Applications Tactical Services Plan

Current Applications Services
Information Technologies (IT) many Applications services fall within the major categories of Application Support, Communication & Collaboration, and Web & Mobile services. Application services support the entire UNM enterprise, and are described as follows:

Application Support

- **Administrative Systems Support:** IT provides the technical support and vendor management of enterprise applications including networking, database management, system administration, and monitoring, as well as project management, application analysis and development. We support systems that address the major administrative components of the university, including financial management, budgeting, facilities management, enterprise access control, cashiering, accounts receivable, billing, admissions, registration, grading, financial aid, advising, catalog, demographic information management, etc. The myUNM portal is a gateway to a variety of these UNM services and online information, including Demographic Self Service, Email, Internet Native Banner, Learning Central, LoboWeb, and Learn.

- **Applications Review, Analysis & Support:** IT provides initial high-level assessments of existing or proposed applications, reports, and data feeds to help inform project planning activity and direction. More detailed analysis, development, implementation and support can be provided on a fee-for-service basis or through approval and prioritization of IT governance processes.

- **Reporting System Review, Analysis & Support:** The technical support of the reporting architecture includes Oracle and SQL Server reporting databases. Reporting systems has partnerships with the President’s office, providing support for Performance Management Framework (PMF) and Academic Forecasting Tool (AFT), the Office of Planning, Budget and Analysis, the Office of Faculty Contracts Administration, and the Office of Equal Opportunity for report and dashboard development. New opportunities for database and report development include projects for ISS, Facilities, Advisor data, and the Law School. Support services include networking, database management, administration of the reporting system and architecture, monitoring the system as well as reports and scheduled processes, as well as application development, report development and project management.

Communication & Collaboration

- **E-mail and Calendar:** LoboMail is UNM’s branding of Microsoft’s Office 365 Exchange Online, a feature-rich email and calendaring system that is available to all students, staff and faculty at UNM. LoboMail is integrated with several other collaboration tools including Skype for Business and OneDrive for Business. For more information on LoboMail, please see Fastinfo. Email services also include spam and virus filtering as well as mailing lists (Listserv).

- **Web-based Collaboration Services:** IT offers several applications and systems to improve communication and collaboration at UNM. Skype for Business and Meeting. UNM provide audio/video conferencing, online meeting and application sharing features. OneDrive for Business and SharePoint provide document sharing and other collaborative productivity features.

- **Instant Messaging:** Skype for Business provides instant messaging capability as well as audio/video conferencing, online meeting and application sharing features. Skype for Business is available to all LoboMail users including all UNM students, faculty and staff. GroupWise Instant Messenger (GWIM) is also available by request to all faculty and staff with a UNM NetID for instant messaging service. GroupWise Instant Messenger (GWIM) is a secure, locally hosted instant messaging (IM) application available to UNM business units and users (not available for Students). Support for GWIM will be phased out in FY16 and the “Instant Messaging” Product will be subsumed under “Collaboration Services.” (see “Current Work” section).
Web & Mobile Services

- **Mobile Campus**: This service is part of a bigger initiative to serve, connect, and innovate with the UNM community. The goal of Mobile Campus is to strengthen teaching, research, and learning through collaborative efforts across campus. IT offers university departments and official university organizations the tools needed to bring university services to the mobile platforms via mobile apps. In addition, IT also provides fee-for-service migration of existing apps to the mobile platforms as needed. Where audience, scope, and purpose are appropriate, university departments and official organizations can elect to have their mobile apps incorporated into UNM LoboMobile, the official UNM mobile app.

- **Web & Mobile Application Development** IT offers fee-for-service web and mobile application development to university departments and official university organizations on campus. This service includes building of web and mobile applications for desktop and mobile platforms. In addition, IT also offers support and maintenance services for web and mobile applications hosted by IT.

- **Website Hosting** IT provides a personal web hosting environment, free of charge, to UNM’s students, staff, and faculty.

- **Website Review, Analysis & Support** IT provides limited web consulting support to university departments and official university organizations on campus. Consulting support includes guidance on web design and development topics covering initiation, content development, design and development, promotion, management, enhancement, and troubleshooting of availability and performance issues. More extensive IT web consulting may be available on a fee-for-service.

Current Work and Issues Related to Existing Services

Web & Mobile Services

- Luminis 4 (MyUNM) will reach end-of-life by June 2016. We are actively working on a new Portal/App Store platform to replace Luminis 4. Per conversation with PGC, preferred time to migrate over from Luminis 4 is February 2016.

- Web & Mobile Services team, in collaboration with IT Systems and Security, researched different options for an enterprise web-hosting platform for UNM departments and individuals. The option that we found which fit our needs the most was cPanel. We finished setting up a pilot environment of cPanel, rolled out in June 2015, with tentative go-live date of October 2016; we are working on a comprehensive SLA to define the service.

- Cost recovery and service models are continuing to be developed for our web and mobile services.

Collaboration Services

- **Office 365**: The roadmap for Office365 including Sharepoint (OneDrive, Team Sites), Skype for Business (Instant Messaging, Video conferencing, public switched telephone network (PSTN) integration), and SharePoint continues to develop and evolve. A discovery phase for SharePoint Online (Office365) will complete in early FY16 and a proof-of-concept and implementation project will follow. An outstanding issue with many Office 365 services (most prominently Exchange and Skype for Business) involves identity management with regard to the HSC’s rollout of their Exchange system, branded HSCLink. Plans to consolidate and reconcile identities (login IDs) for Main campus and HSC have been on-hold.

- **Instant Messaging and A/V conferencing consolidation**: With the implementation of Microsoft Skype for Business, UNM IT’s support for GWIM (which is hosted by HSC) will be phased out and Meeting.UNM (Adobe Connect) will be evaluated to determine its ongoing value and relevance to the organization. With regard to GWIM, we will work with HSC to recommend a transition plan for support going forward.

- **LoboMail**: Current work includes evaluating and documenting support for several service components to the LoboMail (Exchange Online) system. These include:
Application Services

- **Help.UNM**: Loss of the primary technical resource on the Collaborative Applications team has placed a hold on some activity in the system. The operational (i.e., post-reimplementation project) process for making changes in the system will be developed during this period by a committee of functional users from across IT (and including Collaborative Applications) in early FY16.

- **Fastinfo/Studentinfo**: The funding model for the current application is not recovering licensing costs due to departments leaving the system. Usage and processes are not consistent within the system. A committee will be formed to document knowledge management needs and recommend a path forward.

- **Billing System Upgrade**: Pinnacle upgrade is in progress and should complete in FY16.

**Resource constraints**

- Competing priorities and turnover across the institution are creating challenges for timely completion of projects. Hiring and training new staff are impacting Business Affairs, Financial Aid and Shared Components teams’ ability to support growing customer needs.

- **Vendor Software Maintenance Costs.** Ongoing funding for application maintenance agreements, including annual maintenance increases, remains a challenge. Additional institutional application maintenance agreements were transferred to UNM IT this past year without identified funding. In addition, UNM administrative offices are looking into new and/or replacement applications without identified funding or resources for implementation and support.

- **Funding.** Obtaining funding for storage, for changing architecture, for training applications teams for the support of server and vendor required mid-tier software is an ongoing concern.

**IT Business Processes**

- **Management of the Software Development Life Cycle** has become a major focus to improve the consistency and predictability of our development activities. We have enlisted the support of a consultant Software Engineer to address the currency of application versions, support levels, and security.

- **Processes** for intake, support, and a funding model for supplemental fee for service projects are required. IT Applications is working on service development opportunities with IT service planning resources and is making progress.

**Enterprise Apps**

- **LoboTime** is stabilized in production. Phase 1 was closed and we are now in the midst of implementing phase 2, including on-boarding other early adopters and preparing for for “LoboTime as a Program”. We have two large departments that have been working in the system for some time and are now in the process of finalizing preparation to feed to Banner. We have 2 other departments that are re-engaging for their go-live, 2 more who are new adopters, and a handful of other units that are interested in reengaging or beginning an implementation plan.

- **Banner Underlying Technologies.** As UNM prepares for the Banner XE environment we must invest in new infrastructure, Groovy/Grails training, Web Logic and middleware system administration support. We are leading a pilot effort to evaluate short and long term options for this, load testing and system monitoring.

- **Banner XE Planning.** UNM and NMSU co-lead an effort to collaborate on the Banner XE implementation planning. A statewide training proposal is currently at the State for review.

- **ROM Forecasting Tool** phase 2 went live in Jan 2015 with expanded features and functionalities, and a campus-wide deployment. The plan for a bigger campus-wide rollout to individual academic departmental units is also bringing in new challenges and issues in terms of support and training.

- **Sunshine Portal and the ROM Forecasting Tool** are developed under Microsoft Technology Infrastructure Stacks and we will be upgrading this infrastructure from SharePoint 2010 to 2013.
Reporting Services

• **WebFOCUS** services and applications are increasing through newly formed partnerships. Challenges include filling vacant positions, and establishing data governance within the reporting environment.
  
  o **WebFOCUS/MyReports 8.1.05+ upgrade**, takes advantage of the responsive design features for mobile devices and increased reporting functionality in the web-based reporting tools for the distributed developers. We are working through challenges related to server configuration. Each WebFOCUS upgrade from 8.0.09 through 8.1.05 moves more of the functionality of the Desktop developer tool DevStudio into AppStudio. DevStudio will be completely desupported and replaced by AppStudio in WebFOCUS 8.2 which will be released spring 2016.
  
  o **WebFOCUS Hyperstage** a columnar database that simulates in memory processing is installed in the Development environment but is not currently being used pending testing resource availability. Information Builders is moving Hyperstage, from a MySQL database to PostGre with WebFOCUS as of WebFOCUS 8.1.05+. Hyperstage with the MySQL database will be de-supported December 2015. IBI has recommended that we move into version 8.1.05 as soon as possible.
  
  o **Service definition**. Baseline reporting services need to be firmly defined. Some campus departments are moving away from the core institutional reporting tool and roles need to be defined to ensure continuity and sustainability of reporting resources.

• **ODS 8.5 upgrade**. Banner tables are replicated in the reporting environment through Oracle materialized views, change and archive logs. The 8.5 upgrade resolves a number of data refresh issues that we have reported. This is a 3000+ hour project that affects multiple functional and technical offices. Banner 8.7+ patches and upgrades release guides include the ODS 8.5 upgrade as a requirement. The ODS upgrade will require the purchase of a minimum of 4 TB of Storage, a sandbox environment. The Oracle databases will be moving from a physical server to Linux Virtual Machines. This change in architecture increases the complexity of the upgrades and risk.

• **SAS Enterprise v9.4 applications** is now supported by and limited to the OIA Analytics team. Growth on SAS has slowed with administrative changes in OIA. The SAS v9.2 server, currently used for Enrollment Management, Institutional Analytics, and Student Information Systems team, has been desupported by SAS. Although the licensing for v9.2 has been renewed there are risks associated with the old version’s compatibility with new versions of the Operating System, and supporting mid-tier software (Java, Tomcat, etc). Converting files and SAS 9.2 programs to another version or different architecture will be a 3000+ hour project.

• **APEX HR** has been expanding use of APEX and has completely moved away from using the campus-wide reporting tool, WebFocus. With this change, it is becoming increasingly difficult to provide consistent and expandable reporting solutions relative to HR data. UNM IT Applications has begun to develop reporting applications on behalf of the Faculty employment areas, and we are engaged in strategy discussions with UNM HR. APEX application, security, and reports are supported by HR. IT DBAs provide support for the Oracle base infrastructure.

Vision and Approach for Applications

Overarching Approach

• **Remove Obstacles**. Resolve communication challenges and other barriers to success to allow for smoother, more focused development activities.

• **Staff Preparation**. Evaluate roles, skillsets and training needs of staff to prepare for next evolution of Application development and support.

• **Mature IT Process**. Continue maturing the System Development Life Cycle efforts with a focus on quality.

• **Campus Partnerships**. Leverage collaboration and partnership with other IT teams to improve overall product and service quality, team morale, and department image on campus.
• **Technical Architecture.** Analyze, understand and evolve the enterprise application architecture to form a more calculated and sustainable technical environment to support the needs of the campus community.

• **Service Level Definition.** Formalize service level offerings for IT Applications.

**Vision for Web & Mobile Services**

• High quality web and mobile application development and support services for the campus community.

• A complete enterprise web and mobile intranet service where students, staff, and faculty and easily share data, content, and ideas.

• An enterprise web hosting service that allows users to request, provision, and manage their own web environments.

• A collaborative partnership with City of Albuquerque, State of New Mexico, and Higher Ed in web and mobile strategy and development

**Vision for Collaboration Services**

• A comprehensive suite of communications and collaboration/productivity tools for all campus constituents. This includes calendar, email, meetings, conferencing, sharing files, and audio/video conferencing services.

• These services’ implementation and evolution will be guided by an established, educated advisory structure.

• We will continue to evaluate these products and develop support and implementation plans that coordinate internal stakeholders (Platforms, Customer Services, Networks) and external (UNM community end-users).

• For service management tools (Help.UNM, Fastinfo/Studentinfo, Pinnacle) our goal is to support the organization in striving to provide the best interface to our services and support that we can achieve. This will be guided by the organization’s adoption of ITIL best practices and should result in a positive customer experience for all campus constituents.

**Vision for Application Services**

• We strive to become a leading model of innovative and agile approaches as we deliberately grow to meet the expanding needs of our richly diverse students, faculty, staff, alumni, and the greater community.

• The existing model of installing and integrating packaged applications with a customized ERP package will evolve toward:
  
  o Standardized implementations (look & feel, access, coding language interfaces) that result in a seamless end-user experience
  
  o A common programmer-analyst skill set that maintain integrated and module applications across the Banner product and add-on application set
  
  o A well-planned Software Development Lifecycle

• An improved applications architecture with better defined roles, training, quality measures, and development standards.

• This will include work to
  
  o Put pressure on vendor enhancements to include UNM modifications
  
  o Improve & make accessible documentation of specific modification use cases
  
  o Streamline applications for secure, mobile delivery, as appropriate.
  
  o Reorganize institutional information for increased accessibility to information
  
  o Build a campus end-user group for the ERP
  
  o Build a state-wide user group for the ERP
  
  o Build a state-wide core-office group to standardize HED reporting from public higher education institutions.
  
  o Recruit technically proficient staff who exhibit strength of intellectual curiosity, critical thinking, teaming skills, and professionalism
  
  o Consolidate or demise applications where appropriate
  
  o Modify programs for efficient use of resources
  
  o Evaluate and recommend opportunities for innovative technologies in order to become a destination university
  
  o Investigate cloud service opportunities alongside IT Platforms

**Reporting Services**

• Deliver a stable reporting environment that has the data in the right format for the reporting need. This includes forming a Business Intelligence Center to ensure:
  
  o Reporting data is correct and consistent in its transformation and use
 Training or documentation for the use and publication of data is available and distributed to developers.
- Security and access are consistently and appropriately enforced, across all reporting tools and types of data access.
- Identification and prioritization of reporting projects and upgrades.
- Develop consistent processes and policies for pulling data from non-banner systems into the ODS for the integration of University-wide Information.

• In addition, we will help to form a data governance group that has resources, time, and authority for this responsibility.

12-24 Month Milestones

To implement this vision, the following milestones are planned for Applications grouped by service delivery areas:

**Web & Mobile Services:**
Fall 2015
- LDI Replacement
- Addition of NM Rail Runners to Where’s My Bus
- Mobile App Contest, 2015
- Enterprise Web Hosting: cPanel
- Cascade Server Upgrade
- NMT Mobile App

Spring 2016
- Formation of Cross-Campus Application Development Group
- New UNM Portal/App Store

Summer 2016
- UNM Online Maps: Integration with Google's Map Data
- Enterprise Web Hosting: High Availability via Amazon Web Services

Fall 2016
- Revision of LoboMobile (end-of-contract with Modo Labs)

Summer 2017 or Beyond
- Banner XE Mobile Apps
- Fall 2017, Unified Web and Mobile Platform as “One Stop” for UNM online services and resources

**Collaboration Services**
Summer 2015
- Lync A/V conferencing Implementation
- Completion of Help.UNM Re-implementation Project
- Pinnacle upgrade project underway.

Fall 2015,
- SharePoint Online proof-of-concept, migration planning and testing.
- Exchange service components implementation in progress.
- Help.UNM operational process in draft; technical resource replaced.
- Pinnacle upgrade in progress.
- Fastinfo: Formation of committee to document requirements and recommend path forward.

Spring 2016
- Start of SharePoint Online implementation and migration.
- Pinnacle upgrade complete.
- Start of RFP/RFI process for Knowledge Management tool.

Fiscal Year 2017
• Wave 16 upgrade (next generation of Office 365 products).
• Re-evaluate PSTN/Skype for Business integration.
• Knowledge Management tool implementation project begins.

**Application Services**

**Summer 2015**
- Deploy new demographic data collection and maintenance functionality in LoboWeb
- Catalog/Curriculum workflow vendor evaluation

**Fall 2015**
- Banner XE vanilla Schedule and Catalog
- Move DSS application out of Cold Fusion
- First deliverables for BAA 2.0 (CARMA)
- New PICES feed to C-Cure 9000 system
- Evaluate SAS Deployment and adoption
- CRM
- C-Cure 9000 for GTRI
- Develop a comprehensive work flow, decision making, and project management process to insure that milestone dates are met and projects are completed within the established timeline
- Create new Retirement University Application
- Evaluate Banner XE academic and administrative opportunities for web and mobile solutions.
- Assess impact to existing technologies and develop staff development training plans.

**Spring 2016**
- Deploy Student Banner XE modules
- CRM Phase 2 (on Hold)

**Reporting Services**

**Summer 2015**
- Summer 2015, Faculty and Office of Equal Opportunity Phase 2 Compliance and Operational reporting
- Summer 2015, MyReports Mobile

**Fall 2015**
- ODS 8.5 evaluation
- Academic Forecasting Tool formerly known as ROM phase 3, depends upon OIA Data Mart modifications

**Spring 2016**
- MyReports Public Portal
- WebFOCUS 8.1.03 Install in Sandbox test WES Configuration Standards

**Fall 2016**
- ODS 8.5 Upgrade
- Evaluate SAS 9.2 demise
- SoLAR Reporting
- LoboAcheive Reporting depends upon, SIS’s ability to parse the extract file
- WebFOCUS/MyReports 8.2.x Upgrade
- BIRS accessible by MyReports

**Fall 2017**
- SAS 9.2 Retired
Appendix A – Select Supported Applications:

- **Ad Astra Scheduling:** Ad Astra is our scheduling and resource planning software that integrates with our Enterprise Banner system. It allows for scheduling rooms for courses and events on campus.

- **Admission Letter processing:** Admissions letters are generated nightly, uploaded to the acoma server and processed by the UNM copy center. All templates are maintained on the acoma server and letters are distributed by the Admissions office.

- **Bookstore Feed:** Produces a daily file of students. The Bookstore will use this data to assist in determining whether that student will be allowed to open or use a charge account for purchases at the UNM Bookstore.

- **Cascade Server:** Cascade Server is a web content management system designed for collaborative creation of dynamic websites and responsive mobile web applications. UNM IT provides Cascade Server to UNM departments that choose to maintain dedicated websites in the www.unm.edu web space. Features include cloud-based web development environment, WYSIWYG editing, templating, version control, and many more.

- **Classlist Application:** classlists.unm.edu was originally a pre-banner legacy web application that gave faculty a dynamic web class list & ability to email their class. It has been updated for banner data. It displays class lists for a faculty and allows email to the class (especially good for large class email) and ability to export the classlist to a spreadsheet.

- **Comm Center Quick View Website:** Website written for use by the SSSC Comm Center use during online chats, phone call, and email questions from students, it combines about 25 INB forms into 3 scrollable web pages. The website focuses on Admissions, Registration and Financial Aid data.

- **Credentials Solutions** software, enabling students and alumni to order transcripts online from either LoboWeb or a link on the Registrar’s website. Students access TranscriptsPlus by logging into UNM Banner secure Portal. The RoboRegistrar electronically receives commands to locate records, checks for holds, and extract transcript data for electronic formatting and delivery.

- **Curriculum Workflow:** Comprehensive website consists of 3 major forms for: Existing Course Minor Change, New Course Request, Degree/Program Change and generates workflows for approvals. Runs on a cold fusion server.

- **Ellucian Banner:**

  **BANNER Payroll:** We advise, maintain and update all payroll disposition cycles for the University. This includes all out of cycles labor categories. This also, includes maintaining the ERP University Garnishment system.

  **BANNER HR:** We advise, maintain and update all HR enrollment cycles, people records and EPAF processing for the University.
**BANNER Finance:** We advise, maintain and update all Finance systems for the University. This includes the General Ledger, Accounts Receivable, Accounts Payable and Research Accounting systems.

**BANNER Bursar Accounts Receivables:** We advise, maintain and update the billing processes to Touch Net and Banner.

**Banner FinAid**
Financial Aid information includes data related to applications, awards, and disbursements.

**BANNER General Person:** We advise, maintain and update all systems that collect and store personal and demographic information in Banner.

**BANNER Shared Systems:** We advise, maintain and update systems that are used across all Banner modules, such as security, job submission, job scheduling, Banner authentication, etc.

- **C-cure:** We advise, install, upgrade and maintain security card systems throughout the University. We have played a major role in the software and hardware associated with these processes.

- **Employee Relations Database:** We maintain this application which holds legal documents.

- **FAMIS:** We advise, install, upgrade and maintain Space and Facilities systems throughout the University

- **Fastinfo/Studentinfo Knowledge Base:** Collaborative Applications provides support for Fastinfo/Studentinfo, a customer service tool that features a knowledge base, chat and incident tracking. Many student offices use the system to interact with students and help with issues.

- **FinAid Scholarship Load:** Process to load Financial Aid awards into Banner. This process runs off of an input file of award data on an ad-hoc basis.

- **fssaAtlas Feed:** Produces the Campus Datalink file for fssaAtlas International Student and Scholar Management Application software from Banner. fssaATLAS helps maintain federal reporting compliance and streamlines the International Programs Office administrative processes.

- **Grade Upload:** Web page written to allow faculty to export their classlist spread sheet (or other file format) into a .csv file which can then be uploaded into the Banner grades table.

- **HED Budget Reporting:** The tool streamlines the data quality review and preprocessing for HED reporting. The ability to run the report on demand with dynamic drill down capabilities facilitates the pre-processing review prior to producing and sending the the HED formatted pdf to the State and Federal Higher Ed.

- **Help.UNM:** Collaborative Applications provides support for IT’s service management tool, Help.UNM. In collaboration with our Customer Service group and ITIL process owners and managers throughout the organization we support the infrastructure and implement changes in the tool design for the organization.
• **Hobsons ApplyYourself and AppReview:** The online application management solution which provides graduate applicants an on-line system to enter information required by our Admissions Office and to upload supporting Graduate Admissions documents required by departments to make admit decisions. Graduate applicants access the application via apply.unm.edu. This software solution improves student engagement by delivering personalized status updates. UNM can track applications and recommendation documents.

• **Hobsons Recruitment Feed:** Produces 2 files loaded to Hobson’s Connect EMT software for UNM Recruitment purposes.

• **LoboAchieve:** LoboAchieve is a campus-wide advising system. It can immediately alert a student and their advisor when that student's academic career is in jeopardy and provide suggestions for support services available to them. This system is hosted by Starfish (the vendor) and we provide nightly updates from Banner.

• **LoboMobile:** LoboMobile is the official mobile app for the University of New Mexico. This app is a testament to the collaborative effort between departments and organizations on campus to bring university services to the mobile platforms. LoboMobile supports Web, iOS, and Android devices. Current key features of LoboMobile include University Directory, Campus Map, University News & Events, University Libraries Information, University Bookstore and Merchandise, Where’s My Bus, and LoboWeb Mobile.

• **LoboTime:** We advise, install, upgrade and maintain time keeping systems at the University. This includes managing the vendor, maintaining the associated clock hardware and securing the system.

• **LoboTime, PEOPLE ADMIN, and FAMIS:** We control and maintain the integration processes feeding data to Operational Stores, Vendors and Data Warehouses.

• **LoboTrax (DARS uAchieve):** Degree Audit Reporting System is a software tool for charting a student’s progress toward her/his degree. DARS analyzes degree requirements for a major, minor, or certificate according to the catalog year in which you entered the program. DARS reports are the printed results of the analysis. Provides students with a progress report allowing for what if processing by integrating with Banner. The Progress towards Degree, Interactive Audit, Transfer Articulation, NCAA Tracking and Financial Aid Verification.

• **Meeting.UNM:** An on-premise installation of Adobe Connect that supports up to 500 concurrent connections. Meeting.UNM provides audio and video conferencing and a shared meeting space for document or screen sharing.

• **Microsoft Application Development Technology Stack Upgrade:** Upgrade Microsoft application development infrastructure maintained by Special Projects team from SharePoint 2010 to 2013, SQL Server 2008R2 to 2012 and Microsoft Web Application Development Infrastructure from 2010 to 2013.

• **Office 365:** Microsoft’s suite of online services includes the core products Exchange, Sharepoint and Lync. LoboMail is UNM’s branding of Exchange online in Office 365 and OneDrive for
Business is a component of Sharepoint that is offered as a discrete service. Office 365 also provides integration to our on-premise Active Directory.

- **Office of Graduate Studies and Office of Equal Opportunity:** We advise and maintain on systems which create contracts for different labor categories on campus.

- **PEOPLE ADMIN and Salary Planner:** We advise and maintain the budget and salary planning systems for the University. We are able to help departments with the budget processes and how it directly effects people assignments at the University.

- **ROM UNM Resulted Oriented Academic Forecasting Tool Phase II:** Expand current forecasting tool functionalities to facilitate achieving President Frank’s strategic goals to collect useful metrics for decision making in fiscal year 2014-2016. Roll out forecasting tool to a bigger audience in campus to include individual academic units in addition to Fiscal Agents.

- **Test Score Loads – eCompass:** The tape load process loads information from an outside media (e.g., ACT magnetic tapes) to Banner rather than having to type the information manually. Test scores loaded electronically include ACT, SAT, Compass, TOEFL, Residual ACT, EOS, SSS, GRE, AP, etc.

- **Terra Dotta Feed:** Produces a file for Study Aboard software, web-based software that automates processes ensuring that applicants, staff, administrators and parents receive information they need.

- **TK20 CampusWide Provost Feeds:** Extracts and creates two UNM files and loads to the TK20 datasite. The TK20 CampusWide system allows the Provost office to conduct an institutional assessment of UNM department courses and programs.

- **TK20 College of Ed Feeds:** Extracts and creates seven UNM files and loads this data to the TK20 datasite. TK20 is a comprehensive data management system that allows the College of Ed conduct systematic assessment of candidates, programs and operations.

- **Touch Net, Form Fusion and E-Procurement:** We advise, maintain and work with these vendors to make sure payments, cash management and payables are being processed at the University.

- **TutorTrac:** TutorTrac is the system that is used to track tutoring data for students. The Center for Academic Program Support (CAPS) currently uses TutorTrac to track both student and tutor information at tutoring centers. Redrock is the vendor for this system. TutorTrac will be replaced by LoboAchieve.

- **University Catalog:** The online catalog is the University’s primary, comprehensive single source of departmental, college and university-wide information related to academic programs. Courses, degree programs, and policies that govern progress towards completion of a degree are described in the catalog.

- **uDirect** allows students to build term by term plans and also allows the institution to understand course demand. Validates roadmaps.
• **UNM JOBS:** We advise and maintain the New Hire job process at the University. This includes maintaining job records both inside and outside of Banner.

• **Web Student** Banner delivered & UNM written self-service pages containing Student functionality such as Web Application for Admission, View Test Scores & Holds, LoboTrax Degree Audits, View Grades, Transcripts, Enrollment Certifications, Make Payments, View Account Summary. There are many UNM Modifications to LoboWeb Student.

• **Web Faculty/Advisors** Banner delivered & UNM written self-service pages containing Faculty & Advisor functionality such as Enter Grades, View Test Scores & Holds, Add Comments, View Advisees, LoboTrax Degree Audits, Degree Audit Exception Requests, Class Lists, Wait Lists, Add Web Component to Class. There are many UNM Mods to LoboWeb Faculty/Advisors.

• **Web FinAid** Banner delivered self-service pages containing FinAid information for students such as Award Info, Eligibility Requirements, and Overall Status. There are no UNM Mods to LoboWeb FinAid.

• **Where’s My Bus:** Where’s My Bus (WMB) is a web application that allows users to track CABQ buses and UNM shuttles in real time. Current routes supported by WMB include 8 UNM shuttle routes and 37 City of Albuquerque’s bus routes. WMB can be accessed as a standalone service via http://wmb.unm.edu or via the UNM LoboMobile app.

• **Where To Eat:** Where to Eat (W2E) is a web application that provides users with a list of restaurants across campus and their menus of the day. Currently, W2E has complete breakfast, lunch, and dinner plans for La Posada and Faculty & Staff Club with plan to expand to the SUB in the near future.

• **xTender Document Management:** We advise, maintain and update the University Document Management system that stores invoices and other legal records.