SAP BW 7.5 Upgrade & HANA Migration Project at University of Cincinnati

Johannes Lombard – LSI Consulting – jlombard@lsiconsulting.com
Christine Street – University of Cincinnati - Christine.Street@uc.edu
We went live this past weekend!

Only the 3rd client live with BW 7.5 on HANA globally, and first in North America!
Agenda:

- About the University of Cincinnati ("UC")
- Project Success Criteria
- Project Scope
- Project Timelines
- Why start with BW on HANA?
- Why HANA?
- Why BW on HANA?
- LSA++
- Reporting Strategy impact
About the University of Cincinnati ("UC"): 

- UC, Ohio’s premier urban research university, traces its origins to 1819;

- 1870: the City of Cincinnati established UC, which later absorbed the two predecessor institutions;

- 1906: UC created the first cooperative education program in the world;

- 1968: UC became a “municipally sponsored, state affiliated” institution, entering a transitional period culminating on July 1, 1977 when UC joined the university system of Ohio;

- Today, UC is classified as a Research University (Very High Research Activity) by the Carnegie Commission, and is ranked as one of America’s top 25 public research universities by the National Science Foundation;

- UC people have defeated polio, invented Benadryl and even dreamed up the very idea of cooperative education;

- UC is a public research university with an enrollment of more than 44,000 students and has been named "Among the top tier of the Best National Universities," according to U.S. News & World Report.

- As the largest employer in the region, UC’s economic impact is more than $3 billion.
Project Success Criteria:

- Entire BW landscape upgraded and migrated to HANA, with data integrity 100% intact;
- Established Enterprise Reporting Tool Strategy and Decision Tree;
- High Performance BEX, as well as Business Objects reports and dashboards;
- Adoption of Top 3 Business Objects solutions by executives.

Help setting the standard for BW HANA migrations for Higher Education.

*ERP – BW load and activation: 40m records: 3 days ➔ 1 hour*

*DSO Activation: 19m records: 3 hours ➔ 90 seconds*

*Data compression: x5*
Project Scope:

- Development of the Project Charter;
- Development of the Project Plan;
- Definition of a Governance Structure;
- Development of an Enterprise Reporting Tool Strategy and Report Decision Tree;
- Overall HANA Deployment Risk and Readiness assessment;
- Data Classification and Archiving decision-making;
- Readiness decision-making: SAP PBF with NW 7.5;
- Upgrade SAP BusinessObjects to 4.1, latest SP;
- Installation of SAP HANA, SAP BW Technical Upgrade to NW 7.5, Migration to SAP HANA;
- Deployment of Report and Dashboard solutions (Top 3) utilizing SAP Business Objects, per the Enterprise Reporting Tool Strategy and Report Decision Tree;
- Development of a Roadmap / Strategy for future HANA use cases, incl. SAP PBF, SAP SOH, S/4 on HANA, and Fiori;
- Instructor-led classroom training of BW 7.5 functionality.
## Project Timelines:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Charter, Project Plan, Governance Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise Reporting Tool Strategy and Decision Tree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HANA Deployment Risk and Readiness assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Classification and Archiving decision-making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP PBF / BW server strategy, with SAP NW 7.4 or 7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrade SAP Business Objects 4.1 to latest 5P, or 4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP NetWeaver BW running on SAP HANA Database TDI installation</td>
<td>SBX</td>
<td>DEV</td>
<td>QAS</td>
<td>PRD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP BW HANA Database migration [RDS activities]</td>
<td>SBX</td>
<td>DEV</td>
<td>QAS</td>
<td>PRD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of a Roadmap / Strategy for future HANA use cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual BW Datamodel Optimizing options, BW Unit testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructor-led classroom training of BW 7.5 functionality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deployment of Report and Dashboard solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Go-Live support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Consulting roles: BUDGET - ORIGINAL

<table>
<thead>
<tr>
<th>Role</th>
<th>Nov-15</th>
<th>Dec-15</th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Total Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Quality Assurance &amp; solution architect (Johannes Lombard)</td>
<td>60</td>
<td>60</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>50</td>
<td>50</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>472</td>
</tr>
<tr>
<td>SAP HANA Installation specialist and Administrator (Kiran Naik)</td>
<td>32</td>
<td>48</td>
<td>64</td>
<td>80</td>
<td>64</td>
<td>80</td>
<td>80</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>616</td>
</tr>
<tr>
<td>SAP HANA, Basis, Business Objects Administrator (Anil Lamba)</td>
<td>-</td>
<td>-</td>
<td>48</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>240</td>
</tr>
<tr>
<td>BW, BW on HANA, Business Objects architect (Kiran Mehendale)</td>
<td>-</td>
<td>40</td>
<td>64</td>
<td>64</td>
<td>64</td>
<td>64</td>
<td>80</td>
<td>80</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>568</td>
</tr>
</tbody>
</table>

Total Hrs: 1,896
Why start with BW on HANA?:

The Stages, Timelines and Work Task Breakdown for the Migration of the SAP Systems to the HANA platform; are as follows:

- **Stage 1:** Technical Upgrade of the existing SAP BW system to the latest release 7.5 and SP level, and a database migration from the existing database to SAP HANA.
- **Stage 2:** Technical Upgrade of the existing SRM system to the latest SP level, and a database migration from the existing database to SAP HANA.
- **Stage 3:** Technical Upgrade of the existing ERP system to the latest release of Suite on HANA, and a database migration from the existing database to SAP HANA.
Why HANA?:

Reporting – Simplified Architecture

Traditionally, SAP has stored GL, customer, and vendor balances and open item statuses in a number of extra database tables in order to support reporting:

- A vendor invoice with 3 accounting line items would update at least 10 tables at least 15 times!

Simple Finance (powered by HANA) can achieve the same reporting directly off the line item tables without the need to store balances or open item statuses separately:

- The same vendor invoice in Simple Finance would update at least 4 tables 7 times
Why BW on HANA?:

**Managed DW**
BW-on-HANA
- Finance, FM, GM, Procurement, HCM
- OLAP - MANAGED

**Freestyle DW**
Native HANA DW
- Patients, Students, Fans
- RELATIONAL - SQL

**SAP HANA DW Strategy: convergence into ONE technology stack addressing BW and SQL DW needs**

From @tfxz blog: frequently get the question whether BW will be rebuilt on SAP HANA. Actually, it is philosophical to a certain extent as BW evolves: e.g. today's BW has less ABAP code in comparison to BW 7.3 on HANA. This can be perceived as BW being rebuilt on HANA.

What does not make sense is to kill the approach on the right-hand side by integrating the "freestyle tools" into a second, highly integrated toolset which mimics the BW approach because that would simply remove the flexibility and freedom that the right-hand approach has.
Why BW on HANA?:

Performance / Simplification / Real-time access / Moving towards single HANA DW / no Throw-away work / Auto generate Native HANA views

1. **STAGE 1**
   - Virtual Layer
   - Integration Layer
   - Transf. Layer
   - WRO DSO Layer

   **SAP Business Warehouse**
   - Action: Turn on In Memory conversion for InfoProviders

2. **STAGE 2**
   - Virtual Layer
   - Integration Layer
   - Transf. Layer
   - **WRO DSO Layer**

   **SAP Business Warehouse**
   - Action: Remove Write Optimized DSO's

3. **STAGE 3**
   - Virtual Layer
   - **Integration Layer**
   - Transf. Layer
   - **WRO DSO Layer**

   **SAP Business Warehouse**
   - Action: Eliminate InfoCubes

4. **STAGE 4**
   - Virtual Layer
   - Transf. Layer
   - **Integration Layer**

   **SAP Business Warehouse**
   - Action: Offload transformation logic and push down to HANA DB

5. **STAGE 5**
   - **SLT**
   - Selective Tables

   **SAP Business Warehouse**
   - Action: Configure SLT for specific areas of Reporting as identified
LSA++

UC Vision:
What did we Bill the Student
V
What did the Student Pay?
Reporting Strategy impact:

As part of the Development of a Roadmap / Strategy for future HANA use cases, incl. SAP PBF, SAP SOH, S/4 on HANA, and Fiori, we provide an updated Reporting Tool Strategy, which includes Business Objects, Lumira, HANA Live, as well as Fiori developments against Suite on HANA, taking into account the latest developments from the vendor products.