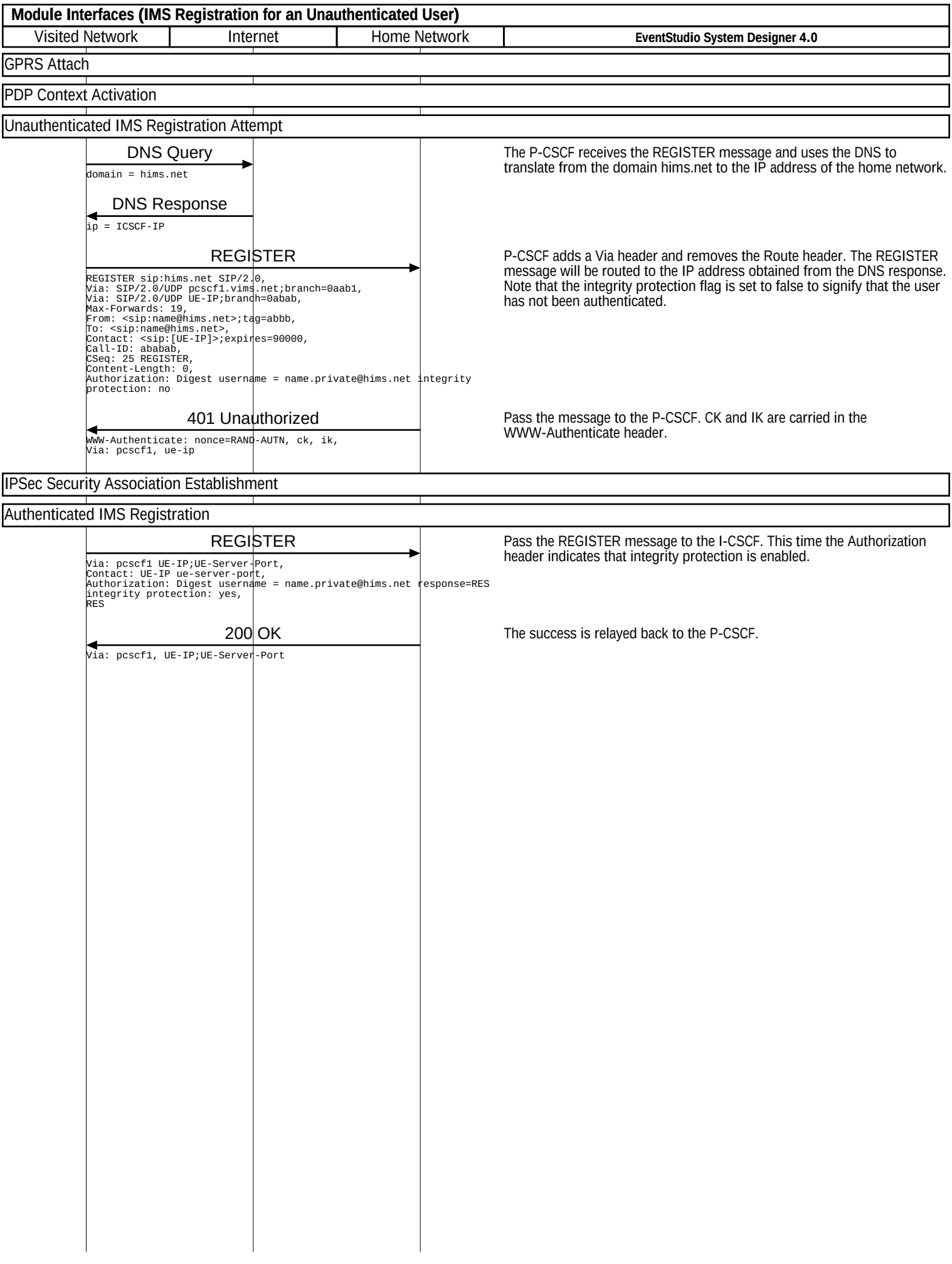
Module Interfaces (IMS Registration for an Unauthenticated User)
Visited Network
Internet
Home Network
EventStudio System Designer 4.0
GPRS Attach
PDP Context Activation
Unauthenticated IMS Registration Attempt
DNS Query
domain = hims.net
DNS Response
ip = ICSCF-IP
The P-CSCF receives the REGISTER message and uses the DNS to translate from the domain hims.net to the IP address of the home network.
REGISTER
REGISTER sip:hims.net SIP/2.0,
Via: SIP/2.0/UDP pcscf1.vims.net;branch=0aab1,
Via: SIP/2.0/UDP UE-IP;branch=0abab,
Max-Forwards: 19,
From: <sip:name@hims.net>;tag=abbb,
To: <sip:name@hims.net>,
Contact: <sip:[UE-IP]>;expires=90000,
Call-ID: abababab,
CSeq: 25 REGISTER,
Content-Length: 0,
Authorization: Digest username = name.private@hims.net integrity protection: no
P-CSCF adds a Via header and removes the Route header. The REGISTER message will be routed to the IP address obtained from the DNS response. Note that the integrity protection flag is set to false to signify that the user has not been authenticated.
401 Unauthorized
WWW-Authenticate: nonce=RAND-AUTN, ck, ik,
Via: pcscf1, ue-ip
Pass the message to the P-CSCF. CK and IK are carried in the WWW-Authenticate header.
IPSec Security Association Establishment
Authenticated IMS Registration
REGISTER
Via: pcscf1 UE-IP;UE-Server-Port,
Contact: UE-IP ue-server-port,
Authorization: Digest username = name.private@hims.net response=RES integrity protection: yes,
RES
Pass the REGISTER message to the I-CSCF. This time the Authorization header indicates that integrity protection is enabled.
200 OK
Via: pcscf1, UE-IP;UE-Server-Port
The success is relayed back to the P-CSCF.