cnSGW-C Metrics Reference

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sgw Metrics Reference

CDL active sessions Category

db_records_total

Description: CDL active sessions. each label is prefix with SGW.

Sample Query: `avg(db_records_total{service_name=\"datastore-ep\"})by(session_type)`

Labels:

- Label: `emergency_call`

  Label Description: Number of emergency calls in cnSGW

  Example: SGW:emergency_call:true

- Label: `rat_type`

  Label Description: Rat type of sessions. For cnSGW there is only one rat_type EUTRAN

  Example: SGW:rat_type:EUTRAN

- Label: `state`

  Label Description: Number of active or idle subscriber state.

  Example: SGW:state:active , SGW:state:idle

- Label: `pdn_active`

  Label Description: Number of active PDNs for that subscriber.

  Example: SGW:pdn_active:1 , SGW:pdn_active:2

- Label: `bearer_active`

  Label Description: Number of active Bearers for that subscriber.

  Example: SGW:bearer_active:1 , SGW:bearer_active:2

- Label: `apn`

  Label Description: Number of subscribers per apn.

  Example: SGW:apn:internet2, SGW:apn:ims2

- Label: `colocated`

  Label Description: Number of colocated or non-colocated subscriber.

  Example: SGW:colocated:true, SGW:colocated:false

- Label: `total`

  Label Description: Total number of sessions in CDL

  Example: total

CDR container operations Category

sgw_charging_cdr_container

Description: CDR container operations total

Sample Query:
```
sgw_charging_cdr_container{gr_instance_id=\"1\",action=\"close_final\",change_condition=\"recordClosure\",pdn_type=
\"ipv4v6\",pdn_plmn_type= \"visitor\"}
```

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `action`

  Label Description: Type of CDR operation

  Example: close_final, close_interim, open

- Label: `change_condition`

  Label Description: Reason for container close operation

  Example: recordClosure,qoSChange,userLocationChange,apnAmbrChange

- Label: `event`

  Label Description: Event that triggered CDR action

  Example: StartAccounting,SGWChange,NormalRelease etc.

- Label: `pdn_type`

  Label Description: The pdn_type indicates the address type of PDN

  Example: ipv4, ipv6, ipv4v6, unknown

- Label: `pdn_plmn_type`

  Label Description: The pdn_plmn_type indicates the plmn type

Example: homer,visitor,roamer,unknown

CDR operations Category

sgw_charging_cdr

Description: CDR operations total

Sample Query:
```
sgw_charging_cdr{gr_instance_id=\"1\",action=\"close_final\",cause=\"servingNodeChange\",pdn_type=
\"ipv4v6\",pdn_plmn_type= \"visitor\"}
```

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `action`

  Label Description: Type of CDR operation

  Example: close_final, close_interim, open

- Label: `cause`

  Label Description: Reason for CDR close operation

  Example: maxChangeCond,servingNodeChange,volumeLimit,LTEServingNodeChange,abnormalRelease etc.

- Label: `event`

  Label Description: Event that triggered CDR action

  Example: StartAccounting,SGWChange,NormalRelease etc.

- Label: `pdn_type`

  Label Description: The pdn_type indicates the address type of PDN

  Example: ipv4, ipv6, ipv4v6, unknown

- Label: `pdn_plmn_type`

  Label Description: The pdn_plmn_type indicates the plmn type

  Example: homer,visitor,roamer,unknown

SGW usage report stats Category

sgw_sx_usage_report_stats

Description: Total Sx Session usage reports processed

Sample Query:
`sgw_sx_usage_report_stats{gr_instance_id=\"1\",status=\"success\",sx_usage_report_trigger_type=\"TEBUR\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `status`

  Label Description: Processing status

  Example: success, ur_dropped_invalid_urr_seqNo, ur_dropped_bearer_not_found, ur_dropped_urrInfo_not_found, ur_dropped_acct_ctxt_not_found, ur_dropped_bearer_not_connected

- Label: `sx_usage_report_trigger_type`

  Label Description: Usage Report Trigger Type

  Example: VOLTH, TIMTH, TERMR, TEBUR etc

SGW Bearer Level counters Category

sgw_bearer_counters

Description: Bearer Level counters

Sample Query: `sgw_bearer_counters{gr_instance_id=\"1\",status=\"active\",qci=\"5\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `status`

  Label Description: Bearer Status

  Example: active

- Label: `qci`

  Label Description: Bearer QCI

  Example: 1, 2, 3, 4, 5, 6, 7, 8, 9, 65, 66, 69, 70, 80, 82, 83, non-std-qci

SGW Bearer Level statistics Category

sgw_bearer_stats

Description: Bearer and Qci level statistics

Sample Query:
`sgw_bearer_stats{gr_instance_id=\"1\",status=\"attempted\",qci=\"5\",numBearer=\"2\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `status`

  Label Description: Bearer Status

  Example: attempted, setup, release, modified

- Label: `qci`

  Label Description: Bearer QCI

  Example: 1, 2, 3, 4, 5, 6, 7, 8, 9, 65, 66, 69, 70, 80, 82, 83, non-std-qci

SGW CDL update stats Category

sgw_cdl_update_stats

Description: SGW CDL update Counter

Sample Query:
`sgw_cdl_update_stats{gr_instance_id=\"1\",txn_type=\"S11ModifyBearerReqInitialAttach\",status=\"success\",cdl_update_type=\"full_cdl_update\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `txn_type`

  Label Description: Transaction type

  Example: ClearSubscriberSgwReq, N4SessionReportReq, NIntSgwSelfTxnBearerDisconnect, NIntSgwSelfTxnPagingStatusReq, NIntSgwSelfTxnPdnDisconnect, NIntSgwSelfTxnSxaSessRptReq, NSgwInternalTimerNotification, NSgwTimerNotificationReq, ReleaseAccessBearerReq, S11CreateSessReq, S11DeleteSessReq, S11ModifyBearerReq, S11ModifyBearerReqInitialAttach, S11ModifyBearerReqInterSystemHo, S11ModifyBearerReqIntraMMEX2S1HoNoSgwChange, S11ModifyBearerReqList, S11ModifyBearerReqListInterSystemHo, S11ModifyBearerReqListIntraMMEX2S1HoNoSgwChange, S11ModifyBearerReqListOnlyForUliChange, S11ModifyBearerReqListS1HOSgwRelocation, S11ModifyBearerReqListServiceRequest, S11ModifyBearerReqListUnknownMBR, S11ModifyBearerReqOnlyForUliChange, S11ModifyBearerReqS1HOSgwRelocation, S11ModifyBearerReqServiceRequest, S11ModifyBearerReqUnknownMBR, S5CreateBearerReq, S5DeleteBearerReq, S5S8BearerResourceCmd, S5UpdateBearerReq, S11SuspendNotf, S11ResumeNotf

- Label: `status`

Label Description: Indicate whether transaction is success, aborted or timeout

Example: success, collision_abort, timeout

- Label: `cdl_update_type`

  Label Description: Indicate CDL update type

  Example: partial_cdl_update, full_cdl_update, no_cdl_update

SGW Collision Stats Category

sgw_collision_stats

Description: SGW Collision counters

Sample Query: `sgw_collision_stats{gr_instance_id=\"1\",action_type=\"abort\",new_proc=\"PDN Disconnect - UE initiated\",old_proc=\"Create Bearer\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `action_type`

  Label Description: The pre-defined action taken to handle the collision. The action can be

  Example: abort_new, abort_old, discard_new, discard_old

- Label: `new_proc`

  Label Description: The new procedure and message type"

  Example: Unknown, PDN Setup, PDN Modify, Create Bearer, Update Bearer, Delete Bearer, PDN Disconnect - UE initiated, PDN Disconnect - Admin initiated, PDN Disconnect - PGW initiated, PDN Disconnect - Self initiated, Modify Bearer Command, Delete Bearer Command, Release Access Bearer, Downlink Data Notification, Clear Subsciber - S5e Recovery Initiated,Clear Subsciber - Sx Recovery Initiated,Clear Subsciber - S11 Recovery Initiated,Clear Subsciber - S5e Path Failure Initiated,Clear Subsciber - Sx Path Failure Initiated,Clear Subsciber - S11 Path Failure Initiated,Clear Subsciber - S11 Path Failure Local Purge Initiated,Clear Subsciber - S11 Recovery Local Purge Initiated,Clear Subsciber - S5e Path Failure Local Purge Initiated,Clear Subsciber - S5e Recovery Local Purge Initiated,Clear Subscriber - Sx Association Release Initiated, Change Notification, PDN Disconnect - Upf Graceful Termination Initiated, PDN Disconnect - S5u Gtpu Error Local Purge Initiated, PDN Disconnect - S1u Gtpu Session replacement Initiated, PDN Disconnect - S5u Gtpu Session replacement Initiated, PDN Disconnect - S1u Gtpu Error Local Purge Initiated, PDN Disconnect - S5u Gtpu Error Local Purge Initiated, PDN Disconnect - S1u Gtpu Session replacement Local Purge Initiated, PDN Disconnect - S5u Gtpu Session replacement Local Purge Initiated, Clear Subscriber - Sx Session Idle Timeout Initiated, Bearer Disconnect - S1u Gtpu Error Local Purge Initiated, Bearer Disconnect - S5u Gtpu Error Local Purge Initiated, Bearer Disconnect - S1u Gtpu Session replacement Local Purge Initiated, Bearer Disconnect - S5u Gtpu Session replacement Local Purge Initiated, Bearer Disconnect - S5u Gtpu Error Local Purge Initiated, Bearer Disconnect - S1u Gtpu Session replacement Initiated, Bearer Disconnect - S5u Gtpu Session replacement Initiated, Clear Subsciber - S1u Gtpu Path Failure Initiated, Clear Subsciber - S5u Gtpu Path Failure Initiated, Clear Subsciber - S1u Gtpu Path Failure Local Purge Initiated,

Clear Subsciber - S5u Gtpu Path Failure Local Purge Initiated, Bearer Disconnect - S1u Gtpu Path Failure Initiated, Bearer Disconnect - S5u Gtpu Path Failure Initiated, Bearer Disconnect - S1u Gtpu Path Failure Local Purge Initiated, Bearer Disconnect - S5u Gtpu Path Failure Local Purge Initiated, upf_initiated_clear_subscriber, upf_initiated_association_release, upf_recovery_failure, sx_urss_association_release_initiated_deletion, upf_initiated_self_protection_termination

- Label: `old_proc`

  Label Description: Indicates the ongoing procedure at eGTP-C when a new message arrived at the interface which caused the collision. The Msg Type in brackets specifies which message triggered this ongoing procedure"

  Example: Unknown, PDN Setup, PDN Modify, Create Bearer, Update Bearer, Delete Bearer, PDN Disconnect - UE initiated, PDN Disconnect - Admin initiated, PDN Disconnect - PGW initiated, PDN Disconnect - Self initiated, Modify Bearer Command, Delete Bearer Command, Release Access Bearer, Downlink Data Notification, Clear Subsciber - S5e Recovery Initiated,Clear Subsciber - Sx Recovery Initiated,Clear Subsciber - S11 Recovery Initiated,Clear Subsciber - S5e Path Failure Initiated,Clear Subsciber - Sx Path Failure Initiated,Clear Subsciber - S11 Path Failure Initiated,Clear Subsciber - S11 Path Failure Local Purge Initiated,Clear Subsciber - S11 Recovery Local Purge Initiated,Clear Subsciber - S5e Path Failure Local Purge Initiated,Clear Subsciber - S5e Recovery Local Purge Initiated,Clear Subscriber - Sx Association Release Initiated, Change Notification, PDN Disconnect - Upf Graceful Termination Initiated, PDN Disconnect - S5u Gtpu Error Local Purge Initiated, PDN Disconnect - S1u Gtpu Session replacement Initiated, PDN Disconnect - S5u Gtpu Session replacement Initiated, PDN Disconnect - S1u Gtpu Error Local Purge Initiated, PDN Disconnect - S5u Gtpu Error Local Purge Initiated, PDN Disconnect - S1u Gtpu Session replacement Local Purge Initiated, PDN Disconnect - S5u Gtpu Session replacement Local Purge Initiated, Clear Subscriber - Sx Session Idle Timeout Initiated, Bearer Disconnect - S1u Gtpu Error Local Purge Initiated, Bearer Disconnect - S5u Gtpu Error Local Purge Initiated, Bearer Disconnect - S1u Gtpu Session replacement Local Purge Initiated, Bearer Disconnect - S5u Gtpu Session replacement Local Purge Initiated, Bearer Disconnect - S5u Gtpu Error Local Purge Initiated, Bearer Disconnect - S1u Gtpu Session replacement Initiated, Bearer Disconnect - S5u Gtpu Session replacement Initiated, Clear Subsciber - S1u Gtpu Path Failure Initiated, Clear Subsciber - S5u Gtpu Path Failure Initiated, Clear Subsciber - S1u Gtpu Path Failure Local Purge Initiated, Clear Subsciber - S5u Gtpu Path Failure Local Purge Initiated, Bearer Disconnect - S1u Gtpu Path Failure Initiated, Bearer Disconnect - S5u Gtpu Path Failure Initiated, Bearer Disconnect - S1u Gtpu Path Failure Local Purge Initiated, Bearer Disconnect - S5u Gtpu Path Failure Local Purge Initiated, upf_initiated_clear_subscriber, upf_initiated_association_release, upf_recovery_failure, sx_urss_association_release_initiated_deletion, upf_initiated_self_protection_termination

SGW DDN Stats Category

sgw_ddn_stats

Description: Total SGW DDN Stats

Sample Query: `sgw_ddn_stats{gr_instance_id=\"1\",ddn_stats_type=\"high_priority_initiated\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `ddn_stats_type`

  Label Description: The pre-defined ddn_stats_type

  Example: high_priority_initiated, high_priority_suppressed, throttled, delayed, control_proc_triggered, data_triggered, gtpu_err_ind_triggered

SGW PDN Disconnect Stats Category

sgw_pdn_disconnect_stats

Description: SGW PDN disconnects counters

Sample Query:

```
sgw_pdn_disconnect_stats{gr_instance_id=\"1\",pdn_type=\"ipv4v6\",rat_type=\"EUTRAN\",reason=\"mme_init_pdn_sess_rel\"}
```

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `pdn_type`

  Label Description: The pdn_type indicates the address type of PDN

  Example: ipv4, ipv6, ipv4v6, unknown

- Label: `rat_type`

  Label Description: The rat_type indicates which Radio Access Technology is currently serving the UE"

  Example: EUTRAN

- Label: `reason`

  Label Description: The reason indicates the disconnect reason associate with the pdn"

  Example: admin_init_disconnect, remote_init_disconnect, pgw_init_pdn_sess_rel, mme_init_pdn_sess_rel, sx_request_rejected, sx_context_not_found, sx_msg_invalid_length, sx_no_resource_available, sx_no_response, sx_reason_unknown, no_response, s5_context_not_found, s11_context_not_found, local_disconnect, no_cause, userplane_info_not_available, setup_timeout, admin_init_local_purge, db_conflict_init_disconnect, context_replacement, userplane_session_idle_timeout, userplane_requested_graceful_termination, s1u_gtpu_error, s5u_gtpu_error, s1u_gtpu_session_replacement, s5u_gtpu_session_replacement, sx_recovery, sx_path_failure,s11_path_failure, s5e_path-failure,s11_path_failure_local_purge, s5e_ path_failure_local_purge,s5e_recovery, s11_recovery, s5e_recovery_local_purge,s11_recovery_local_purge, s1u_gtpu_path_failure, s5u_gtpu_path_failure, stale_session_init_disconnect, mop_offline, userplane_initiated_clear_subscriber, userplane_initiated_association_release, userplane_initiated_recovery_failure, sx_urss_association_release, userplane_initiated_self_protection_termination

SGW PDN EMPS Counter Category

sgw_pdn_emps_counter

Description: Total number of active emps session

Sample Query: `sgw_pdn_emps_counters{gr_instance_id=\"1\",status=\"active\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `status`

  Label Description: Active emps session

  Example: active

SGW PDN EMPS Stats Category

sgw_pdn_emps_stats

Description: Total number of emps session

Sample Query: `sgw_pdn_emps_stats{gr_instance_id=\"1\",status=\"release\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `status`

  Label Description: Status of emps session

  Example: setup, release

SGW PDN Level Counters Category

sgw_pdn_counters

Description: Pdn level counters

Sample Query:
`sgw_pdn_counters{ratType=\"EUTRAN\",pdnConnType=\"ipv4\",plmnType=\"homer\",grInstanceID=\"1\"}`

Labels:

- Label: `rat_type`

  Label Description: The rat_type indicates which Radio Access Technology is currently serving the UE"

Example: EUTRAN

- Label: `pdn_type`

  Label Description: The pdn_type indicates the address type of PDN

  Example: ipv4, ipv6, ipv4v6, unknown

- Label: `pdn_plmn_type`

  Label Description: It indicates the plmn type for the subscriber

  Example: homer, visitor, roamer, unknown

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

SGW PDN Level statistics Category

sgw_pdn_stats

Description: Pdn level statistics

Sample Query:
`sgw_pdn_stats{ratType=\"EUTRAN\",status=\"setup\",pdnConnType=\"ipv4\",plmnType=\"homer\",grInstanceID=\"1\"}`

Labels:

- Label: `rat_type`

  Label Description: The rat_type indicates which Radio Access Technology is currently serving the UE"

  Example: EUTRAN

- Label: `status`

  Label Description: Subscriber status

  Example: setup, release

- Label: `pdn_type`

  Label Description: The pdn_type indicates the address type of PDN

  Example: ipv4, ipv6, ipv4v6, unknown

- Label: `pdn_plmn_type`

  Label Description: It indicates the plmn type for the subscriber

  Example: homer, visitor, roamer, unknown

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

SGW Procedure Category

sgw_service_stats

Description: SGW call flow procedure counters

Sample Query: `sgw_service_stats{gr_instance_id=\"1\",sgw_procedure_type=\"create_bearer\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `sgw_procedure_type`

  Label Description: The procedure type associated with the call flow procedure

  Example: initial_attach, secondary_pdn_creation, mme_initiated_deletion, pgw_initiated_deletion, update_bearer, create_bearer, downlink_data_notification, downlink_data_notification_retry, pgw_initiated_dedicated_bearer_deletion, release_access_bearer, inter_mme_intra_sgw_idle_mode, intra_mme_intra_sgw_idle_mode, service_request, modify_bearer_req_initial_attach, inter_mme_handover, intra_mme_handover, inter_system_handover, modify_bearer_req_uli_tz_change, admin_initiated_deletion, s5_cnf_initiated_deletion, s11_cnf_initiated_deletion, sx_cnf_initiated_deletion, local_initiated_deletion, setup_timeout_deletion, create_indirect_data_forwarding_tunnel, delete_indirect_data_forwarding_tunnel, indirect_data_forwarding_tunnel_guard_timer_expiry, db_conflict_initiated_deletion, s1_sgw_relocation_attach, context_replacement, modify_bearer_command, delete_bearer_command, inter_system_handover_attach, x2_gngp_to_lte_relocation_attach, s1_gngp_to_lte_relocation_attach, inter_system_handover, modify_bearer_req_x2_gngp_to_lte_relocation, modify_bearer_req_s1_gngp_to_lte_relocation, change_notification, upf_sess_idle_timeout_deletion, upf_initiated_gtpu_deletion, s5_path_failure_initiated_deletion, s5_recovery_initiated_deletion, s1_path_failure_initiated_deletion, s1_recovery_initiated_deletion, sx_path_failure_initiated_deletion, sx_recovery_initiated_deletion, s5u_gtpu_error_initiated, s1u_gtpu_session_replacement_initiated, s5u_gtpu_session_replacement_initiated, s1u_gtpu_path_failure_initiated, s5u_gtpu_path_failure_initiated, s5u_gtpu_error_initiated_bearer_deletion, s1u_gtpu_error_local_purge_initiated_bearer_deletion, s5u_gtpu_error_local_purge_initiated_bearer_deletion, s1u_gtpu_session_replacement_initiated_bearer_deletion, s5u_gtpu_session_replacement_initiated_bearer_deletion, s1u_gtpu_session_replacement_local_purge_initiated_bearer_deletion, s5u_gtpu_session_replacement_local_purge_initiated_bearer_deletion, s1u_gtpu_path_failure_initiated_bearer_deletion, s5u_gtpu_path_failure_initiated_bearer_deletion, s1u_gtpu_path_failure_local_purge_initiated_bearer_deletion, s5u_gtpu_path_failure_local_purge_initiated_bearer_deletion, stale_session_initiated_deletion, dbcfi_cnf_local_purge_initiated_bearer_deletion, suspend_notification, resume_notification, pdn_state_sync, upf_initiated_clear_subscriber, upf_initiated_association_release, upf_recovery_failure, sx_urss_association_release_initiated_deletion, upf_initiated_self_protection_termination

- Label: `interface`

  Label Description: The interface type associated with the call flow procedure

  Example: interface_sgw_ingress, interface_sgw_egress

- Label: `status`

Label Description: The status of the call flow procedure. In case of procedure failure it can indicate whether the message was rejected or was the message discarded.

Example: attempted, success, failure, rejected, discarded

- Label: `fail_reason`

  Label Description: High level reason for failure status. For sucessess and attempted it will be Empty

  Example: gtp_validation_fail, gtp_cause_fail, gtp_peer_not_responding, sx_validation_fail, sx_cause_fail, sx_peer_not_responding, timeout, internal_failure, userplane_selection_fail, gtp_partial_fail, sx_oci_throttling_reject, collision_abort, collision_discard, gtp_entity_in_congestion

- Label: `sub_fail_reason`

  Label Description: Incoming negative GTP/Sx Cause or type of TIMEOUT that led to the failure. For other failures it will be Empty

  Example: invalid_msg_format, version_not_supported, service_not_supported, imsi_imei_not_known, preferred_pdn_type_unsupported, mand_ie_missing, cond_ie_missing, invalid_len, mand_ie_incorrect, no_resource_available, temp_rejected_due_to_handover_in_progress, peer_not_responding, context_not_found, unable_to_page_ue, unable_to_page_ue_due_to_suspension, ue_already_reattached, temp_rejected_due_to_ho_in_progress, sx_req_rejected, invalid_fw_policy, invalid_fteid_alloc_opt, rule_creation_mod_fail, no_estab_sx_assoc, system_failure, pfcp_entity_in_congestion, procedure_timeout, ipc_timeout, transaction_timeout, missing_or_unknown_apn

- Label: `reject_cause`

  Label Description: In case of procedure failure it will be used to indicate the outgoing GTP/Sx cause being sent to the peer. In other cases it will be Empty.

  Example: invalid_msg_format, version_not_supported, invalid_len, mandatory_ie_missing, conditional_ie_missing, mandatory_ie_incorrect, service_not_supported, imsi_imei_not_known, preferred_pdn_type_unsupported, system_failure, no_resources_available, temp_rejected_due_to_handover_in_progress, service_denied, peer_not_responding, context_not_found, request_rejected, missing_or_unknown_apn, entity_in_congestion

- Label: `svc_to_svc`

  Label Description: In case of gtp bypass, i.e. service to service communication this is set as True, else False

  Example: True, False

SGW Resource Management stats Category

sgw_resource_mgmt_stats

Description: It gives information about number of allocated/deallocated ID's from resource manager

Sample Query:

```
sgw_resource_mgmt_stats{label_id_type=\"id_alloc\",status=\"success\",grInstanceID=\"1\"}
```

Labels:

- Label: `label_id_type`

  Label Description: The label_id_type indicates if its ID allocation or deallocation"

Example: id_alloc, id_dealloc

- Label: `status`

  Label Description: The status of ID allocation/deallocation

  Example: attempted, success, failure

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

SGW Sx session report stats Category

sgw_sx_session_report_stats

Description: Total Sx Session-Report-Requests processed

Sample Query:
`sgw_sx_session_report_stats{gr_instance_id=\"1\",reason=\"psdbu\",sx_session_report_type=\"USAR\",sx_usage_report_status=\"success\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `sx_session_report_type`

  Label Description: Type of the session-report

  Example: USAR, DLDR, ERIR, UPIR, SPTER, SRIR, GTER, UPRR, UISR

- Label: `sx_usage_report_status`

  Label Description: Processing status of usage report

  Example: success, failure

- Label: `reason`

  Label Description: Reason for Session Report Request

  Example: psdbu

SGW Timer Stats Category

sgw_tmr_stats

Description: SGW Timer Counter

Sample Query:
`sgw_tmr_stats{gr_instance_id=\"1\",timer_type=\"internal_ddn_delay\",status=\"start\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `timer_type`

  Label Description: Timer type

  Example: internal_ddn_delay

- Label: `status`

  Label Description: Status of timer

  Example: start, stop, expired

SGW UE Disconnect Stats Category

sgw_ue_disconnect_stats

Description: SGW UE disconnects counters

Sample Query: `sgw_ue_disconnect_stats{gr_instance_id=\"1\",reason=\"admin_init_disconnect\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `reason`

  Label Description: The reason indicates the disconnect reason associated with the UE

  Example: admin_init_disconnect, remote_init_disconnect, pgw_init_pdn_sess_rel, mme_init_pdn_sess_rel, sx_request_rejected, sx_context_not_found, sx_msg_invalid_length, sx_no_resource_available, sx_no_response, sx_reason_unknown, no_response, s5_context_not_found, s11_context_not_found, local_disconnect, no_cause, userplane_info_not_available, db_conflict_init_disconnect, userplane_session_idle_timeout, userplane_requested_graceful_termination, s1u_gtpu_error, s5u_gtpu_error, s1u_gtpu_session_replacement, s5u_gtpu_session_replacement, sx_recovery, sx_path_failure,s11_path_failure, s5e_path-failure,s11_path_failure_local_purge, s5e_ path_failure_local_purge,s5e_recovery, s11_recovery, s5e_recovery_local_purge, s11_recovery_local_purge, s1u_gtpu_path_failure, s5u_gtpu_path_failure, stale_session_init_disconnect, mop_offline, userplane_initiated_clear_subscriber, userplane_initiated_association_release, userplane_initiated_recovery_failure, sx_urss_association_release, userplane_initiated_self_protection_termination

SGW UE Level Counters Category

sgw_ue_counters

Description: UE level counter

Sample Query: `sgw_ue_counters{ratType=\"EUTRAN\",state=\"idle\",grInstanceID=\"1\"}`

Labels:

- Label: `rat_type`

  Label Description: The rat_type indicates which Radio Access Technology is currently serving the UE"

  Example: EUTRAN

- Label: `state`

  Label Description: Subscriber state

  Example: idle, connected

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

SGW UE Level statistics Category

sgw_ue_stats

Description: UE level statistics

Sample Query: `sgw_ue_stats{ratType=\"EUTRAN\",status=\"setup\",grInstanceID=\"1\"}`

Labels:

- Label: `rat_type`

  Label Description: The rat_type indicates which Radio Access Technology is currently serving the UE"

  Example: EUTRAN

- Label: `status`

  Label Description: Subscriber status

  Example: setup, release

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

SGW Volte session counter Category

sgw_voltesession_counter

Description: Total Sx Session usage reports processed

Sample Query: `sgw_voltesession_counter{gr_instance_id=\"1\",state=\"VolteSession\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `state`

  Label Description: Session type

  Example: VolteSession

SGW callflow optimization stats Category

sgw_callflow_optimization_stats

Description: SGW Callflow Optimization Counter

Sample Query:
`sgw_callflow_optimization_stats{gr_instance_id=\"1\",type=\"suppress_uli_reporting_on_s5\"}`

Labels:

- Label: `gr_instance_id`

  Label Description: GR instance ID

  Example: 1, 2

- Label: `type`

  Label Description: Callflow optimization type

  Example: suppress_uli_reporting_on_s5, rab_prepone_ack