

Providence Health & Services



ProvConnect Business Intelligence



PBI Project Goals

- Simple, easy access to information
- Push information to decision makers when action is needed
- Develop on our core back office technology (Lawson- aka "ProvConnect")
- Collaborate with other BI projects to ensure organizational data integrity



Providence Portland Medical Center Project

- ▶ Started March, 2007
- Dashboard for department managers
- Content determined by pilot group of 8-10 managers



Guiding Principles

- Pilot department manager group to guide and direct content
 - Providence Portland Medical Center/Oregon Region executive teams to validate manager accountabilities and processes
- Focus on information that is currently available in ProvConnect (Finance, HR/Payroll, Supply Chain)
- Use technical solutions that are available today



PPMC - Measures of Success

- ✓ The dashboard is a tool that managers use regularly and depend on for their back office information
- Managers report time savings because they spend less time looking for information and more time acting on it
- Managers report that they have valuable information they did not have before
- √ Managers recommend use of the dashboard to their peers



PBI Tools Summary

- Dashboards Lawson Framework Services
 - Delivered in the Lawson Portal
- Lawson Smart Notification
 - Alerts to user triggered by events
- Analytics Executive Viewer to Essbase, MSAS/SSAS
 - Table or chart presentations of summarized data
 - Interactive, business-focused analysis for power users
- Reports "Prov Reports" (BOE) and Lawson Reporting Services
 - Formatted Crystal Reports

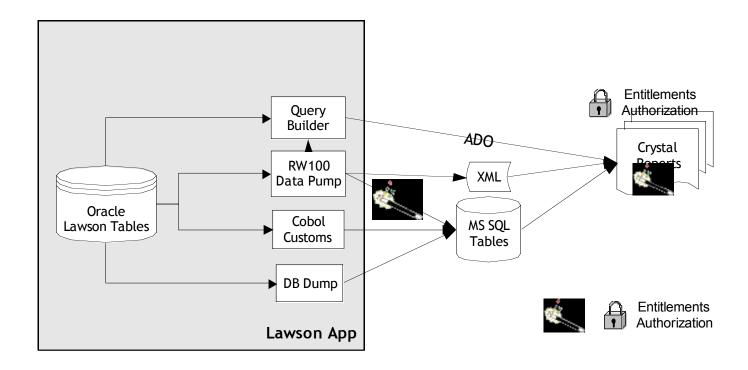


PBI Supporting Data

- Reporting Tables from production data
 - Oracle
- Analytic cubes (built from Reporting Tables)
 - Hyperion Essbase
 - Microsoft/SQL Server Analysis Services
- Additional data marts
 - e.g., E WA/MT HR Data Mart from Meditech systems (SQL Server 2005)



ProvConnect Data Sources





Significant Data to Info

Transformation

Filter Data /Info

ProvConnect Data Sources Oracle Client Lawson Oracle Tables Lawson App Finance Reporting Reporting Lawson Tables Tables Reports Oracle Materialized LAUA Views Proc Lawson Interface Reporting Reporting Tables Tables Reporting Tables Ad Hoc Authentication Report **CE** Entitlements Writer Crystal Reports Smart Notification BOE and/or ReportingServices Analytics Other Sources (DSS, Employee ProvConnect BI Survey, Customer Survey, Clinical ..) ProvConnect Authorization LDAP/AD Sources **Processes and Staged Data** Interfaces $\nabla_{\mathcal{F}}$

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ProvConnect Data Resources



ProvConnect Data Sources Lawson Oracle Tables Lawson App Oracle Materialized Views Oracle Dim 2 ETL Views Analytics Viewer Dim 3 Dim 4 Crystal Reports BOE and / or Star Schemas ReportingServices Notification Other Sources ProvConnect BI (DSS, Employee Dashboards Survey, Customer Info Sets Source **Processes and Staged Data** Delivery Systems **Vision ProvConnect Data Resources**

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Demonstration

PPMC Dashboard



Department Manager Dashboard - Next Steps

- Complete "foundation" for sustainable, scalable support
- Delivery system-wide in 2008 (February July)
 - Complete Oregon
 - Add region-specific content for each region
 - California
 - Alaska
 - Western Washington



"Seize BI" Initiative

"Seize the initiative to deliver enterprise business intelligence for Providence"

- 1. Drop (or freeze) non-ProvConnect Business Intelligence (PBI) projects
- 2. Partner with Application Directors
 - Collaborate with business on BI content and priorities
- 3. Sustainability/Scalability
 - Create production-ready BI platform for enterprise scope
- 4. Architecture and planning to improve foundation for rapid development
 - Security
 - Scalability
 - The right tools (e.g., leading edge, interoperable, rapid development)
- Strategy for business buy-in, acceptance, participation in design and testing, training and support



Lessons Learned - One

- Give 'em what they ask for and they'll be happy
 - Medical center department managers have their own view
- Up-front scope limitation critical to rein in requirements (done > perfect)
- Medical Center CFO/CEO as active sponsors
- Start with a small group they become Super Users
- Dedicated IT development team = quick turnaround on deliverables = momentum & happy managers



Lessons Learned - Two

- Two-stage testing (before delivery to users)
 - ProvConnect analysts (internal)
 - Regional business staff
- Analytics offers major "value-add"
 - Summary view built on transaction detail
- Smart Notification is the key to actionable info
- Smart Notification has significant limits
 - "Single-threaded" other notes on same server held during refresh
- Security is still the primary challenge