Migration of TCA to Best Practice

Customer Data SIG @OAUG
April 17, 2007
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Agenda

- Emerson Overview

- Customer Data Management Initiatives

- TCA Problem Definition

- Proposed Solution

  - Understanding of Best Practice

- TCA – Implementation Project

  - Background

  - Status

  - Issues

- Summary

Emerson Overview

Emerson: Company Profile

St. Louis, MO Headquarters

- **Diversified global manufacturing and technology company** serving industrial, commercial, and consumer markets around the world

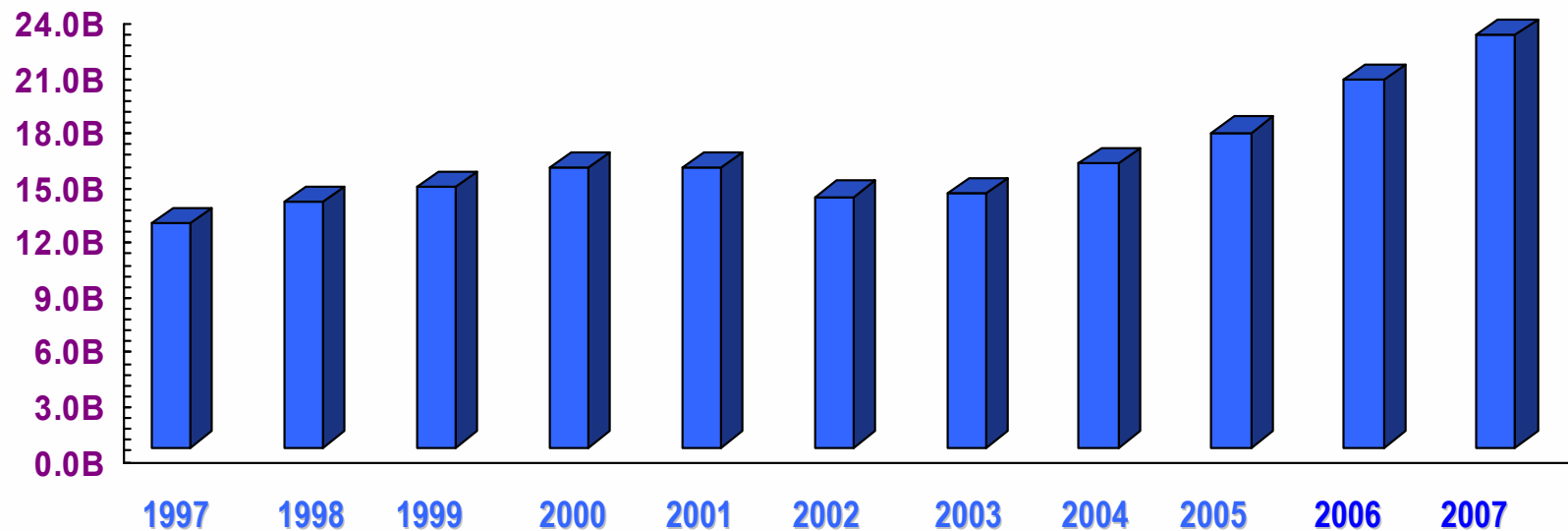- Publicly traded (NYSE: **EMR**)
- Headquarters in **St. Louis**, MO (USA)
- Recognized for **outstanding management process** and record of **consistent long-term performance**
- Manufacturing and/or sales **presence in more than 150 countries**
- **Founded in 1890** – in business for 118 years
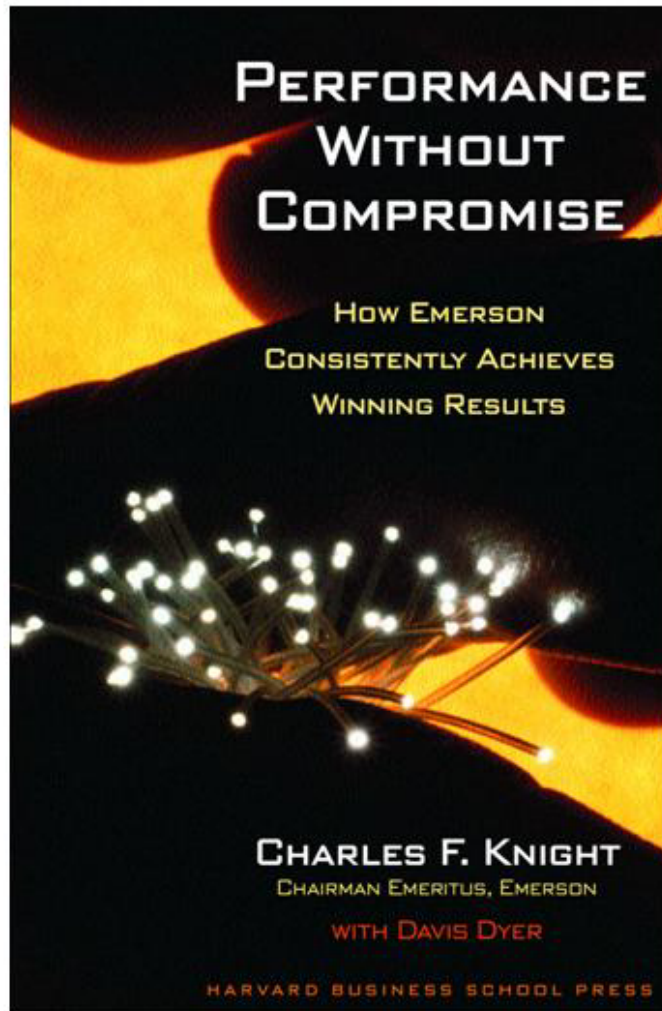
Emerson: Consistent Performance

$ Billion	11.2	12.3	13.4	14.3	15.4	15.3	13.7	14.0	15.6	17.3	20.1	22.6

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Sales Growth	9.3%	6.1%	7.6%	(0.3%)	(10.2%)	1.5%	11.9%	10.8%	16.3%	12.1%	
EPS Growth	10.8%	8.3%	9.0%	(25.4%)	4.9%	1.2%	15.1%	14.1%	31.8%	18.8%	

Fifty years of increasing dividends

Emerson's Management Process:
Studied by Students Globally

PERFORMANCE WITHOUT COMPROMISE

HOW EMERSON CONSISTENTLY ACHIEVES WINNING RESULTS

CHARLES F. KNIGHT
CHAIRMAN EMERITUS, EMERSON

WITH DAVIS DYER

HARVARD BUSINESS SCHOOL PRESS

Performance Without Compromise

How Emerson Consistently Achieves Winning Results

By C. F. Knight and D. Dyer

"**Performance Without Compromise**" is a compelling look at management process and value system that has proven successful in the face of challenge after challenge. It offers clear and relevant insight to managers seeking to excel on a global basis."

- **Gary Hamel**
Visiting Professor of Strategic Management
London School of Business

EMERSON

Published by Harvard Business School Press

Emerson – A Global Brand Leader

ELECTRONICS INDUSTRY

#	Company	Score
1	General Electric	8.11
2	EMERSON	7.51
3	Sony	7.09
4	Siemens	6.80
5	Matsushita Electric	6.49
6	Eaton	6.33
7	Whirlpool	6.30
8	Royal Philips Electronics	6.03
9	Tyco International	5.84
10	SPX	5.02

EMERSON

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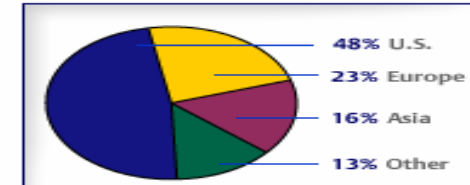**Emerson Investor**
Business Segments

Emerson has more than 60 divisions operating through five segments:

→ **Industrial Automation**
→ **Process Management**
→ **Climate Technologies**
→ **Network Power**
→ **Appliance and Tools**

2007 SALES BY SEGMENT
25% Process Management
18% Industrial Automation
22% Network Power
16% Climate Technologies
19% Appliance & Tools
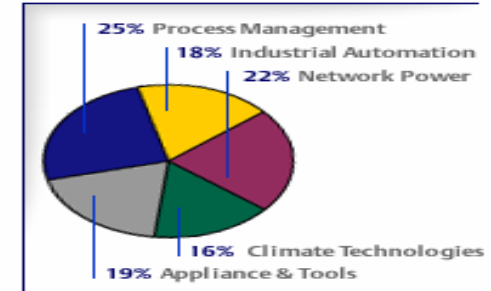
2007 SALES BY GEOGRAPHY
48% U.S.
23% Europe
16% Asia
13% Other

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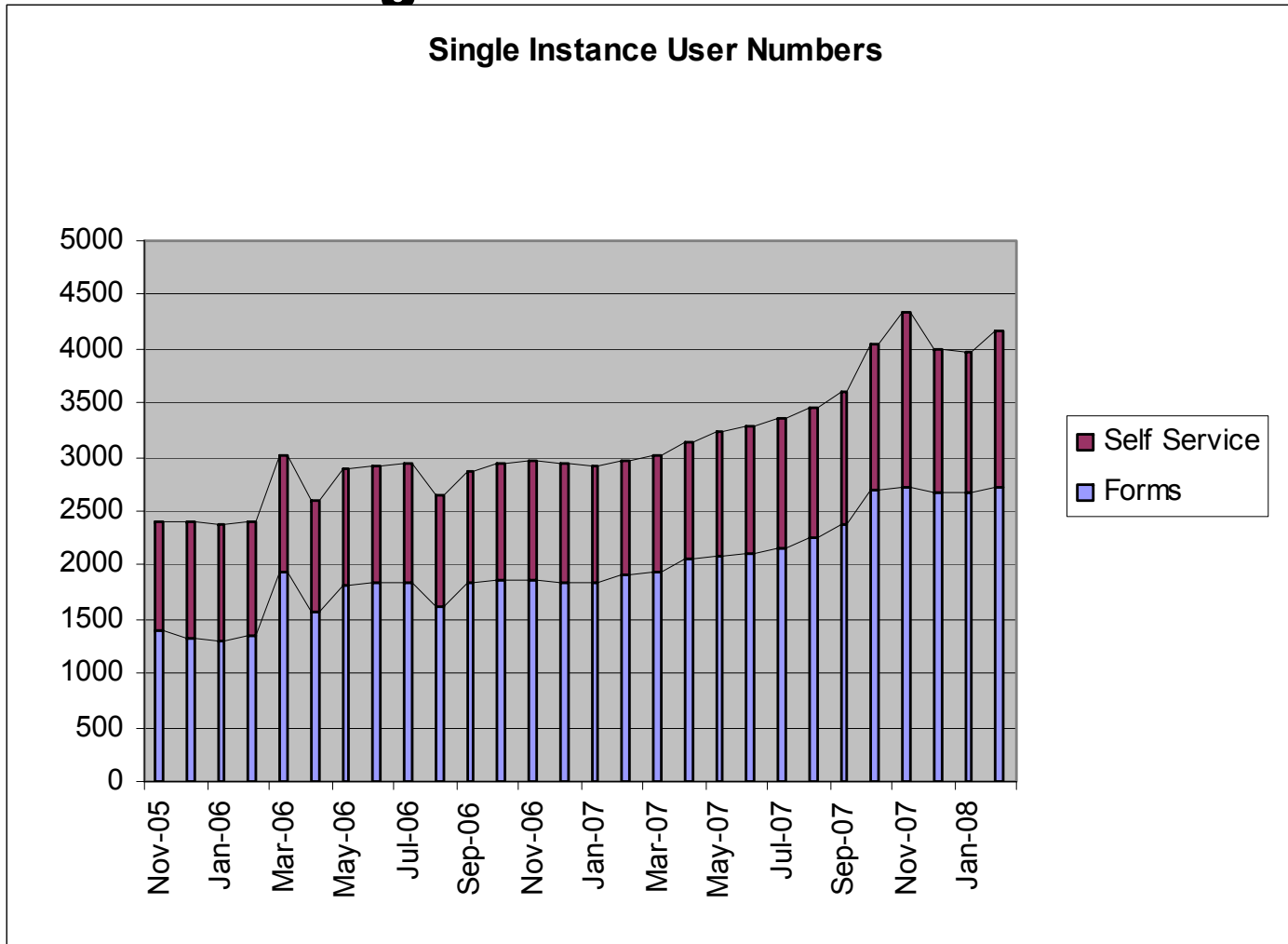
Emerson Process Management

- Sales of $5.6B in 2007 (12 – 15% CAGR)

- Products include Valves, Measurement Devices, Control Systems

- Major industries include Petrochemical, Beverage, Pharmaceutical, Power/Energy, Pulp & Paper

Emerson Process: Oracle Footprint

Column groups: Financials | Supply Chain | Manufacturing | Projects | HR-LE | Comm | ontrc | Service | Sales | Others

Columns: GL, AP, AR, FA, CM, i-Exp, i-Pay, Fin Intlg., OM, INV, PO, Adv Prcg., Config, i-Proc, Pur Intl, OIC, i - Sup, BOM, Cst., Engg, MRP/MS, Qual., WIP, ASCP, Mfg Intl, Pj. Bill, Pj. Mfg, Pj. Mgmt, Pj. Cst, i - time, OTL, LLLP, I-Store, QTE, QTE Intl., Ser. Cont, Contr, Mktg, Dpt Rep, Inst Base, Fld.Ser, I-supp, Sup, Tel.Ser, Srv.Intl, Tel Sls, Sls Offline, Sls Online, Proposal, APC, Manu. Schd, Capacity Plan, Mobile Supply

Rows: Summary, 3LP, AO-ERS, AO-IVS CAN, AO-IVS US, AO-MHM, Education, LA - Arg, LA - Brazil, LA - Mexico, MMI, PAD, PWS, PWS-Poland, RMD, PSOL, PSYS, Liquid, VLVS-BAU

Legend:
- Live
- Implementation in progress/planned
- Future Implementation

Oracle Single Instance - # of Users

Single Instance User Numbers

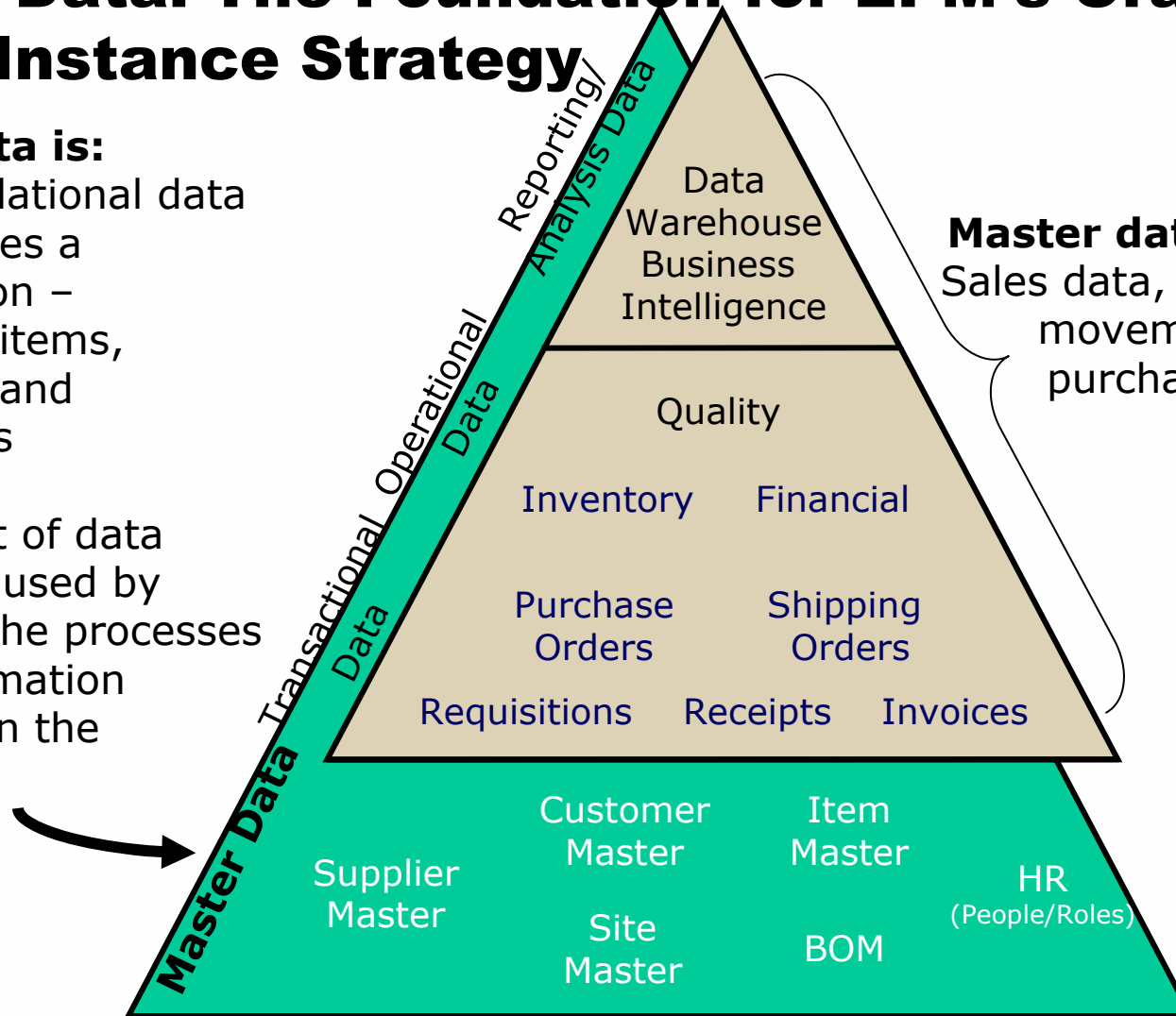Legend: Self Service, Forms

Master Data: The Foundation for EPM's Oracle Single Instance Strategy

Master data is:

- The foundational data that defines a corporation – including items, suppliers and customers

- A core set of data elements used by many of the processes and information systems in the company

Master data is not:
Sales data, inventory movement data, purchasing data

Reporting/
Analysis Data

Transactional Operational
Data

Master Data

Data
Warehouse
Business
Intelligence

Quality

Inventory   Financial

Purchase   Shipping
Orders   Orders

Requisitions   Receipts   Invoices

Supplier
Master

Customer
Master

Item
Master

Site
Master

BOM

HR
(People/Roles)

The Impact of Master Data Quality

Studies in cost analysis show that between 15% to > 20% of a company's operating revenue is spent doing things to get around or fix data

The Gartner Group estimates that 50% of systems projects do not meet original timeline, budget or ROI objectives because of data quality issues.

What corporate strategy, functional objective or key business process can be achieved with poor quality customer, item and supplier data in place?

Customer Data Management Initiatives

1. Governance
   - Centralized Control of Customers (Bill To/Ship To)
   - New Challenge with CRM – Contacts/ Prospects/Suspects

2. Data Standards
   - Country Templates

3. Customer Data Hub

4. TCA Migration to Best Practice (Party or Site Centric Approach)

TCA Migration Project

So What's The Problem??

1. There is duplicate and unclean customer data in the database.

   – Concerning since master data is foundation for our transactions and business intelligence.

TCA 101: Problem Definition
So What's The Problem??

2. The way we currently have customers defined in the TCA model is not optimal and is causing issues;

  i. Only one industry classification for customers with multiple sites.

- Impact: Sales analysis and business intelligence.

  ii. We can only relate contacts to a customer (party), not to a specific site

- Impact: Direct marketing campaigns, install base and business intelligence.

  iii. We would like to manage credit at an overall customer level, not at a customer site level

- Impact: Inefficient data management and increased exposure to bad debts

TCA 101: – "As Is" (Account Centric)
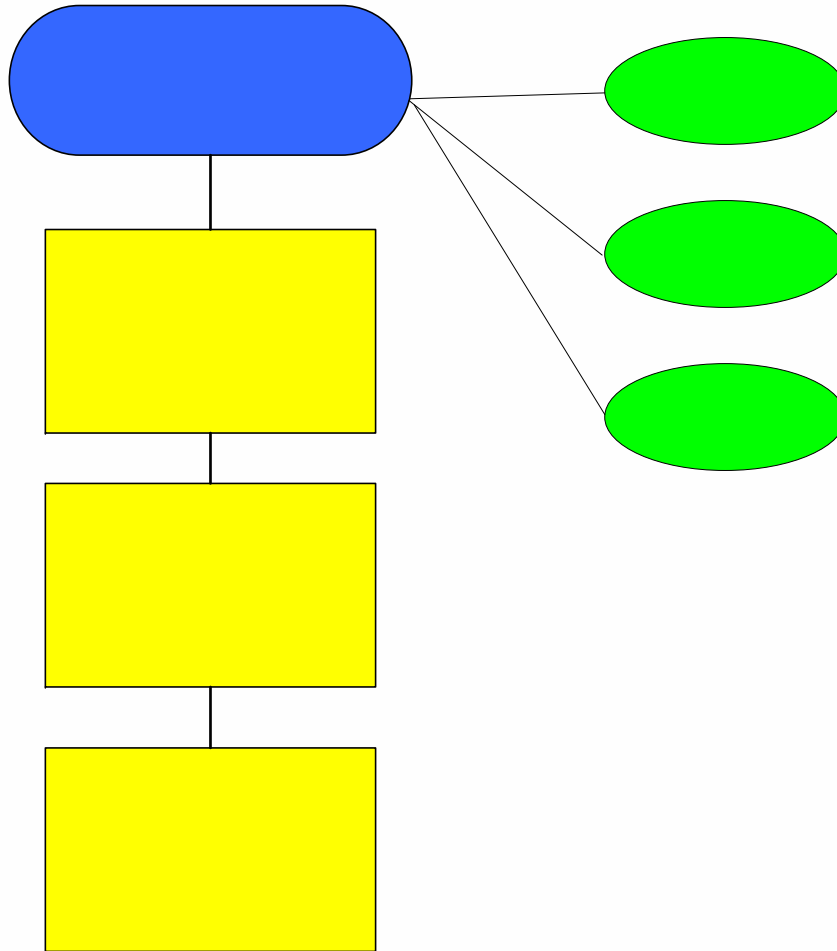
- One Party with three locations
- All three entities are separate legal entities
- All three entities have different industries.
- We have contacts at all three separate locations
- We have to define a credit limit for each location.
- One location is the head office.

Industry =

Proposed Solution

Proposed Solution: Transition to Best Practice
What does it mean?

- Setup each legal entity/location as a separate Party.

  - Contacts and industry codes are at party level.

  - Can capture the legal entities actual name.

- Need to tie each Party to its Party Parent

  - Called a party relationship.

- Apply Credit Limits at the Party Parent Level

  - Applied per currency per Set of Books.

- And while we are at it, clean-up addresses and inactivate duplicates

Proposed Solution: TCA 'Best Practice'
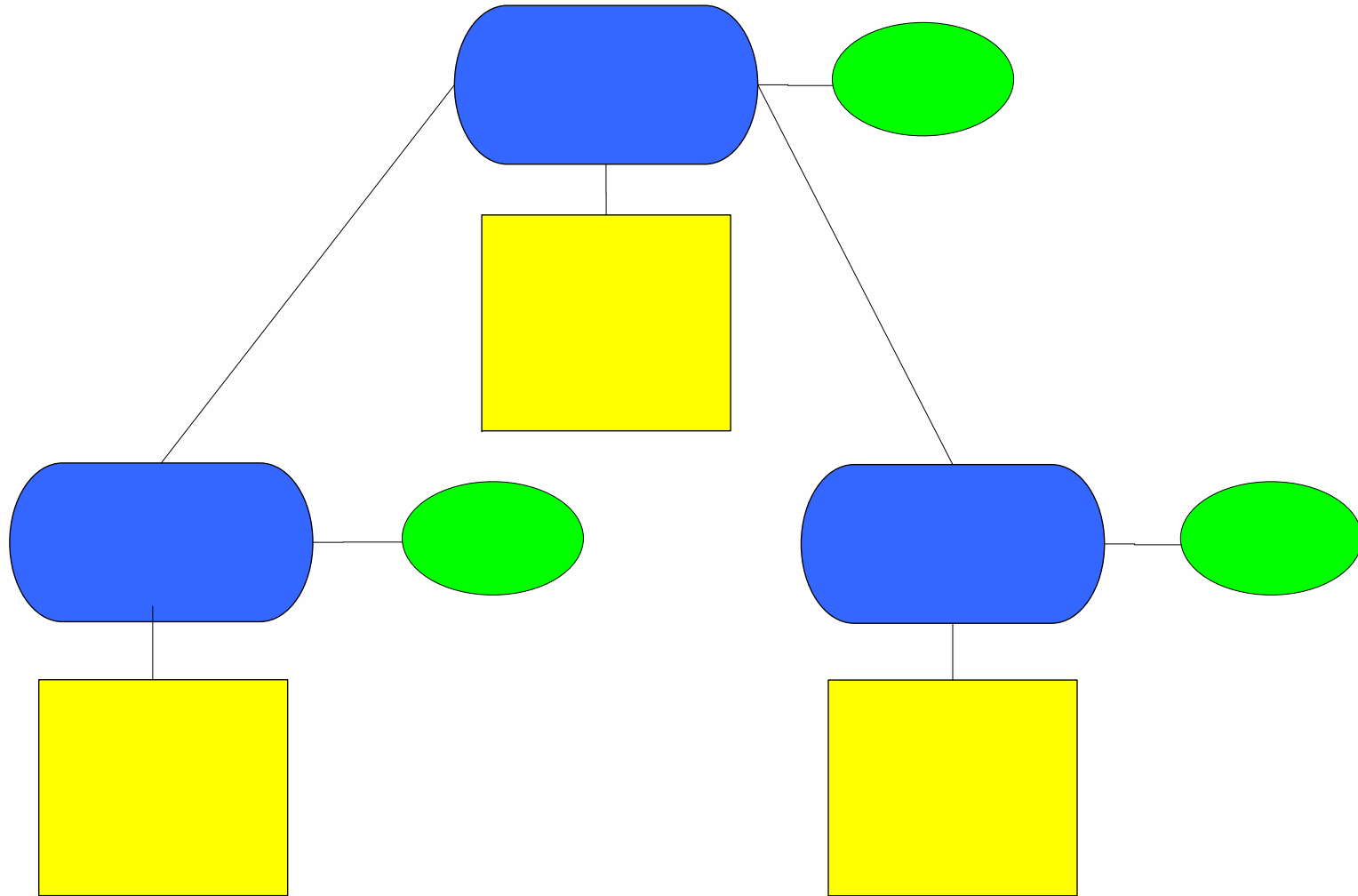
TCA Implementation Project
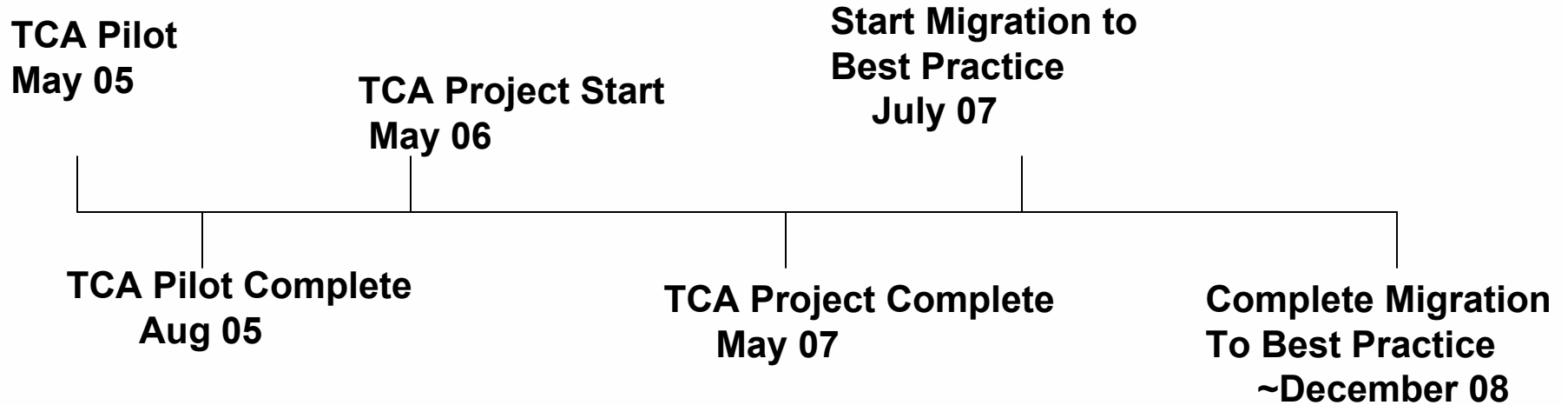
TCA Pilot Project – What Was Accomplished

- ## Developed an automated TCA migration tool
  - Creates a party centric customer model built from combining the customer records in the current operational TCA with the customer records in a "master" customer schema in Global Data Warehouse
  - Inactivated old party sites in operational TCA that are either duplicates or candidates to become a party in themselves
  - Cleansed customer names/addresses for new parties created based upon "clean" data in the GDW
  - Linked companies based upon D&B hierarchy

Migration Tool Benefits

- Automated tool is more consistent and faster than manual effort to migrate customers
- Automated tool linked parties together and built customer hierarchy based upon D&B information in the GDW
  - Hierarchy viewable by sales, customer service, and others via Customers Online module
  - Hierarchy available for business strategy purposes like credit limit management and CRM activity reporting
- Higher customer data quality
  - Many duplicates eliminated
  - New addresses have complete information and are postal certified
- Enriched customer data
  - SIC Codes, plus D&B identifier assigned to customers in operational database

Desired Result – A higher quality, richer Customer Model built upon Oracle recommended "best practice"

TCA Implementation Project

TCA Pilot
May 05

TCA Project Start
May 06

Start Migration to
Best Practice
July 07

TCA Pilot Complete
Aug 05

TCA Project Complete
May 07

Complete Migration
To Best Practice
~December 08

- ~260k Customers/Sites to Be Converted

- Oracle continued to confirm our direction throughout above timeline

TCA Best Practice Migration – Investment Summary

- Emerson Total Investment ~$650 - $750k
  - ~ $500k - Proof of Concept and Software Tools Needed to Migrate from Account Centric to Party Centric.
  - ~$150 - $250k – Cost of Resources Needed to Migrate & Clean Up Customer Base of ~ 260k records.

Issues/Challenges

Issues with Best Practice Proposal

1. ## Exponentially increase number of customers user has to look at in forms.

    –   Oracle OM Searches customer by party name only, not by location.

<u>Solution</u>: Implemented 'Blue Man' Search in Order Organizer, Projects & Service Requests

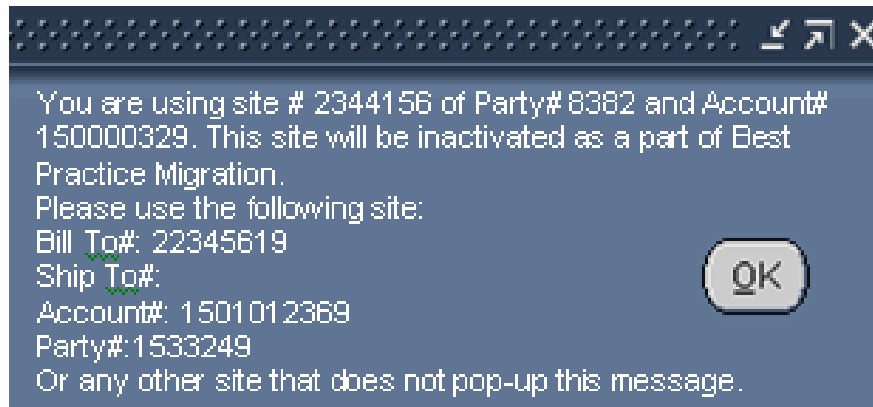# Blue Man Search - Projects

Find customer button

- Oracle Enhancement Request: Add similar functionality to Projects & Service Requests so that Bill To/Ship To can be defaulted into the forms.

Issues with Best Practice Proposal

2. Inactivation stops many In-Flight Transactions

Solution:

- Create new replacement customers in Best Practice with a cross reference to the obsolete site. Inactivate obsolete sites only when all transactions for a customer are closed.

  – When a user tries to use an obsolete/flagged customer, user gets a pop-up like the following:

You are using site # 2344156 of Party# 8382 and Account# 150000329. This site will be inactivated as a part of Best Practice Migration.
Please use the following site:
Bill To#: 22345619
Ship To#:
Account#: 1501012369
Party#:1533249
Or any other site that does not pop-up this message.

OK

Revised Solution: Inactivation of Transactions

- Run Pilot code - flags the sites due for inactivation
  - New parties & accounts and their sites have been created
  - Party and account relationships have been created
  - Contacts have been established for the sites/parties/accounts.

- The user uses the suggested site. Over time open transactions on the sites close normally. Since new transactions are not being created on earmarked sites, the number of open transaction on such sites will become zero in the due course of time.

- The scheduled concurrent program inactivates the sites automatically when the numbers of open transactions against the site becomes Zero.

Issues with Best Practice Proposal

3. Argentina & Mexico Tax Localizations are contrary to Oracle Best Practice

  – <u>Solution</u>: Temporarily exclude Best Practice migration for Argentina & Mexico operating units until Oracle addresses issue.

  – Issue raised as part of VOC in July 2006 – still awaiting real progress on enhancement.

TCA Issues: Argentina & Mexico – Tax Localizations

- Tax Localizations done in these Operating Units require that a customer have a unique taxpayer id (CUIT#) assigned by the government.
  - This is done at a legal entity level and covers multiple locations.
  - System will error if try to add customer with the same CUIT#.
  - Good news is that localization eliminates possibility for duplicates
- Results in these OU's not being able to be migrated to Best Practice
- Implementation of Best Practice would have significant impact on these OU's (reports, tax engine calculations, requires change to tax localizations, may not be possible due to tax laws of these countries).
- Tax localization is also an issue for future implementation of other countries such as Italy & possibly Portugal.

Summary: How Can Oracle Help With Success of This Project?

Emerson has made a significant investment in this initiative. We have done this without making any modifications to Oracle. There are however three areas where we still need Oracle's assistance:

1. Solution – Tax Localizations for Argentina/Mexico

2. Extend Similar Customer Search/Selection Functionality (Blueman) to Projects and Service Request Modules.

3. Data Integrity Issue – Current CRM functionality is auto-creating Bill To customers under existing customer accounts. TAR changed to an enhancement request (3604428)

   - Impacts ability for us to invoice the customer & migrate customers to Best Practice

Questions?