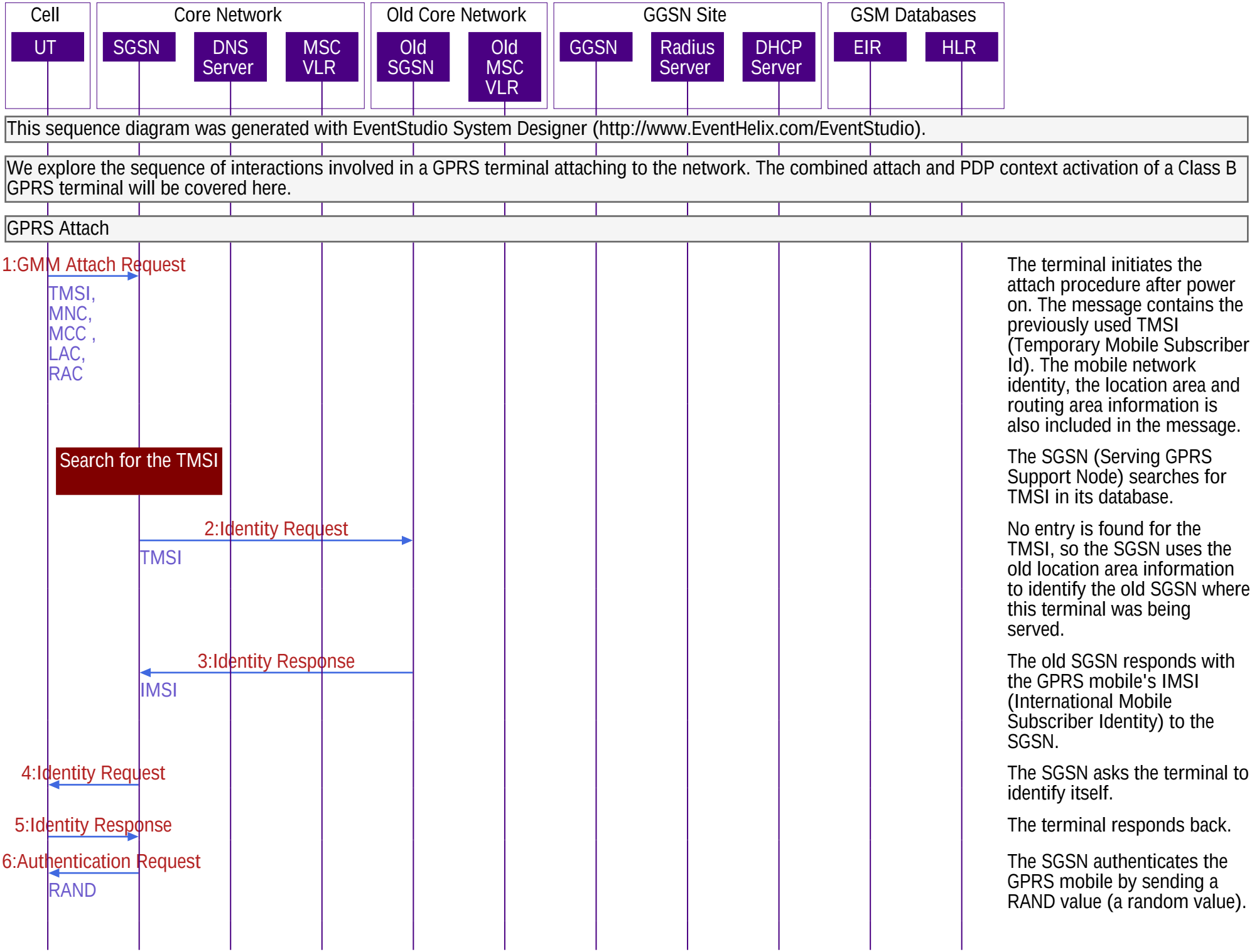

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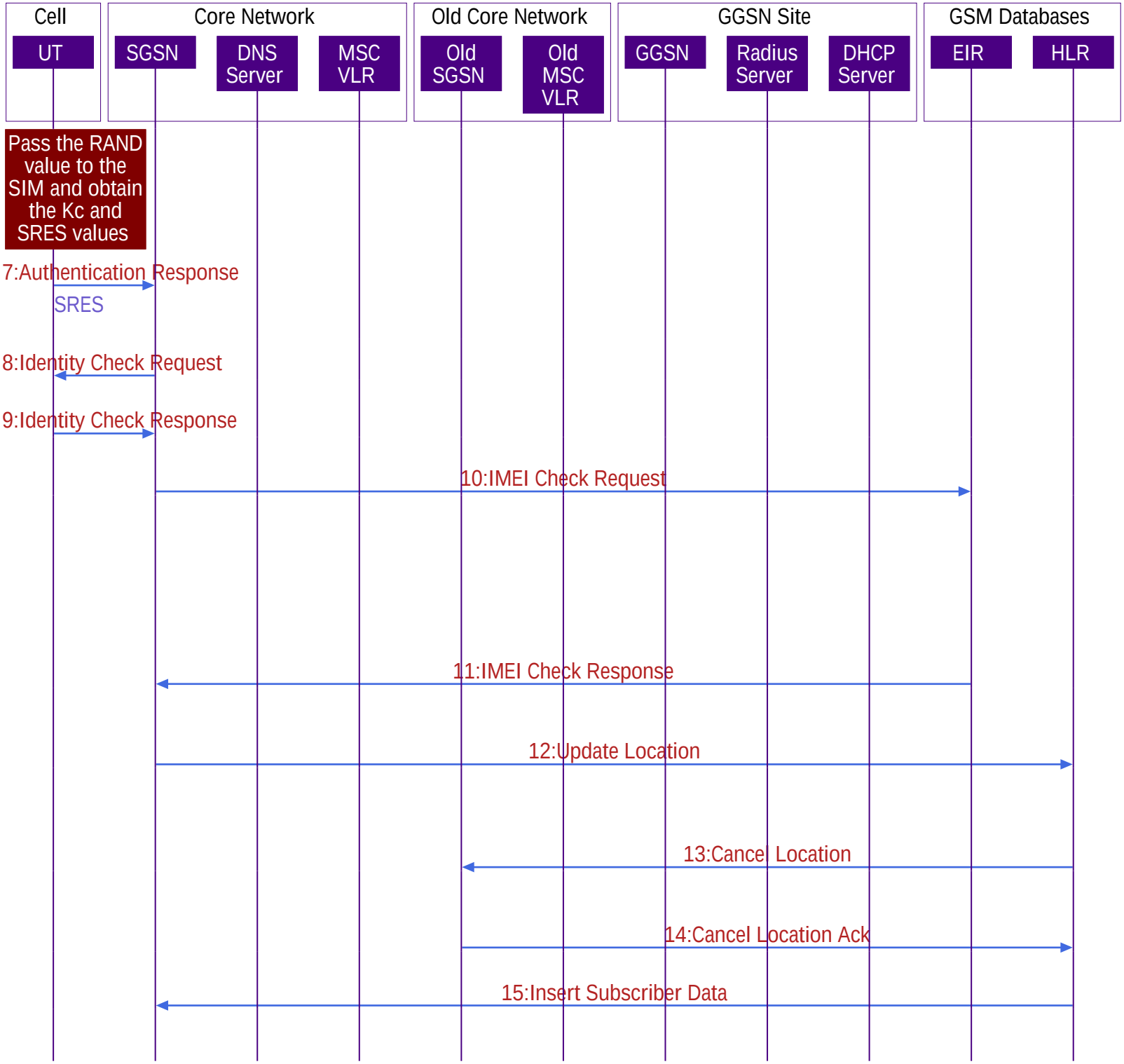

The SIM applies secret GSM algorithms on the RAND and the secret key Ki to obtain the session key Kc and SRES.

The computed SRES value is passed to the SGSN.

The SGSN then requests the identity of the GPRS mobile.

GPRS mobile responds back with the identity.

Verify that that GPRS mobile being used by the user is not a stolen one. The IMEI (Internaional Mobile Equipment Identity) obtained from the GPRS mobile is sent to the Equipment Identification Register (EIR).

The EIR clears the subscriber and responds back to the SGSN with the status.

The SGSN now informs the Home Location Register (HLR) about the new location of the GPRS mobile.

The HLR informs the old SGSN that the GPRS mobile has moved to a new location.

The old SGSN acknowledges back.

The HLR updates the new SGSN with all the subscriber information.

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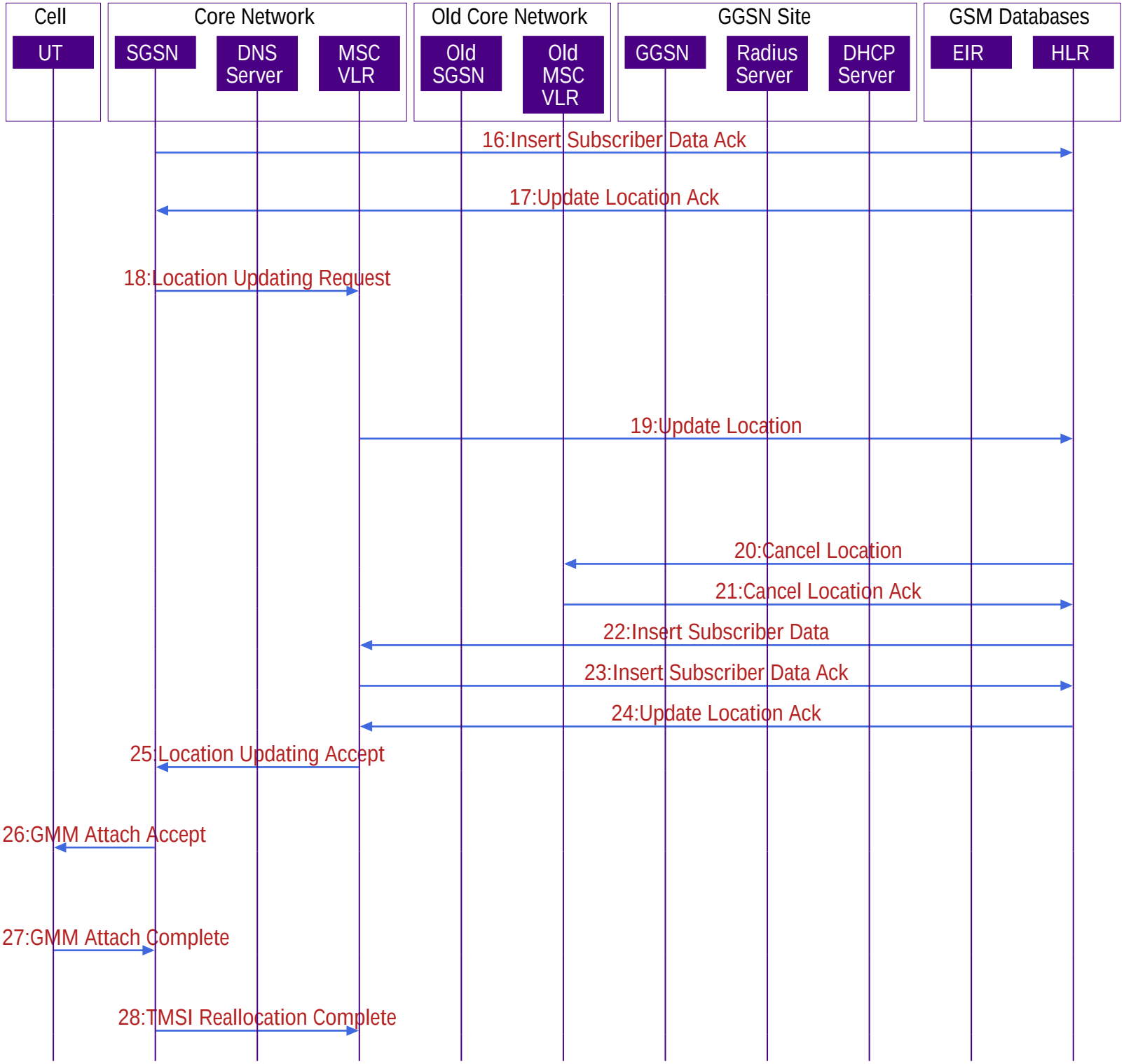

The SGSN responds back to the HLR.

The HLR now responds back to the SGSN's "Update Location" message.

The mobile had initiated a combined attach, so the SGSN also updates the location information at the MSC-VLR that will handle the voice calls.

The MSC also initiates an update at the HLR. The sequence of actions here is identical to that of the SGSN's HLR update.

The MSC informs the SGSN that it has finished the location update.

The SGSN responds back to the original GRPS combined attach request from the mobile.

The GPRS mobile acknowledges the receipt of "Attach Accept".

The Attach Complete signals the completion of the attach

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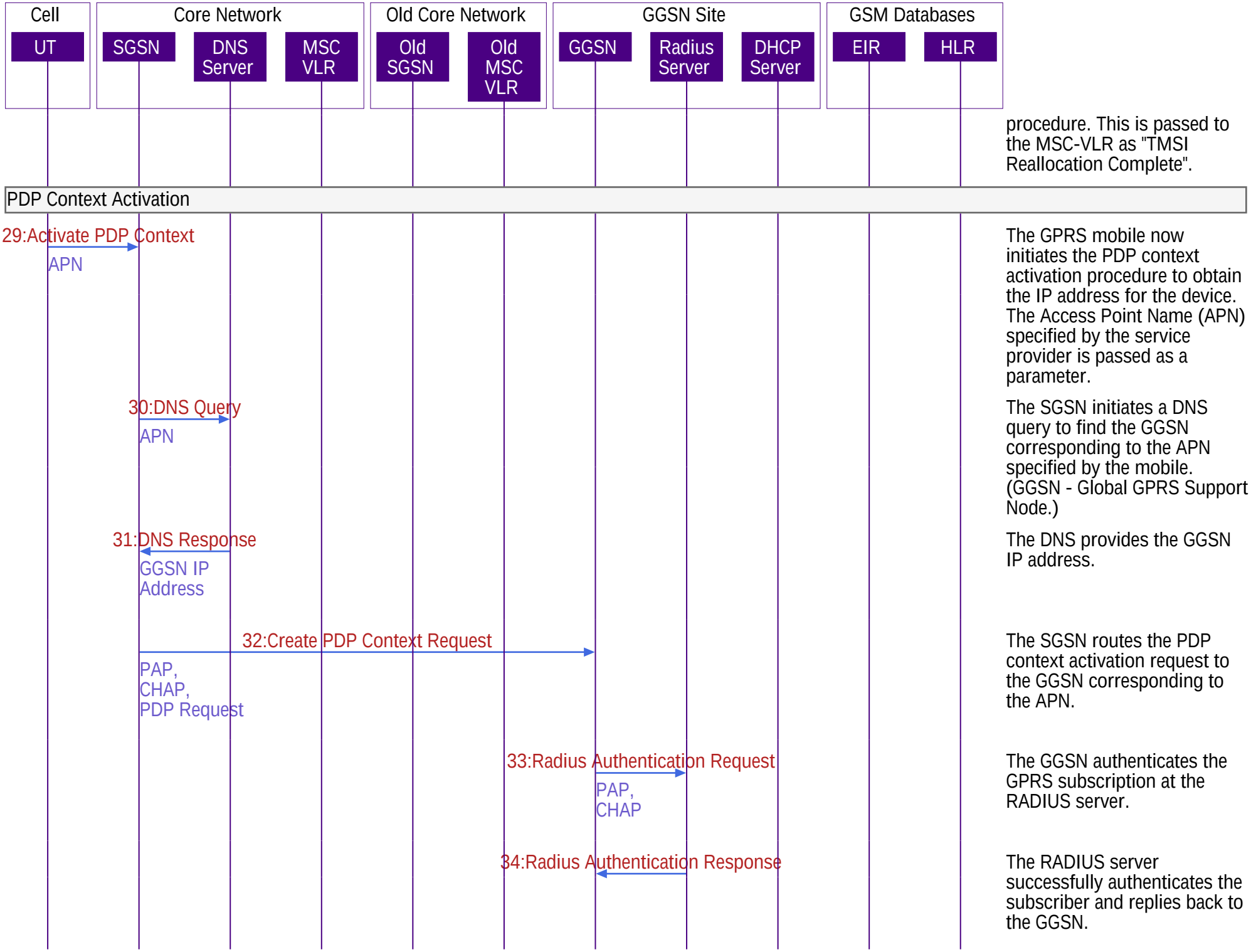

procedure. This is passed to the MSC-VLR as "TMSI Reallocation Complete".

The GPRS mobile now initiates the PDP context activation procedure to obtain the IP address for the device. The Access Point Name (APN) specified by the service provider is passed as a parameter.

The SGSN initiates a DNS query to find the GGSN corresponding to the APN specified by the mobile. (GGSN - Global GPRS Support Node.)

The DNS provides the GGSN IP address.

The SGSN routes the PDP context activation request to the GGSN corresponding to the APN.

The GGSN authenticates the GPRS subscription at the RADIUS server.

The RADIUS server successfully authenticates the subscriber and replies back to the GGSN.

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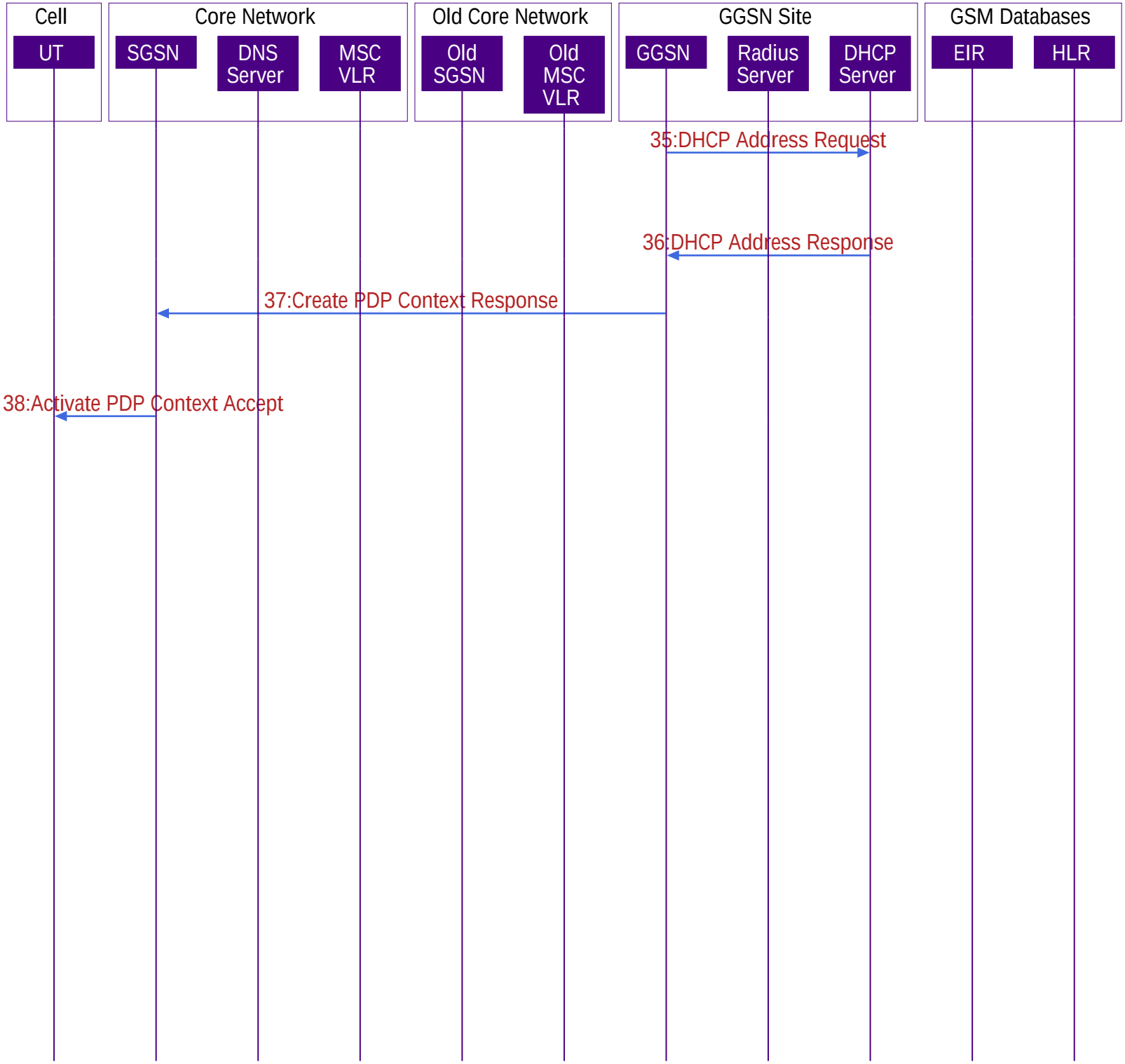

The GGSN now requests a DHCP server for an dynamic IP address for the GPRS mobile.

The DHCP server provides the IP address.

The GGSN responds back to the SGSN, indicating completion of the PDP context activation procedure.

The SGSN replies back to the GPRS mobile. This signals completion of the PDP context activation.

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