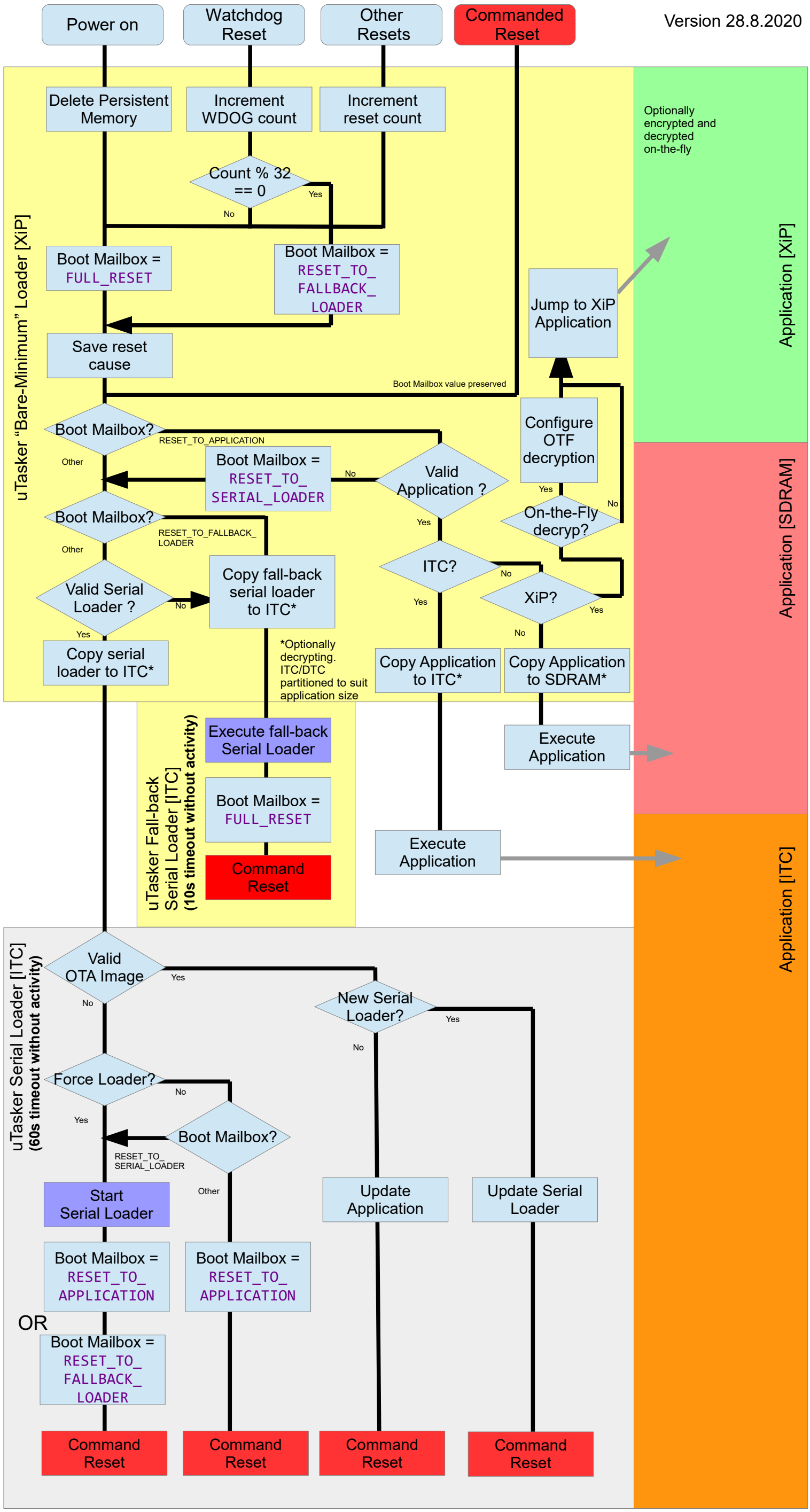
Version 28.8.2020
Power on
Watchdog Reset
Other Resets
Commanded Reset
Delete Persistent Memory
Increment WDOG count
Increment reset count
Count % 32 == 0
Yes
No
Boot Mailbox = FULL_RESET
Boot Mailbox = RESET_TO_ FALLBACK_ LOADER
Save reset cause
Boot Mailbox value preserved
Boot Mailbox?
RESET_TO_APPLICATION
Other
Boot Mailbox = RESET_TO_ SERIAL_LOADER
No
Valid Application ?
Yes
Boot Mailbox?
RESET_TO_FALLBACK_ LOADER
Other
Valid Serial Loader ?
No
Copy fall-back serial loader to ITC*
Yes
Copy serial loader to ITC*
*Optionally decrypting. ITC/DTC partitioned to suit application size
ITC?
No
Yes
XiP?
Yes
No
Copy Application to ITC*
Copy Application to SDRAM*
Configure OTF decryption
Yes
On-the-Fly decryp?
No
Jump to XiP Application
uTasker "Bare-Minimum" Loader [XiP]
Optionally encrypted and decrypted on-the-fly
Application [XiP]
Application [SDRAM]
Application [ITC]
Execute fall-back Serial Loader
Boot Mailbox = FULL_RESET
Command Reset
uTasker Fall-back Serial Loader [ITC] (10s timeout without activity)
Execute Application
Execute Application
Valid OTA Image
Yes
No
New Serial Loader?
Yes
No
Force Loader?
No
Yes
Boot Mailbox?
RESET_TO_ SERIAL_LOADER
Other
Start Serial Loader
Update Application
Update Serial Loader
Boot Mailbox = RESET_TO_ APPLICATION
Boot Mailbox = RESET_TO_ APPLICATION
OR
Boot Mailbox = RESET_TO_ FALLBACK_ LOADER
uTasker Serial Loader [ITC] (60s timeout without activity)
Command Reset
Command Reset
Command Reset
Command Reset