

**अनिवार्य आवश्यकताएँ**

**संख्या : TEC40052111**

**Essential Requirements**

**ER No. : TEC40052111**

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**HLR AUC HSS**

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**Telecommunication Engineering Centre**

**Government of India**

**Khurshid Lal Bhawan, Janpath, New Delhi-110001, INDIA**

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## Essential Requirements for:

### **HLR AUC HSS**

Certification Scheme: **GCS**

Product Fee Group: **C**

Essential Requirements under the mandatory testing Framework in accordance with Government of India Gazette Notification No. G.S.R. 1131 E, dated 05th September 2017, for HLR or AuC or HSS to be used in Indian Telecom

*Note: Annexures referred to in this ER are Annexures as mentioned in "Annexures to ERs" No. TEC/SD/DD/TCP-222/02/June19 as updated from time to time and available on MTCTE portal.*

This product has the following variants:

1. HLR or AUC
2. HSS

#### **1. Variant 1 : HLR or AUC**

##### **1.1 Parameters Linked with Product Variant**

S.No.	Parameter Name	Standard Name
1.1.1	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.2	Dual IP Layer Operation RFC 4213 - Address	RFC 4213 Cl. 2.1. Annex-P6
1.1.3	Dual IP Layer Operation RFC 4213 - DNS	RFC 4213 Cl. 2.1 and 2.2. Annex-P6
1.1.4	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
1.1.5	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.6	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B

1.1.7	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.8	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.9	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.10	IPV6 Extn Header Parameters	RFC 2460 or RFC 8200 . Annex-P7
1.1.11	IPV6 Header Parameters	RFC 2460 / RFC 8200 . Annex-P7
1.1.12	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
1.1.13	Numbering Addressing and identification	3GPP TS 23.003

### 1.2 Interface 1 : HLR-MSC or MSC-S or GMSC

S.No.	Parameter Name	Standard Name
1.2.1	Call Control related procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002
1.2.2	Interface Management Procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002
1.2.3	SMS Related Procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002
1.2.4	Subscriber authentication procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002
1.2.5	Subscriber Information Management Procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002
1.2.6	Supplementary Services Related Procedures(HLR-MSC or MSC-S or GMSC interface)	3GPP TS 29.002

### 1.3 Interface 2 : HLR-SGSN

S.No.	Parameter Name	Standard Name
1.3.1	Interface management procedures(HLR-SGSN interface)	3GPP TS 29.002
1.3.2	Subscriber data management procedures(HLR-SGSN interface)	3GPP TS 29.002

#### 1.4 Interface 3 : HLR-SMSC

S.No.	Parameter Name	Standard Name
1.4.1	Interface Management Procedures(HLR-SMSC interface)	3GPP TS 29.002
1.4.2	SMS related procedures(HLR-SMSC interface)	3GPP TS 29.002

#### 1.5 Interface 4 : HLR-VLR

S.No.	Parameter Name	Standard Name
1.5.1	Interface Management Procedures(HLR-VLR)	3GPP TS 29.002
1.5.2	Subscriber Data Management Procedures(HLR-VLR)	3GPP TS 29.002

#### 1.6 Interface 5 : Lawful Interception

S.No.	Parameter Name	Standard Name
1.6.1	Interception Procedures	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108
1.6.2	Interface Management Procedures (Lawful Interception)	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108
1.6.3	Interface Management Procedures (Lawful Interception)	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108

#### 1.7 Interface 6 : Lg Interface towards GMLC

S.No.	Parameter Name	Standard Name
1.7.1	Interface Management Procedures (Lg Interface towards GMLC)	3GPP 23.271 29.002
1.7.2	Location Services Procedures (Lg Interface towards GMLC)	3GPP 23.271 29.002

## 2. Variant 2 : HSS

### 2.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
2.1.1	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
2.1.2	Dual IP Layer Operation RFC 4213 - Address	RFC 4213 Cl. 2.1. Annex-P6
2.1.3	Dual IP Layer Operation RFC 4213 - DNS	RFC 4213 Cl. 2.1 and 2.2. Annex-P6
2.1.4	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
2.1.5	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
2.1.6	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
2.1.7	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
2.1.8	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
2.1.9	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
2.1.10	IPV6 Extn Header Parameters	RFC 2460 or RFC 8200 . Annex-P7
2.1.11	IPV6 Header Parameters	RFC 2460 / RFC 8200 . Annex-P7
2.1.12	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
2.1.13	Numbering Addressing and identification	3GPP TS 23.003

## 2.2 Interface 1 : HSS- Application Server

S.No.	Parameter Name	Standard Name
2.2.1	Interface management procedures(HSS-Application Server interface)	IETF RFC 3588 3GPP TS 29.329
2.2.2	Subscriber data management procedures(HSS-Application Server interface)	IETF RFC 3588 3GPP TS 29.329

## 2.3 Interface 2 : HSS-CSCF

S.No.	Parameter Name	Standard Name
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2.3.1	Interface management procedures(HSS-CSCF interface)	IETF RFC 3588 3GPP TS 29.228
2.3.2	Subscriber data management procedures(HSS-CSCF interface)	IETF RFC 3588 3GPP TS 29.228

#### 2.4 Interface 3 : HSS-MME

S.No.	Parameter Name	Standard Name
2.4.1	Interface management procedures(HSS-MME interface)	IETF RFC 3588 3GPP TS 29.272
2.4.2	Subscriber data management procedures(HSS-MME interface)	IETF RFC 3588 3GPP TS 29.272

#### 2.5 Interface 4 : Lawful Interception

S.No.	Parameter Name	Standard Name
2.5.1	Interception Procedures	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108
2.5.2	Interface Management Procedures (Lawful Interception)	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108
2.5.3	Interface Management Procedures (Lawful Interception)	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108

#### 2.6 Interface 5 : Lg Interface towards GMLC

S.No.	Parameter Name	Standard Name
2.6.1	Interface Management Procedures (Lg Interface towards GMLC)	3GPP 23.271 29.002
2.6.2	Location Services Procedures (Lg Interface towards GMLC)	3GPP 23.271 29.002