Co-operation Agreement between ETSI and IEEE-SA

Considering that:

the European Telecommunications Standards Institute ("ETSI") produces European standards in the field of telecommunications and undertakes pre-standardization and standardization activities in areas common to telecommunications, information technology, sound and television broadcasting;

ETSI is the recognized European Standardization Organization for telecommunications;

the Institute of Electrical and Electronics Engineers, Inc.("IEEE") is a technical professional society, recognized internationally, that focuses on advancing the theory and practice of electrical, electronics and computer engineering and computer science;

the IEEE Standards Association (I EEE-SA) provides a standards programme that servers the global needs of industry, government and the public. It also works to assure the effectiveness and high visibility of this standards prgramme both within the IEEE and throughout the global community.

Further considering that:

ETSI and IEEE-SA, in co-operation with IEEE's Technical Societies, have the common objective to promote, directly or indirectly, international standardization with the aim of contributing to the establishment of a global standards, particularly in the EMC and Radio LAN domains;

ETSI and IEEE-SA have a reciprocal interest in avoiding duplication of technical work and would both benefit from adopting a complementary approach to the standardization process;

ETSI and IEEE-SA have noted the necessity of structuring and strengthening their relationships and fostering a closer co-operation;

The parties agree therefore to the following:

1   ETSI and IEEE-SA may exchange from time to time as they may agree, free of charge, information on programmed of work in areas of mutual interest.

2   Within the agreed work areas specified in Annex 1 hereto (as such Annex 1 may from time to time be amended by the duly authorized representatives of the parties to the present co-operation Agreement), copies of working documents and drafts from either party shall be made available royalty-free to the other on request. The dissemination by one party of the documents received from the other party will be strictly limited to the members of IEEE-SA and members of ETSI, and solely for the purpose of technical activities relating to the party's work programme. For all purposes, all copyright, patent and other intellectual and industrial rights embodied in these documents, and any copies thereof, remains with the party originating them and extends to all media in which the information may be embodied

Each originating party shall not be held liable for further amendments introduced in its deliverables by the other party.

ETSI and IEEE undertake to make every endeavour to use electronic document handling in their exchange of documents.

3   Within the work areas annexed to this Agreement, a nominated Observer from the IEEE Working Groups to the relevant ETSI technical bodies and vice-versa may be permitted when the agenda contains items of mutual interest. Such nominated Observers may also be appointed to meetings of the relevant subordinate technical groups.

In principle, no more than one Observer may be allowed in a Committee or subordinate body unless the relevant Chairman agrees.

Observers shall, to the extent permitted by the relevant party's organizational documents, be entitled to participate fully in discussions on relevant work items, and may, to the extent permitted by the relevant party's organizational documents, submit written contributions, but shall have no voting rights.

In order to avoid duplication of technical or planning activities, Observers may submit technical proposals to the Chairperson of the ETSI Technical Body or the IEEE Working Group in which they are participating.

4   The chairperson of the relevant Technical Body/Working Group may agree in particular cases to incorporate text and graphics from the other in a published or approved document, with the permission of the originating organization. The source of such material shall be acknowledged, including the date of the publish document and, for purposes of this agreement and all other purposes, its copyright, patent and other intellectual and industrial property rights shall rest with the originating party. Any information or other material incorporated by one party shall include all notices and other legends requested by the originating party, including, without limitation, notices and legends related to the inclusion of patented information with the exchanged information.

5   ETSI may on request of the IEEE consider the conversion of IEEE outputs into ETSI deliverables by an ETSI Technical Body mentioned in Annex 1 of this Agreement provided that the request falls within the existing Terms of Reference of that Technical Body, and subject to the normal procedures for the adoption of ETSI work items related to that Technical Body. In the case where the request does not fall within the existing Terms of Reference of an ETSI Technical Body mentioned in Annex 1 of this Agreement the request shall be treated as a PAS application (Publicly Available Specification) under the normal ETSI PAS Rules. IEEE shall have similar rights to adopt according to the IEEE-SA Standards Board Operations Manual.

6   This Agreement shall last for three years and may be renewed by mutual consent. It may be renewed when new Rules of Procedure are adopted in either party, or when particular procedures are adopted at world-wide level. It may also be amended in the light of experience and technical developments.

Notwithstanding the foregoing, this Agreement may be terminated by either party upon 90 day's written notice to the other. Upon any termination or expiration of this Agreement, all the rights granted pursuant to this Agreement shall cease immediately, except the rights granted in Section 4 of this Agreement, and the parties shall cease from distributing any information received pursuant to this Agreement. Notwithstanding anything in this Agreement or otherwise to the contrary, the provisions of this Agreement related to ownership of rights and indemnification shall survive any termination or expiration of this Agreement.

Any difficulties arising shall be agreed wherever possible at the working level between the relevant technical groups and Committee Chairman. Matters which cannot be resolved at working level, shall be subject to discussion between the two organizations at the level of the Chairman of the General Assembly and the Director of ETSI and President of IEEE.

The Agreement shall not be deemed or construed to be modified, amended or waived, in whole or in part, except by written agreement of both parties. Neither party may assign this Agreement, or any of its rights, obligations or duties hereunder, without the prior written consent of the other party.

All disputes arising in connection with the present agreement, which cannot be solved amicably, shall be finally settled by arbitration in accordance with the Rules of the International Chamber of Commerce (Paris), by one or more arbitrators appointed under the said Rules

The relationship between the ETSI and IEEE-SA shall be that of independent signatories, and nothing in this Agreement shall be construed to constitute either party as an employee, partner, agent or member of the other party. Without limiting the foregoing, neither party shall have authority to act for or to bind the other party in any way, to make representations or warranties or to execute agreements on behalf of the other party, or to represent that it is in any way responsible for the acts or omissions of the other party.

7 The practical contacts and decisions for the application of this Agreement will be taken by the Director of ETSI and Managing Director of IEEE-SA Standards Board.

Dated: *01 April 1999*

Dated: 21 April 1999

signed: *K. H. Rosenbrock*

Signed: Judith Gorman

Karl Heinz Rosenbrock
Director-General
ETSI
650, Route des Lucioles
F-06921 SOPHIA ANTIPOLIS Cedex

Judith Gorman
Managing Director, IEEE-SA
Standards
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331 USA

ANNEX 1

Technical co-operation covered by the Agreement

1) Radio Local Area Networks

a) ETSI - EP BRAN: Broadband Access Networks

Terms of Reference:

> to produce specifications for high quality fixed radio access networks as described in the Radio Equipment and Systems (RES); Radio Local Loop (RLL) Co-ordination Group; Survey of ETSI activities and Recommendations for ETSI Work Program (TR 101 030);

> to produce specifications for high quality business, residential and public access radio access networks as described in Radio Equipment and Systems (RES); High Performance Radio Local Area Networks (HIPERLAN); HIPERLAN Requirements and architectures for Asynchronous Transfer Mode (ATM) (TR 101 031);

> to exploit the commonality between these systems to the benefit of both.

The Project shall complement other activities within ETSI such as:

> TM4 P-MP systems;
> the Cordless Terminal Mobility (CTM) project;
> the Corporate Networks (CN) project; and
> DECT, GSM, GRAN.

It should take note of standardization work in other bodies, notably the ATM Forum, the Internet Engineering Task Force (IETF), European Computer Manufacturers Association (ECMA) and DAVIC, and avoid unnecessary duplication.

b) IEEE-SA 802 (Radio Lans)

Terms of Reference:

The IEEE-SA 802 Local and Metropolitan Area Network Standards Committee is sponsored by the IEEE-SA Computer Society and is responsible for the standardization of Local Area Networks (LANs) and Metropolitan Area Networks (MANs). The basic charter of this committee is to create, maintain, and encourage the use of IEEE/ANSI and equivalent IEC/ISO JTC 1 standards primarily within layers 1 and 2 of the OSI (Open System Interconnection) Reference Model. The committee was formed in February 1980 and met at least three times per year as a Plenary body ever since that time. An explicit objective since inception has been the goal of establishing international standards in JTC 1. The IEEE-SA series of standards are known as IEEE-SA 802.xxx and the JTC 1 series of equivalent standards are known as ISO 8802-nnn. Ethernet (1 OBASE-T and 100BASE-T), Token Ring, MAC Bridging, Virtual LANs, Logical Link Control, and Gigabit Ethernet are some of the better know standards.

Within IEEE-SA 802, the Working Group IEEE-SA 802.11 is responsible for the standardization of Wireless aspects of LANs and MANs. The IEEE-SA Std 802.11-1997 specifies an interoperability standard for data rates of 1 and 2 Mbit/s using either radio (2.4 GHz band) or infrared.

Current wireless projects are:
1) 802.1 la: Extension to a 20 Mbit./s data rate Physical layer entity in the 5 GHz band.
2) 802.11 b: Extension to a 8 Mbit./s data rate Physical layer entity in the 2.4 GHz band.
3) Study of the standardization of Wireless Personal Area Networks

2) Electromagnetic Compatibility - EMC

a) ETSI TC ERM (EMC and Radio spectrum Matters)

Terms of Reference:

TC (EMC and Radio spectrum Matters) has the primary responsibility for:

ETSI deliverables (in whole or in part) dealing with EMC;
ETSI deliverables (in whole or in part) dealing with radio spectrum parameters concerned with inter-system characteristics;
co-ordination of ETSI positions on the efficient use of the radio spectrum and spectrum allocations;
on an interim basis of six to twelve months, to take over the former responsibilities of TC RES, and make proposals for restructuring its activity.

TC ERM is also responsible for the interface between ETSI and CEC/EFTA and other bodies in the radio and EMC field, notably the CEPT ERC, relevant CEN and CENELEC committees, EUROCAE, EBU, and relevant ICAO and ITU groups and IEC and CISPR.

b) EEE-SA IEEE-SA

Terms of Reference:

IEEE-SA Electromagnetic Compatibility Society (EMC)

Standards Development Committee (SDCom) has the primary responsibility for:

IEEE-SA standards deliverables (in whole or in part) dealing with EMC in these areas:
1. Management
2. Measurements and instrumentation
3. EM environments
4. EMI control
5. High power Electromagnetic
6. Spectrum Management
7. Non-sinusoidal waves
8. Computational EMC
9. EMC related safety

EMC Society standards topics include:
1. Measurement of "RF emission from industrial, scientific, and medical equipment installed on user's premises
2. Minimization of interference from RF heating equipment
3. Open Field measurement of spurious radiation from FM and Television broadcast receivers
4. Measuring procedure of conducted emissions from FM and Television broadcast receivers
5. Measurement of shielding effectiveness of electromagnetic shielding enclosures
6. Measurement of impulse strength and impulse bandwidth
7. Measurement of spurious emission from land-mobile communication transmitters
8. Electromagnetic site survey
9. Measurement of field disturbance sensors (RF intrusion alarms)
10. Measurement of electric and magnetic fields from video display terminals
11. Calibration of EM fields sensors and probes excluding antennas
12. EM characterization of conductive gaskets

IEEE-SA Antennas and Propagation Society (APS)

I EEE-SA standards deliverables (in whole or in part) dealing with **EMC-related** topics in these areas:
1. Radio wave propagation terms
2. Measurement of EM field strengths
3. Measurement of Quasi-static Magnetic and Electric Fields

IEEE-SA Power Engineering Society (PES)

IEEE-SA standards deliverables (in whole or in part) dealing with **EMC-related** topics in these areas:
1, Corona and Field Effects of Overhead Power Line definitions
2. Withstand capability of relay systems to radiated EMI from Transceivers
3. Measurement of radio noise from overhead power lines and substations
4. Measurement of power frequency electric and magnetic fields from AC power lines

IEEE-SA Communications Society (ComSoc)

IEEE-SA standards deliverables (in whole or in part) dealing with **EMC-related** topics in these areas:
1, Inductive coordination of electric supply and communications lines

3)   Open Network Architecture

IEEE P1520

Terms of Reference:

This project is part of an effort aiming to establish an open architecture in network control and the interface between network control and management functions. In this approach, a three-tiered model is adopted, with a separation of control intelligence, the upper tier, from the control mechanism which is the middle tier. The middle tier resides on top of the hardware and/or the low level software support. This project shall establish a "programming interface" between the upper tier and the middle tier, and a "supporting interface" between the middle tier and the lower tier. The programming interface specifies in industry standard Interface Definition Languages a set of programming interfaces for distributed access to switching functionalities by services control entities, including but not restricted to signaling services entities. The supporting interface specifies, in the form of a set of messages, the interfaces that a switching unit must implement, in order to provide minimal standard services supporting the higher level software.

With the rapid advance in the technological frontiers of computing and communications, there is an opportunity to reconcile the perspectives of these communities in new, more open network architectures based on distributed systems principles. These architectures can support alternative signaling protocols, rapid creation of programmed communications services, enhanced QoS control, and the joint allocation of computing and communications resources. Empowered with modern distributed programming tools, future telecommunication services involving high-quality audio/video and multi-point diversity, can be created, re-configured and customized dynamically in response to rapid changes in markets, user demand and competition. The interfaces proposed above permit views of network and switching hardware states to be exposed for independent and flexible signaling service creation. By using the object linking and binding mechanisms provided by distributed object programming environment different types of signaling protocols can be_encapsulated, so that they may be accessed from the same generic interface. This will benefit network service developers and application vendors who can realize communication services not specified in standard signaling protocols, and conduct service quality negotiations with network elements. The exposed interfaces will also benefit switch vendors through enhanced external control and management of switching hardware with minimum software development effort.