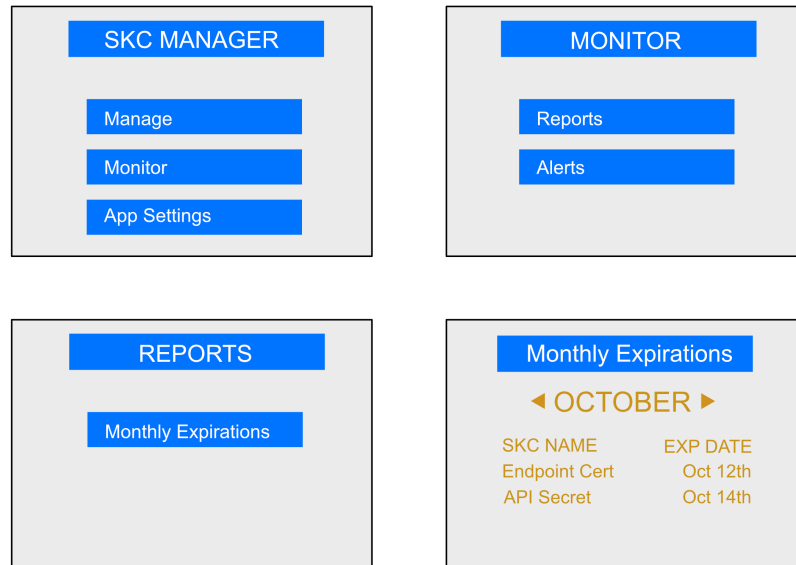


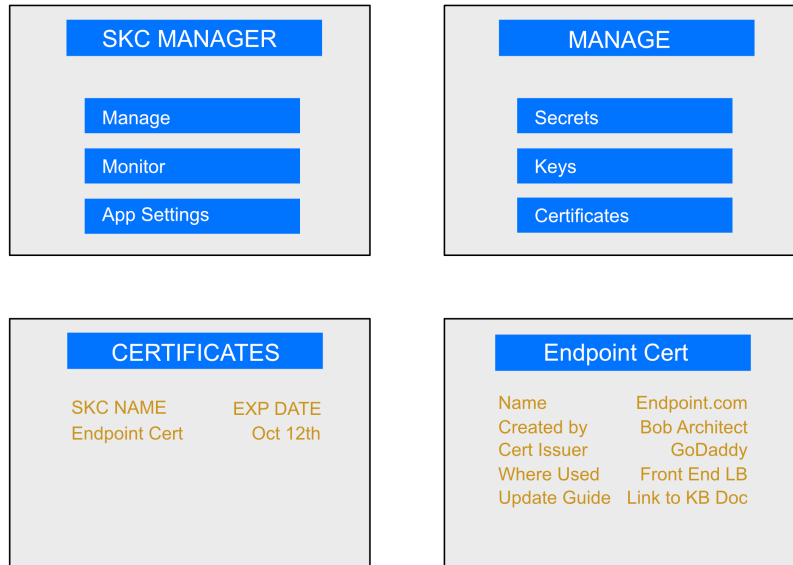
Sketch 1:

As a Product Manager, I need a way to monitor any expiring Secrets, Keys or Certificates (SKCs) to know when I should plan and execute during expiration and rotation to prevent critical downtimes.



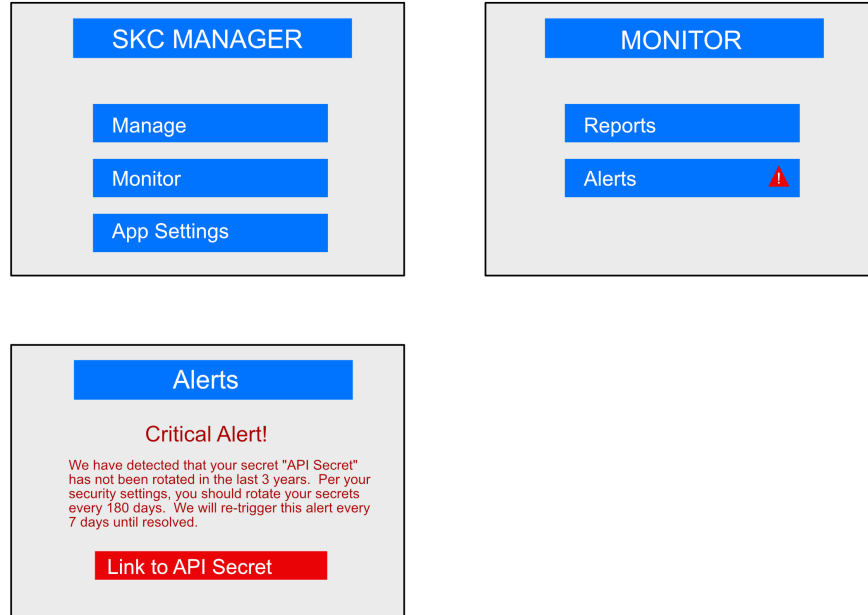
Sketch 2:

As a Busy Developer, I need a way to track where SKCs are configured and implemented in my code to ensure I can quickly update any configuration should it need to be updated.



Sketch 3:

As a Cloud Security Specialist, I need a way to monitor and track rotation of SKCs to ensure security best practices are followed and reduce the risk of a security breach by coordinating and ensuring timely rotations.



Personas

Technical Product Manager Melissa

Background: With a technical background and experience in product management, Melissa is responsible for overseeing the development and implementation of technical products.

Challenges: Balancing technical requirements with product goals, understanding complex technical systems, and ensuring timely delivery of products are some of the key challenges faced by Melissa.

Need for Tools: Monitoring certificate rotation is crucial for Melissa as it ensures the security and reliability of the product. Having tools to automate and track certificate rotation processes can help in maintaining a secure environment.

Busy Developer Dave

Busy Developer Dave is a software engineer who works in a fast-paced environment where he is constantly juggling multiple projects and deadlines.

- Struggles to keep track of all the different secrets and credentials used in various projects.
- Finds it challenging to ensure that secrets are rotated regularly and securely.
- Needs tools that can automate the monitoring and rotation of secrets to save time and reduce errors.

Cloud Security Specialist Sarah

Sarah is focused on ensuring the security of cloud environments and data. They are experienced in implementing security measures, managing access controls, and monitoring for potential threats.

Main challenges include:

- Ensuring compliance with industry regulations
- Protecting sensitive data from breaches
- Managing encryption keys securely

Monitoring key rotation is crucial for Sarah to prevent unauthorized access and maintain data integrity.

Cloud Infrastructure Manager Mark

Mark focuses on optimizing cloud infrastructure for performance and cost-efficiency. They are skilled in designing and managing scalable architectures, implementing automation, and optimizing resource utilization.

Main challenges include:

- Scaling infrastructure to meet growing demands
- Optimizing costs without sacrificing performance
- Ensuring high availability and reliability

Monitoring key rotation is essential for Mark to maintain the security and availability of the infrastructure components.

Persona's generated with the assistance of:

<https://ai.boardofinnovation.com/personas-maker>

Storyboards / User Stories

Scenario 1: Critical Outage

Description: Technical Product Manager Melissa gets a call from her CTO during the middle of the night saying their critical application is down and affecting the businesses bottom line. They want to know what the issue is and the timeline for a fix to be in place. Melissa brings in her team, Dave, Mark and Sarah to help locate the issue. Mark notices a certificate in the API infrastructure has expired. The certificate was renewed automatically by the issuer service, but never installed in the appropriate location post renewal.

Potential User Story:

As a Product Manager, I need a way to monitor any expiring Secrets, Keys or Certificates (SKCs) to know when I should plan and execute during expiration and rotation to prevent critical downtimes.

Scenario 2: How do I do this?

Description: After identifying the issue, Mark has been tasked with updating the appropriate parts of the infrastructure with the new certificate. Mark can see the certificate is expired on the endpoint but has no idea how to update the endpoint with the new certificate. The code serving the endpoint is from a company no longer in business and the certificate was a 3 year cert, implemented by the Architect from a implementation partner prior to Mark's arrival at the business. After a few hours digging, Mark is finally able to figure out how to update the certificate, resolving the issue.

Potential User Story:

As a Cloud Infrastructure Manager, I need a way to document the appropriate location and method for updating SKCs post renewal, to avoid or minimize downtime during reconfiguration.

Scenario 3: Security Breach!!

Description: Sarah gets a visit from the CTO. The accounting team has reached out to the CTO concerning some suspicious transactions processed by the application and the CTO asks Sarah to investigate. It turns out a critical service account was compromised by a threat actor and the secret was set to never expire. After resetting the credentials and blocking the account, the service stops functioning for all users, causing a loss in revenue. Dan is involved to help update the credentials for the service account to resolve the issue, but has to search through the source code files as this code hasn't been touched in years. Finally the account is updated and the issue is resolved.

Potential User Story 1:

As a Cloud Security Specialist, I need a way to monitor and track rotation of SKCs to ensure security best practices are followed and reduce the risk of a security breach by coordinating and ensuring timely rotations.

Potential User Story 2:

As a Busy Developer, I need a way to track where SKCs are configured and implemented in my code to ensure I can quickly update any configuration should it need to be updated.

Scenario 4: Why is this happening to us?

Description: Melissa, Sarah, Dave and Mark all get called into a meeting with the CTO to discuss the recent issues with the critical outage and then the security breach. With these two high profile issues that have affected profitability at top of mind, the board wants to know why this is happening and will it continue to happen moving forward. In short, they want to know, what can they do to stop this or prepare better in the future?

Potential User Story: As a technology solution team, we need a way to track, monitor, and manage our SKCs to help prevent critical issues due to expiration, rotation or configuration of those SKCs.

Potential User Story 2: As a CTO, I need a way to view and report on the state of our SKCs so I can plan resources for rotation and configuration, and prevent critical scenarios causing downtime which result in loss of potential revenue.

Bonus User Story: As a CISO, I need a way to view and report on the state of our SKCs so I can provide a trust framework for interacting with partners and clients. Also I need this data to help facilitate certifications, compliance and audits such as SOC2, HIPA, FedRAMP etc.