April 15, 2009
10:00 P.M. – 12:00 P.M.

(1) Minutes of February 12, 2009 (pp 1 – 8)
(2) Enterprise Investment Project Update (pp 9 – 15)
(3) Oracle Conversion (pp 16 – 28)
(4) MnOnline Future Technology Discussion (pp 29 – 30)
(5) Technology Work Group/Technology Standing Committee Discussion and Possible Charges
(6) Ongoing Role of Work Group Discussion

Work Group on Technology Members
Cheryl Dickson, Chair
Duane Benson
Scott Thiss
James Van Houten

Staff
Laura King
Ken Niemi
Members Present: Cheryl Dickson, Chair; Trustees Duane Benson and Scott Thiss

Other Trustees Present: Terri Thomas

Board Work Group on Technology Members Absent: Trustee James Van Houten.

Others Present: President Cheryl Frank, Vice Chancellor Laura King, Vice Chancellor Ken Niemi and Sr. Vice Chancellor Linda Baer

The Minnesota State Colleges and Universities Board Work Group on Technology held its meeting on February 12, 2008, at Wells Fargo Place, 4th Floor, Board Room, 30 East 7th Street in St. Paul. Chair Dickson called the meeting to order at 1:30 p.m.

Approval of the August Committee Meeting Minutes

Chair Dickson called for changes in the December 11, 2008 Work Group on Technology Meeting Minutes. Upon completion of the changes, the December 11, 2008 Board Work Group on Technology Meeting Minutes were approved as amended.

1. Enterprise Technology Committee Update and Budget Discussion

Vice Chancellor Niemi provided an update on the Enterprise Investment Committee (EIC). This committee worked on recalibrating the ITS Workplan due to the budget cuts. The Enterprise Investment Committee has classified approved projects into three tiers. The Enterprise Investment Committee’s next step includes meeting in March to track the Fiscal Year 2009 projects and review the FY 2010 ITS workplan/critical path. A decision will need to be made whether the new initiative summaries will be considered.

Vice Chancellor Niemi provided an update on the RDB to Oracle conversion. During detailed testing a show stopper was identified with the Uniface 8 product and the decision was made to delay the conversion until March. When this data merge is completed there will be a single database with markers that identifies the institution rather than data being stored institution by institution. Vice Chancellor King stated that the most significant barriers to merging back office functions are the difficult path to data bases. This project will resolve this issue. Vice Chancellor Niemi reminded the board that if IT identifies critical issues the right to call off the implementation is reserved.

Chair Dickson inquired if Vice Chancellor Niemi could indicate ITS progress, suppose this year’s work was displayed on a clock how far into the hour would it be?
Vice Chancellor Niemi reported that IT would be at 40 minutes; so progress is a little behind from a program standpoint. Chair Dickson responded that this is pretty good considering the difficulty IT has had in staffing and the budget cutbacks. Vice Chancellor Niemi responded that IT has focused heavily on the most critical infrastructure projects. It is imperative that progress on these projects continues.

Vice Chancellor Niemi reported meetings have been scheduled with Gopal Khanna the state Chief Information Officer as well as representatives from the University of Minnesota. These meetings are being held to see if there are areas that can be used to leverage investments and skills among the institutions.

Trustee Thiss inquired if it is fair to say that the tier system becomes a framework in case there are budget reductions in terms of prioritization. Vice Chancellor Niemi responded yes. Both ITS and the other channels have given thought to how this information may be used to make decisions.

Chancellor McCormick stated that there is a need to manage expectations. The Board needs to know that a decision was made to only fill a few of the authorized positions. This decision will impact progress and it will be important to manage expectations. Chair Dickson responded that the Board just told Vice Chancellor Niemi that they think that IT is doing well considering the circumstances. Vice Chancellor Niemi responded that this year’s focus was more on the infrastructure, reliability and stability pieces. The results users see are a lack of something happening; for instance disasters or significant downtime.

Vice Chancellor King stated that the campuses will see visible consequences of the investment in projects pending implementation. This includes; Applicant Tracking, Electronic Medical Records/ATHENS, iSeek (Phase II), Online Library Access and may be a part of the show me part from a campus standpoint. The first no incident fall registration is another example of the progress that has been made.

Trustee Benson inquired as to whether the people from public relations have considered that this would be an opportunity for transparency to communicate with the students and campuses on the progress that has been made and the challenges created by this revenue short fall. Trustee Thiss recommended that the Technology Work Group gather feedback from the students and other user groups. Chair Dickson responded that perhaps to save time Public Affairs may want to gather this information and share it with the work group. Trustee Benson responded that this would be helpful and this is an opportunity to educate and communicate to the greater public on this complex topic.
Senior Vice Chancellor Baer provided an assurance to the Technology Work Group that as Chair of the Enterprise Investment Committee there is an opportunity for input from these groups. The Cross Functional Advisory Group is made up by a variety of people including students, representatives from the different union groups. Vice Chancellor Niemi responded that the Portfolio Management Office is conducting a series of town hall meetings at the different institutions. These meetings are an opportunity to gather feedback and provide reports on the accomplishments and information on the next stage.

2. Security Program Update

Vice Chancellor Niemi introduced Bev Schuft the Security Director, to provide an update on the significant progress which has been made to the System’s Information Security Program. The feedback from the state of Minnesota and other agencies is that the system is becoming a national leader in security.

Chair Dickson responded that she wished that the audit committee and the other Board members were here to hear the progress that has been made.

Bev Schuft reported that as a part of the Enterprise Investment Committee Fiscal Year 2008 approved projects the security team conducted a security assessment at each campus. This assessment identified risks and provided the campuses remediation options for the risks identified. The data was analyzed for system-wide security gaps that could be addressed with training. The Information Security Training for Campus Technical Staff has been developed to improving the security environment not only for the campuses but the entire system’s security environment as well. The training being developed will provide an opportunity enrichment and career development to staff.

In partnership with the Center of Excellence and the Center for Strategic IT and Security, a Request for Proposal was developed. The developers selected consisted of faculty and security experts within the system. They are creating the course materials that will be deployed using the D2L system. By the end of April ten courses will be available to technical staff. The individuals may take the courses formally or choose to reference the materials at their convenience at no cost. Chair Dickson responded that this is an example of why the system is so valuable; colleges and universities could not provide this for themselves.

President Frank responded that there is benefit to the students as well. In March, some of the people that helped develop these courses, as well as the advisory board to the Center of Excellence, will help run the Cyber Security Competition. The students will compete by protecting their pretend business or institutions from hackers. The hackers are the experts in the field. Last year Inver Hills Community College won the regional competition over some of the multistate universities.
Chancellor McCormick inquired if the Minnesota State College and Universities system is tested. Bev Schuft responded that testing happens internally. Every day there is a new threat and there is a need to adjust to protecting the system.

Bev Schuft reported that the Payment Card Industry requires an annual assessment. The security team is conducting onsite reviews and hacking assessments. Not all campuses will require the hacking assessment; the need for this assessment depends on how the credit card information moves through the network. The team is looking into ways the campuses can change the way data is handled in order to eliminate the need for the scans saving the campuses the cost of this assessment.

Vice Chancellor King reported that this is a legal requirement for any campus which accepts credit card data. This mandate came with no resources and the cost has been rolled into the campus budgets and will stay there going forward.

Bev Schuft reported that the other projects in process are designed to prevent or alert the security team of threats. These projects are being completed in partnership with the Office of Enterprise Technology, in order to share resources, skills, technology and contract.

Bev Schuft reported that the Campuses Chief Information Officers have provided excellent support and participation, making these programs a success. Chair Dickson thanked Bev Schuft and expressed pride in the work in the Security area.

3. 25% Online Credit Discussion
Chair Dickson observed that this topic was a warm up for the March Board meeting discussion. Senior Vice Chancellor Baer presented the 25% Online Credit Discussion power point presentation. The main reason for this presentation is to discuss the governor’s challenge to the Minnesota State Colleges and Universities to increase by twenty-five percent the online credits by 2015. There are implications to this challenge.

Chair Dickson responded that there is a need to protect academic integrity. The Board has received a report that Capella limits class sizes to 15 students to protect academic integrity. Senior Vice Chancellor Baer stated that Steve Shank, Capella CEO said while Capella had 80% adjunct professors they would be increasing the number of fulltime faculty because of the critical nature of the relationship between students and faculty. Vice Chancellor King responded that Capella’s business model is financed by charging four times the System’s rate. Part of what needs to be considered is the economics of the impact on expenses as well as the revenue impact.

Vice Chancellor King inquired if the investment and strategic planning information on how much it will cost under different scenarios to move forward
with this goal will be available for the March study session. Senior Vice Chancellor Baer responded yes, information on the different scenarios and the cost associated with them will be available.

Vice Chancellor King inquired if the cost of this will be a part of the biennial budget discussion, because the funds to start a five year investment plan will have to be found. Senior Vice Chancellor Baer responded that new funds will be needed if the Board accepts a target like this. Chair Dickson replied that the target was announced by the Governor and the Board needs to back up and consider all of the issues. Vice Chancellor King responded that it will be important to have a complete understanding of the cost to have plan because this will displace something else.

Trustee Thiss inquired if there has been any discussion of this becoming its own online university; taking on its own entity. President Frank, chair of the e-learning Taskforce, along with Pat Opatz, the Chief Operating Officer of Minnesota Online, and many key users from the state (faculty, students and administrators) are looking at this issue. This type of technology is imbedded across the institutions and cannot be a stand-alone; the faculty is typically using the hybrid format.

Trustee Thiss inquired about the governance system. President Frank responded that the e-learning Taskforce proposed some changes to the Minnesota Online Council which are now under discussion.

Senior Vice Chancellor Baer stated what is unknown is if this means 25% new growth or redistribution from onsite to online. This has many implications for capacity of delivery, infrastructure technology, and more.

Chair Dickson stated if you change the context from pull to push it is very different. Chair Dickson read from a memo from a former Capella person to Chair David Olson, “Please don’t jump to the conclusion that online education will save the state a bunch of money. You will note Capella’s tuition rates are not inexpensive.” This is another issue for online education as it is a very expensive form of education to deliver.

Sr. Vice Chancellor Baer referred to slide 10 which describes the learner segments. This chart helps explain what should be done to systematically build out; allowing us to approach this tactically as well as contextually.

Chair Dickson stated that one of the things that will be important is to make sure to work on the definitions, because it is not clear what the governor meant. Looking at this the way it was presented focuses on the state’s needs and how to do a better job of meeting the students’ needs in the state of Minnesota. More people are looking at contraction. The people in outlying areas will be dependent
on online education, but if a college is taken away will there be a need to replace it with bandwidth and a working computer for every student?

Vice Chancellor Niemi responded that this is one way the rural colleges are staying in business. If you look at the colleges that have largest percentage of online learning credits they have expanded their market greatly and they are making use of the faculty and staff that they have; increasing their reach beyond their market.

Senior Vice Chancellor Baer commented that many of our campuses are reporting increases due to online and some of them approached online strategically. Many of the metro colleges have double digit increases this term because of displaced workers, the physical capacity on these campuses is stretched.

Trustee Thiss stated there are challenges to this; however the focus should be on looking for what can be done. Trustee Benson stated that for us to not to strive for something is to miss an opportunity; whoever is out front will be benefit from change. Capella charges more, has more market share than they can handle, and they do this without acknowledging restrictions.

Chair Dickson responded that Capella can charge whatever it wants and whoever can come, can come, and this system cannot. Trustee Thiss stated that both the revenue and the cost model also need to be looked at. Basic courses need only to be developed once. The revenue model should be a part of the discussion of online education.

Chair Dickson invited comments or ideas from the audience on how best to present the online challenge information to the Board in March. No ideas were immediately forthcoming.

The meeting adjourned at 2:50 p.m.
Respectfully submitted,
Christine Benner, Recorder
BACKGROUND
The Enterprise Investment Committee (EIC) met March 30, 2009 to conduct a project review and work on the development of the Fiscal 2001 workplan. The EIC was provided an update on the Integrated Student Services / Registration Information System (ISS / REGIS) meeting. This group created a list correlating the initiative summaries with the student experience. A copy of the Process flow from the student perspective was created. This information will be used in planning.

Supporting documents included in the Board Work Group on Technology packet include:
  a) Enterprise Investment Committee agenda
  b) Project Change Listing
  c) FY10 Initiative Summaries ISS/ REGIS Correlation
  d) Process Flow / Student Perspective
Enterprise Investment Committee Meeting
AGENDA
Location 3306 WFP
March 30, 2009
12:00 P.M. to 4:00 P.M.

1. Welcome and introductions 12:00 – 12:10
2. Update on FY09 Workplan 12:10 – 12:40
3. Integrated Student Services / Registration Information System Update 12:40 – 1:15
4. Work on FY10 Workplan 1:15 – 3:30
   Budget Update
   Channel Priorities
5. Action Items and Next Steps 3:30 – 4:00
Enterprise Investment Committee Project Changes  
(Since 3/2/09 EIC Meeting)

- **Projects Closed**
  - Online Library Access
  - Reporting Enhancements for Campuses

- **New Projects added to Portfolio**
  - Desire 2 Learn (D2L) Maintenance – Purge
  - D2L Maintenance – Upgrade

- **Project Moving to Different Category**
  - Electronic Medical Records / ATHENS – (Move from Pending Implementation to Minimal IT)
  - iSEEK Business Solutions (Phase II) – (Move from Pending Implementation to Tier 1)
  - Resource 25 X25 Pilot – (Move from Pending Implementation to Tier 1)
  - Redundant Network Paths – (Move from Pending Implementation to Minimal IT)
  - Rdb to Oracle ISRS Conversion – (Moved from Tier 1 to Pending Implementation)
  - Degree Audit Reporting System (DARS) Maintenance – (Moved from Tier 1 to Pending Implementation)
  - Fundware – (Moved from Tier 1 to Pending Implementation)
  - Prinsys Planning – (Moved from Tier 2 to Minimal IT)

- **Project Estimated Completion Date Changes**
  - Collage – (3/15/09 to 3/31/09)
  - Fundware – (3/10/09 to 4/3/09)
  - DARS Maintenance – (4/30/09 to 4/17/09)
  - GPS LifePlan – (4/1/09 to 5/31/09)
  - Identity and Access Management (IAM) Clearspace (4/30/09 to 5/15/09)
  - iSEEK Business Solutions (Phase II) – (5/15/09 to 5/22/09)
  - Packeteer Upgrades – (4/24/09 to 5/15/09)
  - Student Direct Deposit – (6/15/09 to 6/20/09)
1. Identify Potential Colleges
   - Goals Plan Success (GPS) LifePlan
   - Integrated Online Career and Ed. Management Toolkit
   - Marketing Search Tool
   - Veterans Education Portal
   - PrinSys (Tier 2)
   - Public Affairs Website (Tier 2)

2. Complete Application
   - Identity and Access Management
   - Integrated Student Services
   - eTranscript
   - Integrated Statewide Records System (ISRS) Communication Module (Tier 2)
   - Student Housing (Tier 2)
   - Automatic Transfer of High School Data (Tier 3)

3. Register for Classes
   - Continuing Education and Customized Training (CE/CT)
   - Registration Edit Maintenance
   - Registration Information System (REGIS) Phase I
   - Degree Audit Reporting System (DARS) maintenance
   - Interactive Audit Upgrade (CAS) maintenance
   - Graduation Planner
   - J2EE Conversion – Curriculum Course Term (Tier 2)
   - Registration Maintenance (Tier 2)
   - Wait-list Functionality (Tier 2)
   - Graduation Planner (Tier 3)

4. Apply for Financial Aid
   - Financial Aid Modifications (Tier 2)

5. Pay for Classes
   - Student Direct Deposit (Tier 2)

6. Take Courses
   - Library Access and research Connections
   - Real-Time Web Grading
   - Online Student 1098-T and W-2
   - Statewide Streaming Project (Tier 3)

7. Graduate/Complete
8. Join Alumni Community

9. Administrative
   - Collaborative DataMart
   - Digital Archive and Institutional Repository
   - Budget Module III and IV
   - IT Asset Protection
   - Classification and Compensation, Phase II
   - Security Program
   - PCS Plus
   - Action Analytics
   - Intellectual Property Gateway
   - Duplicate Resolution (Tier 2)
   - Virtual Machine System (VMS) Migration Proof of Concept/Planning (Tier 2)
   - Classification and Compensation, Phase 1 (Tier 3)
   - Enterprise Backup Support for Campuses (Tier 3)
   - Enterprise Performance Monitoring Tools (Tier 3)
   - Enterprise Secure File Transfer (Tier 3)
   - Financial Planning Tool (Tier 3)
   - Reporting Tool (Tier 3)
   - Total Compensation Module (Tier 3)
**Process Flow**

1. **Identify Potential Colleges**
   - Build awareness
   - Visit 1 website
   - Enter selection criteria
   - Obtain results
   - Make contact
   - Individual school response

2. **Decide To Apply**

3. **Register For Classes**
   - Identify academic objectives
   - Select courses
   - Review course fees/materials
   - Check availability
   - Provide placement test results
   - Apply for transfer of credits
   - Complete registration
   - Wait list
   - Partner courses
   - Register by group
   - Buy books
   - Find housing

4. **Apply For Financial Aid**
   - Complete FAFSA application
   - School performs review/analysis
   - Package aid
   - Award aid
   - Student accepts
   - Disburse

**Student Perspective**

**Decide To Attd. College**

**Complete Application**
- Fill out and submit application
- School acknowledges receipt
- Make admission decision
- Communicate decision to student

**Application Accepted**
Process Flow | Student Perspective

1. Registration Completed
2. Receive Financial Aid
3. Pay For Classes
   - View amount owed
   - View payment dates
   - View cancellation status
   - Apply financial aid
   - Receive payment (3rd party/proxy/tuition waiver)
   - Apply discounts
   - Refunds
   - Select payment method
4. Payment Accepted
5. Take Courses
   - Take classes
     a. Classroom
     b. Online
   - Take tests/proctoring
   - Obtain assistance
   - Transfer
   - Obtain grades
   - Petition/appeal/complaints
6. All Courses Completed
7. Graduate/Complete
   - System completion process
   - Grad planner
   - Job placement
   - Continuing education
   - Industry partnerships and placement
   - Student debt
8. Join Alumni Community
   - Achieve education goals
9. Remain Involved
   - (Individual Campus)
     - Development
     - Community relations
     - Marketing
     - Mentoring
     - Provide transcript
BOARD OF TRUSTEES
MINNESOTA STATE COLLEGES AND UNIVERSITIES

INFORMATION ITEM

ORACLE CONVERSION

BACKGROUND
The RDB Oracle Conversion was completed in early March. Overall, the conversion was a huge success and went as expected. However, as can be expected with a conversion of this magnitude, there were a few issues. Many of these issues have already been resolved; others are in various stages of resolution.

Now that the Core Merge has occurred people are potentially seeing data that they didn't expect to see or that they don't like. With so many students taking classes at multiple institutions, there will be some discrepancies in the data. Teams are working together to resolve these data issues. Core Data will help institution keep the most accurate and up-to-date information about students.

Success of the conversion can be attributed to the implementation of detailed plans including:

a) Communication
   Multiple means of communication were used; including countdown communication sent out to Chief Information officers and other key campus staff.

b) Oracle Conversion Support Triage
   The Oracle Conversion Support Triage Plan was implemented two special triage teams were assembled to address issues as they arose. The issues reported were less than anticipated; as a result these teams were able to disband and return to regular operation response.

c) Migration Plans and Fall Back
   Migration Plans and fall back plans were developed in detail. The atmosphere during the conversion had all the precision and energy of an Apolo launch.

d) Incident Response
   Incident Response tracking is taking place. The current average is twenty five reports a day.
Communication

All communications were, at a minimum, communicated via email to the CIO's and Campus Communicators and posted to the website.

Pre-December 08:
- *The Scoop* article - October 08
- Campus Support Analysts (CSA's) conduct numerous Seamless Core training sessions at individual campuses
- Created a quick reference guide called *Business Rules for Maintaining Core Data* which was handed out at all CSA training sessions and available on the website
- Glen Guida conducted bi-weekly WebEx sessions with CIO's to provide updates and answer questions

December 08:
- Requested and assembled a President-appointed group of Campus Communicators to be the go-to people for all conversion information - their role is to distribute the information to their campus staff
- Created an RDB to Oracle webpage that linked off of the main ITS page
- Posted first FAQ document
- Email message to student association leadership inviting student participation in acceptance session in January in St. Cloud
- Glen Guida conducted bi-weekly WebEx sessions with CIO's to provide updates and answer questions
- ITS Update - article announcing additions to web site

January 09:
- Weekly Updates (Mini-Status Reports) beginning the first week of Jan until 2 Weeks before Conversion - sent to president-appointed campus communicators and CIO's and posted on ITS website.
- Website updated weekly with new information (i.e. Application Availability, Oracle Talking Points, General FAQ's, etc.)
- Weekly phone bridges (everyone/anyone encouraged to call and ask questions)
- Glen Guida conducted bi-weekly WebEx sessions with CIO's to provide updates and answer questions
- Acceptance Session for end users in St. Cloud
- ITS Updates - update articles
- Summary from student association leadership to student members

February 09:
- Weekly Updates (Mini-Status Reports) beginning the first week of Jan until 2 Weeks before Conversion - sent to president-appointed campus communicators and CIO's and posted on ITS website.
- Website updated weekly with new information (i.e. Application Availability, Oracle Talking Points, General FAQ's, etc.)
- Weekly phone bridges (everyone/anyone encouraged to call and ask questions)
- Glen Guida conducted bi-weekly WebEx sessions with CIO’s to provide updates and answer questions
- ITS Updates - update articles
- *The Scoop* update article - February 09

**2 Weeks Prior to Conversion:**
- **Daily Updates** - last 2 weeks before conversion - sent to president-appointed campus communicators and CIO's and posted on ITS website - **AND** the last week we sent to all ISRS Listservs
- Article in *The Chronicle*
- Weekly phone bridges (everyone/anyone encouraged to call and ask questions)
- 3 sessions of Person Search/Insert training in the two weeks prior - live and recorded and uploaded onto the website
- 2 sessions of Core Data training in the two weeks prior - live and recorded and uploaded onto the website
- Residency Status session - live and recorded and uploaded onto the website
- Website was updated with new information daily for at least the last two weeks prior

**During Conversion (Thursday - Sunday):**
Website was updated twice a day with progress reports

**Post Conversion:**
We communicated via the ISRS Listservs all problems/issues we encountered - if an issue affected multiple groups we also posted it on the website

**Communication Sample**

**TO:** CIOs  
**Subject:** T Minus 4 Days to Oracle Conversion!

As we approach the conversion from RDB to Oracle this Thursday evening, you might be asking yourself "How do we know ISRS will perform in the new database??"

Performance is one of five critical measures of success needed to ensure the conversion from RDB to Oracle project was ready to move forward. Those critical success factors are:

1. Performance of the database  
2. Application Functionality and performance  
3. Database Migration success  
4. Core Merge / Data Integrity functionality  
5. Uniface 8 Functionality

The goal of #1, Performance testing, is to have equal or better performance in Oracle as is currently found in RDB for key processes. The new Quality Assurance group was able to assist with some of this testing. Test results show:
• **Key Web Activities**
  1. Registration - able to function under load which exceeded RDB peak load
  2. e-Timesheet - able to simulate loads above requirements
  3. Professor Search - able to function under load over 10 times peak load in RDB
  4. Login (SOAP) Authentication - Web Services - performance exceeds RDB
  5. e-Applicant - final test results being compiled
  6. Student Payment - performance exceeds RDB

• **Batch Reporting**
  1. Peak (abnormal) Load Testing - ran all reports, all campuses starting at same time - performance acceptable.

• **Uniface 8** - able to function at more than double peak load connections in RDB.

• **3gl Ad-hoc reporting** - performing at acceptable levels during integrated testing.

Even with the amount of testing we have completed, we expect to encounter some issues post conversion! Please call the Help Desk as you normally would!
Oracle Conversion - Support Triage

Background

In anticipation of the higher levels of support incidents arriving during the first two weeks after the Oracle conversion, we need to organize our work to quickly assess incoming incidents, ascertain their priority, and assign them to the appropriate staff. Further, we feel the need to setup two special teams to respond to performance and core-merge issues.

Overview
Assumptions

1) Normal development team escalation processes should remain in place.

2) In front of our normal escalation process, we must be able to triage incidents more quickly than normal, specifically:
   a) To assess/triage tickets very rapidly -- more quickly than will be possible if the support analysts worked unaided;
   b) To handle a potentially much larger volume of tickets;
   c) To identify patterns so tickets can be dealt with in groups.

3) We will need to be able to focus on the following general categories of issues that are not specific to a development team:
   a) performance issues & application stability,
   b) data (core merge).

4) We will need to report on incidents in categories for our management:
   a) By queue,
   b) By the new categories above.

5) Application-specific reporting can be the responsibility of the supervisor in charge of that system.

Support Process Changes for Oracle Triage

1) Create two teams for the two general categories of potential issues:
   a) System performance and stability issues
      i) Point person: Dave Purcell
   b) Data (core merge) issues
      i) Point person: Mark Malecek.

2) Create a new Triage Team to handle incidents escalated from Tier 1:
   a) Members:
      i) Dick McMullen, Rod Gerads, Ra Nae Thompson, Pat Hammer, Al Finlayson
      ii) Honorary members: Mark Malecek, Glen Guida, Joanne Chabot
   b) Purpose
      i) 30-minute triage of priority, follow-up and hand-off
   c) Process
      i) Obvious performance incidents - go to performance/stability team, high priority
      ii) Obvious data (core merge) incidents - go to data team, high priority
      iii) Analytical follow-up (more data collection needed) – go to ASAs, with CSAs as backup
      iv) All other categories of incidents will follow their normal escalation process.
3) Tactics
   a) Setup new Jabber chat rooms for:
      i) Oracle Triage
      ii) Oracle Performance
      iii) Oracle Core Merge

4) Use RNT to produce metrics on demand for Joanne & Mark in these categories:
   a) Each of our normal queues,
   b) Triage,
   c) Performance & Stability,
   d) Data (core merge).

5) Dress rehearsal on Thursday for chat rooms and triage assignments.

6) Get everyone on Pidgin this week, and train team members on using the new chat rooms.
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<td>0</td>
<td>Hold scheduled jobs</td>
<td>Gerads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Thursday, Mar 5</td>
<td>4:00 PM</td>
<td>4:00 PM</td>
<td>0</td>
<td>0</td>
<td>Run Accounting Batch Jobs</td>
<td>Gerads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Thursday, Mar 5</td>
<td>5:00 PM</td>
<td>5:00 PM</td>
<td>0</td>
<td>0</td>
<td>GO for SHUTDOWN</td>
<td>Chabot/Guida</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Thursday, Mar 5</td>
<td>5:00 PM</td>
<td>5:05 PM</td>
<td>5 0.08</td>
<td>0</td>
<td>Pre notifications on ISRS web pages shut down for conversion has begun</td>
<td>Jeffries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Thursday, Mar 5</td>
<td>5:00 PM</td>
<td>5:00 PM</td>
<td>0</td>
<td>0</td>
<td>Progress Update to website</td>
<td>Schmidt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Thursday, Mar 5</td>
<td>5:05 PM</td>
<td>5:15 PM</td>
<td>10 0.17</td>
<td>0</td>
<td>Disable ISRS web application load balancers</td>
<td>Erickson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Thursday, Mar 5</td>
<td>5:15 PM</td>
<td>5:25 PM</td>
<td>10 0.17</td>
<td>0</td>
<td>Shut down web app servers</td>
<td>Erickson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Thursday, Mar 5</td>
<td>5:25 PM</td>
<td>5:40 PM</td>
<td>15 0.25</td>
<td>0</td>
<td>*Shutdown VMS ISRS Monitor via &quot;SHUTDOWN&quot; to turn off all handlers, engines, etc on each VMS node *Disable Uniface 8 Urouter Processes on each VMN node *Stop any active Uniface 8 Userver client processes.</td>
<td>Carlson/Anderson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Thursday, Mar 5</td>
<td>5:40 PM</td>
<td>5:55 PM</td>
<td>15 0.25</td>
<td>0</td>
<td>Hold all APPL/REPL backups except 15min archived log backups.</td>
<td>Scherer/Carlson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Thursday, Mar 5</td>
<td>5:55 PM</td>
<td>6:10 PM</td>
<td>15 0.25</td>
<td>0</td>
<td>Bounce REPL and bring it up in restricted mode for select users.</td>
<td>Esson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Thursday, Mar 5</td>
<td>6:10 PM</td>
<td>6:25 PM</td>
<td>15 0.25</td>
<td>0</td>
<td>If Log Miner has been turned off, restart</td>
<td>Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Thursday, Mar 5</td>
<td>6:25 PM</td>
<td>7:25 PM</td>
<td>60 1.00</td>
<td>0</td>
<td>Hold scheduled jobs</td>
<td>Gerads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Thursday, Mar 5</td>
<td>7:25 PM</td>
<td>7:40 PM</td>
<td>15 0.25</td>
<td>0</td>
<td>Clear job scheduler - ensure queues are empty-hold all ISRS App DB jobs on each VMS node</td>
<td>Gerads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Thursday, Mar 5</td>
<td>7:40 PM</td>
<td>10:10 PM</td>
<td>150 2.50</td>
<td>0</td>
<td>Run ISRS application table clean up jobs</td>
<td>Gerads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Thursday, Mar 5</td>
<td>10:10 PM</td>
<td>10:20 PM</td>
<td>10 0.17</td>
<td>0</td>
<td>Wait for silence, Ensure RDB DBs quiet and have no attachments</td>
<td>Forseman/Carlson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 Thursday, Mar 5</td>
<td>10:20 PM</td>
<td>11:20 PM</td>
<td>60 1.00</td>
<td>0</td>
<td>Load data from PROD - RDB-Oracle</td>
<td>Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Thursday, Mar 5</td>
<td>11:20 PM</td>
<td>11:40 PM</td>
<td>20 0.33</td>
<td>0</td>
<td>Shut down logminer on each VMS node</td>
<td>Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Thursday, Mar 5</td>
<td>11:40 PM</td>
<td>11:45 PM</td>
<td>5 0.08</td>
<td>0</td>
<td>Shut off UPDATE access for everyone in RDB databases on each VMS node except FFORSEMAN</td>
<td>Carlson/Anderson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 Thursday, Mar 5</td>
<td>11:45 PM</td>
<td>12:00 AM</td>
<td>15 0.25</td>
<td>0</td>
<td>Ensure no ISRS Oracle attachments</td>
<td>Esson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start Date</td>
<td>Start Time (CST) CALC Field</td>
<td>Start Time (CST) CALC Field</td>
<td>End Time (CST) CALC Field</td>
<td>End Time (CST) CALC Field</td>
<td>ENTER Dur. Est. (min)</td>
<td>ENTER Dur. Est. (hr)</td>
<td>Detailed Task</td>
<td>Owner</td>
</tr>
<tr>
<td>-------------------</td>
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<td>-----------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>26 Thursday, March 05, 2009</td>
<td>12:00 AM</td>
<td>1:00 AM</td>
<td>60</td>
<td>1.00</td>
<td>Verify row counts / record counts</td>
<td>Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Friday, March 06, 2009</td>
<td>1:00 AM</td>
<td>1:05 AM</td>
<td>5</td>
<td>0.08</td>
<td>GO/NO Go for Database - Pehler to Chabot/Guida/Malecek/Willford</td>
<td>Pehler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Friday, March 06, 2009</td>
<td>1:05 AM</td>
<td>3:05 AM</td>
<td>120</td>
<td>2.00</td>
<td>Incremental backup Oracle APPL &amp; REPL - <strong>Only can be done in Production</strong></td>
<td>Scherer/Carlson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xx Friday, March 06, 2009</td>
<td>3:05 AM</td>
<td>3:05 AM</td>
<td>0</td>
<td>0.00</td>
<td><strong>CUT OVER</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Friday, March 06, 2009</td>
<td>3:05 AM</td>
<td>4:05 AM</td>
<td>60</td>
<td>1.00</td>
<td>Re-merge core &quot;changes&quot;</td>
<td>Delong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 Friday, March 06, 2009</td>
<td>4:05 AM</td>
<td>1:05 PM</td>
<td>540</td>
<td>9.00</td>
<td>core merge &quot;magic&quot;</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 Friday, March 06, 2009</td>
<td>8:00 AM</td>
<td>8:00 AM</td>
<td>0</td>
<td>0.00</td>
<td><strong>Progress Update to website</strong></td>
<td>Schmidt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 Friday, March 06, 2009</td>
<td>1:05 PM</td>
<td>1:05 PM</td>
<td>0</td>
<td>0.00</td>
<td>Database migration scripts</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 Friday, March 06, 2009</td>
<td>1:05 PM</td>
<td>1:05 PM</td>
<td>0</td>
<td>0.00</td>
<td>Any remaining data type changes</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34 Friday, March 06, 2009</td>
<td>1:05 PM</td>
<td>1:06 PM</td>
<td>1</td>
<td>0.02</td>
<td>Drop and Create ITS.RDB_CONV.LOG Table</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 Friday, March 06, 2009</td>
<td>1:06 PM</td>
<td>1:07 PM</td>
<td>1</td>
<td>0.02</td>
<td>Create New Sequences</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 Friday, March 06, 2009</td>
<td>1:07 PM</td>
<td>1:08 PM</td>
<td>1</td>
<td>0.02</td>
<td>Drop Unnecessary Tables</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37 Friday, March 06, 2009</td>
<td>1:08 PM</td>
<td>1:09 PM</td>
<td>1</td>
<td>0.02</td>
<td>Create New Tables</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 Friday, March 06, 2009</td>
<td>1:09 PM</td>
<td>1:10 PM</td>
<td>1</td>
<td>0.02</td>
<td>Table Structure Changes</td>
<td>Pehler/Forseman</td>
<td></td>
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<tr>
<td>39 Friday, March 06, 2009</td>
<td>1:10 PM</td>
<td>1:11 PM</td>
<td>1</td>
<td>0.02</td>
<td>Update Statements</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>40 Friday, March 06, 2009</td>
<td>1:11 PM</td>
<td>1:12 PM</td>
<td>1</td>
<td>0.02</td>
<td>Add Views</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 Friday, March 06, 2009</td>
<td>1:12 PM</td>
<td>2:12 PM</td>
<td>60</td>
<td>1.00</td>
<td>Add Indexes</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42 Friday, March 06, 2009</td>
<td>2:12 PM</td>
<td>2:13 PM</td>
<td>1</td>
<td>0.02</td>
<td>Create New Audit Tables</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43 Friday, March 06, 2009</td>
<td>2:13 PM</td>
<td>2:14 PM</td>
<td>1</td>
<td>0.02</td>
<td>Add Default Values</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>44 Friday, March 06, 2009</td>
<td>2:14 PM</td>
<td>2:14 PM</td>
<td>0</td>
<td>0.00</td>
<td>Add Comments</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 Friday, March 06, 2009</td>
<td>2:14 PM</td>
<td>2:14 PM</td>
<td>0</td>
<td>0.00</td>
<td>Add Attributes</td>
<td>Pehler/Forseman</td>
<td></td>
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<tr>
<td>46 Friday, March 06, 2009</td>
<td>2:14 PM</td>
<td>2:54 PM</td>
<td>40</td>
<td>0.67</td>
<td>Add Foreign Keys</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>47 Friday, March 06, 2009</td>
<td>2:54 PM</td>
<td>2:56 PM</td>
<td>2</td>
<td>0.03</td>
<td>Add Triggers</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>48 Friday, March 06, 2009</td>
<td>2:56 PM</td>
<td>3:36 PM</td>
<td>40</td>
<td>0.67</td>
<td>NON_PERSON Migration</td>
<td>Pehler/Forseman</td>
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<tr>
<td>49 Friday, March 06, 2009</td>
<td>3:36 PM</td>
<td>3:37 PM</td>
<td>1</td>
<td>0.02</td>
<td>Add Audit Triggers</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>50 Friday, March 06, 2009</td>
<td>3:37 PM</td>
<td>3:42 PM</td>
<td>5</td>
<td>0.08</td>
<td>Recompile Invalid Views and Triggers (ISRS, ISRSCORE and ISRSVAL schemas)</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 Friday, March 06, 2009</td>
<td>3:42 PM</td>
<td>5:42 PM</td>
<td>120</td>
<td>2.00</td>
<td>ST_APP_LOG Cleanup</td>
<td>Pehler/Forseman</td>
<td></td>
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</tr>
<tr>
<td>52 Friday, March 06, 2009</td>
<td>3:42 PM</td>
<td>7:42 PM</td>
<td>240</td>
<td>4.00</td>
<td>RADS: Run scripts to build tables, run scripts to fix views to point to core</td>
<td>Meath/Gramling</td>
<td></td>
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</tr>
<tr>
<td>53 Friday, March 06, 2009</td>
<td>7:42 PM</td>
<td>7:42 PM</td>
<td></td>
<td></td>
<td><strong>Progress Update to website</strong></td>
<td>Schmidt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start Date</td>
<td>Start Time (CST)</td>
<td>End Time (CST)</td>
<td>ENTER Dur Est (min)</td>
<td>Detailed Task</td>
<td>Owner</td>
<td>Status</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
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<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>54 Friday, March 06, 2009</td>
<td>7:42 PM</td>
<td>10:42 AM</td>
<td>900</td>
<td>FULL backup APPL &amp; REPL - Only can be done in Production</td>
<td>Scherer/Carlson</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>55 Friday, March 06, 2009</td>
<td>7:42 PM</td>
<td>7:47 PM</td>
<td>5</td>
<td>Oracle DB Ready GO/NO GO : Can resume steps even though backup is in progress</td>
<td>Pehler/Forseman</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ALL TEAM join conference bridge 877-416-1750 Pass code 375127#</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>56 Friday, March 06, 2009</td>
<td>7:47 PM</td>
<td>7:52 PM</td>
<td>5</td>
<td>Reset RDB privs back to MNSCUDB read access</td>
<td>Carlson/Anderson</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>57 Friday, March 06, 2009</td>
<td>7:52 PM</td>
<td>7:57 PM</td>
<td>5</td>
<td>Close all ISRS RDB databases (no access)</td>
<td>Carlson/Anderson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58 Friday, March 06, 2009</td>
<td>7:57 PM</td>
<td>8:27 PM</td>
<td>30</td>
<td>WEB applications deployed</td>
<td>Erickson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59 Friday, March 06, 2009</td>
<td>8:27 PM</td>
<td>8:57 PM</td>
<td>30</td>
<td>Load balancer setting changes</td>
<td>Erickson</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>60 Friday, March 06, 2009</td>
<td>8:57 PM</td>
<td>9:12 PM</td>
<td>15</td>
<td>Backup RDB version of ISRS application images/components on VMS servers</td>
<td>Bruce Carlson</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>61 Friday, March 06, 2009</td>
<td>9:12 PM</td>
<td>9:42 PM</td>
<td>30</td>
<td>Copy out Oracle version of ISRS application images/components to VMS servers</td>
<td>SYSUNI (willford)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62 Friday, March 06, 2009</td>
<td>9:42 PM</td>
<td>9:44 PM</td>
<td>2</td>
<td>Execute script to change Uniface from RDB to ORA</td>
<td>Carlson/Anderson</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>xx Friday, March 06, 2009</td>
<td>9:44 PM</td>
<td>9:44 PM</td>
<td></td>
<td>SOFT LIVE - internal and special campus users only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63 Friday, March 06, 2009</td>
<td>9:44 PM</td>
<td>9:45 PM</td>
<td>1</td>
<td>STC2 First - Start VMS MNSCUDB Engine</td>
<td>Gerads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64 Friday, March 06, 2009</td>
<td>9:45 PM</td>
<td>9:50 PM</td>
<td>5</td>
<td>STC2 First - Start VMS ISRS Monitoring</td>
<td>Gerads</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>65 Friday, March 06, 2009</td>
<td>9:50 PM</td>
<td>9:51 PM</td>
<td>1</td>
<td>Remaining VMS Servers - Start VMS MNSCUDB Engine</td>
<td>Gerads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66 Friday, March 06, 2009</td>
<td>9:51 PM</td>
<td>9:56 PM</td>
<td>5</td>
<td>Remaining VMS Servers - Start VMS ISRS Monitoring</td>
<td>Gerads</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>67 Friday, March 06, 2009</td>
<td>9:56 PM</td>
<td>10:01 PM</td>
<td>5</td>
<td>disable Uniface8 menu for internal use only</td>
<td>Willford</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68 Friday, March 06, 2009</td>
<td>10:01 PM</td>
<td>10:31 PM</td>
<td>30</td>
<td>Bring up web applications for testers</td>
<td>Erickson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69 Friday, March 06, 2009</td>
<td>10:31 PM</td>
<td>10:36 PM</td>
<td>5</td>
<td>Deploy special situation to come up live for testers only</td>
<td>Erickson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 Friday, March 06, 2009</td>
<td>10:36 PM</td>
<td>10:56 PM</td>
<td>20</td>
<td>Config and restart application servers</td>
<td>Willford</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xx Friday, March 06, 2009</td>
<td>10:56 PM</td>
<td>6:55 AM</td>
<td>479</td>
<td>CONTINGENCY</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>xx Saturday, March 07, 2009</td>
<td>7:00 AM</td>
<td>7:00 AM</td>
<td></td>
<td>Backups should be finishing around this time</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>71 Saturday, March 07, 2009</td>
<td>7:00 AM</td>
<td>7:00 AM</td>
<td></td>
<td>Progress Update to website</td>
<td>Schmidt</td>
<td></td>
<td></td>
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<tr>
<td>72 Saturday, March 07, 2009</td>
<td>7:00 AM</td>
<td>12:00 PM</td>
<td>300</td>
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<td>Registration - Halloran</td>
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<td>Progress Update to website</td>
<td>Schmidt</td>
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<td>End Time (CST) CALC Field</td>
<td>ENTER Dur Est. (min)</td>
<td>Dur. Est. (hr)</td>
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<td>Generate an extract file from the production Oracle database for review by Chuck Morris/Mike Condon</td>
<td>Huls / Gerads</td>
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<td>UnHold some ISRS scheduled jobs</td>
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<td>76 Saturday, March 07, 2009</td>
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<td>1:10 PM</td>
<td>5</td>
<td>0.08</td>
<td>First Go NoGo decision point: <strong>ALL TEAM join conference bridge 877-416-1750 Pass code 3751274#</strong></td>
<td>Chabot</td>
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<tr>
<td>78 Saturday, March 07, 2009</td>
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<td>Bring REPL back up in normal mode. No database bounce required.</td>
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<td>1:30 PM</td>
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<td>Un-Hold backups of APPL and REPL until cutover complete - <strong>Only can be done in Production</strong></td>
<td>Scherer/Carlson</td>
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<td>Post original ISRS page</td>
<td>Jeffries</td>
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<tr>
<td>81 Saturday, March 07, 2009</td>
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<td>1:52 PM</td>
<td>5</td>
<td>0.08</td>
<td>Enable ISRS NETSCALER URL monitoring</td>
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<tr>
<td>xx Saturday, March 07, 2009</td>
<td>1:52 PM</td>
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<td><strong>GO LIVE</strong></td>
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<tr>
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<td>Start production jobs</td>
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<td>83 Saturday, March 07, 2009</td>
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<td><strong>FINAL Go NoGo decision point - ALL TEAM join conference bridge 877-416-1750 Pass code 3751274#</strong></td>
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<td>2:32 PM</td>
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<td>Re-enable load balancers</td>
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<td>Re-establish Uniface8 menu</td>
<td>Willford</td>
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<td>Open RDB databases for troubleshooting</td>
<td>Carlson</td>
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<td><strong>Progress Update to website</strong></td>
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<td>0.00</td>
<td><strong>ORACLE PRODUCTION LIVE!</strong></td>
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<tr>
<td>xx Saturday, March 07, 2009</td>
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<td><strong>POST LIVE MONITORING</strong></td>
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<td>89</td>
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<td>Run script to populate AR Build needed for students who changed residency status</td>
<td>Gillson</td>
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<td>90</td>
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<td></td>
<td></td>
<td>SKIP A/R Full Calc</td>
<td>Gerads</td>
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<td>Res. Stat script</td>
<td>Gillson</td>
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## Oracle Fall Back Plan

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<tr>
<th>Start Date</th>
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<th>End Time (CST)</th>
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<tr>
<td>1</td>
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<td></td>
<td>FALL BACK - SHUTDOWN</td>
<td></td>
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<tr>
<td>2</td>
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<td>Disable ISRS web application load balancers</td>
<td>Erickson</td>
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<td>3</td>
<td></td>
<td></td>
<td></td>
<td>Shutdown ISRS Oracle web applications</td>
<td>Purcell/Server</td>
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<td>4</td>
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<td></td>
<td>Shutdown VMS ISRS Monitor via &quot;SHUTDOWN&quot; to turn off all handlers, engines, etc on</td>
<td>Carlson</td>
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<td>5</td>
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<td></td>
<td>Disable Uniface 8 Urouter Processes on each VMS node</td>
<td>Carlson</td>
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<tr>
<td>6</td>
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<td></td>
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<td>Stop any active Uniface 8 Userver client processes</td>
<td>Carlson</td>
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<td>7</td>
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<td>Hold scheduled jobs</td>
<td>Gerads</td>
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<td>8</td>
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<td></td>
<td></td>
<td>Clear job scheduler - ensure queues are empty-hold all ISRS App DB jobs on each VMS node</td>
<td>Gerads</td>
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<td>9</td>
<td></td>
<td></td>
<td></td>
<td>Wait for silence, Ensure Oracle DBs quiet and have no attachments</td>
<td>Esson/Pheler</td>
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<td>Copy RDB/Oracle Read Only backup versions of ISRS application images/components to</td>
<td>Sysuni(willford)</td>
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<td>Deploy backup of pre-Full Oracle ISRS web applications</td>
<td>Purcell/Server</td>
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<td>Run script to configure VMS servers for ISRS RDB applications</td>
<td>Carlson</td>
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<td></td>
<td>Run script to configure Web app servers for ISRS RDB applications</td>
<td>Purcell/Server</td>
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<td>14</td>
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<td>Restore Oracle backups made prior to migration</td>
<td>Esson</td>
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<td>Reset RDB Database Privileges</td>
<td>Carlson</td>
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<td>FALL BACK - SOFT LIVE</td>
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<td>STC2 First - Start VMS MNSCUDB Engine</td>
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<td>STC2 First - Start VMS ISRS Monitoring</td>
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<td>Remaining VMS Servers - Start VMS MNSCUDB Engine</td>
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<td>Remaining VMS Servers - Start VMS ISRS Monitoring</td>
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<td>Bring up web applications for testers</td>
<td>Gerads</td>
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<td>Deploy special situation to come up live for testers only</td>
<td>Janke</td>
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<td>Config and restart application servers</td>
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<td>Student area verification</td>
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<td>Finance area verification</td>
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<td>Generate an extract file from the production Oracle database for review by Chuck Morris/Mike</td>
<td>Bob Huls</td>
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<td>UnHold some ISRS scheduled jobs</td>
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<td>First Fall Back Go NoGo decision point</td>
<td>All</td>
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<td>GO LIVE</td>
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<td>31</td>
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<td>Re-enable load balancers</td>
<td>Erickson</td>
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<td>Re-establish Uniface8 menu</td>
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# Incident Response
## Oracle Conversion - Week 2

*As of Friday at 3PM, 3-20-2009*

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Opened Today (since prior report)</th>
<th>Resolved Today (since prior report)</th>
<th>Cumm Tickets</th>
<th>Cumm Resolved</th>
<th>Still Open</th>
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<tbody>
<tr>
<td>Mon 3/9/2009</td>
<td>10AM 204</td>
<td>78</td>
<td>87</td>
<td>18</td>
<td>69</td>
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<tr>
<td></td>
<td>3PM</td>
<td></td>
<td>204</td>
<td>78</td>
<td>126</td>
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<tr>
<td>Tue 3/10/2009</td>
<td>9AM 171</td>
<td>134</td>
<td>264</td>
<td>127</td>
<td>137</td>
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<td>3PM</td>
<td></td>
<td>375</td>
<td>212</td>
<td>163</td>
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<td>Thu 3/12/2009</td>
<td>3PM 113</td>
<td>124</td>
<td>634</td>
<td>445</td>
<td>189</td>
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<tr>
<td>Fri 3/13/2009</td>
<td>3PM 91</td>
<td>56</td>
<td>725</td>
<td>501</td>
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<table>
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<th>Week 2</th>
<th>Opened Today (since prior report)</th>
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<th>Still Open</th>
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<tbody>
<tr>
<td>Mon 3/16/2009</td>
<td>3PM 93</td>
<td>110</td>
<td>818</td>
<td>611</td>
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<td>Tue 3/17/2009</td>
<td>3PM 93</td>
<td>71</td>
<td>911</td>
<td>682</td>
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<tr>
<td>Wed 3/18/2009</td>
<td>3PM 94</td>
<td>68</td>
<td>1005</td>
<td>750</td>
<td>255</td>
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<td>Thu 3/19/2009</td>
<td>3PM 75</td>
<td>58</td>
<td>1080</td>
<td>808</td>
<td>272</td>
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<tr>
<td>Fri 3/20/2009</td>
<td>3PM 65</td>
<td>64</td>
<td>1145</td>
<td>872</td>
<td>273</td>
</tr>
</tbody>
</table>

*Total incidents:* 1145  
*Total Resolved:* 872  
*Total still open:* 273
Minnesota State Colleges and Universities
Information Technology Services
Minnesota Online: Technology Summary
April 15, 2009
• Current State

– The core technology used in support of “online”, “hybrid”, and “on-ground” is an Instructional Management System (IMS). At Minnesota State Colleges & Universities, we use the “Desire2Learn” application as our centrally supported and hosted IMS.

– Our IMS technology environment is one of the largest in the country and supports approximately 350,000+ users annually. Usage of the system has grown by approximately 10% - 15% annually during the past 5 years.

– Our annual operational costs for the IMS environment is approximately $5 per student/user per year. The cost includes hardware, software, and staffing. (Note: we are developing a consistent TCO (Total Cost of Ownership Model) for all enterprise applications. A draft version TCO for our IMS environment will be available by the time of the Board meeting in April.)

– The annual technology support costs are not likely to grow beyond 5% annually, even if we were to increase the number of online credit courses to meet the Governor’s challenge. However, we need to add an important caveat to this assertion. Although, an IMS will continue to be at the core of our online instructional technology environment, other technologies, business processes, and student services will need to be designed and incorporated into our future environment. The technology cost of these is unknown.

– Future State

We have begun defining and designing the next generation of our online environment. “Minnesota Online II” has four elements, each with a corresponding technology layer: analytics, web 2.0, high-touch student services, high-quality instructional design. Our approach is to build a technology “road map” and then make investments as funds become available.