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2.4 *Functional entity actions*

Functional entities are assumed to have the basic capabilities required to properly perform their assigned functions in the ISDN (e.g. synchronism, signalling capabilities, etc.). In addition, the actions that occur at the functional entities during call processing stages for providing services described in this Recommendation have been given reference numbers and brief descriptions. The reference numbers are shown on the information flow diagrams and on SDL diagrams. The detailed list of descriptions of actions, together with references to the information flow diagrams, follow:

Reference

number Actions

211 *Process service request*

- Receive, analyze and acknowledge (as required) user's SETUP.req
- Interact with user to accumulate information
- Select network access resource
- Formulate call SETUP req.ind

Connect

- Establish connection as required

- Receive and react to SETUP req.ind from the CCA
- Analyze the service request
- Identify the calling terminal, terminal characteristics and user priority level, if any
- Verify the user's authorization, capabilities and availability of appropriate resources
- Establish call reference

Reference

number Actions

Process attempt

- Reserve incoming resources
- Analyze information (called number, routing requirements, etc.)
- Determine connection elements type, outgoing resource (or virtual circuit), other resources (echo control, pads, etc.), charging treatment, network management controls in effect and any other elements involved in call setup.
- Select path through entity
- Reserve outgoing resource and any other required resources
- Formulate PROCEEDING req.ind and SETUP req.ind
- Start call control timing, as required

223 *Through connect*

- Establish through connection as required (see Note 1 to Figures 2-2/Q.71 through 2-9/Q.71)

224 *Through connect*

- Receive and react to SETUP resp.conf
- Establish through connection as required (see Note 2 to Figures 2-2/Q.71 through 2-9/Q.71)
- Formulate SETUP resp.conf

Start charging

- Start charging timing (see Note 3 to Figures 2-2/Q.71 through 2-9/Q.71)

225 *Start timer*

- Receive and react to REPORT req.ind
- Start user-answer timer
- Formulate REPORT (Alerting) req.ind

231 *Process attempt*

- Receive and analyze SETUP req.ind
- Establish call reference
- Reserve incoming resources
- Analyze called number, routing information, network management and/or priority information
- Determine connection elements type, outgoing resource, need for other resources
- Select and reserve outgoing resource, other resources as required and path through the entity
- Formulate SETUP req.ind

232 *Through connect*

- Establish through connection as required (see Note 1 to Figures 2-2/Q.71 through 2-9/Q.71)

Reference

number Actions

241 *Perform terminating screening*

- Receive and analyze SETUP req.ind
- Reserve incoming resources
- Analyze service request, called number and any routing information
- Identify the called line(s), called terminal characteristics, any priorities and resources required
- Verify called user's authorization/capabilities
- Establish call reference

Process attempt

- Select and reserve outgoing resource, other resources and path through entity
- Formulate SETUP req.ind including requested service indication

243 *Through connect*

- Establish through connection, if required (see Note 1 to Figures 2-2/Q.71 through 2-9/Q.71)
- Start user-response timer

244 *Apply ringing tone*

- Receive and react to REPORT (Alerting) req.ind
- Apply ringing tone, if required, to resource toward calling user (see Note 6 to Figures 2-2/Q.71 through 2-9/Q.71)
- Formulate REPORT req.ind

245 *Remove ringing tone*

- Receive and react to SETUP resp.conf
- If applied, remove ringing tone
- Establish through connection if not done in Ref. 243 (see Note 2 to Figures 2-2/Q.71 through 2-9/Q.71)

- Formulate SETUP resp.conf

251 *Process attempt*

- Receive and react to SETUP req.ind
- Analyze service request
- Identify called user
- Verify compatibility of called user terminal
- Reserve resources
- Send SETUP.ind to called user
- Formulate REPORT (Alerting) req.ind

252 *Connect*

- Receive and react to CONNECTED req.ind
- Establish connection

311 *Disconnect*

- Recognize user DISCONNECT.req
- Formulate DISCONNECT req.ind
- Disconnect resources

Reference

number Actions

312 Release resources

- Receive and react to RELEASE req.ind
- Release resources — both directions

321 Disconnect

- Receive and react to DISCONNECT req.ind
- Disconnect resources
- Formulate RELEASE req.ind

Stop charging

- Stop charging per Note 3 to Figures 2-2/Q.71 through 2-9/Q.71

322 Release resources

- Receive and react to RELEASE resp.conf
- Release resources in direction of incoming RELEASE resp.conf

323 Release resources

- Receive and react to RELEASE resp.conf
- Release resources in direction of incoming RELEASE resp.conf

331 Disconnect

- Receive and react to RELEASE req.ind
- Disconnect resources
- Formulate RELEASE req.ind

Release resource

- Release resource in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

332 *Release resources*

- Receive and react to RELEASE resp.conf
- Release resources in direction of incoming RELEASE resp.conf

341 *Disconnect*

- Receive and react to RELEASE req.ind
- Disconnect resources
- Formulate DISCONNECT req.ind

Apply disconnect tone

- If used, apply disconnect tone to resource toward user (see Note 6 to Figures 2-2/Q.71 through 2-9/Q.71)

Release resources

- Release resources in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

342 *Remove tone*

- Receive and react to RELEASE req.ind
- If applied, remove tone

Reference

number Actions

Release resources

- Release resources in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

351 *Process demand*

- Receive and react to DISCONNECT req.ind
- Initiate action to send DISCONNECT.ind to user

352 *Disconnect*

- Receive and react to DISCONNECT.req from user
- Disconnect resources

353 *Release resources*

- Receive and react to RELEASE resp.conf
- Release resources — both directions

411 *Process demand*

- Receive and react to DISCONNECT req.ind
- Initiate action to send DISCONNECT.ind to user

412 *Disconnect*

- Receive and react to DISCONNECT.req from user
- Disconnect resources
- Formulate RELEASE req.ind

413 *Release resources*

- Receive and react to RELEASE resp.conf
- Release resources — both directions

421 *Disconnect*

- Receive and react to RELEASE req.ind
- Disconnect resources
- Formulate DISCONNECT req.ind

Stop charging

- Stop charging per Note 3 to Figures 2-2/Q.71 through 2-9/Q.71

Apply disconnect tone

- If used, apply disconnect tone to resource toward user (see Note 6 to Figures 2-2/Q.71 through 2-9/Q.71)

Release resources

- Release resource in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

422 *Remove tone*

- Receive and react to RELEASE req.ind
- If applied, remove tone

Reference

number Actions

Release resources

- Release resources in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

431 *Disconnect*

- Receive and react to RELEASE req.ind
- Disconnect resources
- Formulate RELEASE req.ind

Release resources

- Release resources in direction of incoming RELEASE req.ind
- Formulate RELEASE resp.conf

432 *Release resource*

- Receive and react to RELEASE resp.conf
- Release resource in direction of incoming RELEASE resp.conf

441 *Disconnect*

- Receive and react to DISCONNECT req.ind
- Disconnect resources
- Formulate RELEASE req.ind

442 *Release resource*

- Receive and react to RELEASE resp.conf
- Release resource in direction of incoming RELEASE resp.conf

443 *Release resource*

- Receive and react to RELEASE resp.conf
- Release resource in direction of incoming RELEASE resp.conf

451 *Disconnect*

- Recognize user DISCONNECT.req
- Formulate DISCONNECT req.ind
- Disconnect resources

452 *Release resources*

- Receive and react to RELEASE req.ind
- Release resources — both directions
- Formulate RELEASE resp.conf

2.5 *Additional FEAs required for digit-by-digit call setup cases:*

Under study.

2.6 *Allocation of functions to physical entities*

The functional model relates to functions involved in handling a single call or call attempt. The scenarios in Table 2-2/Q.71 identify the roles a physical device (e.g., exchange, NT2, terminal equipment, etc.) may play in handling that call or call attempt. A specific physical device may fulfill different roles in different scenarios, e.g., a local exchange may provide both CCA and CC capabilities. (See scenario D.)

Table 2-2/Q.71 (a traiter comme figure MEP), p.

3 In-call modification procedures for alternate speech/unrestricted information transfer service

Under study.

