Salt Mobile

CASE STUDY
TIER 1 AUSTRALIAN BANK

Highlights

Our client is a Tier 1 Australian Bank that provides a wide range of financial products and services to its business and corporate customers who increasingly reply upon the Bank's Internet and mobile Banking delivery channels for the completion of the full range of Banking activities.

☑ The Bank is a long time customer of Salt Group who have previously provided the Bank with user and transaction authentication technology utilizing hardware tokens from Vasco and ActivIdentity.

☑ The Bank was seeking a mobile device based security solution to complement its existing specialized hardware token offerings to enable an improved customer experience, lower capital and operational costs, and the development of innovative service delivery models.

☑ The Bank sought to initially implement an authentication token using Salt's mobile SDK operating in conjunction with Salt's central authentication service. They then intended to build out this functionality to incorporate innovative and secure mobile Banking capabilities.

The Bank's implementation was completed over a six month period and delivered fully on the project objectives, generating exceptionally favorable feedback from their customers and also markedly improving customer onboarding times from up to 7 days to a matter of minutes.

All this at much lower cost of ownership than their existing systems.

The Client

Our client is one of the four largest financial institutions in Australia in terms of market capitalisation and customers, and ranks in the top 50 global Banks by total assets.

The Bank is at the forefront of digital service delivery across both its Retail and Commercial channels and was seeking to deploy high assurance security capabilities to support the delivery of higher value and more sophisticated services electronically.

The Challenge – Achieving high degrees of security AND a superb customer experience

Existing token based user and authentication solutions as used by our customer and many other banks around the world originated in the early 1990s and have remained essentially unchanged since then.

Widely accepted issues include high capital costs, high churn rates through end customer breakages and losses and battery failure, high provisioning and activation costs, and a terrible user experience even after the token was delivered and activated.

The obvious impost of needing to carry about a token is just part of the problem. Users were required to enter transaction information into micro keyboards in order to generate transaction authentication codes. Associated keying errors were frustrating and time consuming.

The Banks' responses to this user displeasure included restricting transaction authentication via a token for only those critically high transaction values thereby reducing the efficacy of a quite expensive token.

Accordingly, our Bank customer was looking for a more flexible, user-friendly, and convenient authentication solution that could be used across all the Bank's delivery channels and provide their business customers an intuitive and contemporary way to authenticate themselves and their transactions. Something that aligned with the way they worked already. Something that could integrate well with the Bank's emerging service delivery options and support the assurance levels that the Bank needed to comply with its operational risk demands.

The Solution – Salt Group's Mobile Authentication Suite

Salt Group pioneered the development of mobile device based authentication tokens and SDKs and back-end processes and holds important patents around mobile token authentication. Our first products supported early Java devices and importantly leveraged the connectivity of a mobile device for both provisioning of the token and for transfer of free format authentication payloads from the central authentication service to the token.

The advent of smart devices offered even greater capabilities that could be exploited to improve the user experience and security management, with fingerprints and other biometrics now providing integral components to Salt's technology suite. Cameras and GPS capabilities further expanded the palette which we could use to construct and deliver truly user focused authentication solutions.

At a technical level, the emergence of "trusted zones" within Android devices provides a game changing opportunity to achieve highest level authentication of devices, users and transactions through the Salt suite.

Once introduced to the Salt mobile authentication opportunities, the Bank quickly appreciated the benefits offered, and after POC testing a number of use cases, adopted Salt Group's solution to support their digital delivery extension strategies.

Importantly to the Bank, the solution could be deployed with minimal disruption to existing back-end application or authentication systems, albeit providing major streamlining of the provisioning reduces the onboarding process to a simple interaction completed in minutes rather than the many days required for provisioning physical devices.

Support for existing tokens was preserved.

The resultant system has seen the overwhelming majority of the Bank's customers elect to use the Bank's mobile token, developed by the Bank using Salt's SDK.

Solution Features

Strong two-factor authentication offering a range of authentication flows
Salt Mobile tokens and underlying SDK support a range of authentication online and offline use cases and authentication flows and the Bank elected to support the following capabilities through development of its own authenticator application using the Salt SDK and associated back-end systems:

- ☑ Offline OTP generation for use in Internet Banking sign-on or low value transaction authorisation.

- ☑ Offline transaction signing operation whereby end users enter the critical transaction information into the token and the token will generate a context specific authentication code for transposition into the user's internet channel. This mirrors the operation of a physical token and was retained by the Bank for those customers that were not inclined to move to the operating mode described below.

- ☑ Offline transaction signing operation whereby the internet channel presents an encoded QR code which embodies the transaction detail for authorisation. After PIN entry the user then reads this QR code via their token's camera and the token will decode it and display the transaction authentication request and an associated authentication code. This code is then transposed to the user's internet channel.
  This model requires no user input into the token and eliminates the need for transaction detail input associated with the legacy hardware tokens, a process that was disliked strongly by the Bank's customers.
  This use case is shown on the next page.
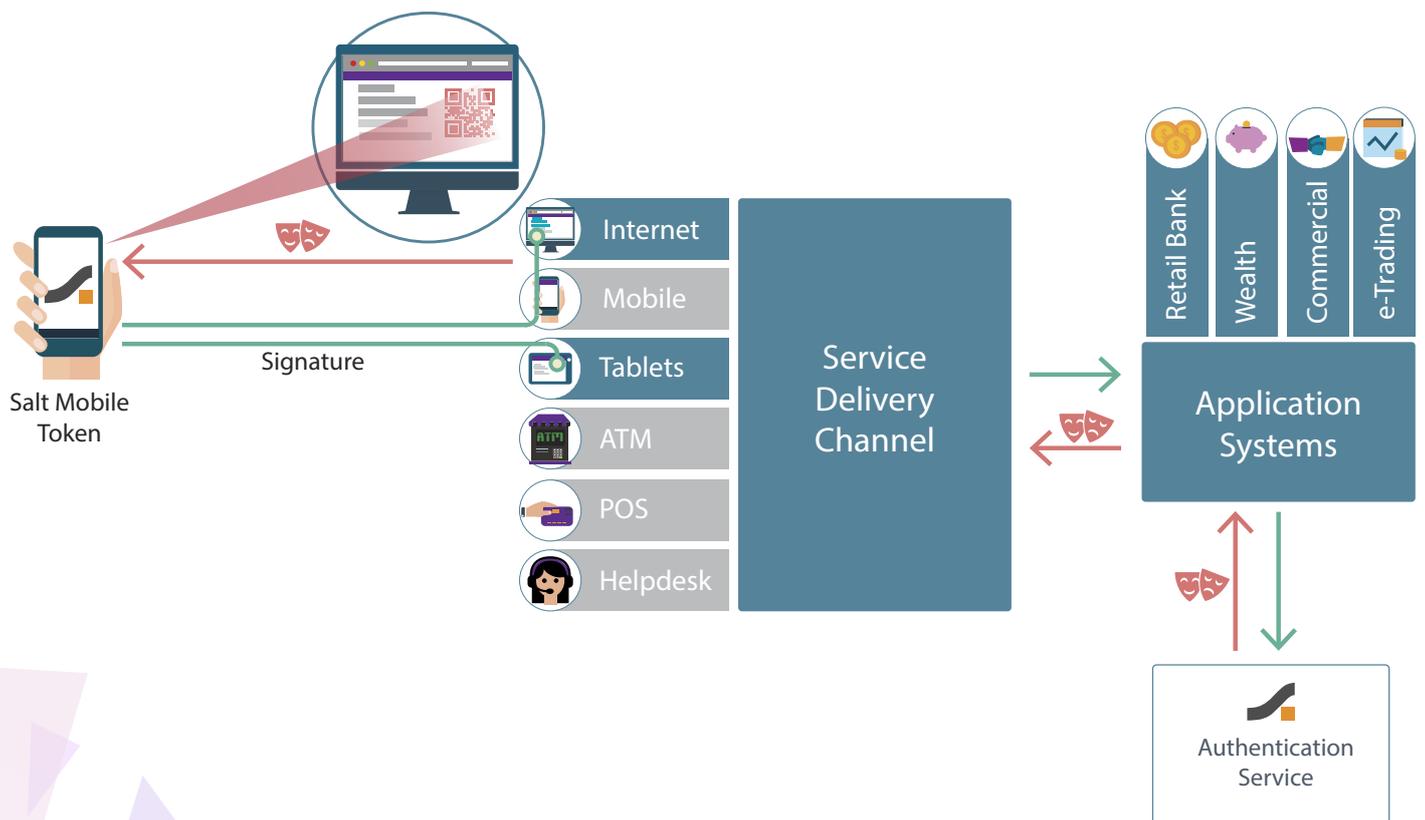
Whilst retaining the capability of manual entry of transaction details into the token, the Bank's customers can now use QR codes that contain a summary of the transaction/s they are approving, instead of having to key in all the information into the token as they used to do with hardware tokens.

Salt mobile tokens have provided the strong two-factor authentication the Bank requires without compromising on the user experience.

Fast, High Assurance Token Provisioning
The flexibility of the Salt Mobile Suite enabled the Bank to mirror administrative elements of the Bank's existing physical token provisioning whilst leveraging the real time deployment capabilities of a mobile token.

The result was a shortening of the token onboarding lifecycle from up to 7 days to a matter of minutes and with minimal change to the Bank's user and token management systems.

Added advantages were the ability to readily provision replacement tokens globally and the general surety around the provisioning process, unlike dealing with physical tokens where deliveries of tokens were delayed, tokens were lost in transit, tokens ended up in the wrong hands etc.

Solution Benefits Summary

☑ **Simplifies Deployment** – Salt mobile tokens enable a simple one step installation and token activation process to be completed enabling users to start to use the online service immediately upon account establishment.

☑ **Increases User Satisfaction** – Salt mobile tokens enable users to simply approve authorization requests on their mobile using their PIN or biometric rather than entering tedious transaction summaries into a hardware token.

☑ **Reduces Overall Cost** – Salt mobile tokens substantially reduce capital and ongoing device management and replacement costs associated with hardware tokens.

...... and what the Bank's users said upon first use of their mobile authentication token

"We love it! Absolutely love it! I always have my phone with me!"

"Very very good, honestly the way the Bank has done it with the authenticator app is great"

"Easier to use than the other small token that was too small for my fingers I had to use a pencil to push the buttons"