MeetCheck

MeetCheck QR CODE

“NextMeet”

Project specifications

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1. Purpose of the Document

The purpose of this document is to outline the specifications and objectives of the NextMeet mobile application project. It serves as a comprehensive guide for stakeholders, including developers, designers, project managers, and investors, to understand the scope, functionality, and requirements of the NextMeet app.

a. Key objectives of this document include:

Project Overview: Providing an overview of the NextMeet app, its purpose, and its benefits to users and organizations.

Features and Functionality: Detailing the features and functionality of the NextMeet app, including QR code integration, platform support, automatic meeting joining, customizable preferences, and multi-meeting support.

Technical Specifications: Outlining the technical requirements, architecture, and infrastructure necessary for the development and deployment of the NextMeet app, including interoperability with meeting platforms and backend systems.

User Experience: Defining the user experience goals and design principles that guide the development of NextMeet, ensuring a seamless and intuitive meeting joining process for users.

Project Scope: Establishing the scope of the project, including deliverables, milestones, and timelines for development, testing, and deployment.

Stakeholder Roles and Responsibilities: Clarifying the roles and responsibilities of stakeholders involved in the NextMeet project, including developers, designers, project managers, and investors.

Risk Management: Identifying potential risks and challenges associated with the development and implementation of NextMeet, along with strategies to mitigate these risks.

Success Criteria: Establishing measurable success criteria and key performance indicators (KPIs) to evaluate the effectiveness and impact of the NextMeet app post-launch.

Overall, this document serves as a roadmap for the successful development, implementation, and adoption of the NextMeet mobile application, aligning stakeholders towards a common vision of enhancing meeting connectivity and productivity.

2. Project Description and Features

a. Overview:

NextMeet is a revolutionary mobile application designed to streamline the meeting joining process by seamlessly connecting users to their upcoming meetings with the simple scan of a dedicated QR code. This innovative solution eliminates the hassle of manually joining meetings on various platforms like Teams, Zoom, Webex, or any other meeting application, making the meeting experience effortless and efficient.

b. Features:

QR Code Integration: NextMeet leverages QR code technology to enable users to connect to their meetings instantly. Each meeting room is equipped with a dedicated QR code that contains essential information about the meeting, such as Room URI, Room name , password (if required).

Platform Agnostic: Whether the meeting is hosted on Teams, Zoom, Webex, or any other platform, NextMeet seamlessly integrates with all major meeting applications. Users can enjoy a consistent experience across different platforms without the need to switch between multiple apps.

Automatic Meeting Joining: Upon scanning the QR code, NextMeet automatically gathers the meeting information and sends it to our interoperability platform. The platform then authenticates the user and initiates the meeting connection process in the respective application, eliminating the need for manual input.

Multi-Meeting Support: In addition to connecting users to their next meeting, NextMeet also provides the option to select and join other subsequent meetings from a list of upcoming events or/and past meetings. This flexibility allows users to plan their schedule and seamlessly transition between multiple meetings throughout the day.

Interoperability Platform: Behind the scenes, NextMeet's interoperability platform serves as the backbone of the application, facilitating seamless

communication between the mobile app, QR code scanners, and various meeting platforms. The platform ensures reliable data transmission and authentication, guaranteeing a smooth user experience.

c. Benefits:

Efficiency: NextMeet simplifies the meeting joining process, saving users valuable time and eliminating the frustration of manual input.

Flexibility: With support for multiple meeting platforms and customizable preferences, NextMeet adapts to the diverse needs of users and organizations.

Seamless Integration: By seamlessly integrating with existing meeting infrastructure, NextMeet enhances collaboration and productivity across teams and organizations.

Enhanced User Experience: NextMeet's intuitive interface and streamlined workflow provide users with a hassle-free meeting experience, resulting in increased satisfaction and engagement.

d. Conclusion:

NextMeet revolutionizes the way users connect to their meetings by leveraging QR code technology and seamless integration with leading meeting platforms. With its innovative features, customizable preferences, and interoperability platform, NextMeet sets a new standard for effortless and efficient meeting experiences. Say goodbye to manual meeting joins and hello to NextMeet – the future of meeting connectivity.

3. Functionality Description

When a user scans for the next meeting using the NextMeet mobile application, the app will retrieve the meeting details and send them by email to the designated infrastructure. Additionally, the app will utilize webhooks and QR code retrieval of system URI to facilitate interoperability services for the meeting, enabling Pexip to dial into it seamlessly.

a. Process Flow:

QR Code Scanning: The user opens the NextMeet app and scans the QR code displayed in the meeting room.

Meeting Retrieval: Upon scanning the QR code, the app retrieves the meeting details, including the meeting ID, password, and platform information as well as the URI of the system that will be encoded in the QR code.

Email Notification: The app automatically sends an email to the designated infrastructure, containing the meeting details retrieved from the QR code scan. The email serves as a notification to the infrastructure to prepare for the meeting and facilitate interoperability services.

Webhook Integration: Simultaneously, the app triggers a webhook request to the Pexip API, providing the system URI retrieved from the QR code scan. The webhook request informs Pexip of the meeting details and instructs it to dial into the meeting using the provided system URI.

Interoperability Services: Pexip receives the webhook request and initiates the dial-in process based on the system URI provided. Pexip seamlessly connects the meeting room as well as the synergy sky platform using the ID of meeting, ensuring interoperability with other meeting participants.

Webhook and QR Code Retrieval: A webhook is a mechanism for sending real-time notifications from one application to another. In the context of NextMeet, the app triggers a webhook request to the Pexip API when a QR code is scanned, providing the necessary meeting details and system URI for interoperability services.

QR Code Retrieval of System URI: The QR code displayed in the meeting room contains a system URI that uniquely identifies the meeting location and platform. When scanned, the app retrieves this system URI and includes it in the webhook request sent to the Pexip API. Pexip then uses this system URI to dial into the meeting and provide interoperability services.

Call health status: After acknowledgement of completed call connection user will have the possibility to see the health status of the call and eventually the errors (green → all good, yellow → light trouble (packet loss for example), red -> issues impacting overall quality) with a button to ask for help (chatbot).

Satisfaction survey: after completion of call, the user will be notified to give his option on call with 3 questions (How was the audio/video quality, How easy was it to connect, Overall experience), and one text box for "Requests"

4. Software Requirements Specifications

a. Functional Requirements:

QR Code Creation: At creation of the user and its rooms in our database, our backend will send information to QR Code backend in order to generate a QR code for each meeting room. The app creates a unique QR code by meeting rooms containing the system URI for the meeting location and system information.

QR Code Scanning: The app must include a feature for scanning QR codes displayed in meeting rooms. *Upon scanning, the app should extract meeting details such as URI ID of videoconferencing codec.*

Platform Integration via Webhook: NextMeet will utilize a webhook to integrate with major meeting platforms like Teams, Zoom, Webex, etc., through the Pexip API. *The app should initiate a webhook request to the Pexip API with the extracted meeting details to establish the meeting connection.*

Automatic Meeting Joining: Upon scanning the QR code, NextMeet must automatically trigger the webhook request to the Pexip API for meeting

authentication and connection. The app should handle the webhook response to join the user to the corresponding meeting.

Multi-Meeting Support: NextMeet should allow users to view and select from a list of upcoming meetings within the app, or past meetings also. Users should be able to seamlessly join multiple meetings throughout the day.

User Authentication: NextMeet must include robust user authentication mechanisms to ensure secure access to the application. Users should be required to authenticate using credentials such as email and password before accessing the app's features.

Account Management: The app should provide functionality for users to create accounts, log in, and manage their account settings. Users should be able to reset their passwords and update their profile information as needed.

Face Recognition and Other Security Features: NextMeet may optionally include advanced security features such as face recognition or biometric authentication. Users who opt to use face recognition should be able to enroll their facial biometrics securely within the app or using the existing biometrics data on the phone.

Connection to Database for User Identification: NextMeet should connect to our secure database to store user authentication credentials and profile information. The app should securely retrieve user data from the database during the authentication process.

Connection to Database for live call statistics: NextMeet should connect to our secure database to gather information about the call and be able to display it in a very simple way to the user.

Storage of Satisfaction Survey in the Database: NextMeet will send the satisfaction survey with (if allowed) name of user to our database.

Licensing Integration: NextMeet may integrate with a licensing system to manage user subscriptions and access levels.

b. Non-Functional Requirements:

Performance: NextMeet should offer fast and responsive performance, with minimal latency in scanning QR codes and initiating webhook requests. The authentication process should be fast and responsive, with minimal delay in verifying user credentials. The app should handle a large number of authentication requests efficiently, even during peak usage times.

Reliability: NextMeet must ensure high reliability and uptime, with minimal service disruptions. NextMeet must ensure the reliability and integrity of user authentication processes. The app should handle errors and authentication failures gracefully and provide clear error messages to users.

Security: NextMeet must prioritize the security of user data and meeting credentials. The app should securely transmit meeting details to the Pexip API via HTTPS, and sensitive information should be encrypted. NextMeet should prioritize the security of user authentication data and credentials. All communication between the app and the database should be encrypted using industry-standard protocols.

Accessibility: NextMeet, if possible, should be accessible to users with disabilities, meeting WCAG 2.1 accessibility standards.The app should support accessibility features such as screen reader compatibility and adjustable font sizes.

Scalability: The authentication system should be scalable to accommodate a growing user base. The app should handle increased demand for authentication services without compromising performance.

c. Technical Requirements:

Webhook Integration: NextMeet requires seamless integration with the Pexip API via webhook. The app should send webhook requests to the Pexip API endpoint with VC URI and handle webhook responses and acknowledgement for meeting joining.

Authentication API Integration: NextMeet must integrate with authentication APIs or services to verify user credentials securely. The app should communicate with the authentication service via HTTPS to protect sensitive data.

Backend Infrastructure: The app will use our reliable backend infrastructure to handle user authentication and manage webhook requests/responses.

Face Recognition Integration (Optional): If face recognition is implemented, NextMeet should integrate with facial recognition APIs or libraries. The app should securely capture and process facial biometric data, adhering to privacy and security standards.

Licensing System Integration: NextMeet may integrate with a licensing system to manage user subscriptions and access levels. The app should securely communicate with the licensing system to verify user licenses and permissions.

API Integration: NextMeet must integrate with the Pexip API to facilitate meeting connections. The app should utilize the Pexip API endpoints for authentication, meeting creation, and joining.

Cross-Platform Compatibility: NextMeet should be developed as a cross-platform application, compatible with both iOS and Android devices.The app should adhere to platform-specific guidelines for optimal performance and user experience.

5. Deliverables/Project Scope

a. Deliverables:

Mobile Application: The primary deliverable of the project is the NextMeet mobile application, developed for both iOS and Android platforms.

Server side: QR code creator with ability for customer to display logo (of client or/and final customer) as well as some basic usage information. QR code shall be available to download in several formats (png, pdf, jpeg), QR code alone or in combination with logos and information and in several resolutions.

Documentation: Comprehensive documentation including software requirements specifications, design documents, user manuals, and technical guides

Webhook Integration: Integration of webhooks with the Pexip API to facilitate meeting connections across Teams, Zoom, Webex, and other platforms.

User Authentication System: Implementation of a secure user authentication system, including account creation, login, password management, and optional security features like face recognition.

Database Integration: Integration with a secure database to store user authentication data, profile information, and meeting details.

Licensing System Integration: Integration with a licensing system to manage user subscriptions and access levels, ensuring compliance with licensing agreements.

b. Scope of Project:

QR Code Creation: Implementation of server/functionality to generate QR codes within the server for meeting room identification and easy access, using room information from our database

QR Code Scanning: The app will support scanning QR codes displayed in meeting rooms to extract URI details.

Platform Integration via Webhook: NextMeet will integrate with major meeting platforms through webhooks and the Pexip API for automatic meeting joining.

Automatic Meeting Joining: Upon scanning a QR code, the app will trigger a webhook request to the Pexip API to authenticate the user and join the meeting.

Multi-Meeting Support: NextMeet will allow users to view and select from a list of upcoming meetings and seamlessly join multiple meetings throughout the day as well as past meetings.

Security Features: Implementation of robust security features including user authentication, optional face recognition, and encryption of sensitive data.

Database Integration for User Identification: Integration with a secure database to store user authentication data and profile information for proper identification.

Licensing Integration: Integration with a licensing system to manage user subscriptions and access levels, ensuring proper licensing compliance.

Health status as well as satisfaction survey: have to be included too.

c. *Out of Scope:*

Meeting Creation: NextMeet will not include functionality for creating or scheduling meetings within the app itself. Meeting creation will remain the responsibility of the respective meeting platforms.

Backend Maintenance: Ongoing maintenance and updates of the backend infrastructure will be out of scope for this project.

Backend Infrastructure: Backend infrastructure to handle user authentication, database management, webhook and licensing will remain the responsibility of our company and will be out of scope for this project. Only integration is in scope.

6. *Architecture Overview and Technical Details*

a. Architecture Overview

Provide an overview of the architecture of the NextMeet application, including the frontend, backend, and any third-party integrations.

Describe the technology stack and frameworks that will be used for development.

b. Database Schema:

Outline the database schema, including tables, fields, and relationships, required for storing user authentication data, meeting details, and other relevant information.

c. API Documentation:

Document the endpoints, request/response formats, authentication mechanisms, and usage guidelines for any internal or external APIs that will be used in the project.

d. User Stories or Use Cases:

Define user stories or use cases that describe how users will interact with the NextMeet application and the expected behavior of the system in different scenarios.

e. Wireframes or UI Designs:

Provide wireframes or UI designs that illustrate the layout, navigation flow, and visual elements of the NextMeet application.

f. Development Guidelines:

Specify coding standards, best practices, and conventions that software engineers should follow during development to ensure consistency and maintainability of the codebase.

g. Testing Plan:

Outline the testing approach, including types of tests (e.g., unit tests, integration tests, end-to-end tests) that will be conducted, testing tools/frameworks to be used, and acceptance criteria for each feature.

h. Deployment Strategy:

.Describe the deployment strategy for the NextMeet application, including deployment environments, deployment process, and any automation tools or scripts that will be used

i. Documentation Standards:

Define standards for documenting code, APIs, configurations, and other project artifacts to ensure clarity, completeness, and consistency of documentation.

j. Collaboration and Communication Channels:

Provide information about collaboration tools (e.g., version control system, project management platform) and communication

channels (e.g., Slack channels, email distribution lists) that will be used for coordination and communication among team members.

7. Quality Assurance Requirements

Testing Approach: NextMeet will undergo comprehensive testing to ensure functionality, usability, performance, security, and compatibility across different devices and platforms. Testing will include both manual testing by QA engineers and automated testing using appropriate testing frameworks.

Functional Testing: QA engineers will perform functional testing to verify that all features of the app, including QR code scanning, platform integration, automatic meeting joining, and customizable preferences, work as intended. Test cases will cover various scenarios, including successful and unsuccessful meeting joins, customization of preferences, and handling of edge cases.

Usability Testing: Usability testing will be conducted to evaluate the app's user interface, navigation flow, and overall user experience. Feedback from users will be collected to identify areas for improvement and ensure that the app is intuitive and easy to use.

Performance Testing: Performance testing will assess the app's responsiveness, loading times, and stability under different network conditions and user loads. Load testing will simulate high user traffic to evaluate the app's scalability and identify potential performance bottlenecks.

Security Testing: Security testing will be conducted to identify and address potential vulnerabilities in the app, including user authentication mechanisms, data encryption, and protection against common security threats such as SQL injection and cross-site scripting (XSS). Penetration testing may be performed to simulate cyber-attacks and assess the app's resilience to security threats.

Compatibility Testing: Compatibility testing will ensure that the NextMeet app works seamlessly across different devices, operating systems, and web browsers. Testing will cover a wide range of devices, including smartphones, tablets, and desktop computers, to ensure broad compatibility.

Regression Testing: Regression testing will be performed to verify that new updates or changes to the app do not introduce regressions or break existing functionality. Automated regression test suites will be developed to efficiently test core features and critical workflows across different app versions.

Accessibility Testing: Accessibility testing will assess the app's compliance with accessibility standards such as WCAG 2.1 to ensure that it is accessible to users with disabilities. Testing will cover features such as screen reader compatibility, keyboard navigation, and support for adjustable font sizes and color contrast.

Documentation Review: QA engineers will review the app's documentation, including user manuals, technical guides, and release notes, to ensure accuracy, completeness, and clarity. Any discrepancies or inconsistencies will be documented and addressed before final release.

Continuous Monitoring and Improvement: Quality assurance is an ongoing process, and the QA team will continuously monitor the app's performance and user feedback post-release. Feedback and insights gathered from users will be used to prioritize and implement improvements in future updates to enhance the overall quality and user experience of the app.

8. Stakeholder Roles and Responsibilities

Alexandre Lopez - Project Sponsor:
Responsibilities: Providing overall strategic direction and support for the NextMeet project. Approving project scope, budget, and key deliverables. Ensuring alignment with organizational goals and objectives. Defining future features and roadmap.

Florent Gasselin- Project Manager:
Responsibilities: Overseeing day-to-day operations of the NextMeet project. Developing project plans, timelines, and resource allocations. Coordinating activities across different teams and stakeholders. Monitoring project progress and managing risks.

Guillain Sanchez - Development Team Lead:
Responsibilities: Leading the development team responsible for building the NextMeet mobile application. Providing technical expertise and

guidance on architecture, design, and implementation. Ensuring adherence to coding standards, best practices, and quality standards.

Florent Glorieux - Quality Assurance Lead:
Responsibilities: Leading the quality assurance team responsible for testing the NextMeet application. Developing test plans, strategies, and test cases to verify functionality, usability, performance, and security. Coordinating with development teams to address defects and ensure product quality.

Yann Landrot - UX/UI Designer:
Responsibilities: Designing the user interface and experience for the NextMeet application. Creating wireframes, prototypes, and visual designs that align with user needs and design principles. Collaborating with product owners and development teams to iterate on designs based on feedback and usability testing.

9. Budget Estimation

Development Costs: Mobile App Development: Estimate the costs for hiring developers to build the NextMeet mobile application for both iOS and Android platforms. Consider factors such as hourly rates, project duration, and team size.

Webhook Integration: Include costs for integrating webhooks with the Pexip API for platform integration.

Design Costs: UX/UI Design (option): Budget for hiring UX/UI designers to create wireframes, prototypes, and visual designs for the NextMeet application. Consider design iterations, revisions, and feedback rounds. Depending on price budget we may not use our UX/UI designer for this app.

Quality Assurance Costs: Testing Services: Budget for quality assurance services, including manual and automated testing, to ensure the functionality, usability, performance, and security of the NextMeet application. Consider testing tools, resources, and testing environments.

Marketing and Promotion Costs: Marketing Campaigns: Allocate funds for marketing campaigns to promote the NextMeet app and drive user

adoption. Consider expenses for social media advertising, email marketing, content creation, and promotional materials.

Customer Support Costs: *Support Services: Estimate the costs for providing customer support services to address user inquiries, issues, and feedback related to the NextMeet application. Consider expenses for support personnel, training, and support tools.*

Legal and Compliance Costs: *Legal Services: Allocate funds for legal services to ensure compliance with data privacy regulations, terms of service, and other legal requirements. Consider expenses for legal counsel, contract review, and compliance audits.*

Miscellaneous Costs: *Contingency: Set aside a contingency budget to account for unexpected expenses or scope changes that may arise during the project.*

Training and Education: *Budget for training and education expenses to ensure team members have the necessary skills and knowledge to develop, deploy, and support the NextMeet application.*

Total Project Budget*: Sum up the estimated costs across all categories to determine the total project budget for developing and launching the NextMeet mobile application.*

10. Constraints and Potential Risks

a. Technical Constraints:

Compatibility Issues: NextMeet may face challenges in ensuring compatibility with various devices, operating systems, and meeting platforms.

API Limitations: Dependency on third-party APIs such as Pexip API may introduce constraints related to API rate limits, availability, and functionality.

Security Vulnerabilities: Risks associated with data security, encryption, and protection against cyber-attacks could constrain the development and deployment of NextMeet.

b. Resource Constraints:

Budget Limitations: Limited financial resources may constrain the scope of the project and the ability to invest in necessary tools, technologies, and expertise.

Time Constraints: Strict deadlines and time constraints may impact the development process, testing efforts, and overall project timeline.

c. Operational Constraints:

Scalability Challenges: NextMeet may encounter difficulties in scaling infrastructure and resources to accommodate increasing user demand and growing data volume.

Integration Complexity: Integration with multiple meeting platforms and backend systems may introduce complexities related to data synchronization, interoperability, and maintenance.

d. Regulatory and Compliance Risks:

Data Privacy Regulations: Compliance with data privacy laws such as GDPR and CCPA may pose risks related to data handling, storage, and user consent.

Intellectual Property Rights: Risks associated with intellectual property rights, patents, and copyrights could arise during the development and distribution of NextMeet.

e. Market Risks:

Competitive Landscape: NextMeet may face competition from existing solutions and emerging technologies in the market, impacting user adoption and market penetration.

User Acceptance: Risks related to user acceptance and satisfaction may arise if

NextMeet fails to meet user expectations, address user needs, or provide a superior user experience compared to competitors.

f. External Risks:

External Dependencies: Reliance on external vendors, partners, or service providers for infrastructure, APIs, or support services may introduce risks related to service disruptions, contractual obligations, and performance issues.

Market Conditions: Risks associated with economic downturns, market volatility, or changes in consumer behavior could impact the demand for NextMeet and its long-term viability.

g. Operational Risks:

System Downtime: Risks of system failures, outages, or disruptions could impact the availability and reliability of NextMeet, leading to user dissatisfaction and reputation damage.

Performance Degradation: Risks of performance issues, latency, or bottlenecks may affect the responsiveness and usability of NextMeet, impacting user satisfaction and retention.

Functional diagram