Customer Data Quality Platform

Enabling Master Data Management

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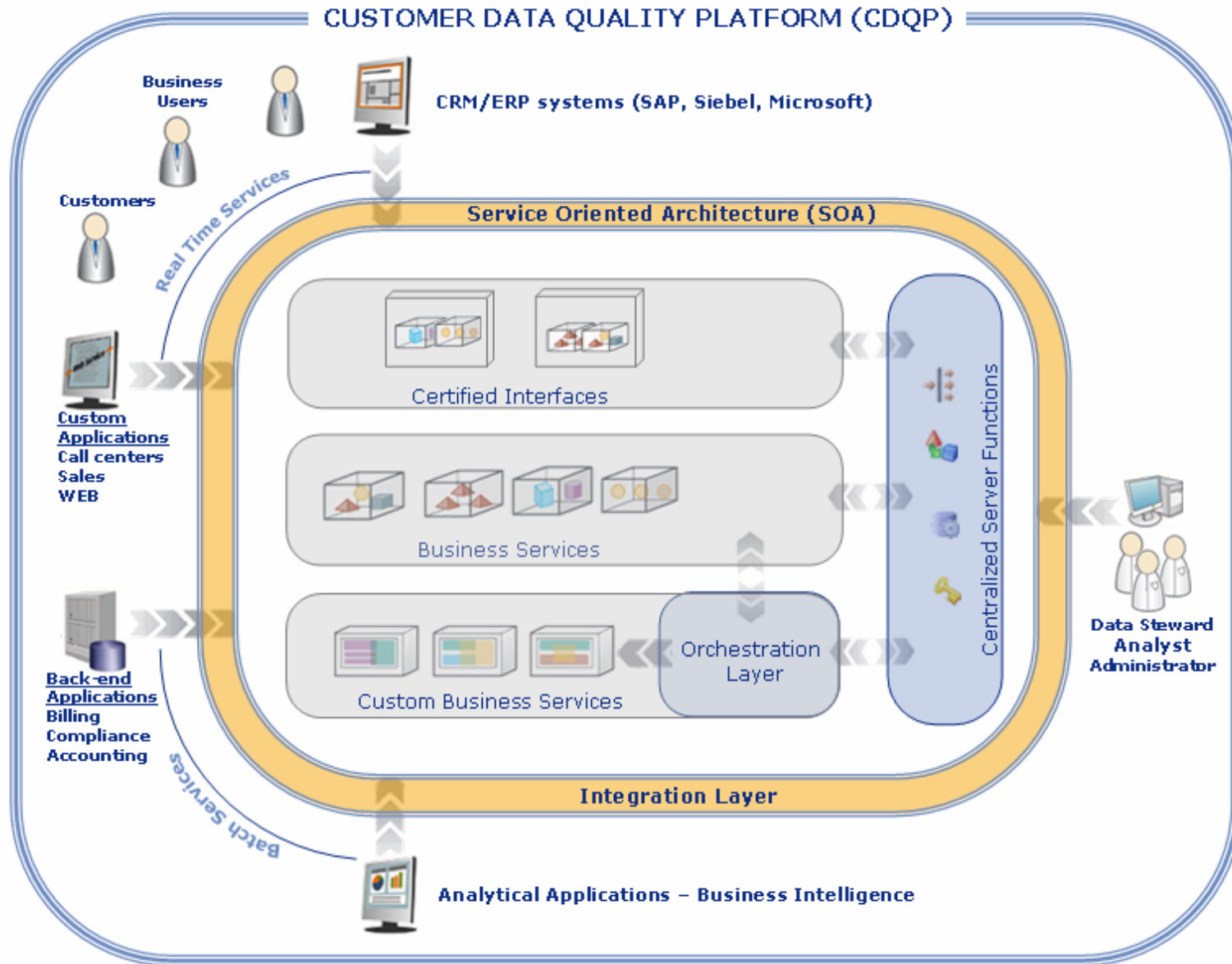**Pitney Bowes Software**

Pitney Bowes Software –
Helping Our Customers Manage Their Customer Portfolio

- **Understand**
  - Data integration
  - Data Profiling
  - Data quality
    - Data Cleansing
    - De-duplication & Householding
    - Consolidation
  - Geospatial data analysis and enrichment
- **Connect**
  - Mail preparation and mailing efficiency
  - Multi-channel customer communication management

PBG1 – CDQ Platform

CUSTOMER DATA QUALITY PLATFORM (CDQP)

Business Users

Customers

CRM/ERP systems (SAP, Siebel, Microsoft)

Real Time Services

Service Oriented Architecture (SOA)

Certified Interfaces

Business Services

Custom Business Services

Orchestration Layer

Centralized Server Functions

Custom Applications
Call centers
Sales
WEB

Back-end Applications
Billing
Compliance
Accounting

Batch Services

Integration Layer

Data Steward
Analyst
Administrator

Analytical Applications – Business Intelligence

Functional Strengths

- Built-in knowledge for identifying and resolving syntactical and semantic ambiguities and inconsistencies

- Address quality that uses multiple reference data sources
  - US Postal (DPV, LACS^{Link}, RDI, NCOA^{Link}, EWS),
    - Non-Postal (NAVTEQ, TeleAtlas, TIGER, Targus, Experian, Customer-Supplied),
    - Global (UPU, Country-Specific) to provide a richer and wider universe

- Multi-cultural name recognition.

- Superior match algorithms for entity resolution and link analysis.

- Pattern analysis and domain validation and standardization.

- Best-in-class data enrichment with point-level geocoding and location based intelligence.
  - Demographic (Census, Claritas, Prizm, LifeStyle)
  - Business Geographics (tax jurisdictions, proximity to service locations)
  - Geographic Risk (flood plains, hurricane tracks)

Case Study

➤ **COMPANY** – B2B Technology leader in electronic design automation (EDA), providing software and hardware design solutions that enable companies to develop better electronic products faster and more cost-effectively.

➤ **PROJECT** – Develop a corporate wide master contact database

➤ **DRIVER** – Corporate Marketing wants to better identify the physical location of leads so that marketing messages can be more targeted.

➤ **CHALLENGE** – Disparate Sources Systems with Contact information – EMA, SAP, Siebel, SFA.

➤ **REQUIREMENTS** –

➤ Standardize, match & maintain unique contacts in the contact database with real-time updates into source systems.

   ➤ PHASE I: Create a master contact data hub

   ➤ PHASE II: Create a Publish & Subscribe Architecture

➤ **SOLUTION** – Java Messaging Service (ESB) with Group 1's Customer DQ Services at the core.
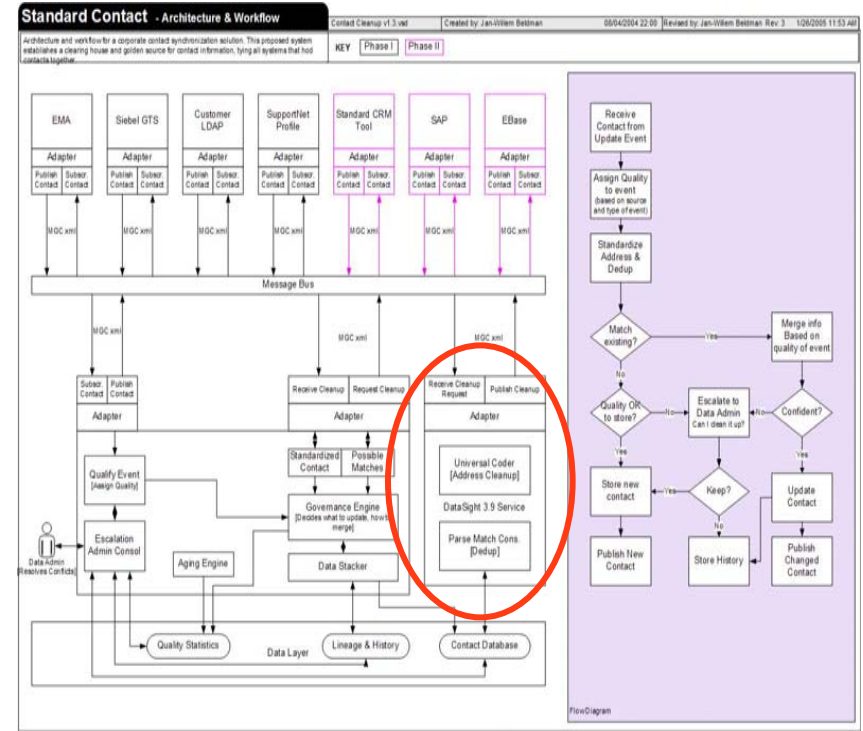
Lessons Learned

- Identify what's important (in-scope)
  - Data domain that will drive immediate business value
  - Number of sources to integrate
- Leverage existing people and technology resources
  - Data Modelers, DBA, Data Warehouse, EAI, ETL
- Learn from the CRM mistakes
  - Make Data Quality/Governance a key requirement for your project from Day 1
- Beware of the "one vendor" approach
  - MDM vendors quick to discount the value of data quality
  - Data Quality vendors quick to discount the value of a "Master Data Hub"

Technology Evaluation

- Do I need to buy MDM or can I make do with what I have internally?
- Based on what's in scope and existing resources do I need an army of consultants with enterprise software? And if so,
- Vendor Selection
  - Benchmark for data accuracy & completeness
  - POC for ease of deployment, configuration and integration (out-of-the box experience)
  - Combination of Architectural Foundation, Experience with core needs and Long term viability as a partner