**TSG-RAN Meeting #9**                                                      *RP-000509*
**Oahu, HI, USA, 20 - 22 September 2000**

**Source:**          **Nortel Networks**

**Title:**           **new Work Item sheets related to UE Positioning**


1.  Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99
2.  UE positioning enhancements

# 1.    Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

## Work Item Description

## Title

Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

**1          3GPP Work Area**

| X | Radio Access |
|---|---|
|   | Core Network |
|   | Services |

**2          Linked work items**

**3          Justification**

Currently, the UE positioning if a function of UTRAN where several methods are supported on the radio interface:
- cell coverage based positioning method;
- OTDOA method with network configurable idle periods; and
- network assisted GPS method.

Nevertheless, only the cell coverage based positioning method is supported on the Iub and Iur interface of release 99.

**4          Objective**

The purpose of this work item is to add on the Iub and Iur protocols the necessary support for the positioning methods defined for release 99.

**5          Service Aspects**

*None*

**6          MMI-Aspects**

*None*

**7          Charging Aspects**

*None*

## 8        Security Aspects

*None*

## 9        Impacts

| Affects: | USIM | ME | AN | CN | Others |
|----------|------|-----|-----|-----|--------|
| **Yes**  |      |    | X  |    |        |
| **No**   | X    | X  |    | X  |        |
| **Don't know** |      |    |    |    |        |

## 10        Expected Output and Time scale (to be updated at each plenary)

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.401 |  | UTRAN Overall Description | RAN #10 |  |
| 25.420 |  | UTRAN Iur Interface: General Aspects and Principles | RAN #10 |  |
| 25.423 |  | UTRAN Iur Interface RNSAP Signalling | RAN #10 |  |
| 25.430 |  | UTRAN Iub Interface: General Aspects and Principles | RAN #10 |  |
| 25.433 |  | UTRAN Iub Interface NBAP Signalling | RAN #10 |  |

## 11        Work item raporteurs

to be decided by RAN WG3

## 12        Work item leadership

RAN WG3

**13          Supporting Companies**

Nortel Networks, Ericsson, Siemens, Lucent Technologies

**14          Classification of the WI (if known)**

|   | Feature (go to 14a) |
|---|---|
|   | Building Block (go to 14b) |
| X | Work Task (go to 14c) |

14a      The WI is a Feature: List of building blocks under this feature

14b      The WI is a Building Block: parent Feature

14c      The WI is a Work Task: parent Building Block

UE positioning

## 2. UE positioning enhancements

### Work Item Description

# 1. Title

UE positioning enhancements

**1          3GPP Work Area**

| X | Radio Access |
|---|---|
|   | Core Network |
|   | Services |

**2          Linked work items**

**3          Justification**

UE positioning is a function of UE and UTRAN (Access Stratum) which can be utilised for a number of purposes:
- Radio Resource Management
- Support for location based services (LCS)

Different accuracy can be requested when positioning a UE for these purposes.

**4          Objective**

The purpose of this work item are to increase the accuracy of the UE positioning or define methods allowing UE positioning with less complexity for a given accuracy.

Examples of planned enhancements are:
- Addition of IPDL for UE positioning in TDD

**5          Service Aspects**

*None*

**6          MMI-Aspects**

*None*

# 7 Charging Aspects

*None*

# 8 Security Aspects

*None*

# 9 Impacts

| Affects: | USIM | ME | AN | CN | Others |
|---|---|---|---|---|---|
| **Yes** | | X | X | | |
| **No** | X | | | X | |
| **Don't know** | | | | | |

# 10 Expected Output and Time scale (to be updated at each plenary)

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| | | | | | | |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | Approved at plenary# | | Comments |
| 25.305 | | Stage 2 Functional Specification of Location Services in UTRAN | | RAN #11 | | |
| 25.123 | | Requirements for Support of Radio Resource Management (TDD) | | RAN #11 | | |
| 25.224 | | Physical Layer Procedures (TDD) | | RAN #11 | | |
| 25.225 | | Physical layer – Measurements (TDD) | | RAN #11 | | |
| 25.302 | | Services provided by the physical layer | | RAN #11 | | |
| 25.303 | | Interlayer procedures in connected mode | | RAN #11 | | |
| 25.304 | | UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode | | RAN #11 | | |
| 25.331 | | RRC Protocol Specification | | RAN #11 | | |

| 25.420 | | UTRAN Iur Interface: General Aspects and Principles | RAN #11 | |
|--------|--|------------------------------------------------------|---------|--|
| 25.423 | | UTRAN Iur Interface RNSAP Signalling | RAN #11 | |
| 25.430 | | UTRAN Iub Interface: General Aspects and Principles | RAN #11 | |
| 25.433 | | UTRAN Iub Interface NBAP Signalling | RAN #11 | |

## 11 Work item rapporteur

Mark Beckmann, Siemens AG

## 12 Work item leadership

RAN WG2

## 13 Supporting Companies

Nortel Networks, Ericsson, Siemens, Lucent Technologies

## 14 Classification of the WI (if known)

| | Feature (go to 14a) |
|---|---|
| x | Building Block (go to 14b) |
| | Work Task (go to 14c) |

14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

UE positioning

14c The WI is a Work Task: parent Building Block