The South African EA Forum

Signup form for The Open Group – South Africa

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THE *Open* GROUP

Leading the development of open, vendor-neutral IT standards and certifications

Forums
- Architecture Forum
- ArchiMate® Forum
- Identity Management Forum
- Jericho Forum®
- Management Forum
- Platform
- Real-time & Embedded Systems Forum
- Security Forum
- Trusted Technology Forum (TTF)

Industry Forums
- Exploration, Mining, Metals & Minerals Forum

Work Groups
- Business Architecture
- Cloud Computing
- Quantum Lifecycle Management (QLM)
- Semantic Interoperability
- Service Oriented Architecture

TOGAF next work streams

- TOGAF next Part 1 - the continued effort to create a clear, cohesive, comprehensive & consistent EA Framework

- TOGAF next Part 2: Guide to Architecture for the purpose of Strategy, Project, & Program - the effort to craft a how-to guide aimed at the leader of an EA Team

- TOGAF next Part 2: Guide to Business Architecture - the effort to craft a how-to guide for the business architecture domain

- TOGAF next Part 2: Guide to Application Architecture - the effort to craft a how-to guide for the application architecture domain

- TOGAF next Part 2: Guide to Data/Information* Architecture - the effort to craft a how-to guide for the Data/Information architecture domain

- TOGAF next Part 2: Guide to Information Technology Architecture - the effort to craft a how-to guide for the information technology architecture domain

- TOGAF next Part 2: Guide to High Assurance Architecture - an effort just starting to craft a how-to guide for the high assurance - this guide is being led as a separate initiative by the RTES Forum.

- TOGAF next Security Project - this is an associated initiative by the Security Forum to ensure Security & Risk are properly integrated in Part 1 & the 4 Architecture Forum Part 2 guides

Application Portfolio Management

❑ At this month's EA Forum, Anthony Ducci will talk about using a pragmatic, business driven approach to Application Portfolio Management. The approach provides quick returns by identifying application overlap and redundancy. The presentation will also touch on industry reference models and application life-cycle management.

❑ Anthony is an EA consultant at Real IRM. He has over 8 years of experience in EA, with a specialist focus on modelling tool implementations for EA capabilities across a number of toolsets and industries.

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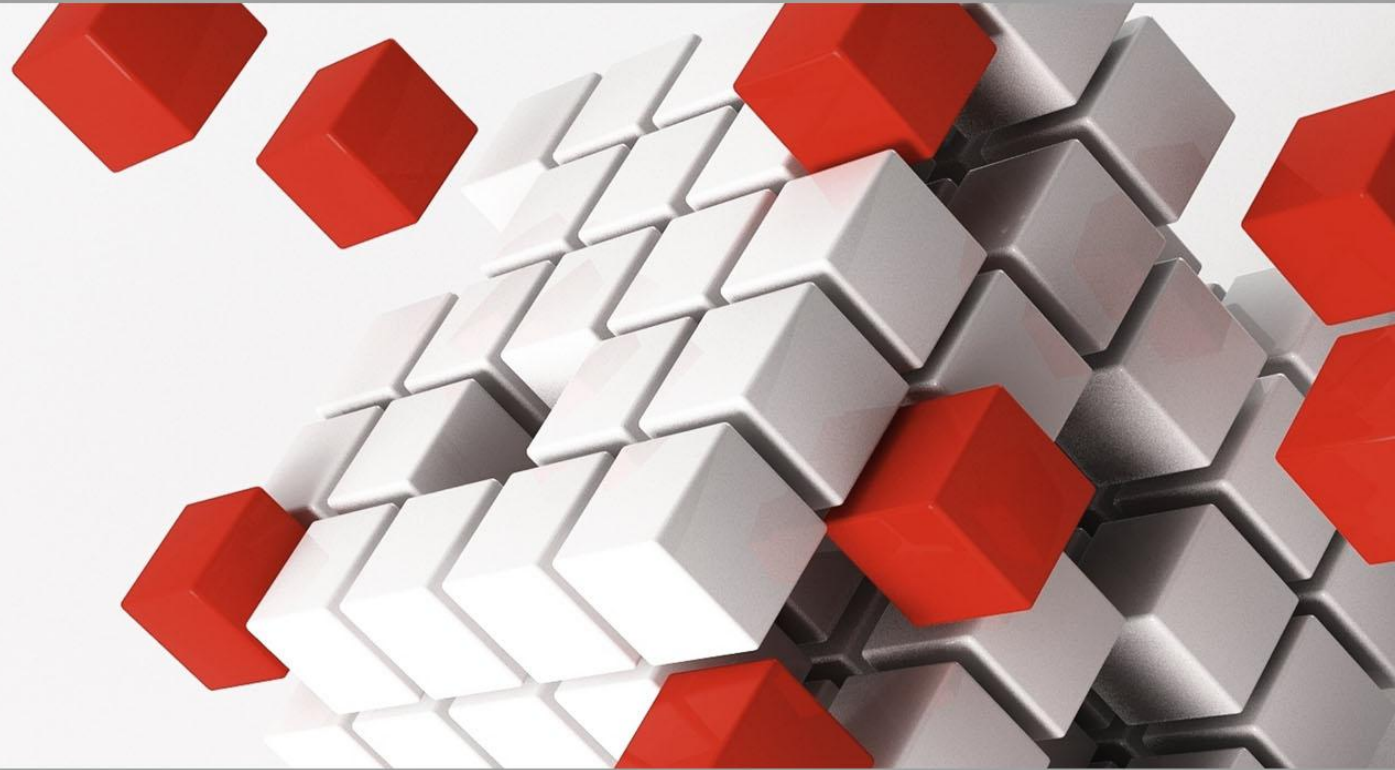
Application Portfolio Management

realIRM©

About Real IRM

- Real IRM was established in early 2001 and has grown in capability and reputation to become a leading enterprise architecture specialist.

- Technology agnostic

- We offer a comprehensive portfolio of products and services worldwide, including enterprise architecture consulting, technical, outsourced and training services.

Real IRM – Architecture Toolset Experience

- Dedicated technical toolset team
- Consulting, training and technical experience with a wide variety of tools
- Tools used
  - Abacus (Avolution)
  - Archi (Freeware)
  - ARIS (Software AG)
  - Casewise
  - Enterprise Architect (Sparx)
  - EPF / EMF (Eclipse Foundation)
  - Essential (Open Source)
  - iServer (Orbus)
  - Mega
  - Power Designer (Sybase)
  - Protégé
  - System Architect (IBM)

Portfolio Management - Order or Chaos?

Introduction

- **Application Portfolio Management**
  - Provides an **inventory** of the company's software applications and defining **metrics** to illustrate the business benefits of each application.
  - Ensure you have the right applications fulfilling the right capabilities

  Topics Covered
  - Understanding the Need - *why is APM Important to your organisation*?
  - Capturing the Content - *what is so hard about maintaining a list of applications*?
  - Establishing a Sustainable EA practice – *adding true value!*
  - Resources along the way.
    - Reference models
    - Best Practices
    - Tools and Techniques
    - Key Learning's

Key EA Focus Areas – survey

Primary EA Focus Activities
(200 Enterprise Architects)

- Other 10%
- Mobilizing the workforce 5%
- Data center consolidation 5%
- Cloud migration/transformation 11%
- Business consolidation and/or restructuring 33%
- Application portfolio rationalization 36%
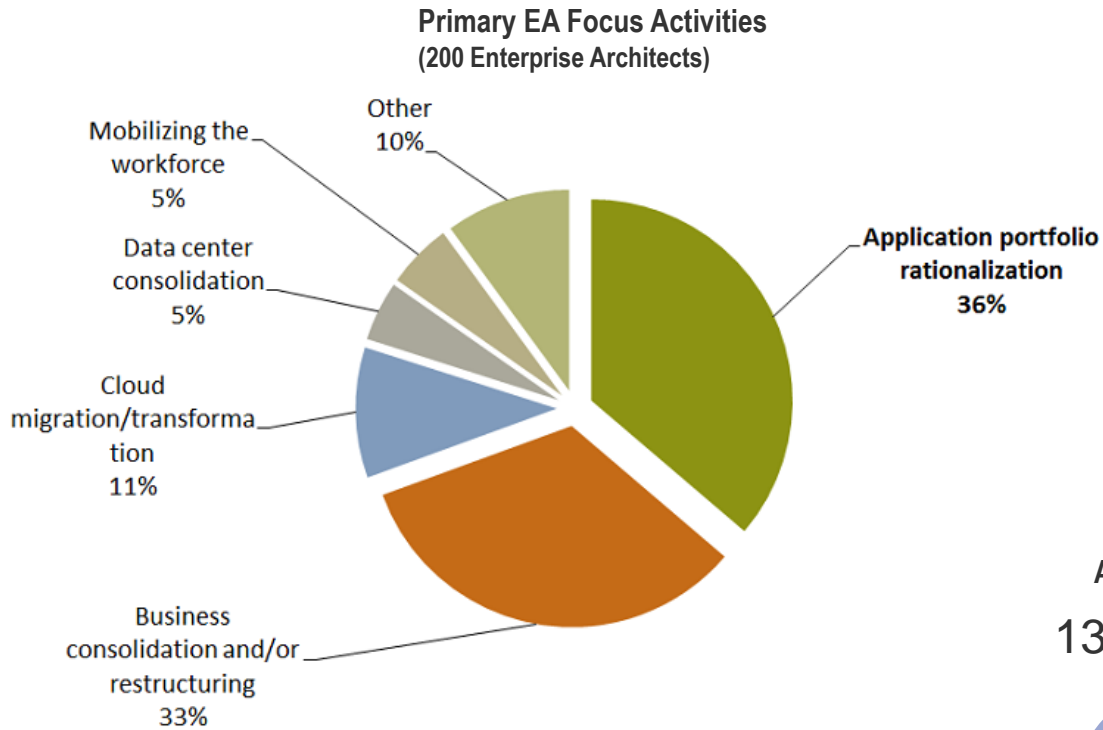
Source: 2011 Architecture and Governance Magazine Survey

Application Portfolio Management

- 13%
- 60%
- 27%

- Already Underaway < 12 Months
- Planned < 2 Years
- No Forseeable Activity
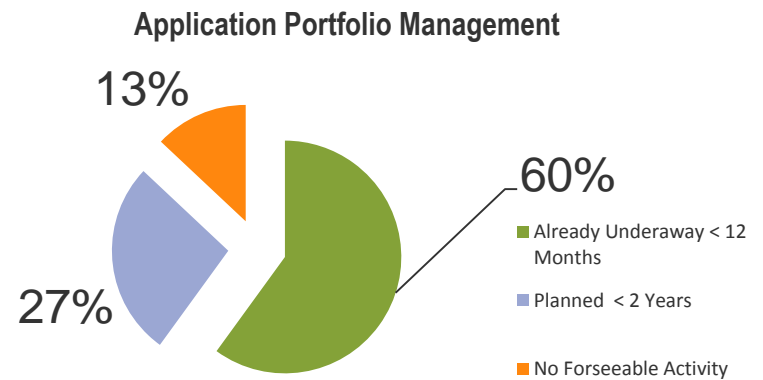
Application Portfolio Management – Landscape

Importance to the Business

User Base?

License Cost?

Who is Business Owner

Who is the Technical Owner?

Supported Business Functions

Applications Cost

Understand Requirement

Skills required to operate and maintain

What other applications are Dependant?

…

Define what is an application?

How do you refer to your applications?

Aspects to which you classify?

What is the meta-model for Architecture?

Application RACI?

How is information captured?

What Tools?

Measure

Operating model?

Socialise information between IT and Business?

Drive Sustained Sponsorship?

Innovative ways to share the information?

MANAGE

Alignment between Business and IT

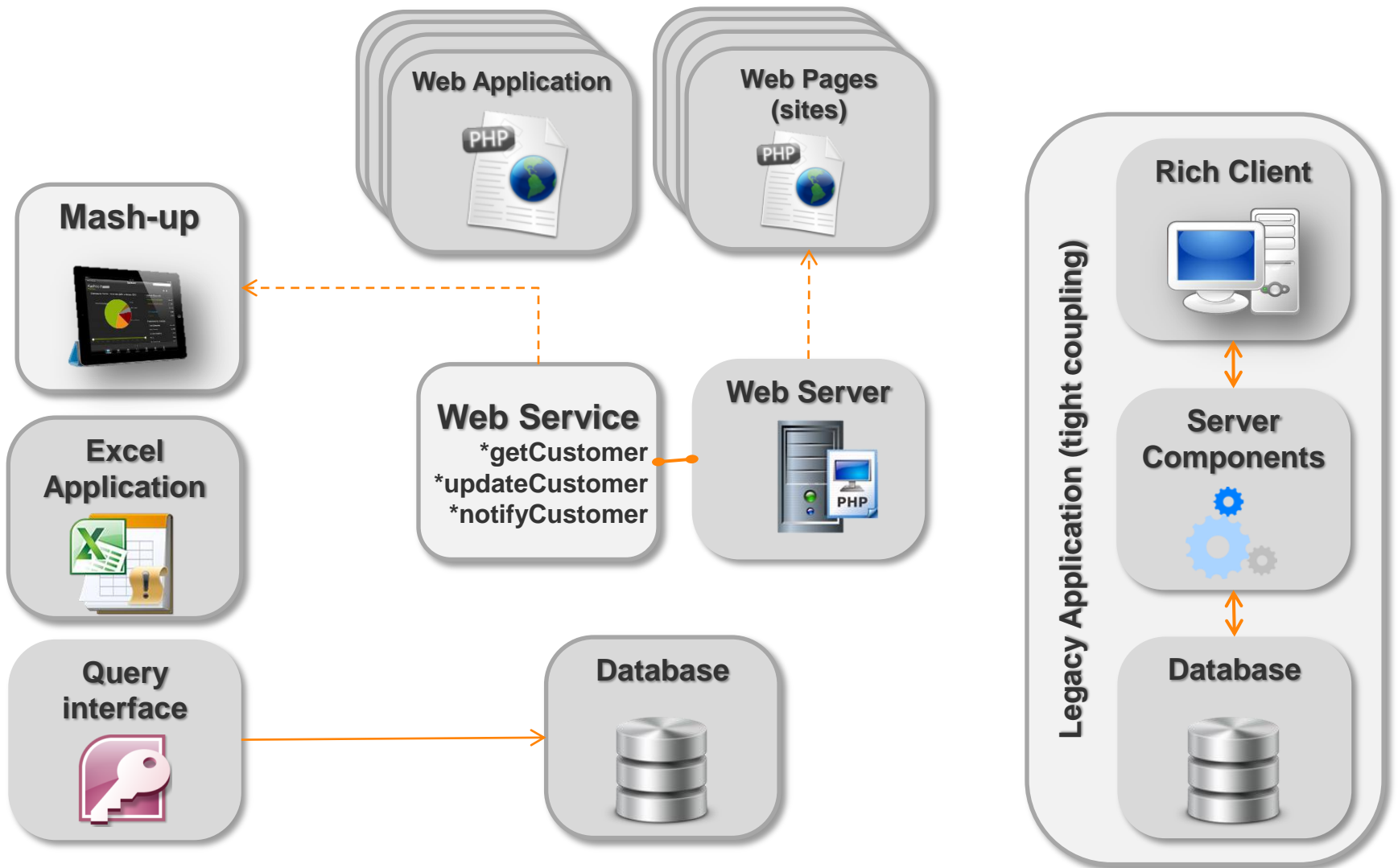Application Rationalisation

Cost Savings

…

Understand the Requirement

- Based on the "Questions"
  - Application identification and classification
  - Evaluation of strategic positioning of applications, e.g. understand business benefits
  - Application rationalisation and allocation of costs
  - Performance reviews and management support of application owners
  - Better targeting of user training
  - Comprehensive lifecycle management for applications
  - Better understanding of interface between applications
  - Determine development priorities
  - Identification of future application development needs
  - SDLC?
  - …

Define a Business Application

Mash-up

Web Application
PHP

Web Pages
(sites)
PHP

Excel
Application

Web Service
*getCustomer
*updateCustomer
*notifyCustomer

Web Server
PHP

Query
interface

Database

Legacy Application (tight coupling)

Rich Client

Server
Components

Database

# Application Categorisation - metrics

- **Type**
  - Business Application
  - Technical Application
- **Business Functionality**
  - Business to Customer(B2C) Applications (customer facing)
  - Business to Business (B2B) Applications
  - Internal Applications
  - Administrative Applications
- **Usage Profile (how and where the application is run)**
  - Front End Application (typically via GUI)
  - Background Application (background processing)
  - Service Based Application/Interface (integration point)
- **High Level Functions/Capabilities supported**
  - Enterprise Support
  - Billing System
  - HR System
- **Pace Layering** (shearing Layers) –*Gartner*
  - **Systems of Record —** Established packaged applications or legacy home-grown systems that **support core transaction processing and manage the organization's critical master data**. The rate of change is low, because the processes are well-established and common to most organizations, and often are subject to regulatory requirements.
  - **Systems of Differentiation** — Applications that enable **unique company processes or industry-specific capabilities**. They have a medium life cycle (one to three years), but need to be reconfigured frequently to accommodate changing business practices or customer requirements.
  - **Systems of Innovation** — New applications that are built on an ad hoc basis to address **new business requirements or opportunities**. These are typically short life cycle projects (zero to 12 months) using departmental or outside resources and consumer-grade technologies.

Measure

Application Capabilities – Industry Reference Models

Frameworx TAM
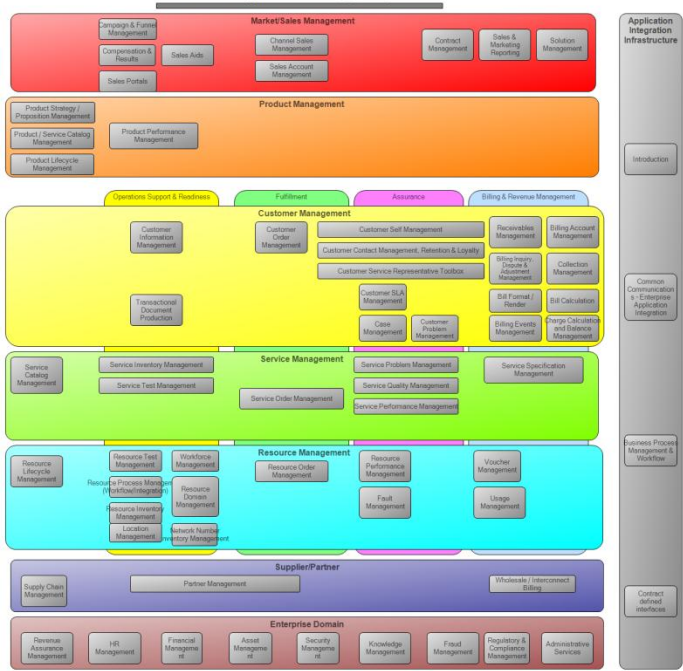
The Open Group EMMM Capabilities*

* Members Only - http://opengroup.co.za/emmm
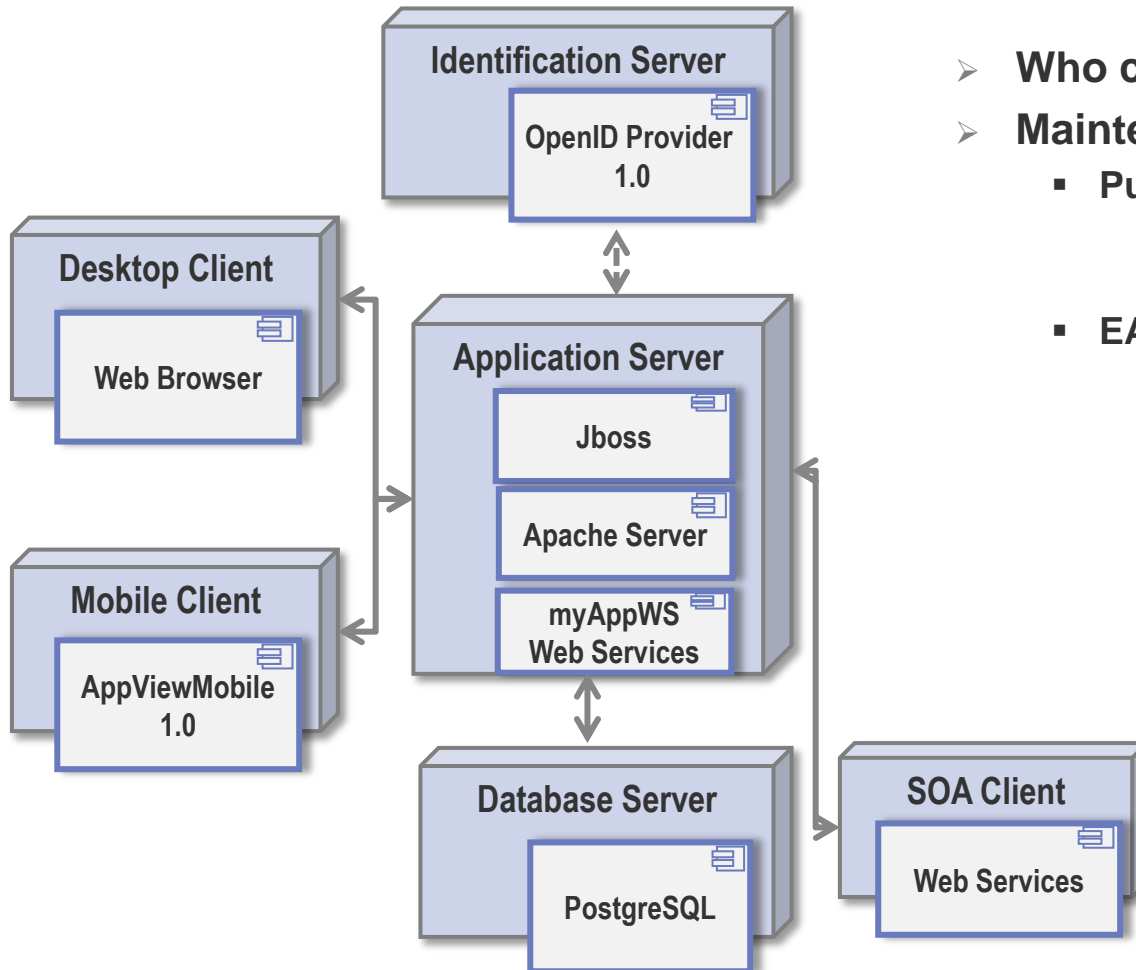
Business Capability Mapping
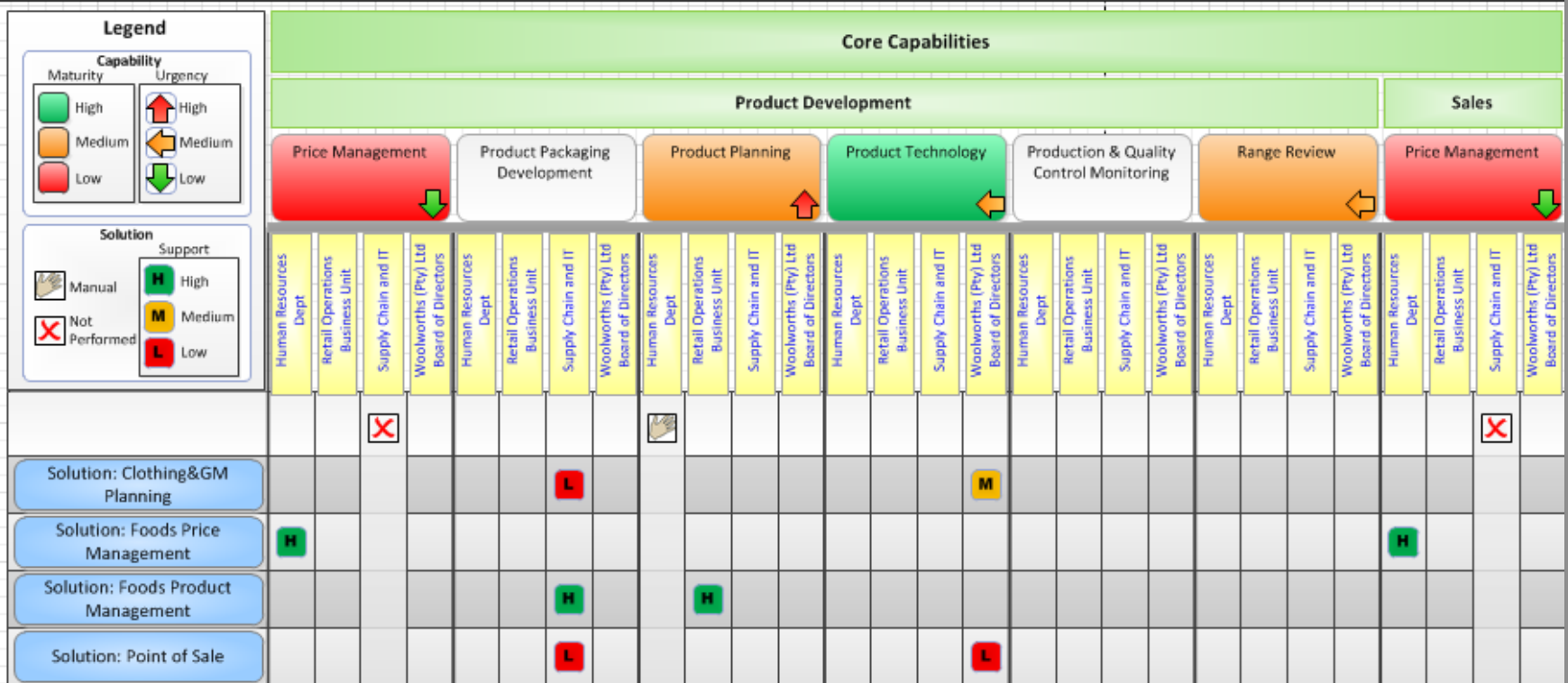
Application RACI

➤ **Ownership & Responsibility**

- Users only care about things that relate to them!
- Explicit ownership is needed
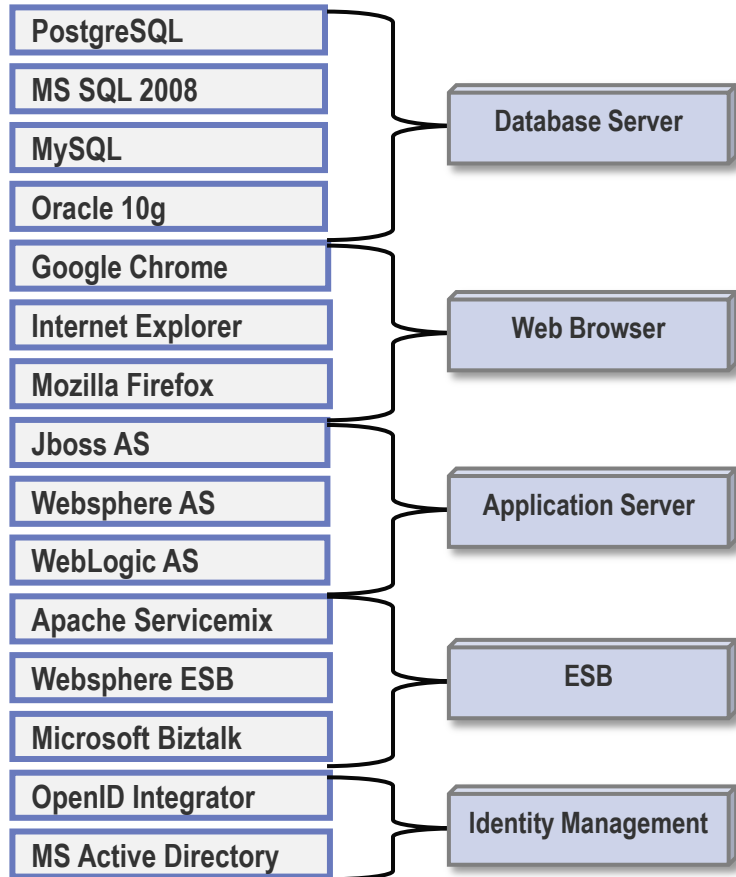- Challenging task to assign ownership initially

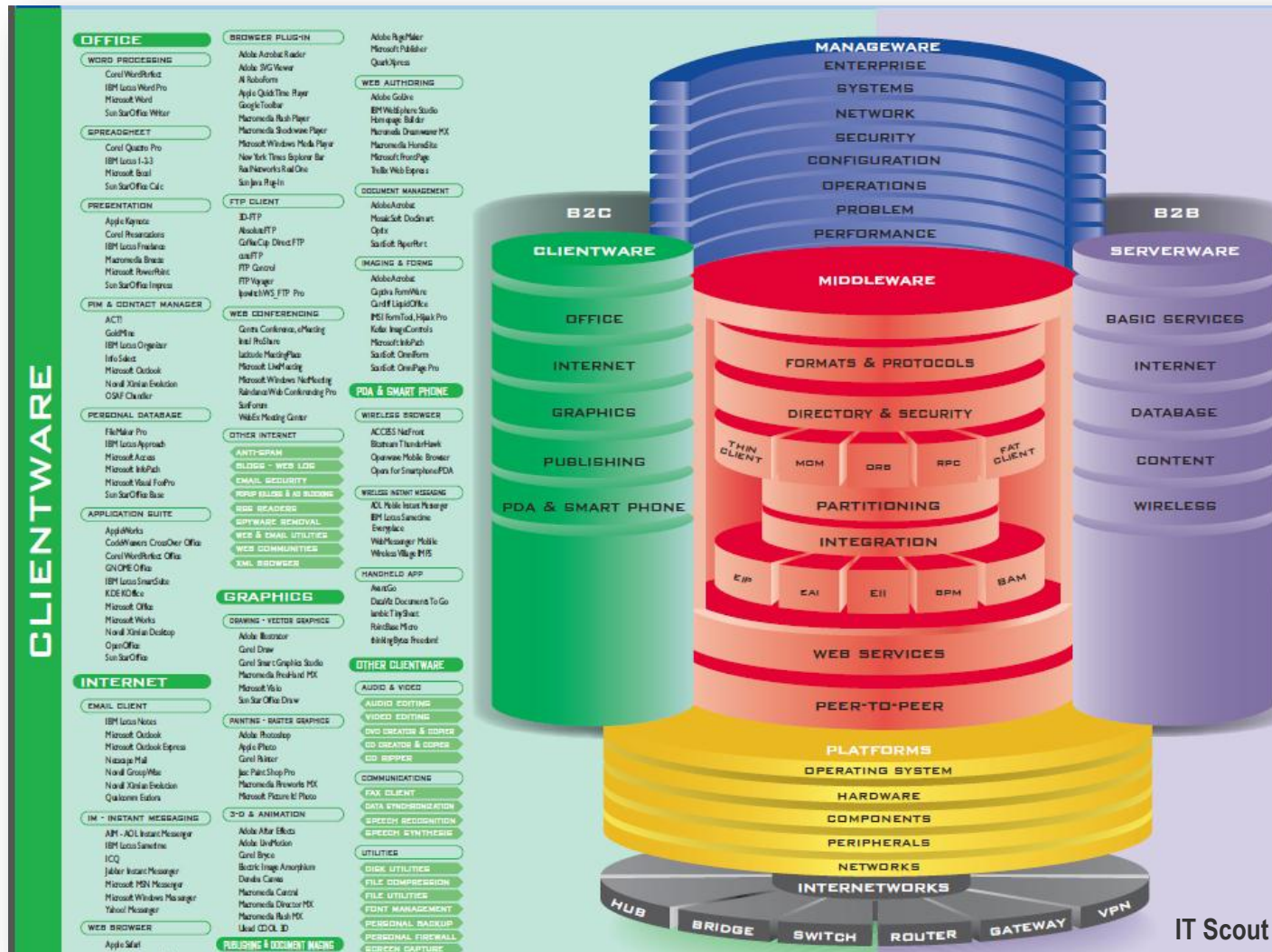| Information Technology		Business		Third Parties
Enterprise Architect	Technical Owner	Business Application Manager	Business Owner	Supplier
System Designer	System Developer	SME	Operator	Manufacturer

Measure

Application Stack

- ➢ **Who captures the content**
- ➢ **Maintenance?**
  - ▪ **Publish to intranet**
    - – **Model feedback?**
    - – **Live updating**
  - ▪ **EA Team**
    - – **Requires understanding**
    - – **Additional licenses or Staff to maintain content.**

Diagram labels:
- Identification Server — OpenID Provider 1.0
- Desktop Client — Web Browser
- Mobile Client — AppViewMobile 1.0
- Application Server — Jboss, Apache Server, myAppWS Web Services
- Database Server — PostgreSQL
- SOA Client — Web Services

Understand the Information Model

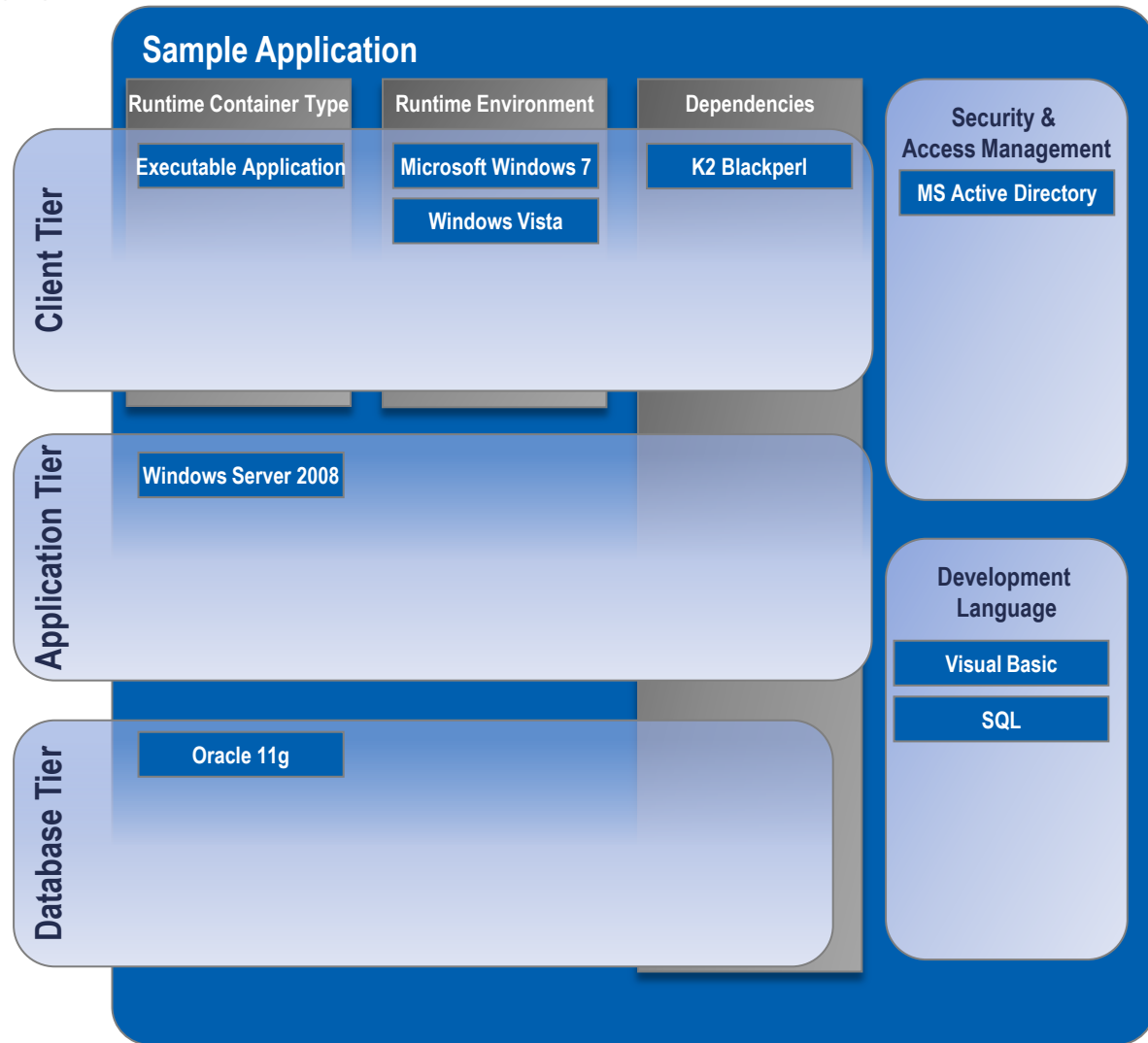|	
PostgreSQL	
MS SQL 2008	Database Server
MySQL	
Oracle 10g	
Google Chrome	
Internet Explorer	Web Browser
Mozilla Firefox	
Jboss AS	
Websphere AS	Application Server
WebLogic AS	
Apache Servicemix	
Websphere ESB	ESB
Microsoft Biztalk	
OpenID Integrator	Identity Management
MS Active Directory	

- Catalogue Technical Applications
- Categorise
- Add Meta-Data

Technical Applications –Reference

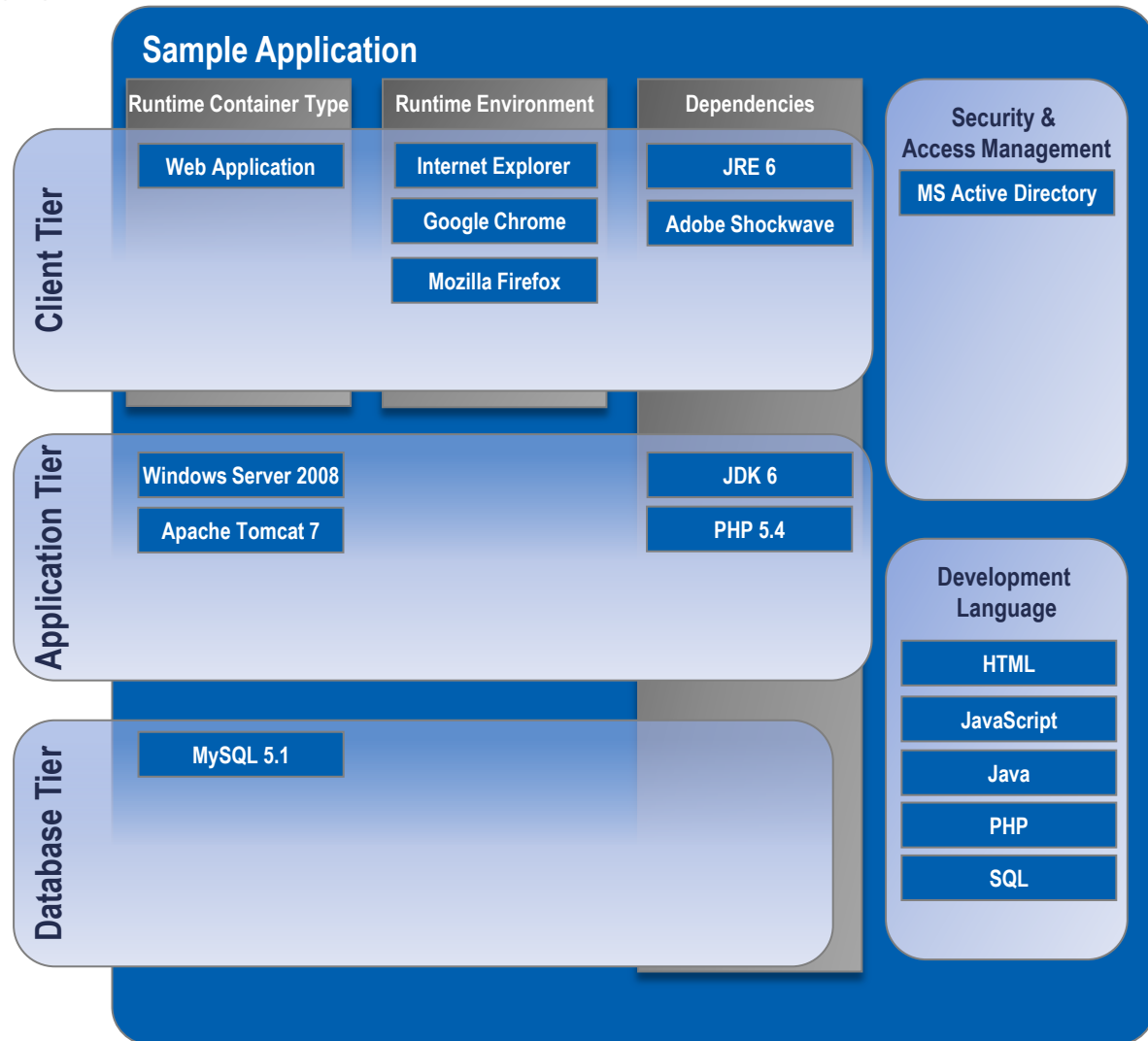# Application Stack

- **HRIS System**
- Company Information Portal
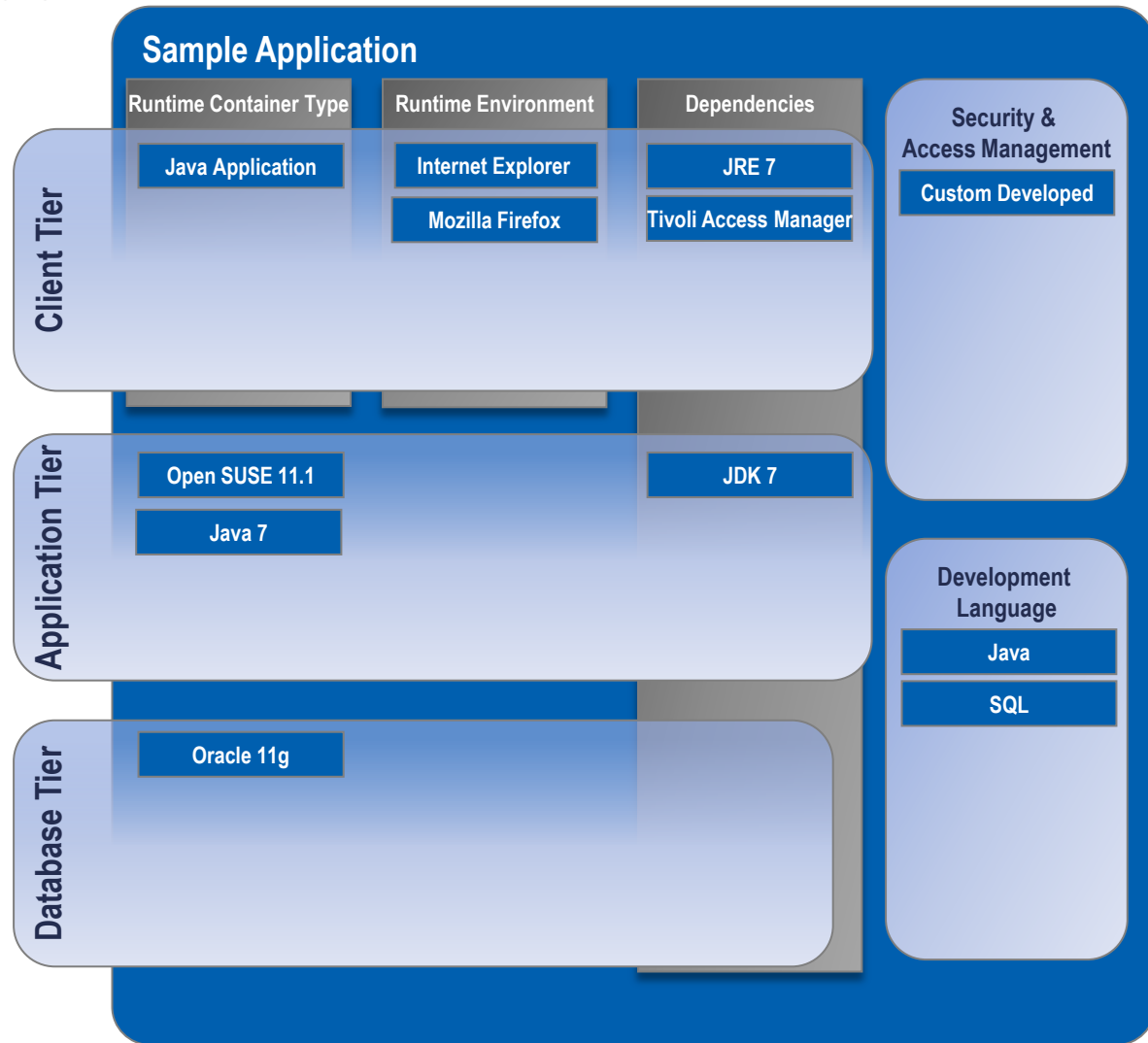- Online Ordering System
- CS Production Suite

Sample Application

Runtime Container Type	Runtime Environment	Dependencies
Executable Application	Microsoft Windows 7	K2 Blackperl
	Windows Vista	

Client Tier

Application Tier — Windows Server 2008

Database Tier — Oracle 11g

Security & Access Management
- MS Active Directory

Development Language
- Visual Basic
- SQL

Measure

Application Stack

- HRIS System
- **Company Information Portal**
- Online Ordering System
- CS Production Suite

Sample Application

Client Tier
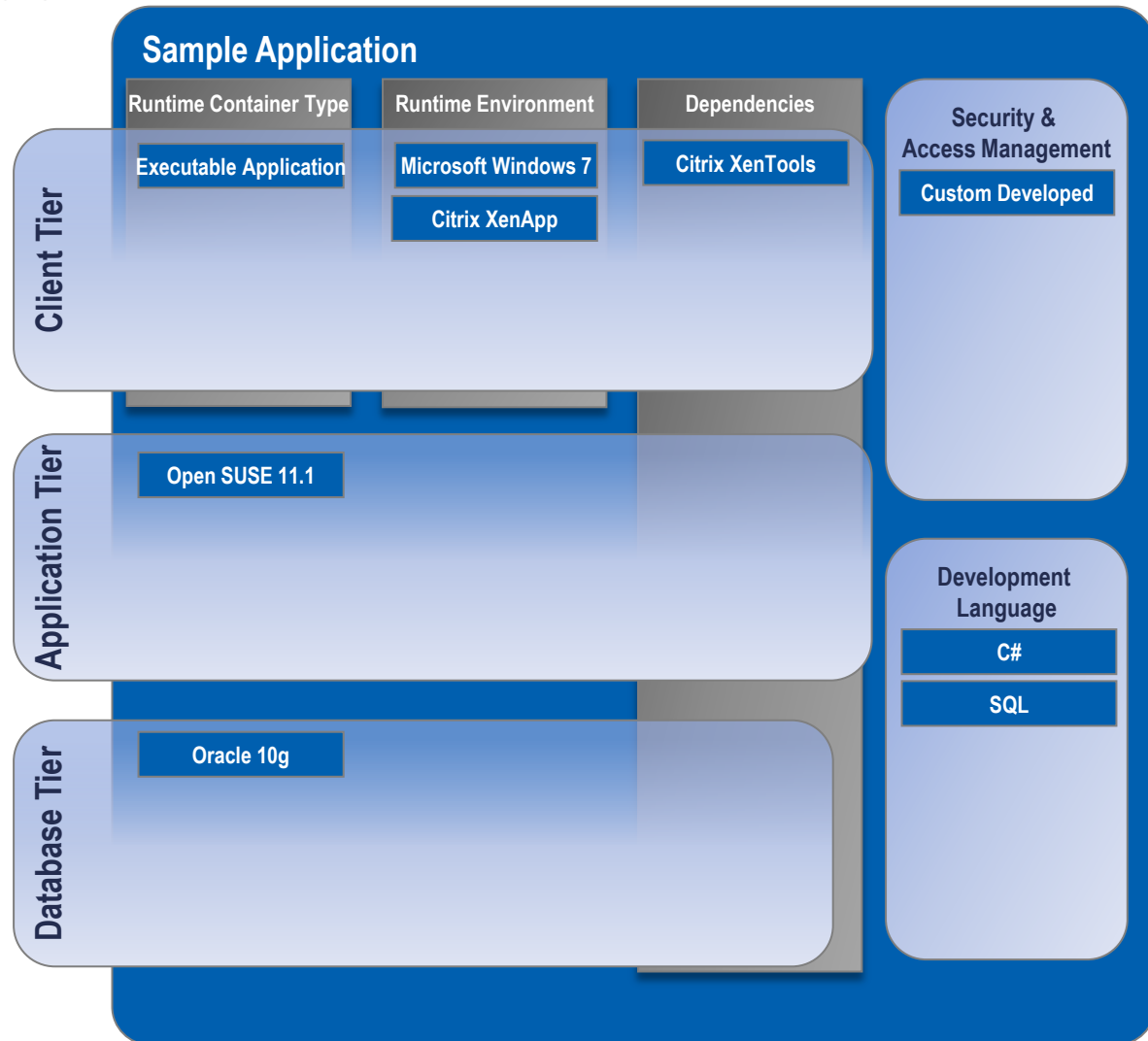
Runtime Container Type	Runtime Environment	Dependencies
Web Application	Internet Explorer	JRE 6
	Google Chrome	Adobe Shockwave
	Mozilla Firefox	

Application Tier

Windows Server 2008 — JDK 6

Apache Tomcat 7 — PHP 5.4

Database Tier

MySQL 5.1

Security & Access Management

MS Active Directory

Development Language

HTML

JavaScript

Java

PHP

SQL

Measure

Application Stack

- HRIS System
- Company Information Portal
- **Online Ordering System**
- CS Production Suite

Sample Application

Runtime Container Type	Runtime Environment	Dependencies
Java Application	Internet Explorer	JRE 7
	Mozilla Firefox	Tivoli Access Manager

Client Tier

Security & Access Management
- Custom Developed

Application Tier
- Open SUSE 11.1
- Java 7
- JDK 7

Database Tier
- Oracle 11g

Development Language
- Java
- SQL

Measure

Application Stack

- HRIS System
- Company Information Portal
- Online Ordering System
- **CS Production Suite**

Measure

Working with the data

Content Capture

Capability Mapping Matrix

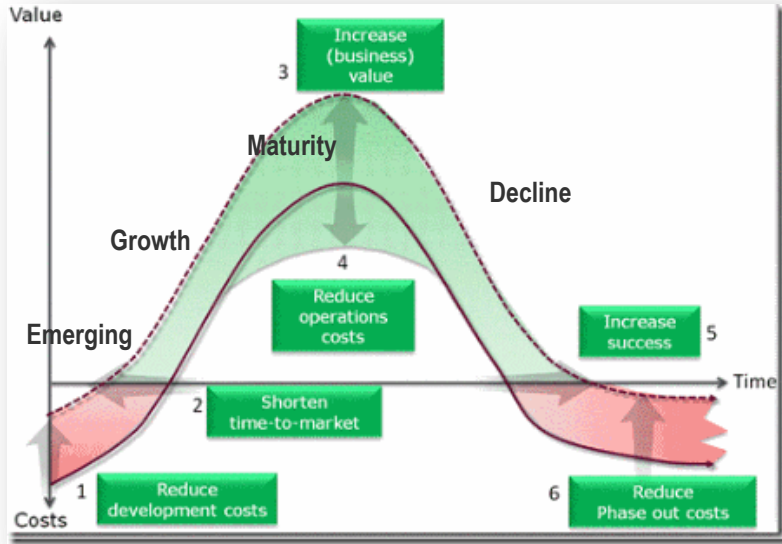| L2 Capability	Multiple Primaries	No Primary	No Activity at all	OK	Primary Application	Currently Under Review	Manual Activity	Not Performed	Unknown	Pronto Xi for Mining	Minemax Tempo	FragMetrics	4Site Enterprise Asset Management	ViewMetrics for Haul Trucks (VMHT)	LoadLogger	RadarMetrics	WearMetrics	Stereonet Viewer	Carlson Geology	MineTrust	Ore Controller	Sirovision	MineMapper 3D	Multimine Scheduler	Carlson Underground Mining	RM Scheduler
Computerised Maintenance Manage	X		x										S							c						
Enterprise Resource Planning	3			x	Pronto Xi for Mining|RadarMetrics|S					P		S	S			P					P					
SCADA/HMI				Ok	Minemax Tempo						P		S							c						
Manufacturing Execution				Ok	MineTrust						S								P						
Manufacturing Execution	2			x	WearMetrics--MineTrust									P					P						
Geological Modelling				Ok	Carlson Geology													P	c						
Product & Process Engineering				Ok	Sirovision													c		P					
Product & Process Engineering				Ok	Sirovision													c		P					
Product & Process Engineering				Ok	MineTrust					c	c								P						
Advanced Process Control				Ok	Not Performed		P																		
Data Historian				Ok	Unknown				P																
Product & Process Engineering	X		x															A							
Energy Management	2			x	LoadLogger--Ore Controller									P					P						
Laboratory Information Management				Ok	Carlson Geology													P							
Access Control				Ok	MineTrust				S										P						

Application Attributes

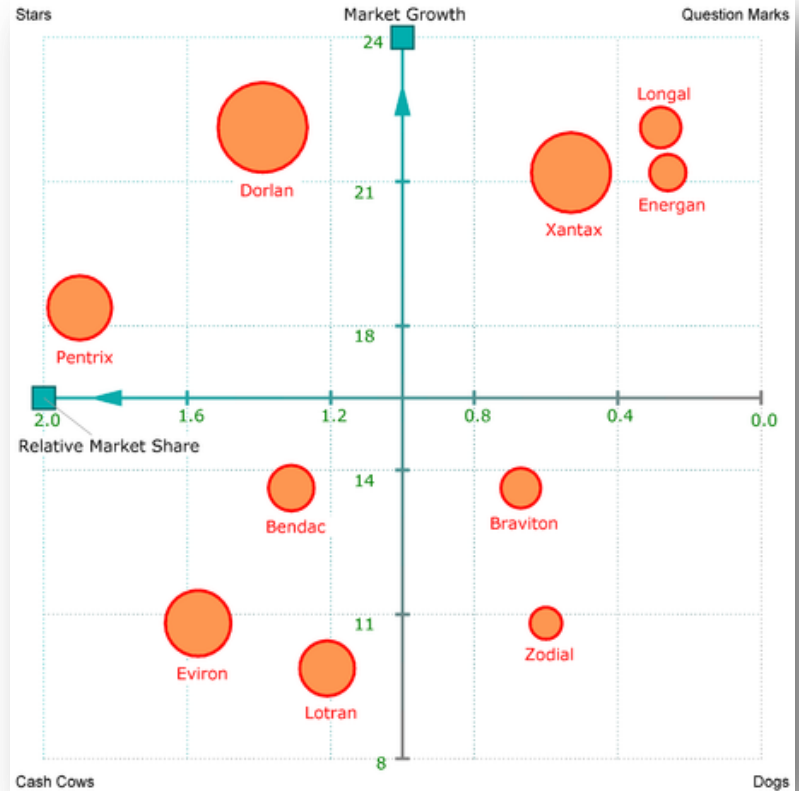| Status	Application	Description/Definition	Vendor	Business Unit	Functional Owner	Technical Owner	Standardization	Criticality	Risk
Ownership Review	**Pronto Xi for Mining**	fully integrated solution from	Pronto	Finance	Jake Harrow	Peter James	In Evaluation	Low	Low
Reviewed	**Minemax Tempo**	A scalable and integrated mine	Minemax	Mining	Harry Hannaway	Peter James	Non-standard	Medium	High
Pending	**FragMetrics**	A Shovel-Based Rock	Motion Metrics Int	Operations	Harry Hannaway	Peter James	Non-standard	High	Low
Awaiting Feedback	**4Site Enterprise Asset Ma**	4Site delivers an integrated EAM	4Site, CMMS softw	Operations	Kendra Hastings	Mike Spickett	To be phased o	Low	High
Pending	**ViewMetrics for Haul Tru**	A Camera-based Surveillance	Motion Metrics Int	Operations	Harry Hannaway	Peter James	Standard	Low	Medium
Pending	**LoadLogger**	A mine production meter - A	Rockmate Technica	Operations	Sue Lee	Peter James	Standard	Low	Medium
Pending	**RadarMetrics**	A Camera- and Radar-based	Motion Metrics Int	Geology	Harry Hannaway	Peter James	Standard	Medium	Medium
Reviewed	**WearMetrics**	A Real-Time Tooth-Wear	Motion Metrics Int	Mine Planning	Harry Hannaway	Peter James	Standard	Medium	Medium
Pending	**Stereonet Viewer**	a powerful tool for the analysis	CAE Mining	Engineering	Kate Abbey	Jack Hornsbury	Standard	Low	Medium
Pending	**Carlson Geology**	a complete geologic modeling	Carlson Software (	Engineering	Ursula Pentings	Peter James	Standard	High	Medium

Share and Distribute with Business

Application Lifecycle

Boston Matrix

Closing Remarks

- Demonstrated Value
- Getting information out of the EA Repository
- Need to socialise the content with all stakeholders
- Stakeholder viewpoints
- Maintaining the repository content
- Reference "Lists" and archetypes

END!