REQUEST FOR INFORMATION # 2012-08-1700

FOR

Customer Relationship Management (CRM)

AS PER THE SPECIFICATIONS LISTED HEREIN

PROPOSAL DUE DATE: 08/10/2012

PROPOSAL DUE TIME: 9:00 AM, EST

REQUESTED BY: Luba Cramer

THE UNIVERSITY OF AKRON
DEPARTMENT OF PURCHASING

Vendor: Campus Management Corp
1.1 GENERAL INFORMATION

To be guaranteed the fullest consideration, all information should be submitted on or before 9 A.M. local time, on August 10, 2012. The University prefers that all information and supporting documents be submitted electronically through the Public Purchase bidding tool and must be in either Microsoft Word or Adobe PDF format.

All questions are to be submitted through the electronic bidding tool which will allow all bidders to see submitted questions and the answers.

The bidding tool is located at:
Vendor Registration- http://www.publicpurchase.com/gems/uakron,oh/browse/home
Bid Board- http://www.publicpurchase.com/uakron,oh
Additional vendor support is provided via live Chat in the upper left corner, support@publicpurchase.com or call 801-932-7000.

If information submission is sent via U.S. Mail, please use the following address: The University of Akron, Department of Purchasing, Lincoln Building, 2nd floor, Akron, Ohio 44325-9001. If sending via courier, overnight air, hand delivery, etc., please use the following address: The University of Akron, Department of Purchasing, 100 Lincoln Street, Akron, Ohio 44325-9001. If submitting hard copy, each Vendor shall submit the following materials to the University at the address provided above: (1) hard copy of its information, and (1) one CD containing searchable, non-password protected files (e.g., accessible Microsoft Word and/or Microsoft Excel files) of its information. Each response shall be placed in an envelope or package with the complete name of the Vendor and the RFI number printed on the envelopes or package’s address label so that it can be properly identified upon arrival. Responses that do not conform to this request may not be considered.

All questions must be submitted through Public Purchase. All communications regarding this RFI MUST filter through the Purchasing Department.

2.1 SCOPE OF INFORMATION

The University of Akron currently would like information regarding Customer Relationship Management (CRM) tools for higher education. Specifically the University is looking for a solution that will help with student recruitment, retention, and ongoing contact after graduation.
The University expects to solicit proposals from qualified suppliers capable of providing the maximum benefit to the University and the selected supplier.

The University intends to receive questions from interested suppliers concerning current operations and will provide responses back to the best of our ability and knowledge. All questions are to be submitted in writing through the Public Purchase tool which requires supplier registration. Questions and answers will be shared with all registered suppliers. This is the only forum to ask and receive answers concerning this project. Other forms of contact may be deemed an attempt to gain an unfair competitive advantage in this process and, therefore, may be reason for a supplier to be disqualified from further participation and contract award.

After the RFI closes, the University intends to review the responses, interview selected solution providers, and invite vendors of its choosing to provide system demonstrations. The University will then determine if it wishes to move forward with an RFP.

The overriding goal of this RFI and possible subsequent RFP is to develop a best in class CRM solution for higher education with a qualified supplier that will assist the University achieve its mission and goals as set forth in the recently approved strategic plan “Vision 2020”.

The University of Akron Board of Trustees gave its unanimous support to a new strategic plan called Vision 2020. The year 2020 is the 150th anniversary of the founding of the University, and the plan calls for bold initiatives and significant growth, including:

- Building on Charting the Course accomplishments, reach a $1 billion investment in student programs, faculty, research, campus and community

- A more than 30 percent increase in enrollment from the current 30,000 to 40,000 learners, including growth of students in and out of state, international students and e-learners

- $200 million commitment in annual research expenditures, including hiring 160 new faculty and staff
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- Launching The Akron Experience, a new initiative that provides every student with a unique in-and-out-of-the-classroom learning experience to strengthen the connection between campus and community

- New criteria for enrollment and targeted learning pathways for each student to increase retention, graduation and job-placement rates

The entire strategic plan is available at “Vision 2020”.
2.2 Request for Information – Customer Relationship Management (CRM)

The information gathered from this RFI will assist in identifying vendors to invite in for presentations and demonstrations, which will in turn facilitate in the design and development of a potential Request for Proposal (RFP). Please address the numbered items listed below.

Please provide information on the offered Customer Relationship Management (CRM) software/hardware solution that will serve the various campus operations which:

1. Describes the components of the solution including both software and hardware

   Talisma CRM is based on a Microsoft technology stack and its software and hardware components are typical for the technology. The Talisma CRM functionality is delivered through user interfaces which is available on both Mac OS and Windows platforms.

   Following is a brief description of the software and hardware components. Details may be found in the attached Talisma CRM Architecture Whitepaper and Talisma CRM Hardware Sizing document. Our solution is easily scalable and if needed, we will provide recommended sizing for the University of Akron as we discover details of the University’s needs.

Software Components

   We provide our Talisma CRM software solution and other required software would depend on the deployment type the University of Akron chooses. If Campus Management provides hosting, the supporting software is included. If the University decides to self-host, it would need to provide the supporting environment which requires Windows Server OS and SQL Server databases.

Hardware Components

   The hardware components needed would also depend on the deployment type the University of Akron chooses. If Campus Management provides hosting, the supporting hardware is included. If the University decides to self-host, it would need to provide the supporting hardware environment.

2. Describes how the products and modules are licensed

   Talisma CRM may be licensed for named or concurrent users. Our customers find the best value with a concurrent user model. Typically our customers find that when deciding how many concurrent users to purchase the following ratio table has been sufficient. For example, if you have 20 Regular Users and 15 Light Users then we may recommend 15 concurrent users.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>User Types</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Regular Users</td>
<td>2:1</td>
</tr>
<tr>
<td>2-3 Times Weekly</td>
<td>Light User</td>
<td>3:1</td>
</tr>
<tr>
<td>On Occasion</td>
<td>Casual User</td>
<td>4:1</td>
</tr>
</tbody>
</table>
We include all of our CRM modules in the core software bundle. Then based upon the Universities needs you purchase the number of user licenses to leverage the core application.

Talisma CRM for Higher Education Software Bundle includes the following Talisma modules:

- **Talisma Process Workflow** provides the ability to map your institution's existing business process to Talisma, thus proactively moving constituents to a next step in a process, automating status changes or adding them to applicable communication plans. Workflow automation proactively presents follow-up lists of key contacts based on your selected criteria, as well the constituents activity in time based scenarios.

- **Talisma Constituent Interaction Hub** is base component and the backbone of Talisma Multi-channel CRM for Higher Education providing contact management, interaction channel management (including email, chat and phone desk) as well as analytics. This is the central point to which Talisma modules are fully componentized and integrated.

- **Talisma Campaign** allows your college to segment constituents that meet your targeted requirements and proactively engage them with personalized email messages, phone campaigns and hard copy mailers. Tracks costs by step to produce measurable ROI.

- **Talisma SMS Text Messaging** provides institutions the ability to send either individual or bulk, personalized SMS text messages as a component of their mass communication plans, allowing them to reach out to constituents using SMS Campaigns. Provides for personalized messages as well as emergency notifications, broadcast using the Talisma Campaign module and workflow to be combined with email notifications.

- **Talisma Portal Framework** provides constituents with a “My Profile” page on your Website, where they can update their profile, find information, send inquiries via email and chat, access their previous interactions and access your knowledgebase, depending on their permissions.

- **Talisma Event Management** works in conjunction with Talisma Campaign to organize and manage events, add invites and track costs and report on results.

- **Talisma Payment Gateway** enables institutions to provide around-the-clock service for online payments.

- **Talisma Application Management** provides your constituents with the ability to manage their entire application process, via a secure authenticated portal. This includes the ability to update their profile, submit transcripts and references, and view their acceptance status. Prospective students can save and return to complete their application, while monitoring their progress.

- **Talisma Print** is used in conjunction with Talisma Campaign allowing your team to print personalized hard copy letters and mailing labels in batches or in one-off scenarios.
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- Talisma Territory Assignment automatically assigns inbound leads and inquiries to the appropriate recruiter, retention counselor or staff member based on your predefined criteria.

- Talisma Import Utility allows importation of data from other sources including your Website, student information system, legacy databases and tape loads, in common file formats such as Excel and comma delimited formats.

- Talisma Software Developers Kit (SDK) provides an open set of approximately 225 APIs (application program interface) that will allow for real-time integration to your student information system, data warehouse or other databases.

3. Describes the relationships with third-party vendors; highlight any partnerships

Our relationship with third party vendors is based on integration. Talisma CRM includes utilities and tools that enable integration with the vendors our customers use for student information, payment processing, email services, SMS text delivery, document imaging and many others.

When it comes to partnerships, our most important one is with Microsoft. Our partnership with Microsoft demonstrates expertise and commitment to Microsoft technologies, development of robust and reliable products, and the proven ability to meet customers’ needs. Microsoft Gold Certified Partners receive a rich set of benefits, including access, training and support, giving them a competitive advantage in the marketplace.

Talisma CRM is an enterprise wide solution and can accommodate the needs of the Universities recruitment and enrollment departments; and, advancement and fundraising departments. To support these needs we partner with the following companies as an option.

**eBureau** - eBureau provides a powerful suite of predictive analytics and real-time information solutions. To help education marketers focus their student recruitment efforts on those prospects most likely to enroll and persist through graduation, eBureau has helped schools develop cost-effective strategies that maximize their investments in online advertising, including cost-per-lead and display advertising. eBureau’s lead scoring, verification and demographic append information products are available for integration through API’s (Application Programming Interface tools), helping staff understand which leads are likely to be contactable, apply, enroll and stay enrolled.

**WealthEngine** - Our wealth identification services are designed to give you fast, accurate and actionable prospect profiles so you can make the most of every meeting, outreach initiative and campaign. WealthEngine’s data delivers for an enhanced fundraising solution.

4. Describes how the solution generally performs enterprise integration

Talisma CRM includes utilities and tools for integration with data sources across the enterprise. It is also an enterprise wide CRM solution and has been recognized as an industry leader for enterprise deployment by independent researchers such as Ovum. In Ovum’s recent guide, *Selecting a CRM Vendor in the Higher Education Market* they had this to say about our CRM solution:
“Campus Management’s Talisma solution is no stranger to the leader’s circle in Ovum’s evaluation of the competitive landscape for CRM in higher education. It offers an exceptionally complete solution that is thoughtfully aligned to the day-to-day realities of institutional end users, evidenced by functionality such as a myriad of out-of-the-box role-based views of the solution and automated workflows with strong visual tools and the ability to track expenditures against events. Institutions will also find the ability of the Talisma solution to support the entire student lifecycle to be appealing, particularly when they move from single- to multi-department deployments.”

Campus Management is currently implementing Talisma CRM as an enterprise solution for Indiana University, the University of South Florida and Ball State University.

5. Describes the security and approval setup, structure and process

Talisma CRM provides you with the ability to map the entire organizational structure in the form of a hierarchy of teams, sub-teams, and users. You can also assign users to multiple teams to accommodate the cross-functional nature of your organization. This means that staff can be captured as Talisma CRM users who belong to various teams. Users can perform tasks on teams to which they have access. The tasks that a user can perform depend on the roles or permissions granted to the user in each Team. Thus, a Talisma CRM Client user may perform different roles or have a different set of permissions for each team. In addition, a user may perform multiple roles in the same team. Such hierarchical mapping of the teams and users is used to manage user grouping.

User access rights can be managed through the centralized and web-based Business Administrator. The administrators may define user roles and permissions that will determine what functionality they will be able to perform in Talisma CRM, as well as, what they are able to see in the application. The Talisma CRM interface can be easily configured to display information in user-friendly and user-defined formats. Customized workspaces can be configured depending on the role or requirements of the particular user. For example, a Supervisor may want to see a dashboard view of recruiters throughout the Admissions Department while a recruiter might want to see a list of pending cases, open cases, etc. Status of prospects can be queried using search options and analytical reports and these options can also be defined into the workspace for consistent and daily viewing.

For regulatory requirements such as FERPA and GLBA, Talisma CRM provides a configurable set of roles and permissions model ensures access control to features and data within the system. Talisma CRM can be configured to only display data that can be viewed as per data protection requirements. Non-editable logs and audit trails are also provided. Talisma CRM also ensures security both in terms of access and data protection through 256 bit encryption for critical and sensitive data. Apart from encrypted username and password based authentication, Talisma CRM also provides Windows network based trusted security as well as custom directory services based authentication. Encrypted properties prove crucial in protecting confidential data fields like Social Security Numbers.
Security when Hosted by Campus Management

When Campus Management provides a hosted or SaaS solution our CampusNet Hosting Services includes two Tier 3 / Tier 4 data centers for maximum availability with multiple redundancies. We use commercial data centers provided by Savvis and Sungard Availability Services.

Campus Management is able to offer a hosted solution as an option. Our hosting services offering are branded as CampusNet Hosted Services. CampusNet Hosted Services enables customers to reduce and eliminate the costly, time-consuming process of purchasing, installing, integrating and managing servers and communication links. In addition, CampusNet provides software as a service (SaaS) solutions and managed hosting services, including security, integration, data storage and backup, network management, disaster recovery, and the expertise of industry-certified technicians. Please refer to the Talisma CRM Security Whitepaper in the Attachments section for details.

The security platform Talisma CRM has implemented across every potential touch point to Talisma CRM Hosting Services is governed by a strong security framework, and is as follows:

- Four Levels of User Authentication through the Industries Most Secure Systems
- Award Winning Secure Network Firewall
- Physically and Digitally Impenetrable Internet Data Center
- Continuous Real-Time And Periodic Security Audits

Following is an example diagram that illustrates the security architecture in a Campus Management hosted deployment. Each deployment is different to accommodate customer size and unique needs.

Security Diagram for Talisma CRM Hosted Services
6. Describes how the system manages the definitions of rules, highlighting if the rules are configurable

Talisma CRM includes a rules engine which is configurable to match the policies and processes at the University of Akron across the enterprise.

For example, the Rules Engine may be configured for scoring and/or ranking leads/prospects. The University will be able to determine their unique scores fields in Talisma CRM based on formulas described in scoring rules. The scoring fields can be populated based any number UM’s business rules in Talisma CRM. Any data available in Talisma CRM may be used to calculate scores or ranks. Typical data used might include: test scores, event participation on campus, living in a certain geographic region, and interest in a specific on campus club or sport.

The included Graphical Workflow interface supports rules and allows you to build workflows in advance and activate them automatically. Highly personalized and rich content can be sent to targeted segments ensuring successful campaign strategies.

Staff can manage communication plans and consolidate project activities to manage them more efficiently, ensuring consistent follow-up and maximizing customer satisfaction. Database activities (like a property change), can trigger other events, for example adding a contact record to a campaign, or setting a notification for a representative to contact a prospective student, constituent at risk, or alumni. Fulfillment requests can also be batch processed, automatically triggered by such changes.

The Graphical Workflow Tool lets non-technical staff easily build campaign workflows. Defining the campaign workflow is similar to drawing a flowchart. Using drag-and-drop users can identify and define follow-up steps in multiple branches across channels that include email,
phone, print, and SMS text messaging. The tool provides for easy creation of graphical representations of communication plans and marketing processes and their associated actions, events, offers, mailers, results and performance. ROI is track-able directly within each component of each workflow allowing you to determine the effectiveness of your communication plan.

7. Describes the standard reports that are offered as well as any tools offered for ad hoc reporting needs

Talisma CRM Analytics and Talisma CRM Advanced Analytics can be used to analyze almost any information in the Talisma CRM database and drill down to granular or summarized levels of data. You can schedule reports to run automatically as a one-time-only or a periodic activity and distribute reports via email to various stakeholders in the organization. The hierarchical folder display proves useful for storing and retrieving reports, and key reports can be stored as "Favorites".

Staff Can Easily View and Modify Their Unique Reports

Talisma CRM Analytics ships with over 50 canned responses that can be further configured to meet your changing requirements. These reports can be further configured using the very same wizard-driven graphical user interface you can use to create new reports. Campus Management Professional Services, on request, can create a package of custom reports that help you leverage data in the Talisma CRM database. For example, the included reports can be easily configured by staff to analyze:

- Number of calls per day/week by prospect or applicants
- Territory-wise pipeline status for each recruiter
- Organization specific break-up of prospects/applicants and application status
- Aid requests for each term
- Applicant Aid status by month
- Application volume by term or month or program
- Applicant pipeline status by term or month or program
- Admit status by term or semester
- Average time taken for prospects to enroll
- Effectiveness of a specific campaign and or campaign step (complete ROI)

8. Describes the user interface

The Talisma CRM interface can be easily configured to display information in user-friendly and user-defined formats. Customized workspaces can be configured depending on the role or requirements of the particular user.

Talisma CRM includes easy to use interfaces for administrators and on-campus or remote staff. The Talisma CRM Web Client is available through common Web browsers such as Internet Explorer and Safari. Typically local and remote staff will find the Web Client provides sufficient functionality for day to day tasks.

The Talisma CRM Web Client Workspace May be Configured for Users Role

Administrators and power-users will interface with the Talisma CRM Power Client which is delivered with a thin-client such as Citrix to provide extended functionality and security. The Power Client is available on both Windows and Macintosh operating systems.
Our customers usually find our standard service and support model sufficient. Premium models are provided on a case by case basis to suit a customer’s unique needs. Following is a summary of our standard support offering called CampusCare.

Standard CampusCare provides a comprehensive support and maintenance package designed to keep your system running at optimal levels. In general, we provide support and maintenance for the software licensed from Campus Management. This includes application troubleshooting, error corrections, software updates, and enhancements to the software that are made generally available to the customer base. Our normal business hours for our Standard CampusCare phone and chat support are 8:00 AM to 8:00 PM Eastern time. Email support is available 24x7.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Details</th>
<th>Timings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td><a href="mailto:support@talisma.com">support@talisma.com</a></td>
<td>Support is available 24X7</td>
</tr>
<tr>
<td>Chat</td>
<td><a href="http://support.talisma.com">http://support.talisma.com</a></td>
<td>8 AM to 8 PM (Eastern) Monday to Friday (Excluding Holidays)</td>
</tr>
<tr>
<td>Telephone</td>
<td>Call: 1-877-ESERV4U (1-877-373-7848)</td>
<td>8 AM to 8 PM (Eastern) Monday to Friday (Excluding Holidays)</td>
</tr>
</tbody>
</table>
Talisma CRM Product Support is a dedicated team that is geared to function in a global environment. Teams are internally structured to ensure adequate training and exposure of staff across different time zones and regions. The average experience of Level 1 Engineers is 2+ years, Level 2 and Level 3 Engineers is 3+ years, all trained and certified on Talisma products. Some of the other certifications that are necessary for internal support engineers include – Microsoft certification on SQL Server – which 95% of our engineers are certified on. We also encourage our engineers to complete MCSE, CCNA, MCP, and CCNP certifications and over 60% of our staff are certified in these programs.

The tiered support team uses different levels of support agents and subject matter experts, to ensure that all support and service issues are either resolved or handled appropriately.

10. Describes the content and delivery models offered for any training and education that is available

Training is included with the proposed implementation. For projects like this one at the University of Akron, our typical training plan consists of one (1) Train-the-trainer session (for end user) and one (1) administrator training session for the modules purchased.

Additional training can be added as necessary as we complete the full scope of work. Our Professional Services team uses a methodology based on lessons learned over hundreds of implementations. The lessons include recommending initial project team training to ensure that the team responsible for making configuration decisions is well trained, and giving users an opportunity to receive advanced training after the rollout. Education Services employees will use their experience in previous implementations and rollouts, combined with the customer's unique requirements, to recommend the best training solutions for your requirements.

Campus Management’s Learning Center offers a full range of courses to ensure the success of our customers. These courses can be offered in a variety of formats, including classroom based training, web-based training, and train-the-trainer formats. In addition to fully custom courses designed for your organization, we also offer end-user application training (at Campus Management or on site), instructor-led Web-based lessons, train-the-trainer courses, and technical training. Training on popular subjects and new features is also offered at the annual user’s conference.

11. Describes any audit features offered in the solution

Talisma CRM is able to record all unique interactions and all communications based on information captured. The solution provides a NON-EDITABLE audit trail unique to Talisma CRM. Similarly, an object History provides the same detail of all activity in the database including changing of data properties. These trials include identification of the system user involved, click-through, and follow-up as well as time and date stamps. The net result is full user accountability and reporting.
12. Describes the documentation offered with the solution; include user and technical documentation

Talisma CRM is very well documented and includes user friendly handbooks and manuals to augment your training. This includes online Help with the ability to hit F1 at any point in the system and not only receive answers to your questions, but read through real life examples to make the best choice.

All manuals and guides, technical and end user, are provided in electronic format (PDF) and may be downloaded from the CampusCare support website, MyCampusInsight.com. Campus Management is able to grant customers permission to print documentation if needed.

13. Describes the frequency, method and delivery options offered for incorporating updates to the solution

Campus Management follows a planned release program with 5 to 7 minor releases per year, as well as, a major release every 12-18 months. Major releases incorporate new functionalities driven by the market as well as customer requested enhancements. Minor releases include software fixes, and minor enhancements. Delivery is via download and Campus Management support is available for assistance.

New releases are communicated to customers by the assigned account manager and notices are distributed to the user community by our marketing team. In addition, users and administrators may monitor the release schedule online at MyCampusInsight.com.

Campus Management’s upgrade process involves upgrading all Talisma CRM components – database, application server, web server components and clients. Talisma CRM installation programs detect preexisting version of Talisma CRM on the server/client computers and provide options to upgrade as part of the setup programs. Typically, Talisma CRM customers engage Talisma Professional Services to execute upgrade projects. Hardware upgrades may be required depending on the versions, current and projected system volumes, and loads.

14. Describes all support options available for your solution; highlight insourced, hosted, SaaS options

We offer Talisma CRM as a self-hosted solution, Campus Management hosted solution, or as a SaaS subscription solution.

If self-hosted by the University of Akron, we provide guidance on environment sizing. Please review the attached Talisma CRM Hardware Sizing document. Our sizing experts will work with your team to determine an appropriate, scalable environment.

When Campus Management provides a hosted or SaaS solution our CampusNet Hosting Services includes two Tier 3 / Tier 4 data centers for maximum availability with multiple redundancies. We use commercial data centers provided by Savvis and Sungard Availability Services. Please refer to the Talisma CRM Security Whitepaper in the Attachments section for details on security measures provided with a hosted or SaaS solution.
Vendor information should include:

1. **Company overview**

Campus Management Corp is a Florida corporation established in 1989 and now has offices located worldwide. Our initial product, called CLASS, quickly asserted itself as the best-of-breed product for proprietary higher education during the 1990’s. In 1998, the next generation CampusVue product built on Microsoft technology was introduced.

In November of 2008, Campus Management acquired nGenera’s Talisma® CRM software and its Higher Education business division. The first version of this commercially available CRM software was released in 1998. In the higher-education market Talisma CRM is a leading software product for strategic enrollment management, student retention, student services, education finance, alumni relations, staffing and IT Helpdesk.

We are owned by Leeds Equity Partners, LLC. Leeds Equity’s investment in Campus Management is helping the company’s high performance management team to leverage its innovative technology platform for Higher Education, and to its execute strategies for global growth and expand its CampusVue Ecosystem of administrative and academic solutions.

Leeds Equity Partners is a private equity firm focused on investments in knowledge-oriented industries: education, training and business services. Please visit [www.leedsequity.com](http://www.leedsequity.com) to learn more.

Campus Management is a global company with over 700 employees and growing. The table below illustrates the company’s growth over the past five years. We have over 400 employees working at our headquarters in Boca Raton, Florida and the remaining staff is located at our offices in Charlotte, NC; Phoenix, AZ; London, England; São Paulo, Brazil and Bangalore, India.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Current</th>
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<td>645</td>
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</tr>
</tbody>
</table>

2. **Size and composition of customer base**

Our existing customers range from public and private universities, community and technical colleges, to leaders in proprietary career and online postsecondary education.

These customer base ranges from a single location with less than 100 students to enterprise 100+ locations with over 100,000 students. In all cases they use the same versions of our software and depend on the flexible configuration to suit their unique needs.

Currently, we have just over 100 customers at 615 campus locations using Talisma CRM and being supported with our CampusCare services.
3. Plans for future product development/enhancements

We do not make our full roadmap available to the public but we will be happy to present the roadmap as we proceed in the selection process with the University of Akron. Following is a high level summary of enhancements to existing features which are currently being developed.

- Knowledge Base
- Portal Framework
- Social CRM (Facebook, Twitter, etc.)
- Extended Chat Capabilities

Our customers drive functional enhancements and they have access to Campus Management’s roadmap at any time via our customer website. Following is the interface example our customers use to navigate through the roadmap finding the information they need to suggest enhancements or research planned enhancements.

**Exploring the Product Roadmap at MyCampusInsight.com**

The Product Roadmap interface allows customers to select the product and navigate to past and future releases to view summary and details of product enhancements. Customers can easily view the release calendar and provide feedback to our Product Management team from this interface. The Product Compatibility tab provides fast access to the technology stack associated to a specific product version.
4. Normal/Potential timeline for major upgrades and/or update releases

As mentioned, Campus Management follows a planned release program with 5 to 7 minor releases per year, as well as, a major release every 12-18 months.

5. Hardware and System requirements

Please review the attached Talisma CRM Hardware Sizing document. Our sizing experts will work with your team to determine an appropriate, scalable environment.

6. General implementation timeline

Implementation timeframes for Talisma CRM range from forty-five to one hundred and twenty days in duration. Campus Management will provide a plan unique to the University of Akron when we learn details of the University’s needs.

<table>
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<tr>
<th>Task Name</th>
<th>Duration</th>
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<td>Project Plan Review &amp; Approval</td>
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Example of the Talisma CRM Project Plan

The Talisma CRM Implementation Methodology is grounded in solid quality processes and techniques. The alignment of our implementation methodology with these business drivers guarantees that each Talisma CRM professional you meet will make decisions and act in a manner that brings value to your organization. Through our success with both large and small customers, we have refined our implementation methodology and incorporated our learning so that you will reap the benefits of our experience.

Our experience has shown that the most successful projects are those where the client assumes ownership of the implementation and solution as early as possible in the project. An open partnership approach to the implementation process ensures that the project plan is a joint
Tasks, roles and responsibilities are clearly defined, the process becomes predictable, and the outcome mutually acceptable.

The following are the different phases of the implementation process:

- **Project Kick off – Campus Management will:**
  - Introduce project team
  - Identify critical success factors
  - Analyze technical requirements (architecture, hardware, software and security)
  - Identify client resources and team structures
  - Identify and establish Roles and Responsibilities
  - Define project scope and project plan
  - Risk mitigation and assumptions
  - Project logistics

- **Analysis – Campus Management will:**
  - Review current processes and targeted processes
  - Gather requirements gathering and conduct analysis
  - Identify business rules for routing messages
  - Define workflow requirements
  - Define and map business units, roles, users, mailboxes, and service lines
  - Define and map of fields, categories, and disposition codes
  - Identify web form requirements
  - Identify reporting requirements
  - Analyze and document gaps
  - Best practices consulting where applicable
  - Create the Requirements Document
  - Create the Solution Design Document (also known as Functional Specifications)
  - Install baseline product
  - Project Plan review and modification
  - Customer will develop comprehensive Acceptance Test Plan

- **Configure and Test – In this phase, the software will be configured to meet the requirements gathered in the analysis phase. Specifically Campus Management will:**
  - Configure system per specification in test/development and production environments
o Assist in web form development and testing
o Build and test any agreed to integration and customization
o Install of Talisma CRM client application
o Conduct unit and end-to-end testing
o Provide knowledge transfer to system admin team
o Define rollout strategy
o Create custom training environment
o Create custom exercises for training
o Provide end user and analytics training
o Provide system administration training for IT, Database and Network Administrators
o Create System Configuration documentation
o Testing: Solution validation, System testing, integrated testing and Customer’s Acceptance Testing
o Deliver a working, tested business solution

- Transition – During this phase, a production pilot group will actually begin to use the Talisma CRM and execute the full system flow. The results will be assessed, and when confirmed successful, preparations will be made for the full production rollout to all the business units.
- Production Rollout – This phase involves the rolling out of the application per the written plan, and monitoring of the results. Adjustments to the configuration and rollout approach may be made.

Campus Management Professional Services will deploy Technical, Business/Functional, Training, and Project Management resources that carry a wealth of experience in implementing CRM for similar institutions. Our professionals understand the typical requirements and the appropriate solutions utilizing our best practices associated with each situation.

7. Examples of previous implementations
8. Examples of previous implementations in a higher education environment

Campus Management only implements Talisma CRM in higher education. Please review the Talisma CRM Case Studies attached to this RFI response for a few examples. We are happy to provide additional examples and references as part of the vendor selection process.
2.3 What Specific Information do you require from the University in order to provide your most favorable pricing?

The University offers interested suppliers the opportunity to express what information you require from us in order to provide your best pricing to the University. Describe if you offer volume discounts if additional University partners are included in subsequent purchases.

Specific Information required by the University of Akron to provide the most favorable pricing includes the following:

- How many users of the CRM system are anticipated for an initial deployment and if known subsequent deployments across departments?
- Would the University prefer the CRM application hosted by the vendor – or would it prefer to host it themselves at the University?
- Will data be converted from any existing CRM systems into the new CRM system during implementation?
- Please provide a definition of “university partners” and how many additional users will need access when adding those partners to the new CRM system.
- Will the “university partners” require a separate installation or instance of the CRM application or would they be add-ons to the original implementation?
- Please describe the integrations that are mandatory for all vendors and the integration type (batch loads, automated, real-time, etc.).

Based on the information we discover, Campus Management is happy to include a rate table in the agreement based on future growth ensuring the pricing model provides the best favorable pricing based on volume.
Attachments from Campus Management

Following is a list of attachments we have referenced in our RFI response. These attachments are found on the following pages in the order listed.

- Talisma CRM Architecture White Paper
- Talisma CRM Hardware Sizing
- Talisma CRM Security Whitepaper
- Talisma CRM Case Studies
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## Architecture White Paper

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Version Date: June, 2012.
About this Document

Talisma Corporation is a global provider of Customer Relationship Management (CRM) solutions that enable organizations to deliver a truly exceptional customer experience. By combining your customer’s communication channel of choice, Chat, Email, Phone, Self Service, or the Web, with our proven best practices, Talisma delivers on our promise of total customer satisfaction for your service, marketing, and sales organizations.

Talisma Corporation’s CRM solution, **Talisma**, uses .NET-based technologies to create an integrated, scalable, and robust infrastructure that has been proven to raise efficiency, lower costs, and increase customer satisfaction. Highly skilled service experts deliver cost effective outsourced hosting and CRM services, lower cost customization, and rapid deployment.

This document provides an understanding of the Talisma CRM architecture.
Product Architecture Overview

Talisma CRM is built on multi-tier architecture, based on Microsoft technologies such as Microsoft SQL Server, .NET 2.0 Framework, COM+, DCOM, and Internet Information Services. In addition, Talisma CRM integrates with Microsoft Word, Excel, and Outlook to enrich its features.

Following are the multiple tiers in the Talisma product:

- Database Layer
- Data Access / Application Logic Layer
- Integration Layer
- Presentation Layer
- Service Layer

Figure 1 illustrates the different tiers in the Talisma CRM architecture.
The key components of the architecture are:

- Database Layer - Talisma Database Server
- Data Access / Application Logic Layer – Talisma Application Server
- Integration Layer – COM API and Web Services
- Presentation Layer – Talisma Clients
- Service Layer – Channel and Print Template Servers
- Other Components and Features (not shown in Figure 1):
  - Notification Server
  - Offline Synchronization Server
  - Campaign Module
  - Talisma Interaction Management Engine (TIME)
  - Common Object Framework (COF)
  - Workspaces

The last three components, TIME, COF, and Workspaces are logical in nature, and span across the Database Server, Application Server, and Client.

**Architecture - Highlights**

**Flexible to business needs at a lower cost**

The architecture of Talisma CRM is highly configurable to suit various business needs. The product achieves flexibility by implementing the Common Object Framework (COF), Workspaces, and metadata driven models.

The architecture enables customers to achieve the following extensibility without writing any code:

- Configure Business Objects and their Properties
- Configure Business Rules
- Configure Views
- Define Access Control
- Configure Reports

Customer configuration persists through product upgrades.
Multi-tier architecture to ensure performance, scalability, and extensibility

Talisma CRM is built on a multi-tier architecture for enterprise class performance, scalability, and extensibility. It implements multiple tiers to separate the Presentation layer, Business logic, Data access, and Channel communications.

Provides both scale up and scale out options

All the tiers in Talisma CRM, except for the Talisma Database Servers, are designed for multiple instances.

Integrates with heterogeneous systems

Talisma CRM enables integration at different levels:

- At the data layer, the data can be imported, or linked to the system.
- Talisma exposes an extensive set of Application Programmer Interfaces (APIs) that can be used to integrate Talisma with third party applications. The APIs are available both as COM components, and as Web Services, making Talisma truly open for all types of integration.
- Web Services expose a subset of the APIs supported by the COM components. For more information, see Integration.

Easy to deploy, configure, and maintain

Talisma implements several features that make the deployment, configuration, and maintenance of the system easy:

- Talisma Client does not have the typical Windows client application problems of patch management that requires patches to be manually installed on all desktops. Talisma Client has the capability to determine the latest patches from the server, and automatically apply them.
- Talisma supports Copy and Share features for all user level configurations. This capability eliminates the administrator’s need to go through the configuration for each user, thereby reducing redundancy, and room for errors.
- The Business Administrator Client is a web based client, which enables the administrator to perform operations over the internet.
- The Database Administrator Client enables the administrator to configure the system remotely within the Local Area Network (LAN).
Architectural Components

Talisma Database Server

Talisma Database Server is based on Microsoft SQL Server. The Database Server consists of five distinct databases: Main, Media, Analytics, Webtrak, and Archive.

The Main Database is the master transaction database that stores most of the data pertaining to the Talisma system, including the meta data. This database acts as the master for all the other database(s). Talisma Database Server leverages on Microsoft SQL Server's snapshot, and transactional replication for distributing the data from the Main Database across the other database(s).

The Analytics Database obtains all the data required for reporting through replication from the Main Database. This database is used for reporting and analysis. Typically, reporting and analysis are resource-intensive operations on the database side. To avoid the adverse impact of reporting and analysis operations on routine transactional operations that happen on the Main Database, the Analytics Database is used. Besides the transactional information from the Main Database, the Analytics Database also stores report definitions.

The Media Database is designed to hold the request data related to real-time channels (chat and phone) while the sessions are in progress. This is done to improve the response time, which is critical for real time channels, by keeping the data size to a minimum. When the session ends, the data is moved into the Main Database, and purged from the Media Database.

The Webtrak Database stores information pertaining to customers, and web site visitors who access the various URLs that are monitored for real-time, proactive or reactive online chat. Records of URL clicks, views, and related information are stored in this database.

The Archive Database is designed to hold old Talisma data which is not required for daily operations. This database helps in controlling the size of the Main Database, which in turn helps achieve higher performance, and scalability. The structure of the data in both the databases remains the same. The data from the Archive Database can be moved back to the Main Database through the “Unarchive” functionality. Additionally, Talisma enables you to view archived Interactions, and custom Object items without restoring them.

This split design of the Talisma data layer into five different databases provides the application suite with the ability to scale all the way from a small deployment where all databases could reside on a single server, to a high-volume, large deployment where each database resides on its own dedicated server. The modular design further allows organizations to control their database licenses by choosing to have only the Main Database, or the Main and other Databases, depending on the modules deployed.

Talisma Application Server

Talisma Application Server is a .NET enterprise service. The application is exposed to the modules using unmanaged code in two ways, COM+, and Microsoft Internet Information Services (IIS), which enable the clients to access the Application Server over DCOM, and HTTP(s). 

The Application Server abstracts the data access details from the Client / Channel layer. For data access, the Application Server uses ADO.NET, leveraging on connection pooling provided by ADO.NET to enhance the performance of the database. Besides data access, the Application Server also has application logic built into it.

Talisma Application Server is designed for:

- Enterprise usage, which demands scaling up with load.

- Hosting, which demands that the infrastructure be kept minimal, and demands the ability to deal with multiple systems.

Talisma Application Server meets the above needs by being a stateless server, which does not carry state across client calls, and takes the database server context from the client calls. Being stateless, and providing the exposure over HTTP protocol enables Talisma Application Server to leverage the Network Load Balancing Service (NLBS) to provide load balancing and failover options.

**Talisma Clients**

The Talisma Architecture neatly separates the presentation layer (clients) from the Application Server, allowing for different clients across different users, and situations. Talisma CRM consists of the following clients:

- Power Client
- Business Administrator Client
- Database Administrator Client
- Talisma Customer Portal
- Web Client

**Power Client**

The Talisma Power Client is a powerful desktop client built using Microsoft VC++/MFC /ATL that works both over the LAN using the traditional DCOM communication channel, as well as over wide Area Network (WAN) using HTTP/S. This MS Windows client has the ability to detect patches and service packs, and to update itself automatically. This process enables the self-maintenance of Talisma Client, and reduces administrative overheads.

The Talisma Windows client integrates with the following applications:

- Microsoft Outlook for Tasks and Appointments.
- Microsoft Outlook, to forward Contact e-mail messages to Talisma from Outlook, using the Send to Talisma utility.
- Microsoft Excel as a viewer for Talisma Analytics data
• Microsoft Word for Print Templates

**Business Administrator**

The Business Administrator Client is a web browser based client built using ASP.NET technology. The client makes the tasks of managing a Talisma deployment easy, and intuitive. Administrators can add, and manage users, teams, aliases, properties, objects, and more. They can also configure sophisticated routing rules, permissions, user roles, tabs, data inheritance models, and new communication media, among others.

**Database Administrator**

The Database Administrator Client is a Microsoft Management Console snap-in that enables easy administration of various Talisma specific database functions such as Database Backup, and Replication management. Additionally, Talisma Database Administrator enables the management of Email Servers, Application Servers, Campaign Dispatchers, and Print Jobs, among others.

**Talisma Customer Portal**

Talisma Customer Portal is a web based self-service package. Talisma Customer Portal is built using ASP.NET technology. Talisma Customer Portal functionality has been modified and enhanced with a host of new features.

Talisma Customer Portal enables customers to interact with the organization, and manage their online association with the organization. Talisma Customer Portal provides the Portal users with round-the-clock access to their account. In addition to interacting with the organization, users can view, and update data, and perform a host of other activities. Users can also personalize the Portal to suit their preferences. Talisma Customer Portal is a one-stop-shop for all interactions a customer has with the organization.

In Talisma Customer Portal, users can perform the following operations based on the configuration in Talisma Business Administrator:

• View web content in the form of discrete, stand-alone units called Web Parts. Web Parts snippets of information from a web page. You can view multiple web parts as components in a single browser window. Web Parts can be customized to display content specific to the logged in Portal User, or the organization.
• View and update your profile.
• Change the default display colors, and skins of the Portal.
• Submit, and track Interactions by simply logging on to Talisma Customer Portal.
• Register online for events conducted by the organization.
• Fill and submit forms online if Talisma Application Management is configured. For example, Portal users can apply online to programs offered by a university.
As illustrated in Figure 2, requests and responses through the Customer Portal are handled by the Web services that communicate with the Application Server. The Customer Portal interacts with the Talisma iServices over the HTTP(s) using the standard SOAP protocol. The Talisma iServices should reside on the same machine where Talisma Application Server is installed.
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**Talisma Web Client**

Talisma Web Client is a web-based client that enables Talisma users to perform a subset of operations that can be performed using the Power Client. This client is a zero download client built using ASP.NET, and supports the HTTPS protocol to communicate with Talisma Main Database. Talisma Web Client uses the Application Server to communicate with the Server. It supports operations on Account, Contact, Interaction and custom Objects. **Figure 3** illustrates the Talisma Web Client architecture.

Architecture of Talisma Web Client is similar to Talisma Customer Portal. Talisma Web Client application is built using ASP.Net. Talisma Web Client interacts with Talisma iServices Server over HTTP(s) using the standard SOAP protocol.

Talisma iServices is built using ASP.Net; this resides on the same machine where Talisma Application Server is installed. The Application Server interacts with the Database using ADO .Net.

Note: In Talisma versions from 8.0.1, the Web Client directly communicates with the Talisma Main Database directly. This has been done for performance optimization where an additional hop is not required while communicating with the database. However the Application Server components continue as a logical layer within the Web Client Application.
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Talisma Web Client Architecture

Figure 3  Talisma Web Client Architecture
Channel Services

Talisma CRM is designed to keep the intersection between channel communication code, and the application logic code minimal. Talisma CRM supports the following channels out of the box:

- Email
- Chat
- Phone
- SMS

Email

The Talisma Email server is responsible for communication to the mail server for sending and receiving email messages. The Talisma Email server is built as a Windows service. Email management is accomplished through the Talisma Job Service Framework that enables the administrator to install different jobs on multiple computers using the Database Administrator module. The mail protocols supported by Talisma are SMTP, POP3, SPOP3, IMAP, and SIMAP.

A single instance of the Talisma Email server can handle multiple mailboxes. Internally, the Talisma Email server creates two jobs for each mailbox, one for sending, and another for receiving email messages. The Talisma Email server enables the administrator to start, stop, and pause at the job level.

Figure 4 illustrates how email messages are processed in Talisma.
Chat

The Talisma Web Chat server bridges Talisma users, and visitors. Talisma Chat Web Server is built as an ISAPI DLL. The high level architecture of the Talisma Chat module is illustrated in Figure 5.

Figure 5  Architecture of Talisma Chat Module

The key functionality provided by the Talisma Chat Server includes:

- Managing sessions, including suspend, resume, and recover operations between the Talisma users, and visitors.
- Facilitating the communication, both reactive and proactive, between both the parties.
- Routing of chat sessions based on configured rules. Rules can be Team Routing, or User Assignment rules.
- Using the Notification Server for real time notifications to Talisma users.
• Two interfaces, the visitor side interface, which is a web interface, and the Talisma user interface, which is the Power Client interface.

User flow 5 represented in **Figure 5** communicates directly with the Media Web Server, instead of routing through the Application Server.

**Phone**

Talisma enables integration on the Client side through custom menu hook points for phone operations. This provides the flexibility of integrating with a wide variety of middleware such as Servion RAPCTI, Spanco, Avaya CCE, Nortel CC Links, etc.

**SMS**

Talisma SMS gives the ability to allow interaction with customers using SMS channel. SMS as a medium can be used to communicate with a specific customer as well as in Campaign.
Figure 6  Talisma SMS Dispatcher
For this purpose the following components are used:

- **SMS Dispatcher Web Service**: This is a Windows Service component built using .Net. This component is responsible for fetching the SMS records from the Database and posting them to the respective SMS Provider Web Service URL.

- **SMS Extractor Web Service**: This is a component built on Web Services technology using ASP.NET. It uses SOAP for data transmission with the communication channel as HTTP(s). This Web Service is exposed to the SMS Service Providers which push the SMS Messages which are to be sent the system. The Web Service interacts with the Talisma SMS Dispatcher Windows Service to create the SMS Messages in the database.

- **SMS Extractor**: This is a Windows Service component built using .Net which receives the incoming SMS Messages from the Talisma SMS Dispatcher Web Service. The incoming messages are then created in Talisma Main Database.

**Print Template Server**

The Print Template Server is responsible for generating documents for printing from templates. The key functionality provided by the Print Template Server is to merge the context information into templates. It leverages the Microsoft Word Object model to implement the feature, thus providing the user with the rich formatting options of Microsoft Word. The Print Template Server is built as a Windows service.
**Notification Server**

The Notification Server is a DCOM based Windows Service available on the Talisma Main Database Server. The Notification Server provides:

- An interface for components to raise events
- A sink mechanism for clients to register their callbacks on events

When an event is raised, the Notification Server checks whether the target client is registered with the sink. If it is, the callback is executed immediately. Otherwise, the notification is persisted into the database for the client to consume later. This functionality is used for notifications related to the real-time media, Chat, and Phone.

**Offline Synchronization Server**

The Offline Synchronization Server, in conjunction with the Email Server, provides the ability to interact with the Talisma system in an offline mode. The offline feature uses email as the communication channel, and XML as the data format. The Email Server identifies the mail for offline processing, and stores the mail in the database for the Offline Synchronization Server to process.

The Offline Synchronization Server is built as a Windows Service on the Talisma Main Database Server. In the Talisma system, the following components leverage the Offline functionality:

- The Offline Client: typically used by Sales executives on the move to work on Talisma objects using Microsoft Outlook, while not connected to the Talisma Main Server.

- Web forms: typically used to obtain responses from contacts through marketing campaigns, and visitors to corporate websites through the submission of filled forms. Talisma provides sample web forms for legacy, and custom objects. The forms are built using ASP.

**MyTalisma**

My Talisma is an easy-to-use Web interface, which provides a single sign-on facility to access Talisma Power Client, Talisma Analytics, and Talisma Business Administrator. MyTalisma is built on an ASP.Net framework. MyTalisma can also be configured to install prerequisites, Talisma Power Client, Service Packs, Hotfixes, and Custom Components updates on the Client side. After configuration, updates can be applied on the MyTalisma Web Server to enable Power Client users to download the latest updates to Talisma. This capability is supported both in LAN, and WAN environments.

**Campaign Management**

The Talisma Campaign module provides the functionality of completely automated closed loop campaigns, audits, and surveys through rich graphical workflow, customer segmentation, personalization of content and offers, and response management, and analysis. While the Talisma Power Client provides the interface for defining the workflow, segmentation, and response management, personalization, and dispatch of email is handled by the Talisma Campaign Dispatcher that is built as a Windows Service.
The personalization is done by the Talisma C++ Mail Merge Engine. Talisma Campaign Dispatcher pulls the campaign mailer template, identifies the merge fields, obtains the merge data for the targets in one batch from the Talisma Main Database, and feeds the template as well the merge data to the C++ Mail Merge Engine. This engine then returns the merged content to the Dispatcher for the email messages to be sent.

The Talisma Campaign Dispatcher handles the dispatch of SMS Mailers in user-defined batches.

**Talisma Interaction Management Engine**

The Talisma Interaction Management Engine consolidates the interactions between customers and users across channels. The engine provides the following services:

- **Interaction object management**: The Interaction object is built based on the Common Object Framework (COF), and is extended to provide specific actions such as Assign, Reply, Forward, etc.

- **Team routing/User assignment/User reservation**: This service leverages on the rules engine to identify the owner systematically. The algorithms supported for the reservation are Load Balancing, Round Robin, and Custom, which uses hook points for custom logic.

- **Threader**: This service is specific to the Email channel, and identifies the correct Interaction to which an incoming email must be associated. The supported algorithms are Subject based, and Interaction ID based (both on subject line, and email headers). The Threader service is implemented as an SQL job.

**Common Object Framework (COF)**

COF is an extensible meta data model framework. COF leverages the basic principle “an object has attributes and methods”. In the COF world, an attribute is called a “Property”, and the method is called an “Action”. The property can be of varied data types, and can have constraints on the values it can store. COF provides the following services, without any need to write extra code:

- **Object Instance management**: This service enables users to create, edit, delete, and view object instance(s) from the Client. These operations are managed by building SQL queries dynamically based on the meta data.

- **Actions on the object instances**: Actions depend on the type of COF object (Global, Team or Shared), and include Assign, Transfer, Share, Categorize, etc.

- **Rules**: Rules work on the context of an object, and enable the user to build a workflow. The rules engine is based on an event model. A rule definition includes an event, condition(s), actions, and the time for execution.

- **When an event occurs**, the rules engine runs through the rules configured for the event, evaluates the conditions, and triggers the actions for the rules where the conditions are satisfied. The rules engine is database centric, and is built as dynamically generated stored procedures. The action can be extended by implementing customized stored procedures.
• Filters: The filter engine provides the power to configure different views of the object data. A filter definition consists of a list of properties for the view, the condition(s) to select the object instance, and the sort order. Using the above information, the filter engine generates, and executes a dynamic SQL query using the meta data. The filter engine is database centric, and is built as stored procedures.

• Analytics: The Analytics engine is built on top of the filter engine, and extends it to provide functionality such as aggregation, grouping, and customized columns and rows, as against direct property values.

• Relationship between objects: Two object(s) can be associated with each other through a “Relationship”. The relationship can be One to One, One to Many, Many to One or Many to Many. A relationship is modeled in the following way:
  
  o The one side object is a “property”
  
  o The many side object is an “object list” tab

‘Object list’ tab facilitates the view of multiple instances of a related object. This view is built using the filter engine. The ‘object list’ tab is available as part of the object instance viewer.

• Property inheritance: Properties of an object (base) can be mapped to the properties of another object (target). This mapping is used to inherit the property values from the base to the target when an instance of the target object is created in the context of a base object instance.

Workspaces

The workspace metaphor is a graphical user interface model that enables each user to configure a workspace based on the user’s normal business function, in addition to using the predefined workspaces, such as Home, Chat, Phone, etc., that are available out of the box. Users can create and modify new workspaces, add panes to these workspaces, and configure what they want to see in each pane. Workspace panes can comprise various Talisma components, as well as external components such as web pages, Microsoft Word documents, and Excel files, and as views from third-party applications. Access control can be achieved through appropriate configuration of workspaces, and permissions.

The workspace functionality is implemented through the use of a Component Manager that treats each of the panes in a workspace as publisher, or subscriber, so that events occurring in a pane’s component can be provided as context to another pane’s components. All the communication amongst the panes is implemented using request, and response XML. The workspace definition itself, such as the number of panes, their position, and size, is achieved using XML.
Architectural Features

Performance and Scalability

All the tiers in the Talisma architecture are designed to enhance the performance, and scalability of the system, the details of which are described in this section.

Talisma Database Server

As described earlier, the Talisma architecture utilizes a distributed SQL Server database synchronized through MS SQL Server Replication to provide enterprise strength performance, and scalability. While the Main Database handles transactions related to the email channel, the performance of the other channels such as Chat, and Phone is enhanced through the use of the dedicated databases, Media, and Webrak. The Analytics Database handles reporting and analysis operations, thus preventing an adverse impact on routine operations.

Talisma Application Server

The data access layer implemented in the Talisma Application Server leverages connection pooling to reduce the number of concurrent connections to the Database Server. As connection objects are very resource intensive in the database server, this goes a long way to increase the number of concurrent users that can be supported with the system. Besides the connection pooling, the relatively static, and frequently accessed data like the meta data are cached at the different layers, thereby reducing the calls made to the database.

The Application Server is built as a stateless server across sessions, and supports the HTTP channel, which is also stateless, for communication. These features enable the Talisma Application Server to scale out, and leverage on load balancing solutions such as NLBS.

Talisma Email Server

The Talisma Email server is built as a Windows Service, which enables multiple email servers to be configured on the same computer, or on multiple computers, thereby going beyond the process level thresholds. Thus, the email server is designed for both scale-up, and scale-out options.

Talisma Print Template Server

As the Print Template Server is built as a Windows Service, depending on the usage volumes, and the required performance, multiple such services can be configured across systems to achieve the required scalability.

Talisma Notification Server

As the Talisma Notification Server is built as a Windows Service, depending on the Chat and Phone volumes, and the required performance, additional Notification Servers can be configured on the Media Database Server.

Talisma Campaign Dispatcher

As the Talisma Campaign Dispatcher is built as a Windows Service, depending on the campaign email volumes, and the required performance, multiple dispatchers can be configured across systems to achieve the required scalability.
Reliability

Talisma’s high reliability is accomplished by the Application Server architecture, and the stability of the underlying Windows platform (the Operating System (OS), Microsoft SQL Server database, and IIS), as well as technologies such as .Net, COM/DCOM, and COM+.

Talisma utilizes the highly scalable, and reliable, enterprise-class SQL Server database engine. With inherent support for active-passive clustering, and failover between computers in a database server cluster, SQL Server ensures that the databases are up and running, and are in a consistent state, thereby eliminating a single point of failure, and reducing downtime. Through a combination of log-shipping, and a schedule of full-backups and log-backups, it is possible to ensure that even in the event of a database failure, or a larger disaster, a standby system can be made available with minimal downtime.

The support for NLBS for the application layers and customer portal doubles up as a failover mechanism to enhance the reliability of the system.

Security

Talisma offers a secure authentication model, a robust roles-based authorization mechanism, appropriate encryption, and data integrity checks. Talisma also supports the HTTPS protocol for data transmission between the client and the Application Server, and leverages the SSL support provided by SQL Server to secure the communication between the Application Server, and the SQL Server.

Authentication

Talisma supports three types of Authentication models:

- Application Authentication: In this model, the Talisma system manages the user and password information, and authenticates the users with the details. The password information is stored in an encrypted form in the database.

- Trusted Authentication: This model utilizes the Windows Authentication mechanism. For this model, the Windows users need to be created as Talisma users. However, Talisma Web Client does not support this model.

- Customized Authentication: This is a user-password model, and the authentication is delegated to an external COM-based component. Across the calls, the password is secured by asymmetric encryption. The keys for asymmetric encryption are established during the installation of the custom security component.

Note

The Trusted Authentication model is not available for Users who work with Talisma Web Client.
Authorization

Talisma provides a detailed set of permissions at various levels of granularity in order to manage user authorization, and subsequent access to the various modules, views, and actions within the Talisma application suite. These permissions can be managed using the Talisma Business Administrator module. Permissions can be grouped into customized roles appropriate to each organization, and users can be assigned roles that directly control their authorization and access privileges.

Encryption

Talisma enables data to be secured at a property level. The data for the secured property is persisted in the database in an encrypted form. Talisma uses symmetric encryption, which is implemented using Microsoft Cryptography API. The key, and the algorithm for the encryption are built into the application, thereby controlling access to the data only through the system. The view and edit of data for these properties are controlled through permissions. When the user has access to these properties, encryption, and decryption occur on the client, ensuring that the data transmitted across the layers is encrypted.

Apart from the above, Talisma server components such as Database Server, Application Server, and Web Servers can also be installed behind firewalls, adding another level of security. Figure 8 illustrates the Talisma Network Diagram in a firewall environment.
Figure 8  Talisma Network Diagram
Integration

Talisma supports integration and customization at two levels, one at the data level, and the other at the application level.

The data level integration is of two types:

- Import and Export
  - Import: Enables data to be fed into the Talisma Database Server from an external system. This utility leverages the SQL Server Integration Services (SSIS), and ensures application level data validation checks.
  - Export: Enables Talisma data to be fed into external systems. The data can be exported in a variety of formats such as CSV, XML, Excel, and Text. Windows Task Scheduler can be used to schedule the export activity at required intervals. The Export module is built on top of Talisma Power Client’s Custom Workspaces, and filter engine to achieve the required data extraction vertically, and horizontally.

- Talisma also enables the scheduling of Export Configurations. You need to enable the scheduling of an Export Configuration for an SQL Server administrator to be able to schedule it. This feature ensures the security of the Export Configurations that you create.

- Linked Tabs and Properties

  This feature enables external data to be managed as an integral part of the system, without actually moving the data into the Talisma system. Talisma architecture leverages the SQL Server's Linked Server capability to achieve this feature.

Application level integration supports two types of integration based on different technology:

- Talisma API: Talisma API is a comprehensive set of interfaces built as COM components. The API enables you to manage custom objects, and predefined objects such as Interaction, Contact, etc., and administrative actions such as User Management, Rules Management, etc.

- Talisma iServices: Talisma iServices are built on Web Services technology using ASP.NET. Talisma iServices use SOAP for data transmission with the communication channel as HTTP. Talisma iServices currently support a subset of Talisma API, and are limited to Contact, Account, Interaction, and custom objects.

You can also integrate the Talisma SMS feature with the Talisma installation in your organization. The integration enables you to configure Talisma to send (receive) SMS messages to your service provider, who can dispatch (extract) the SMS messages to(from) the recipients.

Manageability

Talisma architecture is designed for ease of deployment, configuration, and ongoing maintenance. Traditional Microsoft Windows applications suffer from maintenance problems associated with administrators having to physically go to each user's desktop to install, configure, and manage updates. This is not the case with Talisma architecture.
Initial Talisma deployments are simple as user configurations can be done at the server, and clients are automatically downloaded, and installed on user desktops from a central browser-based Intranet, or web site server. Further, database upgrades are easy as the architecture is meta data based, and uses backward compatible APIs.

After Talisma Client is initially deployed through a download, and automatically installed on user desktops, all version control, and ongoing maintenance are also done in an automatic manner. Latest updates, patches, fixes, and even version upgrades are identified upon subsequent user login, and are downloaded, and installed on the user’s desktop in a seamless fashion.

Another level of manageability is provided through the support for Windows Terminal Server, and Citrix Server. By installing Talisma Power Client on a high end Terminal or Citrix Server, multiple Talisma Client users can work on the same installation. This reduces maintenance activities for the client installation, and enables Talisma users to work on the Talisma Client from anywhere, without the need for a local installation.

Database Administrators have the option of managing the Talisma databases using Microsoft SQL Server Database Management Console, or through Talisma Database Administrator, which is a Microsoft Management Console snap-in. Talisma provides backup as well as data archive capabilities for managing large volumes of transactional data.

Talisma Database Administrator can be used to set up schedules of full backups as well as transaction log backups to achieve the required combination of minimizing downtime, and the cost of bringing up a standby system. The other database operations exposed through Database Administrator are Replication configuration, Talisma Services maintenance, and External Database creation.

Disaster recovery can be addressed by configuring log-shipping to a remote server. In the event of a failure, users can log on to the new location after the last transaction log has been applied on to the standby server.

Talisma Business Administrator is an intuitive web user interface for managing various aspects of the system with ease, especially as the organization grows, and the various processes mature, and change. Using Talisma Business Administrator, user management can be performed, besides the management of Teams, Aliases, Objects, Properties, Inheritance, Permissions, business rules, links to external databases, and more.

Another feature of Talisma that facilitates easy manageability of the system is the Health Check framework. This framework is built as a group of objects, and predefined rules on these objects to monitor the health of the various critical system components such as Database Servers, Replication, Application Server, Job Service Framework, Campaign Dispatcher, Web Servers, etc. This framework can be configured to send any type of notification to a designated user.
About Talisma Corporation

Talisma is a leading provider of the Talisma multi-channel CRM. It integrates the power of E-mail, chat, real-time collaboration, and telephony applications with a mature, robust multi channel interaction management platform, comprehensive analytics, and a fully integrated system wide knowledgebase and customer database. Talisma’s global customers include Citibank, ICICI Bank, Fidelity, SBI Mutual Fund, HSBC Asset Management, Indiabulls Securities, Birla Sun Life Insurance, MWB, Sony, Reliance Communication, Sutherland Global Services, Franklin Templeton, BNP Paribas, Kingfisher Airlines, Club Mahindra, Yatra.com, Damas Jewellery, University of Alabama, Strayer University, Florida Atlantic University, University of Nebraska-Lincoln, Kansas State University, Abilene Christian University and many more. For more information, visit us at www.Talisma.com.
Campus Management’s

Talisma CRM®

Example Environment and Hardware Estimation

Self-Hosted Installation up to 50 Concurrent Users
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1. Talisma CRM Architecture Summary

Following are the estimated parameters considered for a self-hosted environment. Campus Management looks forward to further discussion to determine actual components needed to support the Talisma CRM solution at your institution.

- One campus with Multi Channel support
- Choose either of the following architectures based on the business needs
  - Architecture with Redundancy:
    - Application Server Load Balancing and Database clusters to provide high availability support
    - Physical infrastructure for DB Servers and VM infrastructure for remaining components
  - Architecture without Redundancy:
    - Physical or VM Infrastructure
- Proposed architecture should support between 50 concurrent users
- Windows Server 2008 64 bit and SQL Server 2008 64 bit Environment
- Security, Firewall and Access & Authorization Management

The following diagram is a high level overview of the Talisma CRM architecture.
2. Architecture WITH Redundancy – Production

Campus Management highly recommends a WITH Redundancy model. This sizing model allows for scalability and future growth.
3. Architecture WITHOUT Redundancy – Production

Although not recommended, Campus Management is providing this WITHOUT Redundancy model. This sizing model allows for scalability and future growth.
4. Talisma CRM Component Breakdown

- Main DB Server – Talisma Main DB, Offline Sync Service, Import Utility, Talisma Client, Talisma Export, Talisma Health check service, Talisma notification service and HE Pack
- Analytics Server – Talisma Reports DB, Talisma Archive DB, Talisma Distributor DB, Talisma Client, Print Service, JSF1, Dispatcher1
- Application Server – Talisma Application Server, Talisma iServices, Talisma Web Components (BizAdmin and Scripts), JSF2 (Optional) and Dispatcher2 (Optional)
- Web Server – Portal* (Portal framework is required for Event mgmt), Payment Gateway and Event Mgmt

Modules not considered for Hardware sizing:
- Mobile Client, SMS, Application Management, Web Client, Chat

5. Recommendation for Production Environment

The following will support up to 50 concurrent users.

<table>
<thead>
<tr>
<th>Servers</th>
<th>Talisma Main DB Servers (Cluster)</th>
<th>Talisma subscriber DB servers</th>
<th>Talisma Application Servers (Load Balancer)</th>
<th>Talisma Web Servers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows 2008 Server Enterprise 64 bit</td>
<td>Windows 2008 Server Enterprise 64 bit</td>
<td>Windows 2008 Server Enterprise 64 bit</td>
<td>Windows 2008 Server Enterprise 64 bit</td>
</tr>
<tr>
<td>SQL Server</td>
<td>SQL Server 2008 64 bit</td>
<td>SQL Server 2008 64 bit</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Processor</td>
<td>2 x – Quad Core Intel® Xeon® E 7330 6M Cache, 2.40 GHz, 1066 MHz FSB (8 CPU)</td>
<td>Quad Core Intel® Xeon® Processor E5430 12M Cache, 2.66 GHz, 1333 MHz FSB (4 CPU)</td>
<td>Quad Core Intel® Xeon® Processor X5570 (8M Cache, 2.93 GHz, 6.40 GT/s Intel® QPI) (4 CPU)</td>
<td>Quad Core Intel® Xeon® Processor X5570 (8M Cache, 2.93 GHz, 6.40 GT/s Intel® QPI) (4 CPU)</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB</td>
<td>4 GB</td>
<td>4 GB</td>
<td>4 GB</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>250 GB (SAN) – More disk space will be added as DB grows</td>
<td>250 GB (SAN) - More disk space will be added as DB grows</td>
<td>20 GB</td>
<td>20 GB</td>
</tr>
<tr>
<td>Network Card</td>
<td>1 GB</td>
<td>1 GB</td>
<td>1 GB</td>
<td>1 GB</td>
</tr>
<tr>
<td>w/ Redundancy</td>
<td>2 Servers</td>
<td>1 Server</td>
<td>2 Servers</td>
<td>1 Server</td>
</tr>
<tr>
<td>w/o Redundancy</td>
<td>1 Server</td>
<td>1 Server</td>
<td>1 Server</td>
<td>1 Server</td>
</tr>
</tbody>
</table>
6. Recommendation for Test Environment

The following will support up to 15 users.

<table>
<thead>
<tr>
<th>Servers</th>
<th>Talisma DB Server</th>
<th>Talisma Application/Web Server</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating System</strong></td>
<td>Windows 2008 Server Enterprise 64 bit</td>
<td>Windows 2008 Server Enterprise 64 bit</td>
</tr>
<tr>
<td><strong>SQL Server</strong></td>
<td>SQL Server 2008 64 bit</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>Quad Core Intel® Xeon® E 7330 6M Cache, 2.40 GHz, 1066 MHz FSB (4 CPU)</td>
<td>Quad Core Intel® Xeon® Processor X5570 (8M Cache, 2.93 GHz, 6.40 GT/s Intel® QPI) ( 4 CPU)</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>4 GB</td>
<td>4 GB</td>
</tr>
<tr>
<td><strong>Hard Disk</strong></td>
<td>250 GB (SAN) – More disk space will be added as DB grows</td>
<td>20 GB</td>
</tr>
<tr>
<td><strong>Network Card</strong></td>
<td>1 GB</td>
<td>1 GB</td>
</tr>
<tr>
<td><strong># Without Redundancy</strong></td>
<td>1 Server</td>
<td>1 Server</td>
</tr>
</tbody>
</table>

This document contains recommendations (not minimum requirements) and should not be construed as hard and fast rules. As with any deployment your specific utilization, existing equipment inventory, and overall requirements will frame the actual hardware deployment. Campus Management has skilled Sales Engineers standing by to step you through every step of the process.
Security White Paper

Talisma Online Services
Introduction

With the explosion of Internet commerce and the tremendous flow of data about customer relationships and transactions, organizations are keeping a tight rein on their data. To achieve the highest levels of physical premise and data-level protection that today’s e-businesses require, Talisma Hosting Services offers a robust, comprehensive multi-level security environment.

Talisma Hosting Services takes information and operations security, and particularly the protection and privacy of your corporate data, very seriously. Our experienced security team researches, evaluates and implements robust security technologies through partnerships with leading companies. Additionally, Talisma Hosting Services goes to great lengths to provide the highest levels of security available for the access, storage and retrieval of data.

The security platform Talisma has implemented across every potential touch point to Talisma Hosting Services is governed by a strong security framework, and is as follows:

Four Levels Of User Authentication Through The Industries Most Secure Systems

- Award Winning Secure Network Firewall
- Physically and Digitally Impenetrable Internet Data Center
- Continuous Real-Time And Periodic Security Audits

Secure Communication
Multi-Level User Authentication

Windows-level security uses the security attributes established by Windows when the user logs onto the network.

Database-level security may use a separate username and password and also includes a permissions validation step, specifying which database objects and commands the user can access.

Application-level security further refines the permissions step, specifying which departmental aliases, queues, and products a user can access and which operations the user is allowed to perform on them. This step also sets up a Talisma Application Role to provide further protection against unauthorized access and ensures encryption of sensitive data.

Windows-Level Security

Most users will log onto Talisma using the same account that they use to log onto the Windows NT or Windows 2000 network. These users can save time by having SQL Server use the Windows NT/Windows 2000/2003 security model—eliminating the need to enter a second login name and password to access the database.

When a user logs onto Talisma and selects Windows authentication, Talisma notifies SQL Server that it is to use the security attributes established at network login time to control login access to the Talisma database. These attributes are validated through the sophisticated Windows NT/Windows 2000/2003 password encryption mechanism. After checking with Windows to determine whether the username is valid, SQL Server permits or denies login access. Additionally, Talisma has also implemented a strong password requirement for all users with access to the servers. All passwords must be at least 6 characters in length, expire every 30 days, and cannot be re-used for a year. We also prevent forced entry logons by locking user accounts that have incorrectly entered their password more than 5 times consecutively.

Database-Level Security

Authentication

Talisma passes the username and password to SQL Server, which checks to see if a SQL Server login account has been set up for this user—and, if so, whether the password the user entered matches the one recorded in the log. If SQL Server does not have a login account for this user or the user’s password does not match the one in the login account, authentication fails and the user receives an error message.
Permissions Validation

After a user has been authenticated and allowed to log onto SQL Server, SQL Server checks to see if the user has an account set up in the specific database he or she is trying to access. These administrator defined database accounts specify the specific objects that the user is allowed to access (tables, views, stored procedures and so on), and the commands that the user is allowed to execute (for example, adding a customer, deleting a customer, or creating a new message). When the user attempts to access an object or enter a command, SQL Server checks to make sure the user has permission to do so before granting access or executing the command. If the user does not have permission, SQL Server will return a permission error.

Application Level Security

Talisma has also implemented its own application-level security, which is used for two purposes:

- To further fine-tune the types of actions the user is allowed to perform in a particular database.
- To define a Talisma Application Role that provides further protection against unauthorized access.

Talisma User Permissions

While the SQL Server-level permissions deal only with types of objects and commands within a database, the Talisma-level permissions define which specific types of data a user can access and which specific operations the user can perform on that data. Again, these permissions are set up by the system administrator as part of setting up the user’s account.

Talisma-level security can specify, for example, the departmental aliases a user is authorized to access, the specific queues within those aliases, and even the specific products for which a user is authorized to view or respond to queries. In addition, it can specify the types of actions a user is allowed to perform in each instance. For example, a user may have permission to delete a case in a particular queue, but may not be able to delete cases in other queues.

Talisma Application Role

Talisma also takes advantage of SQL Server’s role-defining ability, which allows all users to be collected into a single unit against which permissions can be applied, to define a Talisma Application Role. In this way, Talisma grants access to its objects and commands to the role rather to individual users. This security step prevents a user from connecting to SQL Server using an application such as SQL Server Query Analyzer and then accessing Talisma data. After completing authentication and permission validation at the database level, Talisma switches to the Talisma Application Role before allowing commands to be executed on the Talisma database.
Data Encryption

Talisma can be configured to SSL to encrypt the data transfer between the client, the server and the Visitor (in case of chat). Only an authorized user who accesses the system through a Talisma client application and has permissions to view or edit the data can access the data.

Network Security

Talisma has deployed the award-winning Checkpoint Firewall-1 to ensure a strong barrier of network security from the Internet. Firewall-1 is the most comprehensive suite of security products on the market today and is powered by OPSEC (Open Platform for Security) regulations and standards. The rule base and access policy is very strict and designed to prevent any attacks posed with respect to security of the network devices used by Talisma Hosting Services to provide services to its customers. Check Point’s patented Stateful Inspection technology, combined with powerful object-oriented management, provides full application-layer awareness as well as quick and easy support of new Internet services. The following headings are the key security features of Check Point Firewall-1:

Access Control

Access control protects an organization from security threats by specifying and enforcing what can flow into and out of an organization's network. A key element of access control is an awareness of all underlying services and applications. Check Point's patented Stateful Inspection technology, combined with powerful object-oriented management, provides full application-layer awareness as well as quick and easy support of new Internet services.

Authentication

User authentication services securely validate that the users attempting to make a connection are who they say they are before the communication is allowed to proceed. Modifications to local servers or client applications are not required. Authentication services are fully integrated into the enterprise-wide security policy.

Content Security

The content security capabilities of FireWall-1 and VPN-1 Gateways extend data inspection to the highest level, protecting users from various hazards, including computer viruses and malicious Java or ActiveX applets, while providing granular access control to the Internet. Content security is fully integrated with all FireWall-1 and VPN-1 Gateway features, and is centrally managed through the intuitive graphical interface.

In addition, Check Point’s OPSEC framework provides open Application Programming Interfaces (APIs) for integrating third-party content screening applications, such as URL filtering lists and anti-virus solutions. With Check Point’s OPSEC Alliance program, organizations are free to choose the content screening applications that best meet their needs. Check Point certifies OPSEC applications based on a rigorous testing methodology to ensure that the chosen application will be fully interoperable with FireWall-1 or VPN-1 Gateways.
Intrusion Detection

Check Point RealSecure and Proventia G provide the highest level of real-time intrusion detection while enabling network administrators to establish a coherent enterprise-wide security policy. Check Point RealSecure provides the most secure, efficient intrusion detection management available today, with a continuously updated attack recognition database. It simplifies the complex task of configuring and setting up an intrusion detection system by eliminating the need to re-enter network objects that have already been entered into your FireWall-1 or VPN-1 policy. It also provides advanced reporting of intrusions and network misuse - including consolidation of events into existing VPN-1/FireWall-1 log files for simplified event auditing.

Network Address Translation

The Network Address Translation (NAT) functionality within FireWall-1 conceals internal network addresses from the Internet, avoiding their disclosure as public information. In addition, this feature overcomes IP addressing limitations, including restricted IP address allocation and unregistered internal addressing schemes. FireWall-1 and VPN-1 Gateways maintain the integrity of an organization's internal addressing scheme.

Impenetrable Internet Data Center

Talisma Hosting Services uses the physical co-location facilities of Internet data center to deliver our services to our customers. Our security team found that almost no other facility was able to deliver the extreme level of both physical and data level security Talisma and our customers require. These world-class facilities have been custom designed with raised floors, HVAC temperature controlled environments each with separate cooling zones, and seismically braced racks. They also offer the most advanced and widest range of physical security features, including:

- On-premises Security Officers
- Biometric key-lock doors
- Security Breach Alarm Systems
- Continuous Video Surveillance
- Electronic Motion Sensors
- Locked-down floor tiles
- Dedicated services for power, lighting, and fire suppression
- Dedicated shielded connections to the data center network
Continuous and Periodic Security Audits

The Talisma Hosting Services operations team has a strict schedule of security audits. During this period, the security team analyses numerous potential attack points and access logs generated upon user authentication and resource usage. Check Point’s Firewall-1 Secure Server provides the highest level of real-time intrusion detection while enabling network administrators to establish a coherent enterprise-wide security policy. SecureServer delivers access control, client and session authentication, network address translation, and auditing capabilities and uses Check Point’s patented Stateful Inspection technology. FireWall-1 Secure Server installations are administered within Check Point’s centralized policy management and distributed deployment framework. Microsoft Windows NT provides complete resource access auditing and manipulating access control lists.
Secure Communication

Talisma Hosting Services ensures that every authentication between the client and the Talisma Hosting Services network is secure across the Internet. With respect to the server side communication between the client’s mail server and the Talisma servers; all password authentications are encrypted by the NTLM or by configuring the access over secure VPN tunnels or IPSEC tunnels.

Additionally, upon request, the Talisma Hosting Services Security Team can provide end-to-end encryption of the data stream between the Visitor, client and Talisma servers using SSL.

Additionally, upon request, the Talisma Hosting Services Security Team can provide advanced, end-to-end encryption of the data stream between the client and Talisma’s Terminal Servers using the latest SecureICA services for Citrix. The SecureICA software uses 128-bit encryption to provide maximum protection for information being sent between the Talisma Terminal Servers and clients. By using a key of this length, SecureICA makes it virtually impossible for unauthorized users to open an encrypted transmission. However, in the unlikely event that someone succeeds, SecureICA would ensure that the viewer would see meaningless screen commands.
About Talisma
Talisma is a global provider of Customer Interaction Management solutions that enable businesses to deliver a truly exceptional customer experience. Talisma’s solutions integrate the power of email, phone, chat, and self-service with a robust and mature customer interaction management Web services platform, comprehensive analytics, and a system-wide knowledgebase. Talisma’s global customers include AOL, Aviva, Banque Populaire, Betdaq, Canon, ChevronTexaco, Citibank, Dacorum Borough Council, Daimler-Chrysler, Dell, DHL, E.on, EPSON, Ericsson, Intuit, Microsoft, MWB, Pitney Bowes, Siemens, Sony, Sprint, NHS University Hospital of Leicester, and Xchanging.

For more information:
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Europe: +44 (0)870 904 1122
Asia-Pacific: +91 80 2361 3377
Case Study

Challenges

- New student outreach and recruitment was a standalone entity, separated from admissions, financial aid, and the registrar
- International admissions and services were run separately and disjointed due to perceptions that differences could not be managed by one technology

Solution

- **Talisma CRM Software**
  - Configurable software that unites multiple communication channels, including email, telephone, SMS text messaging, and more
  - Captures data and events related to every stage of the student lifecycle, from prospective students to alumni
  - Manages, streamlines, and reports on communications across a range of departments — from admissions to registrars, to financial aid, including nontraditional and international programs

Results

- 224% increase in freshman applications from 2006 to 2008
- Reduced applications received after April to 10% by Fall 2008
- Increased admits from targeted growth areas by more than 50% from 2006 to 2008

"We can now create and update all prospect data and provide a 360-degree view for all enrollment departments at TAMUK."

Manuel R. Lujan
Associate Vice President for Enrollment Management
Texas A&M University-Kingsville
Profile
Texas A&M University-Kingsville grew out of the teacher college movement that swept Texas and the nation in the early 1900s. Chartered in 1917 — but not opened until 1925 because of America’s entry into World War I — the university is the oldest continuously operating public institution of higher learning in South Texas.

“TAMUK’s goals were to:

• Increase freshman applications by 100% by 2010
• Increase overall applications by 50%
• Reduce freshman applications received after April from 31% of total applications to 10% of total applications by 2010
• Reduce freshman admits after April from 51% to 20% of total admits by 2010
• Increase applications from existing high-growth area markets and new high-growth geographic markets
• Increase student satisfaction with all student enrollment departments

To achieve these goals, TAMUK decided it was time to procure a Strategic Enrollment Management (SEM) solution, to streamline business processes, enable the sharing of data admissions, financial aid, and the registrar. International student admissions and services also functioned on their own and used manual means to push communications and track processes. This was further complicated by the fact that these critical functions were all located in separate buildings across campus.

Goals
Shortly after beginning as South Texas State Teachers College, its role expanded to embrace a wider array of programs. As its mission grew, the name has changed to reflect its wider scope. Its first name change, to Texas College of Arts and Industries, came in 1929. In 1967, the name changed to Texas A&I University. The university became a member of the Texas A&M University System in 1989 and in 1993 changed its name to Texas A&M University-Kingsville (TAMUK) to reflect that membership.

“I can absolutely say that the increase is tied directly to the power of Talisma CRM and how we are using it to maximize our marketing and recruitment.”
across campuses and divisions, and merge data stored in different places. The institution needed a solution that would automate and track all communications with contacts, from inquiry through enrollment, as well as allow the constituent to select a preferred channel of communication. TAMUK also wanted a solution that had the ability to evolve beyond its initial configuration and purpose to meet future needs.

**Solutions**

TAMUK made the decision to implement Talisma CRM, a fully configurable system for consolidating and managing all student communications. Talisma has enabled TAMUK to address every stage of student enrollment management, including recruiting, admissions, financial aid, and the office of the registrar. Today all recruitment processes and workflows are completely automated. Personalized campaigns are delivered via multiple channels based on the students’ preferences. Communication accuracy and reliability are enhanced by delivering pre-approved responses.

Consistent, accurate information is also available to constituents through an online self-service knowledgebase. All interactions — phone, email, and traditional mail — are tracked and captured as part of the constituent’s interaction record. All information in the database is shared across divisions and locations, but with controls that can protect data and privacy. Additionally, analytics tools provide quick and accurate assessment of performance for continuous improvement.

“We chose Talisma CRM because of its ability to expand beyond its initial application and purpose, across the campus,” said Manuel Lujan, associate vice president for enrollment management at TAMUK. “We can now create and update all prospect data and achieve a 360-degree view for all enrollment departments at TAMUK, providing a way to communicate in a coordinated fashion. The results have been outstanding.”

**Outcomes**

Due to the rapid deployment of SEM as part of Talisma CRM, TAMUK now has the ability to:

- Centralize campaign management
- Automate the generation of personalized letters, email, and brochures for contacts based on admission stages (Prospect, Inquiry, Applied, Admitted, Enrolled, etc.)
- Measure ROI and refine campaigns in progress
- Measure costs by step and results
- Target inactive prospects and attempt to convert them into active prospects
- Create and manage campaigns targeting prospects by complex demographic and behavioral aspects
- Store and share all data about prospects and campaigns across divisions

“I can absolutely say that the increase is tied directly to the power of Talisma CRM and how we are using it to maximize our marketing and recruitment,” said Lujan. “This year, even though we were not at full force with our recruiting staff, we did quite well because of Talisma CRM and how we are using it.”
About Campus Management Corp.

Campus Management Corp. is a leading provider of enterprise administrative software and services for Higher Education. More than 1,300 campuses worldwide run on Campus Management’s solutions for administration, fundraising, enrollment management, and academic delivery. For institutions seeking an end-to-end enterprise system, Campus Management’s CampusVue Ecosystem is a fully integrated platform that can connect multiple sites and catalogs, manages flexible terms and multiple enrollments, and integrates economically to other leading applications, such as Constituent Relationship Management (CRM) software and course management systems Blackboard or Moodle. Clients include Mercer University, Baker University, National University, Indiana University, and Kaplan University.
Case Study

Challenges
- Despite funding and environmental obstacles, UA undertook a 10-year growth initiative with firm goals
- Initiatives would receive budget increases after producing results
- Needed to measure, maintain, and improve the quality of constituent interactions

Solution
Talisma CRM Software
- Configurable software that unites multiple communication channels, including email, telephone, SMS text messaging, and more
- Captures data and events related to every stage of the student lifecycle, from prospective students to alumni
- Manages, streamlines, and reports on communications across a range of departments — from admissions to registrar, to financial aid, and beyond

Results
- 10-year growth initiative reduced to a seven-year timeline due to successes
- Undergraduate applications increased 22.5%, which resulted in a 42.4% increase in freshman enrollment
- New transfers increased by 16.2%

It’s one thing for an institution to say an event or campaign was successful, but an entirely different statement when it can be proven.

Teri Terry
Coordinator of Student Information Systems and Data Resources
University of Alabama

THE UNIVERSITY OF ALABAMA
The University of Alabama

Profile
Founded in 1831 as the first public university in Alabama, The University of Alabama remains committed to excellence in teaching, research, and service. With more USA Today Academic All-Americans attending the institution than any other college in the nation, it provides a creative, nurturing campus environment where its students can achieve their personal bests.

Goals
In 2003, The University of Alabama established a 10-year growth initiative to improve the following areas:
- New freshman growth rates
- New transfers growth rates
- New graduate student growth rates
- Retention
- Distance education

Faced with flat state high school populations and no centralized tracking of prospective students, the undergraduate admissions department had some major challenges that stood in the way of achieving its initiative goals. One of those challenges included budget increases only awarded after initiative results began to be realized.

Solutions
Prior to deploying Talisma CRM, The University of Alabama’s existing CRM system was nonfunctional and did not track interactions or drive the distribution of information to its constituents. In 2005, UA purchased Talisma CRM and deployed its multichannel features:
- Phone – Track who called whom, and what was discussed
- Email – Consolidate an entire email conversation in one thread
- Campaigns – Automate incoming and outbound email for marketing
- Knowledgebase – Provide access to self-help information for constituents who prefer online access to information

Once The University of Alabama deployed Talisma CRM, it used the system to create buzz to draw in the best and brightest applicants.

“The Talisma CRM has allowed our institution and recruiters to better identify, target, and communicate to prospective students.”
students through personalized marketing campaigns. The software’s filtering capabilities help the institution sort out messages by prospect demographics and academics. Additionally, Talisma CRM enables The University of Alabama to communicate a consistent message through the use of prepared responses and the knowledgebase products.

The institution also leverages Talisma CRM to help recruit and enroll VIP prospects. The software helps the institution’s VIP program by:

- Matching a VIP counselor with each VIP student
- Improving alumni recruitment activities by generating local recruiting reports
- Assisting high school counselors by sending personalized monthly reports regarding the status of high school applicants and any missing documents
- Automatically routing inquiries and interactions to the appropriate student recruiter

**Outcomes**

One year after deploying Talisma CRM, the University of Alabama realized measurable results:

- 22.5% increase in undergraduate applications, yielding a 42.4% increase in freshman admits
- 16.2% increase in new transfers
- Growth objectives now achievable by year 2010 versus 2013
- Recruiters can track, connect, and manage prospective students assigned to specific territories
- Highly personalized and consistent messaging to all prospective and current students
- Creation of a management tool for the assistant and associate directors to assess recruiter progress

“Talisma CRM has allowed our institution and recruiters to better identify, target, and communicate to prospective students,” said Teri Terry, coordinator of student information systems and data resources at The University of Alabama. “As a result of the information tracked in the system, we are making better decisions regarding methods of communication, how often we should communicate with students, and what events produce a higher yield of applicants and admits.”
The University of Alabama

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Case Study

Challenges

- Identifying and reaching out to the right candidates among 26,000 applications
- Improving territory management for local, state, and national recruiters
- Efficiently tracking results of recruiting events

Solution

- Talisma® Constituent Relationship Management (CRM) software for strategic enrollment
- Complete integration of Talisma CRM with the university’s student information system (SIS) in less than three months
- Built-in event management system for open-house programs, campus tours, and more

Results

- Web-based access to student information and communications history across all touchpoints, from emails and phone calls to college fairs
- Significantly improved prospect data and response times to candidate inquiries
- Personalized communications and services to more than 30,000 students

“Talisma CRM enables admissions counselors to view information about student interests and every previous contact, whether it was a phone call, a letter, or a conversation at a college fair.”

Stacey Kostell
Director of Admissions
University of Illinois at Urbana-Champaign
Profile
The University of Illinois at Urbana-Champaign is a public research university distinguished by the breadth of its programs, broad academic excellence, and internationally renowned faculty. Since its founding in 1867, the institution has earned a reputation as a world-class leader in research, teaching, and public engagement. Over 30,000 undergraduate students are enrolled in nine undergraduate divisions, which together offer some 4,000 courses in more than 150 fields of study. In addition to being ranked as one of the top 10 public national universities by U.S. News and World Report, the university was ranked “the number-one wired college” by PC Magazine, underscoring the value the university places on new and innovative technologies to enhance the educational experience, improve services, and achieve goals.

Goals
Undergraduate admissions is highly selective at the University of Illinois. Today, 26,000 freshman applicants vie for 7,000 spots. Being able to identify and reach out to the right candidates and respond quickly with personalized information — whether it’s through email, text, the university’s Website, or a phone call — are key to recruiting the best of this tech-savvy generation. By 2008, the volume of applications alone made this a much bigger challenge. The university was looking for a technology solution that would enable the admissions department to better engage candidates, manage territories, stage and track events, and meet its recruiting objectives.

Challenges
One of the admissions department’s main challenges was improving territory management. The university has admissions counselors assigned to every state, county, and high school in the country — as well as internationally. They visit with students, counselors, and parents, and attend college fairs.

“We needed to be able to enter candidate information into the system and have it part of the permanent record of interaction for that prospect,” says Stacey Kostell, the university’s director of admissions.

“Our goal was to respond faster when a candidate expressed interest or had a question, without the prospect or counselor having to backtrack.”

In 2008, the admission department turned to Campus Management Corp. to implement Talisma Constituent Relationship Management (CRM), a strategic enrollment software solution that enables institutions to centralize, automate, and personalize communications across email, phone, chat, text, print, and more. “Before implementing Talisma CRM, we didn’t have good prospect data,” recalls Kostell. “We could have been sending information to a prospective student who had already been denied admission.”

With Talisma CRM, admissions counselors can now go to the Web and view information about the student’s interests and every previous contact with the university, whether it was a phone call, a letter, Web form, or a conversation at a college fair.
Campaign and event tracking
The department also wanted to track the effectiveness of its recruiting efforts. Every year in the fall the university hosts the Orange and Blue Days every Friday from September through November. These programs include an admissions presentation, student panel, tours of campus and housing, break-out sessions with campus units, and group meetings with college deans or representatives.

“We want to know how many students attended an event and track its effectiveness,” says Kostell. “Talisma CRM allows us to compile the data, determine what was effective, and find a way to personalize the interaction with our students.”

Solution
In 2008, only three months after the university had put out a full RFP for a solution, Campus Management had integrated Talisma CRM with the admissions department’s student information system.

“We were ready to go August 1,” says Kostell. “There was no transition period and very little training required. The software is very intuitive and a very adaptable. Because of the flexibility of the software, we were able to add our event management system to Talisma CRM that allows us to schedule events, campus tours, information sessions, academic appointments or open house programs, and have that information automatically imported into Talisma.”

Talisma CRM helps improve recruiting and retention by personalizing and automating communications ranging from email, chat, telephone, SMS text messaging, and print. The suite also offers a broad range of features for staging and measuring the effectiveness of campaigns and events, while empowering constituents with easy-to-use online services.

Results
With Talisma CRM, the admissions department is better able to coordinate communications among other departments. For example, if a student is interested in the music program, the admissions department and the music department are now sending complementary messages rather than bombarding the candidate with the same messages and materials. Knowing that the student has already received an admissions package to the university through Talisma CRM, the School of Music might send a viewbook with information about their programs.

“Before Campus Management deployed the Talisma CRM solution, if a prospective student visited our Website, he or she might get three identical emails from three different departments or counselors over a weekend. It wasn’t a very efficient process,” says Kostell. “Now we know who’s talking to whom.”

With the solution having been in place for only a year, the biggest benefit so far is response time. “We are able to personalize responses to every email and respond to every inquiry usually within 48 hours. That’s really unique,” says Kostell.

Talisma may be rolled out to other campus departments in a year or so in order to coordinate recruitment efforts campus-wide. Kostell sees the potential for expanding the Talisma platform to other schools and departments. “I think it’s going to change the dynamic and add that personal touch. We’re trying very hard to personalize communications and services, which is challenging when you have over 30,000 undergraduate students.”
University of Illinois at Urbana-Champaign

About Campus Management Corp.
More than 1700 colleges, universities, foundations, and nonprofit organizations worldwide rely on Campus Management Corp® for efficient, scalable, and flexible enterprise software products and services. The company’s CampusVue Ecosystem is a fully integrated, centralized administrative and e-Learning platform that unifies services, academic delivery, administrative management, and reporting for a full range of public, private, and proprietary postsecondary institutions. The platform connects multiple sites and catalogs, enables flexible terms and multiple enrollments, and integrates economically to other leading applications, including software for Constituent Relationship Management (CRM), and learning management systems such as Blackboard® and Moodle®. Clients include Mercer University, Baker University, National University, Indiana University, and Kaplan University.