3GPP TSG-RAN WG3 Meeting #127 R3-250833

Athens, Greece, 17th -21st Feburary,2025

Agenda Item: 12.2

Source: Huawei, Ericsson, Nokia, Nokia Shanghai Bell, China Telecom, ZTE

Title: (TP for WAB BL CR for TS 38.413) Additional ULI for UEs served by WAB-Nodes

Document for: Agreement

# 1 Introduction

This paper is to provide TP for TS 38.413 to reflect the following agreements:

**Include Additional ULI into the User Location Information IE in TS 38.413. Additional ULI contains a CGI and a TAI.**

# Annex A: TP for TS 38.413

*Start of Change*

## 9.3.1.16 User Location Information

This IE is used to provide location information of the UE.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| CHOICE *User Location Information* | M |  |  |  | - |  |
| *>E-UTRA user location information* |  |  |  |  |  |  |
| >>E-UTRA CGI | M |  | 9.3.1.9 |  | - |  |
| >>TAI | M |  | 9.3.3.11 |  | - |  |
| >>Age of Location | O |  | Time Stamp  9.3.1.75 | Indicates the UTC time when the location information was generated. | - |  |
| >>PSCell Information | O |  | NG-RAN CGI  9.3.1.73 |  | YES | ignore |
| *>NR user location information* |  |  |  |  |  |  |
| >>NR CGI | M |  | 9.3.1.7 |  | - |  |
| >>TAI | M |  | 9.3.3.11 | This IE is ignored if the NR NTN TAI Information IE is present. | - |  |
| >>Age of Location | O |  | Time Stamp  9.3.1.75 | Indicates the UTC time when the location information was generated. | - |  |
| >>PSCell Information | O |  | NG-RAN CGI  9.3.1.73 |  | YES | ignore |
| >>NID | O |  | 9.3.3.42 |  | YES | reject |
| >>NR NTN TAI Information | O |  | 9.3.3.53 |  | YES | ignore |
| >>Mobile IAB-MT User Location Information | O |  | 9.3.1.260 | Indicates the user location information of a mobile IAB-MT, which is co-located with the mobile IAB-DU which serves the UE. | YES | ignore |
| >>Additional ULI for WAB | O |  | 9.3.1.X | Indicates the additional user location information for a UE served by a WAB-gNB. | YES | ignore |
| *>N3IWF user location information* |  |  |  |  |  |  |
| >>IP Address | M |  | Transport Layer Address  9.3.2.4 | UE's local IP address used to reach the N3IWF | - |  |
| >>Port Number | O |  | OCTET STRING  (SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>TNGF user location information* |  |  |  |  | YES | ignore |
| >>TNAP ID | M |  | OCTET STRING | TNAP Identifier used to identify the TNAP. Details in TS 29.571 [35]. | - |  |
| >>IP Address | M |  | Transport Layer Address  9.3.2.4 | UE's local IP address used to reach the TNGF. | - |  |
| >>Port Number | O |  | OCTET STRING  (SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>TWIF user location information* |  |  |  |  | YES | ignore |
| >>TWAP ID | M |  | OCTET STRING | TWAP Identifier used to identify the TWAP. Details in TS 29.571 [35]. | - |  |
| >>IP Address | M |  | Transport Layer Address  9.3.2.4 | Non-5G-Capable over WLAN device's local IP address used to reach the TWIF. | - |  |
| >>Port Number | O |  | OCTET STRING  (SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>W-AGF user location information* |  |  |  | Indicates the location information via wireline access as specified in TS 23.316 [34]. | YES | ignore |
| >>W-AGF user location information | M |  | 9.3.1.164 |  | - |  |

*Next Change*

#### 9.3.1.X Additional ULI for WAB

This IE contains the NR CGI and the TAI to reflect the location information of WAB-node which serves the UE.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| NR CGI | M |  | 9.3.1.7 |  |
| TAI | M |  | 9.3.3.11 |  |

*Next Change*

### 9.4.5 Information Element Definitions

-- ASN1START

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-- Information Element Definitions

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGAP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-AdditionalDLForwardingUPTNLInformation,

id-AdditionalULForwardingUPTNLInformation,

id-AdditionalDLQosFlowPerTNLInformation,

id-AdditionalDLUPTNLInformationForHOList,

id-AdditionalNGU-UP-TNLInformation,

id-AdditionalRedundantDL-NGU-UP-TNLInformation,

id-AdditionalRedundantDLQosFlowPerTNLInformation,

id-AdditionalRedundantNGU-UP-TNLInformation,

id-AdditionalRedundantUL-NGU-UP-TNLInformation,

id-AdditionalUL-NGU-UP-TNLInformation,

id-AlternativeQoSParaSetList,

id-AssistanceInformationQoE-Meas,

id-AdditionalCancelledlocationReportingReferenceIDList,

id-BurstArrivalTimeDownlink,

id-Cause,

id-CNPacketDelayBudgetDL,

id-CNPacketDelayBudgetUL,

id-CNTypeRestrictionsForEquivalent,

id-CNTypeRestrictionsForServing,

id-CommonNetworkInstance,

id-ConfiguredTACIndication,

id-CN-MT-CommunicationHandling,

id-CurrentQoSParaSetIndex,

id-DAPSRequestInfo,

id-DAPSResponseInfoList,

id-DataForwardingNotPossible,

id-DataForwardingResponseERABList,

id-DirectForwardingPathAvailability,

id-DL-NGU-UP-TNLInformation,

id-DownlinkTLContainer,

id-EndpointIPAddressAndPort,

id-EnergySavingIndication,

id-ExtendedMobilityInformation,

id-ExtendedPacketDelayBudget,

id-ExtendedRATRestrictionInformation,

id-ExtendedReportIntervalMDT,

id-ExtendedSliceSupportList,

id-ExtendedTAISliceSupportList,

id-ExtendedUEIdentityIndexValue,

id-EUTRA-PagingeDRXInformation,

id-EquivalentSNPNsList,

id-GlobalCable-ID,

id-GlobalRANNodeID,

id-GlobalTNGF-ID,

id-GlobalTWIF-ID,

id-GlobalW-AGF-ID,

id-GUAMIType,

id-HashedUEIdentityIndexValue,

id-IncludeBeamMeasurementsIndication,

id-IntersystemSONInformationRequest,

id-IntersystemSONInformationReply,

id-IntersystemResourceStatusUpdate,

id-IntersystemMobilityFailureforVoiceFallback,

id-LastEUTRAN-PLMNIdentity,

id-LastVisitedPSCellList,

id-LocationReportingAdditionalInfo,

id-M4ReportAmount,

id-M5ReportAmount,

id-M6ReportAmount,

id-ExcessPacketDelayThresholdConfiguration,

id-M7ReportAmount,

id-MaximumIntegrityProtectedDataRate-DL,

id-MBS-AreaSessionID,

id-MBS-QoSFlowsToBeSetupList,

id-MBS-QoSFlowsToBeSetupModList,

id-MBS-QoSFlowToReleaseList,

id-MBS-ServiceArea,

id-MBS-SessionFSAIDList,

id-MBS-SessionID,

id-MBS-ActiveSessionInformation-SourcetoTargetList,

id-MBS-ActiveSessionInformation-TargettoSourceList,

id-MBS-AssistanceInformation,

id-MBS-SessionTNLInfo5GC,

id-MBS-SupportIndicator,

id-MBSSessionFailedtoSetupList,

id-MBSSessionFailedtoSetuporModifyList,

id-MBSSessionSetupResponseList,

id-MBSSessionSetuporModifyResponseList,

id-MBSSessionToReleaseList,

id-MBSSessionSetupRequestList,

id-MBSSessionSetuporModifyRequestList,

id-MDTConfiguration,

id-MicoAllPLMN,

id-NetworkInstance,

id-NGAPIESupportInformationRequestList,

id-NGAPIESupportInformationResponseList,

id-NID,

id-NR-CGI,

id-NRNTNTAIInformation,

id-NPN-MobilityInformation,

id-NPN-PagingAssistanceInformation,

id-NPN-Support,

id-NR-PagingeDRXInformation,

id-OldAssociatedQosFlowList-ULendmarkerexpected,

id-OnboardingSupport,

id-PagingAssisDataforCEcapabUE,

id-PagingCauseIndicationForVoiceService,

id-PDUSessionAggregateMaximumBitRate,

id-PduSessionExpectedUEActivityBehaviour,

id-PDUSessionPairID,

id-PDUSessionResourceFailedToSetupListCxtFail,

id-PDUSessionResourceReleaseResponseTransfer,

id-PDUSessionType,

id-PEIPSassistanceInformation,

id-PSCellInformation,

id-PNI-NPNBasedMDT,

id-PNI-NPN-AreaScopeofMDT,

id-QMCConfigInfo,

id-QosFlowAdditionalInfoList,

id-QosFlowAddOrModifyRequestList,

id-QosFlowFailedToSetupList,

id-QosFlowFeedbackList,

id-QosFlowParametersList,

id-QosFlowSetupRequestList,

id-QosFlowToReleaseList,

id-QosMonitoringRequest,

id-QosMonitoringReportingFrequency,

id-SNPN-CellBasedMDT,

id-SNPN-TAIBasedMDT,

id-SNPN-BasedMDT,

id-SuccessfulHandoverReportList,

id-SupportedUETypeList,

id-UEContextReferenceAtSource,

id-RAT-Information,

id-RedundantCommonNetworkInstance,

id-RedundantDL-NGU-TNLInformationReused,

id-RedundantDL-NGU-UP-TNLInformation,

id-RedundantDLQosFlowPerTNLInformation,

id-RedundantPDUSessionInformation,

id-RedundantQosFlowIndicator,

id-RedundantUL-NGU-UP-TNLInformation,

id-SCTP-TLAs,

id-SecondaryRATUsageInformation,

id-SecurityIndication,

id-SecurityResult,

id-SgNB-UE-X2AP-ID,

id-S-NSSAI,

id-SONInformationReport,

id-SourceNodeID,

id-SourceNodeTNLAddrInfo,

id-SourceSN-to-TargetSN-QMCInfo,

id-SourceTNLAddrInfo,

id-SurvivalTime,

id-Selected-Target-SNPN-Identity,

id-TNLAssociationTransportLayerAddressNGRAN,

id-TAINSAGSupportList,

id-TargetHomeENB-ID,

id-TargetRNC-ID,

id-TimeBasedHandoverInformation,

id-TraceCollectionEntityURI,

id-TSCTrafficCharacteristics,

id-UEHistoryInformationFromTheUE,

id-UERadioCapabilityForPaging,

id-UERadioCapabilityForPagingOfNB-IoT,

id-UL-NGU-UP-TNLInformation,

id-UL-NGU-UP-TNLModifyList,

id-ULForwarding,

id-ULForwardingUP-TNLInformation,

id-UplinkTLContainer,

id-UsedRSNInformation,

id-UserLocationInformationTNGF,

id-UserLocationInformationTWIF,

id-UserLocationInformationW-AGF,

id-UserPlaneErrorIndicator,

id-EarlyMeasurement,

id-BeamMeasurementsReportConfiguration,

id-DLDiscarding,

id-TAI,

id-HFCNode-ID-new,

id-GlobalCable-ID-new,

id-FiveGProSeLayer2Multipath,

id-CandidateRelayUEInformationList,

id-FiveGProSeLayer2UEtoUERelay,

id-FiveGProSeLayer2UEtoUERemote,

id-SuccessfulPSCellChangeReportList,

id-TargetCellCRNTI,

id-TimeSinceFailure,

id-ClockQualityReportingControlInfo,

id-RANfeedbacktype,

id-QoSFlowTSCList,

id-TSCTrafficCharacteristicsFeedback,

id-ANPacketDelayBudgetUL,

id-MBSCommServiceType,

id-MobileIAB-MTUserLocationInformation,

id-PDUsetQoSParameters,

id-PDUSetbasedHandlingIndicator,

id-N6JitterInformation,

id-ECNMarkingorCongestionInformationReportingRequest,

id-ECNMarkingorCongestionInformationReportingStatus,

id-MN-only-MDT-collection,

id-XrDeviceWith2Rx,

id-MaximumDataBurstVolume,

id-MBS-NGUFailureIndication,

id-UserPlaneFailureIndication,

id-UserPlaneFailureIndicationReport,

id-QoERVQoEReportingPaths,

id-AdditionalULIforWAB

maxnoofAllowedAreas,

maxnoofAllowedCAGsperPLMN,

maxnoofAllowedS-NSSAIs,

maxnoofAoIMinusOne,

maxnoofBluetoothName,

maxnoofBPLMNs,

maxnoofCAGforMDT,

maxnoofCAGSperCell,

maxnoofCandidateCells,

maxnoofCellIDforMDT,

maxnoofCellIDforQMC,

maxnoofCellIDforWarning,

maxnoofCellinAoI,

maxnoofCellinEAI,

maxnoofCellsforMBS,

maxnoofCellsingNB,

maxnoofCellsinngeNB,

maxnoofCellsinNGRANNode,

maxnoofCellinTAI,

maxnoofCellsinUEHistoryInfo,

maxnoofCellsUEMovingTrajectory,

maxnoofDRBs,

maxnoofEmergencyAreaID,

maxnoofEAIforRestart,

maxnoofEPLMNs,

maxnoofEPLMNsPlusOne,

maxnoofE-RABs,

maxnoofErrors,

maxnoofExtSliceItems,

maxnoofESNPNs,

maxnoofForbTACs,

maxnoofFreqforMDT,

maxnoofMBSFSAs,

maxnoofMBSQoSFlows,

maxnoofMBSServiceAreaInformation,

maxnoofMBSAreaSessionIDs,

maxnoofMBSSessions,

maxnoofMBSSessionsofUE,

maxnoofMDTPLMNs,

maxnoofMRBs,

maxnoofMultiConnectivity,

maxnoofMultiConnectivityMinusOne,

maxnoofNeighPCIforMDT,

maxnoofNGAPIESupportInfo,

maxnoofNGConnectionsToReset,

maxNRARFCN,

maxnoofNRCellBands,

maxnoofNSAGs,

maxnoofPagingAreas,

maxnoofPC5QoSFlows,

maxnoofPDUSessions,

maxnoofPLMNs,

maxnoofPLMNforQMC,

maxnoofQosFlows,

maxnoofQosParaSets,

maxnoofRANNodeinAoI,

maxnoofRecommendedCells,

maxnoofRecommendedRANNodes,

maxnoofAoI,

maxnoofPSCellsPerPrimaryCellinUEHistoryInfo,

maxnoofReportedCells,

maxnoofSensorName,

maxnoofServedGUAMIs,

maxnoofSliceItems,

maxnoofMDTSNPNs,

maxnoofSNSSAIforQMC,

maxnoofSuccessfulHOReports,

maxnoofTACs,

maxnoofTACsinNTN,

maxnoofTAforMDT,

maxnoofTAforQMC,

maxnoofTAIforInactive,

maxnoofTAIforMBS,

maxnoofTAIforPaging,

maxnoofTAIforRestart,

maxnoofTAIforWarning,

maxnoofTAIinAoI,

maxnoofTargetS-NSSAIs,

maxnoofTimePeriods,

maxnoofTNLAssociations,

maxnoofUEAppLayerMeas,

maxnoofUEsforPaging,

maxnoofUETypes,

maxnoofWLANName,

maxnoofXnExtTLAs,

maxnoofXnGTP-TLAs,

maxnoofXnTLAs,

maxnoofThresholdsForExcessPacketDelay,

maxnoofCandidateRelayUEs,

maxnoofSuccessfulPSCellChangeReports,

maxnoofCellsTSS,

maxnoofPeriodicities,

maxnoofPartiallyAllowedS-NSSAIs,

maxnoofRSPPQoSFlows

*Next Change*

-- A

AdditionalDLUPTNLInformationForHOList ::= SEQUENCE (SIZE(1..maxnoofMultiConnectivityMinusOne)) OF AdditionalDLUPTNLInformationForHOItem

AdditionalDLUPTNLInformationForHOItem ::= SEQUENCE {

additionalDL-NGU-UP-TNLInformation UPTransportLayerInformation,

additionalQosFlowSetupResponseList QosFlowListWithDataForwarding,

additionalDLForwardingUPTNLInformation UPTransportLayerInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AdditionalDLUPTNLInformationForHOItem-ExtIEs} } OPTIONAL,

...

}

AdditionalDLUPTNLInformationForHOItem-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalRedundantDL-NGU-UP-TNLInformation CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional },

...

}

AdditionalQosFlowInformation ::= ENUMERATED {

more-likely,

...

}

AerialUEsubscriptionInformation ::= ENUMERATED {

allowed,

not-allowed,

...

}

AdditionalULIforWAB ::= SEQUENCE {

nRCGI NR-CGI,

tAI TAI,

iE-Extensions ProtocolExtensionContainer { { AdditionalULIforWAB-ExtIEs} } OPTIONAL,

...

}

AdditionalULIforWAB-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

A2X-PC5-FlowBitRates ::= SEQUENCE {

a2X-GuaranteedFlowBitRate BitRate,

a2X-MaximumFlowBitRate BitRate,

iE-Extensions ProtocolExtensionContainer { {A2X-PC5-FlowBitRates-ExtIEs} } OPTIONAL,

...

}

A2X-PC5-FlowBitRates-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

*Next Change*

-- U

-------------------skip the unchanged parts-------------------

UserLocationInformationNR-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

{ ID id-PSCellInformation CRITICALITY ignore EXTENSION NGRAN-CGI PRESENCE optional }|

{ ID id-NID CRITICALITY reject EXTENSION NID PRESENCE optional }|

{ ID id-NRNTNTAIInformation CRITICALITY ignore EXTENSION NRNTNTAIInformation PRESENCE optional }|

{ ID id-MobileIAB-MTUserLocationInformation CRITICALITY ignore EXTENSION MobileIAB-MTUserLocationInformation PRESENCE optional }|

{ ID id-AdditionalULIforWAB CRITICALITY ignore EXTENSION AdditionalULIforWAB PRESENCE optional },

...

}

*Next Change*

### 9.4.7 Constant Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Constant definitions

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-------------------skip the unchanged parts-------------------

id-MobileIAB-Supported ProtocolIE-ID ::= 404

id-CN-MT-CommunicationHandling ProtocolIE-ID ::= 405

id-FiveGCAction ProtocolIE-ID ::= 406

id-PagingPolicyDifferentiation ProtocolIE-ID ::= 407

id-DL-Signalling ProtocolIE-ID ::= 408

id-PNI-NPN-AreaScopeofMDT ProtocolIE-ID ::= 409

id-PNI-NPNBasedMDT ProtocolIE-ID ::= 410

id-SNPN-CellBasedMDT ProtocolIE-ID ::= 411

id-SNPN-TAIBasedMDT ProtocolIE-ID ::= 412

id-SNPN-BasedMDT ProtocolIE-ID ::= 413

id-Partially-Allowed-NSSAI ProtocolIE-ID ::= 414

id-AssociatedSessionID ProtocolIE-ID ::= 415

id-MBS-AssistanceInformation ProtocolIE-ID ::= 416

id-BroadcastTransportFailureTransfer ProtocolIE-ID ::= 417

id-BroadcastTransportRequestTransfer ProtocolIE-ID ::= 418

id-BroadcastTransportResponseTransfer ProtocolIE-ID ::= 419

id-TimeBasedHandoverInformation ProtocolIE-ID ::= 420

id-DLDiscarding ProtocolIE-ID ::= 421

id-PDUsetQoSParameters ProtocolIE-ID ::= 422

id-PDUSetbasedHandlingIndicator ProtocolIE-ID ::= 423

id-N6JitterInformation ProtocolIE-ID ::= 424

id-ECNMarkingorCongestionInformationReportingRequest ProtocolIE-ID ::= 425

id-ECNMarkingorCongestionInformationReportingStatus ProtocolIE-ID ::= 426

id-ERedCapIndication ProtocolIE-ID ::= 427

id-XrDeviceWith2Rx ProtocolIE-ID ::= 428

id-UserPlaneErrorIndicator ProtocolIE-ID ::= 429

id-SLPositioningRangingServiceInfo ProtocolIE-ID ::= 430

id-PDUSessionListMTCommHReq ProtocolIE-ID ::= 431

id-MaximumDataBurstVolume ProtocolIE-ID ::= 432

id-MN-only-MDT-collection ProtocolIE-ID ::= 433

id-MBS-NGUFailureIndication ProtocolIE-ID ::= 434

id-UserPlaneFailureIndication ProtocolIE-ID ::= 435

id-UserPlaneFailureIndicationReport ProtocolIE-ID ::= 436

id-SourceSN-to-TargetSN-QMCInfo ProtocolIE-ID ::= 437

id-QoERVQoEReportingPaths ProtocolIE-ID ::= 438

id-UserLocationInformationN3IWF-without-PortNumber ProtocolIE-ID ::= 439

id-AUN3DeviceAccessInfo ProtocolIE-ID ::= 440

id-AdditionalULIforWAB ProtocolIE-ID ::= xxx

*End of Change*