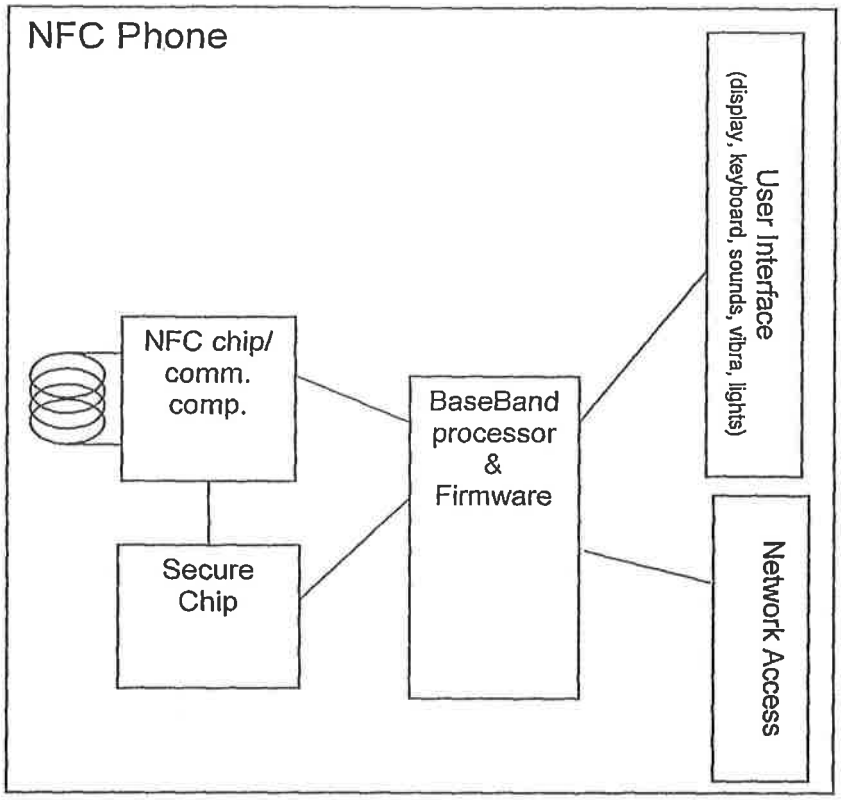

NFC Phone
User Interface
(display, keyboard, sounds, vibra, lights)
NFC chip/
comm.
comp.
BaseBand
processor
&
Firmware
Secure
Chip
Network Access

Fig. 1

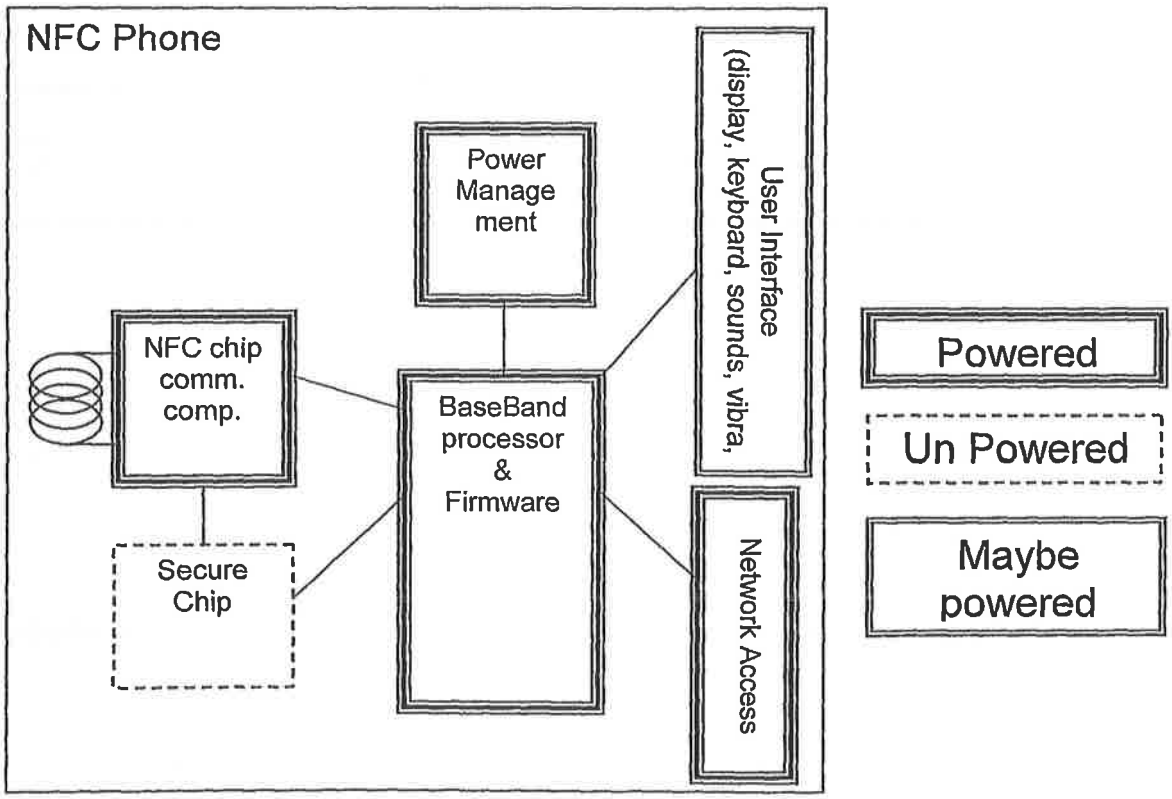

NFC Phone
Power
Manage
ment
User Interface
(display, keyboard, sounds, vibra,
NFC chip
comm.
comp.
BaseBand
processor
&
Firmware
Secure
Chip
Network Access
Powered
Un Powered
Maybe
powered

Fig. 2

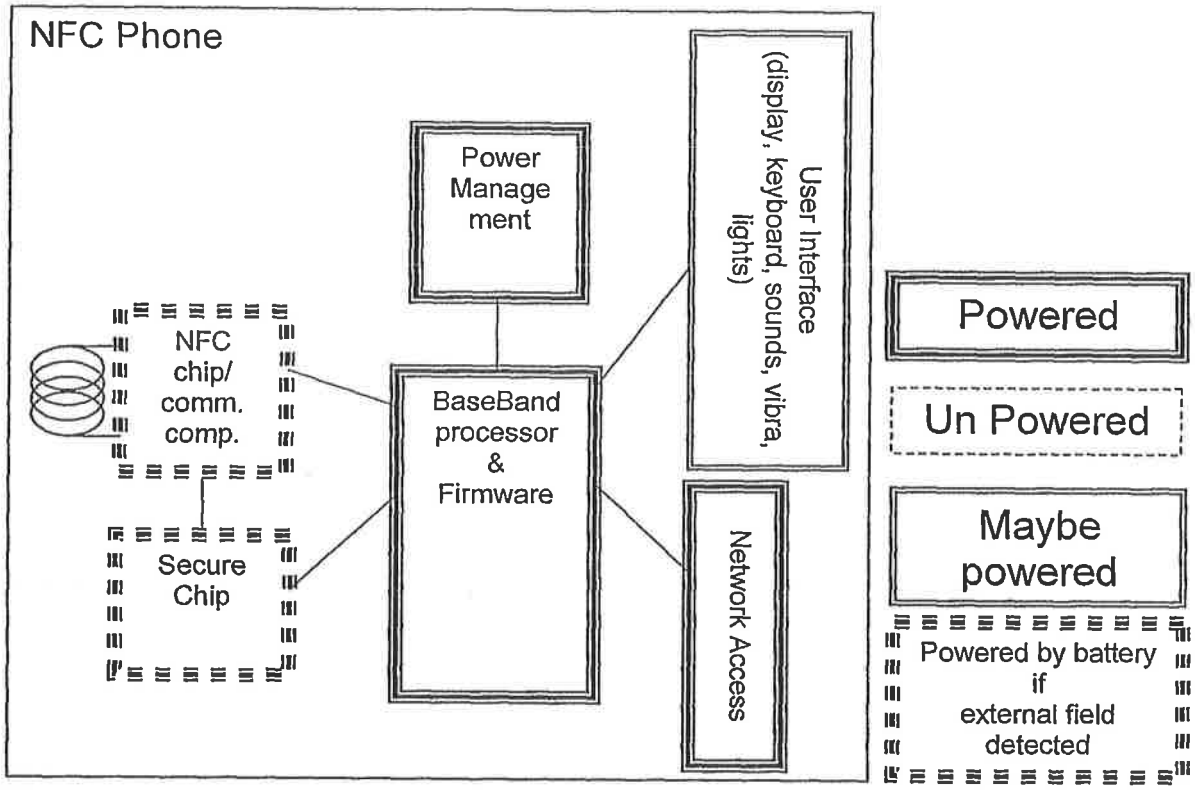

NFC Phone
Power Manage ment
User Interface (display, keyboard, sounds, vibra, lights)
NFC chip/ comm. comp.
BaseBand processor & Firmware
Secure Chip
Network Access
Powered
Un Powered
Maybe powered
Powered by battery if external field detected

Fig. 3

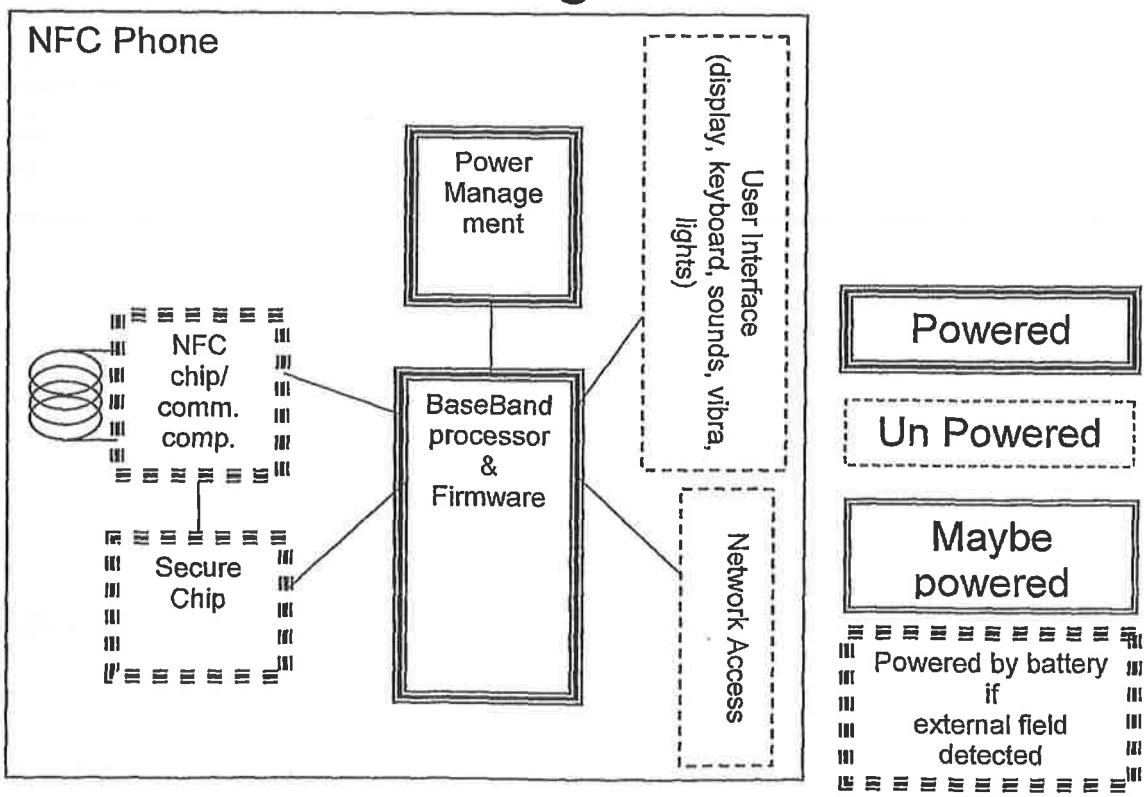

NFC Phone
Power Manage ment
User Interface (display, keyboard, sounds, vibra, lights)
NFC chip/ comm. comp.
BaseBand processor & Firmware
Secure Chip
Network Access
Powered
Un Powered
Maybe powered
Powered by battery if external field detected

Fig. 4

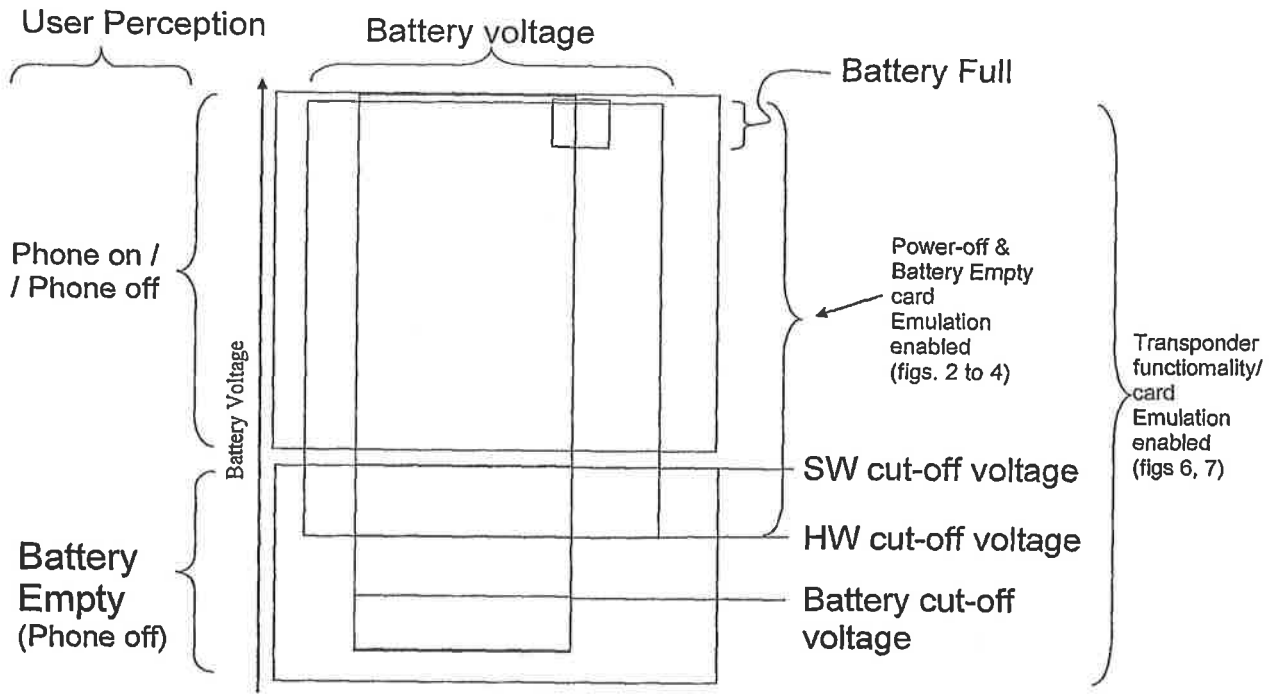

User Perception
Battery voltage
Battery Full
Phone on /
/ Phone off
Battery Voltage
Power-off &
Battery Empty
card
Emulation
enabled
(figs. 2 to 4)
Transponder
functiomality/
card
Emulation
enabled
(figs 6, 7)
SW cut-off voltage
HW cut-off voltage
Battery cut-off
voltage
Battery
Empty
(Phone off)

Fig. 5

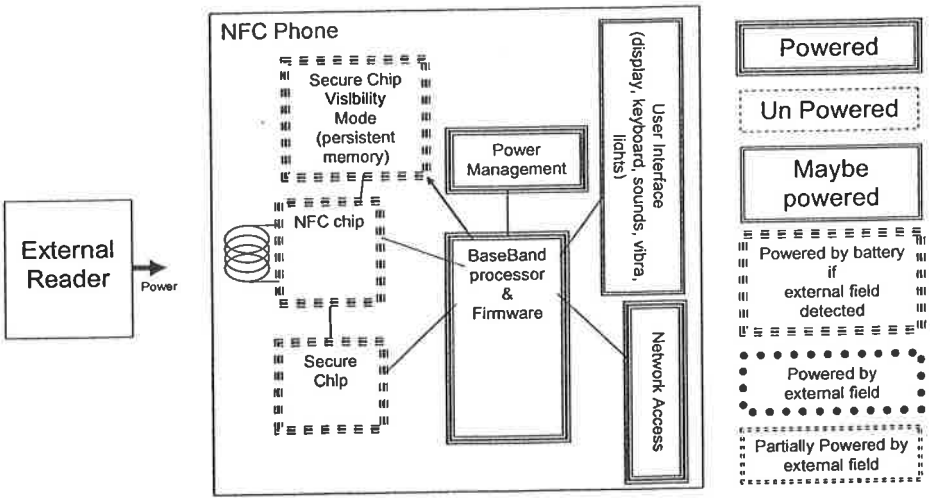

NFC Phone
Secure Chip
Visibility
Mode
(persistent
memory)
NFC chip
Secure
Chip
Power
Management
BaseBand
processor
&
Firmware
User Interface
(display, keyboard, sounds, vibra,
lights)
Network Access
External
Reader
Power
Powered
Un Powered
Maybe
powered
Powered by battery
if
external field
detected
Powered by
external field
Partially Powered by
external field

Fig. 6

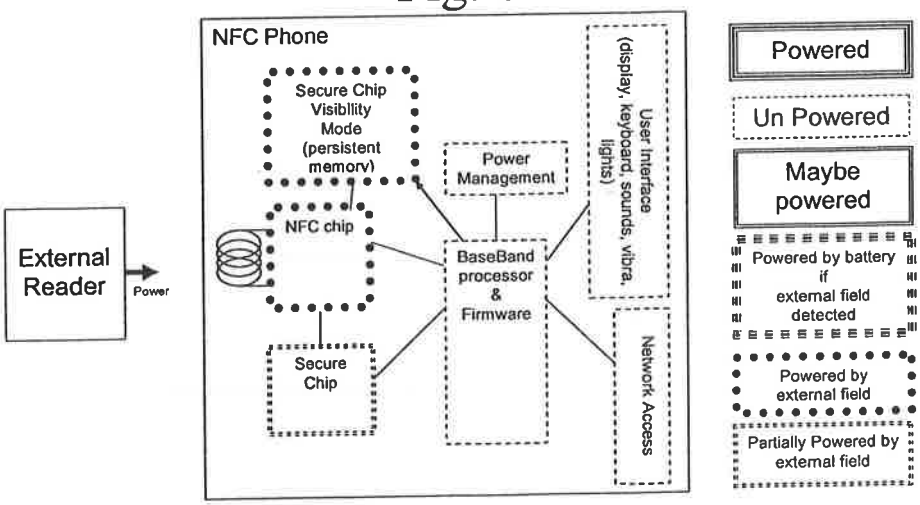

NFC Phone
Secure Chip
Visiblity
Mode
(persistent
memory)
NFC chip
Secure
Chip
Power
Management
BaseBand
processor
&
Firmware
User Interface
(display, keyboard, sounds, vibra,
lights)
Network Access
External
Reader
Power
Powered
Un Powered
Maybe
powered
Powered by battery
if
external field
detected
Powered by
external field
Partially Powered by
external field

Fig. 7

	Phone off	Phone on
NFCIP-1	disabled	enabled
Mifare Classic emulation	enabled	enabled
Other Card Emulation	disabled	enabled
ISO smartcard, AID 1	disabled	enabled/password?
ISO smartcard, AID 2	enabled	enabled
ISO smartcard, rest	disabled	enabled

Fig. 8

	normal operation condition	software cut-off condition	hardware cut-off condition	battery cut-off condition
NFCIP-1	enabled	disabled	disabled	disabled
Mifare Classic emulation	enabled	enabled	enabled	disabled
Other Card Emulation	enabled	disabled	disabled	disabled
ISO smartcard, AID 1	enabled/password?	enabled	disabled	disabled
ISO smartcard, AID 2	enabled	enabled	enabled	enabled
ISO smartcard, rest	enabled	disabled	disabled	disabled

Fig. 9

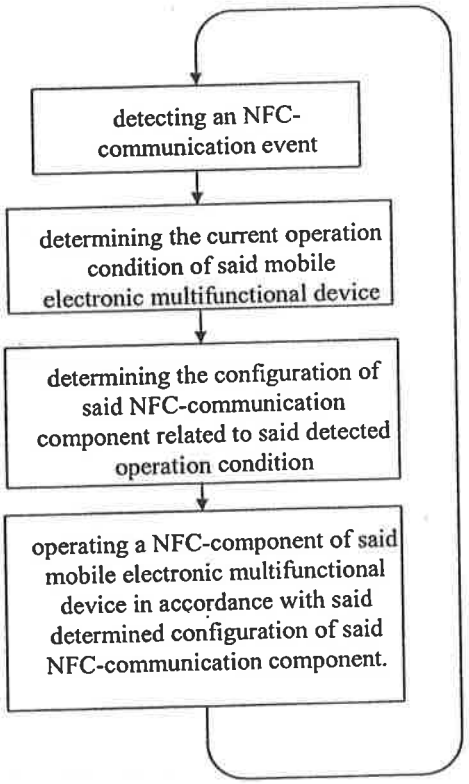


FIG. 10