

WhatsApp Pay



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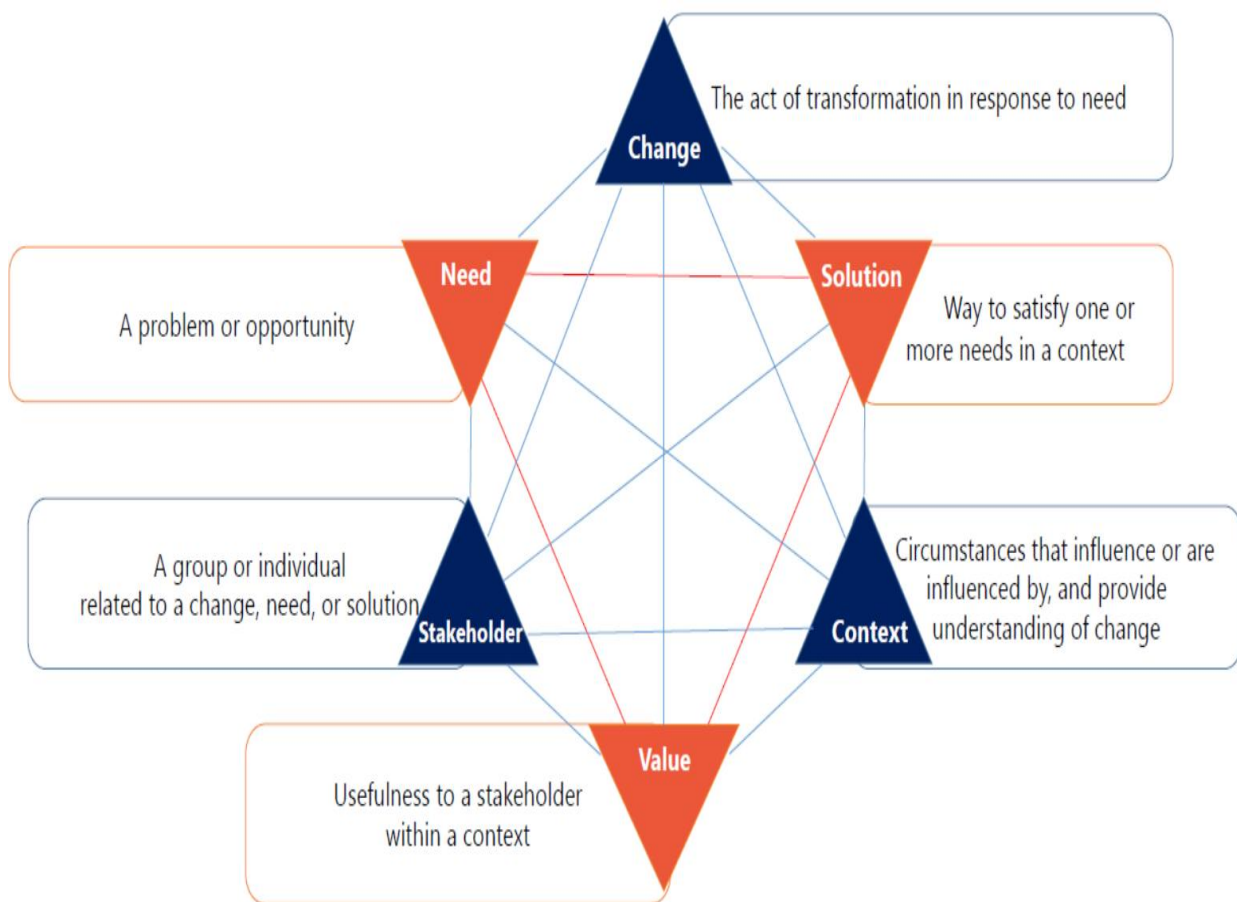
Overview:

WhatsApp is a messaging and Voice over IP (VoIP) service owned by Facebook. It allows users to send text and voice messages, make voice and video calls, and share images, documents, and other media. WhatsApp runs on mobile devices but is also accessible from desktop computers. WhatsApp has over 2 billion users worldwide as of today. It has become the primary means of electronic communication in multiple countries across multiple continents, including Latin America, the Indian subcontinent, and large parts of Europe and Africa.

WhatsApp Mission:

Today across the globe people are moving to digital payment services such as Google Pay, PayPal, and others. Mobile wallets are in massive demand. The transaction value of the global mobile payments market was USD 3714.5 billion in 2019 and is expected to reach USD 12,407.5 billion by 2025, registering a CAGR of 23.8%. WhatsApp being one of the leading mobile messaging apps wants to get a slice of this growing digital payment market.

BACCM: Business Analysis Core Concept Model



BACCM Table:

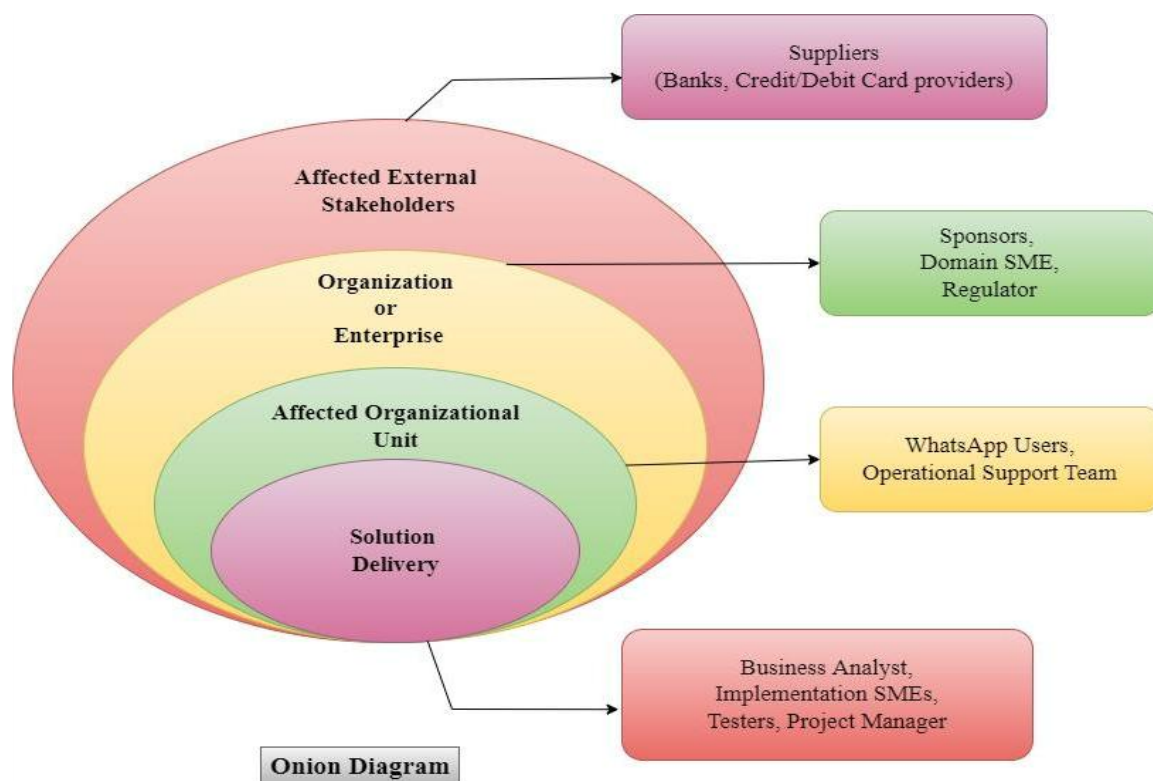
Need	WhatsApp wants to integrate its social media application used for only calls, texts over VoIP with digital payment system and wants to find a suitable way to do that.
Change	It has been decided that user's credit/debit card or bank account information will be integrated into the WhatsApp Pay system which will allow user to transfer/receive money seamlessly to their peers.
Solution	Stakeholders has decided that they will introduce WhatsApp Pay system which will allow user to send/receive money without downloading any separate application over next update in its existing WhatsApp application.
Context	People across the world were found to be moving towards digital payment method allowing them to easily transfer/receive money among other users using GooglePay, PayPal etc. which has encouraged/influenced the WhatsApp to come up with its own digital system considering huge user base across the world.
Value	The new system will bring seamless experience to WhatsApp users of transferring money without downloading any separate application and any need to visit any bank branch. Considering huge user base and trust, it will bring more revenue, profits and customer satisfaction.

Stakeholders	Internal	Business Analyst	External
	<ul style="list-style-type: none"> • Testers • Implementation Experts • Domain SME's • Project Manager • Operational Support 		<ul style="list-style-type: none"> • End User/ WhatsApp Users • Banks • Credit/Debit Card providers • Sponsors • Regulators

STAKEHOLDERS

ACTOR	What he can do on the Software Created
WhatsApp users	<ul style="list-style-type: none"> • User should be able to transfer/receive money to his/her peers with integrated payment system in next update of WhatsApp without the need of downloading any separate application or going to bank branch.
Banks	<ul style="list-style-type: none"> • Banks should allow the secure integration of banking payment system using mobile number linked with user's bank account without needing the user to visit branch.
Credit/Debit card providers	<ul style="list-style-type: none"> • Credit/Debit card providers should also allow secure integration and mechanism to allow user to transfer/receive money using WhatsApp Pay system. It should be secure and under compliance to ensure user information is not impacted.
Sponsors	<ul style="list-style-type: none"> • They should allow the proper funds and insights for proper implementation of new system.
Regulators	<ul style="list-style-type: none"> • Regulators like NPCI, RBI, Government, CCI, TRAI need to provide proper regulatory guidelines to be followed by the new system for successful implementation as per the government regulations.
Project Manager	<ul style="list-style-type: none"> • Project Manager needs to ensure that project is being implemented and proper resources are available to the team for development of new system.
Testers	<ul style="list-style-type: none"> • Testers needs to make sure the rollout of new system is aligned with objectives, bug free, secure, user friendly and self-explanatory for the users.
Operational Support	<ul style="list-style-type: none"> • Operational support team needs to ensure that proper operational support is provided to the development team before rollout and proper support is provided to the users after successful release of new system in case of any issue experienced by the user.

Implementation SME's	<ul style="list-style-type: none"> They need to develop the solution as per the business requirements decided by the stakeholders.
Domain SME	<ul style="list-style-type: none"> Domain SME needs to provide proper knowledge of banking system, application to the stakeholders for successful implementation.
Business Analyst	<ul style="list-style-type: none"> Business Analyst will be collaborating with different stakeholders to make sure there is proper communication, needs are clearly defined, risks are identified and managed to align with business objective.



Onion Diagram: Risk Identification

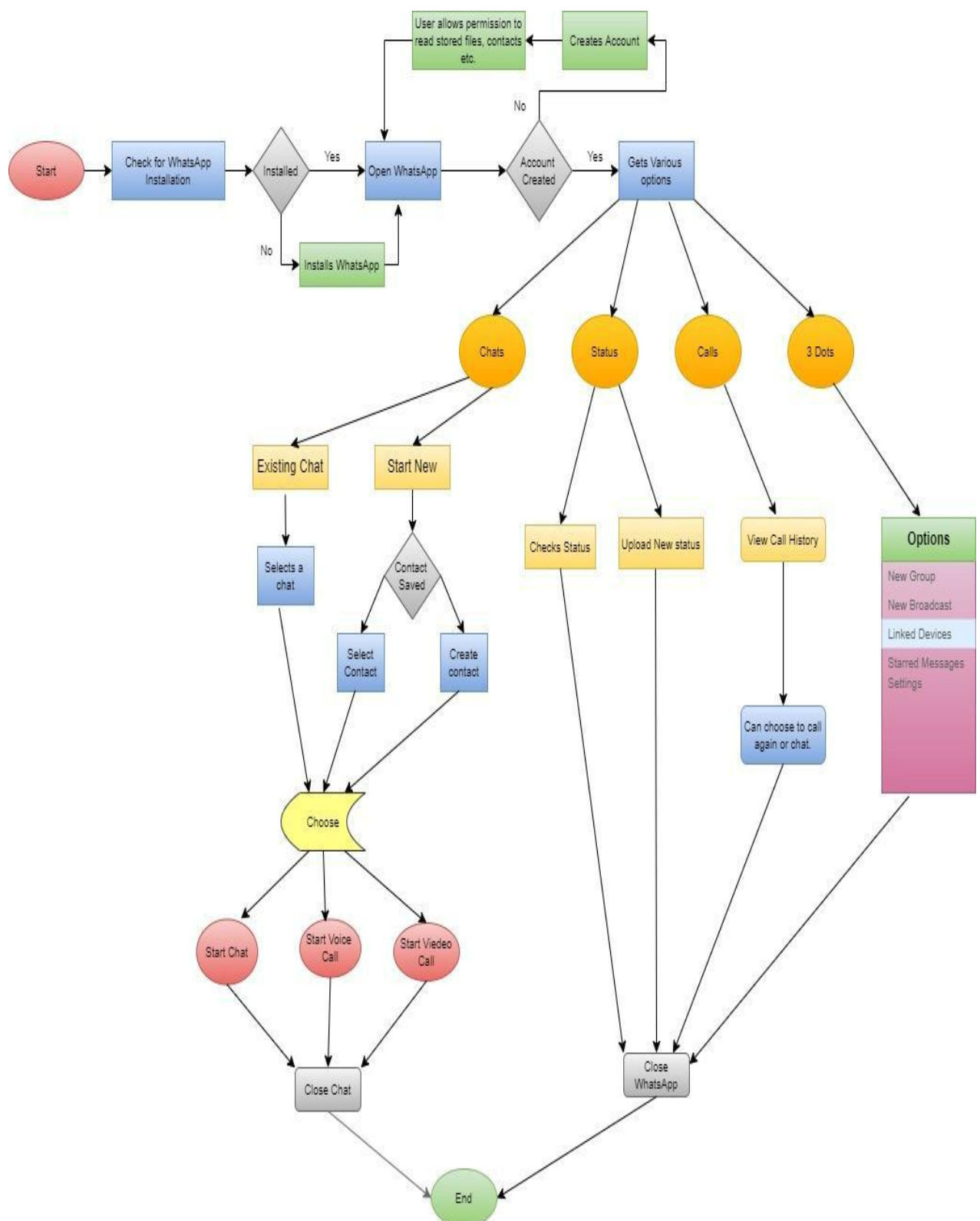
- Risks that might occur in system:**
 - Incompatibility of Credit/Debit card security standards.
 - Security of user's Bank account and Credit/debit card details.
 - Improper functionality of newly developed system.
 - Not User-friendly interface and features leading to reduced user base and switching to other applications.
 - Impact on existing chat/call functionality due to implementation of new payment system integrated into the application.
 - Payment failures due to improper integration with banking system.
 - 24*7 unavailability of new payment system.

- **Risks that might occur in process:**
 - Getting regulatory approvals from regulators.
 - Proper testing not done before implementation.
 - Not considering all type of Supported banks, Credit/debit card holders.
 - No collaboration between stakeholders.
 - Improper communication leading to unidentified needs.

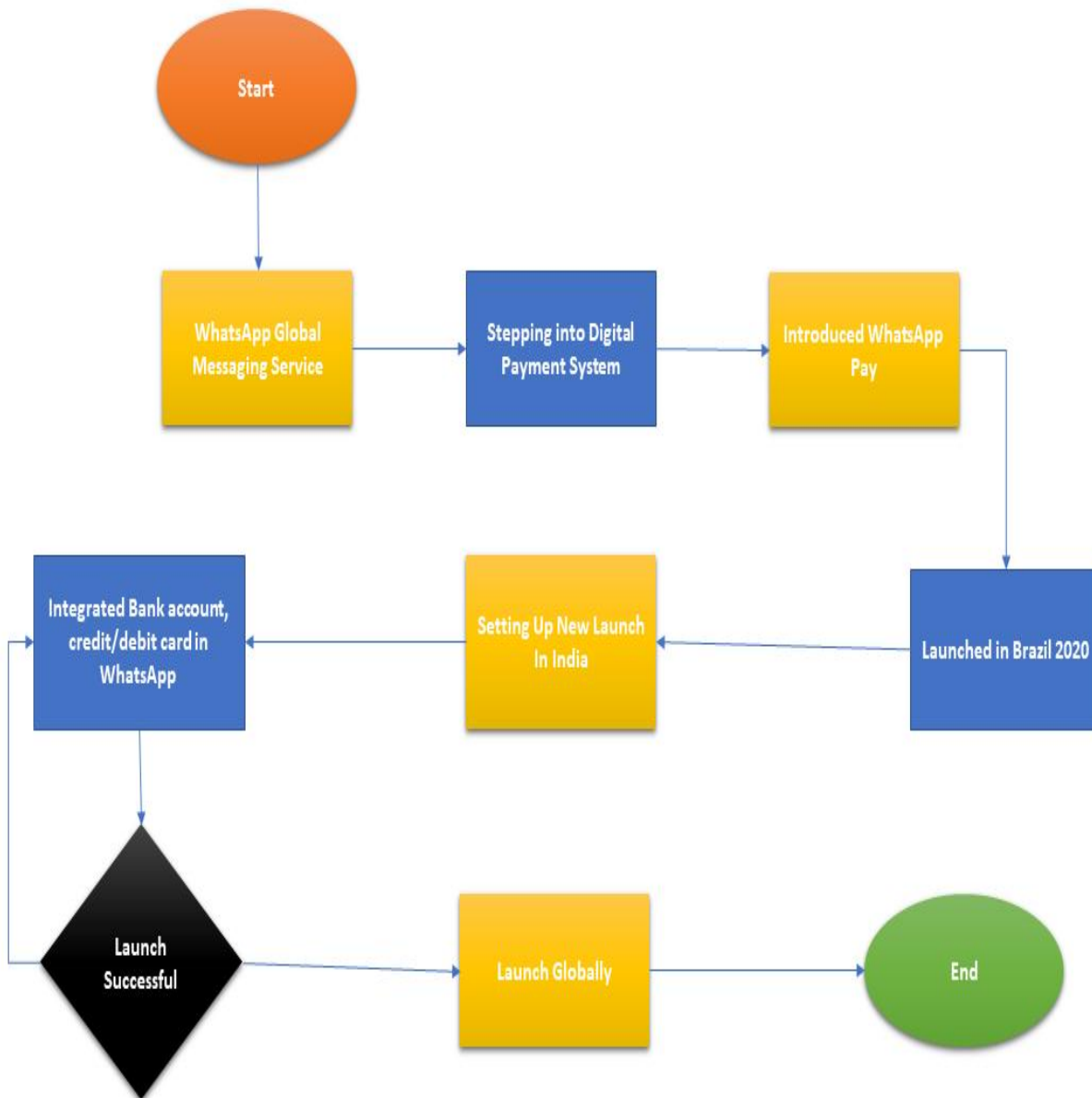
SWOT Analysis of WhatsApp pay:

<ul style="list-style-type: none"> • One of the best social media applications with huge user base • Spread across all the world in all geographies. • Accessibility to billions of users. • Available across all platforms (Android, iPhone) • User friendly interface. • Data encryption to prevent user confidential information. • Instant availability of friends, family with single click using their number. 	<ul style="list-style-type: none"> • Interest of users to have user friendly payment system. • Availability of social media and payment gateway in single application. • No need to download multiple applications. • Regulatory support from government to implement new system. • Tracking of payment and chat to the specific user in single interaction. • Due to few competitors, it will be a good opportunity to bring this new change in single application. • Scalability to various countries where digital payment system is not introduced but WhatsApp is being used extensively.
<ul style="list-style-type: none"> • Since WhatsApp is a social media application and never introduced such system. It could be a challenge. • Presence of GooglePay, PayPal etc. already in the market working with digital payment system. • Gaining user trust to make them use In-App payment system where the user's social information is already exposed. • Encouraging user to use WhatsApp In-App payment system rather than already existing market players. 	<ul style="list-style-type: none"> • Gaining approval from government and entrusting them for user's data and privacy protection. • Impacting the existing user interface with new implementation system of payment. • Transition from social media platform to social media cum payment supported application. • Easy to use idea by other competitors.

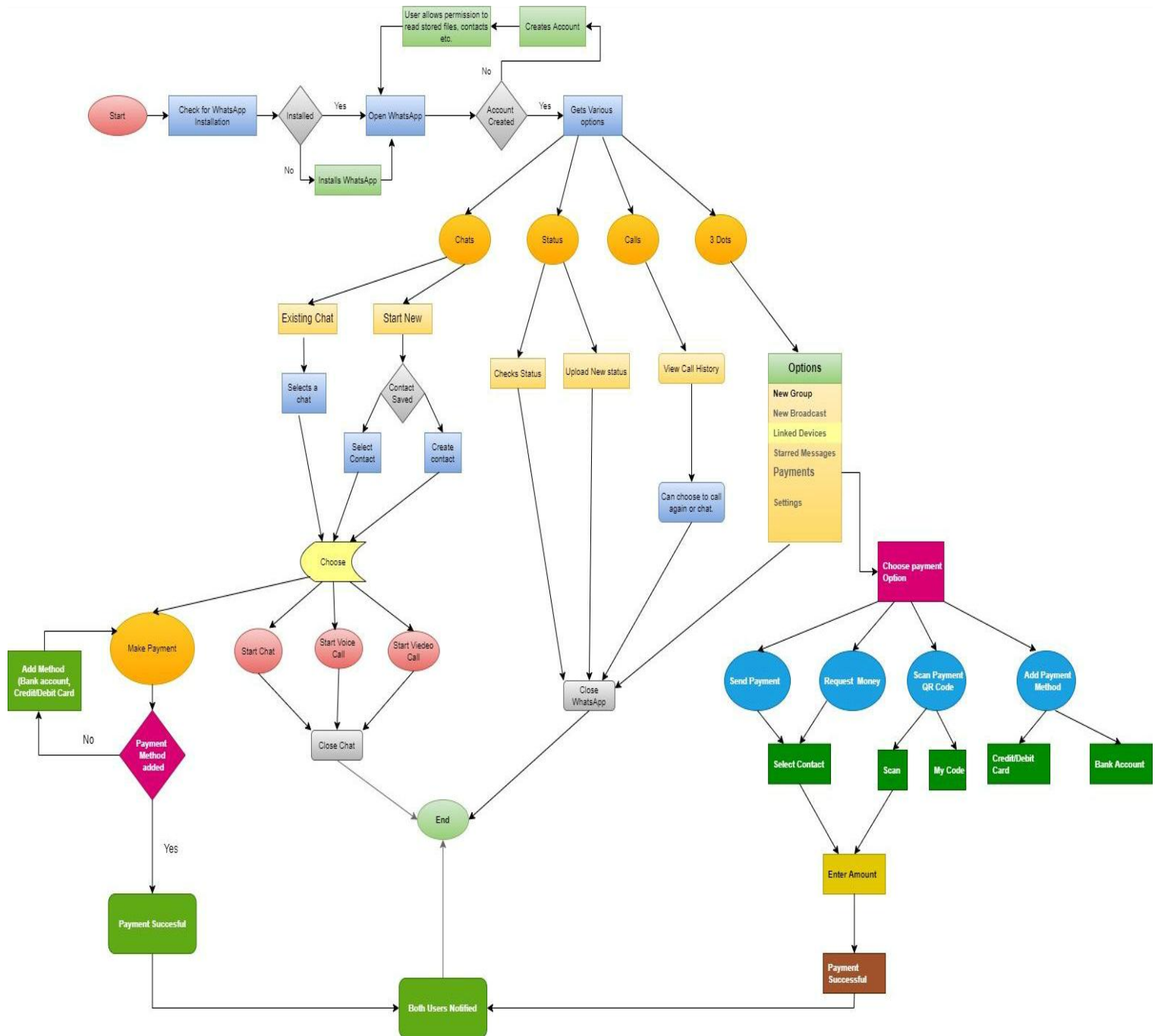
As-Is Current System:



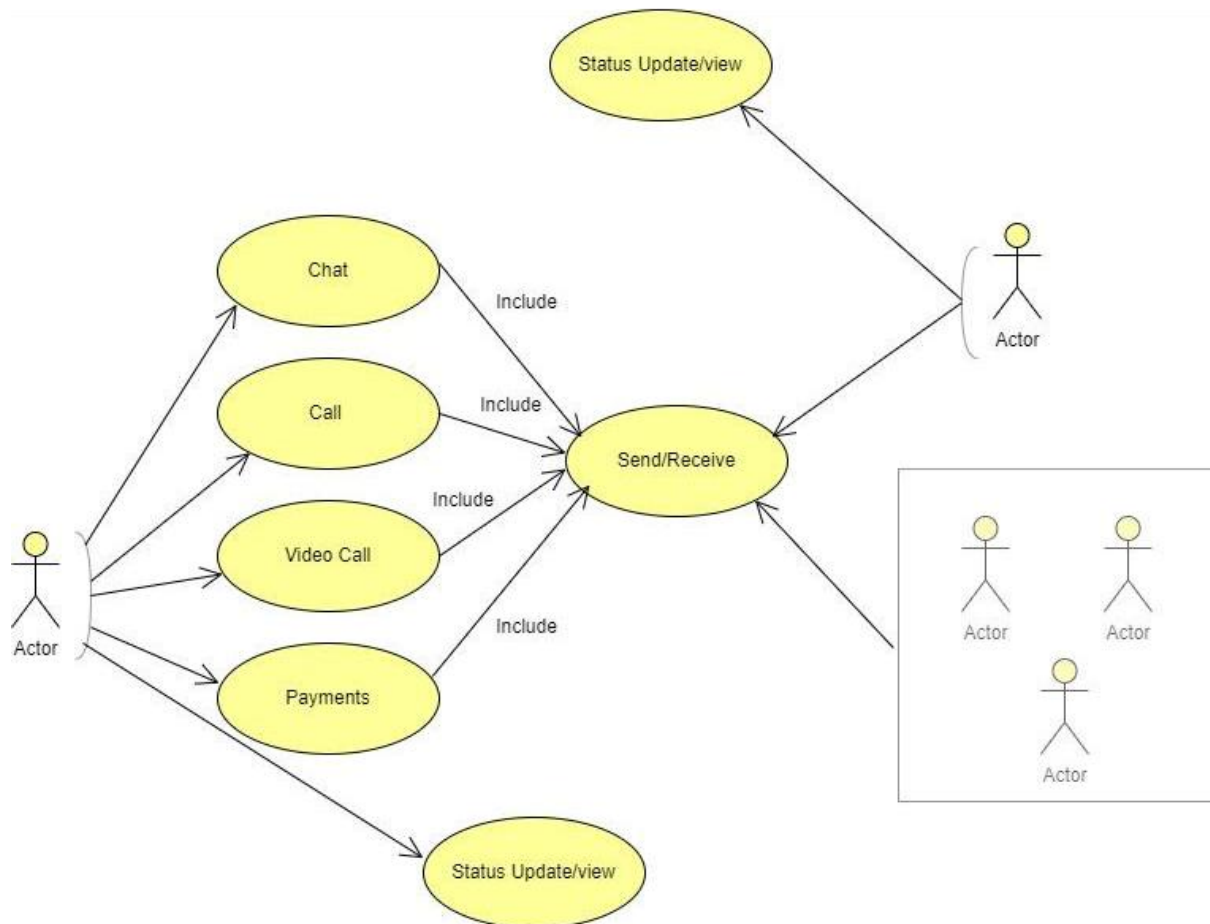
Transition State:



PROPOSED SYSTEM



SCOPE using Use Case Diagram (UML)



Main Features to be developed:

- Easy peer to peer payment using Bank account, Credit/Debit card linked with same phone number.
- Option to transfer/receive payment by either choosing a particular contact or scanning/sharing QR code.
- Option to request payment from other users.
- Track all payments at one place.
- Track individual payment made/received from user in that particular contact as well.
- Instant notification to both user/receive after successful payment.
- Ease of payment using single click or user defined numerical pin.

In Scope & Out of scope:

IN SCOPE	OUT OF SCOPE
<ul style="list-style-type: none">• Linking of Bank account, debit/credit card account with payment system.	<ul style="list-style-type: none">• Users not having WhatsApp account can't make any payment using proposed system.

- Payment using mobile application.
- Single click or PIN based transactions are supported.
- Users can save multiple accounts.
- User's information should be encrypted.
- QR based payments and direct contact-based payments are supported.
- User can also request the money from different person.
- Instant notification to both sender & receivers.
- Payment history available at one place as well as in individual contact to whom it was sent or received.
- Availability of Bank's customer care contact number in the application for any bank/transaction related issue.
- Support of different languages.

- User's mobile number should be linked with bank else it won't allow any payment.
- Not supported for out of country or abroad transactions.
- User should have active bank account or debit/credit card.
- Payment is only made via proposed methods and no wallet is introduced yet.
- Due to user's security, payments using web or desktop application are not supported.

Business Requirements:

WhatsApp has decided to disrupt the digital payment ecosystem across the world with new WhatsApp Payment system starting from Brazil, India and then to other countries. The transaction value of the global mobile payments market was USD 3714.5 billion in 2019 and is expected to reach USD 12,407.5 billion by 2025, registering a CAGR of 23.8%. WhatsApp being one of the leading mobile messaging apps wants to get a slice of this growing digital payment market.

WhatsApp will integrate the customer's debit card or credit card into their app. That is, while chatting with your peers, you can transfer the money to them. There will be no separate app that the customers need to download to access this payment feature.

This feature would be provided to users as an update in the existing WhatsApp messaging app. The user can use WhatsApp pay feature by updating the WhatsApp messaging app.

Business Objective:

- Have at least 1 million users use WhatsApp pay feature within the first 3 months of launch.
- Over 1 year of its launch have 30% of user base using WhatsApp pay.

Stakeholder Requirements:

To transfer money using WhatsApp pay there will be 2 methods on the WhatsApp app.

Method 1:

Method 2:

- To use the WhatsApp Pay feature the user needs to have a bank account with its debit card or a credit card
- Users shall select the person they want to send money to from their WhatsApp contact list
- Users shall click on payments option in their chat settings
- Users shall enter the amount they wish to transfer
- Users will then enter a security Pin
- Users will click on the transfer button
- Money is transferred
- The sender and the receiver will both receive a payment notification on their chat window once the fund transfer has been made.
- In cases where the user is requesting money, tap on request and wait for the person to accept your request.
- The feature should be available in multiple languages

- User goes on the main page of WhatsApp and opens the payments option.
- User then taps on the QR code showing next to their name to show their QR code using which people can send them money.
- User taps on the new payment option located on the bottom right of the display.
- User selects a contact or the scan QR code option.
- The rest of the process remains the same as above.

Solution Requirements:

- Should be available to all users with WhatsApp Account
- Option to link bank account or add/edit debit/credit card details.
- Option to reset Security Pin for transactions
- One page interface to show payments.
- Payment to be also shown in Chat history.
- Fully encrypted and secured as per government regulations.

Usability: The screens should be self-explanatory and very user friendly.

Security: Application should be secure and user's data should be always protected.

Functionality: Should be functional to suit user's needs and accuracy.

Availability: Should be available 24*7 for instant payments.

Localization: Should support local languages.

Extensibility: Should be able to incorporate new updates/features in future.

- User should be able to see all saved payment methods.
- Should be one click payment and also supported for PIN based transactions.
- Payment can be done either by selecting contact or scanning/sharing QR code.

Compatibility: Should be compatible for all operating systems in mobile. For eg. Android, iPhones.

Scalability: This feature initially would be launched in a single country to test and get user feedback. Then WhatsApp will be rolling it out across its big markets like India, where it has 400 million users. followed by the rest of the world.

System Requirement: Should work on all mobile devices on which WhatsApp can be installed and operated. For e.g., Android, iPhones etc.

Screen Wireframes



