



The Development Challenges of SOA

Why Software Configuration Management is so Important to your Organization

Unisys Technology Forum, Queenstown, NZ

Agenda

- **The Future State of your Applications**
- **Services Oriented Architecture (SOA)**
- **The role of Software Configuration Management (SCM)**
- **ClearPath Application Development Strategy**
- **Using SCM to gain Enterprise Visibility**
- **Example & Demonstration**

The Future of your Applications

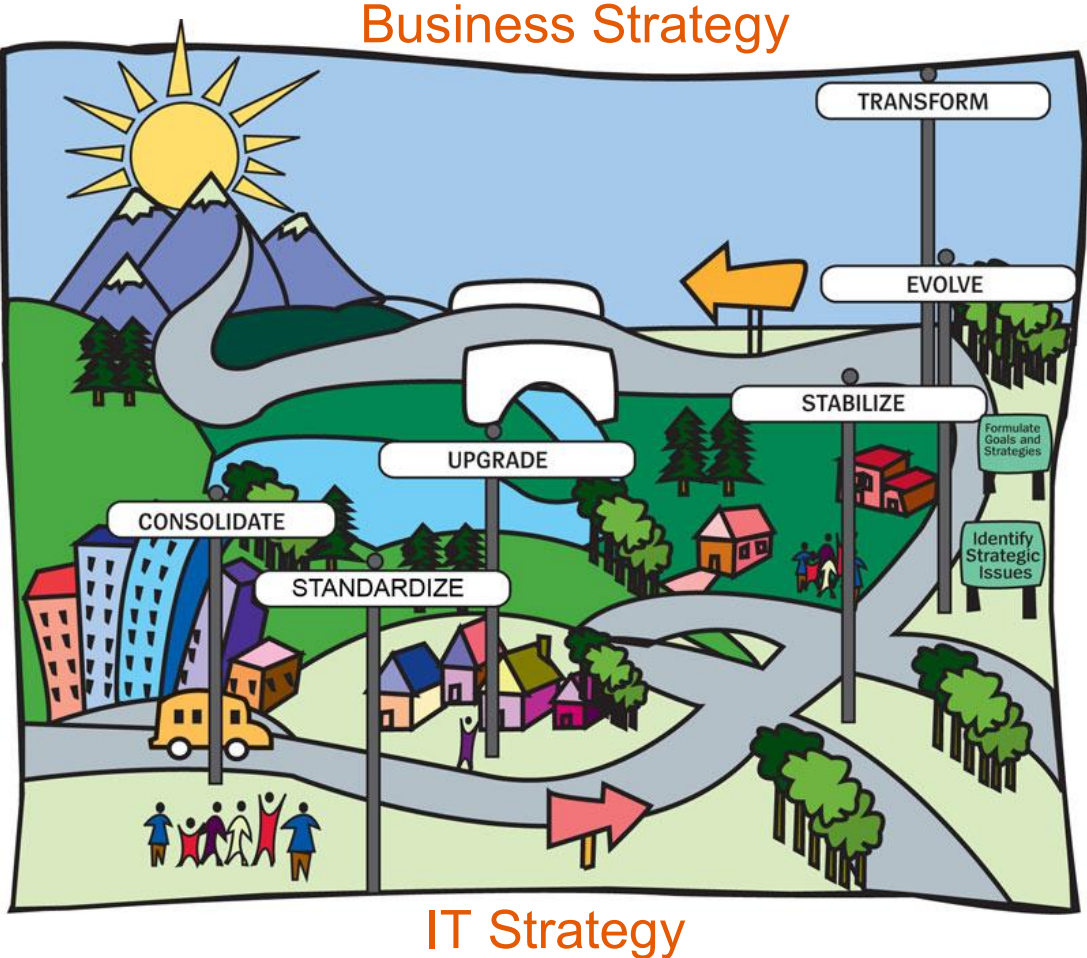
- Need to shift future investments toward innovation instead of maintenance by transforming strategic business applications
- How will ClearPath applications be part of your SOA initiative?
- Do you have a preference - .NET, J2EE?
- How will you manage these composite applications in development?



Service Oriented Architecture

- SOA is about business value and productivity, not technology
- SOA is about enabling business change
 - Speeds business change
 - Facilitates business connections
 - Enhances business control
- SOA is about business design
 - Identifies a strategic set of business services
 - Creates a digital model of business capabilities that is a foundation for business flexibility

The Challenge–IT/Business Alignment

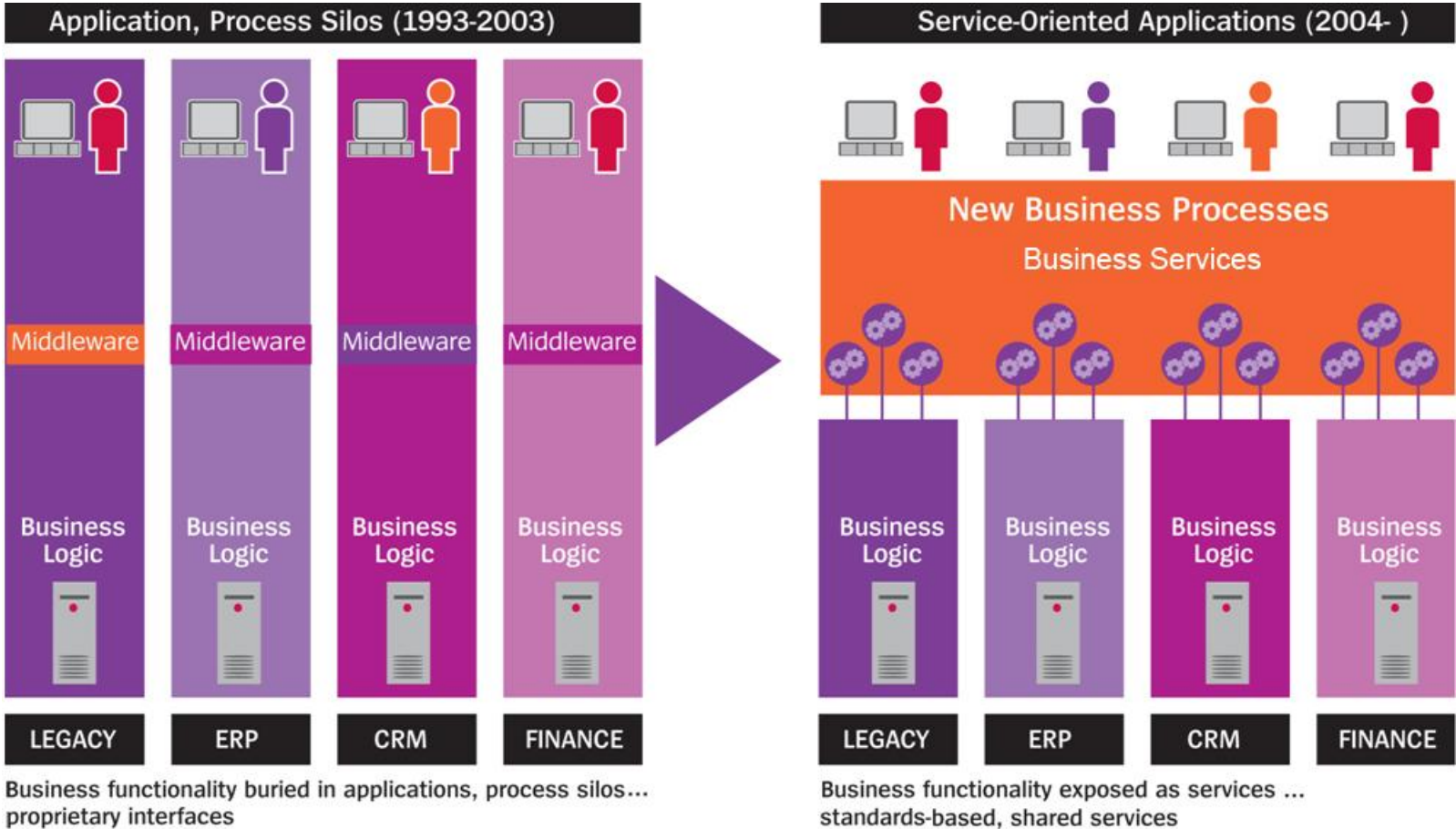


Business Processes

Enterprise Applications

Platform Infrastructure

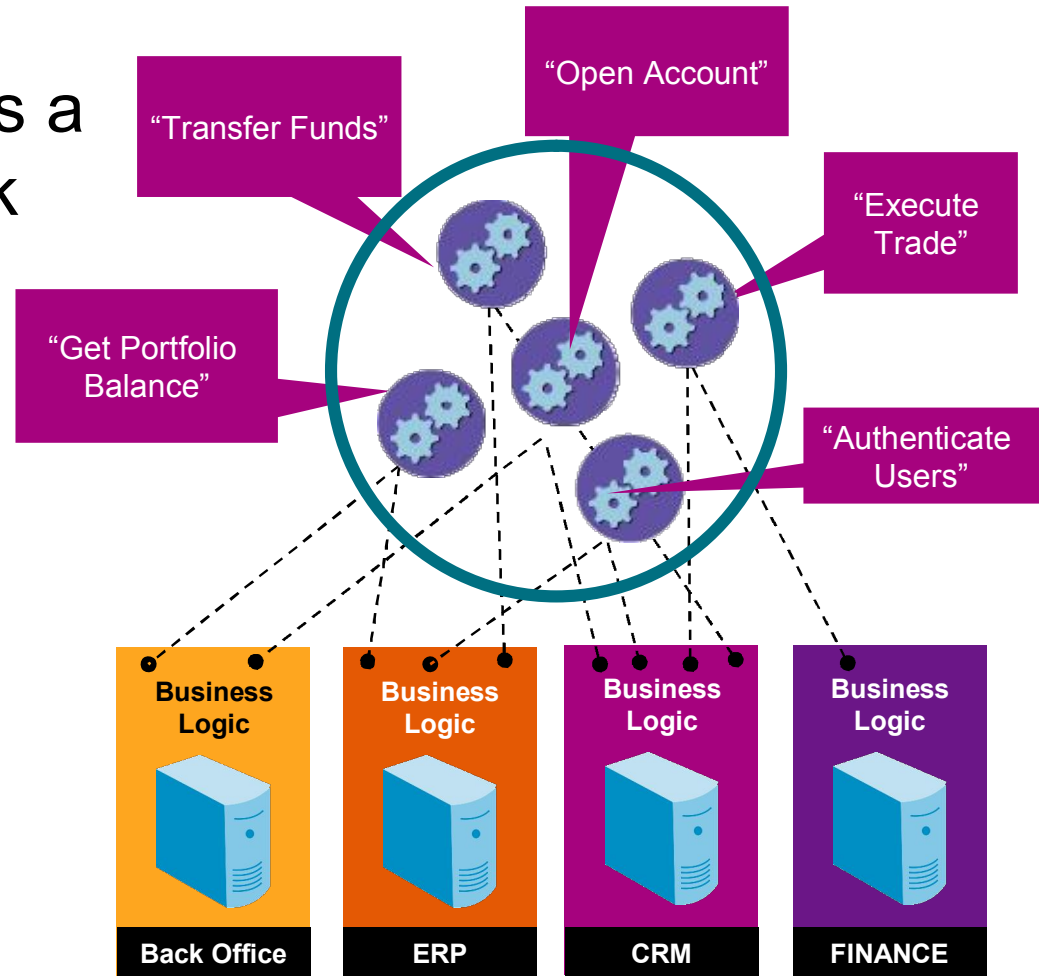
The Evolution to Service-Orientation



SOA is Based on “Business Services”

A business service is a common unit of work

- Maps to business processes
- Defined in business terms
- Coarse grained



The Promise of SOA

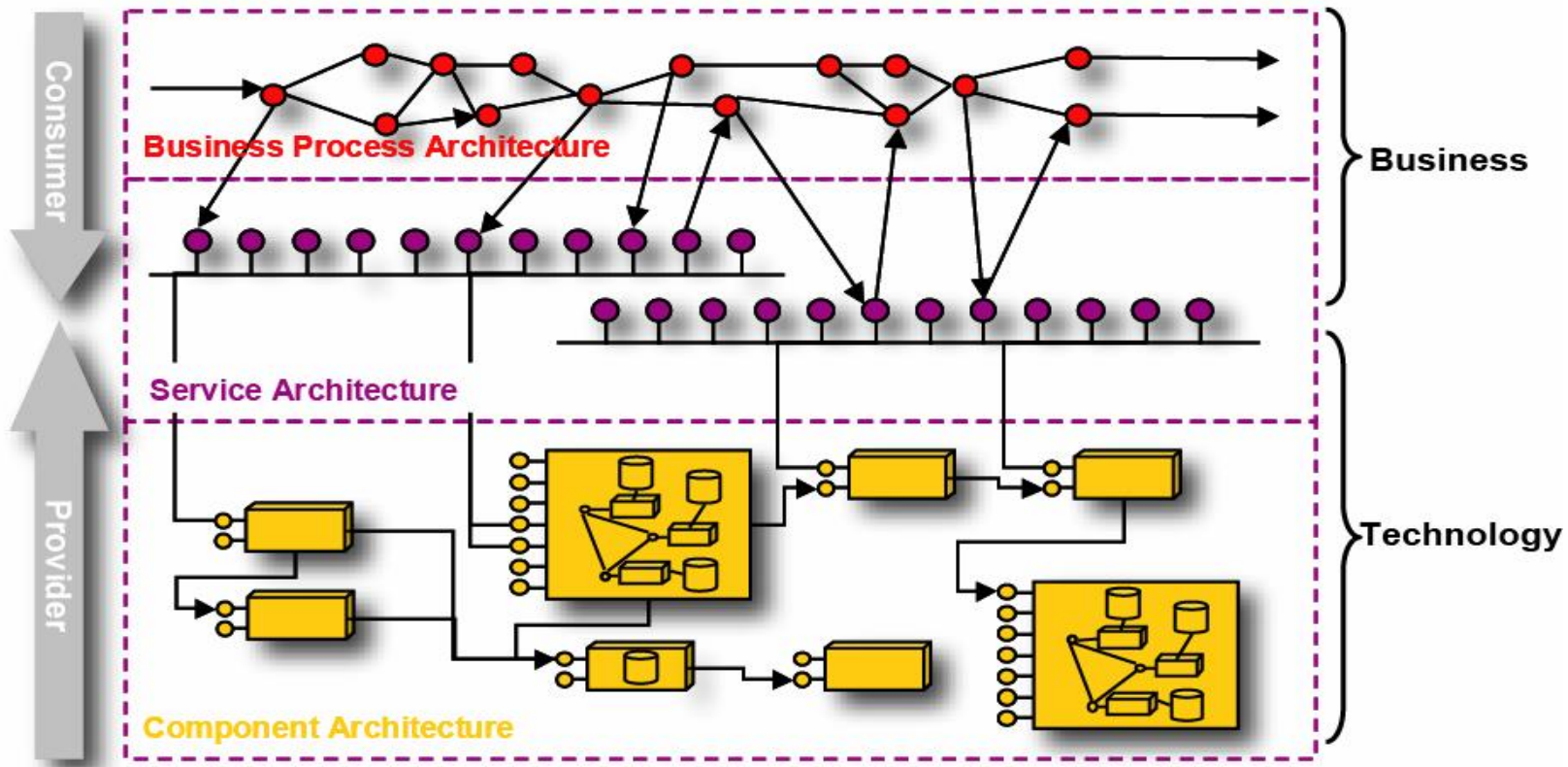


- Integrate a merger or acquisition
- Introduce a customer self-service portal
- Create single views for cross-selling
- Accelerate delivery of new applications
- Enforce compliance

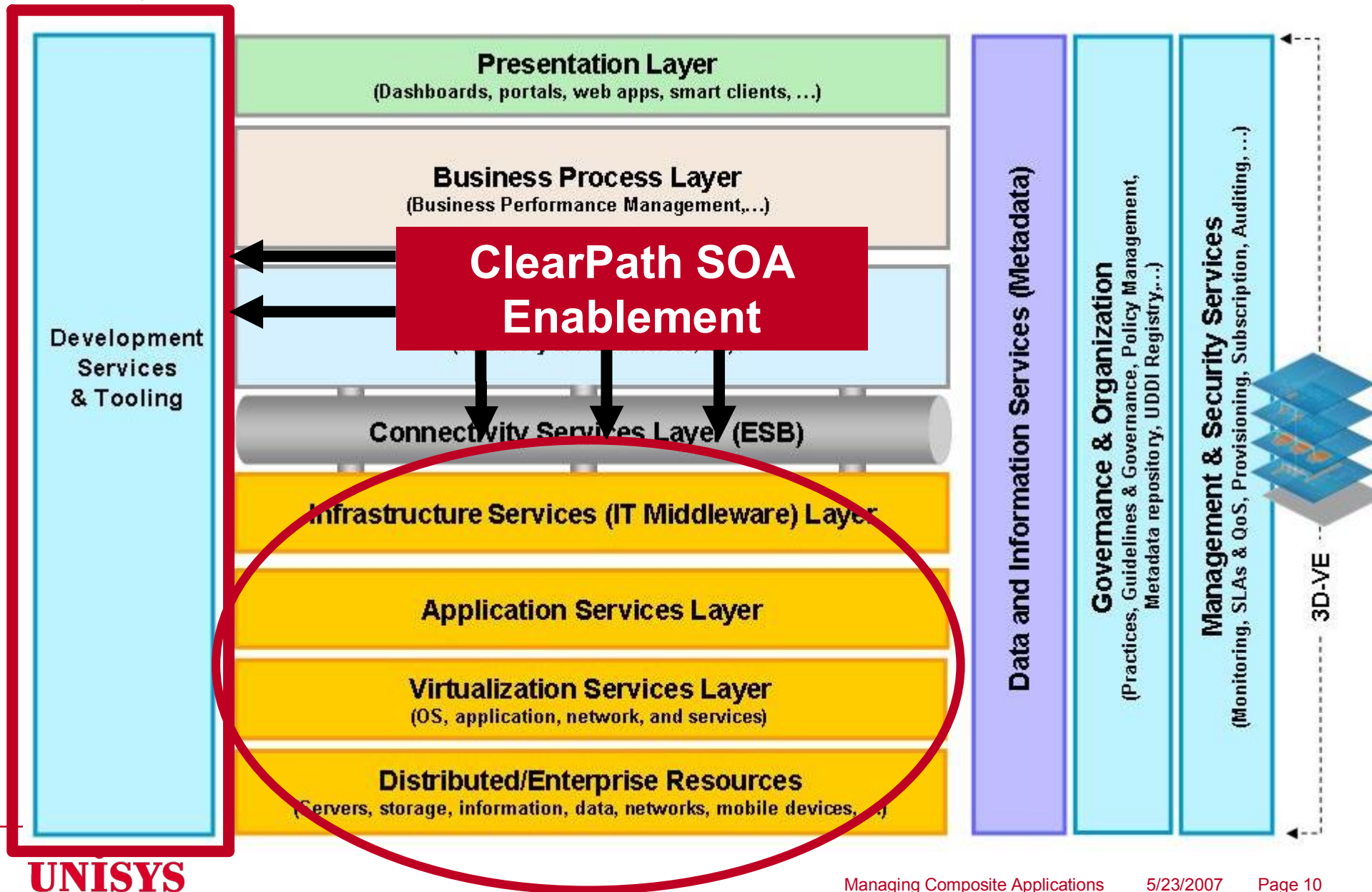
Unisys and Service Oriented Architecture

3D-VE provides a framework and methods to model services at the Business Process, Application, and Infrastructure layers, creating a robust and aligned SOA implementation across the enterprise

3D-VE provides the visibility to identify and define services at the Business and Technology layers



Unisys SOA Reference Architecture



The Role of SCM in SOA

- SOA Business Services are naturally heterogeneous
- Failure to use best-in-class solutions will expose the business to reduced revenue and client dissatisfaction
 - Application deployment failures will escalate rapidly without a corresponding change in management solutions
- Process transparency and enforcement is needed to discipline the organization while keeping distractions to a minimum
 - Automating formerly manual tasks frees resource for business investment
 - Gives developers back their creative freedom

What Is SCM?

Software Configuration Management is the process of controlling the entire life cycle of application development from project start through deployment across your enterprise

Why is Software Configuration Management Important?

- Applications requiring 7x24x365 availability
- Reductions in IT Budgets
 - Do more with less
- Skills availability
- Regulatory changes / Audit Requirements
- Competitive pressures
- Application Deployment Failures
 - Production recovery very costly
 - Loss of market share / image / revenue
- Emergence of SOA strategies as a mega trend

Business Challenges.

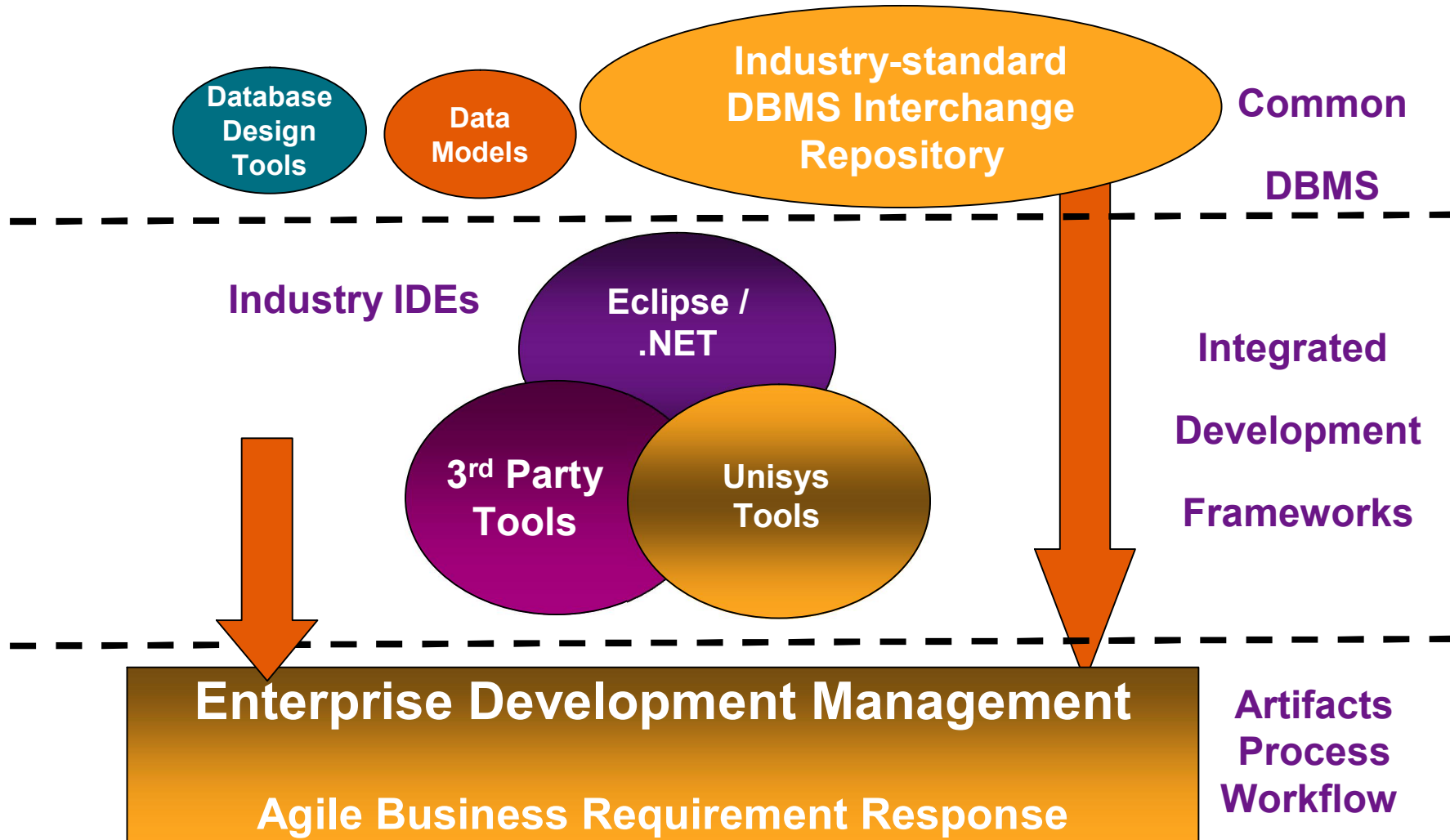
- Accelerated Time-to-Market / Services Pressures
- IT leveraged to drive business benefits and market differentiation
 - Customized business processes
 - Unique packaging / pricing
 - Partnering for strategic advantage
- New business channels
 - Mergers a large impact
- Speed and quality are contradictory... but necessary

IT Issues in Application Development.

- Inflexibility -
 - Inability to rapidly adapt to new business needs
 - Lack of common processes across all application architectures / development organizations
- Low IT developer productivity / manual processes
 - Higher costs
- Management control of multiple development technologies for SOA enabling of strategic business applications
- 40% of projects fail to meet objectives (Gartner)

Leveraging Industry Skills & Toolsets

ClearPath Enterprise Development Strategy



Key Attributes of SCM

Visibility

Integrity

Repeatability



Unisys SCM Portfolio

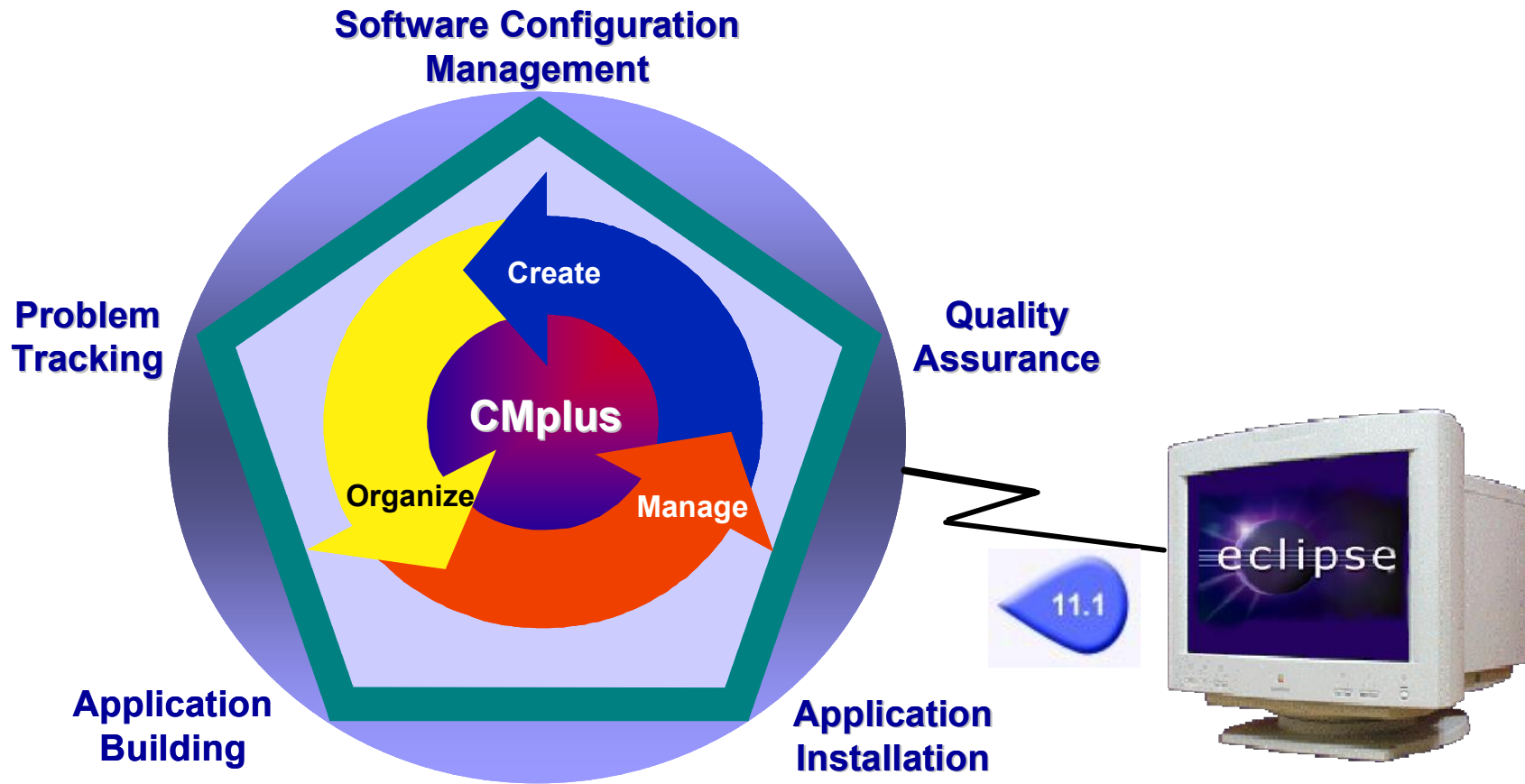
MCP
3GL & 4GL

SURE
MCP
Windows
Unix/Linux

OS2200
3GL

CMplus
OS2200 +
Eclipse
All-in-One

CMplus for Life-Cycle Management



Eclipse IDE for OS 2200 Composite Applications

Pre-integrated all-in-one package

Mix-n-match functions:

- Modeling
- Coding
- Deployment



Plug-ins:
Unisys-built and off-the-shelf
(tested by Unisys)

Web Tools Project

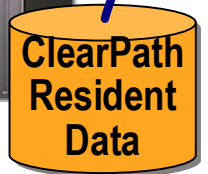
SQLExplorer

COBOL & C code

Telnet Console

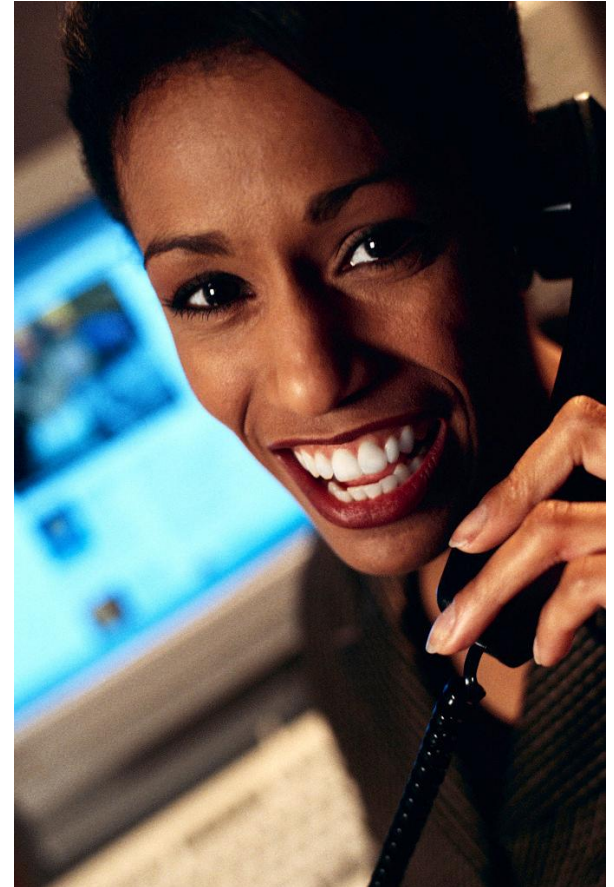
OS 2200 Composite Application

Unisys Logging & Diagnostics



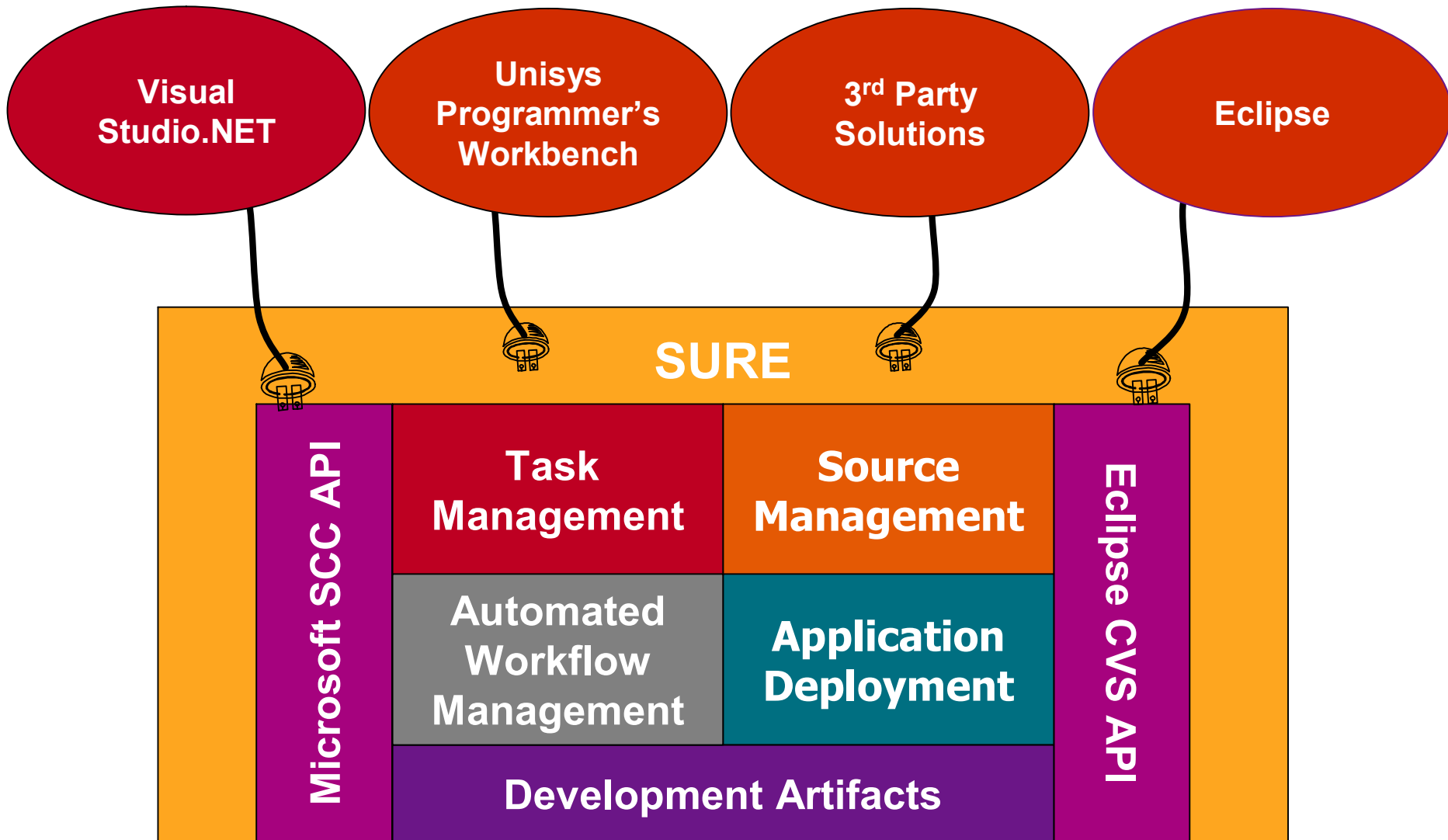
SURE

- An enterprise-wide Software Configuration Management solution for:
 - ClearPath MCP
 - Windows, Linux, Unix (NET, Eclipse, J2EE)
- Automation improves quality while speeding development
- Lowers the risk of a development project not meeting business goals
- Supports regulatory compliance
- Infrastructure for a common, repeatable development process
- Controls both development and deployment for the total environment



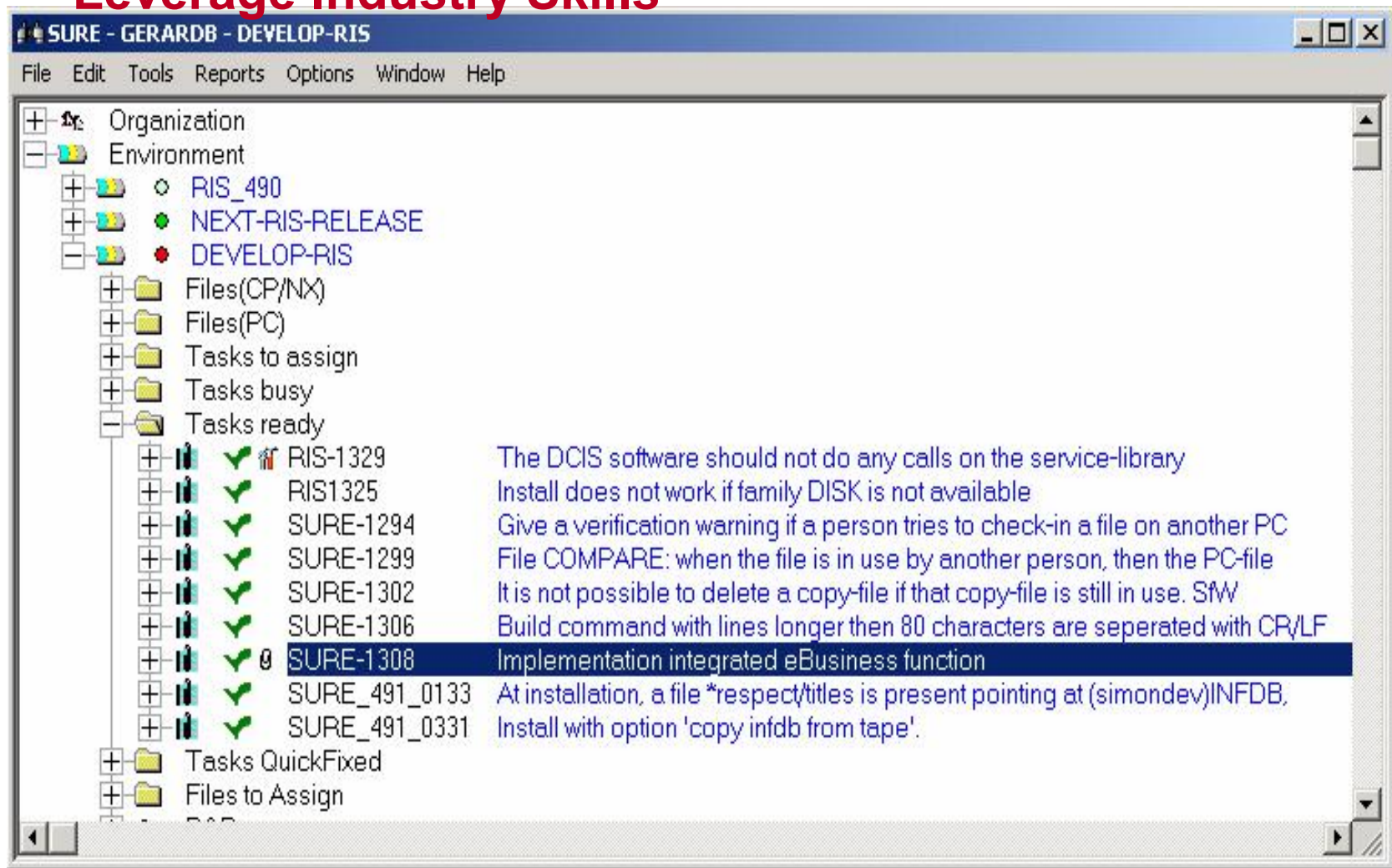
SURE for MCP Development

Ideal for Composite Applications



SURE - Explorer User Interface

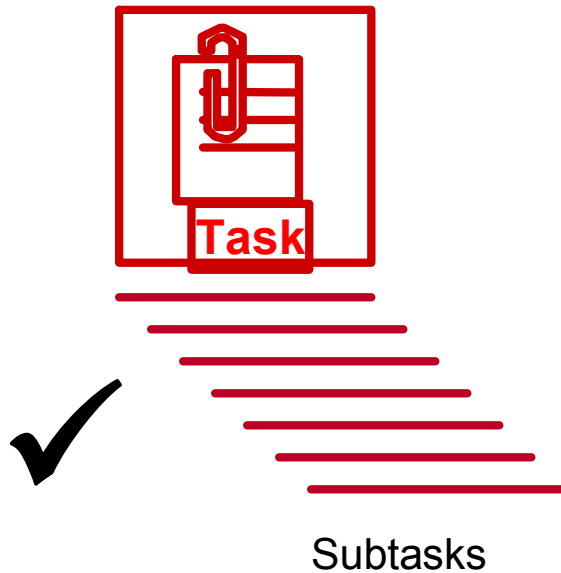
Leverage Industry Skills



New Users Productive in 4 hours

Integrity

Insure that heterogeneous components of projects are completed at the same time as planned



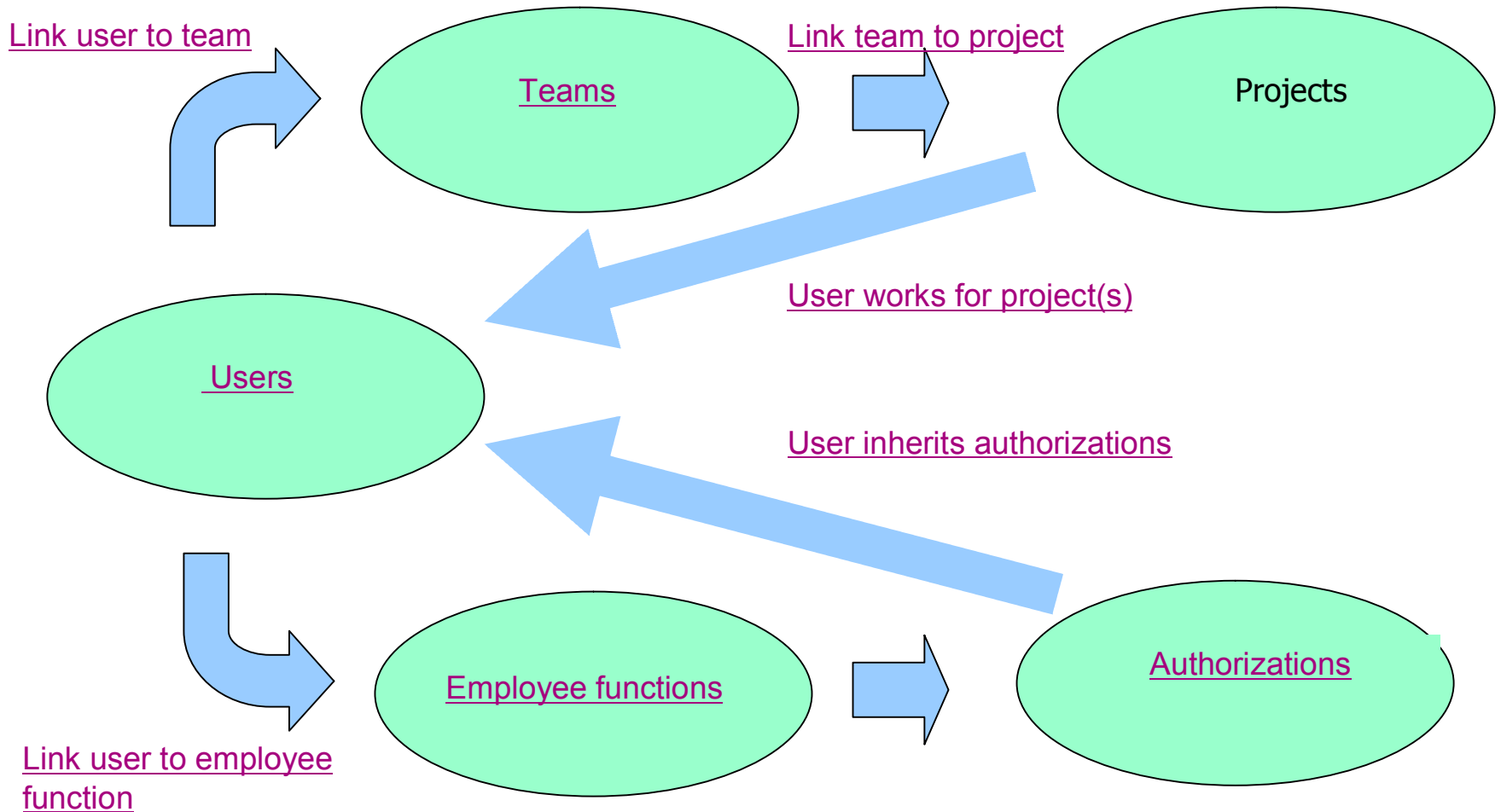
**Task = Logical Unit
of work**

**All subtasks
must complete**

**Tasks are moved
not files**

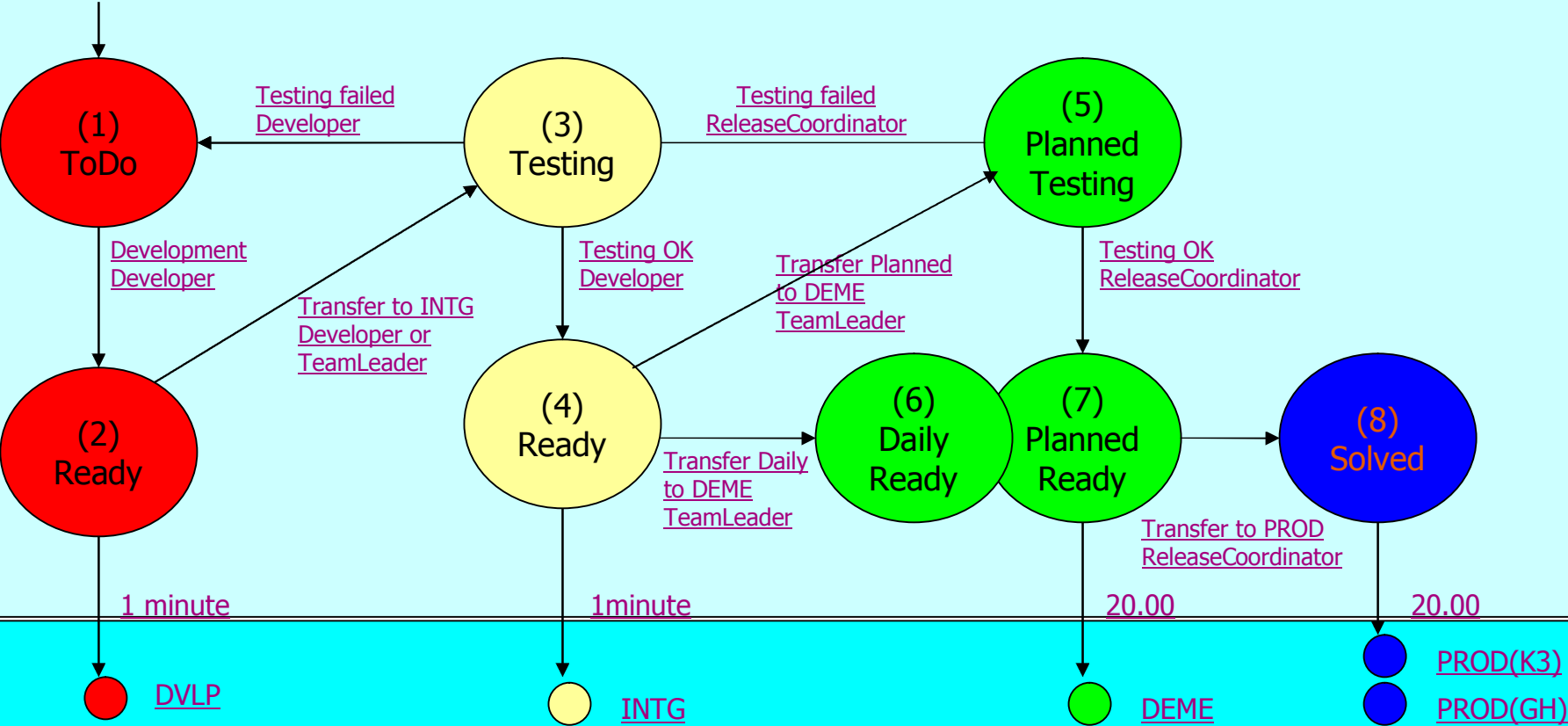
**Automation
not manual
processes**

Team Organization and Roles

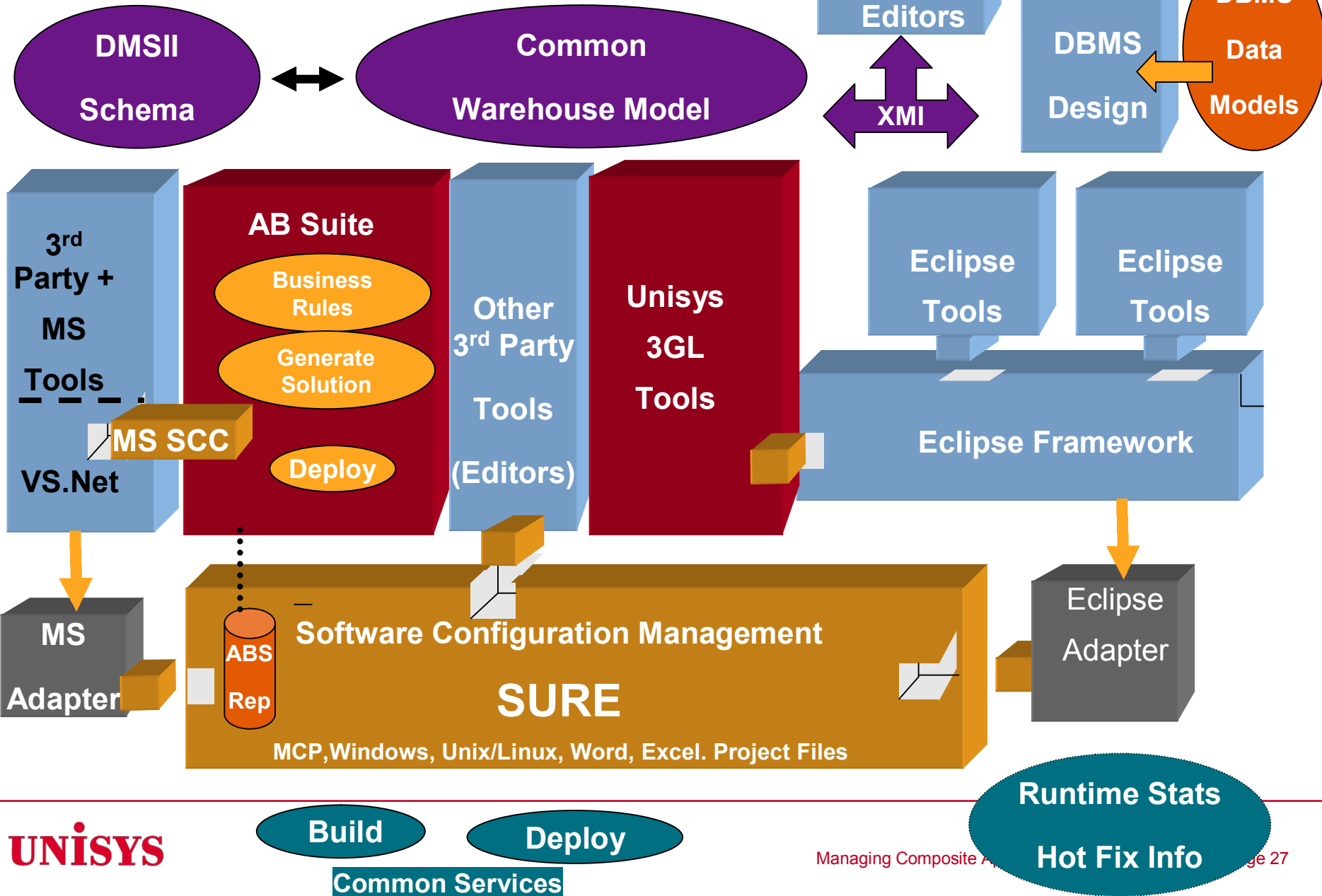


Your Custom Processes in SURE

Task Creation
TeamLeader or
DepartmentManager



Enterprise Visibility



Environments and Tasks



Independent slots but visibility for team communications and management reporting

Tasks have unique identity for tracability

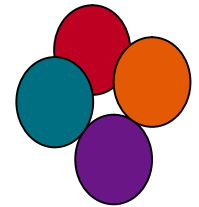
Reverse direction to resolve issues – test failure for example- move task back to Development

Development

Test

Production

Coordinating Multiple Projects



Applications



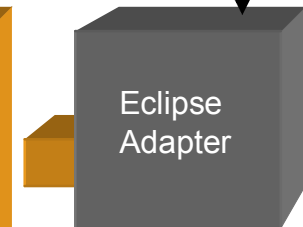
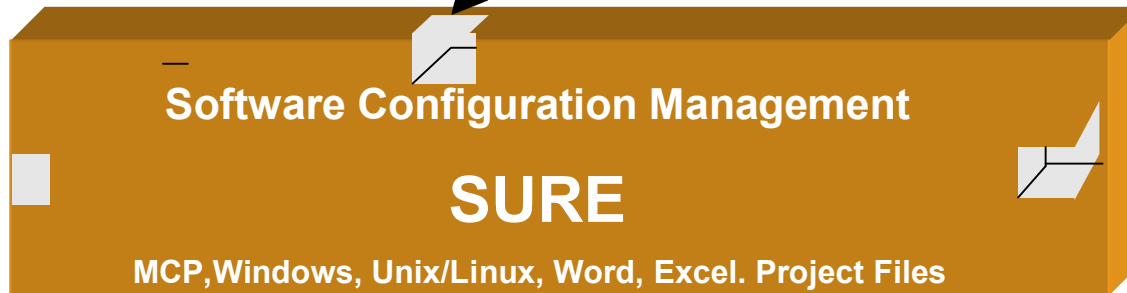
Task

More on this in a minute

ClearPath ePortal
Web Service via
orchestration of
Multiple
transactions

Change
Field length
in DMSII &
Coordinate
Reorg

Java SOA
wrapper
for Cobol
Transaction



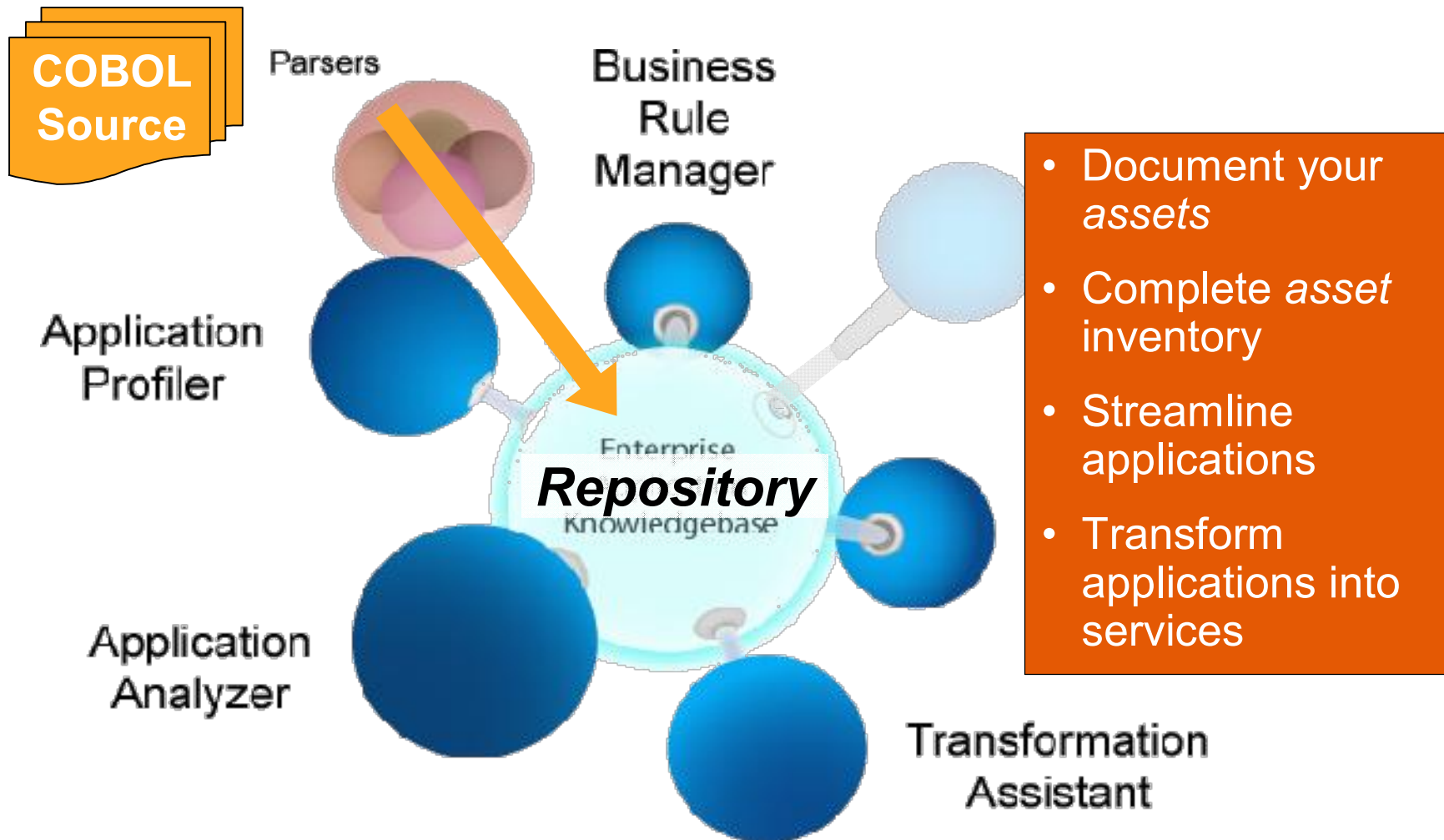
Some Additional Application Management Issues

Using SCM to manage Core Business Application Transformation

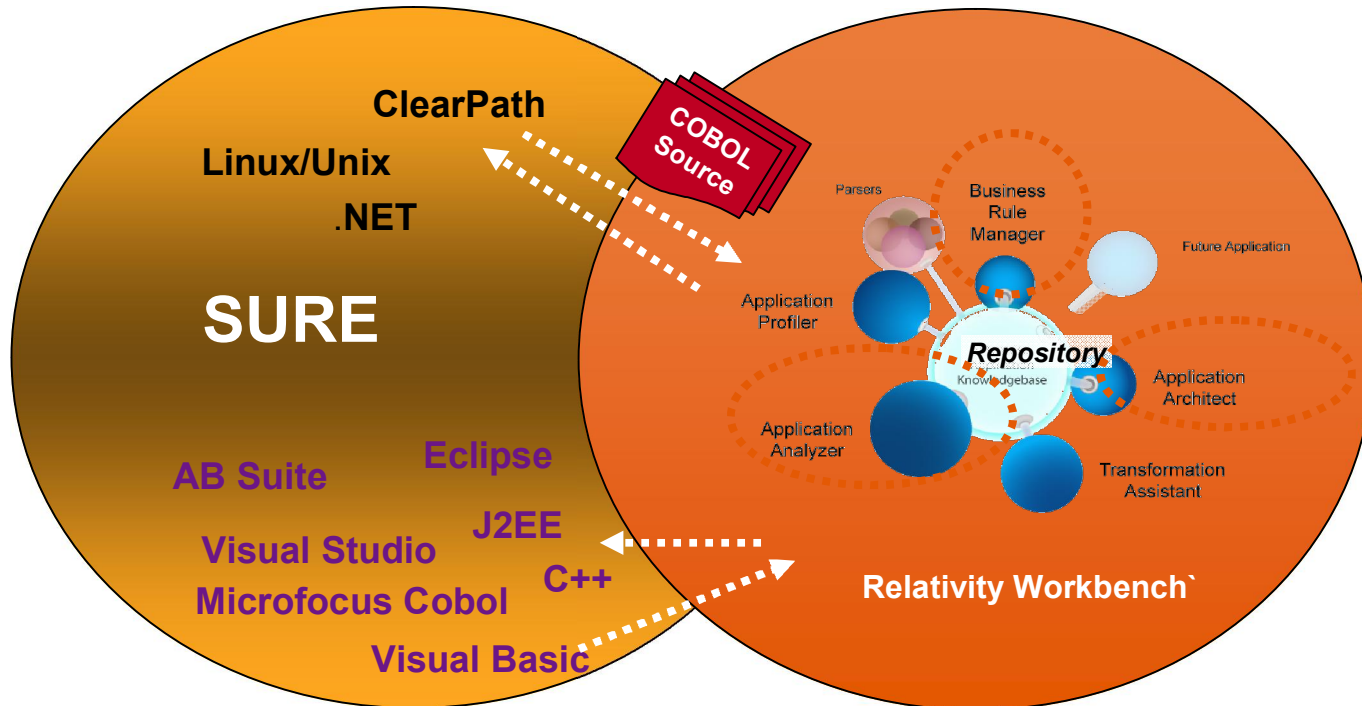
Have You Ever Heard Any Of The Following from a Client?

- We want to begin moving to SOA but we don't know how to update our applications while we run our business
- Our complex enterprise applications are too large and impossible to understand
- So many different people have maintained our applications that we don't know which parts of the code actually operate and which parts are obsolete
- We need to modify and leverage our applications, but cannot estimate the impact or time to make the required changes
- We do not have enough staff to maintain or modify our applications

Relativity Modernization Workbench™



Managing MCP Application Transformation



Holistic Enterprise Framework
Supports Application Development & Transformation

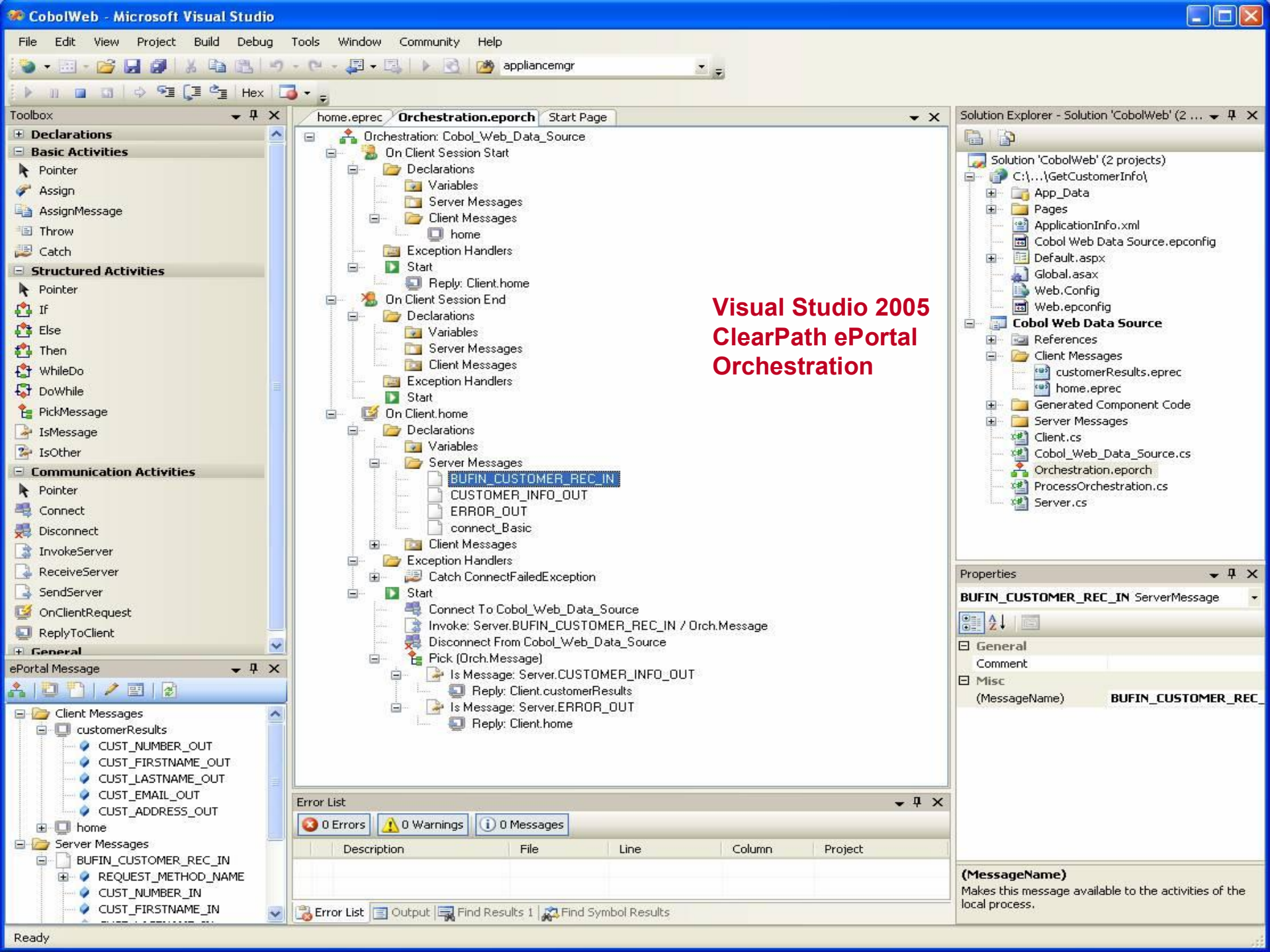
ClearPath ePortal

Building secure deployments of Web Services for SOA
Enablement

ePortal Developer

- Microsoft Visual Studio 2005 plug-in
 - Automatic web, mobile and web services solution generation
- Leverages Visual Studio 2005 development capabilities
 - World-Class development environment
 - Simplified and powerful web, mobile, web services development experience
 - Supports of the latest industry standards





Enterprise-class Blade Platform

- Enterprise-class Blade Platform
- 4U rack mounted chassis each supporting up to 6 blades
- Fully redundant (n+1 power, cooling, network switches, and blades)
- Hot-swap replacement of all major components
- Multiple chassis per system



Personality Module Blade Appliance

- Application specific, enterprise-class blade
- Implemented as "black-box" appliances
- Can be configured into fully redundant "virtual servers"
- Hot-plug replaceable
- Preloaded and configured for optimal performance and security
- Software and configuration centrally maintained

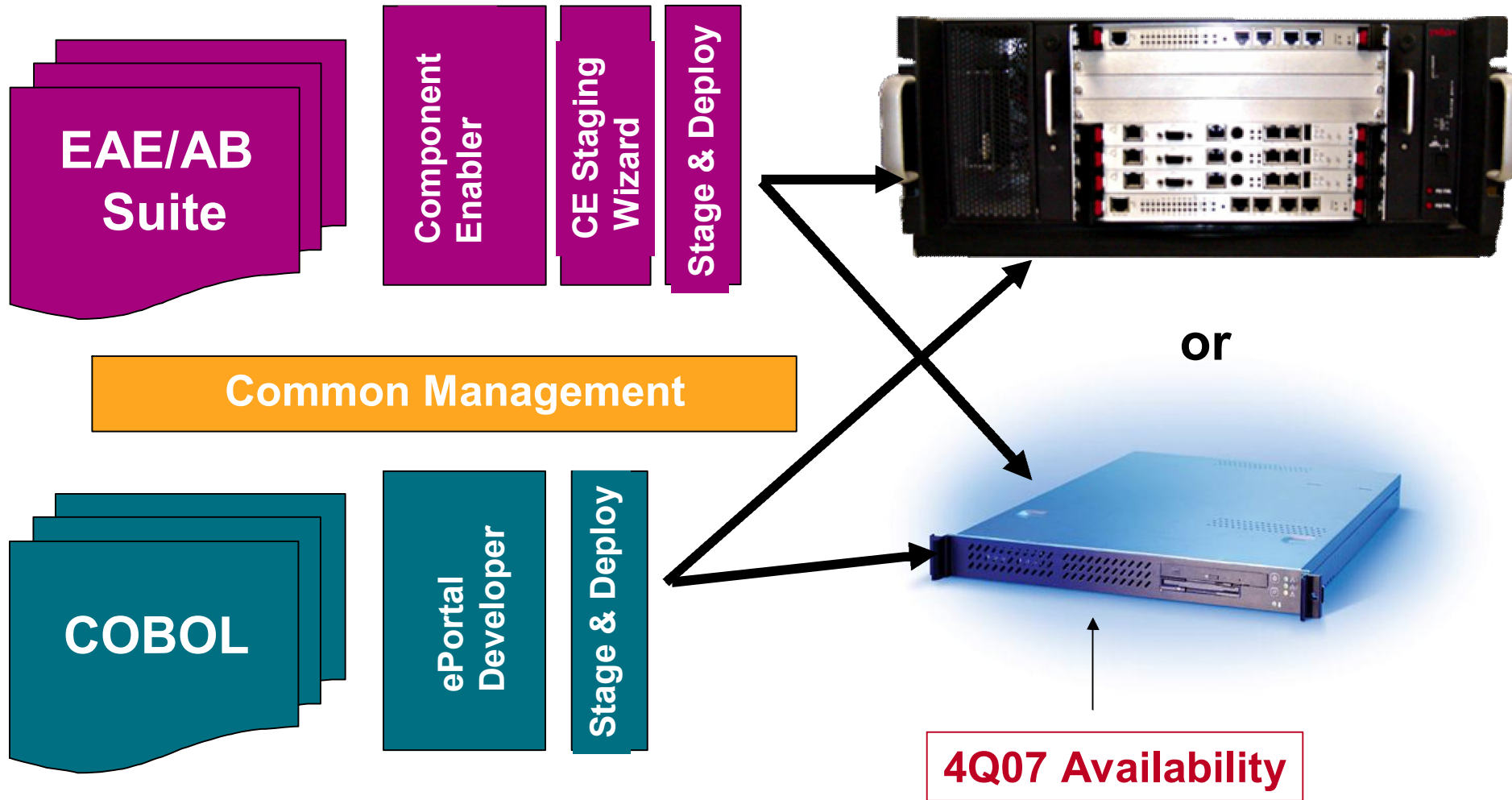


Entry Level ePortal Appliance

- 1U rack-mountable form factor
 - Dual core
- Supports ~800-1000 concurrent users
- Upgrade to enterprise ePortal chassis with minimal downtime/configuration changes
- Retains appliance attributes
 - Secure, auto load/config, performance optimized
- Reduced RAS characteristics



COBOL, EAE / AB Suite w ClearPath ePortal



ClearPath ePortal Platform

- Loads the OS, Environmental Software and the Applications automatically
- Pre-configured switches and all network settings
- Flexible hardware provisioning
- Tuned for optimal performance
- "Best-Practices" security implementation/ongoing monitoring
- No single point of failure** – automated network and server failover, automated network and application load balancing
- Automated upgrade process for OS and applications

** Enterprise Only

Management Environment

- Provides browsed-based management
- Point-and-Click simplicity
- Responsible for deployment and monitoring of the run-time solution
- Virtual Server definition and management - single-click deployment
- Software deployment and updates w/zero application downtime
- Consolidated monitoring

ClearPath ePortal Manager - Microsoft Internet Explorer

Address: http://192.63.231.110/

ClearPath ePortal

Refresh | Log Off | Help

Management

- Health Monitoring
- Applications
- Virtual Servers
- Personality Modules
- Chassis
- Controller
- Back-End Servers
- Alerts
- Events
- Preferences
- About

Health Monitoring

View System alerts and status.

Pending Alerts

Category	Count
✓ Application	0
✓ Hardware	0
✓ Security	0
✓ System	0

Controller

Name	Pending Alerts	Service State	Time
✓ PMCONTROLLER30	0	Normal	7/7/2005 10:56:30 AM

Virtual Servers (None)

Personality Modules

State	Count
Ready/Unassigned	4

Back Refresh Auto Refresh 7/7/2005 10:56:30 AM

SCM Key Benefits

- Enhance developer productivity while retaining choice of tools
- Improve quality while accelerating development to deployment cycles
- Coordinate software changes across distributed environments and tools for SOA projects
- Gain control and flexibility
- Auditor and regulatory compliance reporting
- Manage all enterprise artifacts in a single process model



ClearPath ePortal Deployment & Management Demonstration