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Telcordia
Notes on the Networks

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Telcordia Notes on the Networks

SR-2275 replaces SR-2275, *Bellcore Notes on the Networks*, Issue 3, December 1997.

Related documents:

SR-NOTES-SERIES-01, *Telcordia Notes on the Synchronous Optical Network (SONET)*
SR-NOTES-SERIES-02, *Telcordia Notes on Dense Wavelength-Division Multiplexing (DWDM) and Optical Networking*
SR-NOTES-SERIES-03, *Telcordia Notes on Number Portability and Number Pooling*
SR-NOTES-SERIES-04, *Telcordia Notes on the Evolution of Enhanced Emergency Services.*

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For example, a "Termination Attempt" DN trigger can be placed at this TDP to support services such as Carrier Access Restriction (CAR) and Personal Communications Services (PCS). In response to the above triggers, AIN service logic in an SCP can request an AIN 0.1 SSP to perform actions such as rerouting the call or playing a terminating or interactive announcement to the caller.

Evolving AIN SSP capabilities support four new call processing triggers: O_Called_Party_Busy, O_No_Answer, T_Busy, and T_No_Answer. These triggers allow AIN SSPs to detect a busy condition from the originating or terminating end of a call, and to detect when the called party does not answer from the originating or terminating end of a call. These new triggers provide AIN with the capability to redirect calls on busy/no answer. Other TDPs defined subsequent to AIN 0.1 include: O_Term_Seized, O_Answer, and Term_Resource_Available, as shown in Figures 14-15 and Figure 14-16[10]. The Off_Hook_Delay trigger has been extended to apply to ISDN PRI interfaces. The 3/6/10-digit trigger has been extended to trigger on any number of three to ten digits and has been renamed "Specific_Digit_String" trigger to reflect this extension.

In addition, AIN provides the non-call related functions such as:

- *Monitor* — Allows an SSP to notify an SCP when a designated facility, such as a line, changes status.

- *Update* — Allows an SCP to change the status of triggers in an SSP, for example, from inactive to active.

- *Non-Call Associated Signalling* –– Allows the exchange of data between an IP and an SCP.

14.7.5.2   Event Detection Points (EDPs)

Events are detected as a result of processing a call. AIN enables an SCP to send a *list* of subsequent events that may occur during a call handled by an AIN SSP such that when one of the events on the list occurs, the SSP may be required to suspend call processing and launch a query to the SCP. This list of events is known as a Next Event List (NEL). The NEL allows an SCP to request information regarding the status of a call (e.g., network busy conditions, called party busy conditions). When a NEL request is made, the TCAP transaction remains open between the SCP and SSP, and the SCP awaits notification of the event from the SSP.

Like TDPs, EDPs are associated with PICs. However, requested events are not administered at the SSP. The SCP activates EDPs dynamically (during an already open transaction) in the form of a returned NEL. The SCP activates EDPs (during an already open transaction) by sending the SSP a NEL. The SSP detects the need for additional AIN control when an event included in the NEL is encountered at an EDP. There are two types of requested events: EDP-Requests and EDP-

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10. For more detailed descriptions of trigger detection points and associated triggers, refer to GR-1298-CORE, Issue 3.

Notifications. When the SSP recognizes an event as an EDP-Request, the SSP stops call processing, sends an EDP-Request message to the SCP, and awaits instruction from the SCP for further call processing. When the SSP recognizes an event as an EDP-Notification, the SSP does not stop call processing, but sends an EDP-Notification message to the SCP. Upon receiving an EDP-Notification message, the SCP does not respond to the SSP, but may record the occurrence of the event for subsequent processing.

Some EDPs supported by AIN include the following:

A. EDP-R

- *Origination_Attempt* – tells the calling party's service that an off-hook indication or SETUP message is received by the SSP.

- *Network Busy* – tells the calling party's service that the network beyond the AIN switch cannot complete the call due to no available routes.

- *O_Called_Party_Busy* – tells the calling party's service that the called party is busy.

- *O_No_Answer* – tells the calling party's service that the called party has not answered the call before a timer expired.

- *O_Suspended* – tells the calling party's service that the called party has released the call.

- *O_Disconnect* – tells the calling party's service that the called party has released the call and disconnect timing has completed.

- *O_Mid_Call* – tells the calling party's service that a switch-hook flash (analog) or a feature activator indication (ISDN) has been received.

- *T_Busy* – tells the called party's service that the subscriber's line is not idle or is unable to receive calls.

- *T_Mid_Call* – tells the called party's service that a switch-hook flash (analog) or a feature activator indication (ISDN) has been received.

- *T_No_Answer* – tells the called party's service that the subscriber's line has not answered the call before a timer expired.

- *T_Disconnect* – tells the called party's service that the called party has released the call and disconnect timing has completed.

B. EDP-N

- *Origination_Attempt* – tells the calling party's service that an off-hook indication or SETUP is received by the SSP.

- *O_Term_Seized* – tells the calling party's service that the called party's access has been successfully seized.

- *O_Answer* – tells the calling party's service that the called party has answered the call.