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SERIES Q: SWITCHING AND SIGNALLING

Specifications of signalling related to Bearer Independent
Call Control (BICC)

**Interaction between the Intelligent Network
Application Protocol Capability Set 2 and the
Bearer Independent Call Control protocol**

ITU-T Recommendation Q.1922.2

(Formerly CCITT Recommendation)

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For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation Q.1922.2

Interaction between the Intelligent Network Application Protocol Capability Set 2 and the Bearer Independent Call Control protocol

Summary

This Recommendation defines the signalling interaction between the Bearer Independent Call Control (BICC) protocol and the IN Application Protocol Capability Set 2 (INAP CS-2) based on the interaction between INAP and the ISDN User Part (ISUP) protocol of Signalling System No. 7.

Source

ITU-T Recommendation Q.1922.2 was prepared by ITU-T Study Group 11 (2001-2004) and approved under the WTSA Resolution 1 procedure on 2 July 2001.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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ITU-T Recommendation Q.1922.2

Interaction between the Intelligent Network Application Protocol Capability Set 2 and the Bearer Independent Call Control protocol

1 Scope

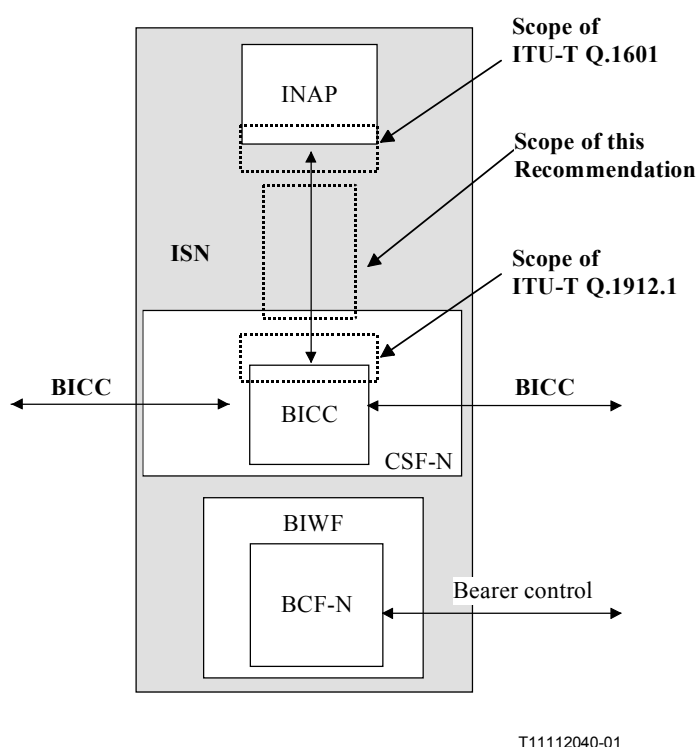
This Recommendation defines the signalling interaction between the Bearer Independent Call Control (BICC) protocol and the IN Application Protocol Capability Set 2 (INAP CS-2) based on the interaction between INAP and the ISDN User Part (ISUP) protocol of Signalling System No. 7, i.e. to support IN services in a BICC environment.

BICC is the protocol defined in ITU-T Q.1902.1 to Q.1902.4 [4]. INAP is the protocol defined in ITU-T Q.1228 [2]. ISUP is the protocol defined in ITU-T Q.761 to Q.764 [1].

This Recommendation builds upon:

- the signalling interaction between the IN Application Protocol Capability Set 2 (INAP CS-2) and the ISDN User Part (ISUP) protocol of Signalling System No. 7 as defined in ITU-T Q.1601 [3]; and
- the signalling interworking between the Bearer Independent Call Control (BICC) protocol and the ISDN User Part (ISUP) protocol of Signalling System No. 7 as defined in ITU-T Q.1912.1 [5].

The scope of this Recommendation is shown in Figure 1.



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Figure 1/Q.1922.2 – Scope of this Recommendation

ITU-T Q.1601 [3] only considers the case where the SSP is located at a transit level. As a consequence, this could lead to limitations for services (e.g. no support of line based triggers).

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- [1] ITU-T Q.761 to Q.764 (1999), *Specifications of Signalling System No. 7– ISDN user part (ISUP)*.
- [2] ITU-T Q.1228 (1997), *Interface Recommendation for intelligent network Capability Set 2*.
- [3] ITU-T Q.1601 (1999), *Signalling System No. 7– Interaction between N-ISDN and INAP CS-2*.
- [4] ITU-T Q.1902.1 to Q.1902.4 (2001), *Specifications of the Bearer Independent Call Control protocol (BICC)*.
- [5] ITU-T Q.1912.1 (2001), *Interworking between Signalling System No. 7– ISDN user part (ISUP) and the Bearer Independent Call Control protocol*.

3 Definitions

For BICC specific terminology, the reader is referred to ITU-T Q.1902.1 [4].

4 Abbreviations

This Recommendation uses the following abbreviations:

BCF-N	Bearer Control Nodal Function
BICC	Bearer Independent Call Control
BIWF	Bearer InterWorking Function
CSF-N	Call Service Nodal Function
IN	Intelligent Network
INAP	IN Application Protocol
ISDN	Integrated Services Digital Network
ISN	Interface Serving Node
ISUP	ISDN User Part
SN	Serving Node
SSP	Service Switching Point

5 General considerations

This clause describes the interaction principle between INAP and BICC based on the interaction between ISUP and INAP concatenated with the interworking between ISUP and BICC. Figure 2 provides the functional grouping of the entities involved.

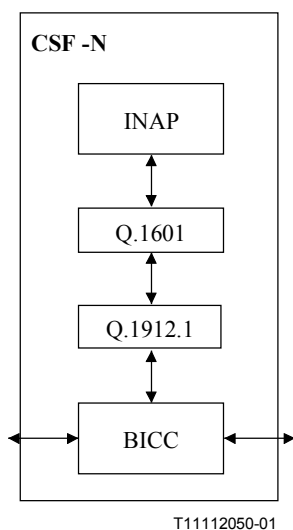


Figure 2/Q.1922.2 – Functional description of the interaction configuration

6 Interaction considerations

The interaction between INAP and BICC shall act according to the interaction between ISUP and INAP in ITU-T Q.1601 [3] concatenated with the interworking between ISUP and BICC in ITU-T Q.1912.1 [5].

NOTE – In ISUP, a dependency is specified between the sending of the InitialDP operation and the Continuity message. As in a BICC environment the continuity procedures are used in a different way (to indicate successful establishment of the bearer up to the preceding SN); this dependency is for further study.

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