



# AMF Metrics Reference

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## amf Metrics Reference

### AMF AUSF Service Stats Category

#### **n12\_service\_stats**

Description: AMF Ausf service stats

Sample Query:

```
n12_service_stats(message_type=\"NausfUeAuthReq\",status=\"success\",reason=\"AUTHENTICATION_SUCCESS\",slice_data=\"2-33333\")
```

Labels:

- Label: `message_type`

Label Description: The message type associated with an ausf service

Example: NausfUeAuthReq, NausfUeAuthRsp, NausfUe5gAkaCnfReq, NausfUe5gAkaCnfRsp

- Label: `status`

Label Description: Overall status

Example: success, failures, attempted

- Label: `reason`

Label Description: The reason associated with an ausf service

Example: Suspend, Suspend for Async, Unable to retrieve msg from rsp, Supi mismatch, Internal Error, Sync FailedMac Failure, Auth Challenge Failed, Auth Cfm Failed, Sync Failed Exceeded, Timeout, Others, No Security Context from Peer, Peer Provided Sec Context Failed, NgKsi Already In Use, Scheduled ipc action in background, Unable to retrieve identity rsp, Unable to get Supi, AUTHENTICATION\_SUCCESS, AUTHENTICATION\_REJECTED, AV\_GENERATION\_PROBLEM, CONTEXT\_NOT\_FOUND, INVALID\_HN\_PUBLIC\_KEY\_IDENTIFIER, INVALID\_SCHEME\_OUTPUT, NETWORK\_FAILURE, SERVING\_NETWORK\_NOT\_AUTHORIZED, UNSUPPORTED\_PROTECTION\_SCHEME, UPSTREAM\_SERVER\_ERROR, USER\_NOT\_FOUND, Unable to get rsp

- Label: `slice_data`  
Label Description: slice data  
Example: 2-333333

## AMF DEBUG PROTO MAP STATS Category

### **amf\_debug\_proto\_map\_stats**

Description: Debug stats

Sample Query:

```
amf_debug_proto_map_stats(msg_type=\"N2UeRadioCapabilityCheckRsp\",action=\"dropped\",reason=\"connection_not_found\")
```

Labels:

- Label: `msg_type`  
Label Description: Message Type  
Example: N2UeRadioCapabilityCheckRsp,N2InitialContextSetupRsp
- Label: `action`  
Label Description: Action  
Example: dropped
- Label: `reason`  
Label Description: Reason  
Example: connection\_not\_found

## AMF Disconnect stats Category

### **amf\_disconnect\_stats**

Description: AMF Disconnect stats counters

Sample Query: `amf_disconnect_stats{reason=\"disc_ue_init_dereg\"}`

Labels:

- Label: `reason`  
Label Description: The reason associated with an call disconnect  
Example: disc\_ue\_init\_dereg, disc\_nw\_init\_dereg, Ausf\_AuthReject, Ausf\_DropPeerMsg

## AMF EBI Assign failures Category

### **amf\_ebi\_assign\_failures**

Description: EBI Assign failure stats

**Sample Query:**

```
amf_ebi_assign_failures{message_type=\"amf_ebi_rejected_no_n26\",status=\"success\",reason=\"Unable to get rsp\",slice_data=\"2-333333\"}
```

**Labels:**

- Label: `message_type`

Label Description: The message type associated with an ebi service

Example: `amf_ebi_rejected_no_n26`, `amf_ebi_fail_pdu_session_id`, `amf_ebi_fail_bearers_not_found`

- Label: `status`

Label Description: Overall status

Example: `success`, `failures`

- Label: `reason`

Label Description: The reason associated with an ebi

Example: `Unable to get rsp`, `Unable to retrieve msg from rsp`, `Unknown Subscriber`, `Internal Error`, `Msg Timeout`

- Label: `slice_data`

Label Description: slice data

Example: `2-333333`

## AMF Initial Context Setup stats Category

**ics\_service\_stats**

Description: Initial Context Setup stats

**Sample Query:**

```
ics_service_stats{message_type=\"N2InitialContextSetupReq\",status=\"success\",reason=\"Success\",slice_data=\"2-333333\"}
```

**Labels:**

- Label: `message_type`

Label Description: The message type associated with an icsr service

Example: `N2InitialContextSetupReq`, `N2InitialContextSetupRsp`, `N2InitialContextSetupFailure`

- Label: `status`

Label Description: Overall status

Example: `success`, `failures`

- Label: `reason`

Label Description: The reason associated with an icsr

Example: `Suspend`, `Suspend for Async`, `Unable to get rsp`, `Unable to retrieve msg from rsp`, `Internal Error`, `Success`

- Label: `slice_data`





Example:

`ngap_asn_encode_error_stats{message_type="NgSetupResponse",asn_failures="CauseProtocolTransferSyntaxError"}`

- Label: `asn_failures`

Label Description: Failure reason

Example: CauseProtocolTransferSyntaxError

## AMF NGAP ASN ENCODE ERR STATS Category

### `ngap_asn_encode_error_stats`

Description: Ngap ASN Encoding errors

Sample Query: `ngap_asn_encode_error_stats{message_type="NgSetupResponse",asn_failures=""}`

Labels:

- Label: `message_type`

Label Description: NGAP Message Type

Example:

`ngap_asn_encode_error_stats{message_type="NgSetupResponse",asn_failures="CauseProtocolTransferSyntaxError"}`

- Label: `asn_failures`

Label Description: Failure reason

Example:

## AMF NGAP DL msg stats Category

### `ngap_dl_msg_stats`

Description: AMF NGAP DL msg stats

Sample Query:

`ngap_dl_msg_stats{message_type="N2HandoverCancelAck",status="success",reason="",slice_data="2-33333"}`

Labels:

- Label: `message_type`

Label Description: The message type associated with a NGAP DL msg

Example: N2HandoverCancelAck, N2HandoverRequest, N2HandoverCommand, N2HandoverPreparationFailure

- Label: `status`

Label Description: Overall status

Example: success, failures

- Label: `reason`

Label Description: The reason associated with a NGAP DL msg

Example: Unable to get rsp, Unable to retrieve msg from rsp, Unknown Subscriber, Internal Error, Msg Timeout, Peer Info Not Available, Req Not Accepted, Sub IMSI Not Received, PGW FQDN Not Received, Mandatory IE Missing, Invalid Input, No Bearer Context, No Linked EBI, SM Context Failed for PDU, S1 mode Not Supported, SM Context PDU failed without N2smInfo, SM Context data received from SMF is NIL, N1 mode Not Supported

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## AMF NGAP UL msg stats Category

### `ngap_ul_msg_stats`

Description: AMF NGAP UL msg stats

Sample Query:

```
ngap_ul_msg_stats{message_type="N2HandoverFailure",status="success",reason="",slice_data="2-333333"}
```

Labels:

- Label: `message_type`

Label Description: The message type associated with a NGAP UL msg

Example: N2HandoverFailure, N2HandoverRequest, N2HandoverRequestAck, N2HandoverNotify, N2HandoverRequired, N2HandoverCancel

- Label: `status`

Label Description: Overall status

Example: success, failures

- Label: `reason`

Label Description: The reason associated with a NGAP UL msg

Example: Unable to get rsp, Unable to retrieve msg from rsp, Unknown Subscriber, Internal Error, Msg Timeout, Peer Info Not Available, Req Not Accepted, Sub IMSI Not Received, PGW FQDN Not Received, Mandatory IE Missing, Invalid Input, No Bearer Context, No Linked EBI, SM Context Failed for PDU, S1 mode Not Supported, SM Context PDU failed without N2smInfo, SM Context data received from SMF is NIL, N1 mode Not Supported

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## AMF Nas Message Total Category

### `amf_nas_message_total`

Description: The number of nas message received or sent

**Sample Query:**

```
amf_nas_message_total{message_direction!="inbound",message_type="Paging_Trigger_N1N2_Msg_Xfer",slice_data="2-333333"}
```

**Labels:**

- Label: `message_direction`

Label Description: The event type associated with nas message

Example: inbound, outbound

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

- Label: `message_type`

Label Description: The message type associated with the nas message

Example: Paging\_Trigger\_N1N2\_Msg\_Xfer, N1DeRegReq\_UeOriginatingDereg, N1DeRegReq\_UeOriginatingDereg\_NormalDereg, N1RegComplete, N1RegComplete, N1RegRequest, N1RegRequest\_IdentityType\_SUCI, N1RegRequest\_RegType\_INITIAL\_REGISTRATION, N1ServiceReq, N1ServiceReq\_Idle, N1ServiceReq\_SIGNALLING, N1ServiceReq\_WithPdu, PduEstablishmentReq, PduModifyReq\_NwInitiated, N1DINasTransport, N1RegistrationAccept, N1ServiceAcc, N1UINasTransport, Paging, Paging\_Stage\_1, Paging\_TriggerType\_5qi

## AMF PCF Service Stats Category

**n15\_service\_stats**

Description: AMF PCF service stats

**Sample Query:**

```
n15_service_stats{message_type="NpcfAmPolicyControlCreateReq",status="success",reason="Unable to get rsp",slice_data="2-333333"}
```

**Labels:**

- Label: `message_type`

Label Description: The message type associated with an pcf service

Example: NpcfAmPolicyControlCreateReq, NpcfAmPolicyControlCreateRsp, NpcfAmPolicyControlDeleteReq, NpcfAmPolicyControlDeleteRsp

- Label: `status`

Label Description: Overall status

Example: success, failures

- Label: `reason`

Label Description: The reason associated with an pcf service

Example: Suspend, Suspend for Async, Unable to get rsp, Unable to retrieve msg from rsp, Failure in PCF Response,Others, Internal Error



- Label: `slice_data`  
Label Description: slice data  
Example: 2-333333

## AMF Procedure Seconds Category

### **amf\_procedure\_seconds**

Description: Total number of seconds took for complete procedure

Sample Query: `amf_procedure_seconds{proc_type=\"UE Registration\",status=\"success\",proc_status=\"\",slice_data=\"2-333333\"}`

Labels:

- Label: `proc_type`  
Label Description: The procedure type associated with an call flow procedure  
Example: UE Registration, UE DeRegistration, Pdu Create, Pdu N1N2, Pdu N2Rs, Pdu N1Rsp, Pdu Mod, UE Context Release, Pdu Notify, EBI, Paging, Service Request, Context Transfer, Context Transfer Upd, Xn Handover, N2 Handover Src, Handover to EPC, UeRadioCapInfoInd, NGRreset, N2 Handover Tgt, Handover From EPC, UeCfgUpdate, Domain Selection Info, Amf Redirection
- Label: `status`  
Label Description: The overall status of procedure  
Example: success, failures, attempted
- Label: `proc_status`  
Label Description: The current status of procedure  
Example: ProcStatusComplete
- Label: `slice_data`  
Label Description: slice data  
Example: 2-333333

## AMF Procedure total Category

### **amf\_procedure\_total**

Description: Total number of procedure executed counter

Sample Query: `amf_procedure_total{proc_type=\"UE Registration\",status=\"success\",proc_status=\"\",slice_data=\"2-333333\"}`

Labels:

- Label: `proc_type`  
Label Description: The procedure type associated with an call flow procedure

Example: UE Registration, UE DeRegistration, Pdu Create, Pdu N1N2, Pdu N2Rsp, Pdu N1Rsp, Pdu Mod, UE Context Release, Pdu Notify, EBI, Paging, Service Request, Context Transfer, Context Transfer Upd, Xn Handover, N2 Handover Src, Handover to EPC, UeRadioCapInfoInd, NGRreset, N2 Handover Tgt, Handover From EPC, UeCfgUpdate, Domain Selection Info, Amf Redirection

- Label: `status`  
Label Description: The overall status of procedure  
Example: success, failures, attempted
- Label: `proc_status`  
Label Description: The current status of procedure  
Example: ProcStatusComplete
- Label: `slice_data`  
Label Description: slice data  
Example: 2-333333

## AMF RETRANSMISSION STATS Category

### **retransmission\_stats**

Description: number of Retransmissions

Sample Query: `retransmission_stats{msg_type=\"Paging\",status=\"success\"}`

Labels:

- Label: `msg_type`  
Label Description: Message Type  
Example:  
`AMF Retransmission Stats: Paging, UE Registration, UE DeRegistration, Pdu Create, Pdu N1N2, Pdu N2Rsp, Pdu N1Rsp, Pdu Mod, UE Context Release, Pdu Notify, EBI, Paging, Service Request, Context Transfer, Context Transfer Upd, Xn Handover, N2 Handover Src, Handover to EPC, UeRadioCapInfoInd, NGRreset, N2 Handover Tgt, Handover From EPC, UeCfgUpdate, Domain Selection Info, Amf Redirection`
- Label: `status`  
Label Description: overall Status  
Example: success, failures, max\_retry\_exceeded

## AMF Session stats Category

### **amf\_session\_stats**

Description: AMF Session stats counters

Sample Query: `amf_session_stats{status=\"attempted\"}`

Labels:

- Label: `ueType`  
Label Description: Type of the UE associated with the request

Example: homer, roamer, unknown

- Label: `status`

Label Description: UE session status indicated at AMF

Example: attempted, success, setup

## AMF Smf service stats Category

### `n11_service_stats`

Description: AMF Smf service stats

Sample Query:

```
n11_service_stats{message_type=\"N11SMContextUpdateReq\", status=\"success\", reason=\"Unable to get rsp\", slice_data=\"2-333333\"}
```

Labels:

- Label: `message_type`

Label Description: The message type associated with an smf service

Example: N11SMContextUpdateReq, N11SMContextUpdateRsp, N11SMContextRetrieveRsp, N11SMContextRetrieveReq, N11SMContextCreateReq, N11SMContextCreateRsp

- Label: `status`

Label Description: Overall status

Example: success, failures

- Label: `reason`

Label Description: The reason associated with an smf service

Example: Unable to get rsp, Unable to retrieve msg from rsp, Unknown Subscriber, Internal Error, Msg Timeout, Peer Info Not Available, Req Not Accepted, Sub IMSI Not Received, PGW FQDN Not Received, Mandatory IE Missing, Invalid Input, No Bearer Context, No Linked EBI, SM Context Failed for PDU, S1 mode Not Supported, SM Context PDU failed without N2smInfo, SM Context data received from SMF is NIL, N1 mode Not Supported

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## AMF Smsf service stats Category

### `n20_service_stats`

Description: AMF Smsf service stats

Sample Query:

```
n20_service_stats{message_type=\"sms_activate_response\", status=\"success\", reason=\"Created\", slice_data=\"2-333333\"}
```

Labels:

- Label: `message_type`

Label Description: The message type associated with an smsf service

Example: `sms_activate_request`, `sms_activate_response`, `sms_deactivate_request`, `sms_deactivate_response`, `sms_send_msg_request`, `sms_send_msg_rsp`, `sms_n1n2_message_transfer`, `sms_enable_ue_reachability`

- Label: `status`

Label Description: Overall status

Example: `success`, `failures`

- Label: `reason`

Label Description: The reason associated with an smsf service

Example: `Created`, `No Content`, `Gateway Timeout`, `Unknown Subscriber`

- Label: `slice_data`

Label Description: slice data

Example: `2-333333`

## AMF UDM Service Stats Category

### `n8_service_stats`

Description: AMF UDM service stats

Sample Query:

```
n8_service_stats{message_type="NudmSdmDataReq",status="success",reason="INVALID_GUAMI",slice_data="2-333333"}
```

Labels:

- Label: `message_type`

Label Description: The message type associated with an udm service

Example: `NudmSdmDataReq`, `NUdmUecmDeregisterNotificationRequest`, `NUdmUecmDeregisterNotificationResponse`, `NudmSdmUnSubscriptionReq`, `NudmSdmUnSubscriptionRsp`, `NudmPcscfRestorationReq`, `NudmPcscfRestorationRsp`, `NudmUecmRegistrationReq`, `NudmUecmRegistrationRsp`, `NudmSdmDataReq`, `NudmSdmDataRsp`, `NudmSdmSubscriptionReq`, `NudmSdmSubscriptionRsp`, `NudmSdmSorAckInfoReq`, `NudmSdmSorAckInfoRsp`

- Label: `status`

Label Description: Overall status

Example: `success`, `failures`

- Label: `reason`

Label Description: The reason associated with an udm service

Example: `Suspend`, `Suspend for Async`, `Unable to get rsp`, `Unable to retrieve msg from rsp`, `Others`, `Internal Error`, `Missing Supi`, `Failure from Udm`, `SUBSCRIPTION_WITHDRAWN`,

UE\_INITIAL\_REGISTRATION, CONTEXT\_NOT\_FOUND, DATA\_NOT\_FOUND, UNSUPPORTED\_RESOURCE\_URI, USER\_NOT\_FOUND, ACCESS\_NOT\_ALLOWED, INVALID\_GUAMI, NO\_PS\_SUBSCRIPTION, RAT\_NOT\_ALLOWED, ROAMING\_NOT\_ALLOWED, UNKNOWN\_5GS\_SUBSCRIPTION, UNPROCESSABLE\_REQUEST

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## AMF Ue Service Stats Category

### **n1\_service\_stats**

Description: AMF Ue service stats

Sample Query:

```
n1_service_stats{message_type=\"IdentityResponse\", status=\"success\", reason=\"key Mismatch\", slice_data=\"2-333333\"}
```

Labels:

- Label: `message_type`

Label Description: The message type associated with an UE service

Example: IdentityResponse, N1SecurityModeComplete, N1AuthenticationRsp, N1SecurityModeCommand, N1AuthenticationReq, N1AuthFail\_SyncFailure, N1AuthenticationReject, N1AuthFail\_MacFailure, IdentityRequest\_Imei, IdentityRequest\_Suci, N1DeRegAccept\_UeTerminatedDereg, N1UeConfigurationUpdCmd

- Label: `status`

Label Description: Overall status

Example: success, failures, attempted

- Label: `reason`

Label Description: The reason associated with an UE service

Example: Suspend, Suspend for Async, Unable to get rsp, Unable to retrieve msg from rsp, Supi mismatch, Internal Error, Sync Failed, Timeout, Others, No Security Context from Peer, Peer Provided Sec Context Failed, NgKsi Already In Use, Scheduled ipc action in background, Unable to retrieve identity rsp, Unable to get Supi, key Mismatch

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## ASN FAILURE MANDATORY IE MISSING Category

### asn\_failures\_mandatory\_ie\_missing

Description: mandatory missing Ies

Sample Query:

```
asn_failures_mandatory_ie_missing(missing_ie="MessageId",message_type="WriteReplaceWarningRequest")
```

Labels:

- Label: `missing_ie`

Label Description: Missing IE

Example:

```
MessageId,SerialNumber,GlobalRANNodeBDRANNodeName,SupportedTAList,RanUeNgapId,NasPdu,UserLocationInformation,Cause,ResetType
```

- Label: `message_type`

Label Description: Message Type

Example:

```
WriteReplaceWarningRequest,NgSetupRequest,RanConfigUpdate,InitialUeMessage,UINasTransport,NgapReset
```

## Discover Messages Time statistics Category

### nf\_discover\_total\_time

Description: Discover Messages Total time statistics

Sample Query: `nf_discover_total_time(nf_type="amf",`

```
host="http://10.105.227.109:8082/nrf-nfm/v1", result="timeouOrRPCError")
```

Labels:

- Label: `nf_type`

Label Description: Network Function type

Example: `nrf, udm, amf, pcf, ausf, smf`

- Label: `host`

Label Description: End Point address

Example: `http://10.105.227.109:8082/nrf-nfm/v1`

- Label: `result`

Label Description: result of discover message

Example: `200, 201, 204, success, timeout_rpc_error, response_parse_failure`

## Discover Messages statistics Category

### **nf\_discover\_messages\_total**

Description: Discover Messages statistics

Sample Query: `nf_discover_messages_total{nf_type="amf", host="http://10.105.227.109:8082/nrf-nfm/v1", result="timeouOrRPCError"}`

Labels:

- Label: `nf_type`

Label Description: Network Function type

Example: nrf, udm, amf, pcf, ausf, smf

- Label: `host`

Label Description: End Point address

Example: `http://10.105.227.109:8082/nrf-nfm/v1`

- Label: `result`

Label Description: result of discover message

Example: 200, 201, 204, success, timeout\_rpc\_error, response\_parse\_failure

## Marshal Failures Category

### **marshal\_failures**

Description: total number of Marshal error stats

Sample Query: `marshal_failures{message_type="\SmfSmContextDelete"}`

Labels:

- Label: `message_type`

Label Description: The message type associated with Marshal failure stats

Example: AusfAuthenticationCfm, AusfAuthenticationReq, UdmDeRegistrationReq, UdmRegistrationReq, UdmSubscriptionReq, UdmUnSubscriptionReq, PcfAmfPolicyControlCreate, PcfAmfPolicyControlDelete, SmfSmContextCreate, SmfSmContextDelete, SmfSmContextUpdate, AmfCommCreateUeContext, AmfCommN1N2MessageTransfer

## N26 Service Stats Category

### **n26\_service\_stats**

Description: AMF N26 stats

**Sample Query:**

```
n26_service_stats{message_type=\"GTPCRxIdentificationRequest\",status=\"success\",reason=\"N1 mode Not Supported\",slice_data=\"2-33333\"}
```

**Labels:**

- Label: `message_type`

Label Description: The message type associated with an N26 service

Example: GTPCRxIdentificationRequest, GTPCTxIdentificationRequest, GTPCRxContextRequest, GTPCRxContextResponse, GTPCRxContextAck, GTPCTxContextAck, GTPCRxFwdRelocCmpNotf, GTPCTxFwdRelocCmpNotf, GTPCRxRelocCancelReq, GTPCTxRelocCancelRsp, GTPCTxFwdRelocResponse

- Label: `status`

Label Description: Overall status

Example: success, failures

- Label: `reason`

Label Description: The reason associated with an N26 service

Example: Unable to get rsp, Unable to retrieve msg from rsp, Unknown Subscriber, Internal Error, Msg Timeout, Peer Info Not Available, Req Not Accepted, Sub IMSI Not Received, PGW FQDN Not Received, Mandatory IE Missing, Invalid Input, No Bearer Context, No Linked EBI, SM Context Failed for PDU, S1 mode Not Supported, SM Context PDU failed without N2smInfo, SM Context data received from SMF is NIL, N1 mode Not Supported

- Label: `slice_data`

Label Description: slice data

Example: 2-333333

## NF End point selections Category

**nf\_endpoint\_selections\_total**

Description: NF End Point Selection Statistics

```
Sample Query: nf_endpoint_selections_total{message_type=\"SmfSmContextDelete\",nf_type=\"ausf\", host=\"http://10.105.227.109:8082/nrf-nfm/v1\", req=\"initial\"}
```

**Labels:**

- Label: `message_type`

Label Description: The message type associated with the failure stats

Example: AusfAuthenticationCfm, AusfAuthenticationReq, UdmDeRegistrationReq, UdmRegistrationReq, UdmSubscriptionReq, UdmUnSubscriptionReq, PcfAmfPolicyControlCreate, PcfAmfPolicyControlDelete, SmfSmContextCreate, SmfSmContextDelete, SmfSmContextUpdate, AmfCommCreateUeContext, AmfCommN1N2MessageTransfer

- Label: `nf_type`



Label Description: Network Function type

Example: nrf, udm, amf, pcf, ausf, smf

- Label: host

Label Description: End Point address

Example: http://10.105.227.109:8082/nrf-nfm/v1

- Label: req

Label Description: req type

Example: initial, fallback,

## NF failure handling stats Category

### **nf\_failure\_handling\_stats\_total**

Description: NF Failure handling stats

Sample Query:

```
nf_failure_handling_stats_total{message_type="\SmfSmContextDelete",nf_type="\SMF",
host="\http://10.105.227.109:8082/nrf-nfm/v1", req="\initial", response="\202",
status="\final"}
```

Labels:

- Label: message\_type

Label Description: The message type associated with the failure stats

Example: AusfAuthenticationCfm, AusfAuthenticationReq, UdmDeRegistrationReq, UdmRegistrationReq, UdmSubscriptionReq, UdmUnSubscriptionReq, PcfAmfPolicyControlCreate, PcfAmfPolicyControlDelete, SmfSmContextCreate, SmfSmContextDelete, SmfSmContextUpdate, AmfCommCreateUeContext, AmfCommN1N2MessageTransfer

- Label: nf\_type

Label Description: Network Function type

Example: nrf, udm, amf, pcf, ausf, smf

- Label: host

Label Description: End Point address

Example: http://10.105.227.109:8082/nrf-nfm/v1

- Label: req

Label Description: Request type

Example: initial, fallback,

- Label: response

Label Description: Response from the server

Example: 200, 201, 204, timeout\_rpc\_error,

- Label: `status`  
Label Description: Status from the server  
Example: `retry`, `final`

## NF management message time statistics Category

### `nf_management_total_time`

Description: NF management messages total time taken

Sample Query: `nf_management_total_time{host=\"http://10.105.227.109:8082/nnrf-nfm/v1\", direction=\"outbound\", message_type=\"registration\", result=\"timeouOrRPCError\" }`

Labels:

- Label: `host`  
Label Description: End Point address  
Example: `http://10.105.227.109:8082/nnrf-nfm/v1`
- Label: `direction`  
Label Description: Direction indicates about the message going out or coming in  
Example: `inbound`, `outbound`
- Label: `message_type`  
Label Description: Type of Message  
Example: `registration`, `heartbeat`, `subscription`, `notification`
- Label: `result`  
Label Description: result of discover message  
Example: `200`, `201`, `204`, `success`, `timeout_rpc_error`, `response_parse_failure`, `request_parse_failure`, `invalid_notify_event`, `invalid_nf_instance_uri`, `internal_error`

## NF management messages statistics Category

### `nf_management_stats_total`

Description: NF management messages statistics

Sample Query: `nf_management_stats_total{host=\"http://10.105.227.109:8082/nnrf-nfm/v1\", direction=\"outbound\", message_type=\"registration\", result=\"timeouOrRPCError\" }`

Labels:

- Label: `host`  
Label Description: End Point address  
Example: `http://10.105.227.109:8082/nnrf-nfm/v1`

- Label: `direction`  
Label Description: Direction indicates about the message going out or coming in  
Example: inbound, outbound
- Label: `message_type`  
Label Description: Type of Message  
Example: registration, heartbeat, subscription, notification
- Label: `result`  
Label Description: result of discover message  
Example: 200, 201, 204, success, timeout\_rpc\_error, response\_parse\_failure

## NRF Discovery Category

### **nf\_discover\_events\_total**

Description: NF Discover Stats

Sample Query: `nf_discover_events_total{nf_type=\"pcf\", response_type=\"local\"}`

Labels:

- Label: `nf_type`  
Label Description: Network Function type  
Example: nrf, udm, amf, pcf, ausf, smf
- Label: `response_type`  
Label Description: Discovery response choosen from  
Example: local, cache, expired-cache

## Unmarshal Failures Category

### **unmarshal\_failures**

Description: total number of Unmarshal error stats

Sample Query: `unmarshal_failures{message_type=\"SmfSmContextDelete\"}`

Labels:

- Label: `message_type`  
Label Description: The message type associated with Unmarshal failure stats  
Example: AusfAuthenticationCfm, AusfAuthenticationReq, UdmDeRegistrationReq, UdmRegistrationReq, UdmSubscriptionReq, UdmUnSubscriptionReq, PcfAmfPolicyControlCreate, PcfAmfPolicyControlDelete, SmfSmContextCreate, SmfSmContextDelete, SmfSmContextUpdate, AmfCommCreateUeContext, AmfCommN1N2MessageTransfer

