

# Strategic Plan – Initiative Work Plan FY2014

**Initiative Name** Enhance the gathering and Use of Information

**Date** 5/1/2013

**Goal #** 1 **Goal Chair(s)** John Beacon, Carmen Tillery, Josh Powers

**Initiative #** 9 **Initiative Chair(s)** Mike Snyder

**Thesis Statement** The goal of the Data Warehouse Enhancement Project is to improve the reporting capabilities of the key University personnel in support of the new Provost, the Office of Student Success, and the University College. This will be accomplished by narrowing and sharpening the focus of our data warehouse activities to only functionality and technology the University is actively requesting.

## 1. Introduction/Background

In late 2009 Indiana State purchased a data warehouse platform from Blackboard Analytics (formerly iStrategy) which included three modules: Student, Finance, and Human Resources. Shortly thereafter the Student module was implemented by a small team with representation from OIT, IR, ORR, and Admissions. Approximately 30 dashboards were created, published, and rolled out to Cabinet, PAC, and the Deans and Chairs for each college. Since then, no additional modules or dashboards have been implemented and little work has been done to augment what exists. Additional resources have come online and OIT has engaged staff from Blackboard Analytics in order to plot a course forward that suits the current goals of the University.

### Key Facts:

1. The University has retention, student success, and enrollment reporting needs stemming from the Strategic Plan and the SEM plan.
2. The university has no urgent strategic or departmental use for the HR module at this time.
3. The Finance Module, while offering some value, is lower on the list of priorities from both a strategic and departmental perspective.
4. ISU pays a total of \$26,000 annually in maintenance costs for modules we have not yet used. This does not include the initial purchase price of approximately \$181,500 in total for the unused technology.
5. Argos is the standard enterprise reporting tool currently in use. Most of our significant expertise in report development is with Argos.
6. The University lacks extensive knowledge of the various data warehouse reporting and analytics tools that can be used to quickly and easily place the right information in the hands of the right campus entities. In addition, the tools we have implemented currently are inadequate to achieve our desired visual, functional, and development goals concerning analytics. We do not have time to stop projects, research solutions, or experiment as much as is necessary. We need help defining a clear path to improvement, results, and success in the area.

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## **2. Proposal/Purpose/Justification**

Over the past years various uses for the data warehouse have been discussed by those in the technology arena. Multiple modules have been purchased and at least 29 dashboards and reports have been built out, but only a fraction of this work has been based on actual documented need as voiced by faculty and staff. This has led to some user adoption issues and money spent on technology the University is not using. Discussions were held and options were laid on the table ranging from pulling the plug to doubling down on our investment to finally get the “desired payback”. Ultimately it was decided that the proposal put forth would be laser focused on projects put forth by those willing to persistently state an unmet need. This focus produced the following project list.

- 1) Academic Dashboard (President Bradley)
- 2) CC Data to warehouse and dashboards (President Bradley)
- 3) Migration of current dashboards to improved platform (Internal)
- 4) Academic Dashboard (Provost Williams)
- 5) Attendance and Analytics (Bob English, Linda Maule, Bob Guell)
- 6) Analytics for Student Success (Linda Maule, Josh Powers)
- 7) SP Impact Report (Nolan Davis)
- 8) SEM Metrics (Data Team)

Thus, we will only be proposing resources and plans to complete the aforementioned work efforts. All else will be postponed indefinitely.

## **3. Work Plan, Next Fiscal Year – Action Steps – Process**

Based on the current environment, as well as a high degree of focus on student success, we propose the following actions:

- 1) Halt maintenance payments on the HR and Finance modules.
- 2) Increase contracting hours with Bb Analytics for Bob Taticek's time and expertise with the goal of contractor independence. Desired level would include 96 hours on site and 150 hours off site for the coming fiscal year.
- 3) Develop internal solutions to build out the student module to facilitate the student success initiatives. This involves freeing up Julie Cuffle's time to give the majority of her time to data warehouse activities. In order to do this and maintain the current increase in CRM departments and users, an additional CRM resource needs to be hired.
- 4) Institutional Research will commit significant resources to take on the statistical analysis, reporting and dashboarding needs required by this initiative action. We estimate this need to be approximately .5 to 1.0 FTE. This will most likely be satisfied by multiple resources.
- 5) The operating system and database software needs to be upgraded. We will be migrating to Windows Server 2008, SQL Server 2008 and SharePoint 2010.

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- 6) Due to the complexity of the products, the lack of seamless integration, and a lack of a commitment from Microsoft to support all products, we will be evaluating a move of the reporting/dashboard platform from Microsoft to Pyramid Analytics. This will involve the purchase a 1 year license for *Pyramid Analytics for Student* only. None of the other modules will be purchased.
- 7) In order to get us up to speed, we will enter into a contract with Pyramid Analytics and/or Bb Analytics for a temporary on-site consulting/training resource that will help us decide which reporting and analytics tools we should focus on – based on our needs – and then provide training on how to use them. We want to eliminate the time it takes to figure things out ourselves. Rather, we want someone to show us and demonstrate for us a path to results in the reporting arena.
- 8) If we decide not to move to Pyramid Analytics, a similar on-site consulting resource to the one referenced in number 6 will be contracted from Microsoft.

To build and maintain the necessary reporting platform, we require 20 hours weekly of a resource from the Office of Institutional Research.

### **5. Reporting and Deliverable Schedule**

There will be two methods for project status reporting delivery.

- Bi-Weekly Status meetings
- Monthly status emails delivered to the key stakeholders

The following is a tentative, high-level deliverable schedule.

- June 1 2013 – Payments for HR and Finance Modules halted.
- July 15 2013 – MS PerformancePoint and Reporting Services consultant on-site to assist with upgrade tasks.
- July 16 2013 – Decision on presentation layer technology (MS versus Pyramid)
- July 23-26 2013 – Bb Analytics consultant on-site (CC Data, Academic Dashboard, V 4.1 in Development, Prod Env Upgrade)
- August 1 2013 – Data Warehouse Environment upgrade complete
- August 2013 – Spec Provost Williams dashboard requirements
- September 1 2013 – Work completed on CC Data ETL and OLAP Cube work.
- Sep 24-26 2013 – Bb Analytics Consultant on-site (Academic Dashboards, V 4.1 in Prod, Provost Williams data requirements)
- October 1 2013 – Work completed on Academic Dashboards ETL and OLAP Cube work.
- Nov 15 2013 – Work completed on Provost Williams Academic Dashboards
- Jan - Jun 2014 – Attendance and Student Success Analytics
- FY 2015 – SP Impact Report

### Pyramid Purchase Scenario

- August 1 2013 - Pyramid Contract signed

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- October 2013 - Pyramid Consultant on-site
- November 2013 - Pyramid Analytics environment installed
- Dec 2013 – Feb 2014 Report and Dashboard environment converted to Pyramid Analytics

### **6. Budget**

#### Anticipated Costs

- SQL Server Licenses for Prod Environment Upgrade - \$22,000
- Bb Analytics Consulting – 246 hours totaling \$52,350
- Bb Analytics Travel – 4 trips totaling \$6000
- 1 Year Pyramid Analytics License– \$12,750
- Pyramid Consulting – 80 Hours totaling \$16,000

#### Resource Hires

- BI Analyst - \$50,000 annually plus benefits

### **7. Stakeholders and Management Plan**

#### Project Tasks

- Project Manager – Julie Cuffle
- IR Resources – Linda Ferguson, Ray Buechler, Jerome Cline
- Initiative Chair – Mike Snyder
- Bb Analytics Consultant – Bob Taticek
- Bb Analytics Regional Sales Manager – Vicki Katz
- Bb Analytics Project Manager – Tiffany Kisker

#### Business Champions

- Lisa Spence – CIO and AVP for Academic Affairs
- Dan Bradley - President Bradley
- Jack Maynard - Provost
- Biff Williams – Provost
- Karl Burgher – CSO and Professor
- Linda Maule – Dean, University College
- Josh Powers – AVP for Academic Affairs, Student Success
- Nolan Davis – AVP for Student Affairs
- Bob English – Associate Dean and Professor, COT
- Bob Guell – Professor, Economics

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### **8. Outcome Assessment & Future Testing**

#### Assessment Question

1. Is the data warehouse environment upgraded to current technologies of SQL Server 2008, MS Windows Server 2008, and either SharePoint and PerformancePoint 2010 or Pyramid Analytics?
2. Are the President and Provost actively championing the data warehouse and requiring the use of either one or both the academic dashboards defined and produced beginning the spring semester (2013-2014 academic year)?
3. Are the deans and Provost actively using the dashboards to do strategic and resource planning?
4. Is the attendance data currently stored in the data warehouse?
5. Are stakeholders such as Bob English, Linda Maule, Josh Powers actively viewing attendance dashboards?
6. Are we beginning to produce data and resulting analysis for action to improve student success, especially in the University College?
7. Is Student Affairs using the impact reports to provide operational data to the President?

### **9. Line Item Budget Discussion that tracks Budget Templates**

Line Item 13 – We will be hiring a permanent full time BI Analyst to work on CRM projects and tasks. This resource will allow Julie Cuffle to concentrate up to 75% of her time on data warehouse tasks. This budget amount for this hire will be \$50,000.

Line Item 40 – SQL Server Production Licenses are required for the upgraded databases server. The specs require an 8 core processor and Microsoft now prices by the core at \$2,675.24 per core for a total of \$21,401.92.

Line Item 41 – Pyramid Analytics employs a licensing approach for their product. We are choosing to purchase a one year contract and then assess the success of the project. The cost of this license has been published at \$12,750. We may receive a discount but this has not yet been determined.

Line Item 43 – Consultant Travel Expenses for the Bb Analytics consultant's four trips.

Line Item 46 – Bb Analytics consulting services are required until our BI Specialist can fully get up to speed on OLAP modeling and customer ETL process development. We have estimated the time required as four three day on-site visits and 20 days of off-site consulting. The rate will be somewhere between \$200 and \$225 hourly depending on "discounts" offered. We have gone with a recently published rate of \$215 yielding a total of \$52,350.

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Line Item 47 – In conjunction with line item 41, we will be purchasing consulting and implementation resources from Pyramid Analytics. We have estimated this at 80 hours and are using a general industry rate of \$200 hourly for a total of \$16,000.

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**Initiative Name:** Enhance the Gathering and Use of Information

**Date:** 3/25/2013

**Goal #: 1**

**Goal Chair(s):** John Beacon, Carmen Tillery, Josh Powers

**Initiative #: 9**

**Initiative Chair(s):** Mike Snyder

**Thesis Statement:** The purpose of the Enterprise CRM Project is to put in place a system that supports processes around the lifetime engagement of students at Indiana State University. This effort involves the purchase and implementation of Talisma's HE Pack add-in which will enhance the data capabilities of the Talisma CRM.

## **1. Introduction/Background – What?**

Overall, the CRM projects undertaken are intended to move the CRM toward a robust and fully integrated system in which all student data is available and leveraged from the time a student is a prospect through their years as an alum and potential supporter of ongoing university activities and accomplishments. This is achieved through the following:

- Facilitate campus connections with personalized suggestions based on student profiles
- Flag student in-term activity patterns associated with at-risk students
- Initiate prioritized interventions from the most appropriate campus personnel
- Capture the professional judgment, as well as hallway observations of campus personnel
- Monitor intervention activity to ensure consistent engagement levels
- Increased engagement in early semester activities through CRM twitter communications
- Load alumni data into the CRM and leverage CRM capabilities for alumni department functions and activities.
- **Architect the CRM to allow better campaign and reporting capabilities.**

The ultimate goal is to improve student success and retention, as listed in Goal 1 of the Pathways to Success, as well ultimately implementing a cradle to grave CRM.

## **2. Proposal/Purpose/Justification – Why?**

Indiana State University has an initial goal to improve student success of their first-time, full time bachelor's degree seeking students. This goal can be broken down into two facets. First, ISU would like to provide its students with positive feedback and reinforcement to engage in a multitude of co-curricular activities on and off campus. Rewards and incentives can be generated based on profile content, as well as student behavior and involvement. Second, ISU is concerned, as most schools are, about the retention rate for its freshmen. The university has a need to identify students in this cohort who are determined to be "at risk", and engage these students before a decision to leave is made. This means intervening within the first 2-3 weeks of the semester in many cases. The warning signs often occur very early. Missing class, not eating properly, receiving poor test results, and study and social habits are all examples that indicate a student's level of engagement, and there are dozens more. With

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both facets involved, the overall purpose is to shorten the time between analytics and proper engagement.

### **3. Discussion of Past Years Results – Benchmark Successes?**

Not applicable

### **4. Work Plan, Next Fiscal Year – Action Steps – Process – How?**

Task	Date
Analysis Phase	May 6 – May 24
Design Phase	May 20 – June 7
Configuration Phase	June 3 – August 2
UAT Phase	July 15 – August 9
Training Phase	July 22 – August 2
Go-Live Phase	July 29 – August 23
Migration/Conversions	June 17 – August 9

### **5. Reporting and Deliverable Schedule – When?**

- Arun and Julie will hold bi-weekly status meetings with the project team
- Julie will submit a bi-weekly status to the CSO and CIO.

Test/UAT Environment	
Milestone 1	Applying HE Pack on Test Environment
Milestone 2	HE Pack Migration Analysis and Design
Milestone 3	Configure Solution on Test Environment
Milestone 4	Data Conversion and Migration
Milestone 5	UAT and Training
Production cut over	
Milestone 1	Applying HE Pack
Milestone 2	Solution configuration
Milestone 3	UAT
Milestone 4	Go Live

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### 6. Budget – How Much, a General Discussion of Funds Use?

The project will require funds to upgrade and add to ISU's existing Talisma CRM implementation. The Higher Education (HE) Pack add on will allow a more normalized data structure facilitating student success, alumni, and communication data storage needs.

<b>Task Description</b>	<b>Estimated Hours</b>	<b>Hourly Rate</b>	<b>Estimated Fees</b>
HE Pack Migration	355	\$200	\$71,000
Data Migration/ Conversions	120	\$200	\$24,000
Training (HE Pack)	32	\$200	\$6,400
Project Management	75	\$225	\$16,875
<b>Total Estimated Service Fees</b>	<b>582</b>		<b>\$118,275</b>

### 7. Stakeholders and Management Plan – Who?

#### **Project Team**

<b>Name</b>	<b>Role</b>	<b>Contact Info</b>
Julie Cuffle	Project Manager	8377
Karl Burgher	Chief Strategy Officer	8449
Lisa Spence	CIO	2100
Doug Weatherston	CRM Task Lead	8616
Donald Schedler	Talisma Program Manager	dschedler@campusmgmt.com
Arun Nagendraiah	Talisma Project Manager	anagendraiah@campusmgmt.com
Deirdre Mahan	Talisma Subject Matter Expert	2508

### 8. Outcome Assessment & Future Testing

HE Pack milestone assessment:

- Analysis Complete: Y / N
- Design Complete: Y / N
- Configuration Complete: Y / N
- UAT Phase: Y / N
- Training Phase: Y / N
- Go-Live: Y / N
- Conversions: Y / N

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### 9. Line Item Budget Discussion that tracks Budget Templates ...

Line 46 – Contracting services including:

CMC will provide the consulting Services to Customer in the following areas:

- Assistance in migrating Customer's Talisma CRM v.8.6 to Higher Education Pack (HE Pack) on one (1) TEST and one (1) PRODUCTION environment. Refer to Appendix A for details on scope of the Project.
- Training of new features on HE Pack.
- Project Management, technical and CMC product based consulting.

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