



Customer Data Integration: BEA-IT Case Study

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Agenda

- Background Information
- Our 1st Generation CDI Solution
- Key Learning
- Our 2nd Generation CDI Solution
- Execution Roadmap

2003 challenges driving investment in the integration infrastructure

- 1 Integration and Web Services
- 2 Data / Information Architecture and Management
- 3 Organization and Governance

- Manual processes
- Customer experience challenges
- Information shortage
- Ineffective spending
- Limits to collaboration

Project Objectives and Deliverables

Future State Architecture initiative

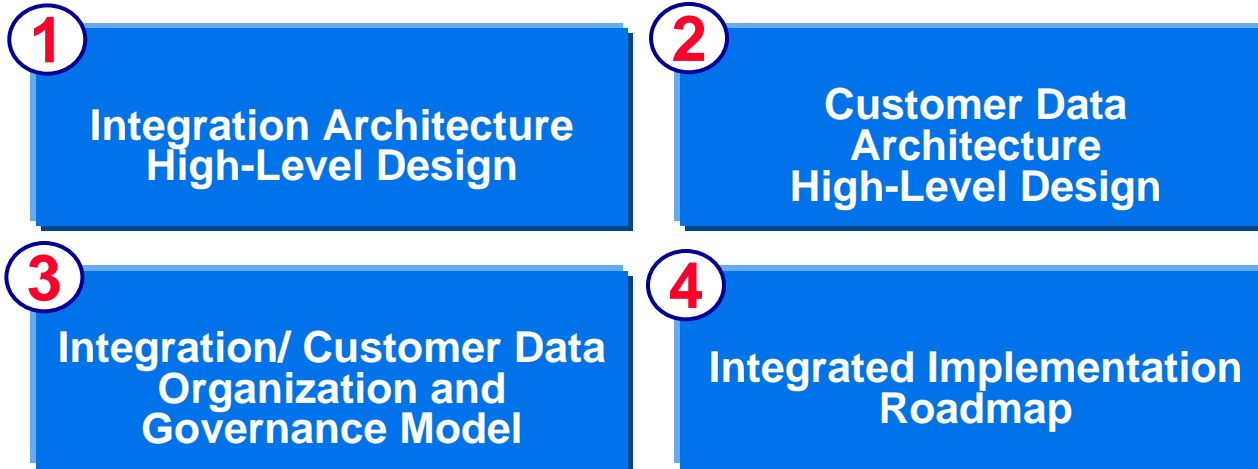
Objectives

- Create Integration/ Customer Data Architecture
- Define Organization and Governance Model to Execute Updated Architecture
- Develop Roadmap for Implementing Recommendations

Benefit

- Ability to build the Integrated Enterprise and fulfill the “built on BEA” vision
- Ability to manage the Architecture Enterprise-wide: more powerful solutions, technically consistent, at a lower cost to BEA

Deliverables



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Findings from the Future State Architecture Initiative

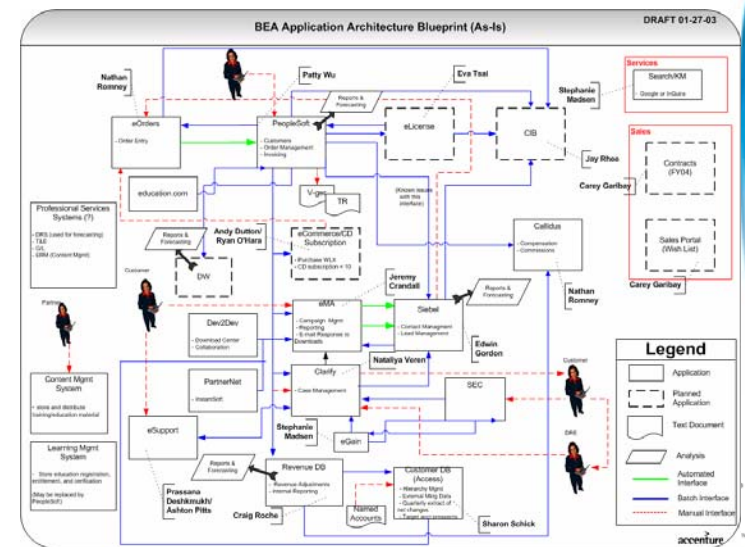
The symptoms:

- BEA was unable to follow a customer across (and sometimes within) functions
- Answering simple questions often required manual intervention, e.g.:
 - ▶ *“What purchases did this customer make last year?”*
 - ▶ *“To what service levels is this customer entitled?”*
 - ▶ *“What were the top technical issues that my customer faced last month?”*
 - ▶ *“How many of our leads translate into sales?”*
 - ▶ *“Who did my customer send to training recently?”*
 - ▶ *“What professional services projects are in process at my customer?”*

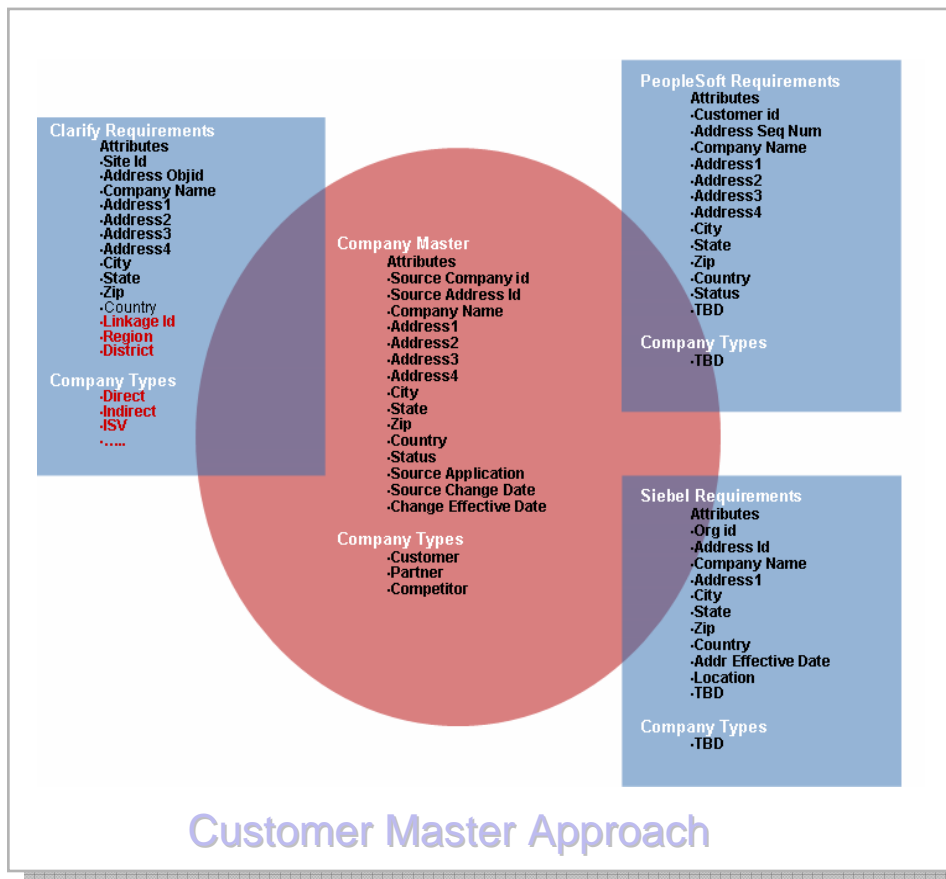
Findings from the Future State Architecture Initiative

The cause:

- Customer processes are poorly integrated from end to end, and so is the underlying technology:
 - 30+ systems deal with customer data
 - 12 entry points that create or update customer data
 - Considerable amounts of manual customer data re-entry
 - Duplication and disparity between various representations of same customer



Business Benefits of a Single View of the Customer

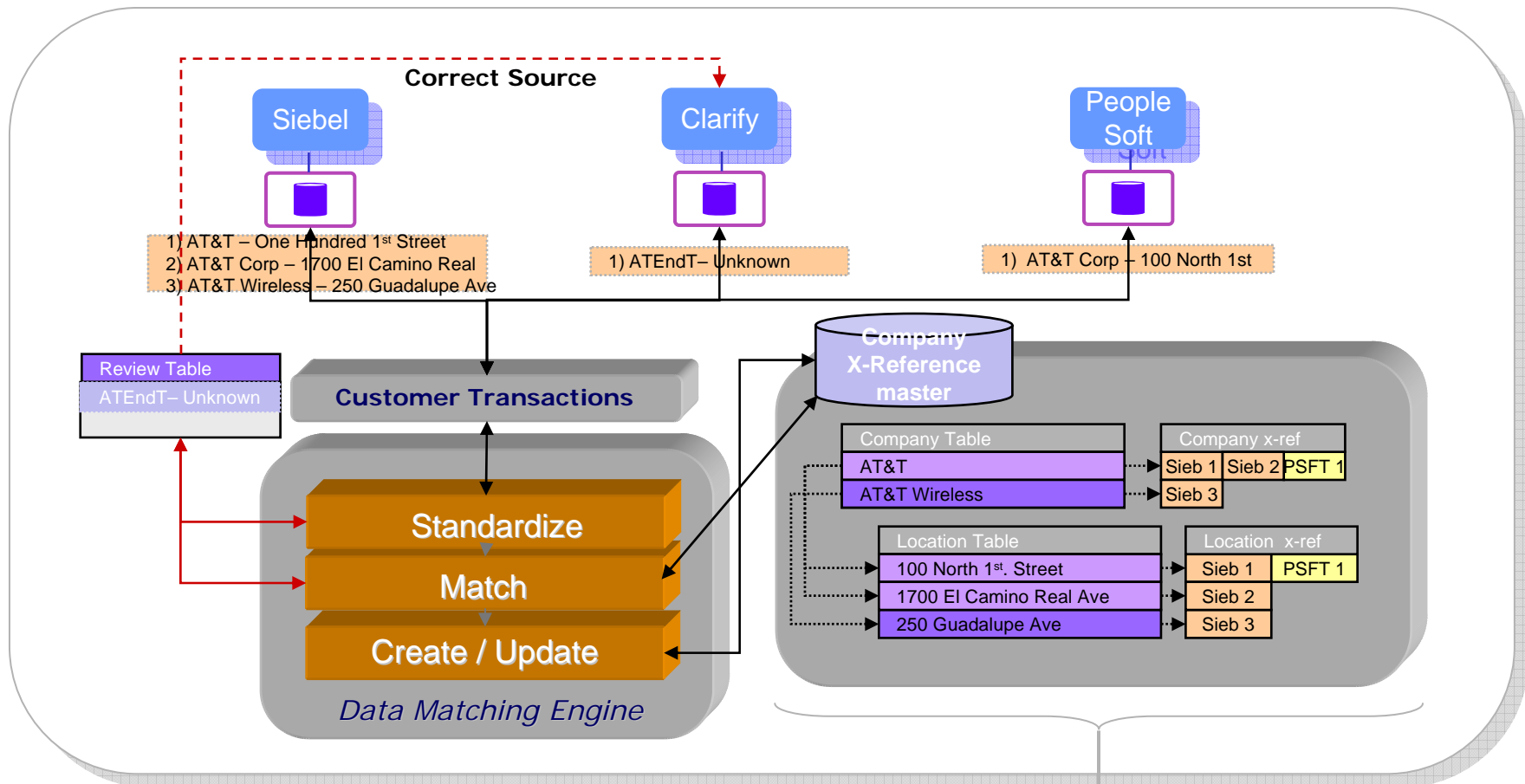


- Clarity around customer data
 - ▶ Levels (i.e. Company -> ... -> Contact)
 - ▶ Scope (i.e. IDs, Identifiers, and Reference data)
- Improve data quality to avoid actions/decisions on incorrect data
- Ability to follow a customer through the lifecycle across the systems

Customer Data Opportunities Identified as part of the FSA analysis phase

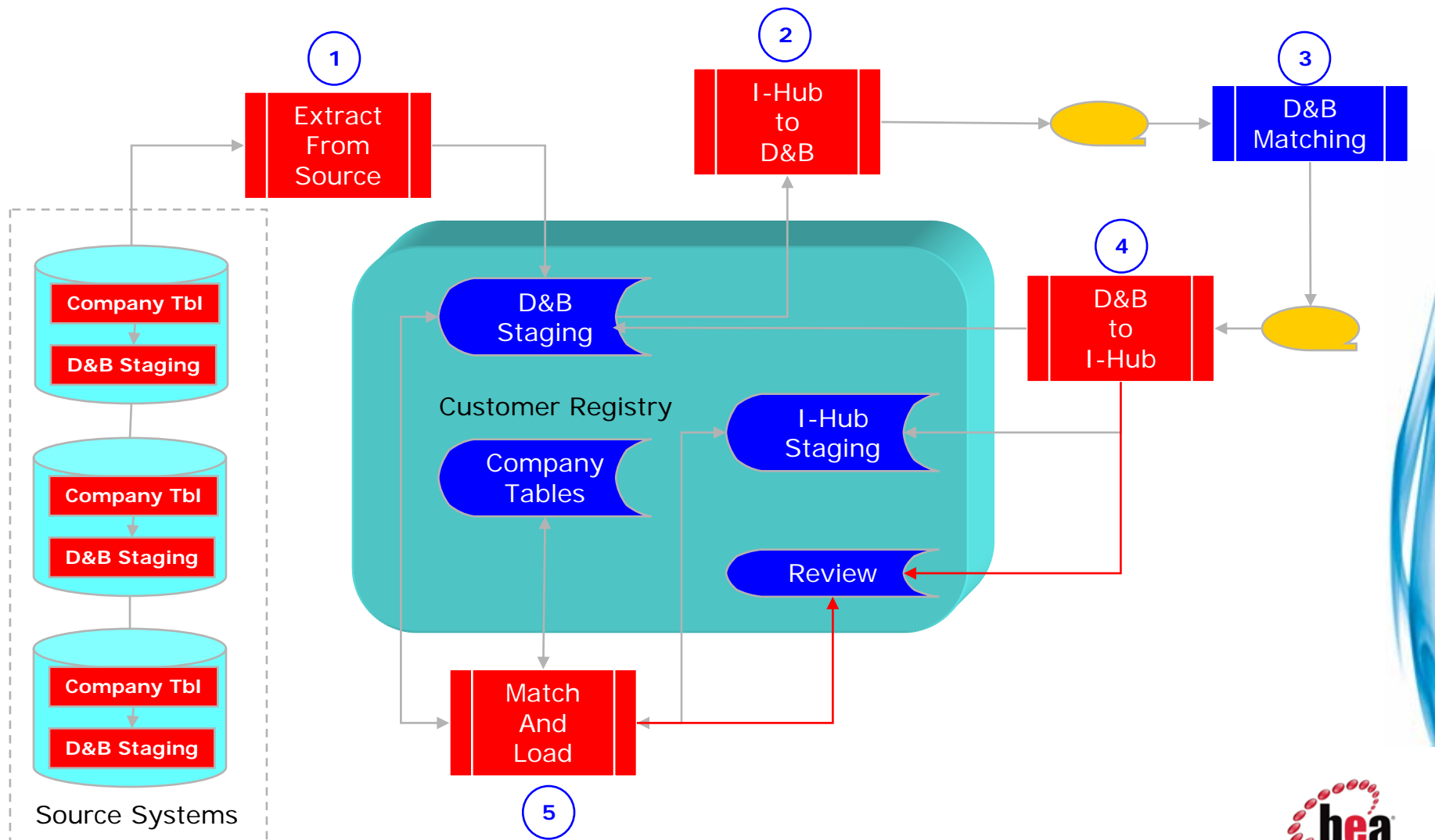
Business Areas			
Sales	Marketing	Services	G&A
<ul style="list-style-type: none"> • Customer DB <ul style="list-style-type: none"> • Customer hierarchy • Referential Data (D&B) • Integration with Customer Repository • Revenue DB <ul style="list-style-type: none"> • Use of Enterprise Customer ID • Integration with Customer Repository • Siebel <ul style="list-style-type: none"> • Matching rules tuning and maintenance • Data Cleanup • Two-way customer data synchronization • Account rep assignment maintenance • Knowledge Express <ul style="list-style-type: none"> • Use of Enterprise Customer ID 	<ul style="list-style-type: none"> • Kana / eMA <ul style="list-style-type: none"> • Integration into Customer Data repository • Customer Data Matching rules • Two-way customer data synchronization 	<ul style="list-style-type: none"> • eLicense <ul style="list-style-type: none"> • Use of Enterprise Customer ID • Integration with / into Customer Repository • CIB <ul style="list-style-type: none"> • Use of Enterprise Customer ID • Integration with / into Customer Repository • Additional levels of customer (e.g. contact) needed • eSupport <ul style="list-style-type: none"> • Use of Enterprise Customer ID • Integration with / into Customer Repository • Clarify <ul style="list-style-type: none"> • Matching rules tuning and maintenance • Data Cleanup • Two-way customer data synchronization 	<ul style="list-style-type: none"> • Peoplesoft <ul style="list-style-type: none"> • Integration into Customer Data repository • Critical Customer Data security policies • Data cleanup
<ul style="list-style-type: none"> • myBEA User Profile <ul style="list-style-type: none"> • Ties to Customer Data Repository / level of customer • Access to customer data 			

1st Generation CDI Solution: Customer Matching Approach, driven by leveraging ETL tools in conjunction with a matching engine



Key capability required to provide a Single View of the Customer

Our 1st Generation CDI solution approach



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BUILD IT AND THEY WILL COME

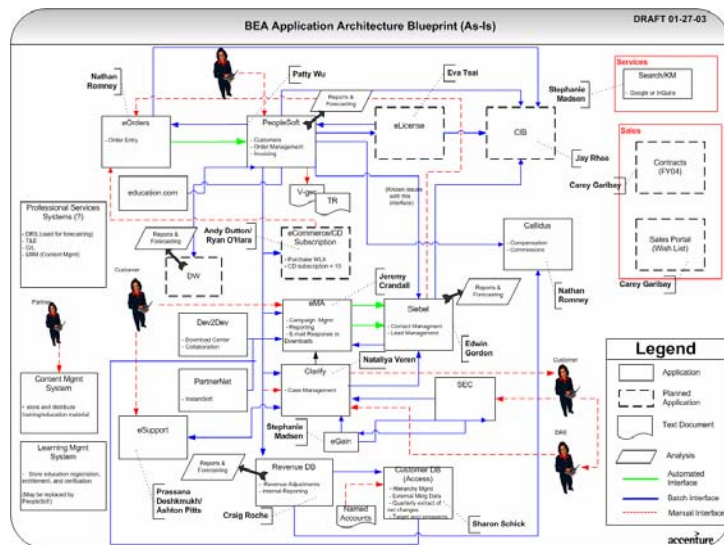
approach does not work!!!!



Even though this approach is the right one we did not meet our objectives due to multiple reasons

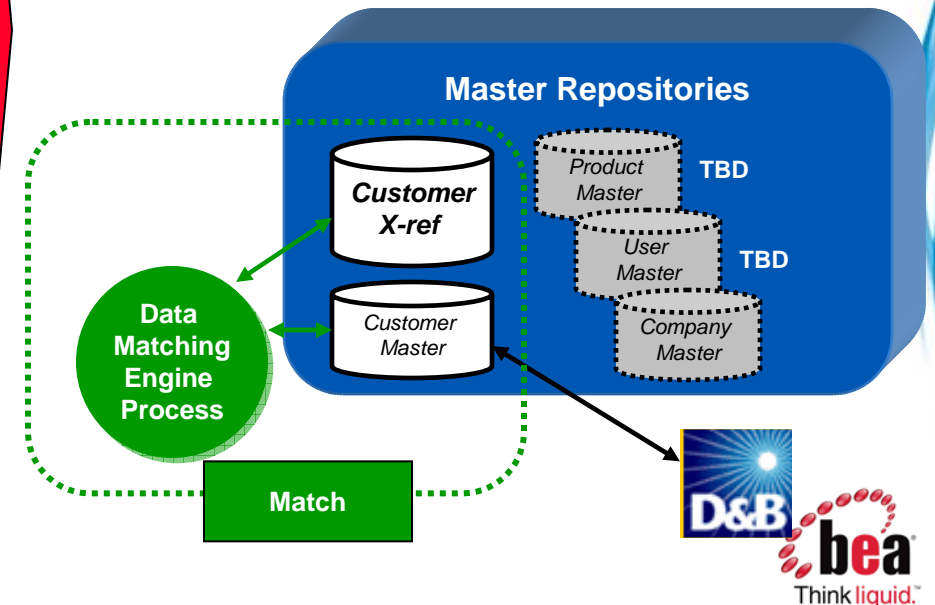
Legacy approach


- 30+ systems deal with customer data
- 12 entry points that create or update customer data
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- Duplication and disparity between various representations of same customer



Central Repository approach

- Provide one logical representation of Customer Data across the enterprise
- Provide expanded customer hierarchy (Locations, Roles, Contacts, etc.)
- Expand to provide similar capability to other key information (Product, Pricing, etc)
- Incorporate external data (D&B, Factiva, etc.)





Reasons our 1st generation CDI solution did not meet it's objectives

- Misalignment between scope of project undertaking and executive sponsorship
 - ▶ Lack of sponsorship from **ALL** the business executives
 - ▶ Sponsorship by the CIO and a couple of LOB executives was not sufficient
- Data quality deteriorated from day one due to limited capability of data stewardship
 - ▶ Developing a custom data stewardship capability is not scalable
- Most business and IT mid-management not on board with the approach
 - ▶ Educating both Business and IT organization is key

Key Learning

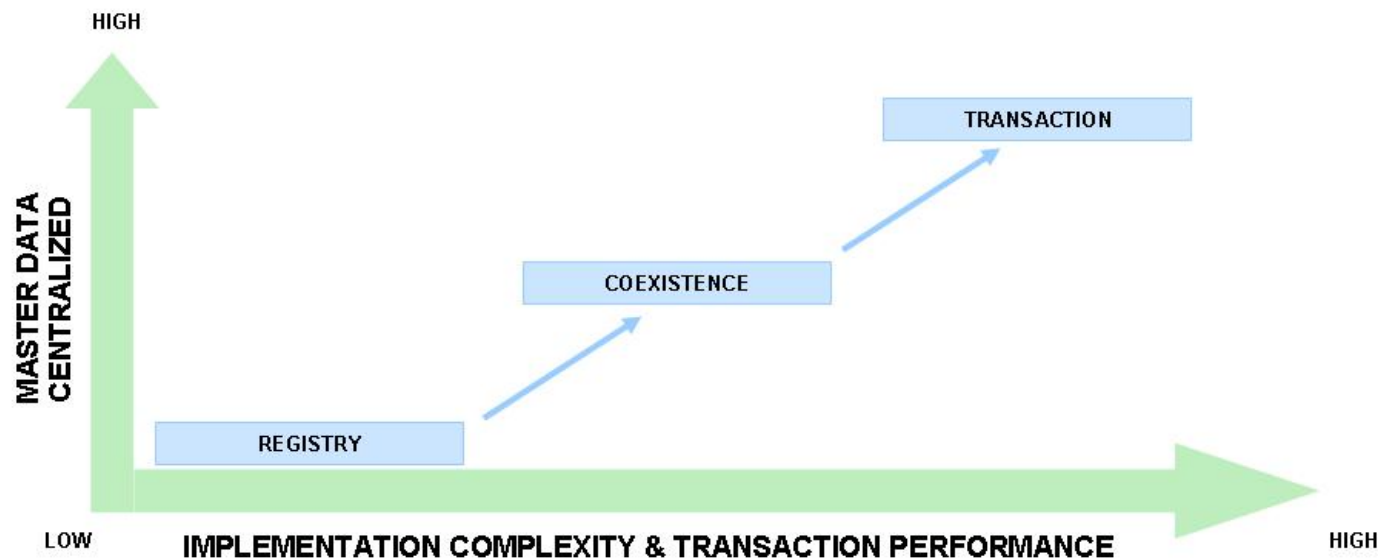
- Data quality vs. maintaining the context of the data
 - ▶ Data used in transactional systems have a context/usage to it that is difficult to reconcile into a single view
 - ▶ Data cleansing activities can distort how people search and use a single view of a customer (familiarity to certain accounts)
- Constant selling of the solution and its benefits
 - ▶ Evangelize in a clear and consistent message
 - ▶ Provide tangible results and examples that are achievable

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CDI: Understanding the different styles helped us develop a more pragmatic roadmap

DATA INTEGRATION ARCHITECTURAL STYLES		
Registry	Coexistence	Transaction
<ul style="list-style-type: none"> • Creates a Global ID and linkage (cross-reference) • Master Data entities and its attributes are not created nor stored centrally in a master data repository • Use linkage to dynamically construct read-only Data 	<ul style="list-style-type: none"> • Stores a single view of customer data and linkage (cross-reference) • Master Data entities and its attributes are created and stored centrally in a master data repository. • Create and publish a single view of the Customer 	<ul style="list-style-type: none"> • Single central source of customer data • Master Data entities and its attributes are created and stored centrally in a master data repository and is published to the transactional systems for use • The source of master data will reside in the master data repository, not with the transactional systems



Source: Gartner Research "Learn the Four Styles of Customer Data Integration" - John Radcliffe, 6 October 2004



2nd Generation Approach: Rapid Implementation to Deliver Point Solutions

Objectives

- Choose an implementation strategy that will allow for rapid deployment of CDI to meet the needs of specific business sponsors
- Broaden CDI scope and business sponsorship based on early wins
- Start with Registry Style CDI and expand to Transaction Style CDI -- if and when the business justification exists
- Leverage SOA (Aqualogic) for rapid deployment

Target Solution

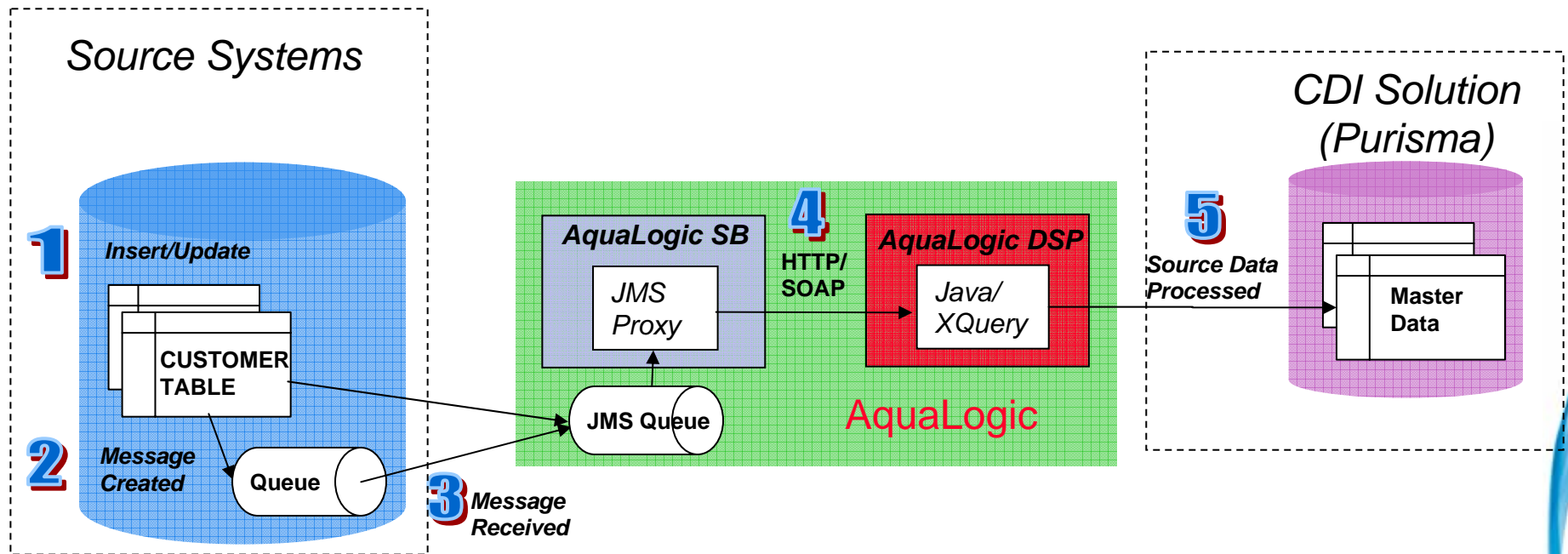
- Customer Master Data (external persons and organizations)
- Service Renewal Solution followed by Entitlement Management Solution



Success criteria established for our 2nd generation CDI solution

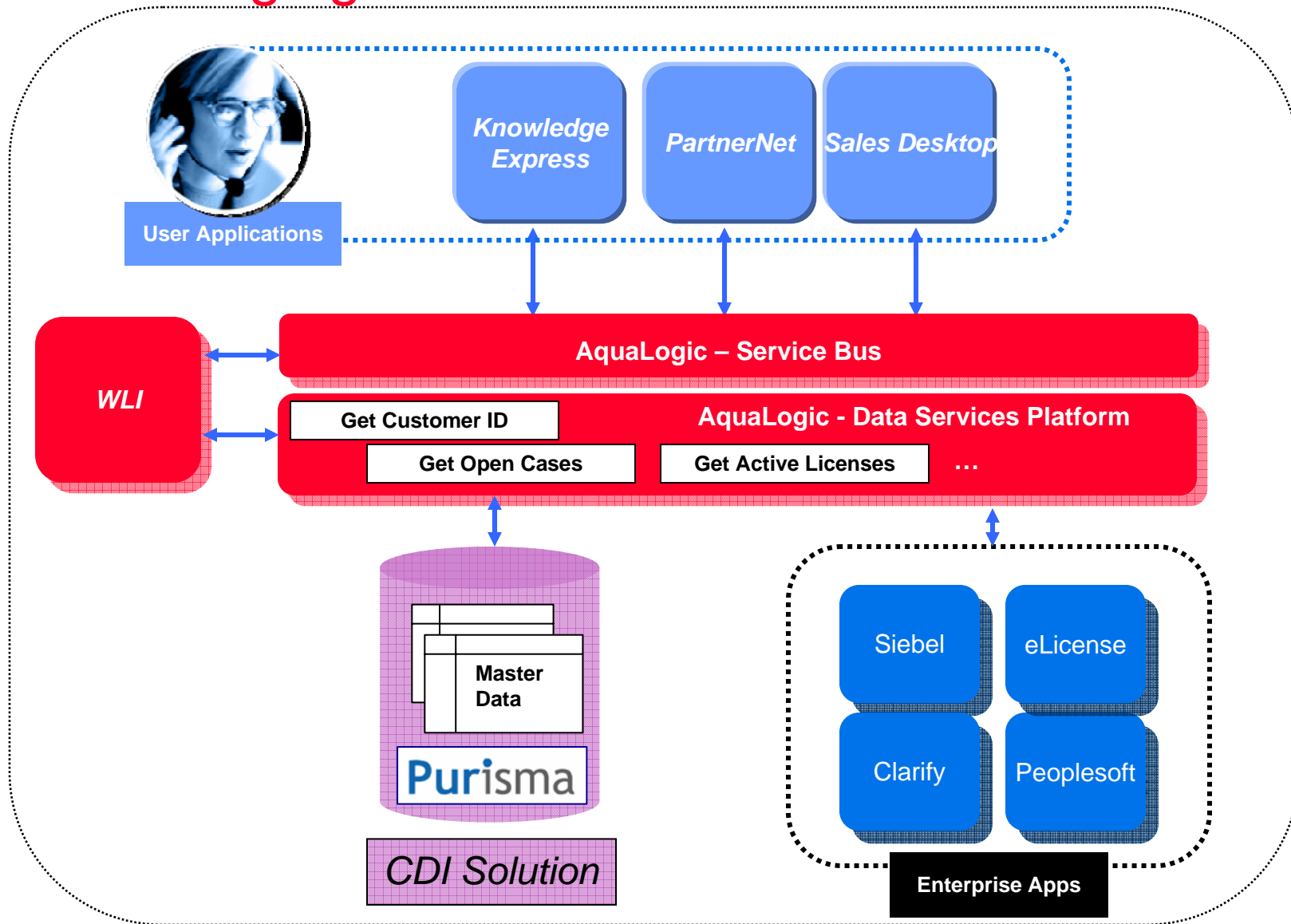
- 100% of BEA data (from Siebel, PeopleSoft) loaded into the customer master repository
- Successful correlation results for top tier BEA organizations based on business defined criteria
- Successful creation of D&B (legal), Finance, and/or Sales hierarchies
- Delivery of search and display portal for master data and hierarchy
- Defined Governance structure and process to maintain data quality

Second Generation CDI Solution: Master Data Interface Design Overview

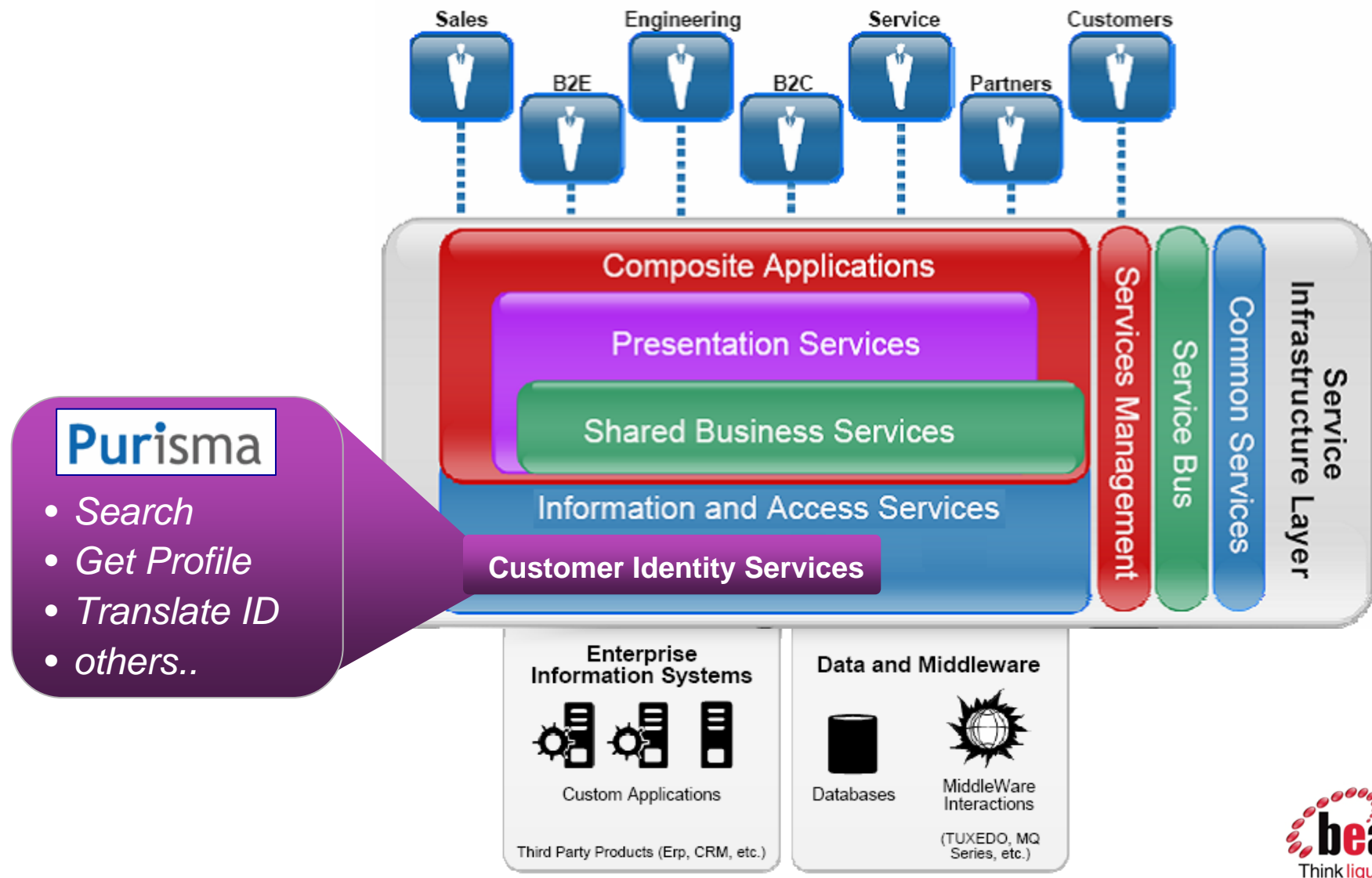


- Siebel Interface - Workflow w/ Siebel JMS Queues
 - ▶ Develop a Workflow process to capture changed data events that enqueues a JMS message containing the required data using the Siebel JMS queues.
- PeopleSoft Interface - Oracle DB triggers w/ Oracle Advanced Queuing
 - ▶ Develop database triggers to capture changed data events that enqueues a JMS message containing the required data using Oracle Advanced Queuing.

Second Generation CDI: Architecture Approach for leveraging Shared CDI Services

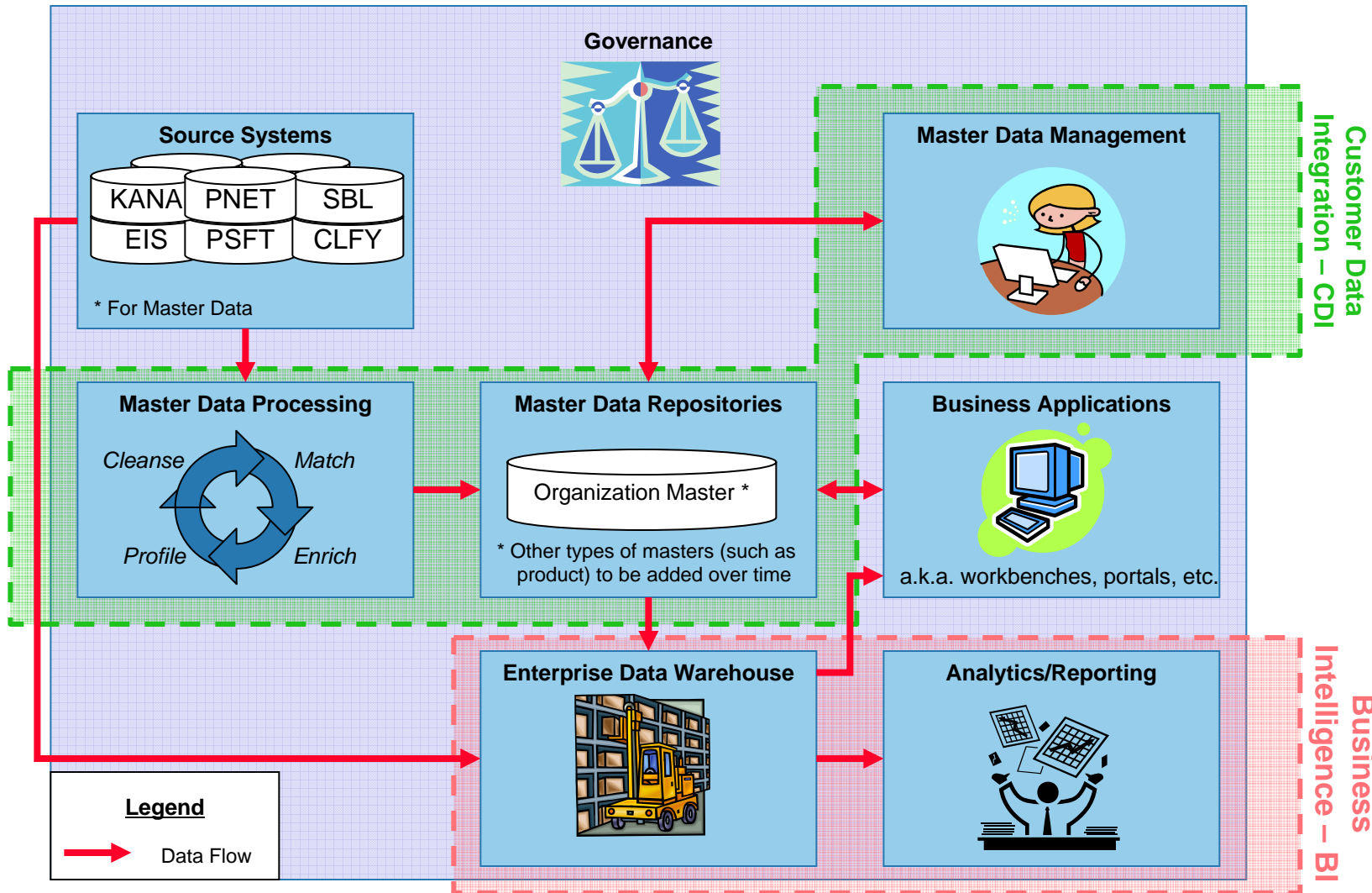


Customer Identity Services within BEA Aqualogic (SOA) Architecture



EXECUTION ROADMAP

Components of the Solution

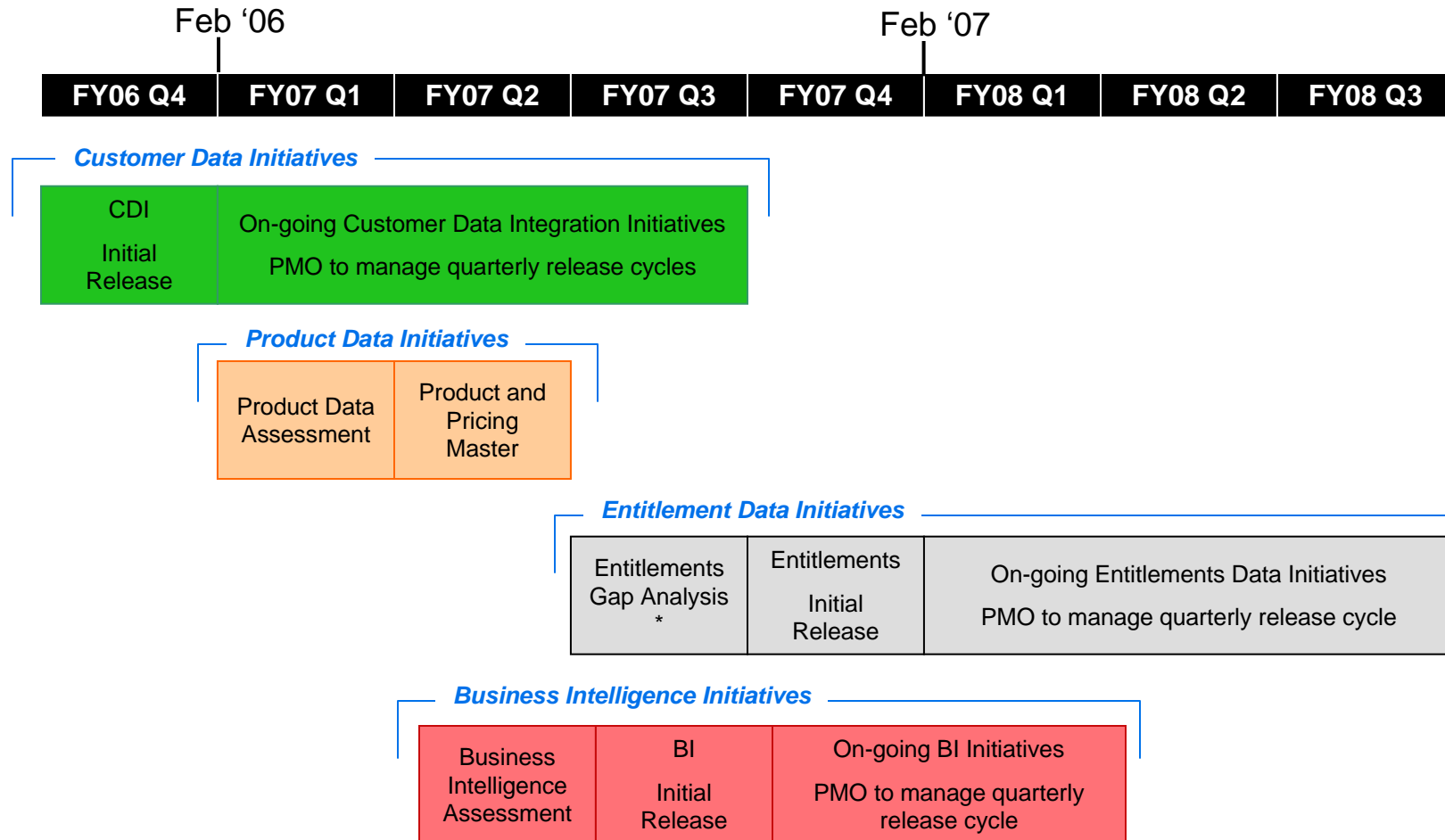


Why did we choose Purisma as our CDI Platform?

- Extensive Vendor Evaluation
 - ▶ Over 20 CDI vendors evaluated
 - ▶ 3 week hands-on technical evaluation for final candidates
- Why Purisma?
 - ▶ Best data stewardship capabilities
 - ▶ Flexible, rapid deployment (1st phase implemented in 7 weeks)
 - ▶ Best support for corporate accounts with hierarchy management
 - ▶ Foundation for growth to MDM Transaction Style implementation
 - ▶ Integration with D&B
 - ▶ Experienced team

EXECUTION ROADMAP

Overview of the Enterprise Data Initiatives





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