

UNIVERSITY HOUSING

University Housing Strategic Plan 2007

Integrating Technological Changeover

Helix Design and Creation

Contained herein a strategic plan to implement a technological solution addressing student and staff management concerns for University Housing.

Contents

2007 HOUSING STRATEGIC PLAN 3

INTRODUCTION 3

HOUSING STRATEGIC VISION 3

AREA 1 – IMPROVING BUILDING SECURITY/FRONT DESK MANAGEMENT..... 4

AREA 2 – IMPROVING BUILDING RESOURCE MANAGEMENT 4

AREA 3 – ENHANCING MANAGEMENT CAPABILITIES..... 4

CURRENT TRENDS

..... 5

INTRODUCTION 5

STUDENT TRENDS..... 5

UNIVERSITY HOUSING TRENDS..... 6

CHAPTER 1 IMPROVING BUILDING SECURITY/FRONT DESK MANAGEMENT 7

1.1 RECOMMENDATION..... 8

1.2 DISCUSSION..... 8

1.3 IMPLEMENTATION..... 8

CHAPTER 2 IMPROVING BUILDING RESOURCE MANAGEMENT

..... 9

2.1 RECOMMENDATION 9

2.2 DISCUSSION 10

2.3 IMPLEMENTATION..... 10

CHAPTER 3 ENHANCING MANAGEMENT CAPABILITIES

..... 11

3.1 RECOMMENDATION 11

3.2 DISCUSSION 12

3.3 IMPLEMENTATION..... 12

FINAL RECOMMENDATION/CONCLUSION

..... 13

REFERENCES

..... 14

2007 Housing Strategic Plan

Introduction

University Housing serves as a home away from home for students beginning their college career and transitioning into their adult life. As such, University Housing's first responsibility is to the students in its charge. University Housing recognizes the student's will to explore and grow and that we must offer them an environment that is conducive to that growth while at the same time providing an environment that is reminiscent of home and the security that home affords. The student's development at all levels is our first priority.

Housing Strategic Vision

Existing implementations of University Housing Management currently lacks the technological and automated processes necessary to enhance the student living experience in a way comparable to other departments that have embraced technological assistance. Furthermore our professional staff and student workers are without the tools necessary to perform the tasks their positions require in the best possible manner. Advances in technology, software availability, and technical proficiency demand a drive toward an integrated modular approach which can address the specific needs of individual positions and departments while integrating their workflows into dynamic processes which offer better auditing, tracking, and analysis capabilities. Furthermore, an integrated computerized system can harness the copious amounts of data that exist within the University Housing Environment. Currently, these data sets are collected in too poor a fashion to be utilized for anything more than surface analysis.

With this in mind it is necessary to develop the Housing Department's resources and provide an effective management system to properly coordinate and communicate with the different areas within the Housing Department. All levels of staff within the Housing Department expect a unified system to assist them in their own core needs while allowing the greater capabilities to coordinate and interact within their own levels and other levels of staff.

In an effort to respond to these growing needs, University Housing is focusing on the following areas:

- Improving building security and front desk management

- Improving building resource management; both personnel and equipment
- Enhancing management capabilities of professional and administrative staff

By addressing each of these concerns and integrating them into a singular architecture with a modular design we can enhance ease of use and coordination among various levels while providing improved resources and automated feature sets that will help achieve our vision.

Area 1 – Improving Building Security/Front Desk Management

The Strategic Planning process has found that security and safety are key areas that both parents and students look for in a housing situation. To better equip our residences with the safety levels desired by students and parents we must address growing student populations which translates into more students per residence as well as current security safeguards for entrance into the building coupled with front desk staff management of student entry. Front Desks must continually monitor building entrances and maintain a healthy flow of student traffic while quickly ascertaining student residency and visitor situation. Furthermore front desks are called upon more and more to offer secondary services to aid the residents. A feature set must include the ability to quickly manage the flow of students while providing the desk staff ample time to meet its secondary objectives.

Area 2 – Improving Building Resource Management

Residences are quickly becoming bastions of student life. No longer does housing act as a simple place for sleep and study, but more time and energy is being spent within the residence. As such, University Housing must address the growing needs of the students and their interest in having ample amenities at their disposal. These resources can be great heralds of student interaction and growth but require additional monies and staff to monitor and manage. To keep up with the growing list of amenities offered by housing, a single source available in different layers is needed to afford the staff the best possible chance of providing these amenities to the students in a timely and quality fashion.

Area 3 – Enhancing Management Capabilities

Housing staff; student, professional, and administrative, are all in need of tools to help them perform their ever growing duties. More students dictates that more time

need be spent by professional and administrative staff in providing the best possible residence situation that they can. Student workers also must be given the tools necessary to meet growing needs of their charges while at the same time providing them with the continued ability to achieve high in academic and extracurricular activities. To this end, all levels of staff require a simple workflow that affords them the best possible communication and processing layers to handle student concerns while at the same time freeing up as much time as possible for one on one interaction with the residents of their buildings. Finally, data analysis and collection should be enhanced to provide staff with the best possible data for governing their buildings.

Current Trends

Introduction

Known university housing, higher education, and student needs have helped shape the 2007 Housing Strategic Plan. These trends have contributed to developing educated workflows and processes for the enhancement of the University Housing needs.

Student trends

Growth – Student populations are growing, quickly. Current growth rates of three to five percent (U.S. Census Bureau, 2006) for those enrolled in college mean that institutions have to address the rising amount of students which includes the how and where of housing these students.

Privacy – Students entering into college today are used to their privacy. Studies show 90 percent of freshmen coming to campus have never had to share a bedroom (Angelo, 2003).

Amenities - Students today are demanding necessities unheard of 30 years ago. Luxury amenities such as kitchens and private baths have become expected standards while technologies unheard of 30 years ago, LAN access, computer rooms, and technology classrooms are becoming common place (SchoolFacilities.com, 2002). Many students coming to college are also used to pools, workout rooms, and safe places to congregate with friends; “These same kids have been raised during a time of great abundance in America” (Angelo, 2003).

Safety – Parents and students alike are addressing safety concerns in ways they never have before. . Security is a leading trend in residence halls and is growing rapidly. Security holes in universities are compromised and tragedies occur. Virginia Tech, Dawson College, and Shepherd University (Smith, 2006) are all prime examples of the need to provide a safe and secure living environment for students on campus. Virginia Tech especially demonstrates the carnage possible given the existence of a disjointed and outdated workflow between the residence halls and their staff. “Protect the students, but maintain the hominess.” (Angelo, 2003)

University Housing trends

Learning where one lives – Originally, residence halls were first established as places where a student would both live and learn. Professors were also head masters or house masters and most of one’s day was spent in the hall. Changing times brought University Housing away from that idea, but winds have begun to shift back in some respect. Degree based floors, major based buildings, and halls with classrooms setup in within them are all beginning to make a resurgence (Angelo, 2003).

Technology Integration with Front Desks- Front Desks still use an assortment of archaic devices, basic swipe models, and stickers to determine residency and ensure security. Paper logs and records are common place among front desk staff workers and the needs and requirements of storing these logs have not been addressed.

Management - Interaction with other departments is done through campus mail and memos. Judicial and conduct management is mostly directed through disjointed processes that although relevant to other departments is lacking in its workflow and communication with those departments. Building and staff managers endure project management, staff management, and building management using paper logs and reports, very simple but disjointed computer applications, and workflow processes 20 to 40 years old.

Chapter 1

Improving Building Security/Front Desk Management

Integrating new technological measures into the existing security features of the hall coupled with increasing the ability of the front desk to manage itself and the hall will have a positive effect on the existing infrastructure. Currently, use of archaic swipe systems with no user feedback and lengthy paper procedures for resource use or visitor check in has compounded a difficult situation. Add in the growing number of students and the front desk has become inundated with necessary procedure but at the cost of efficiency.

Current operation of the front desk shows there are several key areas to be addressed to yield the desired results in security and front desk management.

- **Improved Residency Verification** – Student ID cards afford front desks the ability to develop an efficient and secure workflow for resident entrance into the building. Integration with existing residence databases is an efficient way of checking the student ID and having the computer system verify the residency requirements in real time. Additionally, use of photos during initial card creation and storage of those photos make it easy for the front desk to obtain verification of a student’s identity.
- **Visitation Management** – Student’s are given the respect of being allowed visitors during their stay in University Housing. However, it is up to the front desk to monitor those visitors and ensure that their visitation is not disruptive to other residents in the building. Current use of paper logs and ID retention make the front desk inefficient in student flow, hamper the use of the student ID as a means to access resources within the building, and add a level of undesirable complexity.
- **Log Management** – Students currently have the ability to address a number of custodial and maintenance concerns through the use of the Front Desk logs. Furthermore, 3rd party contractors and other departments have access to the building and resources via another set of logs at the front desk. Paper log entry is tedious and can have negative impacts on the security of the building as well as the flow of students in and out of the building.

1.1 Recommendation

University Housing should institute a computerized verification and logging system to maximize the flow of students in the building as well as provide faster, more efficient logging mechanisms for students and 3rd party workers.

1.2 Discussion

Rationale for this implementation integrates all the existing needs into the front desk as well as lays the framework for system integration across the University Housing department. By equipping the Front Desk with a verification system that utilizes existing technologies, security is enhanced for the entire resident body.

Furthermore, by implementing and auditing and logging system for logs and visitors, this allows better history to be kept and efficiency increased cutting down on "traffic jams" at the front desk. New evidence suggests that although volume does have an effect on traffic, smoothness of traffic flow is more prevalent in causing jams. This scenario can be easily ported to discuss groups of people in traffic situations, and having cause to decrease the bumps in flow the front desk will significantly impact the overall flow at the desk.

1.3 Implementation

Although it is conceivable that University Housing could request development of such a system from the Information Services department, such a request would be costly and time consuming. Furthermore maintenance of such a system dilutes the scope of the IS department's focus. Thus, University Housing would be best suited to purchase a 3rd party system that meets the requirements of the verification and front desk management pieces but is also a modular component of a larger management system or has integration capabilities with other modular systems. For the Front Desk:

- Implement a bar code or magnetic swipe information system at the front desk to interact with the verification system.
- Purchase and install computer systems at the front desk that are compatible with software systems.
- Convene group of student workers and staff to establish workflow processes to complement verification and management system.
- Convene group of student workers and staff to develop front desk computer use policies to govern slow flow times and holiday down times.

Chapter 2

Improving Building Resource Management

Building resources are at an all time high and are in strong demand among housing buildings. Because of the large amount of resources now at University Housing's disposal, it is important to be able to properly manage these resources, be they building amenities such as pools and kitchens or everyday tools like keys and vacuum cleaners. Furthermore, newer amenities are always on the horizon as buildings morph into centers of both living and learning. In keeping with this notion, there are several key areas that must be addressed to mitigate this growing need.

Resource tracking – New technologies such as bar code tags and inexpensive scanning equipment coupled with front desk technology allow the ability to solidly track those resources that have always been more up to chance. Keys, extracurricular equipment, cleaning equipment, and more can now be tagged, made an asset, and tracked from user to user. This sort of technology gives the ability to assist in finding lost equipment as well as tracking damages and other statuses among those resources.

Event and Resource Planning – Buildings are collecting more resources from extracurricular rooms, work out rooms, building classrooms, and more and as student numbers grow, these resources are utilized more heavily than ever before. This increased use requires a planning and management system which will assist the various levels of staff in utilizing these areas for student growth. Student and building staff need access to calendars and the ability to schedule their events in a coordinated manner. The administrative staff needs high level management tools to monitor area use and determine current trends and future needs. Finally there must be a way to help mitigate disputes over area use and the various staffs need ways to facilitate a smooth flowing environment where everyone's needs are met to the best of the staff's ability.

2.1 Recommendation

University Housing should institute a computerized calendar and event coordinator that couples with the suggested verification and tracking software at the front desk. The software should have the capability to give front desk personnel control over equipment resource management and low level event search features. Higher level

event and area management controls should be provided to the student and building staffs via terminal or web interface. Administrative staff should have overriding authority on building resource allocation and be provided with high level tools enabling them with that control.

2.2 Discussion

The rationale behind the implementation scheme of the recommendation comes from recognition of the need for multi layer access to the existing and future resources of the building. Front Desk staff needs immediate access to simple features that allow them to manage any equipment resources that may be stored at the front desk or in a manner governed by the front desk. To facilitate smooth flow through at the front desk, the desk staff needs immediate governing of certain resources. Furthermore, building staff that interacts with the student population in a growth medium need the ability to utilize the area resources in a coordinated fashion. Certain resources will be more popular than others and simple to use yet accessible planning and scheduling system is needed. Finally, administrative staff needs access to site wide high level controls of area resources to assist in mitigation of disputed resources. Also, resource integration into the specific data set is required to allow administrative staff the opportunity to analyze the event data and mitigate future disputes or problems with better pre-management of resources.

2.3 Implementation

Following the logic of the implementation of the front desk management module, it would be most logical to purchase software that is designed to already perform the functions needed. By attempting to design a system in house, the multi module aspect adds layers of complexity onto the software system. This would require even more staff to develop and maintain as well as push final integration of the system years down the road. By purchasing a 3rd party system, University Housing can integrate the system sooner while not having to manage the development and maintenance of the system.

- Convene a group of student and professional staff to develop area resource policy.
- Convene a group of student and professional staff to analyze front desk resources and their management needs.
- Integrate resource management module with front desk verification and management module.

Chapter 3

Enhancing Management Capabilities

University Housing complexity has increased substantially. This complexity was bound to happen as student needs increased dramatically, as did student populations. Beyond this staff needs have increased and building resources are at an all time high. Combining all of this it is not surprising that building and administrative staffs are floundering with how to cope with these growing complexities. Time taken to manage these resources is time taken away from the students, the first priority. As such, management capabilities must be optimized to afford the various levels of staff the opportunity to spend as much time in direct interaction with the students as possible. The following are key areas that must be addressed to provide these enhanced management capabilities:

Workflow Simplicity – Daily, weekly, and monthly tasks are part of any University Housing staff. However, time spent on these items is time not spent with students. Therefore, it is imperative that the student workers, building staff, and administrative staff have simple tools that assist them in completing these tasks. Furthermore, many of these tasks require multiple levels of interaction and should be done in a manner that work can be easily accessed and searched by higher level personnel. Communication and coordination is paramount

Data Analysis– Thousands of students, hundreds of staff, and many buildings make for very large sets of data. Such large sets of data contain copious amounts of information regarding the habits and activities of the different groups of people living and working in the halls. Currently this data is unmanageable and very little analysis can be done. This data needs to be collected in meaningful, reproducible ways and analysis techniques need to be developed to take advantage of the data gathered.

3.1 Recommendation

University Housing should implement a staff management software that reproduces the various paperwork tasks in an electronic fashion. By doing this, “paperwork” can be easily sorted and searched by different personnel and immediately useable within the workflow chain. Furthermore, integrating this management toolset with

the other suggested implementations allows for easy coupling of the relevant data parts for thorough analysis and use in future operations.

3.2 Discussion

Daily logs and weekly updates will never go away. However, by putting them in electronic format and making them easily accessible to the relevant parties, these tasks can be completed easily and quickly and made immediately available to those who would have need of it. By using electronic copies the volume of stored works could increase exponentially while being easily catalogued and searchable. This data could be used over extended periods of time to assist with new programs and events, staff training, and other activities. Furthermore, by integrating with the suggested implementations, the system keeps its homogeneous yet modular design and allows for fast learning curves and easy manageability.

3.3 Implementation

Coupling management tool sets within the same modular approach as the front desk management and resource management pieces is the best way to implement to given solution. By purchasing a 3rd party piece of software we continue to mitigate the need to have internal staff continue costly development and maintenance cycles on the software while gaining the support and feature sets of a 3rd party vendor. Existing technology would dictate that easily accessed, intuitive models would receive the best reception by all staff levels.

- Convene a group to establish what tasks and paperwork pieces are necessary for continued functionality of the buildings. Establish the paperwork and task items that can be recreated in an electronic format.
- Purchase a modular piece that allows for customized report integration and web access for staff flexibility.
- Integrate module with other suggested front desk management and resource management pieces.

Final Recommendation/Conclusion

The necessity of the technological and innovative evolution of University Housing management is a foregone conclusion. Many factors have built upon each other to the point of demand for a new system that can meet the needs of our staff and students today but also grow to meet the demands of tomorrow. We are past the point of being able to rely on ad hoc workflows and disjointed management solutions to hope to effectively meet management needs of the system. As such, it is imperative that a solution be chosen and implemented in a timely manner to effectively address the student and staff concerns over University Housing management.

Security, desk management, resource management, and staff management are all important aspects of the needed system. Audit and tracking abilities start with student verification at the front desk. This verification provides the student with the comfort of being in a safe and secure environment. The desk staff that provides verification has also grown into an entity that provides management of certain building resources and they require the tools necessary to do this. Beyond the desk staff is the building staff, student workers and professional staff living within the community, providing growth and guidance to the students living there. Area resource and task management tools can empower our building staffs to excel in both their student interactions and staff interactions. Finally, administrative personnel need updated management and analysis tools to continue to provide excellent service and support to the students who have chosen to live within University Housing. Resources and staffs must be managed at a high level to gain the best possible scenarios for the students.

Any attempt to create a viable option for the different levels of staff must meet certain criteria. The application package must be an integrated solution with modular parts. It must have modules that address security, front desk viability, building staff management considerations, and administrative management and analysis needs. The system must be fully maintained and updated continually by the vendor. Finally, the system must be able to grow along with the ever changing needs of University Housing.

References

Angelo, Jean Marie. (2003). "If you build it, they will come: 6 trends to build by, from campus

innovators in higher ed housing – Special Report: Campus Housing".

Retrieved

December 22, 2007, from

http://findarticles.com/p/articles/mi_m0LSH/is_5_6?pnun=6&opg=102090

783

New Trends in Student Housing. (2002, March 29th). Retrieved December 22, 2007 from

[http://www.schoolfacilities.com/_coreModules/content/contentDisplay_print.aspx?con](http://www.schoolfacilities.com/_coreModules/content/contentDisplay_print.aspx?contentID=124)

tentID=124

Smith, Lauren (2006). Major Shootings on American College Campuses.

[Electronic Version]. *The*

Chronicle of Higher Education

United States School Enrollment. (2006) Retrieved December 22, 2007 from

[http://factfinder.census.gov/servlet/STable?_lang=en&-_qr_name=ACS_2006_EST_G00_S1401&-ds_name=ACS_2006_EST_G00_&-](http://factfinder.census.gov/servlet/STable?_lang=en&-_qr_name=ACS_2006_EST_G00_S1401&-ds_name=ACS_2006_EST_G00_&-redoLog=false)

[_lang=en&-](http://factfinder.census.gov/servlet/STable?_lang=en&-_qr_name=ACS_2006_EST_G00_S1401&-ds_name=ACS_2006_EST_G00_&-redoLog=false)

[redoLog=false](http://factfinder.census.gov/servlet/STable?_lang=en&-_qr_name=ACS_2006_EST_G00_S1401&-ds_name=ACS_2006_EST_G00_&-redoLog=false)