



Mobile Banking and Payments

Our Credentials

Dell, a Fortune 33 IT Services firm, has been providing solutions to Financial Services institutions for over 20 years. We help our customers solve their business problems through a domainled consultative approach on flexible engagement models leveraging our global delivery centers.

We have partnered with leading Banks and Clearing Houses for helping them set up their payments infrastructure and to solve their payment systems requirements. Dell believes that Mobile as a channel is expected to witness exponential growth in next 3 years with Western Economies (US, Europe) leading the adoption and emerging economies (China, India, Malaysia etc.) providing the volume numbers.

With a fraction of cost per transaction as compared to other channels (like Branch, ATM, Call Center etc.) and exponential growth in Smartphones adoption globally, there seems to be enormous traction to shift to mobile as a preferred channel.

Additionally, we believe that Financial Services provided on Mobile, are on cusp of transformation from basic "**Information based**" services to more mature "**Transactional**" services such as Bill payments, cheque deposits, funds transfer, trading, investment management etc.

Mobile Banking and Payments Value Chain

Dell has significant experience across all functional areas of Mobile Banking and Payments value chain having worked with leading banks and mobile phone vendors.

	Payment Initiation	Processing	Clearing & Settlement	Reporting	Customer Service
User Logs in	Application	Information verification	Format Validation	Data Management	Alerts
Confirmation	Tapping Mobile phone	Encryption	AML & Fraud Detection	Reporting	Password generation
Money transfer option	WAP browser	Decryption	Distribution & Routing	Notifications	Account Balance
Authentication	Sending SMS	Message conversion	Return Handling	Analytics	Offers
Authorization	M-Payment initiation	Repair	Financial Settlement	Network Service	Information's on mobile
	Application Provider	Accounting		Provider	Rewards
Customers	Network Service Provider	\sim	RTGS	M-Payment Enabler	$\mathbf{\sim}$
Merchants		M-Payment Enablers	Local ACH		Aggregators
		Banks	Card Processor		Network Servic Provider
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Reference Architecture for Mobile Banking & Payments

Dell has a reference architecture driven approach for helping bank launch Mobile Banking & Payments services. Our reference architecture supports multiple models for transaction initiation such as SMS, WAP, NFC and client downloadable application on smart phones such as Blackberry and I-phone. Transactions are highly secured during transmission through network operators and bank mediation server reformats and applies business rules for interfacing with core banking solution / payments application to support processing and clearing & settlement.

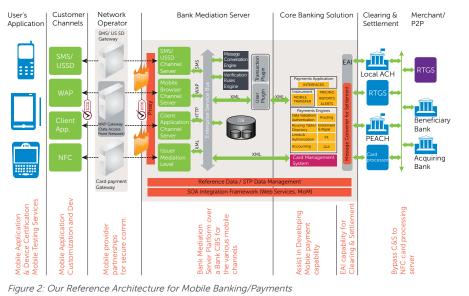
The solution is functionally rich to support mobile banking transactions (such as Account Management, Mini Statements, Forex Services, Stored value cards etc.) as well as local, international multi-currency transfers, P2P and B2B payments. It can be white labeled as a comprehensive mobile banking / payments solution with enhanced security features not limited to:

- Transaction level PIN/password control
- AES 256 bit encryption
- No data is held on the device and one way encryption in both directions
- Two factor authentication including RSA SecureID (on device, RSA card or dongle support)

Dell can help develop, maintain, host and run Mobile Banking and Payments systems

At Dell, our expertise in the payments domain has been built by a team of highly focused business consultants and technology experts, who have led many successful client engagements worldwide with leading banks and clearing houses. We can help through:

- **Consulting oriented**, long term Mobile banking and payments IT strategy formulation & execution for launching Mobile Banking and Payment services
- **Custom application development,** enhancement, maintenance, hosting and support for setting up Mobile payments infrastructure including development of Bank mediation server, verification rules engine and interfacing with existing core systems / payments applications
- **Partnership** with leading Mobile service providers and Product companies to provide end-toend Mobile banking and payments services
- **QA and Testing services,** including Application & Device Certification, Compatibility & API Testing, Device/Peripheral Testing and Performance Benchmarking
- Infrastructure best practices, including global remote management and hosting solutions for Mobile payments infrastructure



References

- We collaborated with a large U.S. commercial bank to provide Independent Verification and Validation ("IV&V") of mobile banking application on Blackberry and Android platforms.
- We are the strategic IT partner for a leading clearing house in UK and have helped them in developing and enhancing their core payments engine, capable of processing over 9 billion transactions a year (peak volume of 100 Million transactions in 4 hours).
- Extensive experience in QA and Quality Assurance for Mobile applications with leading players such as Motorola Good Technology, Palm, Microsoft Danger, Surf Kitchen etc.
- Worked with a leading bank in Singapore to carry out performance testing on mobile and non-mobile users and then route the request accordingly

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