STATEMENT OF WORK

PROJECT TITLE	Residents Management System		
COMPANY NAME	Southern Management Corporation	LOCATION	Prince George County, MD
PROJECT MANAGER	Sakshi Sharma	DATE SUBMITTED	7th March, 2020
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PROJECT BEGIN DATE	10th February, 2020	END DATE	16th April, 2020

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1. Introduction

The project is a change management system that we have proposed for Southern Management Corporation. Southern Management Corporation is the largest privately owned residential property-management company in the Mid-Atlantic region and owns and manages 77 apartment communities with approximately 25,000 apartment homes, several commercial office buildings, hotels and conference centers, ski resort throughout the Baltimore/Washington area and in Pennsylvania. The Goal of our project is to upgrade the existing residential services system in the College Park region. Being residents of a property of southern management, through our first hand experience, we were able to identify several faulty functions or complete lack of them in the current system. Therefore, our aim is to upgrade this system to address these issues and come up with an efficient information system for better transparency and customer service.

1.1 Purpose of the Project

Since we truly understand the pain points of the users of the system and know for a fact that there is incredible scope for improvement as Southern management resident services system could be improved with simple process changes. The project will benefit all parties involved and on multiple levels and it is designed to cover all bases in terms of both tangible and intangible benefits.

2. Scope of Work:

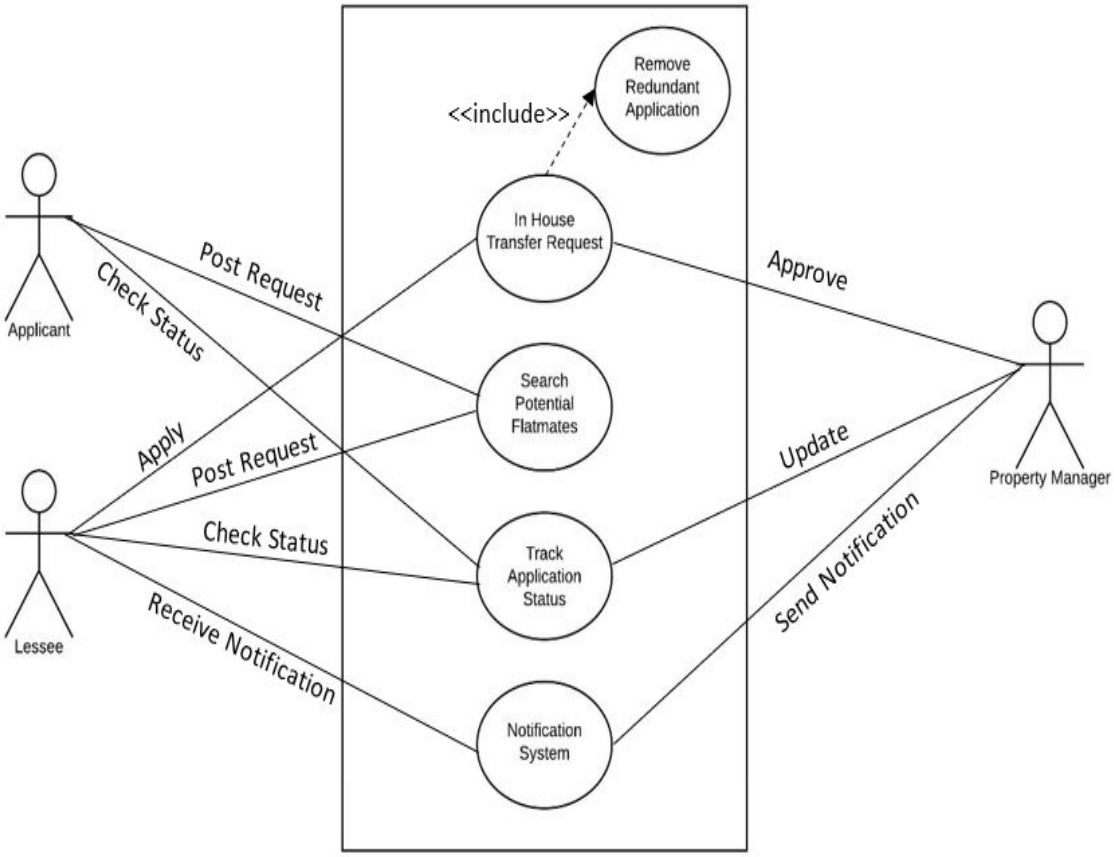
There is significant scope for improvement and of the several functions, we identified five to be implemented, which we felt should have the most priority.

- Provision for online in-house transfer request : The Resident management system still lacks an online in-house transfer request portal. Users who are looking to move apartments due to any issues with existing ones, start to look at other properties, because Southern management still doesn't allow online requests, while other properties allow them to go through everything online.
- Search and find potential flatmates :A portal for interaction between potential and existing residents about search for potential flatmates and open spots is conspicuously absent. Existing members are forced to move out when they are unable to find flatmates due to lack of an interaction portal, and they have to pay the full amount of rent.
  Designed to improve user experience and provide customers with ease of interaction. This will also save Southern Management from losing revenue from vacant listings.
- Track application status through a transparent waitlist : The waitlist is not transparent and causes mistrust between the applicants and the management.
- Improve customer notification system to provide rent alerts, service request updates etc. We have also spotted the absence of a thorough notification system about due rent or status of service requests and any changes in the existing system.
- Remove duplicate rental applications of the same apartment type: Residents and non-residents are allowed to have any number applications for the same type of apartment listing in the database. There is no restriction on this and even after finding apartments, years and years of applications are retained in the database.

Function	**Business Need**	**User Experience**
Provision for an online in-house transfer request	Reduces paperwork and data entry for the property manager	Residents can file in-house requests online without going to the resident office
Search and find potential flatmates	Helps in gaining more residents and hence more houses on rent	Applicant's can group up together and take apartments from the management
Track application status through a transparent waitlist	Reduces customer care calls and complaints	Applicant's are made aware of their application status and

		waitlist
Improve customer notification system to provide rent alerts, service request updates etc.	Intimate residents for timely payments and keep them informed about requests.	Customers get timely notifications informing them regarding rent due, service requests etc.
Remove duplicate rental applications of same apartment type	Helps management in application management and house allocation.	Applicants have one common application for apartment request

Use Case Diagram



3. Project Feasibility Study:

This system proposes two technical solutions, namely, cloud-based and hybrid.

Cloud: The Southern Management System is already cloud-based. Hence, integrating the change management system is going to be much easier. To add to that, this system will provide various tangible benefits which have been discussed below in detail.

Hybrid: The alternate approach is developing a hybrid solution which would make the system more robust. Sensitive data could be stored on-premise and less critical information can be maintained on the cloud.

CLOUD-BASED	**HYBRID**
Web based solution	Web based solution.
Web based application hosted using in-house cloud service provided by Yardi	Web based application hosted in Southern Management data center
Data stored using in-house cloud service provided by Yardi Systems	Data stored using in-house cloud service provided by Yardi Systems

Comparisons between the two technical solutions have been made in the above table.

- Both the solutions are web-based. The differentiating factor between the two approaches is the server. In the cloud-based system, the server is cloud-based too. On the contrary, a hybrid model has the server situated on-premise as well as on the cloud. In this system, sensitive information is generally stored on-premise whereas the application is cloud-based. This usually propels the cost of hybrid systems.
- Another differentiating factor is the way data is stored using these two models. Currently, Southern Management uses a cloud-based system provided by Yardi systems. Yardi systems also provide in-house solutions for data storage and will be used in hybrid models.

Technical feasibility

	Cloud	**Hybrid**
Familiarity with technology	Excellent	New
Project Size	Medium	Medium
Compatibility	High	Medium

Both the technical solutions have their own impacts on how the project pans out.

- The existing application is already cloud-based. Hence, implementing changes that are cloud-based will not require any stakeholder to familiarize themselves with the updated application. This might not be true in case of hybrid systems as the backend system might function differently and this would require familiarization from the perspective of the maintenance team.
- Since we are implementing a limited number of changes which are aimed at improving the efficiency of the system, the project is going to be relatively small in both cases. Implementing change management does not always mean that the project size is going to be small, but in this case, the project size is medium.
- Compatibility is going to be high for a cloud-based model as there would be no migrations that will take place. The new system will be based on the same architecture. However, in developing a hybrid system, compatibility might decrease.

Cost and benefits analysis

Costs:

There are several costs involved in the execution of this change management system which can be classified into development and operational costs.

	Cloud	**Hybrid**
Development Costs		
Software development	$45000	$60000
Hardware and software	$1500	$2000
Operational Costs		
Cloud storage fees	$1000	$750
Staff training	$1500	$1500
Transactional costs	$1000	$1500

Development Costs:

- For both models, the majority of the costs are concentrated on software development. But the costs for hybrid development are much higher due to obvious reasons. Setting up the infrastructure on-premise is going to drive up the costs.
- Like software development, the cost for hardware and software would be higher for hybrid systems as cloud-based systems are much cheaper but investing in on-premises servers increase the costs to a certain extent.

Operational Costs:

- Cloud storage fees would be higher in the case of cloud-based system.
- The training costs involved are pretty much the same in both models.
- Transactional costs will be less for a cloud-based system as hybrid systems would include more planning and outsourcing.

Benefits:

We have identified a few benefits for both the technical solutions and categorized them as tangible and intangible.

	Cloud	**Hybrid**
Tangible benefits		
Increased Sales and Revenue	Yes	Yes
Reduction in IT costs	Yes	Yes
Intangible benefits		
Increased brand recognition	Yes	Yes
Increased market share	Yes	Yes
Improved customer service	Yes	Yes

- A significant increase in the revenue from increased and consistent sales is observed for both the models and otherwise, through portals for flatmates, online in-house requests, reduced paperwork and reduced load on database.
- The mitigation of redundancy in applications will result in a lighter database.
- Better and transparent system will entice other property owners and the word of mouth will also bring more users and develop their network
- Increased transparency will consequently bring increased customer trust and a strong Customer base.
- Improving user experience, better and ease of usage functions will bring a stronger customer base for both property owners and the management.

Organizational feasibility

	Cloud	**Hybrid**
Strategic Alignment	Excellent	Excellent
Influence on Stakeholder	High	High

Based on the Cloud and Hybrid models, the organizational feasibility of the system can be measured in the following way:

1. **Strategic Alignment:** The new system enhances the existing system and adds new features to it. These new features are strategically aligned with Southern Management's goal to better manage apartment applications and applicants. The system will reduce paper work and redundancy by digitalization of the process.
2. **Influence on Stakeholders:** Since the system, when implemented, will reduce the burden on Southern Management employees and simplify various processes. This in turn will save a lot of labor hours and further the company's money. From a stakeholder's point of view, the system will provide a high ROI (Return On Investment) as the development of the system is minimal and the benefits are high for both cloud and hybrid models. Thus, the stakeholder affiliation will increase.

4. Project Plan:

Location of the Project

Since the development of the Southern Management portal will be handled by their vendor, RentCafe, most of the work will be done at its headquarters in Santa Barbara, CA.

Elicitation of user requirements followed by system installation and user training will happen at Southern Management's headquarters at Vienna VA.

Project Plan First Cut

The Project Plan entails 4 stages which takes a total of **49 days** to complete starting on 2/10/20 and goes on till 4/16/20, which are as follows:

Planning stage:

Starting 2/10/20, taking a total of **19 days** to complete.

Tasks:

- Identification of the project requirements
- Developing a systems request
- Analysis of feasibility (technical, economic and organizational)

Milestone: Discuss and propose a plan, place a systems request and run technical, economic and organizational analysis and get ballpark figures by 3/5/20.

Analysis stage:

Starting 3/6/20, taking a total of **20 days** to complete.

Tasks:

- Gather Customer requirements
- Gather stakeholder requirements
- Develop, review and approve use cases

Milestone: Study customer and stakeholder data and requirements, develop use cases which are compliant with the requirements, review and approve the use cases by 4/2/20

Design stage:

Starting 3/6/20, taking a total of **10 days** to complete.

Tasks:

- Select design strategy
- Study existing systems
- Develop use scenarios and program specifications

Milestone: The design strategy will be formulated, past and existing systems will be studied and use scenarios and program specifications will be gathered which is needed for the new system with added functionalities by 3/19/20

Implementation stage:

Starting 3/6/20, taking a total of **25 days** to complete.

Tasks:

- Program system
- Test software
- Maintain system

Milestone: The development and testing of the system will be completed in 15 days. Maintenance and support for the new system will be provided for the next 10 days until 4/16/20.