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R12 Upgrade: Real Life Experience in a multinational environment

DOAG SIG-Meeting E-Business Suite

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Daphne Schmitz

Information Systems
Toshiba Europe GmbH

Overview

Agenda

- **Company Overview**
- **Upgrade Reason, Project Plan**
- **Technical Preparations**
- **Training and Test Cycles**
- **Test results: eTax Decision, Functional Setup Changes**
- **Problems related to German Localizations**
- **First days after Go-Live**
- **One Month after Go-Live**
- **Lessons Learned**

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Toshiba Corporation, Tokyo: 198.000 employees worldwide

Toshiba Europe GmbH, Neuss: 810 employees in EMEA-region

Products: Computer Systems, Storage Devices, Entertainment Electronics

E-Business Suite upgraded to R12.1.3 with

- 11 Ledgers,
- 22 OUs,
- more than 150 Inventory Organizations
- Finance: Shared Service Center in Germany for European Countries
- 11i Modules: GL, AP, AR, AX, FA, CE, OM, PO (iProc), INV, BOM, WIP, HR, AME; Dunning, Direct Debit via external Tools.

R12 Upgrade - Reason and Planning

Oracle 11.5.10.2 premier support ends in Nov 2009 and Extended support ended in Nov 2012.

Sustaining Support doesn't include new updates, fixes, security alerts, and critical patch updates.

Type of Support	Version 11.5.10	Version 12
Premier Support	Nov 2009	Jan 2012
Extended Support	Nov 2012	Jan 2015
Sustaining Support	Indefinite	Indefinite

Project Runtime estimation: 9 Months, SEP-2010 to JUL-2011

Auditors requested Project Documentation, this increased Project Complexity.

CODE FREEZE for 11i Customizations: 3 month prior to R12 Upgrade Go-Live

Project Communication from highest Management

Technical Preparation – Patch requirements

Technical environment pre-upgrade requirements

Component	11i version	Required Version before R12 Upgrade
ATG Rollup	RUP5	RUP6
Database	10.2.0.3	10.2.0.4
Forms 6i	Patch 18	Patch 19
JRE	1.4.x	1.6.x

Pre-Upgrade Patch Research

Pre-/Post Upgrade	Metalink Note/Patch No	Beschreibung
Pre	461705.1	EBS Upgrade-Center
Pre	Diagnostics-Responsibility	Accounting Health Check
Pre	Patch 5259121	Accounting Setup Manager Diagnosis
Pre	Note 399362.1.	R12 Estimate Upgrade Sizing
Pre	Patch 7303029	Consolidated Pre-Upgrade Patch (CUP) for R12.1
Pre	Note 1127593.1	Additional Pre-Upgrade Patches
Pre	Patch 7653100, referenced in Note 810443.1	E-Tax Pre-Upgrade Patch
Pre	Patch 4914492	iProc Catalog Data Pre-upgrade Process
Post	Note 423541.1	RUP for Financials
Post	Note 954704.1	Oracle Financials Critical Patches for R12.1
Post	Patch 5883513	Tax Post-upgrade Rollup Patches

Technical Preparation – Development Tools

- Discussions about R12 Target version, 12.1.1 or 12.1.3:
Upgrade program only available for 12.1.1., but 12.1.3 was hoped to be more stable > 12.1.3 was chosen
- Simultaneous Database Upgrade from 10g to 11g
- Discoverer 3 was used in 11i on 10 g database without problems. Not supported in Database 11g anymore, needed upgrade to Discoverer 10
- OFA not included in R12 anymore. Link from GL to OFA was created as custom program
- Web PL/SQL not supported in R12 anymore, those customizations needed Re-Creation
- New TOAD version required

Training Cycles

- Initially, IS Application team wanted to inform themselves about R12 changes. First review showed high complexity of changes, so IT Apps Members asked for regular training.
- First Trainings: IT Applications Team, IT EDI Team
- Trainings for IT Application Team for SLA and eTax: External Experts
- Key-User Trainings by IT Applications Team
- End-User Trainings were planned to be done by Key-Users, but in Finance Area not possible due to change complexity. Finally done by Offshore Support and IT Applications Team

Test Cycles

- First technical test: Upgrade of Database version to 11g
- First EBS Upgrade test cycle: 4 weeks runtime for Upgrade programs with 19 fixes, multiple issues related to iProcurement catalogue data
- CRP
- SIT
- UAT

Test results: e-TAX

With the upgrade of Oracle EBS from R11i to R12, the e-TAX Module is introduced.

There are two “Tax Definition Types” available in R12.

- STCC for tax regimes upgraded from R11i (Standard Tax Classification Code)
- DTCC for tax Regimes defined under R12 (Determined Tax Classification Code)

While the concept of E-TAX itself is good, we discovered several gaps when using DTCC and concluded that only 50% to 60% of the tax requirements of TEG and its subsidiaries could be covered with E-TAX/DTCC.

Furthermore, Oracle Consulting strongly advised against the usage of DTCC in an upgrade project.

Therefore TEG decided to go ahead with the usage of STCC.

First tests after „raw“ upgrade showed that seeded responsibility covered Tax Codes for one country only. Thus, we had to create additional Tax Setup Responsibilities per country.

Test Results: Functional Setup changes (1/2)

- Responsibilities needed re-creation due to MOAC features. High effort due to TEG-internal automated Access Administration System
- SLA Upgrade covers only data created in current Fiscal Year or last 6 months. For additional data, Upgrade programs have to be started manually > verified with users, not required.
- 11i AR had used formula-based Taxes, integrating PL/SQL-Packages. This feature is not offered by Oracle anymore in R12, needed customizations from our end
- AP Tax Codes needed Flag „Internet Expense Enabled“ activated in 11i to be available after R12-Upgrade in AP Expense Reports. No change in R12 possible anymore.
- GL-Drilldown is based on SLA Link ID, 11i Reference Attributes are not filled anymore. This needed completely new solution for Discoverer and numerous custom Reports
- iProcurement: 11i option to overwrite Item Descriptions is considered as Bug in R12. This needed completely new solution via „Stores“, „Smart Forms“ and new PO Finance Accounting Feature.

Test Results: Functional Setup changes (2/2)

- Internal Bank accounts and Payment PPPs created by Upgrade were unuseable due to MOAC-architecture: All 11i bank accounts were upgraded without showing Org-Name in Bank Account name > up to 11 identical bank accounts were created.
- > Decision to disable all upgraded internal Bank Accounts/PPPs, manual Re-Creation
- Internal Bank Accounts: No Cash Clearing Account available anymore in Payables Document Setup, only Cash Account. Needed changes in Chart of Accounts.
- Errors in Supplier Bank Account Upgrade (multiple primary Accounts, wrong Start-Date/End-Date etc.)
- Bank Accounts were shown as ,xxxx', needed Security Setup Changes

Problems related to German Localizations

- In first tests, no Formatting program for German International EFT was available at all. This needed patch 9892616 to be fixed.
- German International EFT: At start of upgrade, logics for upgrading German Domestic EFT-Flexfields in Supplier Site / Invoice Payment Schedules did not exist at all. German Localization guide mentioned tables (e.g. IBY_EXT_PAYEE_ATTRIBS) which did not exist in our R12-environment at all.
- Tests of payment functionality showed that German EFT payment files did not include payment details anymore (invoice number/date), requirement not accepted by Oracle, needed customized rtf before Go-Live.
- 11i codes in JEDE_EFT_REASONS were not covered in Upgrade, needed to be entered manually as „Payment Reasons“ in new IBY Setup
- Z4 Report in R12 delivered as Localization with additional Flexfield (CLE.B), but DFF values not covered by Upgrade. For new transactions, no automatic DFF Default.
- Setup Internal Bank Accounts in PPRs: Mandatory to enter Federal Bank's County Number (e.g. 22 for „Nordrhein-Westfalen“) and official Company Number for Payments. But seeded rtf confused those both entries in payment file: County Number was shown as Company Number and vice versa

First Days after Go-Live

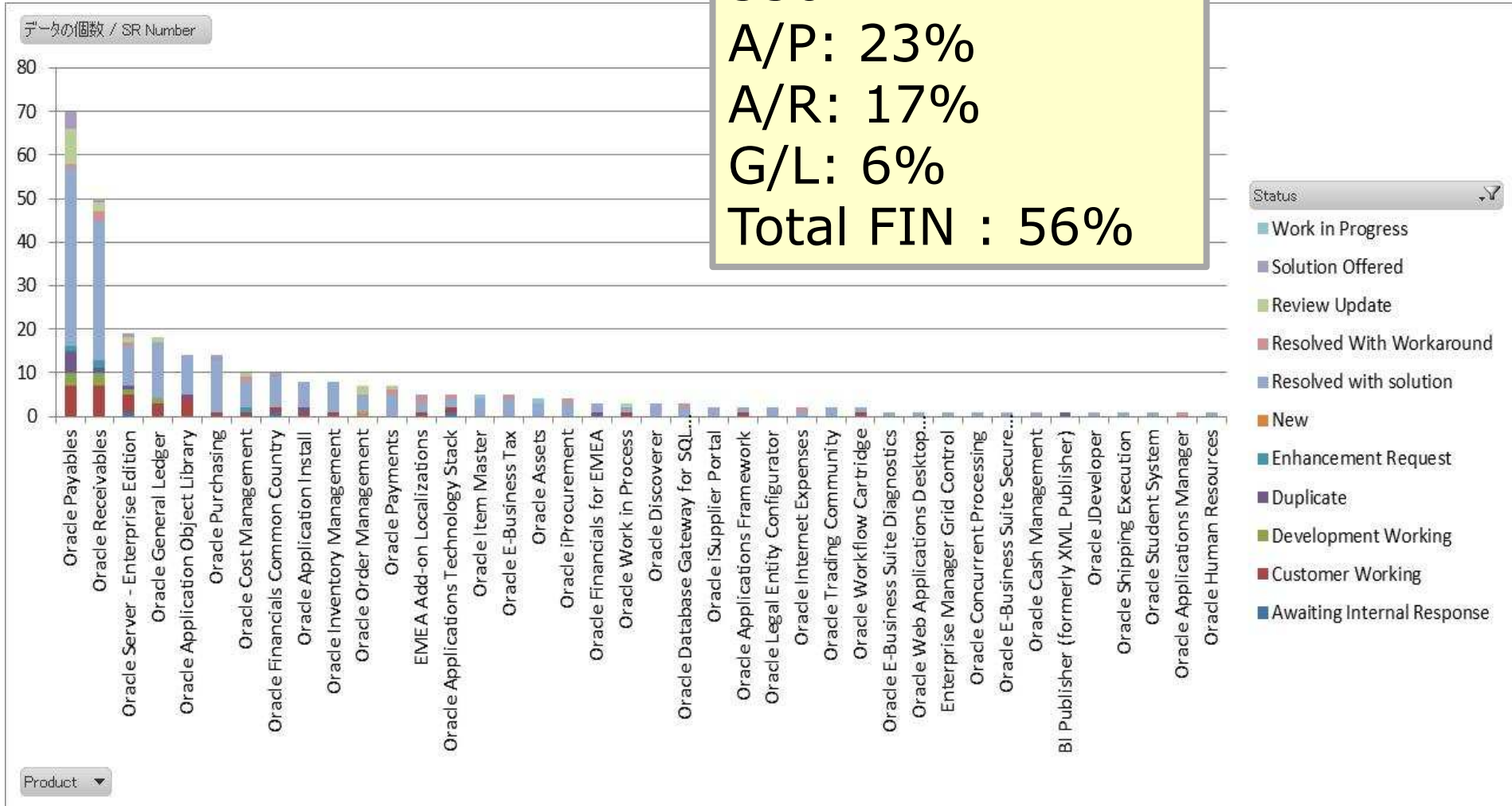
- Only few User Handling Issues (OM/INV not changed very much)
- Internal Requisitions were not created due to Program execution errors. Research showed that root cause was change of 32-bit system to 64-bit system which could not be handled by some programs.
- Payments Module created many strange or missing outputs, voiding actions took long time > changed confirmation option to „Funds Disbursement Process Manager“
- Multiple data corruptions in daily SLA for Receivables and Cost Management. Mostly fixed without Oracle support, but R12 seems to be more prone to data corruptions and requires more monitoring than 11i
- Country-specific payments were mostly fine (Italy, France, Switzerland, UK, Benelux ok), some problems with Spanish payments, severe problems with German EFT

One Month after Go-Live

- Severe **Performance** Problem (ADI, Forms query, Report OPP, Discoverer)
- Average of 8-10 Severity 1 TARs with Oracle Support > status „**Critical Account**“
- **Severe problems with German International EFT**: Credit Notes and more than 8 invoices could not be handled. Internal Decision to give up Z1-reporting system and change to Z4-solution. For this, rtf was customized and all U/V/W information was deleted. T27 was set to fix value ,00'. Test of standard programs was continued. Fully working Standard solution available after 2 months of continuous testing from our side (Upgrade Scripts and Code Fixes in Whitepaper Note **1354599.1**)
- German Domestic EFT did not create output anymore. Root cause: invoice bank account default did not consider bank account currency, so IBAN-bank accounts were selected for Domestic Payments. Solution: User-defined validation in Payments Formats („allow only Integer“). Patch 10285163 applied for bank account currency default logic.
- Invoices with decimal amounts entered in European format (.,) could not get approved in APINV, fix delivered by Oracle did not work. New fix logic delivered after 2 weeks only.
- Duplicate postings of PO Receipts
- Z4-solution did not work with seeded setup: No default of DFF, missing SLA data for upgraded invoices
- Quick Match not working anymore, 11i-functionality now a Enhancement Request in R12
- Tax Issues for Poland, partially caused by Upgrade errors for Invoice SLA

Oracle SR Statistics

Total # of SR :
356
A/P: 23%
A/R: 17%
G/L: 6%
Total FIN : 56%



Lessons Learned

- 70% of issues found and fixed during Test Cycles
- Most dangerous situation were errors due to 64-bit system. This system is only used for Production environment, so it was impossible to test
- Ongoing Performance issues, root cause unknown
- Highest amount of data corrupted by upgrade: Suppliers, Banks, IBY
- There were multiple problems the German Localizations. At the beginning of the project, **this part of the system was completely unusable** (no upgrade logics for Setup and Master Data, no working payment formats). Most parts of it had to be redeveloped by Oracle based on the feedback by TEG (Result: Whitepaper in Note 1354599.1). Seeded „solution“ for German Localizations do not seem to be tested internally anymore !?
- Few issues in SLA logic and Tax creation

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