

Mobile Security and 2FA

The reality from the trenches...

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Before we begin...

- NCC = iSEC Partners in the USA
- FTSE listed ~99 million GBP revenue
- Independent security experts
- Working in hardware, software and higher level business functions
- Trusted advisor to many
- ~ 250 technical security consultants
- ~ 80 business security consultants



Agenda for the 15 minute positioning..

- **Mobile Security**

- Reality and Elephants
- Future Enablers

- **Authentication and mobile**

- 2FA – what it looks like today
- Voice biometrics and its Role



Mobile Security – Security threats

- Hardware
- Platform
 - Android, iOS, Windows etc.
- Vendor Customisation
 - Undermining platform security
- Apps
 - Poorly designed / implemented
- User activity
 - Hygiene with regards to apps / jail breaking



Mobile Security – Challenges

- Mobile vendor fragmentation
- Vendor spend on security
- 18 to 24 month device life cycles
- Carrier certification of updates
- User awareness / education
- User experience for security patches
- Carrier / user desire for security patches



Mobile Security – Future



Mobile Security – Future

- The security arms race is starting..
 - BlackBerry, Samsung, SEAndroid (Generic), Apple and Windows
- Platform features
 - TrustZone
 - Virtualisation / HyperVisors
- Software security
 - Improving rapidly..



Mobile 2FA – Concerns

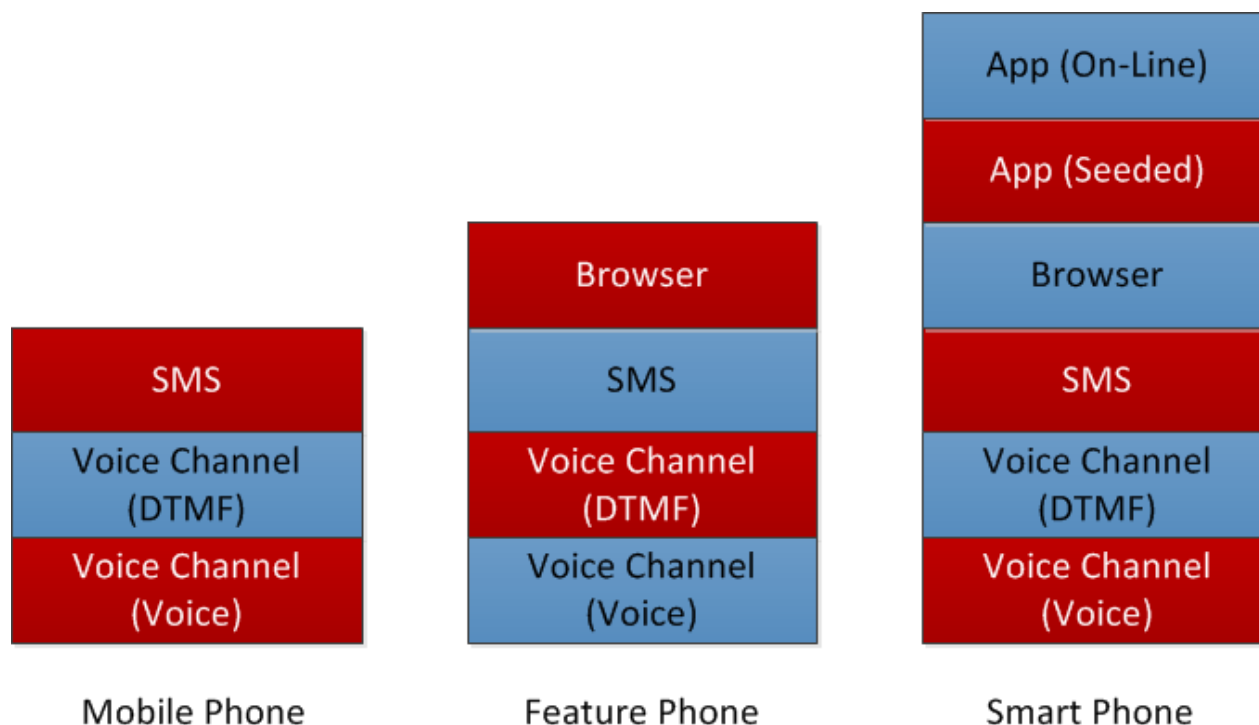
- Satisfying ‘Something you have’
- SMS latency
 - The ‘NYE’ problem
- The ‘malware’ issue
 - For seeded / on-line
- Jail breaking
 - For seeded / on-line
- Connectivity
 - For on-line



Mobile 2FA – Drivers for mobile 2FA



Mobile 2FA – What we're seeing



Mobile 2FA – Satisfying the concerns

- Today
 - Jail break detection
 - Device unique IDs
 - Device lockdown
 - Dual persona devices
- Tomorrow
 - TrustZone and friends



Mobile 2FA – Result (one solution seen)

Circuit Switch and Voice for Last Chance Fall-back



Mobile 2FA – Tomorrow?

GLASS

