Wi-Fi Browser
Vision and Scope

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Version: 1.0

Ver.	Date	Who	Change	Who

1 Business Requirements

1.1 Background

In NetBSD, in order to connect to Wi-Fi the user must manually connect using WPA Supplicant and IOCTL to determine the Wi-Fi information. We hope to create an API that will streamline the process of connecting to Wi-Fi. In windows, users connect to Wi-Fi using an API, in which the user does not need to type specific commands into the command line interface. The business context involves creating an API that will make the process of connecting to Wi-Fi much easier for the user.

1.2 Business Opportunity

The customer's need is a streamlined method to connect devices to Wi-Fi, this would be helpful because NetBSD has no available options to do this. This could potentially save time for the average user upon loading the system. An API that would make the process much simpler for the user.

1.3 Business Objectives and Success Criteria

The customer needs this product to help minimize the time and effort spent connecting to Wi-Fi. The customer will know the product is a success if the user is able to effortlessly connect to Wi-Fi in less time. Creating an API to streamline the process would take less effort for the typical user. We can determine if our product is a success by thoroughly testing it before deployment. If we can effortlessly connect to Wi-Fi, using our API, we will consider our project a success in this context.

1.4 Customer and Market Needs

The industry requires this solution because a more efficient method of connecting to Wi-Fi is needed in the NetBSD operating system. Customers and stakeholders alike would prefer a more efficient solution for connecting to Wi-Fi through the NetBSD operating system. NetBSD would have an additional API that would make it's process for setting network connections much simpler. This is a preference to most customers as it is often time consuming to connect through Wi-Fi every time through the command line interface.

1.5 Business Risks

We can determine our biggest failure if our API is not efficient in connecting to Wi-Fi, or if the API does not work altogether. However, business risks and hazard is very low. We will thoroughly test our product before deployment to ensure it works before customers use the new system. If our API does not work, customers will still be able to connect to Wi-Fi using the wpa client. This puts our risk very low as our API will only work to improve a system where no current solution exists. We can work to protect against this by thoroughly testing our product before deployment.

2   Vision of the Solution

The solution will look like an API to interact with WPA Suplicant and IOCTL and a user interface to interat and use the API to connect to wifi

2.1   Vision Statement

For: NetBSD users Who: need to connect to wifi in a timely manner The: NetBSD Wifi Browser Is: A user interface Unlike: Any other solution within NetBSD Our Product: will streamline the connection to wifi

2.2   Major Features

The major feature is that our product will quickly connect the user to wifi in a variety of methods catering to the users comfort level

2.3   Assumptions and Dependencies

Our product depends on WPA Suplicant, IOCTL, and NetBSD wifi drivers.

3   Scope and Limitations

3.1   Scope of Initial Release

3.2   Scope of Subsequent Releases

3.3   Limitations and Exclusions

4   Business Context

4.1   Stakeholder Profiles

The stakeholders for this project would be our client, the development team, the eventual users, and the future maintainers. The current development team in this instance would be us, the eventual users would be anyone that is currently or who will use NetBSD in the future, and the future maintainers are the NetBSD development team who will eventually become maintainers if the system is passed to them. Those who will benefit from our project include users of NetBSD.

4.2   Project Priorities

We will consider developers to be our greatest stakeholders, and then customers or investors of our project. However, we see very little return on investment for our project. NetBSD is a free open source operating system, so our API will be free for the NetBSD community.
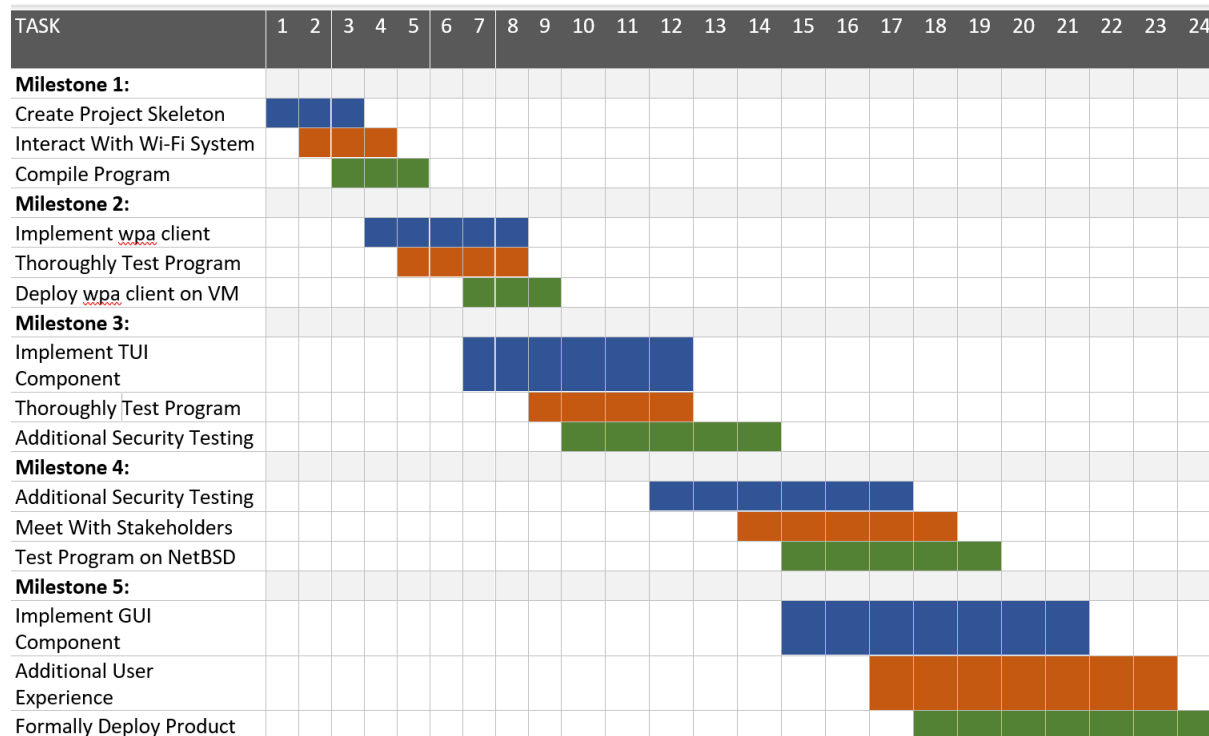
4.3 Operating Environment

The product will be used as an interface to easily connect to Wi-Fi when using NetBSD. It will only be used by the NetBSD operating system.

5 Schedule

5.1 Gantt Chart

Time indications are based on the number of weeks during the development of the project

TASK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Milestone 1:																								
Create Project Skeleton	■	■	■																					
Interact With Wi-Fi System	■	■	■																					
Compile Program			■	■	■																			
Milestone 2:																								
Implement wpa client				■	■	■	■																	
Thoroughly Test Program					■	■	■																	
Deploy wpa client on VM							■	■	■															
Milestone 3:																								
Implement TUI Component								■	■	■	■	■												
Thoroughly Test Program										■	■	■												
Additional Security Testing											■	■	■	■										
Milestone 4:																								
Additional Security Testing													■	■	■	■	■							
Meet With Stakeholders															■	■	■	■						
Test Program on NetBSD															■	■	■	■	■					
Milestone 5:																								
Implement GUI Component																■	■	■	■	■	■			
Additional User Experience																		■	■	■	■	■	■	
Formally Deploy Product																		■	■	■	■	■	■	■

5.2 Key Milestones

Milestone 1: Create skeleton of project. For this milestone, we should be able to compile something to test our project. With minor implementation. Milestone 2: Implement wpa client component of Wi-Fi. We can do security testing here, but to just make sure it works I think is okay. Milestone 3: Implement TUI component of Wi-Fi API. Since we should have the connection to Wi-Fi working in the previous milestone, we might be able to do more security testing here. Milestone 4: I think milestone 4 should be mostly security testing and meeting with stakeholders to get our project ready for deployment. We will have extra time during this milestone to test everything thoroughly. Milestone 5: If we have met all previous milestones and if time permits, we can work on the GUI component of our API. However, we will probably do more testing here to make sure everything works correctly.

5.3   Resource Assignments

Resources will include Western computers that can interact with NetBSD operating system so we can test our product. Additional resources will include additional computers to work on developing our project. Budgets and additional consumables I don't think are needed here.

5.4   Individual Responsibilities