# Overview of Standards for services and signalling in narrowband PISNs

ECMA has developed a series of Standards for services and signalling protocols in narrowband Private Integrated Services Network (PISNs). These Standards define two signalling systems: QSIG and SSIG. QSIG (signalling system for use at the Q reference point in narrowband PISNs) operates at the Q reference point between Private Integrated Services Network Exchanges (PINXs) connected together within a 64 kbit/s-based PISN. SSIG (signalling system for use at the S reference point in narrowband PISNs) operates at the S reference point between a terminal and a PINX. The signalling protocol Standards are complemented by Standards defining, in abstract terms, services supported by these signalling systems.

The Standards concerned fall into three categories:

#### Basic Standards

These define basic services, signalling protocols in support of basic services, and signalling protocols to provide generic support for supplementary services (SSs) and additional network features (ANFs). SSs and ANFs provide capabilities beyond a basic call capability.

Basic call: ECMA-106, ECMA-142, ECMA-143

Generic support for SSs and ANFs: ECMA-156, ECMA-161, ECMA-165

NOTE: ECMA-165 (QSIG generic support for SSs and ANFs) allows for signalling extensions in support of manufacturer-specific (non-standard) SSs and ANFs. Such extensions are uniquely identified using Object Identifier.

Standards for SSs and ANFs

Identification: ECMA-148, ECMA-157

Name identification: ECMA-163, ECMA-164

Call diversion: ECMA-173, ECMA-174

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Path replacement: ECMA-175, ECMA-176 Call transfer: ECMA-177, ECMA-178 Call completion: ECMA-185, ECMA-186 Call offer: ECMA-191, ECMA-192 Do not disturb and override: ECMA-193, ECMA-194 Call intrusion: ECMA-202, ECMA-203 ECMA-211, ECMA-212 Advice of charge: Recall: ECMA-213, ECMA-214 Call interception: ECMA-220, ECMA-221 Transit counter: ECMA-224, ECMA-225 Message waiting indication: ECMA-241, ECMA-242 Common information: ECMA-250, ECMA-251 Call priority interruption and protection: ECMA-263, ECMA-264 Private user mobility (PUM) - Registration: ECMA-281, ECMA-282 Private user mobility (PUM) - Call handling: ECMA-283, ECMA-284

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Single step call transfer: ECMA-299, ECMA-300

Simple dialog: ECMA-310, ECMA-311

Profile standard for the use of PSS1 (QSIG)

in air traffic services networks: ECMA-312

Call identification and call linkage: ECMA-313, ECMA-314

Standards for cordless terminal mobility (CTM)

These Standards specify QSIG protocols for SSs and ANFs in support of CTM, the service Standards for which are published by ETSI.

Incoming call: ECMA-215

Outgoing call: ECMA-233

Location registration: ECMA-216

Authentication: ECMA-243

• Standards for wireless terminal mobility (WTM)

These Standards specify QSIG protocols for SSs and ANFs in support of WTM.

Location registration: ECMA-301, ECMA-302

Call handling: ECMA-303, ECMA-304

Authentication: ECMA-305, ECMA-306

With the exception of SSIG Standards, the Standards listed above have been contributed to ISO/IEC JTC 1 as proposed International Standards. For many of these, corresponding International Standards have now been published by ISO/IEC, based on the ECMA work, and in such cases the current editions of the ECMA Standards are in complete alignment.

ECMA work on these Standards has taken place under a Cooperation Agreement with ETSI and has resulted in the publication of corresponding ETSs, which endorse the ISO/IEC International Standards where these are available.