**INFO 5100 Application Engineering and Development Final Project Statement**

**SWAN**

**(Secure Work Area Network)**

Today’s world is in need of network which allows secure access of client network from anywhere. IT engineers are in search of jobs which provide them feasibility of working from home. For example an IT engineer gets a call in mid night to address critical ticket of Patient related to PHI information. But, many times we forget the policy which is signed with the client for assessing the asset outside the network which is not secured and can easily be hacked. Thinking of the consequences when the unsecured network is carrying millions of client data having PHI information or it is carrying important financial details is really disastrous. All these which should be secured in a network are now exposed to the cyber attacker. In order to resolve this issue there has to be a provision to add specific laptop Ip address in secure network or Issue Company’s asset to individual for these access.

The objective of this project is to build a SWAN hospital and also provide employees provision to add their personal ip address of external system into network on request from higher authority for specific interval of time than revoke all permission from the system. Also tracking the request and usage of external system. The system will allow employees to raise a request for accessing client network from external asset. The request further goes to a chain of approval process from Security operation center (SOC) team of particular department and SOC lead and once approved than ip address of external system is added into secure network for specific interval of time. Now employee is able to address the critical ticket within minimum interval of time. Also this project allows Patient to view their PHI, medical history, claims and policy details online and raise ticket in case any updates are required in any information. This request than goes through a process of resolution from multiple department of the hospital.

Actors involved and respective use cases

1. Admin
2. Logs in the application
3. Manage Organization
4. Patient: Manage Patient related functions
5. Receptionist: Manage Receptionist day to day work request
6. Nurse: Manage Nurse directory
7. Doctor : Manage list of doctors their availability
8. Patient Support: Manage Patient requests
9. IT: Manage and resolve request forwarded from Patient support related to Patient’s PHI information
10. Billing: Manage and resolve Patient billing requests forwarded by Patient support
11. Policy: Manage And resolve Patient policy related request
12. Manage User account
13. Approve various access related requests raised by various organizations
14. BI reports
15. SOC Security Operation center
    1. Log in authentication
    2. Manages work from home request from users
    3. Track malicious activities performed by user while Work from home
    4. View report of organization with maximum work from home request
16. Receptionist
17. Log in authentication
18. Serves Patient
19. Raise request to register user in network
20. Take details(PHI) information of Patient
21. Take insurance related details of Patient
22. Book Appointment
23. Serve Visitors
24. Timesheet filling: Registering daily work hours in system
25. Nurse
26. Log in authentication
27. Serve Patient
28. Take Vital sign of Patient
29. View last 5 vital signs
30. Conduct survey of patient mental status
31. Claim bills to insurance company
32. Timesheet filling: Registering daily work hours in system
33. Doctor
    1. Log in authentication
    2. Serve Patient
34. Diagnose patient and prescribe medication
    1. Publish research paper
    2. Timesheet filling: Registering daily work hours in system
35. Customer Support
36. Log in authentication
37. Browse Customer details(read only)
38. Assign ticket to different organization
39. Resolve and close ticket
40. Tickets resolved by me statistics
41. Timesheet filling: Registering daily work hours in system
42. IT Organization
43. Log in authentication
44. Browse customer PHI(Read/write)
45. Resolve/Forward and close ticket
46. Tickets resolved by me statistics
47. Work from home request
48. Timesheet filling: Registering daily work hours in system
49. Billing Organization
50. Log in authentication
51. Browse customer Billing(Read/write)
52. Browse various policy co-pay policy
53. Resolve/Forward and close ticket
54. Tickets resolved by me statistics
55. Work from home request
56. Timesheet filling: Registering daily work hours in system
57. Policy Organization
    1. Log in authentication
    2. Browse customer policy(Read/write)
    3. Resolve/Forward and close ticket
    4. Tickets resolved by me statistics
    5. Work from home request
    6. Timesheet filling: Registering daily work hours in system
58. Patient
59. Log in authentication
60. Register himself in hospital network
61. View PHI information
62. View Insurance policies currently active
63. View vital history
64. Create tickets for query
65. View claims