# PINAPP hold pen of evaluation and conclusion

## PINAPP life cycle

The logic in PINAPP is below:

**Step 1: Registration**

As solution 12 describes, the PEMC, PEGC, PINE should register into the PIN server first.

**Step 2: PIN creation**

As solution 2 describes, the PIN creates triggered by PEMC and sends the request towards the PIN server.

**Step 3: PIN management procedure internal PIN**

**Step 3-1: PEMC changes**

Including the PEMC changes itself (solution 2), PIN server triggers PEMC changing (solution 2), PEMC failure triggers the relocation (solution 9)

**Step 3-2: PEGC changes**

(Solution 2) Including the PEGC relocation itself, PEMC triggers the PEGC relocation, PIN server triggers the PEGC relocation.

**Step 3-3: PIN profile recover**

(Solution 2) PIN profile recover from PIN server.

**Step 4: Add/Delete PINE to PIN**

**Step 4-1: PINE discovers the PIN**

(Solution 5) The PINE discovers the PIN from PEMC/PIN server, and (solution 3) join the PIN.

**Step 4-2: PINE leaves the PIN**

(Solution 3) The PINE leaves a PIN

**Step 4-3: PEMC/PIN server removes PINE in a PIN**

(Solution 3) The PEMC/PIN server removes the PINE in a PIN

**Step 5: PIN profile**

(solution 6) PIN profile and dynamic PIN Profile

**Step 6: (Additional) PIN server discovery**

(solution 7) PIN server discovery

**Step 7: Enhancement function of PIN**

**Step 7-1: Service Switch**

(Solution 8) PIN server assisted service switch

(Solution 10) Service switch internal PIN

**Step 7-2: PIN and application server**

(Solution 11) Communication to application server

**Step 7-3: Continuity in PIN**

(No solution) PEGC relocation

(No solution) Communication via PEGC changing to 5GS

**Step 7-4: Communication via 5GS**

(solution 14) PIN server triggers the QoS establishment.

**Step 8: PIN architecture**

(Solution 1) PIN enabler architecture

(Solution 13) SEAL enhancement

**Step 9: Requirements**

No content, need update

**Step 10: PIN delete**

**Step 10-1: PEMC trigger**

Solution 4

**Step 10-2: local delete**

Solution 4

**Step 10-3: PIN server trigger**

Solution 4

## Hold pen or interests

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|  | Hold pen (Company) |
| **Step 1: Registration** | vivo |
| **Step 2: PIN creation** | vivo |
| **Step 3: PIN management procedure internal PIN** |  |
| Step 3-1: PEMC changes  Including the PEMC changes itself (solution 2), PIN server triggers PEMC changing (solution 2), PEMC failure triggers the relocation (solution 9) | vivo |
| Step 3-2: PEGC changes  (Solution 2) Including the PEGC relocation itself, PEMC triggers the PEGC relocation, PIN server triggers the PEGC relocation. | vivo |
| Step 3-3: PIN profile recover  (Solution 2) PIN profile recover from PIN server. | vivo |
| **Step 4: Add/Delete PINE to PIN** |  |
| Step 4-1: PINE discovers the PIN  (Solution 5) The PINE discovers the PIN from PEMC/PIN server, and (solution 3) join the PIN. | vivo |
| Step 4-2: PINE leaves the PIN  (Solution 3) The PINE leaves a PIN | vivo |
| Step 4-3: PEMC/PIN server removes PINE in a PIN  (Solution 3) The PEMC/PIN server removes the PINE in a PIN | vivo |
| **Step 5: PIN profile**  (solution 6) PIN profile and dynamic PIN Profile | vivo |
| **Step 6: (Additional) PIN server discovery**  (solution 7) PIN server discovery | vivo |
| **Step 7: Enhancement function of PIN** |  |
| Step 7-1: Service Switch  (Solution 8) PIN server assisted service switch |  |
| (Solution 10) Service switch internal PIN | vivo |
| Step 7-2: PIN and application server  (Solution 11) Communication to application server |  |
| Step 7-3: Continuity in PIN |  |
| Step 7-4: Communication via 5GS  (solution 14) PIN server triggers the QoS establishment. | vivo |
| **Step 8: PIN architecture** |  |
| (Solution 1) PIN enabler architecture | vivo |
| (Solution 13) SEAL enhancement |  |
| **Step 9: Requirements** |  |
| **Step 10: PIN delete** |  |
| Step 10-1: PEMC trigger (Solution 4) | vivo |
| Step 10-2: local delete (Solution 4) | vivo |
| Step 10-3: PIN server trigger (Solution 4) | vivo |