TSG-RAN Meeting #12
Stockholm, Sweden, 12 - 15 June 2001

TSGRP#12(01) 0370

Title: **Agreed CRs to TS 25.401**

Source: **TSG-RAN WG3**

Agenda item: **8.3.3/8.3.4**

Tdoc_Num	Specification	CR_Num	Revision_Num	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Num	Workitem
R3-011312	25.401	024		Correction on the figure 'UTRAN Architecture'	F	agreed	3.6.0	3.7.0	TEI
R3-011313	25.401	025		Correction on the figure 'UTRAN Architecture'	A	agreed	4.0.0	4.1.0	TEI
R3-011314	25.401	026		Rel4 only changes based on R3-011195	F	agreed	4.0.0	4.1.0	TEI
R3-011813	25.401	027	1	PLMN Identity	F	agreed	3.6.0	3.7.0	TEI
R3-011814	25.401	028	1	PLMN Identity	A	agreed	4.0.0	4.1.0	TEI
R3-011798	25.401	031		Separation between Logical Nodes and physical Network Elements	F	agreed	3.4.0	3.5.0	TEI
R3-011799	25.401	032		Separation between Logical Nodes and physical Network Elements	A	agreed	4.0.0	4.1.0	TEI

3GPP TSG-RAN3 Meeting #21
Busan, South Korea, 21 - 25 May 2001

Tdoc R3-011312

CR-Form-v3

CHANGE REQUEST

⌘	**25.401**	**CR**	**024**	⌘	rev	**1**	⌘ Current version:	**3.6.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [ ]

Title:	⌘	Correction on the figure 'UTRAN Architecture'		
Source:	⌘	R-WG3		
Work item code:	⌘	TEI	***Date:*** ⌘	May 2001
Category:	⌘	**F**	***Release:*** ⌘	R99
		Use one of the following categories: ***F*** *(essential correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(Addition of feature),* ***C*** *(Functional modification of feature)* ***D*** *(Editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *REL-4 (Release 4)* *REL-5 (Release 5)*

Reason for change:	⌘	1.The UTRAN architecture is not clear in figure 4. 2. AAL5 is not used in the Iub and Iur user planes
Summary of change:	⌘	Rev1: 1. The note and the dots in figure4 are removed. 2. the CR category is changed to 'F'. Rev0 1. In chapter 6 ,figure 4 is modified.. 2. In section 11.2,the discriptions of AAL5 connection are removed. 3. some editorial corrections.
Consequences if not approved:	⌘	The figure of 'UTRAN Architecture' is not clear.and some discription is not correct. Backward compatibility: These descriptive additions are backward compatible with the previous version of the TS.

Clauses affected:	⌘	6, 11.2		
Other specs affected:	⌘	[X] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘	25.401 CR 025 REL-4

Other comments:	⌘

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6 UTRAN Architecture

The UTRAN consists of a set of Radio Network Subsystems connected to the Core Network through the Iu.

A RNS consists of a Radio Network Controller and one or more Node Bs. A Node B is connected to the RNC through the Iub interface.

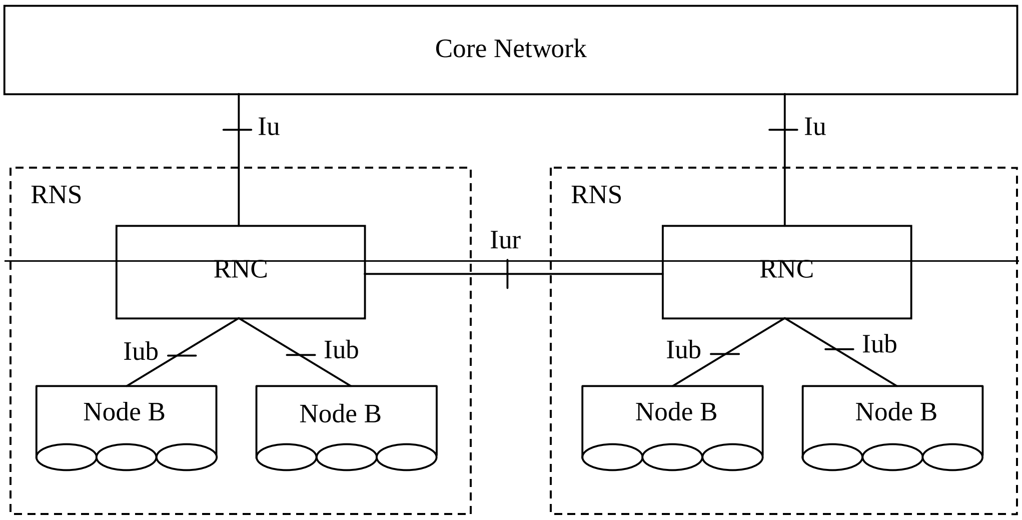
A Node B can support FDD mode, TDD mode or dual-mode operation.

The RNC is responsible for the Handover decisions that require signalling to the UE.

A RNC may include a combining/splitting function to support combination/splitting of information streams (see subclause 7.2.4.3).

Inside the UTRAN, the RNCs of the Radio Network Subsystems can be interconnected together through the Iur. Iu(s) and Iur are logical interfaces. Iur can be conveyed over direct physical connection between RNCs or virtual networks using any suitable transport network.

The UTRAN architecture is shown in figure 4.



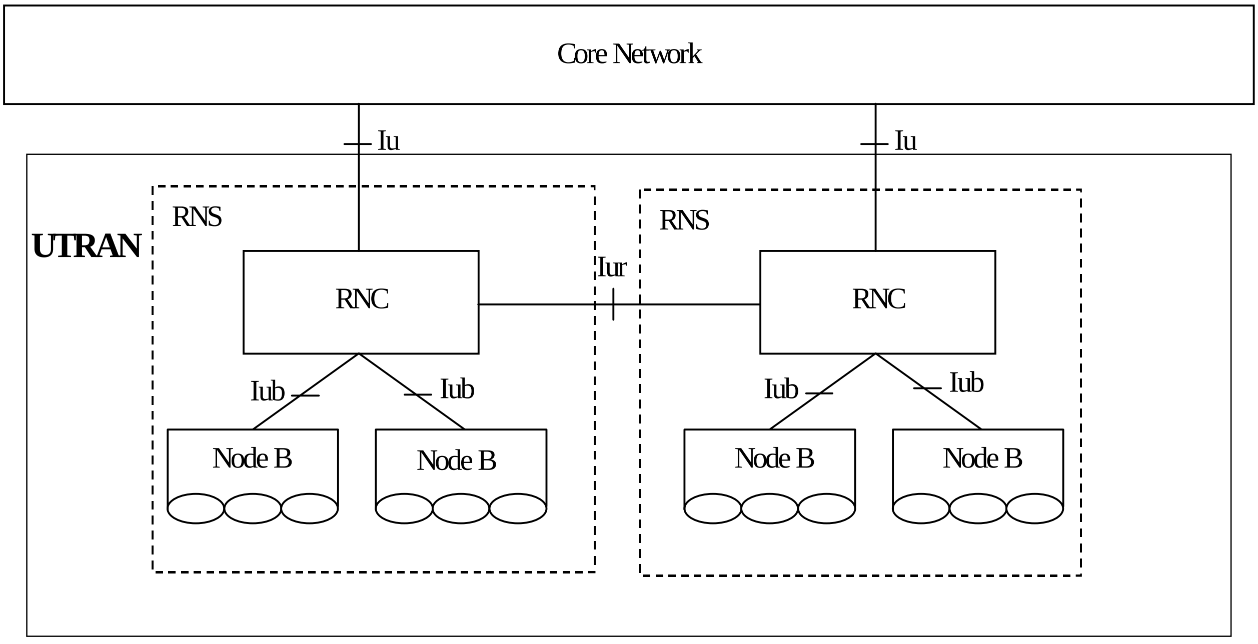


Figure 4: UTRAN Architecture

Each RNS is responsible for the resources of its set of cells.

For each connection between User Equipment and the UTRAN, One RNS is the Serving RNS. When required, Drift RNSs support the Serving RNS by providing radio resources as shown in figure 5. The role of an RNS (Serving or Drift) is on a per connection basis between a UE and the UTRAN.

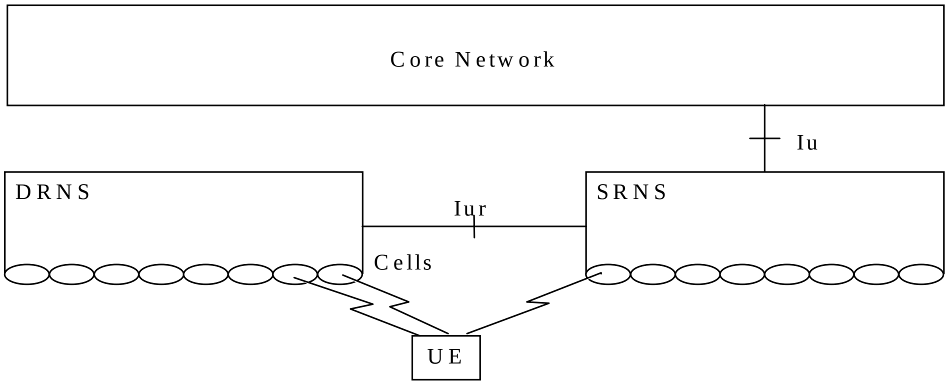


Figure 5: Serving and Drift RNS

The UTRAN is layered into a Radio Network Layer and a Transport Network Layer.

The UTRAN architecture, i.e. the UTRAN logical nodes and interfaces between them, are defined as part of the Radio Network Layer.

For each UTRAN interface (Iu, Iur, Iub) the related transport network layer protocol and functionality is specified. The transport network layer provides services for user plane transport, signalling transport and transport of implementation specific O&M.

An implementation of equipment compliant with the specifications of a certain interface shall support the Radio Network Layer protocols specified for that interface. It shall also as a minimum, for interoperability, support the transport network layer protocols according to the transport network layer specifications for that interface.

The network architecture of the transport network layer is not specified by 3GPP and is left as an operator issue.

The equipment compliant to 3GPP standards shall at least be able to act as endpoints in the transport network layer, and may also act as a switch/router within the transport network layer.

For implementation specific O&M signalling to the Node B, only the transport network layer protocols are in the scope of UTRAN specifications.

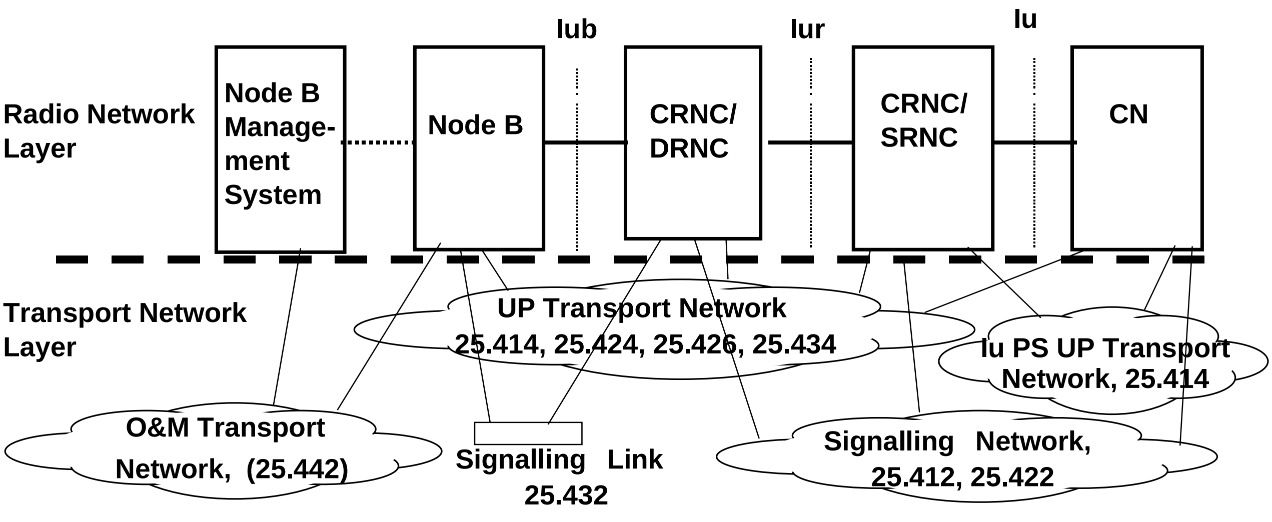


Figure 6: Protocol layering

Figure 6 illustrates which parts of the R99 transport network layer that may be (but are not mandated to be) configured by the operator as transport networks, i.e. the radio network layer provides a destination address, namely:

- Transport network for implementation specific O&M traffic
- Signalling network for Iu and Iur

- Transport network for Iub, Iur and Iu CS user plane connections
- Transport network for Iu PS user plane connections

The signalling link for Iub signalling as seen by the radio network layer cannot be configured as a network (no address provided).

A transport network for UTRAN may be configured by the operator to be used also for other traffic than UTRAN traffic.

11.2 Protocol Model (Informative)

The following section is a informative section which aim is to provide an overall picture of how the MAC layer is distributed over Uu, Iub and Iur for the RACH, FACH, DCH, DSCH and [TDD USCH].

11.2.1 RACH Transport Channel

Figure 11 shows the protocol stack model for the RACH transport channel when the Controlling and Serving RNC are co-incident.

For the RACH transport channel, Dedicated MAC (MAC-d) uses the services of Common MAC (MAC-c/sh).

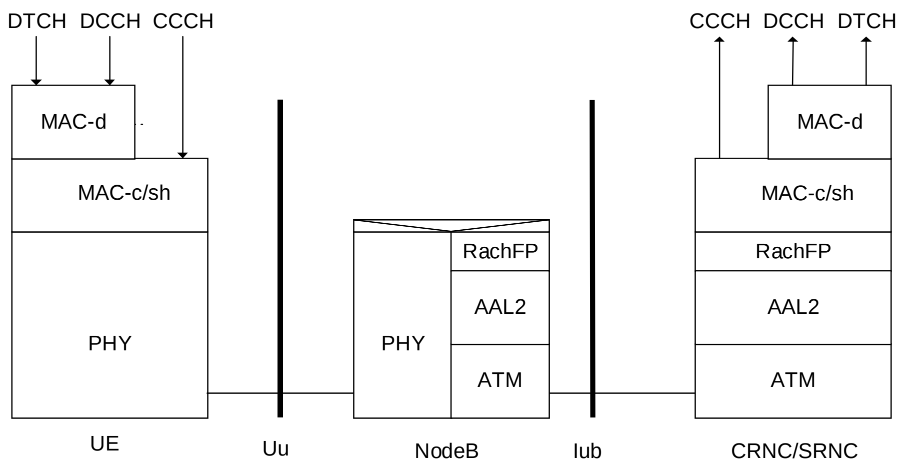


Figure 11: RACH: Coincident Controlling and Serving RNC

The Common MAC (MAC-c/sh) entity in the UE transfers MAC-c/sh PDU to the peer MAC-c/sh entity in the RNC using the services of the Physical Layer.

An Interworking Function (IWF) in the Node B interworks the RACH frame received by the PHY entity into the RACH Frame Protocol (RACH FP) entity.

The RACH Frame Protocol entity adds header information to form a RACH FP PDU that is transported to the RNC over an AAL2 ~~(or AAL5)~~ connection.

At the RNC, the RACH FP entity delivers the MAC-c/sh PDU to the MAC-c/sh entity.

Figure 12 shows the protocol model for the RACH transport channel with separate Controlling and Serving RNC. In this case, Iur RACH Frame Protocol (~~DchFP~~RACH FP) is used to interwork the Common MAC (MAC-c/sh) at the Controlling RNC with the Dedicated MAC (MAC-d) at the Serving RNC.

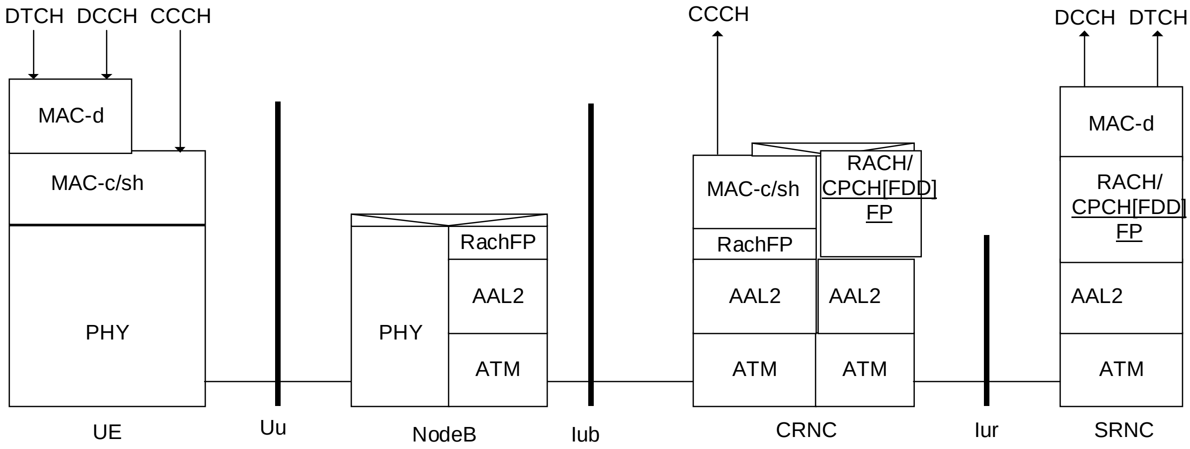


Figure 12: RACH: Separate Controlling and Serving RNC

11.2.2 CPCH [FDD] Transport Channel

Figure 13 shows the protocol model for the CPCH [FDD] transport channel when the Controlling and Serving RNC are co-incident.

For the CPCH [FDD] transport channel, Dedicated MAC (MAC-d) uses the services of Common MAC (MAC-c/sh).

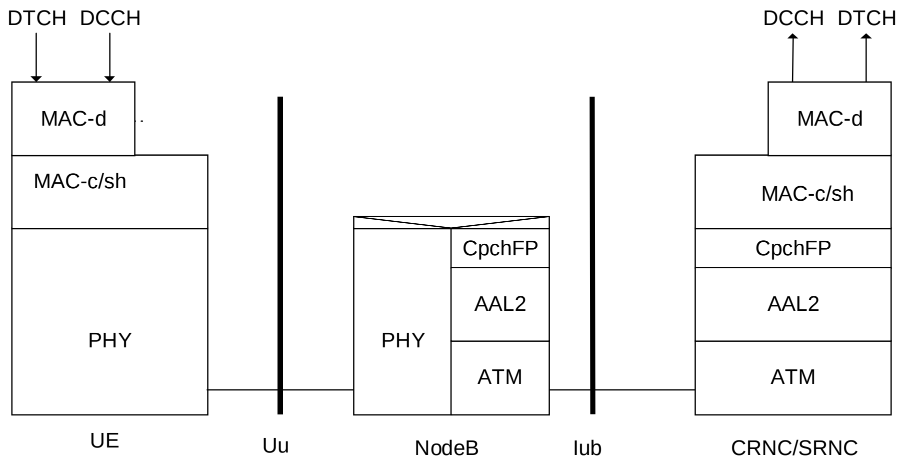


Figure 13: CPCH [FDD]: Coincident Controlling and Serving RNC

The Common MAC (MAC-c/ sh) entity in the UE transfers MAC-c PDU to the peer MAC-c entity in the RNC using the services of the Physical Layer.

An Interworking Function (IWF) in the Node B interworks the CPCH [FDD] frame received by the PHY entity into the CPCH [FDD] Frame Protocol (CPCH FP) entity.

The CPCH [FDD] Frame Protocol entity adds header information to form a CPCH [FDD] FP PDU which is transported to the RNC over an AAL2 connection.

At the RNC, the CPCH [FDD] FP entity delivers the MAC-c PDU to the MAC-c entity.

Figure 14 shows the protocol model for the CPCH [FDD] transport channel with separate Controlling and Serving RNC. In this case, Iur CPCH [FDD] Frame Protocol (CpchFP) is used to interwork the Common MAC (MAC-c/sh) at the Controlling RNC with the Dedicated MAC (MAC-d) at the Serving RNC.

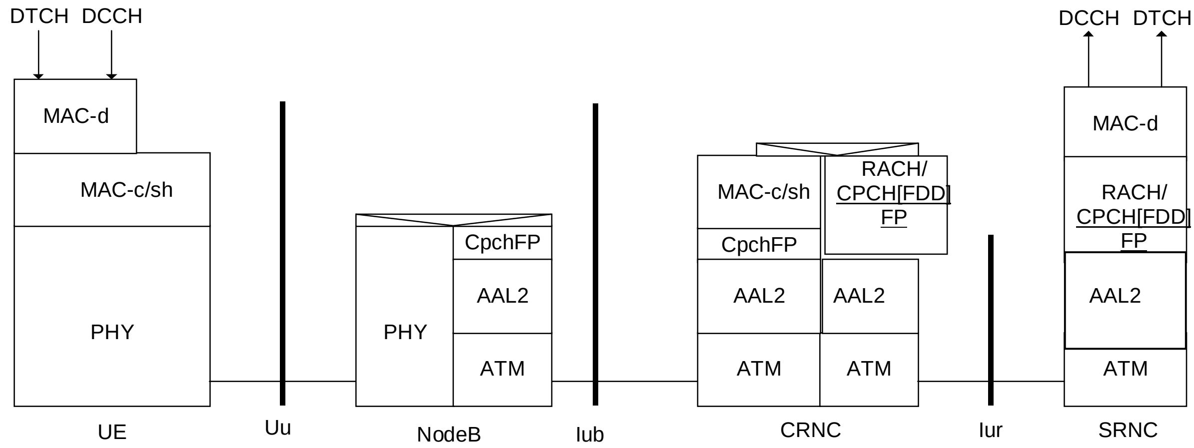


Figure 14: CPCH [FDD]: Separate Controlling and Serving RNC

11.2.3 FACH Transport Channel

Figure 15 shows the protocol model for the FACH transport channel when the Controlling and Serving RNC are co-incident.

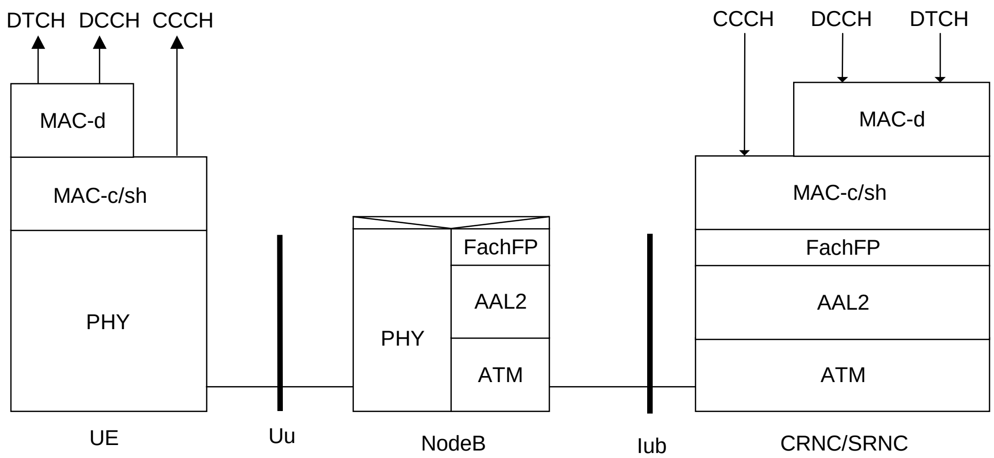


Figure 15: FACH Co-incident Controlling and Serving RNC

The Common MAC (MAC-c/sh) entity in the RNC transfers MAC-c PDU to the peer MAC-c entity in the UE using the services of the FACH Frame Protocol (FACH FP) entity.

The FACH Frame Protocol entity adds header information to form a FACH FP PDU which is transported to the Node B over an AAL2 ~~(or AAL5)~~ connection.

An Interworking Function (IWF) in the Node B interworks the FACH frame received by FACH Frame Protocol (FACH FP) entity into the PHY entity.

FACH scheduling is performed by MAC-c/sh in the CRNC.

Figure 16 shows the protocol model for the FACH transport channel with separate Controlling and Serving RNC. In this case, Iur FACH Frame Protocol is used to interwork the Common MAC (MAC-c) at the Controlling RNC with the Dedicated MAC (MAC-d) at the Serving RNC.

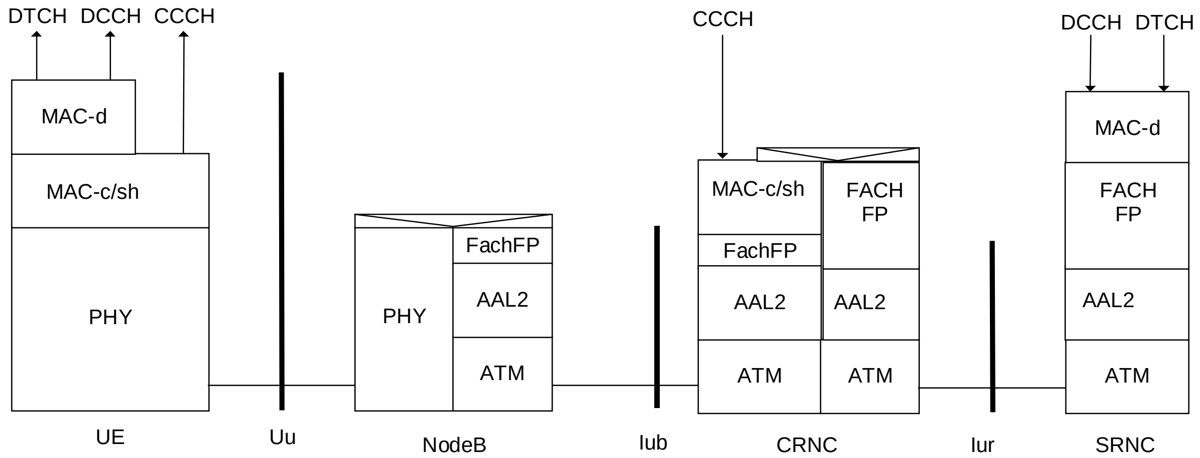


Figure 16: FACH: Separate Controlling and Serving RNC

11.2.4 DCH Transport Channel

Figure 17 shows the protocol model for the DCH transport channel when the Controlling and Serving RNC are co-incident.

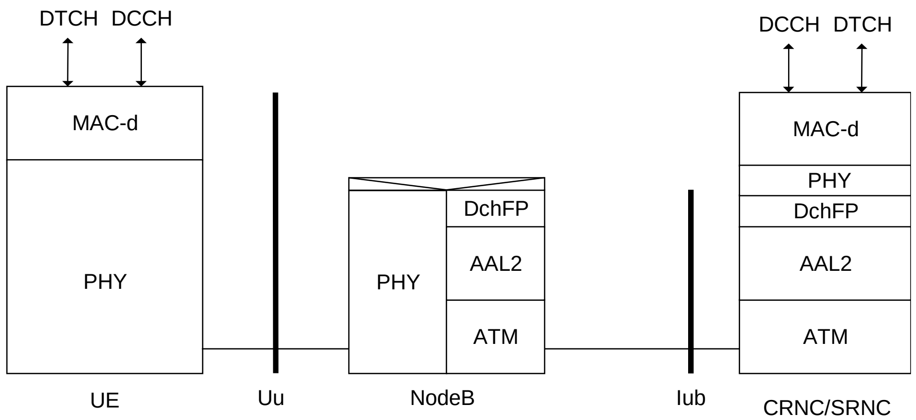


Figure 17: DCH: Co-incident Controlling and Serving RNC

The DCH transport channel introduces the concept of distributed PHY layer.

An Interworking Function (IWF) in the Node B interworks between the DCH Frame Protocol (DCH FP) entity and the PHY entity.

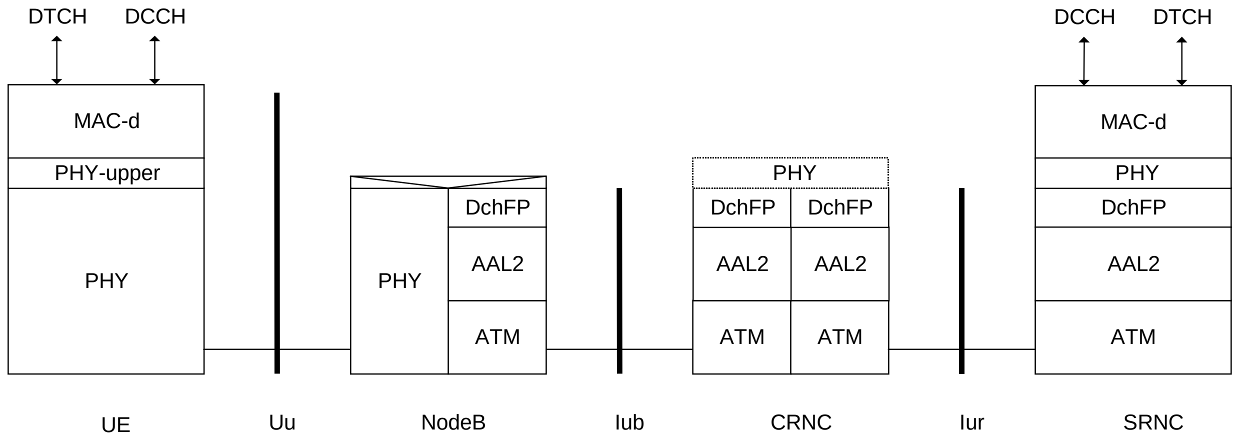


Figure 18: DCH: Separate Controlling and Serving RNC

Figure 18 shows the protocol model for the DCH transport channel with separate Controlling and Serving RNC. In this case, the Iub DCH FP is terminated in the CRNC and interworked with the Iur DCH FP through a PHY function. This function performs optional soft handover or can be a null function.

11.2.5 DSCH Transport Channel

Figure 19 shows the protocol model for the DSCH transport channel when the Controlling and Serving RNC are co-incident.

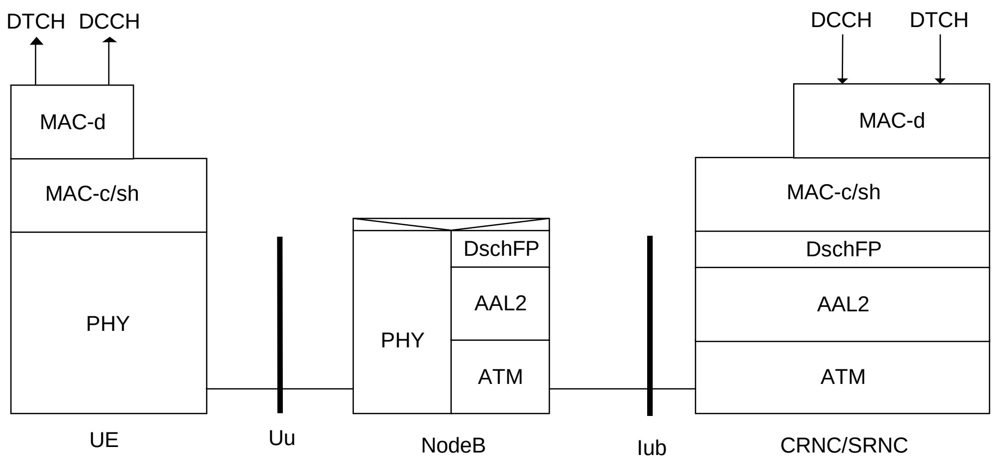


Figure 19: DSCH Co-incident Controlling and Serving RNC

The Shared MAC (MAC-c/sh) entity in the RNC transfers MAC-c/sh PDU to the peer MAC-c/sh entity in the UE using the services of the DSCH Frame Protocol (DSCH FP) entity. The DSCH FP entity adds header information to form a DSCH FP PDU that is transported to the Node B over an AAL2 connection.

An Interworking Function (IWF) in the Node B interworks the DSCH frame received by DSCH FP entity into the PHY entity. DSCH scheduling is performed by MAC-c/sh in the CRNC.

Figure 20 shows the protocol model for the DSCH transport channel with separate Controlling and Serving RNC. In this case, Iur DSCH Frame Protocol is used to interwork the MAC-c/sh at the Controlling RNC with the MAC-d at the Serving RNC.

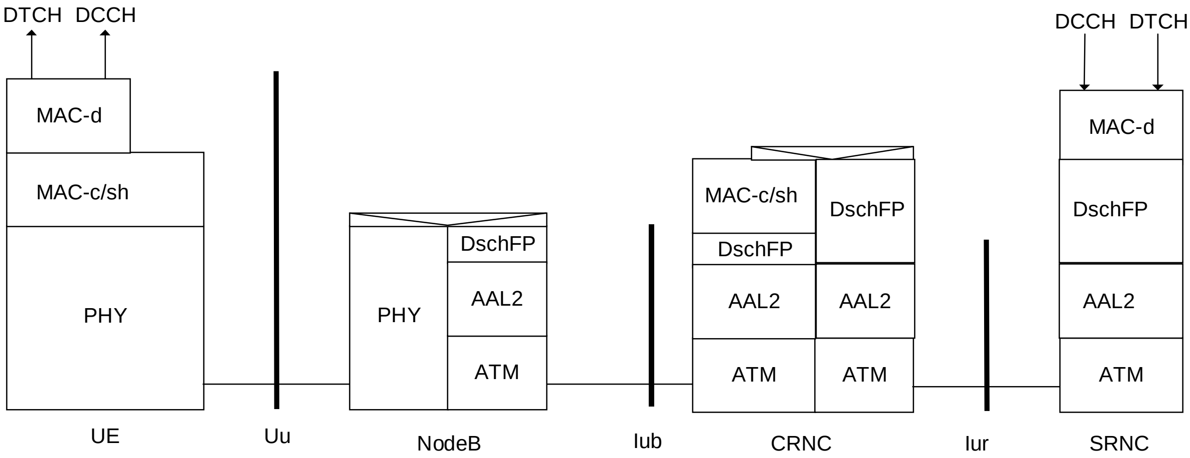


Figure 20: DSCH: Separate Controlling and Serving RNC

11.2.6 USCH Transport Channel [TDD]

Figure 21 shows the protocol model for the USCH transport channel when the Controlling and Serving RNC are co-incident.

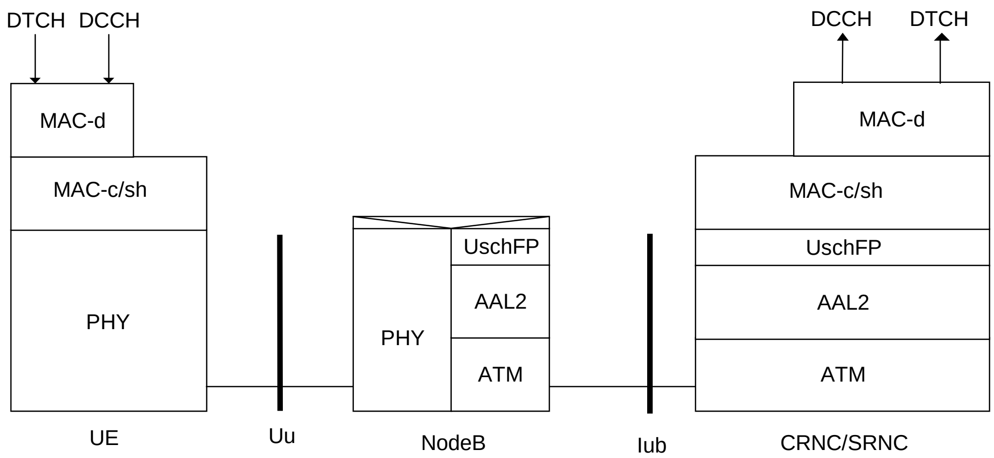


Figure 21: USCH Co-incident Controlling and Serving RNC

The Shared MAC (MAC-c/sh) entity in the RNC *receives* MAC-c/sh PDU *from* the peer MAC-c/sh entity in the UE using the services of the Interworking Function in the Node B, and the USCH Frame Protocol (USCH FP) entity. The USCH FP entity *in the Node B* adds header information to form a USCH FP PDU that is transported to the *RNC* over an AAL2 connection.

An Interworking Function (IWF) in the Node B interworks *the received USCH PHY entity into an USCH frame to be transmitted by the USCH FP entity over the Iub interface*. USCH scheduling is performed by MAC-c/sh in UE and by C-RRC in the CRNC.

Figure 22 shows the protocol model for the USCH transport channel with separate Controlling and Serving RNC. In this case, Iur USCH Frame Protocol is used to interwork the MAC-c/sh at the Controlling RNC with the MAC-d at the Serving RNC.

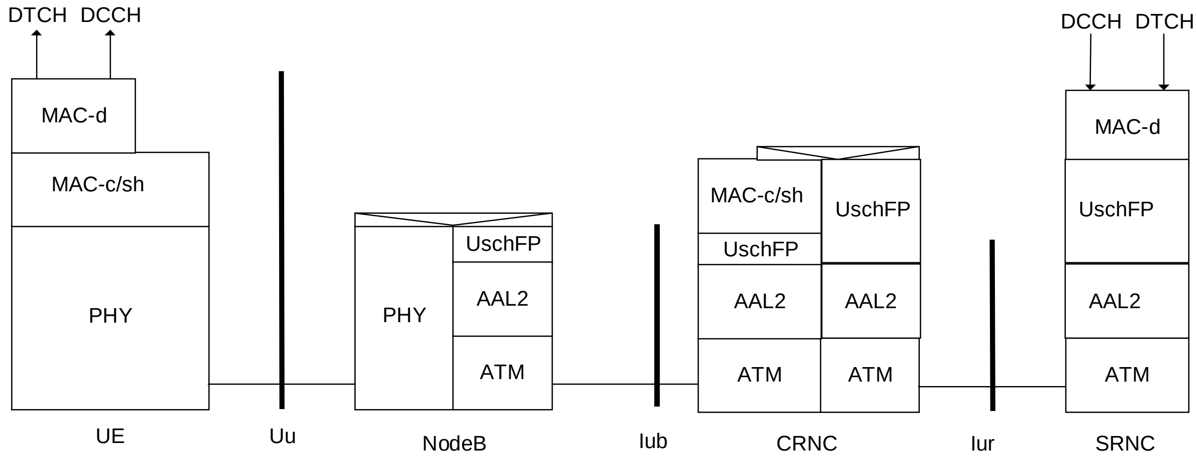


Figure 22: USCH: Separate Controlling and Serving RNC

3GPP TSG-RAN3 Meeting #21
Busan, South Korea, 21 - 25 May 2001

Tdoc R3-011313

CR-Form-v3

CHANGE REQUEST

⌘ **25.401 CR 025** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [ ]

Title: ⌘	Correction on the figure 'UTRAN Architecture'
Source: ⌘	R-WG3
Work item code: ⌘	TEI
Date: ⌘	May 2001
Category: ⌘	**A**
Release: ⌘	REL-4

Use one of the following categories:
- ***F*** *(essential correction)*
- ***A*** *(corresponds to a correction in an earlier release)*
- ***B*** *(Addition of feature),*
- ***C*** *(Functional modification of feature)*
- ***D*** *(Editorial modification)*

Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
- *2 (GSM Phase 2)*
- *R96 (Release 1996)*
- *R97 (Release 1997)*
- *R98 (Release 1998)*
- *R99 (Release 1999)*
- *REL-4 (Release 4)*
- *REL-5 (Release 5)*

Reason for change: ⌘
1.The UTRAN architecture is not clear in figure 4.
2. AAL5 is not used in the Iub and Iur user planes

Summary of change: ⌘

1. In chapter 6 ,figure 4 is modified..

2. In section 11.2,the discriptions of AAL5 connection are removed.

3. some editorial corrections.

Consequences if not approved: ⌘
The figure of 'UTRAN Architecture' is not clear.and some discription is not correct.

Backward compatibility: These descriptive additions are backward compatible with the previous version of the TS.

Clauses affected: ⌘ 6,11.2

Other specs affected: ⌘
- [X] Other core specifications ⌘ 25.401 CR 024 REL-99
- [ ] Test specifications
- [ ] O&M Specifications

Other comments: ⌘

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6 UTRAN Architecture

The UTRAN consists of a set of Radio Network Subsystems connected to the Core Network through the Iu.

A RNS consists of a Radio Network Controller and one or more Node Bs. A Node B is connected to the RNC through the Iub interface.

A Node B can support FDD mode, TDD mode or dual-mode operation.

There are two chip-rate options in the TDD mode: 3.84Mcps TDD and 1.28Mcps TDD. Each TDD cell supports either of these options.

A Node B which supports TDD cells can support one chip-rate option only, or both options.

An RNC which supports TDD cells can support one chip-rate option only, or both options.

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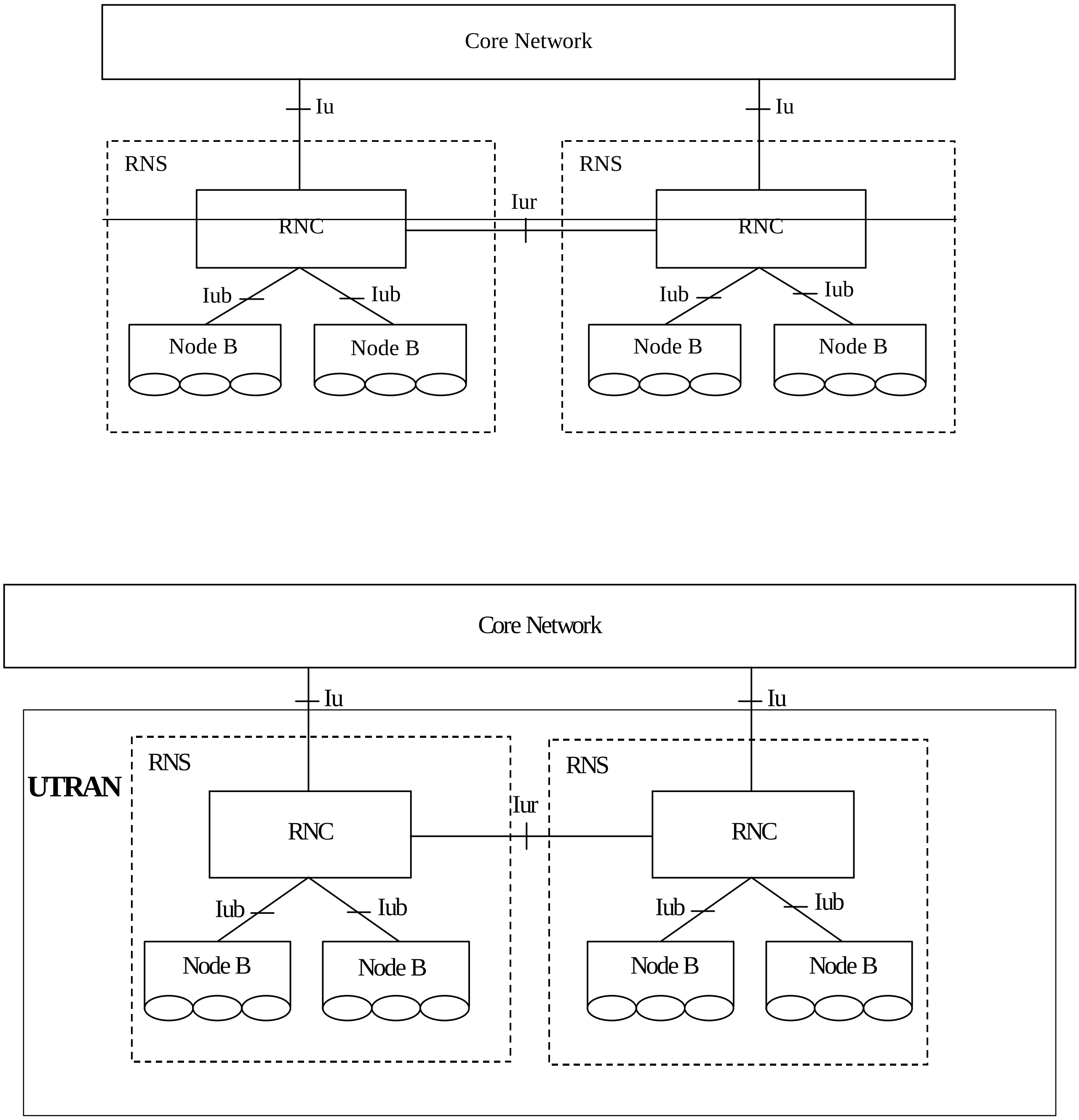

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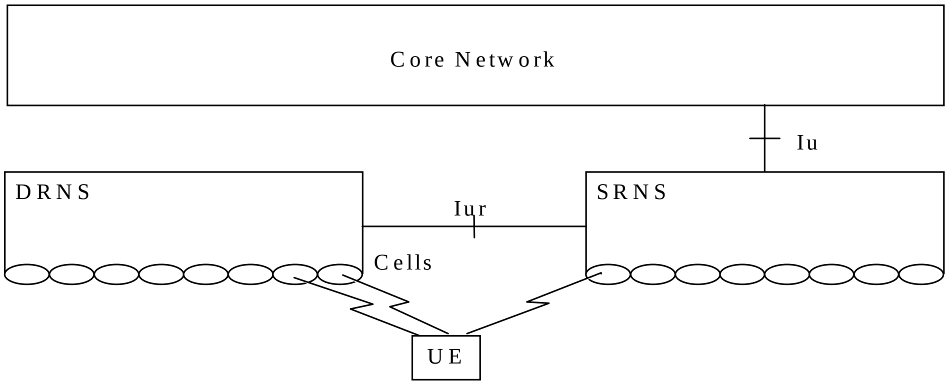

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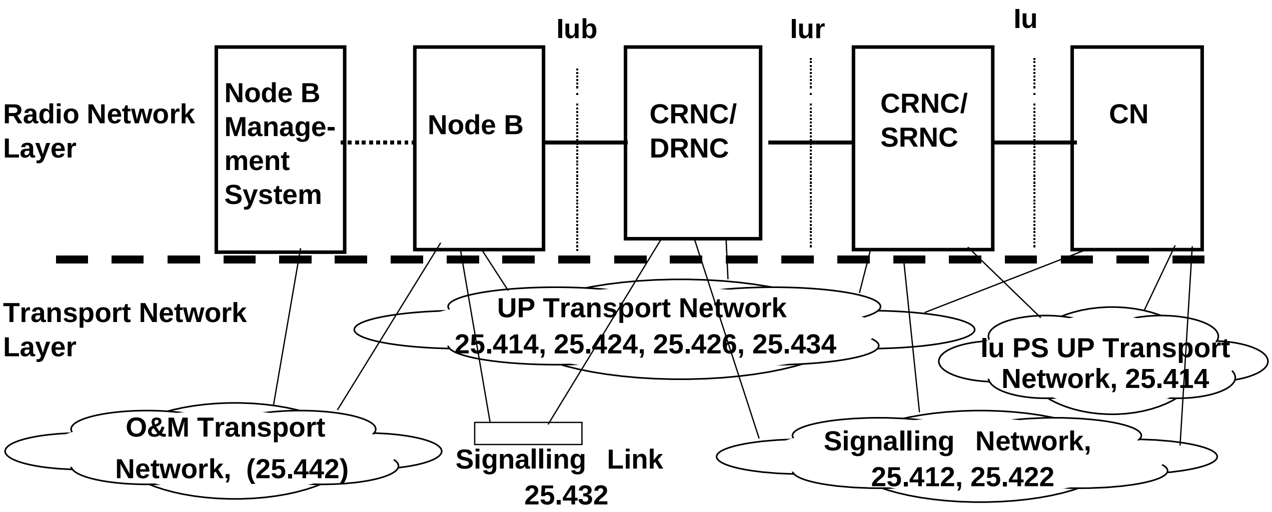

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- Signalling network for Iu and Iur

- Transport network for Iub, Iur and Iu CS user plane connections
- Transport network for Iu PS user plane connections

The signalling link for Iub signalling as seen by the radio network layer cannot be configured as a network (no address provided).

A transport network for UTRAN may be configured by the operator to be used also for other traffic than UTRAN traffic.

/* partly omitted*/

11.2 Protocol Model (Informative)

The following section is a informative section which aim is to provide an overall picture of how the MAC layer is distributed over Uu, Iub and Iur for the RACH, FACH, DCH, DSCH and [TDD USCH].

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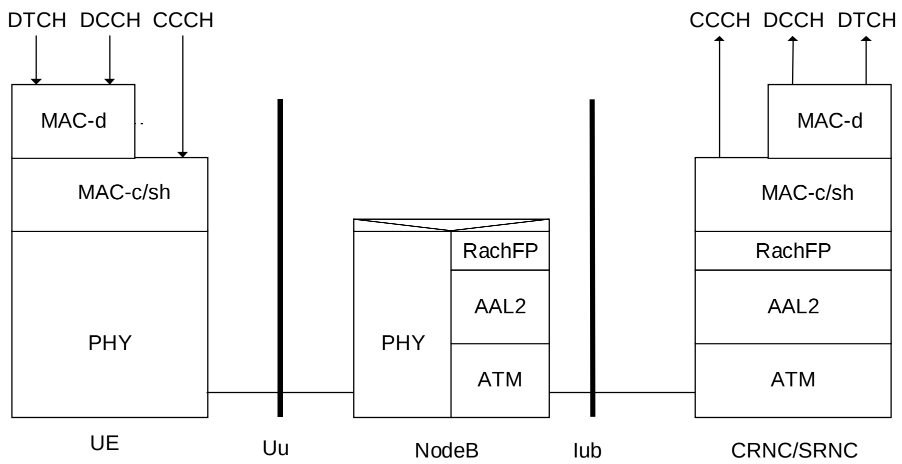

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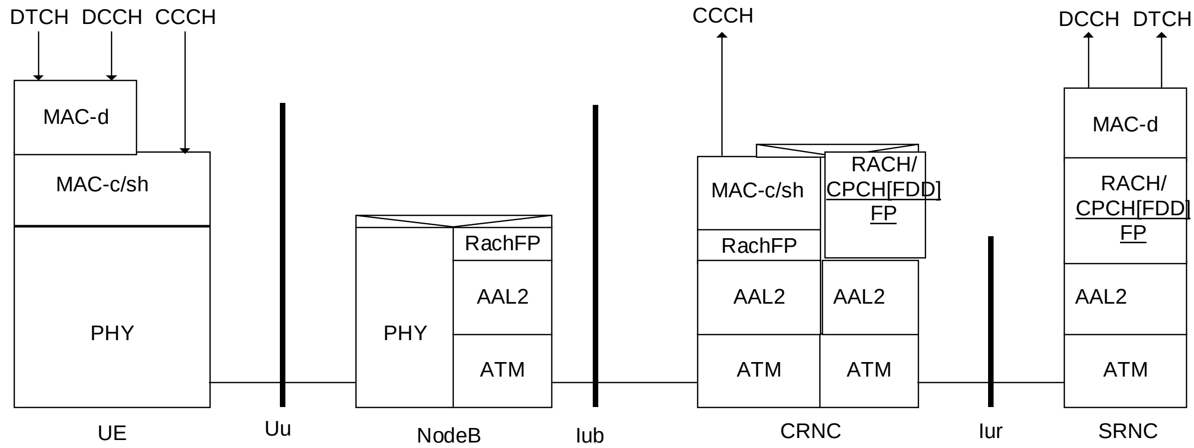

Figure 12: RACH: Separate Controlling and Serving RNC

11.2.2 CPCH [FDD] Transport Channel

Figure 13 shows the protocol model for the CPCH [FDD] transport channel when the Controlling and Serving RNC are co-incident.

For the CPCH [FDD] transport channel, Dedicated MAC (MAC-d) uses the services of Common MAC (MAC-c/sh).

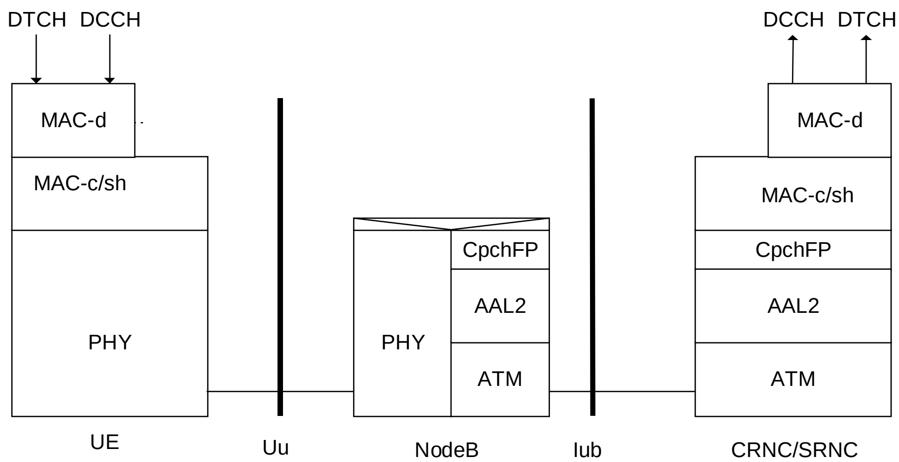

Figure 13: CPCH [FDD]: Coincident Controlling and Serving RNC

The Common MAC (MAC-c/ sh) entity in the UE transfers MAC-c PDU to the peer MAC-c entity in the RNC using the services of the Physical Layer.

An Interworking Function (IWF) in the Node B interworks the CPCH [FDD] frame received by the PHY entity into the CPCH [FDD] Frame Protocol (CPCH FP) entity.

The CPCH [FDD] Frame Protocol entity adds header information to form a CPCH [FDD] FP PDU which is transported to the RNC over an AAL2 connection.

At the RNC, the CPCH [FDD] FP entity delivers the MAC-c PDU to the MAC-c entity.

Figure 14 shows the protocol model for the CPCH [FDD] transport channel with separate Controlling and Serving RNC. In this case, Iur CPCH [FDD] Frame Protocol (CpchFP) is used to interwork the Common MAC (MAC-c/sh) at the Controlling RNC with the Dedicated MAC (MAC-d) at the Serving RNC.

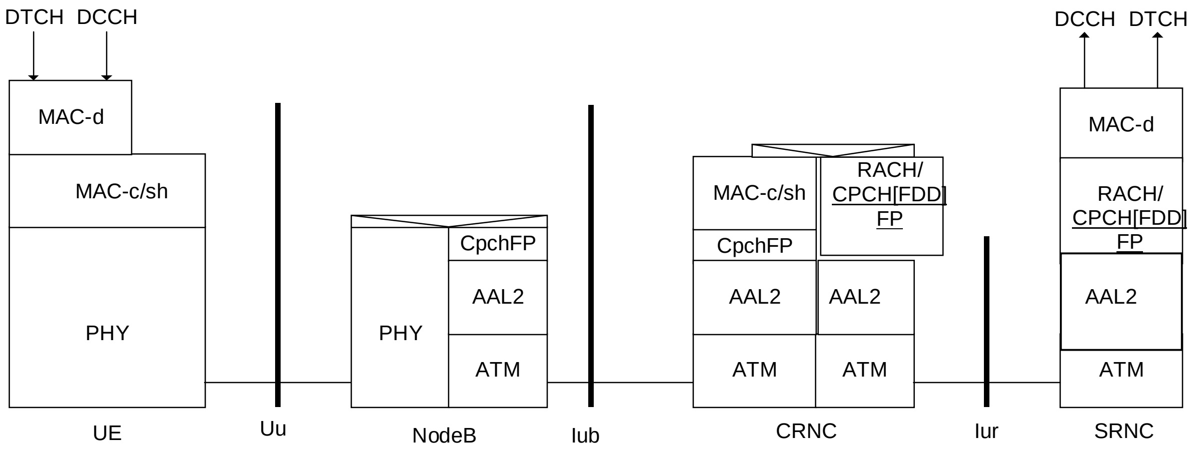

Figure 14: CPCH [FDD]: Separate Controlling and Serving RNC

11.2.3 FACH Transport Channel

Figure 15 shows the protocol model for the FACH transport channel when the Controlling and Serving RNC are co-incident.

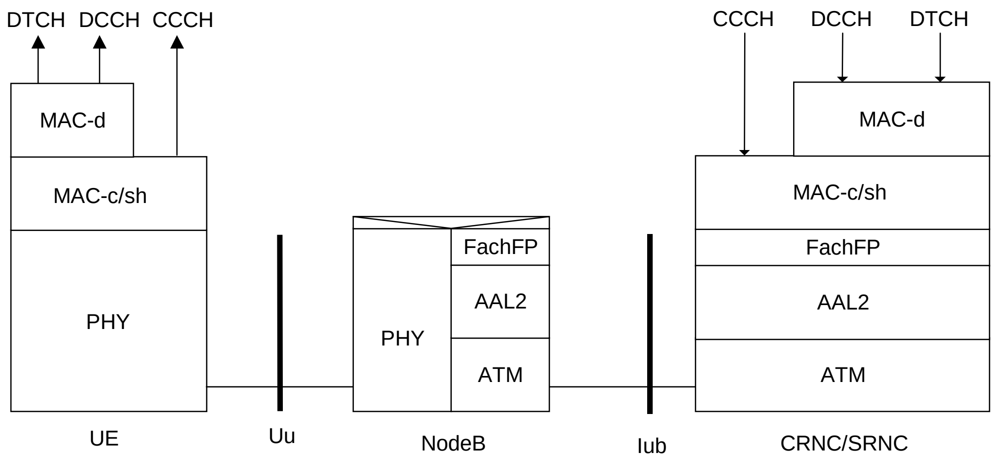

Figure 15: FACH Co-incident Controlling and Serving RNC

The Common MAC (MAC-c/sh) entity in the RNC transfers MAC-c PDU to the peer MAC-c entity in the UE using the services of the FACH Frame Protocol (FACH FP) entity.

The FACH Frame Protocol entity adds header information to form a FACH FP PDU which is transported to the Node B over an AAL2 ~~(or AAL5)~~ connection.

An Interworking Function (IWF) in the Node B interworks the FACH frame received by FACH Frame Protocol (FACH FP) entity into the PHY entity.

FACH scheduling is performed by MAC-c/sh in the CRNC.

Figure 16 shows the protocol model for the FACH transport channel with separate Controlling and Serving RNC. In this case, Iur FACH Frame Protocol is used to interwork the Common MAC (MAC-c) at the Controlling RNC with the Dedicated MAC (MAC-d) at the Serving RNC.

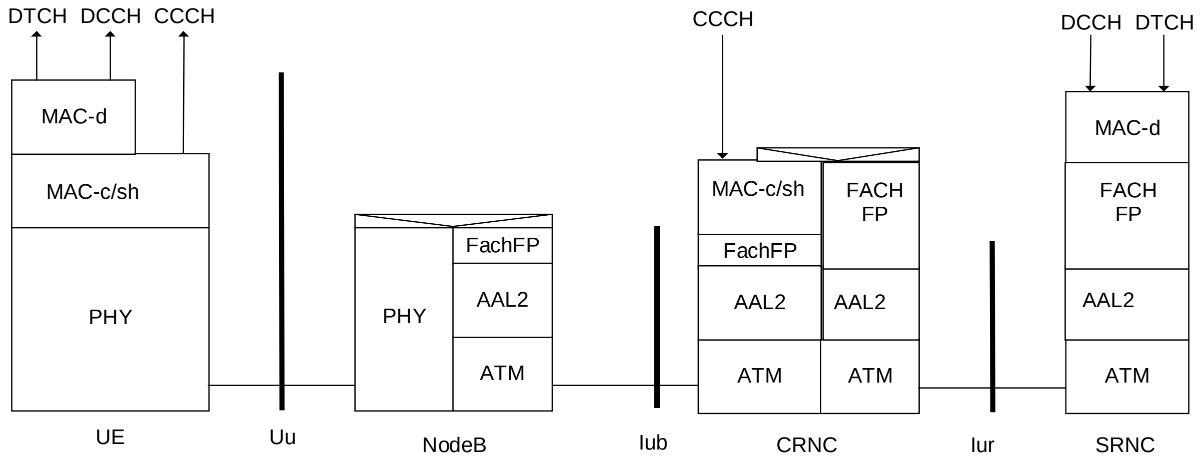

Figure 16: FACH: Separate Controlling and Serving RNC

11.2.4 DCH Transport Channel

Figure 17 shows the protocol model for the DCH transport channel when the Controlling and Serving RNC are co-incident.

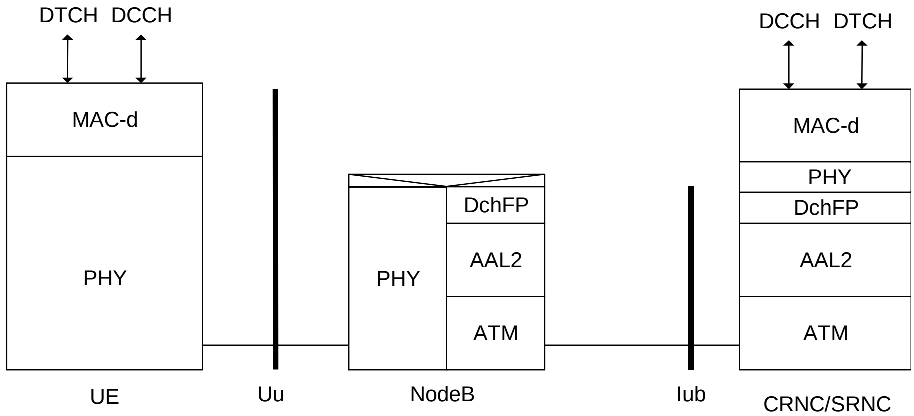

Figure 17: DCH: Co-incident Controlling and Serving RNC

The DCH transport channel introduces the concept of distributed PHY layer.

An Interworking Function (IWF) in the Node B interworks between the DCH Frame Protocol (DCH FP) entity and the PHY entity.

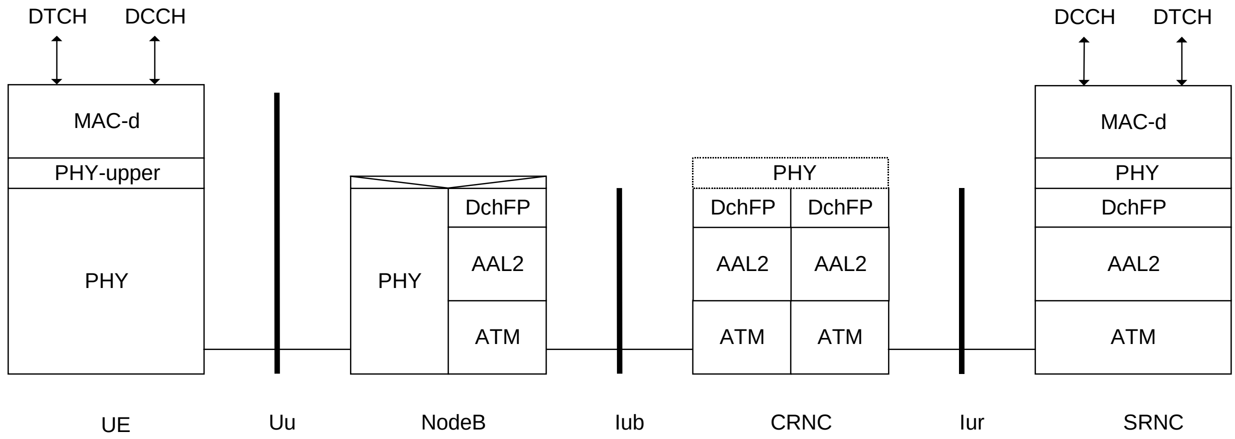

Figure 18: DCH: Separate Controlling and Serving RNC

Figure 18 shows the protocol model for the DCH transport channel with separate Controlling and Serving RNC. In this case, the Iub DCH FP is terminated in the CRNC and interworked with the Iur DCH FP through a PHY function. This function performs optional soft handover or can be a null function.

11.2.5 DSCH Transport Channel

Figure 19 shows the protocol model for the DSCH transport channel when the Controlling and Serving RNC are co-incident.

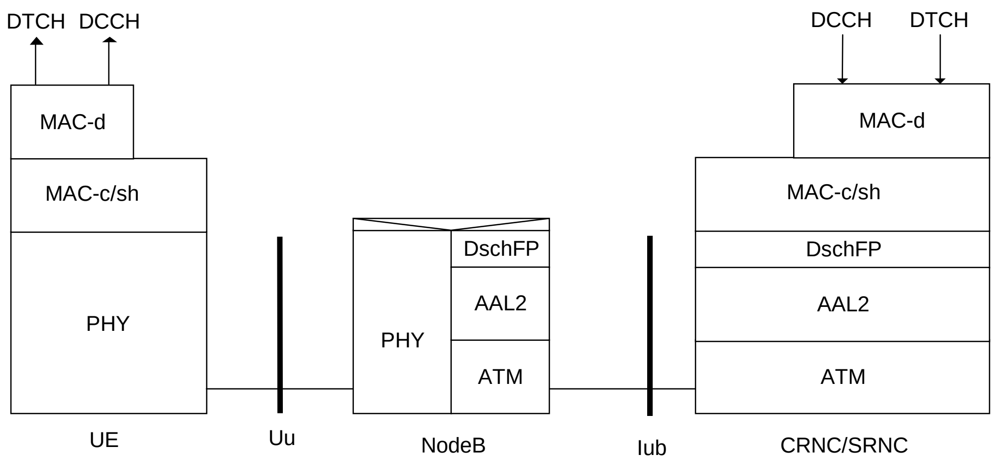

Figure 19: DSCH Co-incident Controlling and Serving RNC

The Shared MAC (MAC-c/sh) entity in the RNC transfers MAC-c/sh PDU to the peer MAC-c/sh entity in the UE using the services of the DSCH Frame Protocol (DSCH FP) entity. The DSCH FP entity adds header information to form a DSCH FP PDU that is transported to the Node B over an AAL2 connection.

An Interworking Function (IWF) in the Node B interworks the DSCH frame received by DSCH FP entity into the PHY entity. DSCH scheduling is performed by MAC-c/sh in the CRNC.

Figure 20 shows the protocol model for the DSCH transport channel with separate Controlling and Serving RNC. In this case, Iur DSCH Frame Protocol is used to interwork the MAC-c/sh at the Controlling RNC with the MAC-d at the Serving RNC.

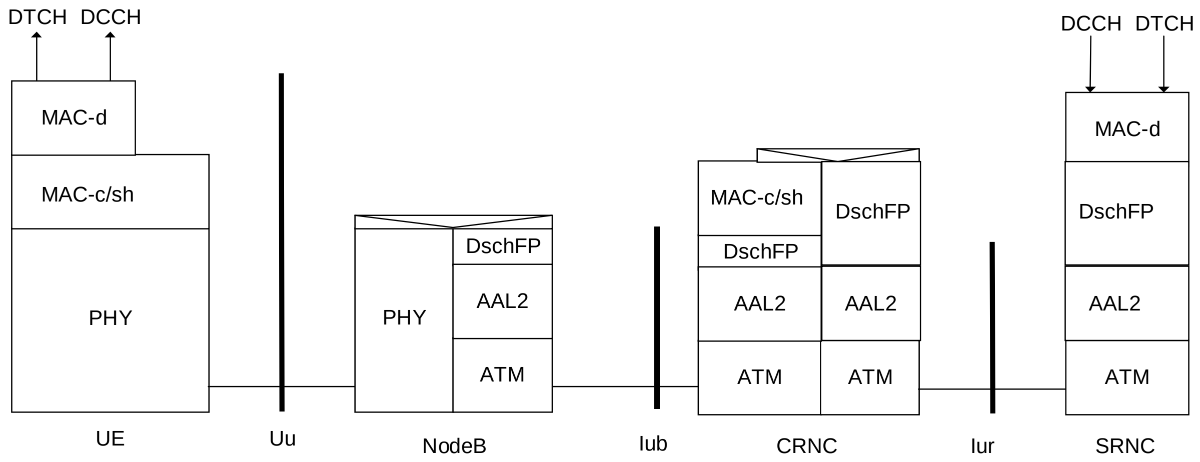

Figure 20: DSCH: Separate Controlling and Serving RNC

11.2.6 USCH Transport Channel [TDD]

Figure 21 shows the protocol model for the USCH transport channel when the Controlling and Serving RNC are co-incident.

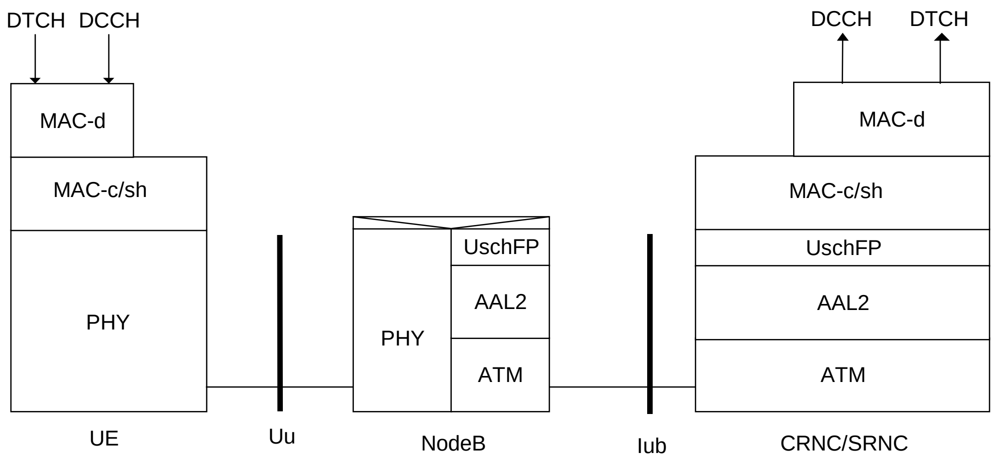

Figure 21: USCH Co-incident Controlling and Serving RNC

The Shared MAC (MAC-c/sh) entity in the RNC *receives* MAC-c/sh PDU *from* the peer MAC-c/sh entity in the UE using the services of the Interworking Function in the Node B, and the USCH Frame Protocol (USCH FP) entity. The USCH FP entity *in the Node B* adds header information to form a USCH FP PDU that is transported to the *RNC* over an AAL2 connection.

An Interworking Function (IWF) in the Node B interworks *the received USCH PHY entity into an USCH frame to be transmitted by the USCH FP entity over the Iub interface*. USCH scheduling is performed by MAC-c/sh in UE and by C-RRC in the CRNC.

Figure 22 shows the protocol model for the USCH transport channel with separate Controlling and Serving RNC. In this case, Iur USCH Frame Protocol is used to interwork the MAC-c/sh at the Controlling RNC with the MAC-d at the Serving RNC.

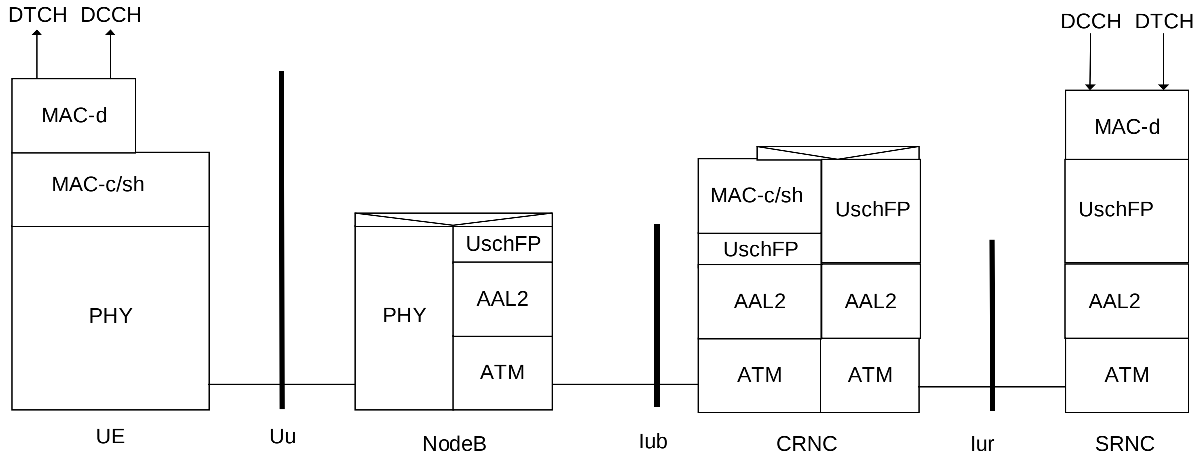

Figure 22: USCH: Separate Controlling and Serving RNC

3GPP TSG-RAN WG3 Meeting #21
Busan, Korea, May 21st – May 25th, 2001

R3-011813

CR-Form-v3

CHANGE REQUEST

⌘ 25.401	CR 027	⌘ rev 1	⌘ Current version: 3.6.0 ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [X]

Title: ⌘	PLMN Identity		
Source: ⌘	R-WG3		
Work item code: ⌘	TEI	***Date:*** ⌘	2001-05-21
Category: ⌘	**F**	***Release:*** ⌘	R99
	Use one of the following categories: ***F*** *(essential correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(Addition of feature),* ***C*** *(Functional modification of feature)* ***D*** *(Editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *REL-4 (Release 4)* *REL-5 (Release 5)*

Reason for change: ⌘	In LS R3-011571 (S1-010544) from SA WG1, it was stated that only the "PLMN Identity" terminology should be used and that "PLMN code", "PLMN Id" or "PLMN Identifier" are not recognised equivalents.
Summary of change: ⌘	"PLMN Identifier" is changed into "PLMN Identity".
Consequences if not approved: ⌘	If this CR is not approved, the incorrect terminology will be kept in the specification. This CR is backward compatible.

Clauses affected: ⌘	6.1.1	
Other specs affected: ⌘	[X] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘ 25.401 CR028 REL-4
Other comments: ⌘		

How to create CRs using this form:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.1.1 PLMN Identityfier

A Public Land Mobile Network is uniquely identified as define in [6] sub-clause 12.1.

3GPP TSG-RAN WG3 Meeting #21
Busan, Korea, May 21st – May 25th, 2001

R3-01814

CR-Form-v3

CHANGE REQUEST

⌘	**25.401**	**CR**	**028**	⌘ rev	**1**	⌘	Current version:	**4.0.0** ⌘

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Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [X]

Title: ⌘	PLMN Identity		
Source: ⌘	R-WG3		
Work item code: ⌘	TEI	***Date:*** ⌘	2001-05-21
Category: ⌘	**A**	***Release:*** ⌘	Rel-4
	Use one of the following categories: ***F*** *(essential correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(Addition of feature),* ***C*** *(Functional modification of feature)* ***D*** *(Editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *REL-4 (Release 4)* *REL-5 (Release 5)*

Reason for change: ⌘	In LS R3-011571 (S1-010544) from SA WG1, it was stated that only the "PLMN Identity" terminology should be used and that "PLMN code", "PLMN Id" or "PLMN Identifier" are not recognised equivalents.
Summary of change: ⌘	"PLMN Identifier" is changed into "PLMN Identity".
Consequences if not approved: ⌘	If this CR is not approved, the incorrect terminology will be kept in the specification. This CR is backward compatible.

Clauses affected: ⌘	6.1.1	
Other specs affected: ⌘	[X] Other core specifications ⌘ [ ] Test specifications [ ] O&M Specifications	25.401 CR027 R99
Other comments: ⌘		

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3GPP TSG-RAN3 #21 Meeting
Busan, Korea, 21st – 25th May 2001

Tdoc R3-011798

CR-Form-v3

CHANGE REQUEST

⌘	**25.401**	**CR**	**31**	⌘	rev	**-**	⌘	Current version:	**3.6.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [ ]

Title:	⌘	Separation between Logical Nodes and physical Network Elements		
Source:	⌘	R-WG3		
Work item code:	⌘	TEI	***Date:*** ⌘	24/05/2001
Category:	⌘	**F**	***Release:*** ⌘	R99

Use one of the following categories:
F *(essential correction)*
A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	During RAN3 discussions, it appeared necessary to add the precision that a physical Network Element could implement multiple Logical Nodes.
Summary of change:	⌘	Addition of a general principle stating this possibility
Consequences if not approved:	⌘	If this CR is not approved, this principle will remain ambiguous.

Clauses affected:	⌘	4		
Other specs affected:	⌘	[X] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘	CR 32 to TS 25.401 V4.0.0
Other comments:	⌘			

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 General principles

The general principles guiding the definition of UTRAN Architecture as well as the UTRAN interfaces are the following:

- Logical separation of signalling and data transport networks.
- UTRAN and CN functions are fully separated from transports functions. Addressing scheme used in UTRAN and CN shall not be tied to the addressing schemes of transport functions. The fact that some UTRAN or CN function resides in the same equipment as some transport functions does not make the transport functions part of the UTRAN or the CN.
- Macro diversity (FDD only) is fully handled in the UTRAN.
- Mobility for RRC connection is fully controlled by the UTRAN.
- When defining the UTRAN interfaces the following principles were followed: The functional division across the interfaces shall have as few options as possible.
- Interfaces should be based on a logical model of the entity controlled through this interface.
- One Physical Network Element can implement multiple Logical Nodes.

Transport Network Control Plane is a functional plane in the interfaces protocol structure that is used for the transport bearer management. The actual signalling protocol that is in use within the Transport Network Control Plane depends on the underlying transport layer technology. The intention is not to specify a new UTRAN specific Application Part for the Transport Network Control Plane but to use signalling protocols standardised in other groups (if needed) for the applied transport layer technology.

3GPP TSG-RAN3 #21 Meeting
Busan, Korea, 21st – 25th May 2001

Tdoc R3-011799

CR-Form-v3

CHANGE REQUEST

⌘	**25.401**	**CR**	**32**	⌘	rev	**-**	⌘	Current version:	**4.0.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [ ] Radio Access Network [X] Core Network [ ]

Title: ⌘	Separation between Logical Nodes and physical Network Elements			
Source: ⌘	R-WG3			
Work item code: ⌘	TEI		***Date:*** ⌘	24/05/2001
Category: ⌘	**A**		***Release:*** ⌘	R4
	Use one of the following categories: ***F*** *(essential correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(Addition of feature),* ***C*** *(Functional modification of feature)* ***D*** *(Editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.			*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *REL-4 (Release 4)* *REL-5 (Release 5)*

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Summary of change: ⌘	Addition of a general principle stating this possibility
Consequences if not approved: ⌘	If this CR is not approved, this principle will remain ambiguous.

Clauses affected: ⌘	4	
Other specs affected: ⌘	[X] Other core specifications ⌘ [ ] Test specifications [ ] O&M Specifications	CR 31 to TS 25.401 V3.6.0
Other comments: ⌘		

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