



The Nigerian National e-Purse

Nigeria the country



129 Million People

§ Africa's most populous country

Transitioning to civilian rule

Oil based economy

§ 10th largest

§ 20% of GDP

§ 95% of Forex earnings

Difficult economic environment

§ Naira - \$ exchange rate

W **1998 - 21.8**

W **Today - 131**

§ Inflation 2001 = 15%



CardBASE in Nigeria



1st Project - 1995

- § Allstates Trust Bank
- w ESCA purse system



2nd Project – 1998

- § Smartcard Nigeria PLC
- w ValuCard purse system



ValuCard requirements



Consortium of 19 banks

- § Each bank issues and acquires

Central clearing and settlement

- § All transactions validated centrally

Each member bank protected in event of other member bank failing

Multi-acquiring at merchants

- § Merchant POS completely off-line

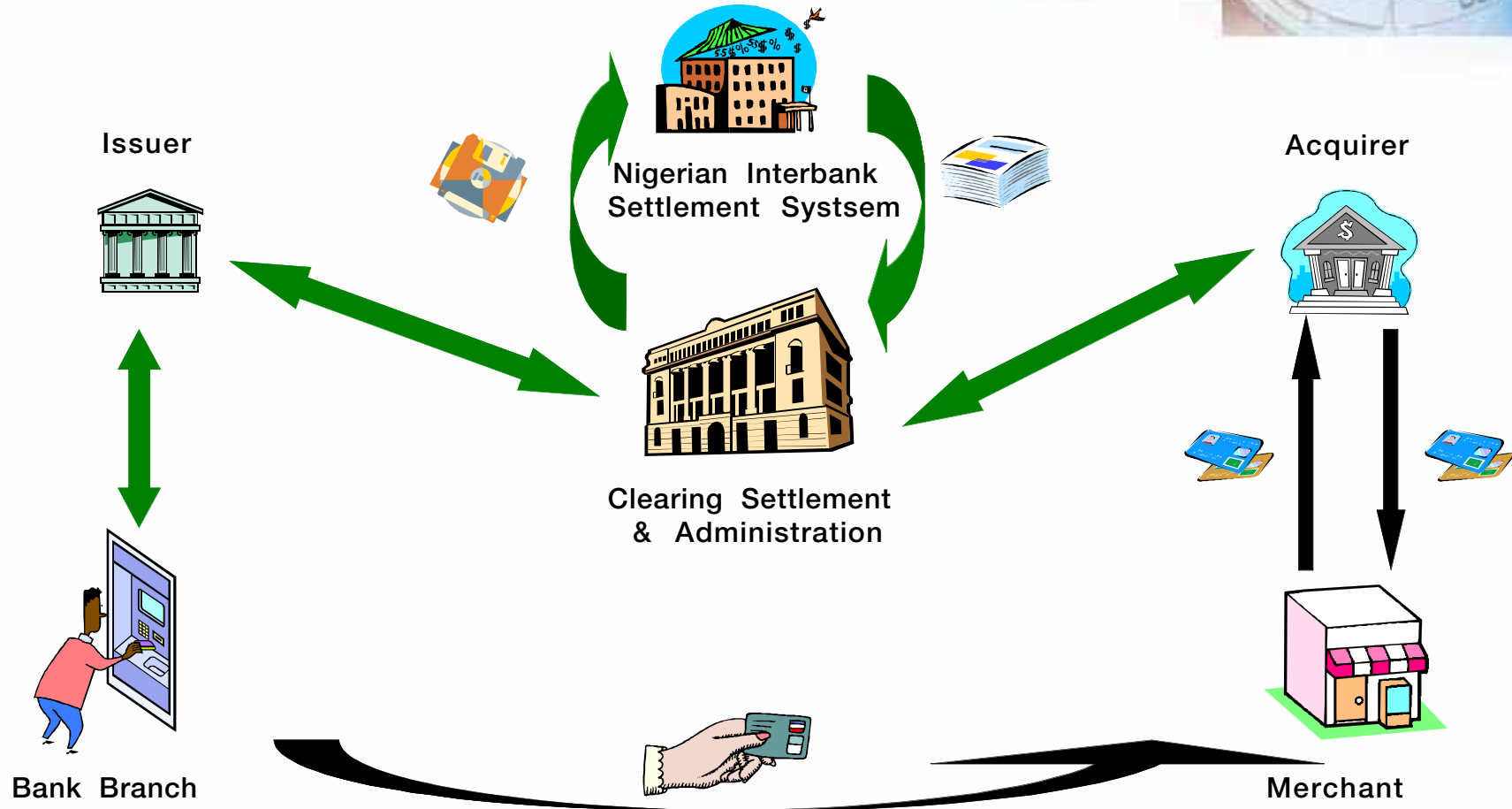
Intermittent on-line communications between banks and ValuCard

Refundable card balance

- § PIN protected

Unbreakable

ValuCard solution



SECURITY CREATIVITY FLEXIBILITY

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ValuCard business model



Scheme owned by banks

- § Initial funding to establish scheme

Sources of revenue

- § Card issuing fees
- § Transaction fees
- § Float

Cost savings

- § Cash handling

Convenience

- § Reduce queues in branches

ValuCard will be profitable in 2003

ValuCard technology



Windows NT

Oracle database

IBM 4758 HSMs

TCP/IP Networking

IBM MQ Series messaging

Datacard personalisation equipment

Ascom POS devices

Gemplus MPCOS cards and SAMs

ValuCard timeline



Contract	December 1998
Design signoff	June 1999
Beta delivery	December 1999
Final delivery	March 2000
Pilot live	July 2000
§ 19 banks simultaneously	
§ 19k cards	
§ 2 Branches	
§ 50 merchants	
End of pilot	March 2001

ValuCard 39 member banks



AfriBank Nigeria PLC

African International Bank

All States Trust Bank Nigeria

Chartered Bank Limited

Citibank Nigeria

Citizens International Bank Limited

Continental Trust Bank Ltd.

Credit Lyonnaise

Diamond Bank Limited

EcoBank PLC

Equitorial Trust Bank

FBN(Merchant Bankers)

Fidelity Union Merchant Bank Limited

First Bank Nigeria PLC

First City Merchant Bank Limited

First Securities Discount House

Fortune International Bank plc

FSB International PLC

Guaranteed Trust Bank PLC

Gulf Bank

Habib Nigeria Bank Ltd

Lion Bank

Magnum Trust Bank

MannyBank Nigeria Plc

Merchant Banking Corporation

Metropolitan Merchant Bank

NAL Merchant Bank

National Bank

Oceanic Bank

Omega Bank

Platinum Bank

Prudent Bank

Societe Generale Nigeria PLC

Triumph Merchant Bank

Union Bank Nigeria PLC

United Bank For AFRICA plc

Universal Trust Bank

Wema Bank PLC

Zenith International Bank Limited

Card volumes



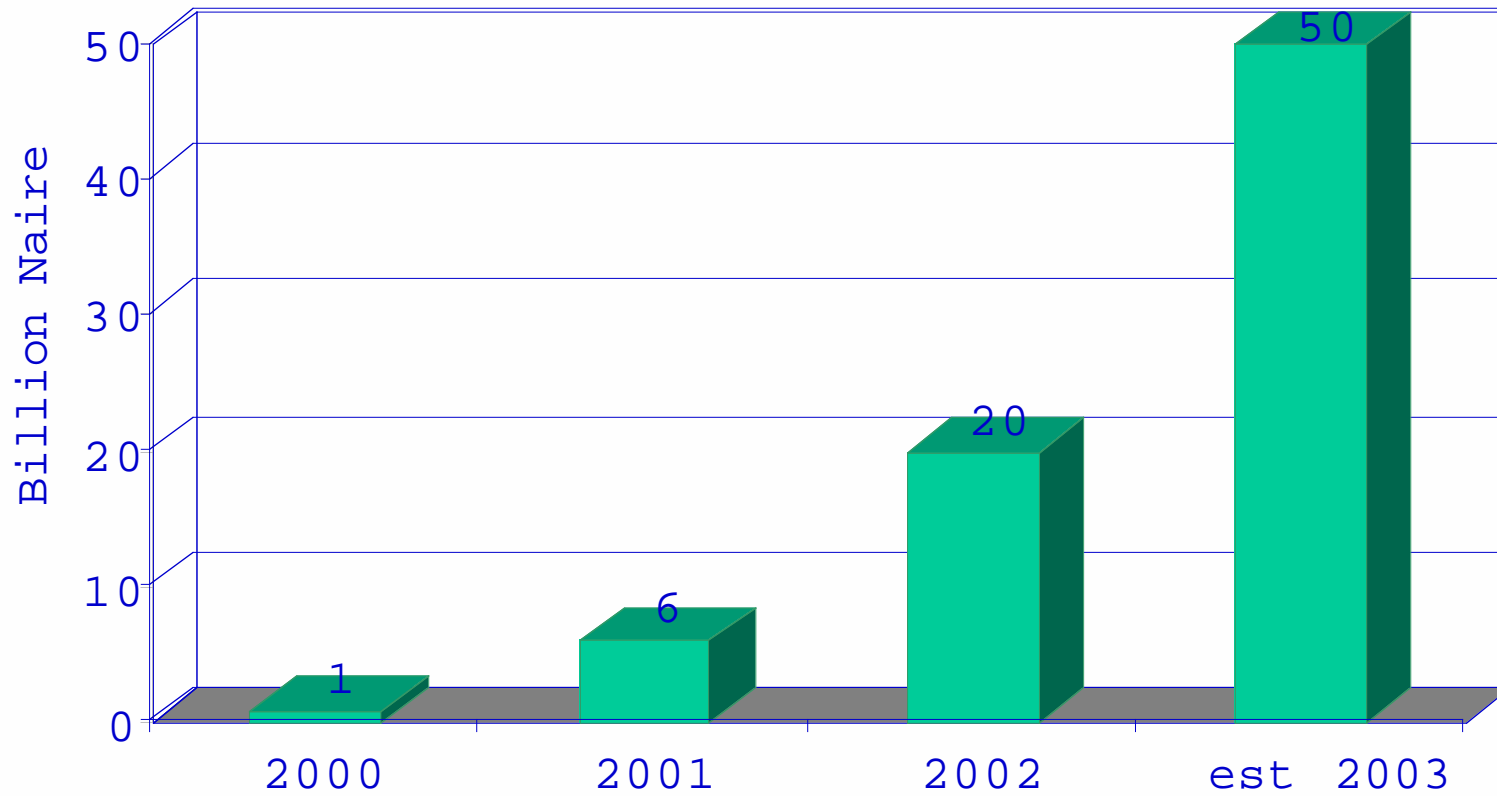
200K card in issue

140K active cards

Targetted card issue

- § Cardholders selected carefully
 - w Expatriates
 - w Wholesalers
 - w High net worth individuals
- § Aiming for high usage
 - w Revenue from transactions

Growth in transaction value

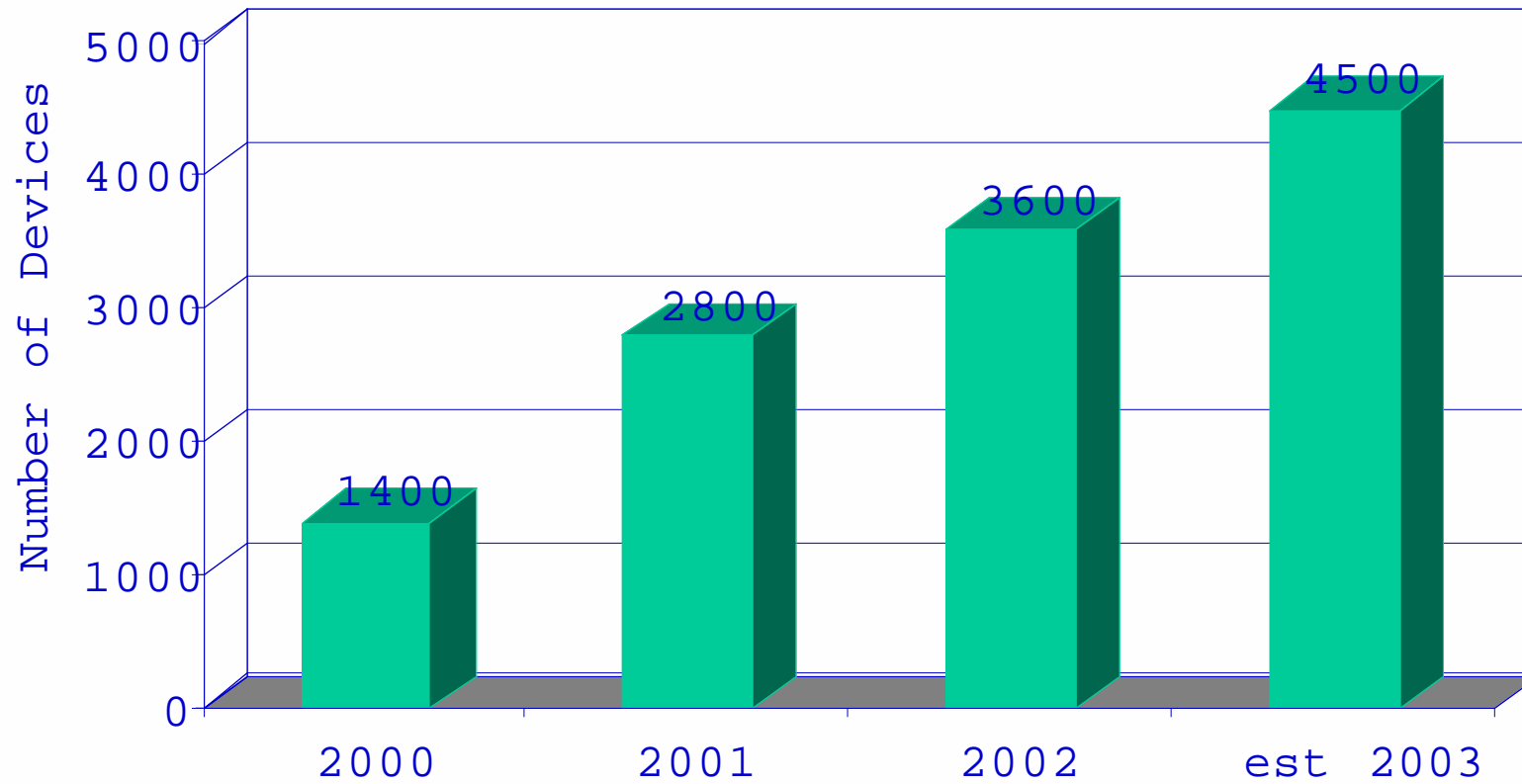


Analysis of transactions

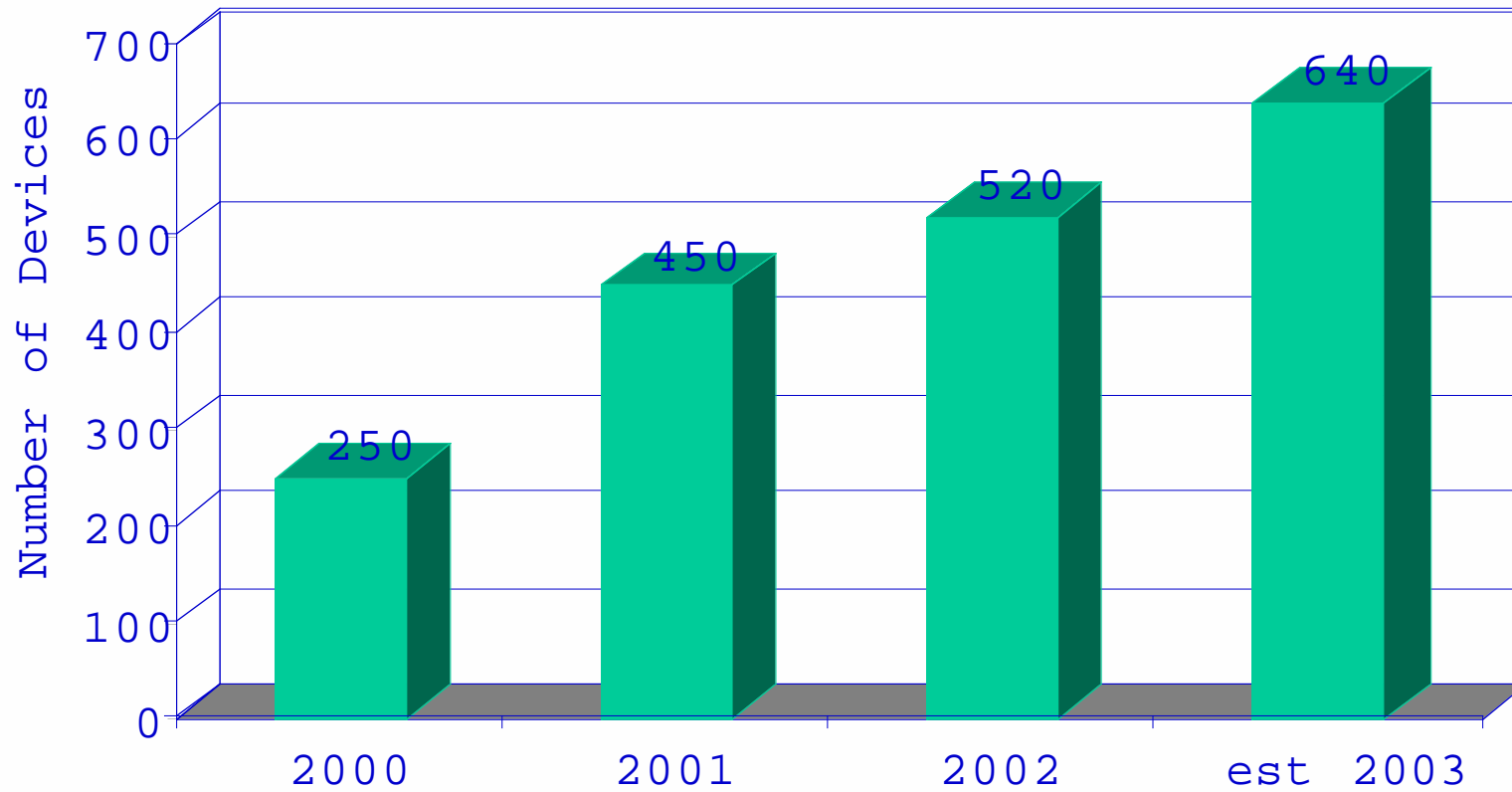


US \$ Exchange Rate	131	Naira			US\$		
		Number	Avg Value	Max Value	Total Value	Avg Value	Max Value
Online Loads	267,099	104,355	16,344,250		797	124,765	
Offline loads	121,027	37,326	16,500,000		285	125,954	
Purchases	1,332,733	19,865	16,500,000		152	125,954	
Unloads	35,834	59,680	16,180,808		456	123,518	
Float				3,777,216,198			28,833,711

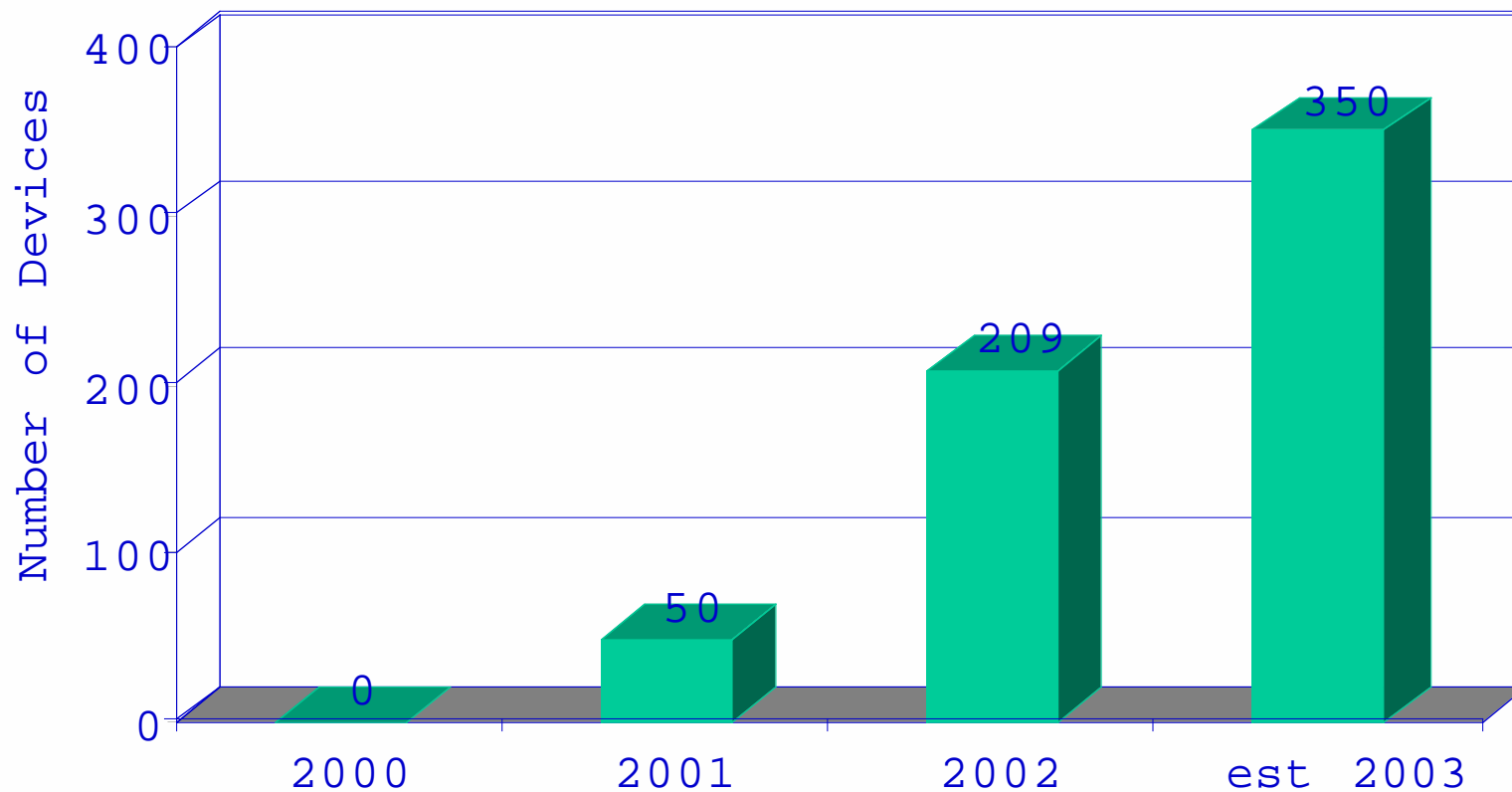
POS devices



Bank teller devices



Mobile teller devices



Enhancement to system



Expanding the use of the purse

- ⌘ USAid payments - Microfinance
- ⌘ Mobile phone airtime purchase
- ⌘ Wholesale card
- ⌘ Offline ATM
- ⌘ Dial-up transaction collection at POS
- ⌘ Additional POS devices

⌘ **Thyron**

⌘ **Ingenico**

Future developments

- ⌘ Debit card
- ⌘ Online ATM
- ⌘ Salary payment
- ⌘ Passbook saving card
- ⌘ Bill payment

Lessons learned



Purse has a lot to offer in countries that have poor communications networks

- § Communications will not improve as rapidly as expected
- § A lot of investment required to get the basic infrastructure right

Solutions need to be adapted to suit local environment

It takes longer than expected to get things done

- § Patience is a virtue

Expect the unexpected

Local presence is essential



Thank you

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