Managing BI Volume & Complexity for Better Service
Presentation Topics

- BI Then and Now
- BI Platform Management Issues & Challenges
  - System Analysis
  - Administration
  - Storage
- Migration Considerations
- Best Practices
- Key Learnings
Managing BI Volume & Complexity

Business Intelligence – circa 2000

Administrator

Sales Management

CRM
Managing BI Volume & Complexity

Business Intelligence Now - Volume

Platform Administration Team

Operations
Executive Team
Sales
HR
Finance
Legal

Mobile Devices
Supply Chain
Regulators
Customers
Partners

ERP
CRM
DB
DATA WAREHOUSE
RECORD MANAGEMENT
Managing BI Volume & Complexity

Business Intelligence Now - Complexity

Report Objects
- WID
- RPT
- REP
- UNV
- UNX

System Objects
- Schedules
- Universes
- Business Views

Users
- Staging Environments
- Data Connectivity

Folders
- Preferences
- Audit
- Metadata

Report Instance
- Storage
- Security
- Authentication

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BI Platform Management Issues

- SYSTEM ANALYSIS
- ADMINISTRATION
- STORAGE
- QUERY MANAGEMENT
- PUBLISHING

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System Analysis

SYSTEM ANALYSIS

• System metrics
• Performance analytics
• System planning

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System Analysis – The Challenges

- You can't manage what you can't see and measure
- Volume is relative to value in use, resources and other factors
- Growth and change can present exponential complexity
System Analysis – Advanced Requirements

- Compliance, Threat & Risk Assessment (TRA)
  - Security settings analysis
  - User and user group analysis
- Content inventory
- Content usage analysis
- Impact analysis
- System performance analysis
- Query performance and data connectivity
Administration

Efficient & precise control:
• Objects
• Schedules
• Instances
Administration – The Challenges

- Responding to the information needs of the enterprise in an effective, efficient, and timely manner:
  - Managing interrelated requirements of volume, complexity, impact, expectations
  - Establishing granular control
  - Managing time-intensive, labor-intensive, error-prone manual tasks
Administration – Advanced Requirements

- General administrative tasks:
  - Managing user preferences in bulk
  - Setting security in bulk
  - Managing connections in bulk
Administration – Advanced Requirements

- Object administration:
  - Modify report properties in bulk
  - Modify default formats in bulk
  - Modify server group processing reports in bulk
- Promotion:
  - Dev to QA to Production
  - Hide credentials from developers
Adminstration - Advanced Requirements

- Schedule administration:
  - Managing recurring schedules
- Instance administration:
  - Rescheduling failed instances in bulk
Administration – Use Case Scenario

- **High-Volume Operational and Transactional Reports:**
  - Mission-Critical Applications reporting on Billions of dollars in annual Transactions.
  - Central Service - part of the “Plumbing” of the organization.
  - High-visibility to both Executives and the General Public.
  - Thousands of Report Objects (95% Crystal).
  - 100,000+ Report Instances.
  - Full DEV -> TEST -> QAT -> PROD cycle for content.
  - Regular update and promotion requests from Application-Authorities (and designated developers).
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Administration – Use Case Scenario

• High-Volume Operational and Transactional Reports:
  ▪ Small Staff of 2.5 (FTEs) are hands-on Admins of SAP BO BI Platform.
  ▪ Manage, Promote and Maintain Security during update and promotion requests using APOS tools.

  • APOS Administrator (Object Manager)
    – Promote Reports
    – Manage Security
    – Manage User Preferences
High-Volume Operational and Transactional Reports:

- Overnight Instances at regular intervals (Daily, Weekly, Monthly, Quarterly).
- All schedules coincide for MAXIMUM overnight load...and it is a Holiday Monday (Canada Day).
- Need to ensure in advance that none of our peak-loads will cause “ghost” instances on our clustered CMS servers.

- APOS Administrator (Instance Manager)
- APOS Administrator (InfoScheduler)
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Storage

STORAGE

- Archive
- Backup
- Selective restore

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Storage – The Challenges

• Remaining agile in the face of growing volume and complexity:
  ▪ Security - Operational consistency
  ▪ Retention - Regulatory compliance
  ▪ Availability - Instant access
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Storage – Advanced Requirements

- Object Backup:
  - Operational issues
  - Guard against accidental deletion

- Instance Archive:
  - Compliance issues, documents of record
  - Retention requirements
  - Conversion to neutral format

- Selective Restore:
  - Limited rollback, instant access
  - Compliance imperative
Storage – Use Case Scenario

- Selective restore:
  - Takes minutes, not hours or days
  - Match CUIDs in Production, Dev, QA
Storage – Use Case Scenario

- High-Volume Operational and Transactional Reports
  - Hundreds of Crystal Reports.
  - 100,000+ Crystal Report Instances generated to PDF format over the last six (6) years.
  - Legal Compliance & Retention policy requires each PDF to be retained for up to 21 years.
  - Back-up, Disaster Recovery and Document Management standards and policies must be respected.
Storage – Use Case Scenario

- High-Volume Operational and Transactional Reports
  - Existing corporate OpenText standard defined for Document Management.
  - Existing corporate Business Objects standard defined for Business Intelligence.
- How to get them to “talk” to each-other…?
- Make OpenText the Document-Retention location, not the Output FRS in Business Objects.

- APOS Publisher
- APOS Storage Centre
Query Management – The Challenges

Query Management

BI Data Connectivity
- Monitor
- Manage
- Audit

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Publishing – The Challenges

PUBLISHING

- Document production
- Publishing & bursting
- Distribution workflows

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Migration & the Unknown

Embracing the new with eyes wide open:

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."

Mark Twain
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Migration – The Challenges

- Reduce the uncertainties inherent in the migration process
- Allow for contingencies
- Use available resources efficiently and effectively
Migration Considerations

- Plan, plan, plan
- Know your environment - assess, don’t assume
- Clean up content & migrate only what is necessary
- Establish governance processes
- Automate, automate, automate
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Migration - Planning

- Hardware
- Platform
- Security
- Tools and content
- Testing
- Prioritization
Migration – System Knowledge

- Extract benchmark information about your system before the migration, then after the migration, and compare them
- Run comparison reports/queries of what has changed
- See where reports have moved to in the new deployment
- Map IDs in one system to IDs in the other
- Compare the security structures between the two environments to ensure groups are in place, users are in groups and all are properly permissioned, thus eliminating security holes
Migration – Content Management

- Clean up content:
  - Know what Reports, Instances, and Users are actually active
  - Know what content is redundant
  - Remove any redundant or unused content

- Migrate only what is necessary:
  - Archive Instances so that migration will go more smoothly and quickly
  - Old 3.1 instances can be restored to your 4.x system if/when required
  - Have backups of all report content “just in case”
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Migration – Automation

- Universe conversion
- Web Intelligence migration
- Crystal Reports migration
- Desktop Intelligence extension/conversion
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Migration – Use Case Scenario

- Central Service - part of the “Plumbing” of the organization.
- Thousands of Report Objects (95% Crystal).
- 100,000+ Report Instances.
- Thousands of Internal Corporate users, and an “unlimited” number of external-users who can self-serve Proactive-Disclosure content.
- “Coasting” is **not** FREE (Stay supportably-current).
- Old infrastructure + Old Software = RISK
- Hard to change the “Plumbing”.

Old infrastructure + Old Software = RISK

"Coasting" is not FREE (Stay supportably-current).
**Migration – Use Case Scenario**

- **Assess**, don’t assume (Audit, Monitor, Review your current state).
- Don’t expect your end-users to know what they actually do on the system.
- Mix of tools available from both SAP and APOS.
- Plan and Size for the peaks – even if they are rare (e.g., Black Monday).
- Upgrade-in-Place options are limited by your Source System and the volume of content that you need to migrate.
- Side-by-Side / Multi-Pass / Incremental migration makes the most sense for many organizations.
- Move the smaller Business-Units first.
- Validate, then move on to the next Line-of-Business.
Managing and planning are dependent on your being able to see clearly the composition of your system and measure its processes and outputs.

Volume and complexity sneak up on you. It's in your interest to be proactive and anticipate their effects on your platform.

Volume is relative to complexity and available resources.

Volume and complexity are inseparable. Together, they can present significant challenges that require innovative thinking and advanced solutions.
Best Practices - Volume & Complexity

- Be proactive to prosper in an environment of growing volume and complexity.
- Achieve complete visibility into your system's content and processes.
- Use automated and bulk administration to manage the needs of your information consumers in real time.
- Guard the integrity of your content to make it your greatest asset, rather than your greatest liability.
Best Practices - Migration

- Spend more time planning upstream to prioritize activities downstream and reduce uncertainties.
- Understand and fine-tune your existing deployment.
- Automate to make the most of your resources.
- Leverage existing content.
- Establish information governance processes.
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APOS Solutions

**Administrator**
Automated administration and management

**Insight**
System monitoring and analysis

**IDAC**
Intelligent Data Access Control

**Storage Center**
Archive, backup and selective restore

**Publisher**
Document Bursting, consolidation and delivery

**Migration**
Speed and simplify migration processes

**BI Mobile App**
BI 4 Mobile Access for iPad/iPhone
System Structure Analysis
Complete inventory of system objects, instances, schedules, users

Migration Impact
• System usage analysis
• Inventory system for migration planning
• Pre and Post migration system analysis for migration validation
• Impact analysis to understand which reports will be impacted by the migration

System Planning
"What-if” Impact analysis
Report design analysis
Content structure and usage analysis
Universe structure and connectivity analysis
Pre-Migration planning
Post-Migration auditing and validation
## APOS Administrator
Automated administration and management

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<th>Security Management</th>
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<td>Manage security within a matrix</td>
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<td>Manage users, groups and preferences</td>
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<td>Administer and document security, content</td>
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<td>Create and manage Advanced Rights profiles</td>
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<th>Object Management</th>
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<td>Object promotion</td>
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<td>Universe management</td>
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<td>Report connection maintenance</td>
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<td>Bulk management of object settings and preferences</td>
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<th>Instance Management</th>
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<td>Granular instance search (Status, Owner, Report ID)</td>
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<tr>
<td>Bulk management of instances</td>
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<td>Reschedule instances</td>
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<td>Manage pending and failed instances</td>
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<tr>
<th>Migration Impact</th>
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<tr>
<td>• Prepare your source system for migration using bulk administration</td>
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<td>• Rebuild and manage your target system in bulk</td>
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<td>• Rebuild your BI 4 security structure in bulk</td>
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<td>• Rapid reconstruction of recurring schedules</td>
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<th>Structured Promotion</th>
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<td>Create promotion packages</td>
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<td>Automated scheduling of packages</td>
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<td>Secure package delivery</td>
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<td>Objects can have their properties pre-set</td>
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APOS Storage Center
Archive, Back up, and Selective Restore

Archiving
- online or offline Archiving
- exporting archive files to independent formats
- zipping of archive files

Backup and Versioning
- business-rules-driven backup of report instances and objects
- controlled schedule or ongoing backup
- backup of multiple versions of report objects
- restore individual reports or subsets or folders

Selective Restore
- selectively restore report folders, objects and instances without downtime
- controlled restore of report instances to the system to the original location or to a different location

Migration Impact
- Reduce migration scope and volume by archiving and purging instances
- Streamline migration by restoring content previously backed up on the source system into the target 4.1 system
- Automatically export archived instances to neutral format
- Mitigate risk by safeguarding documents and instances for audit and compliance purpose

Neutral Format
- conversion of instances to neutral format for long-term storage
- export instances while you are archiving or backing up
- keep both the original and the exported format in the archive
APOS Migrator for BI 4 Web Intelligence

High volume repointing of Web Intelligence reports to new UNX universes

- Re-point Web Intelligence reports from UNV universes to UNX universes
- Update existing reports or create a new copy in the desired location and naming convention
- Convert UNV to UNX and re-point Web Intelligence reports in a single, two-phase process
- Log conversions and issues
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APOS Migrator for BI 4 Web Intelligence
Thank-you!

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