AITS FY15 Metrics Report

7/1/2015
University of Illinois
Administrative Information Technology Services
AITS FY15 Metrics

Overview

AITS provides a wide range of administrative information technology solutions and services to 78,000 students and 23,000 employees across the university community that are accessible, reliable, accurate, efficient, and responsive to customer needs. Administrative IT systems at the university are utilized in areas such as student services, finance, human resources, facilities, advancement, and research administration to support the mission activities of the enterprise, create efficiencies in business processes through automation, and to provide business intelligence services to help with data analysis and inform decision making. A full overview of the AITS unit and its operations is available in the AITS FY15 Annual Report posted on the AITS web site at http://wwwaits.illinois.edu/

This collection of metrics is designed to supplement and support the AITS strategic plan and progress report. The metrics were collected and compiled by the individual groups within AITS as a means for measuring progress and efficiency. Organizations within AITS have been collecting metrics for several years. This document consolidates these metrics and also identifies new items to measure. AITS, and its customers throughout the University of Illinois, will review these measurements.

This report is intended to:

- Provide a transparent overview of AITS operations and performance.
- Set performance goals and operational expectations for the next year.
- Determine if the metrics provided in the report are still relevant and if any are missing, then implement processes for collecting the information that was not available for this report.
- Refine views of the data to increase the utility of the information and make interpretation easier.

The measurements that are presented individually in this report can be combined or refined for use in presentations, discussions, and other reports to assist the AITS customers.

These metrics have been organized into the following categories:

- Reliability
- Customer Service
- Projects
- Services Offered
- Infrastructure
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Reliability

Availability (Banner and related)

Description: Banner is used by students, faculty, and staff to register for classes, pay tuition, apply for admissions, grade students, pay employees, make needed departmental purchases related to learning, and generate transcripts. As such, it is truly a 24x7 critical system that people depend on to be available. This availability measurement includes Banner Self Service and the systems and services upon which it depends, such as: apps.uillinois.edu site, EAS, brokers, Banner database, the network, the campus backbone, and application servers. Total availability for FY 15 was 98.86%. Planned downtime was less than 100 hours, accounting for 6 financial aid upgrades, 3 Banner upgrades, 1 finance end of year processing window, 3 Unix/Linux maintenance windows, and one storage and network upgrade. Availability excluding planned outages was 99.98%, meaning that unplanned unavailability of these systems was less than 2 hours this year. This downtime is a result of an afternoon EAS outage in July 2014 due to Apache server issues and subsequent restarts.

![Banner Self Service availability by fiscal year excluding planned outages](chart.png)
Banner Self Service Usage

Description: Banner Self Service is used by students to register for classes, request transcripts, pay tuition, and apply for admission. It is also used by faculty to grade students, view class rosters, etc. As such we want to monitor usage of these services and manage performance and capacity to ensure the system is available 24x7.

Banner Self Service usage shows the number of sessions per month or year for the Banner Self Service web site. A 'Session' is defined as a series of clicks on the site by an individual visitor during a specific period of time. A Session is initiated when the visitor arrives at the site, and it ends when the browser is closed or there is a period of inactivity. This measurement, used in conjunction with the Availability metric above, provides customers with idea of the vast number of sessions initiated each month/year and how important high availability is. The drop seen from FY13 to FY14 is due in large part to the fact that UIUC Admissions is no longer using Banner Self Service.
DS Outages (EDDIE and EDW)

Description: These metrics show the number of scheduled, unscheduled, and partial outages by month where the EDDIE and EDW environments were unavailable to customers. The Enterprise Data Delivery Information Environment (EDDIE) system is a Business Objects environment for delivery of query, analysis, and reporting. The Enterprise Data Warehouse (EDW) is a non-volatile data store containing historical, detailed data that spans a number of subject areas. This data store is fed by transactional data on a regular basis from a variety of data sources. In the eyes of the end-user, the EDW is a read-only environment.

<table>
<thead>
<tr>
<th>Month</th>
<th>EDDIE</th>
<th>EDW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheduled Outages</td>
<td>Unscheduled Outages</td>
</tr>
<tr>
<td>July-14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>August-14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>September-14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>October-14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>November-14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>December-14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>January-15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>February-15</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>March-15</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>April-15</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>May-15</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>June-15</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Customer Service

Security Requests

Description: Security provisions access that allows users to access certain applications, services, and systems. This measure provides a count of security requests received via the AITS Security Request Application (SECAPP) as well as service desk tickets submitted. This measure is important as it indicates service desk activity levels and where AITS Security Administration staffing resource time is actually spent.
Service Desk Requests
Description: This measurement shows the total number of cases (requests and incidents) closed by year. This is helpful in understanding the volume of requests we are able to handle and to see the variation from year to year.

Late Rollouts
Description: This metric provides an indication of how frequently outages are extended beyond the advertised outage window. This metric is useful in understanding how we are doing at completing our rollouts on time.
Service Desk Manager (SDM) Tickets

Description: The AITS Service Desk provides 24x7 tier 1 support for students, faculty, and staff by troubleshooting issues and fielding questions and inquiries. This metric is important as it provides an idea of service desk activity levels. A total of 52,965 tickets were created in SDM in FY15. 22,286 of these tickets were initiated in SDM by the AITS Service Desk and 19,347 of the tickets were closed with the AITS Service Desk listed as the responsible group. The following chart shows the total number of problems reported in SDM by fiscal year.
Projects

Project Type and Hours

Description: These measures provide summaries of the annual number of ITPC and AITS Internal projects closed by functional area and by type as well as the annual work effort (hours) for those ITPC and AITS Internal projects by functional area and project type. This is important for showing what areas and types of projects are consuming the majority of project hours each year.
PMO Performance

Description: This metric consists of the following: 1) Percent of projects on schedule, moderately over schedule, and significantly over schedule. 2) Percent of projects on budget, moderately over budget, and significantly over budget. It provides a measure of how well we estimate and manage our projects.
Services Offered (Systems)

Departmental System Support

Description: In addition to systems that support the University of Illinois administrative processes, AITS also supports systems for various departments throughout the University. This measurement shows the annual hours spent on this departmental systems support. This information is helpful in determining which departmental systems require the most support time.

<table>
<thead>
<tr>
<th>Department</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
</tr>
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<tbody>
<tr>
<td>Tax School</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>92</td>
<td>50</td>
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<tr>
<td>OBFS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>155</td>
<td>248</td>
</tr>
<tr>
<td>IL Profiles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>34</td>
<td>55</td>
</tr>
<tr>
<td>F&amp;S</td>
<td>0</td>
<td>0</td>
<td>215</td>
<td>0</td>
<td>0</td>
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<tr>
<td>CITES</td>
<td>0</td>
<td>0</td>
<td>128</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>DS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>349</td>
<td>788</td>
</tr>
<tr>
<td>Formbuilder</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>526</td>
<td>425</td>
</tr>
<tr>
<td>HR</td>
<td>1</td>
<td>8</td>
<td>132</td>
<td>3,635</td>
<td>4,481</td>
</tr>
<tr>
<td>Banner</td>
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<td>123</td>
<td>66</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Prairie Research Institute</td>
<td>17</td>
<td>26</td>
<td>47</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>CPRD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,549</td>
<td>2,867</td>
</tr>
<tr>
<td>UOCP&amp;RES</td>
<td>3,442</td>
<td>3,688</td>
<td>3,526</td>
<td>5,331</td>
<td>5,429</td>
</tr>
<tr>
<td>DARS</td>
<td>2,043</td>
<td>1,565</td>
<td>894</td>
<td>498</td>
<td>0</td>
</tr>
<tr>
<td>CAS</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Mobile</td>
<td>0</td>
<td>176</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Hours spent by the Departmental Systems team on departmental systems support and projects
Messaging

Description: This tracks the number of times business objects or enterprise data messages are consumed by applications by month and by year. This is important in understanding the volume of messages being consumed and how that may vary over time.

Message Availability

Description: This tracks the number of enterprise data messages available. A higher number of enterprise data messages indicates a higher level of reusable components. The ability to view the number of messages available is important in tracking whether we are moving toward a higher number of reusable components or not.
EDDIE Sessions

Description: Business Intelligence and Data Warehousing empowers decision makers in the pursuit of fulfilling the University mission and enables the University community in realizing efficiencies and effectiveness in business operations. The work of minimizing system downtime, managing user sessions, maintaining and enhancing available data, user support and training are critical factors in delivering this service. This metric shows the number of sessions where customers logged into the EDDIE environment per month. The spike beginning in March 2015 is due to the deployment of the new Business Objects 4.1 and the additional training and testing needed for that effort.
**Business Intelligence/Data Warehouse (BI/DW) Support Cases Opened by Request Area**

**Description:** This metric shows the total number of BI/DW support cases opened per month, broken out by request area.

<table>
<thead>
<tr>
<th>Request Area</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODBC Connection</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Enrollment</td>
<td>1</td>
<td>1</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 Availability</td>
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<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Assistance</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<td>1</td>
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<tr>
<td>User Access</td>
<td>3</td>
<td>7</td>
<td>3</td>
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<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Objects.Upgrade</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Business Objects.Web Intelligence</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Desktop Intelligence</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>InfoView (EDDIE)</td>
<td>13</td>
<td>6</td>
<td>16</td>
<td>3</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Reporting Data and Access</td>
<td>7</td>
<td>18</td>
<td>20</td>
<td>20</td>
<td>50</td>
<td>25</td>
<td>43</td>
<td>46</td>
<td>21</td>
<td>18</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>Functional Area Data</td>
<td>2</td>
<td>68</td>
<td>65</td>
<td>60</td>
<td>30</td>
<td>42</td>
<td>33</td>
<td>41</td>
<td>12</td>
<td>31</td>
<td>26</td>
<td>19</td>
</tr>
</tbody>
</table>
BI/DW Training

Description: This graph shows the total number of training attendees by month broken out by type of training. The spike in March 2015 is due to the training for the new Business Objects 4.1 deployment.
DS Work Requests by Month and Type

Description: This metric lists the BI/DW work requests completed per month broken out by type.

![BI/DW Work Requests completed in FY15 by month and type](image-url)

- **Standard Reports**: 7, 2, 8, 8, 2, 3, 3, 1, 1, 8, 1, 4
- **Improve Performance**: 1
- **Enhance Existing Products**: 1, 5, 5, 1, 2, 1, 1, 2, 3
- **Data Validations**: 2, 2, 5, 3, 2, 2, 2, 4, 3
- **Data Availability**: 1
- **Functionality**: 1
- **Correction**: 1, 1, 2, 1, 2, 4, 6, 2, 3
- **Maintenance**: 3, 1, 1, 1
Infrastructure

Object Use and Availability

Description: AITS is monitoring the reuse of enterprise objects by tracking the number of enterprise objects that are used by multiple applications. This shows how many enterprise objects are used by just one application and how many are used by multiple applications. When an object is used by multiple applications, it saves on analysis, development, and testing time for the development project. Tracking this metric will show how much AITS and the University are benefiting from the use of reusable objects.
**DBs and Servers**

Description: This shows the number of host servers and databases supported by AITS ADSD Data Management. This is helpful in understanding the scope of support work related to host servers and databases for this group and how it changes year to year.

![Bar chart showing # of Active DBs by FY](chart1.png)

![Bar chart showing # of Host Servers by FY](chart2.png)

**Equipment Age**

Description: This measures the age of the equipment supported by Client Support Services. Older equipment requires more support. This is a good breakdown of the age of our equipment and how we are progressing in replacing our aging equipment.

![Bar chart showing Age of supported equipment by fiscal year](chart3.png)

- **< 1 Year**: 6.70% FY11, 8.50% FY12, 9.10% FY13, 6.20% FY14, 11.60% FY15
- **1 Year**: 11.90% FY11, 18.70% FY12, 21.60% FY13, 24.50% FY14, 14.40% FY15
- **2 Years**: 26.60% FY11, 12.60% FY12, 19.00% FY13, 22.00% FY14, 22.30% FY15
- **3 Years**: 18.10% FY11, 26.90% FY12, 11.30% FY13, 15.10% FY14, 20.30% FY15
- **4 Years**: 10.20% FY11, 14.40% FY12, 19.60% FY13, 9.20% FY14, 12.80% FY15
- **5 or > Years**: 26.50% FY11, 18.90% FY12, 19.40% FY13, 23.00% FY14, 18.60% FY15
Computer Support

Description: This measures the number of computers supported by Client Support Services by department. This is good information for knowing which departments have the largest number of computers and, thus, will need the most support.

<table>
<thead>
<tr>
<th>Department</th>
<th>Computers Supported</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBFS</td>
<td>741</td>
<td>32%</td>
</tr>
<tr>
<td>AITS</td>
<td>545</td>
<td>23%</td>
</tr>
<tr>
<td>UICHR</td>
<td>165</td>
<td>7%</td>
</tr>
<tr>
<td>LER</td>
<td>114</td>
<td>5%</td>
</tr>
<tr>
<td>Treasury Oper</td>
<td>103</td>
<td>4%</td>
</tr>
<tr>
<td>LGC</td>
<td>70</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>614</td>
<td>26%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,606</td>
</tr>
</tbody>
</table>

Equipment supported by department by fiscal year (end of FY15)
Data Center Backup Storage and Capacity
Description: Backups and storage continue to grow as we support the student and faculty systems across all campuses. This shows the backup and total storage by data center by fiscal year.

Backup storage by data center by fiscal year in TBs

Allocated configured capacity in TBs
Change Request CI Selections

Description: This measure is an annual count of both the number of times that Banner components, Banner databases, or SGHE delivered mods are selected as affected Configuration Items (CIs), as well as the number of non-Banner related CIs, for all closed change requests. This metric helps to understand the volume of changes closed on a yearly basis and whether those numbers are increasing or decreasing.
**Change Orders by Change Category**

Description: This measurement identifies the top few change categories with the most changes, consolidates the remaining categories into “Other”, and provides the % against the total number of changes. This view helps provide for a better understanding about which change categories the greatest amount of changes take place in and their percentage of all changes.
Successful Change Orders by Type
Description: This measurement shows the totals for each Closed, successful Change Order Type along with the % of total. This information helps us to understand which change order types are most successful and, conversely, which are least so that we can address issues where needed.

Unsuccessful Change Orders by Type
Description: This measurement shows the totals for each Closed, unsuccessful Change Order Type along with the % of total. This information is helpful in understanding why change orders were not successful and where to focus attention in making them successful in the future.
Total CRs Submitted
Description: This chart shows the total number of change requests (CRs) submitted. This helps us understand the volume of CRs we work with each year.

Weekend Rollouts
Description: These metrics indicate the number of weekend rollouts as well as how many changes were implemented during weekend outage windows as part of a formal rollout plan. It is a measure of balanced risk, resource utilization and efficiency.
New and Decommissioned CIs and Servers

Description: This measure shows the total new and decommissioned configuration items, total new and decommissioned server entries in the CMDB, and total new configuration items with a defined implementation date, which indicates a newly deployed infrastructure.