

S-CSCF Interfaces (IMS Registration for an Unauthenticated User)

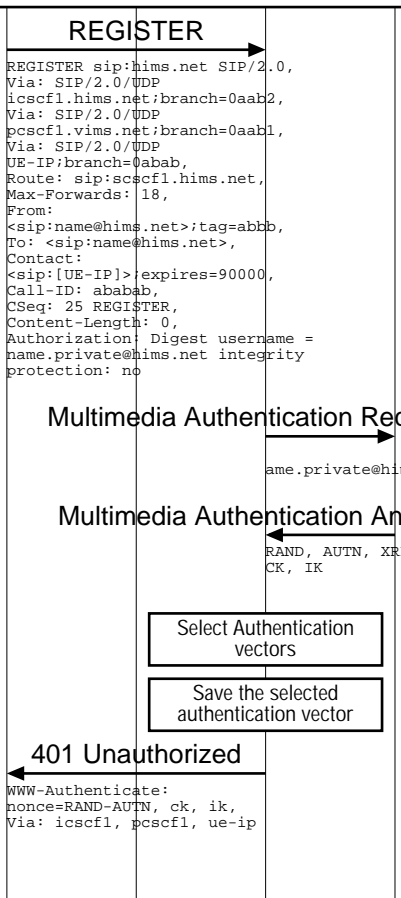
Visited Network			Internet	Home Network				EventStudio System Designer 4.0
User Equipment	Visited CN		Visited IMS	DNS Server	Home IMS		Home CN	
Subscriber	SGSN	GGSN	P-CSCF	DNS Server	I-CSCF		S-CSCF	HSS

24-Nov-07 18:36 (Page 1)

GPRS Attach

PDP Context Activation

Unauthenticated IMS Registration Attempt



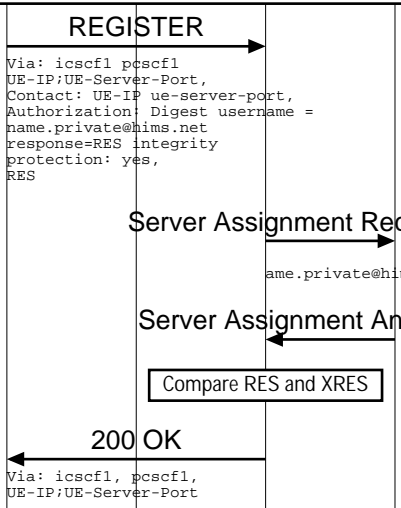
The I-CSCF forwards the REGISTER message to the selected S-CSCF.

HSS passes the Random number (RAND), Authentication token (AUTN), signed result (XRES), Cipher key (CK) and Integrity Key (IK).

The user is currently not authenticated, so the registration request is rejected. The terminal is challenged to authenticate the user. RAND, AUTN, CK and IK are passed in the WWW-Authenticate header.

IPSec Security Association Establishment

Authenticated IMS Registration



The SIP REGISTER message is finally delivered to the S-CSCF.

Request subscriber related information from the HSS.

Received subscriber related information.

Compare the RES reported by the subscriber with the XRES value.

The RES and the XRES matched, so the S-CSCF replies with success.