Overview of Standards for services and signalling in broadband PISNs

Based on experience in developing the QSIG series of Standards, ECMA has developed a corresponding signalling system for use in Broadband Private Integrated Services Network (B-PISNs) employing Asynchronous Transfer Mode (ATM) technology. B-QSIG (signalling system for use at the Q reference point in broadband networks) operates at the Q reference point between Private Integrated Services Network Exchanges (PINXs) connected together within a B-PISN employing ATM. B-QSIG currently comprises the following ECMA Standards:

ECMA-265 (B-QSIG-SAAL)	Broadband Private Integrated Services Network (B-PISN) - Inter-Exchange Signalling Protocol - Signalling ATM Adaptation Layer This specifies the Signalling ATM Adaptation Layer (AAL) protocol, on top of which the basic call/connection control protocol runs.
ECMA-266 (B-QSIG-BC)	Broadband Private Integrated Services Network (B-PISN) - Inter-Exchange Signalling Protocol - Basic Call/Connection Control This specifies the basic call/connection control protocol.

ECMA-261 (B-BCSD)	Broadband Private Integrated Services Network (B-PISN) - Specification, Functional Model and Information Flows - Broadband Connection Oriented Bearer Service This defines the broadband connection-orientated bearer service for which signalling support is provided in the basic call/connection control protocol.
ECMA-252 (B-QSIG-TC)	Broadband Private Integrated Services Network (B-PISN) - Inter-Exchange Signalling Protocol - Transit Counter Additional Network Feature This extends the basic call/connection control protocol by providing a transit counter feature for loop avoidance.
ECMA-254 (B-QSIG-GF)	Broadband Private Integrated Services Network (B-PISN) - Inter-Exchange Signalling Protocol - Generic Functional Protocol This extends the basic call/connection control protocol by providing generic support for supplementary services and additional network features.
ECMA-294	B-ISDN and B-PISN - Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No. 7 (SS7) - Call Control in a Separated Call and Bearer Control Environment - Part 1: Protocol Specification

ECMA-295	B-ISDN and B-PISN - Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No. 7 (SS7) - Call Control in a Separated Call and Bearer Control Environment - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma Specification
ECMA-296	B-ISDN and B-PISN - Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No. 7 (SS7) - Prenegotiation - Part 1: Protocol Specification
ECMA-297	B-ISDN and B-PISN - Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No. 7 (SS7) - Prenegotiation - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma Specification
ECMA-298 (B-QSIG-SBC)	Broadband Private Integrated Services Network (B-PISN) - Inter-Exchange Signalling Protocol - Separated Bearer Control

During the development of these Standards, ECMA has worked in cooperation with the ATM Forum with a view to achieving alignment, where appropriate, between B-QSIG and the signalling part of the ATM Forum's Private Network-Network Interface (PNNI) specification. Whereas the PNNI specification provides automatic configuration and dynamic source routeing, B-QSIG is intended for networks that employ static hop-by-hop routeing. The basic call/connection control protocol (ECMA-266) makes reference to the signalling section of PNNI version 1.0 and specifies the differences, which arise from the different field of application. Material from other ECMA Standards in the series (e.g. ECMA-254) is being contributed to the ATM Forum with a view to making corresponding enhancements to the PNNI specification.

Standards ECMA-265 and ECMA-266 are in complete alignment with corresponding International Standards published by ISO/IEC. Other ECMA Standards in this series are being contributed to ISO/IEC JTC 1 as proposed International Standards.