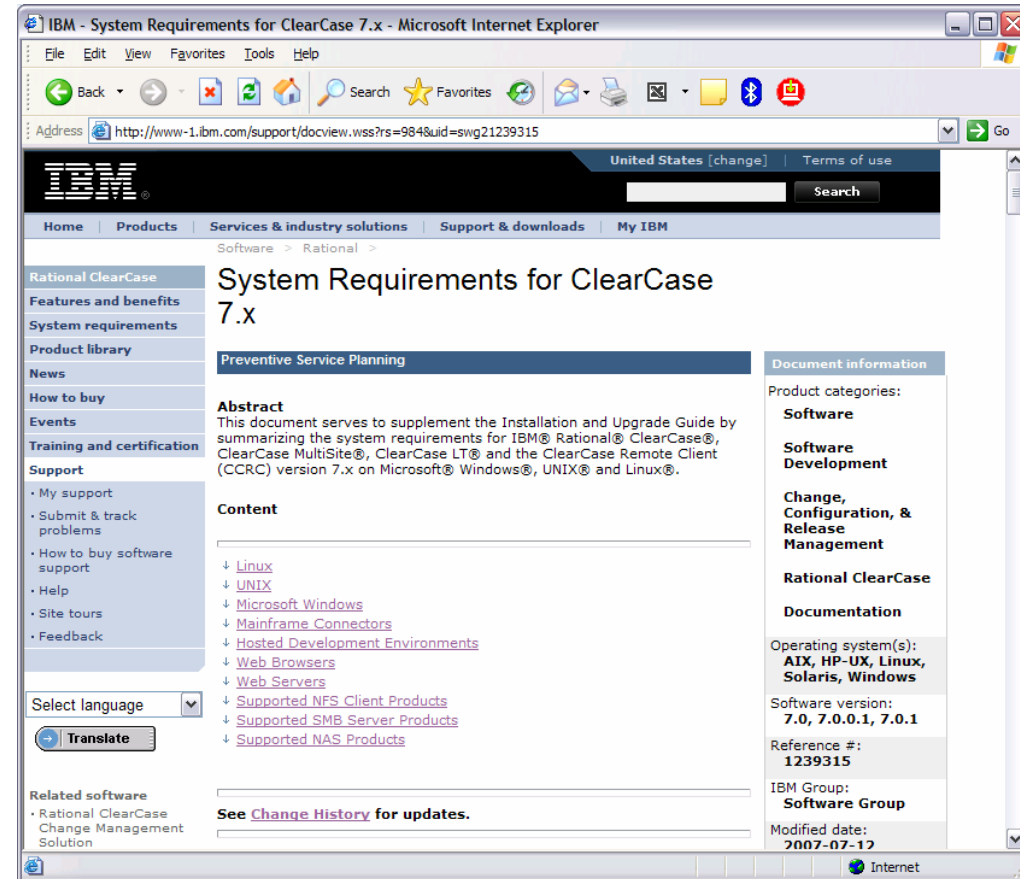


\* PBK is available for download – [www.ibm.com/developerworks/rational/performance](http://www.ibm.com/developerworks/rational/performance)



# ClearCase 7.1 - Supported Platforms

- Customer Value
  - ▶ Timely
  - ▶ Accurate
  - ▶ Up-to-date
  - ▶ Accessible on the Web
- ClearCase 7.1 Supported Platforms
  - ▶ Tech Note 21239315

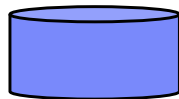
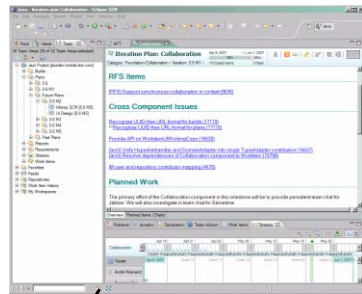


www.ibm.com/support/docview.wss?uid=swg21239315

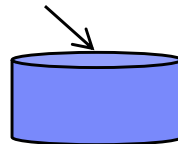
# ClearCase ↔ RTC Bridges and Connectors

## Bridge

Integration with the ClearCase repository leveraging the Collaborative development capabilities of RTC (Workitems, Workspaces, Realtime Collaboration, UCM)

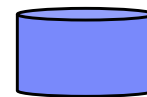


ClearCase  
repository

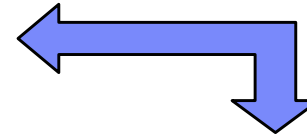


Rational Team  
Concert v1.0

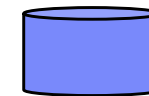
## Connectors



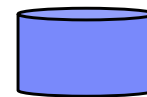
ClearQuest



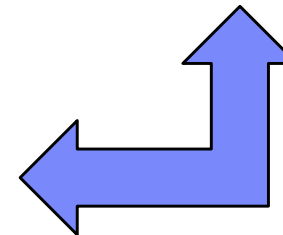
Bi-directional  
Synchronization



Rational Team  
Concert v1.0



ClearCase  
(Base and UCM)



# IBM Rational ClearCase

## *Review New features in v7.1*

- ClearCase CCRC
  - ▶ Agile support
  - ▶ Usability
  - ▶ CQ wan Forms & Queries
- Lower GDD infrastructure TCO
  - ▶ CM Server (combined CC/CQ Server architecture)
  - ▶ CM API
- Global Monitoring – CC MultiSite
- Eclipse Help System
- IBM Install Manager





# QUESTIONS





# THANK YOU

## Learn more at:

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- [IBM Rational Software Delivery Platform](#)
- [Process and portfolio management](#)
- [Change and release management](#)
- [Quality management](#)
- [Architecture management](#)
- [Rational trial downloads](#)
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