

ÄLYVERKKOJEN JA MUIDEN PALVELUNOHJAUSRAJAPINTOJEN STANDARDOINTI

Palvelunohjausrajapintoja käsittelevät standardointielimet ja niiden laatimat keskeisimmät spesifikaatiot

1 Perinteinen IN-palveluarkkitehtuuri

Standardointijärjestöt ja keskeiset spesifikaatiot

ITU-T SG 11 (Signalling requirements and protocols)

www.itu.int

Q. 1200 General series Intelligent Network Recommendation structure

Q.121x-series Recommendations: Intelligent Network Capability Set 1

Q.122x-series Recommendations: Intelligent Network Capability Set 2

Q.123x-series Recommendations: Intelligent Network Capability Set 3

Q.124x-series Recommendations: Intelligent Network Capability Set 4

Q.1600 Signalling system No. 7 - Interaction between ISUP and INAP

Q.1601 Signalling system No. 7 - Interaction between N-ISDN and INAP CS2

ETSI:n aiemmat SPS ja SPAN –ryhmät sekä nykyinen ovat laatineet ITUn suosituksista eurooppalaiset täsmennykset:

www.etsi.org

-ETSI ETS 300 374 Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP)

-ETSI EN 301 140 Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Intelligent Network Capability Set 2 (CS2)

-ETSI EN 301 931 Intelligent Network (IN); Intelligent Network Capability Set 3 (CS3); Intelligent Network Application Protocol (INAP); Protocol specification

-ETSI EN 302 039 Intelligent Network (IN); Intelligent Network Capability Set 4 (CS4); Intelligent Network Application Protocol (INAP); Protocol specification

-ETR 164 Integrated Services Digital Network (ISDN); Intelligent Network (IN); Interaction between IN Application Protocol (INAP) and ISDN User Part (ISUP) version 2

-ETR 186-1 Intelligent Network (IN); Interaction between IN Application Protocol (INAP) and Integrated Services Digital Network (ISDN) signaling protocols; Part 1: Switching signalling requirements for IN Capability Set 1 (CS1) service support in a Narrowband ISDN (N-ISDN)

-ETR 186-2 Intelligent Network (IN); Interaction between IN Application Protocol (INAP) and Integrated Services Digital Network (ISDN) signaling protocols; Part 2: Switching signalling requirements for IN Capability Set 2 (CS2) service support in a Narrowband ISDN (N-ISDN) environment

-EN 301 070-1 Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 interactions with the Intelligent Network Application Part (INAP); Part 1: Protocol specification [ITU-T Recommendation Q.1600 (1997), modified]

-EN 301 464 Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 4 interactions with the Intelligent Network Application Part (INAP); Part1: Protocol specification [ITU-T Recommendation Q.1601 (1999), modified]

-EG 201 992 Services and Protocols for Advanced Networks (SPAN); Intelligent Networks (IN); Architectures and signalling requirements for IN-based networks interworking with IP-based networks

Service Provider Access Requirements:

- EG 201 722I; Intelligent Network (IN); Service provider access requirements; Enhanced telephony services
- EG 201 897; Services and Protocols for Advanced Networks (SPAN); Service Provider Access; Service Provider Access Requirements in a Fixed and Mobile Environment
- EG 201 807; Network Aspects (NA); Intelligent Network (IN); Network operators' requirements for the delivery of service provider access
- EG 201 916 Services and Protocols for Advanced Networks (SPAN); Service Provider Access; Development of standards to support Open Inter-Network Interfaces and Service Provider Access

2 CAMEL-palveluarkkitehtuuri

Standardointijärjestöt ja keskeiset spesifikaatiot

3GPP CN 2 (CAMEL)

www.3gpp.org

- CAMEL Phase 1(R96) ja 2(R97/R98): Stage 1 (3GPP TS 02.78), Stage 2 (3GPP TS 03.78) ja Stage 3 (3GPP TS 09.78)
- CAMEL Phase 3(R99/Rel-4) ja 4(Rel-5...): Stage 1 (3GPP TS 22.078), Stage 2 (3GPP TS 23.078) ja Stage 3 (3GPP TS 29.078)
- CAMEL Phase 4 for IMS (Rel-5...): Stage 1(3GPP TS 22.278), Stage 2 (3GPP TS 23.278) ja Stage 3(3GPP TS 29.278)

3 SMS (Short Message Service)-palveluarkkitehtuuri

Standardointijärjestöt ja keskeiset spesifikaatiot

3GPP

www.3gpp.org

SMS palveluarkkitehtuuri on relevantti CAMEL Phase 3:n ja Phase 4:n yhteydessä. Spesifikaatiot on lueteltu kohdassa 2 (CAMEL palveluarkkitehtuuri).

4 SIP-palveluarkkitehtuuri

Standardointijärjestöt ja keskeiset spesifikaatiot

IETF

www.ietf.org

Work Areas:

Transport area

Application Area

Työryhmiä:

Instant Messaging (IM) ja Presence :

- o Application Area: IMPP-ja SIMPLE-työryhmät
- o Transport Area: SIP-työryhmä

RFC-spesifikaatioita:

- SIP; Session Initiation Protocol; vainRedirect Serverin osalta RFC 3261.
- ENUM: mm. RFC 3761
- SIP: mm. RFC 3050 (SIP CGI)

- SPIRITS: mm. RFC 3136 ja RFC 3298
- PINT: mm. RFC 2848

ETSI (TIPHON-projekti, joka on nykyisin yhdistetty TISPAN:iin)

www.etsi.org

- ETSI TS 101 884-1 Telecommunications and Internet Protocol; Harmonization Over Networks (TIPHON) Release 4; Technology Mapping; Part 1: Implementation of TIPHON architecture using SIP.

5 IP Multimedia Subsystem (IMS)

Standardointijärjestöt ja keskeiset spesifikaatiot

3GPP mm.

www.3gpp.org

SA2 (Arkkitehtuuri)
CN1 (Protokollat)

- 3GPP TS 23.002 Network Architecture (Contains functional architecture for the provision of service in the IMS)
- 3GPPTS 23.228 IMS Stage 2 (Contains the entities related to IMS are CSCF, MGCF, MRF, etc. as defined in the stage 2 of the IM subsystem)

6 IMS-pohjainen NGN

Standardointijärjestöt ja keskeiset spesifikaatiot

ETSI (TISPAN)

www.etsi.org

- ETSI Draft ES : TISPAN NGN Functional Architecture, Release 1, Implementation utilizing an IMS-based core.

ITU-T

www.itu.int

SG 11 (Signalling)
SG 13 (Architecture)

7 API-rajapinnat

Standardointijärjestöt ja keskeiset spesifikaatiot

ETSI

www.etsi.org

TISPAN

3GPP

www.3gpp.org

- ETSI ES 201 915-x; Open Service Access (OSA); Application Programming Interface (API); (Parlay 3)
- ETSI ES 202 915-x; Open Service Access (OSA); Application Programming Interface (API); (Parlay 4)

- ETSI EG 201 988-1 Services and Protocols for Advanced Networks (SPAN); Service Provider Access Requirements (SPAR); Open Service Access for API requirements; Part 1.

Parlay

www.parlay.org

JAIN

java.sun.com/products/jain/api_specs.html

API-spesifikaatioiden lisäksi myös SIP-servlet –määrittelyt.

Standardointi: Yhteistyönä Parlayn, 3GPP:n ja ETSI TISPAN:n kesken. Vaiheitten määrittelyssä edetään yhtäaikaaisesti.