

Project Name: Online Virtual Phone System

Version: 1.0

Date: September 22, 2023

Team Name: Team Endgame

VERSION HISTORY

| Version Number | Implemented By | Revision Date | Approved By | Approval Date | Reason |
|----------------|------------------------|--------------------|---|---------------|--|
| 1.0 | Rutu Barvaliya | September 26, 2023 | Dharmit Anghan | 2023-09-27 | Added Introduction, Project And Product Overview |
| 1.1 | Rutu Barvaliya | September 27, 2023 | Dharmit Anghan, Akinsola Oluwademilade | 2023-09-27 | Added Stakeholders, Roles and Responsibilities |
| 1.2 | Breanna Brown | September 27, 2023 | Rutu Barvaliya, Dharmit Anghan | 2023-09-29 | Added Scope, Objectives |
| 1.3 | Akinsola Oluwademilade | September 28, 2023 | Rutu Barvaliya | 2023-09-29 | Added Major Deliverables, High-Level Requirements |
| 1.4 | Dharmit Anghan | September 28, 2023 | Rutu Barvaliya | 2023-09-29 | Added Duration, Assumptions, Constraints and Risks |
| 1.5 | Rutu Barvaliya | September 29, 2023 | Breanna Brown, Dharmit Anghan, Akinsola Oluwademilade | 2023-09-29 | Final Review |

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Introduction

Purpose of Project Charter

The Online Virtual Phone System project charter documents and tracks the necessary information required by decision maker(s) to approve the project for funding. The project charter should include the needs, scope, justification, and resource commitment as well as the project's sponsor(s) decision to proceed or not to proceed with the project. It is created during the Initiating Phase of the project.

The intended audience of the Online Virtual Phone System project charter is the project sponsor and senior leadership.

Project And Product Overview

The Online Virtual Phone System is a cloud-based solution that enables users to make calls over the internet without the need for a traditional physical phone line which will compete with Skype. The system will allow users make and receive call on both their desktop app, mobile app and all from a single business phone number.

The estimated project duration will be 1 year but Minimum Viable Product will be delivered within 3 months.

The estimated project budget is \$500K for the whole project, but only \$120K can be spent during first 3 months of the project.

Justification

Objectives

The objectives of the Online Virtual Phone System are as follows:

1. Our goal is to create a virtual phone system that will generate \$18 million in revenue by the end of the first year of its release. We will do so by charging usage fees and using ad revenue to generate additional income. Increased revenue will allow for additional resources to be implemented to improve customer satisfaction via improved performance.
2. Build a robust and scalable system that allows for a minimum of 10k users to make calls simultaneously as this will allow for users across the country to access and utilize our service and increase profitability. We expect to have the project completed by October 2024.
3. Develop a secure and scalable cloud-based solution that allows seamless calling over the internet, with an expected 99.5% uptime. We expect to implement this with deployment of the MVP. This will ensure a high level of customer satisfaction that will improve customer retention and growth.

High-Level Requirements

The following table presents the requirements that the project's product, service or result must meet in order for the project objectives to be satisfied.

| Req# | Requirement Description | Type |
|------|--|----------------|
| 1 | System should allow users to make and receive calls through the internet and cloud | Functional |
| 2 | Users should be able to make and receive calls on a desktop app, mobile phone, all from a single business phone number | Functional |
| 3 | System should follow a client-server model | Functional |
| 4 | System monitors each client for events such as numbers being dialed | Functional |
| 5 | The system shall support up to 500 simultaneous calls with a maximum audio lag of 200 milliseconds | Non-functional |
| 6 | User data shall be encrypted using AES-256. Administrators shall be notified after three failed attempts | Non-functional |

Major Deliverables

The following table presents the major deliverables that the project's product, service or result must meet in order for the project objectives to be satisfied.

| Major Deliverables | Deliverable Description |
|-----------------------|---|
| System Implementation | The system's successful implementation including server infrastructure, client applications, dialing plan system, and billing module. |
| Client Documentation | Comprehensive documentation for clients, detailing the system's features, functionalities, and usage instructions. |
| User Manual | A user manual provided to customers, offering step-by-step guidance on using the virtual phone system effectively. |

Scope

- In-scope:**

We will create mobile applications that will establish and maintain connections between users to facilitate a voice call.

We will create a user interface that will allow users to make a payment from within the application.
- Out-of-scope:**

The project will not involve supplying the servers, hardware or operating systems required to run the system.

No other forms of communication (ie. video calling, photo sharing, messaging, etc.) will be provided.

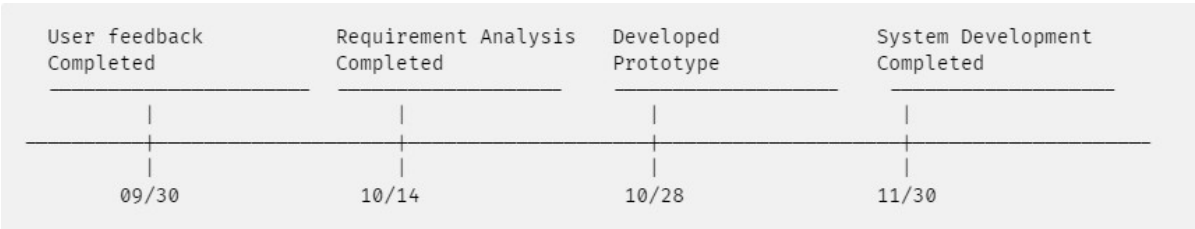
Payment will be routed through a third party to complete the transaction.

The ability to integrate with any other third party applications, aside from what was previously specified, will not be provided.

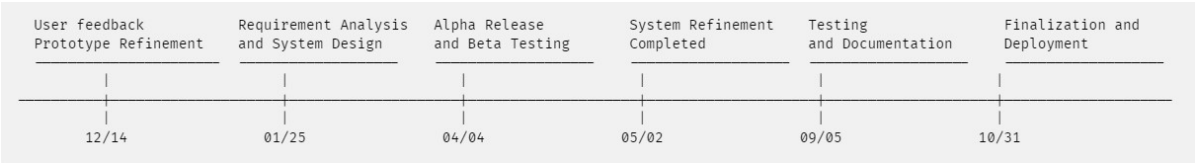
Duration

Timeline

The following is the timeline for Minimum Viable Product (MVP) of the project with a duration of 13 weeks.



The following is the timeline for the full system of the project with a duration of 1 year.



Executive Milestones

The table below lists the high-level Executive Milestones of the project for the next 13 weeks and their estimated completion timeframe.

| Executive Milestones | Estimated Completion Timeframe |
|---|--|
| Project Draft Initiation and Authorization | Approximately 2 weeks after Project Kickoff |
| Official Project Initiation | Around 4 weeks after Project Kickoff |
| Gathering Requirements and Documentation | Roughly 6 weeks after Project Kickoff |
| Detailed Project Planning and Resource Allocation | About 7 weeks after Project Kickoff |
| Prototype Development and Review | Between 8 to 9 weeks after Project Kickoff |
| Full System Development and Integration | Expected around the 13th week of the Project |

The table below lists the high-level Executive Milestones of the project for the next 1 year and their estimated completion timeframe.

| Key Project Stages | Anticipated Completion Timeline |
|---|---|
| User feedback and Prototype Refinement | Approximately 2 weeks after Project Kickoff |
| Detailed Project Planning and Resource Allocation | Within 4 weeks after Project Kickoff |
| System Design and Architecture | Around 8 weeks after Project Kickoff |
| Alpha Release | Approximately 14 weeks after Project Kickoff |
| Beta Testing and User Feedback | Roughly 18 weeks after Project Kickoff |
| System Refinement and Optimization | About 22 weeks after Project Kickoff |
| Full System Development and Integration | Expected completion by 30 weeks after Project Kickoff |
| User Acceptance Testing | Around 36 weeks after Project Kickoff |
| Finalization and Documentation | Approximately 40 weeks after Project Kickoff |
| Deployment and Go-Live | Within 52 weeks after Project Kickoff |

Assumptions, Constraints And Risks

Assumptions

This section identifies the statements believed to be true and from which a conclusion was drawn to define this project charter.

1. **Client Access:** The client will have provide necessary access to the required for the virtual call system.
2. **Administrator Access:** Multiple administrators will be able to access the system to manage the system. However, only one administrator will be able to access the system at a time.
3. **User Privileges:** User privileges are limited to "originate calls" and "receive calls".
4. **IP Network Reliability:** The IP network will be reliable and sockets are default form of communication.
5. **Database Reliability:** The database will be reliable and prevent data loss and inconsistencies.
6. **Billing:** The system will be able to bill the users based on the usage of the system with precision.
7. **Third Parties:** The client will be contacting and responsible to get access to third parties APIs once request has been submitted by project managers.

Constraints

This section identifies any limitation that must be taken into consideration prior to the initiation of the project.

1. **Time Constraints:** The project is constrained to be completed with a time frame of 13 weeks for a Minimum Viable Product (MVP) and further 1 year for a full system, Any changes to the timeline will be discussed with the client.
2. **Resource Constraints:** The project is constrained to be completed with a budget of \$120K for MVP and \$500K for the whole project. Any changes to the budget will be discussed with the client.
3. **Regulatory and Compliance Constraint:** The system must comply with all the regulatory requirements of the country of deployment.
4. **IP Network Availability Constraint:** The system relies on the availability of the IP network for communication.
5. **Scalability Constraint:** The system must be designed to be scalable for future growth.

Risks

| Risks | Mitigation |
|--------------------------|---|
| Security and Access | Implement robust security measures as encryption and authentication |
| Data Loss | Use checksums and data validation techniques to detect and prevent data corruption. |
| Call Quality and Latency | Use a reliable and fast IP network to ensure call quality and low latency. |
| Network Overload | Use a scalable system to handle the load and prevent network overload. |
| Billing Errors | Implement accurate mathematical algorithms to calculate the bill and provide bill auditing. |

Project Organization

Stakeholders (Internal and External)

Internal

- Project Sponsors
- Project Manager
- Developers and Development Team
- Quality Assurance Team
- Administrators
- IT Department
- End Users

External

- Billing Department
- Third Parties
- Government Telecommunication Authorities

Roles and Responsibilities

| Name & Organization | Project Role | Project Responsibilities |
|-------------------------------|----------------------------|---|
| Shayan (TA), OVPS | Project Sponsor | A project sponsor who act as the project's champion, providing direction, provides financial resources and support to the team. In the context of this document, this person approves the request for funding, approves the project scope represented in this document, and sets the priority of the project relative to other projects in their area of responsibility. |
| Project Manager, Team Endgame | Project Manager | A project manager is who performs the day-to-day management of the project and has specific accountability for managing the project within the approved constraints of scope, quality, time and cost, to deliver the specified requirements, deliverables and customer satisfaction. They also provide critical information to the team member and stakeholders to keep project on track. |
| Developer, Team Endgame | Developer | A person who performs day-to-day development and maintenance of the project including coding and designing. |
| QA, Team Endgame | Quality Assurance Engineer | Responsible to test the Quality of the system, Identify bugs and helps to deliver high-quality system that exceeds user expectations. |
| Admin, OVPS | System Managers | Manage Online Virtual Phone System software, User accounts and their personal information, User authentication and Troubleshooting. |
| IT, OVPS | IT Administrator | Take care of Hardware maintenance, Security Risk, Network Management, Infrastructure Planning, Developer Support, and User Support. |
| End User, Team Endgame/OVPS | Users | Provides feedback on user experience and system functionalities. |

Project Charter Approval

The undersigned acknowledge they have reviewed the project charter and authorize and fund the Online Virtual Phone System project. Changes to this project charter will be coordinated with and approved by the undersigned or their designated representatives.

Signature:

Date:

Print Name:

Title:

Role:

Signature:

Date:

Print Name:

Title:

Role:

REFERENCES

The following table summarizes the documents referenced in this document.

| Document Name and Version | Description | Location |
|------------------------------|--|---|
| The Project Charter Timeline | Retrieved general idea for milestone | https://professorpm.com/2014/02/02/the-project-charter-timeline/ |
| Software release life cycle | Retrieved general idea for testing processes and milestone | https://en.wikipedia.org/wiki/Software_release_life_cycle#:~:text=Alpha%20testing%20is%20the%20first,the%20organization%20that%20developed%20it. |