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The **Power** of **Data**



PIMS Deployment Strategy

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Contact Details

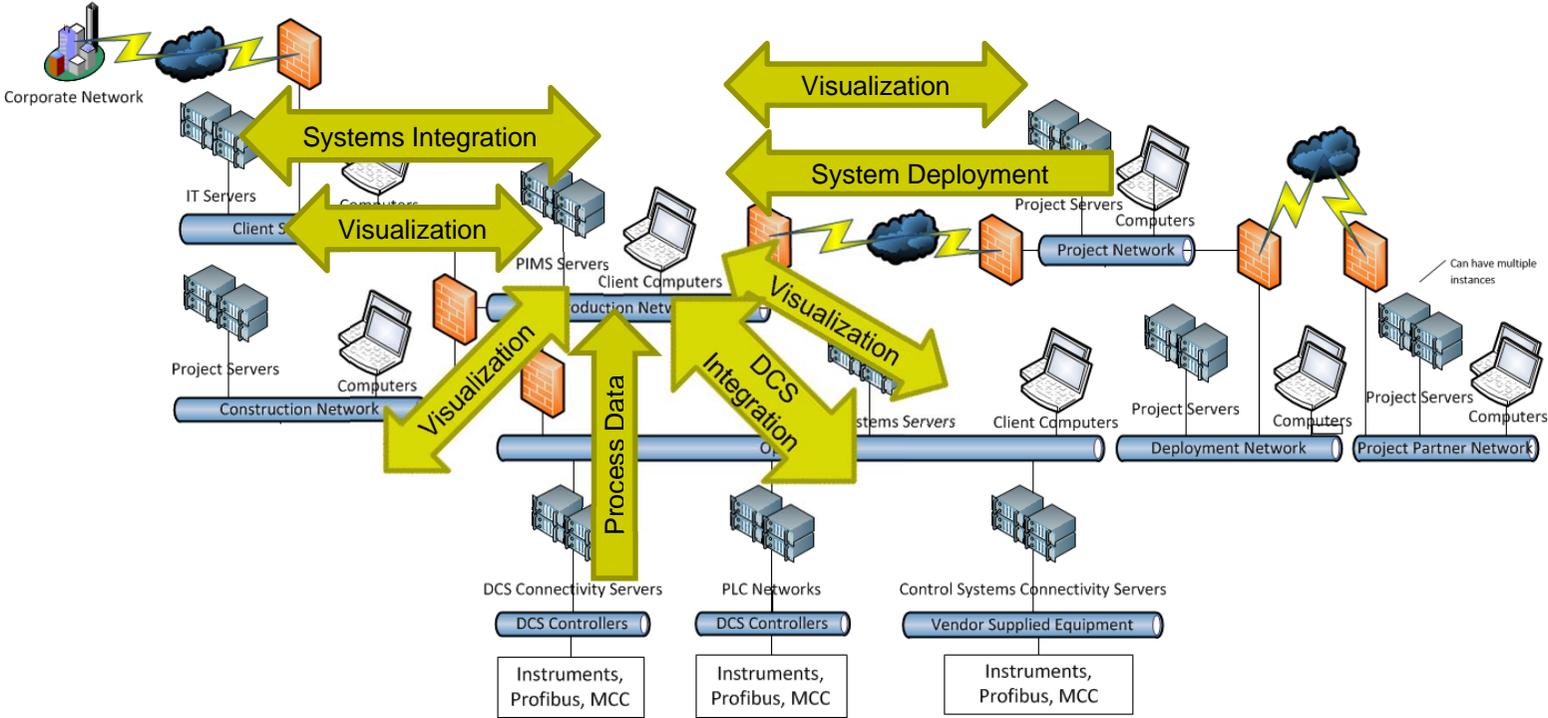
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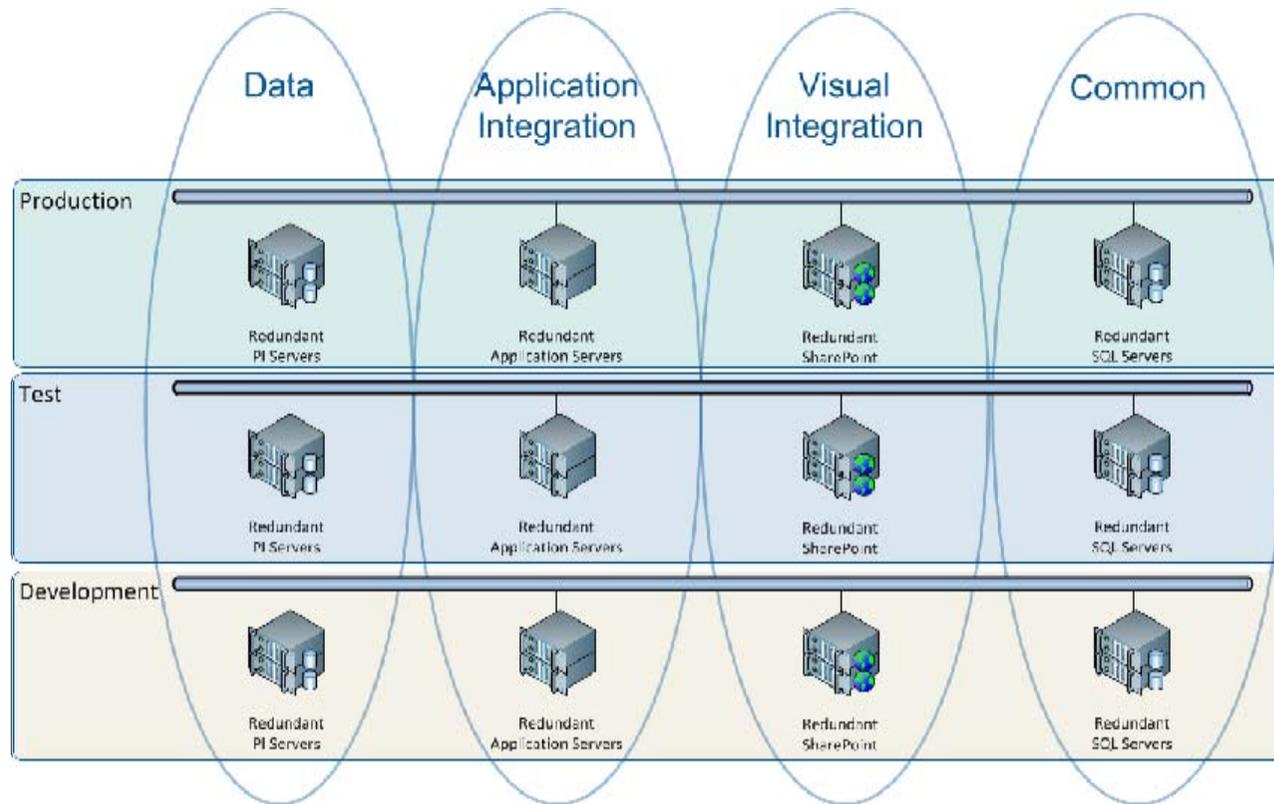
Presentation Overview

- Infrastructure
- System landscape overview
- Visual layer
- Systems deployment

Multiple multi-layered networks

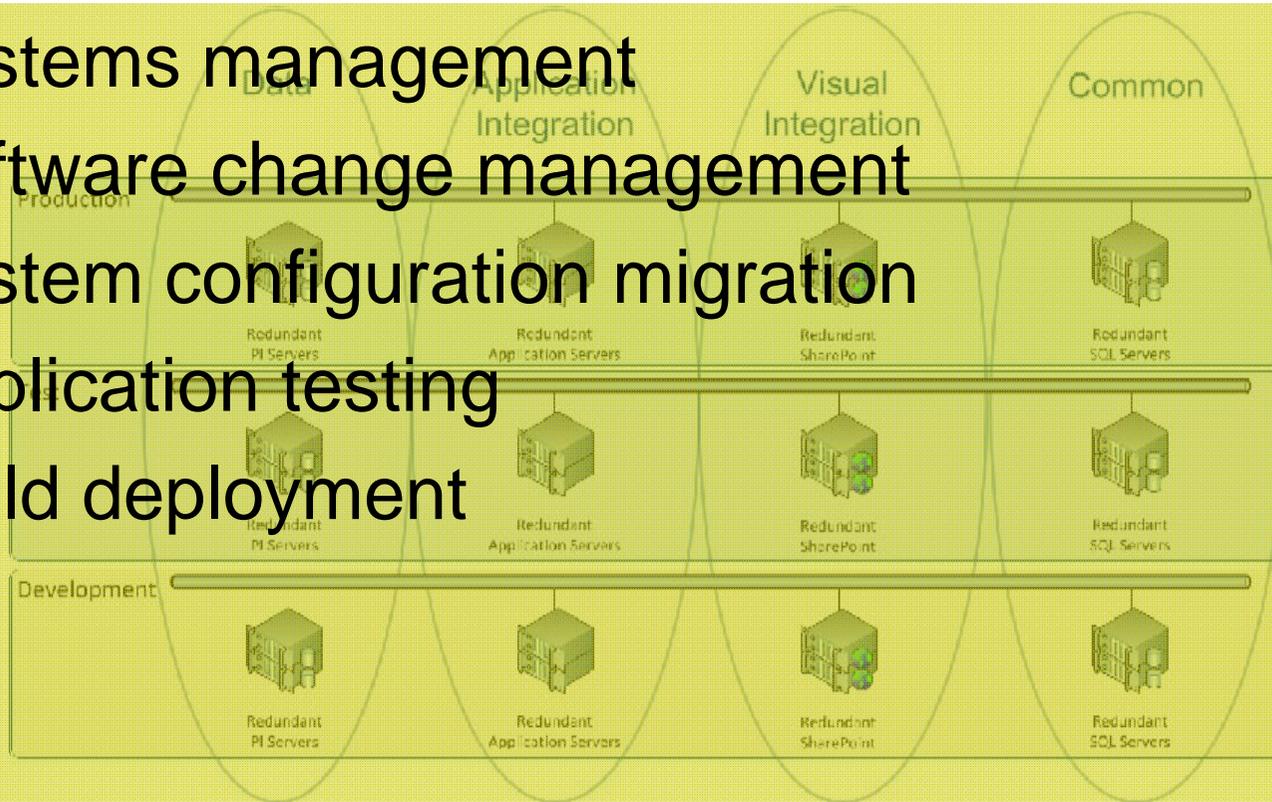


Three Tier Systems Landscape

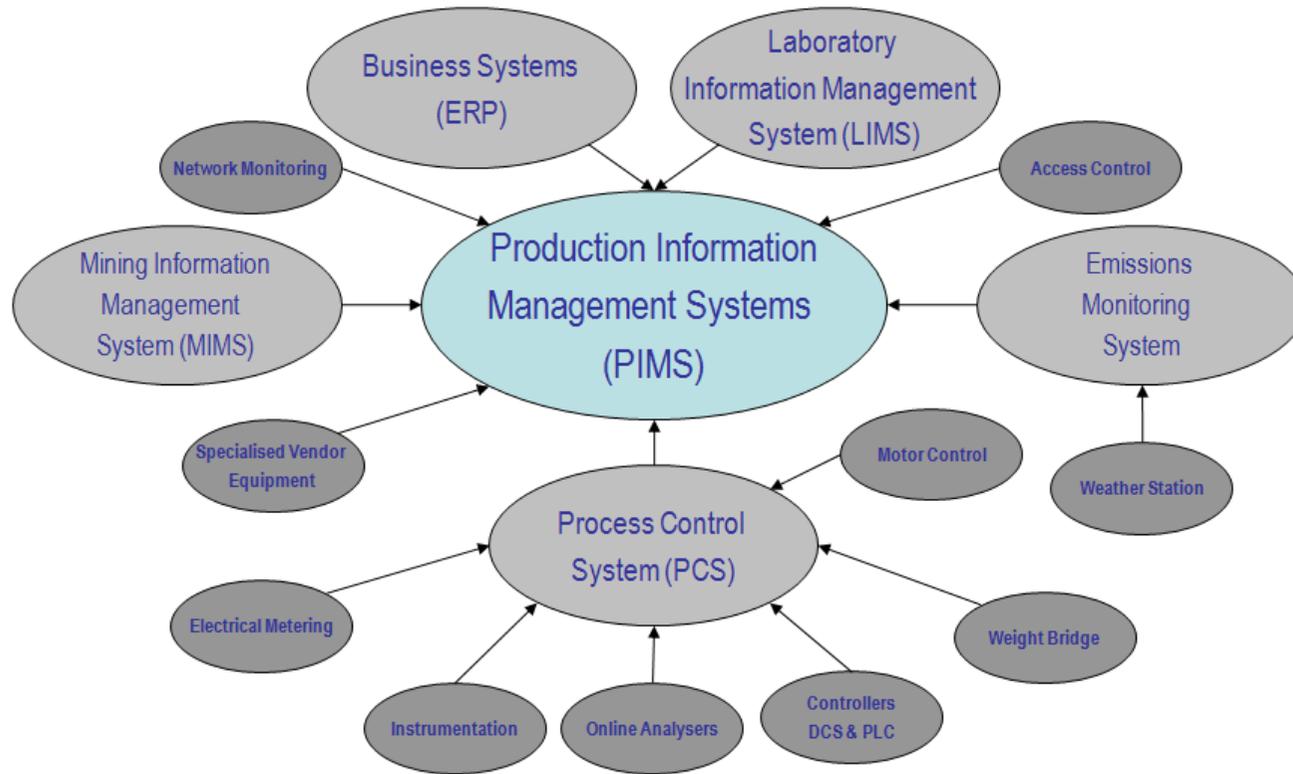


Three Tier Systems Landscape

- Systems management
- Software change management
- System configuration migration
- Application testing
- Build deployment

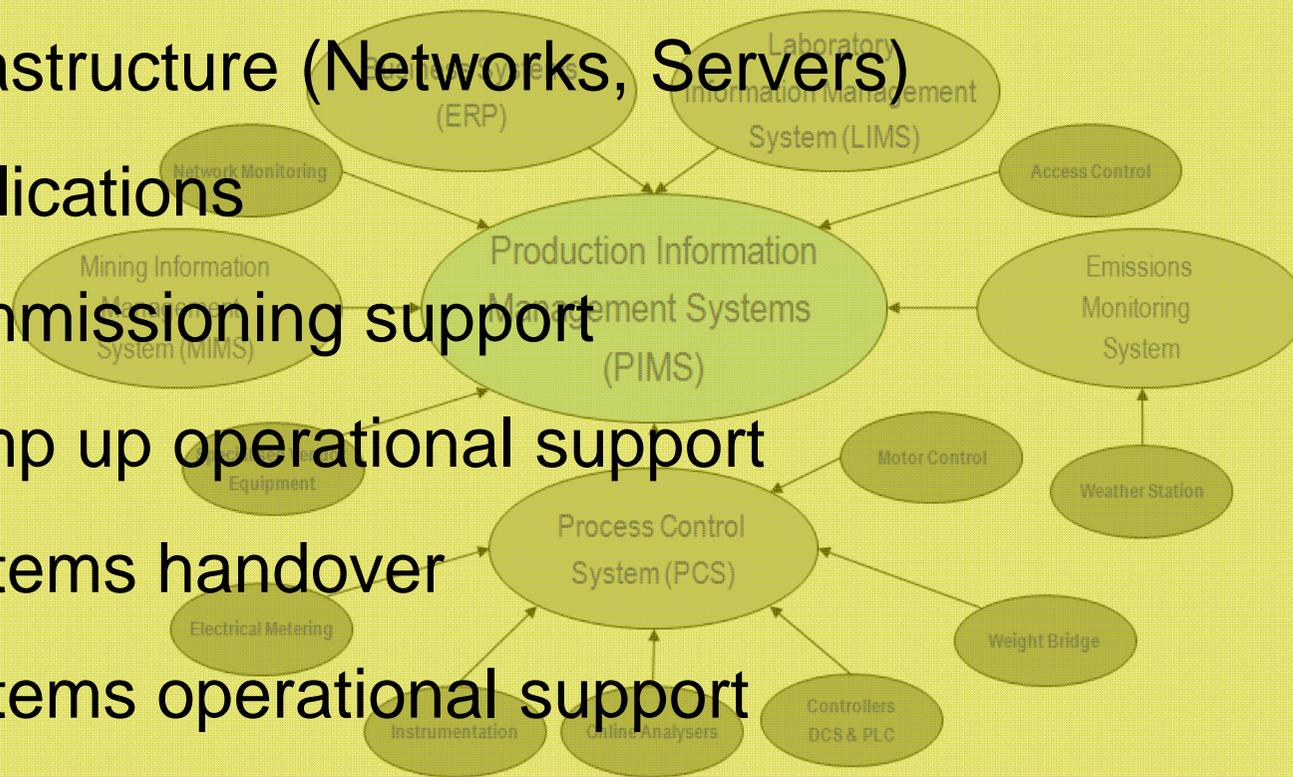


Phased Deployment



Phased Deployment

- Infrastructure (Networks, Servers)
- Applications
- Commissioning support
- Ramp up operational support
- Systems handover
- Systems operational support



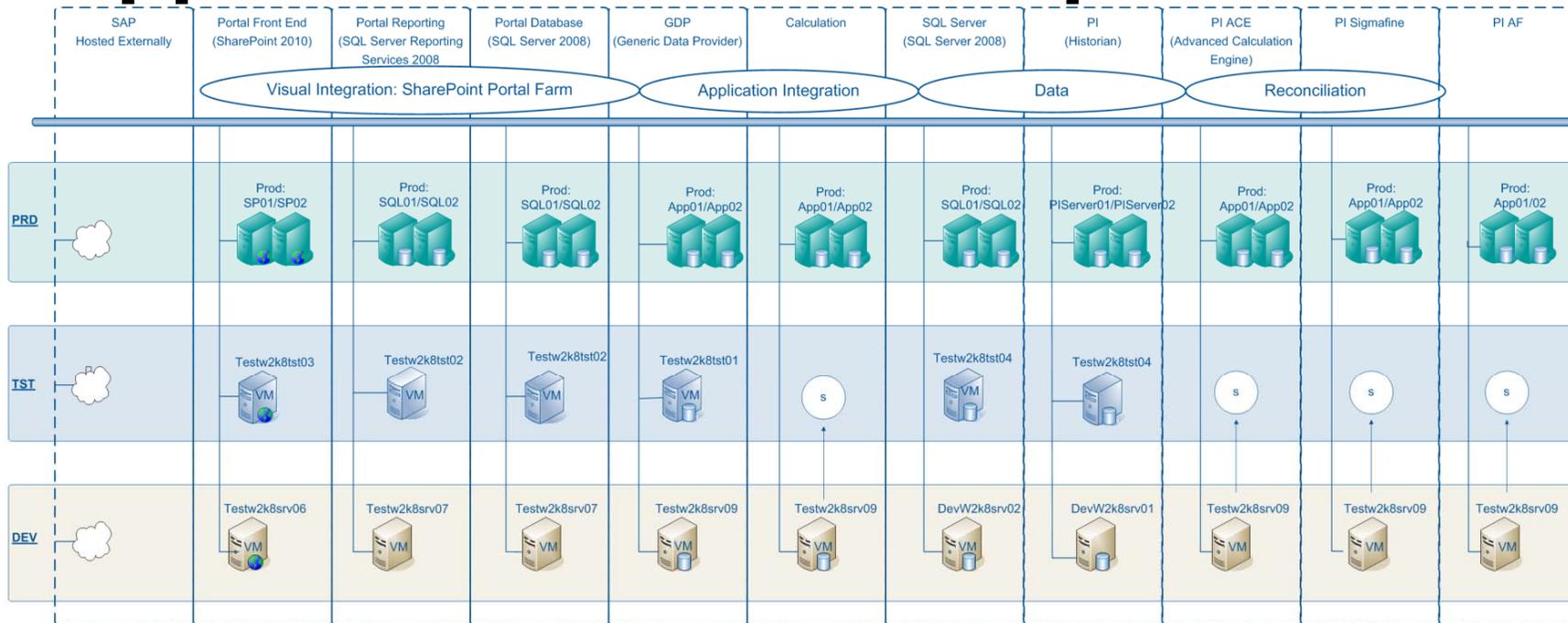
Systems Design Considerations

- Applications
 - Commercially available software
 - Single data source transparent to the end user
 - Thin client visualization (SharePoint Portal)
 - Life of plant data
 - Integrated visualization tools (Commissioning, Operations)
- Environment
 - Virtualized Infrastructure
 - Continuous deployments using scripts
 - PowerShell, SQL Scripts and TFS
 - SMT, AF Builder

Application Software Base

- OSISoft
 - PI Server
 - AF Server
 - RT Webparts
 - PI Notifications
- Microsoft
 - OS (64 bit)
 - SQL Server
 - Reporting Services
 - Development Environment
- Hatch
 - Generic Data Provider
 - Calculation Engine (Based on AF, OSI SDK and PE)
 - Webparts (TreeView, Trend, Table and Period Selector)
- Xen

Application Services Map



Visual Integration

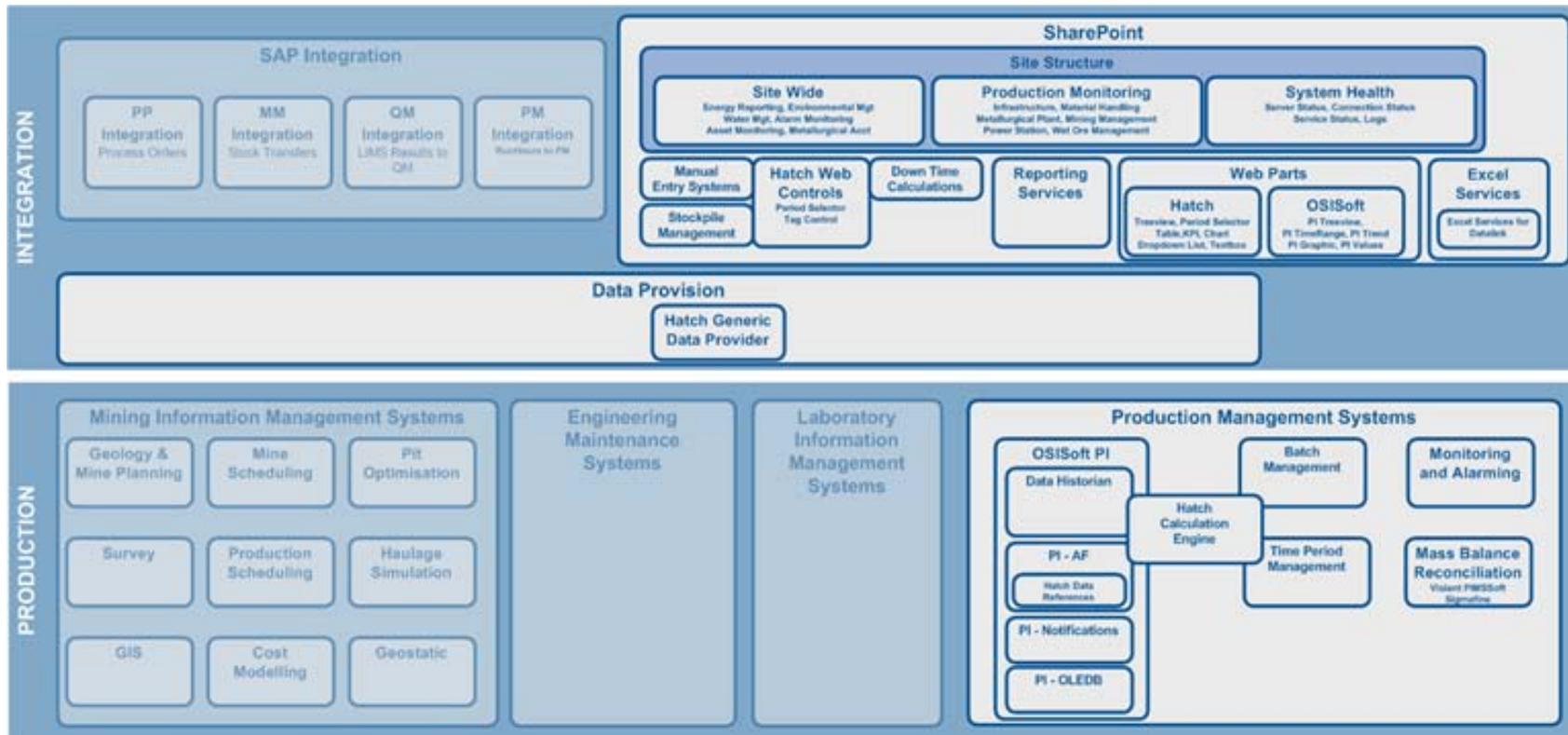
- Portal
- 3 Layer architecture
 - Presentation
 - Business logic
 - Data source
 - Unified data source through Hatch GDP
 - ODBC (MS SQL, Oracle, XML etc)
 - PI server data
- Webparts & Reporting Services

Portal Format

The screenshot displays a web portal interface with several key components highlighted by red circles and arrows:

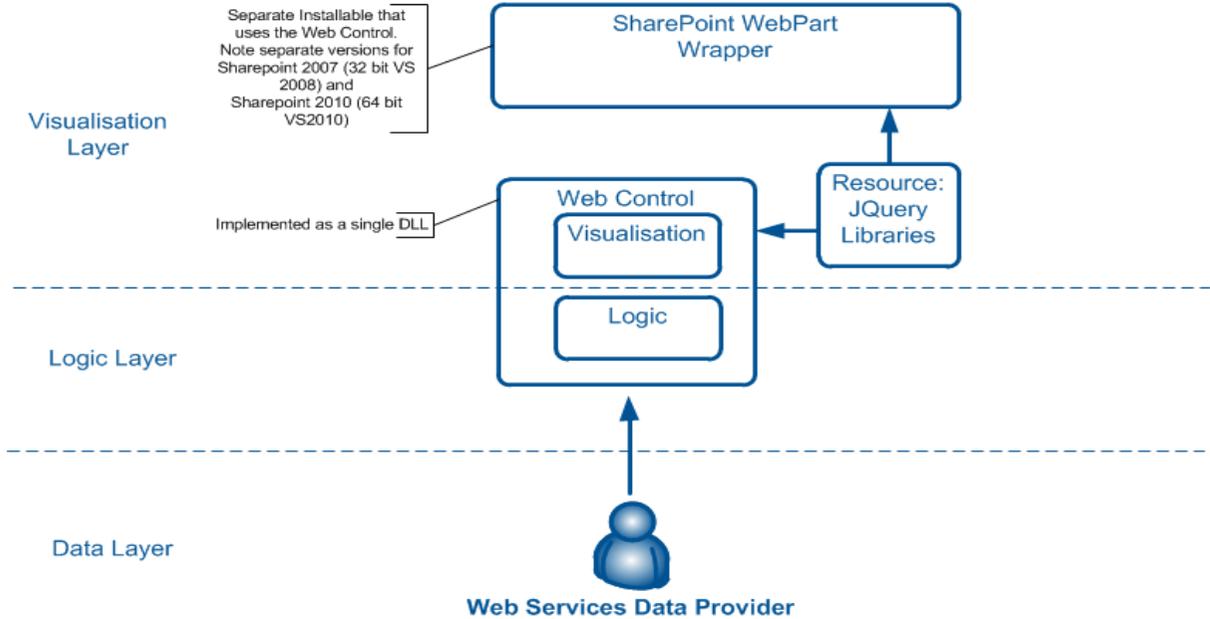
- Navigation Bar:** Located at the top, containing 'Home', 'Operational Systems', 'Site Wide App', and 'Production Monitoring'. A search bar is also present on the right.
- Site Content Menu:** A vertical sidebar on the left containing various menu items such as 'Production Reporting', 'System Monitoring', and 'Manual Data Entry'.
- Site Content:** The main content area, featuring a 'Tank Farm Fuel Tank' monitoring dashboard with various data points and gauges.
- Summary Content:** A sidebar on the right containing a 'Tanks Summary' bar chart and a 'Fuel Unloading and Storage' table.

Portal Components



Basic Webpart Architecture

WebParts High Level Architecture

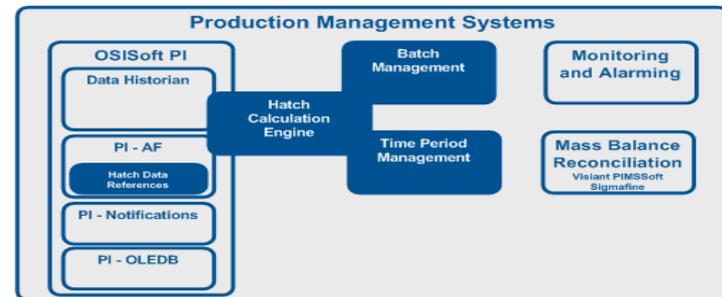


Treeview WebPart Example



Calculation Engine

- Calculation Engine developed to be generic in nature
 - Made up of a number of separate components that work together
 - AF/Data References
 - Engine/scheduler
 - Time Period Generators
 - Generic Data Provider
- Configuration visualised in AF
 - Source/Destination Systems
 - Time Class
 - Function
 - Input tags
 - Result tag



| | |
|---------------------------|-----------------------|
| Destination System | PLGIN.PI |
| Source System | PLGIN.PI |
| Time Class | Shift |
| Function Class | W.Avg |
| Data Tag | _L101_Value |
| Weighting Tag/Expr | _F101_Value |
| Default Value | 0 |
| HI | 1000 |
| LO | -100 |
| Enabled | False |
| Root | SIN.WEIGHTEDAVG.SHIFT |
| Tag ID | 3179 |
| Tag Name | SIN.WEIGHTEDAVG.SHIFT |

Benefits

- Unified data set in standard format
- User based configured
- Web pages (template based)
- Prebuilt content ready for early deployment
- Multi Environments:
 - Continuous site deployment
 - Reusable development processes



THANK YOU

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