

VIAVI

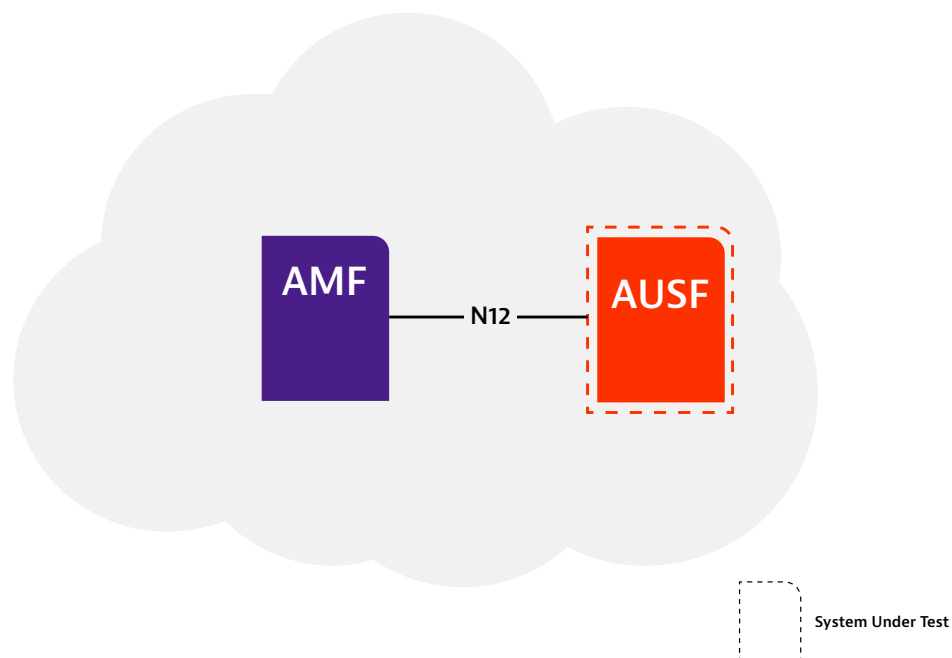
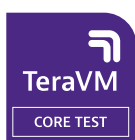
TeraVM AUSF Wraparound Test

AUSF Test

The Authentication Server Function (AUSF) is a 5G SA Core Network element responsible for the security procedure for SIM authentication using the 5G-AKA authentication method. The AUSF has the following features and functions:

- Authenticate the UE for the requesting AMF
- Provide keying material to the requesting AMF
- Protect the Steering of Roaming (SoR) List for the requesting AMF

Testing an AUSF requires emulating an AMF and initiating the procedures to the AUSF for testing the compliance and integrity of the AUSF functions according to 3GPP TS 29.509 – *AUSF in 5G System architecture*.



AUSF Test Cases

TeraVM AUSF wraparound test supports the following test procedures:

- Authentication Procedure (Nausf_UE Authentication)
- Steering of Roaming Protection (Nausf_SoRProtection)
- UE Parameter Update Protection (Nausf_UPUProtection)

Example Test Case

Authentication Procedure (Nausf_UE Authentication):

After receiving a Registration Request, the AMF initiates an authentication procedure towards the AUSF with procedure Nausf_UEAuthentication with SUCI or SUPI and Serving network name. The AUSF based on the Serving Network name, determines if AMF is authorised to send this message. The AUSF then asks UDM to calculate the 5G Home Authentication Environment Authentication Vector (HE AV) and return it to AUSF along with an indication that 5G AKA is going to be used. The AUSF then generates a 5G Serving Environment Authentication Vector and sends it to the AMF.

Order Codes

AUSF wraparound test is available with the following product codes:

Part Number	Description	Capacity	Support
TVM3000	Dell Server for Core Test	—	HWSUP PPG15
TVM3138	AUSF wraparound test	—	



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