TSG-RAN Meeting #16 ***RP-020451***
Marco Island, FL, USA, 4 - 7 June 2002

Title:	**Overview of the Antenna Interface Standards Group (AISG)**
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1. Introduction to the Antenna Interface Standards Group (AISG)

The objective of the Group is to facilitate the introduction of base station antennas with remotely adjustable tilt by agreeing open standards for the associated data transmission system as shown in Figure 1 for remote electrical tilt (RET).

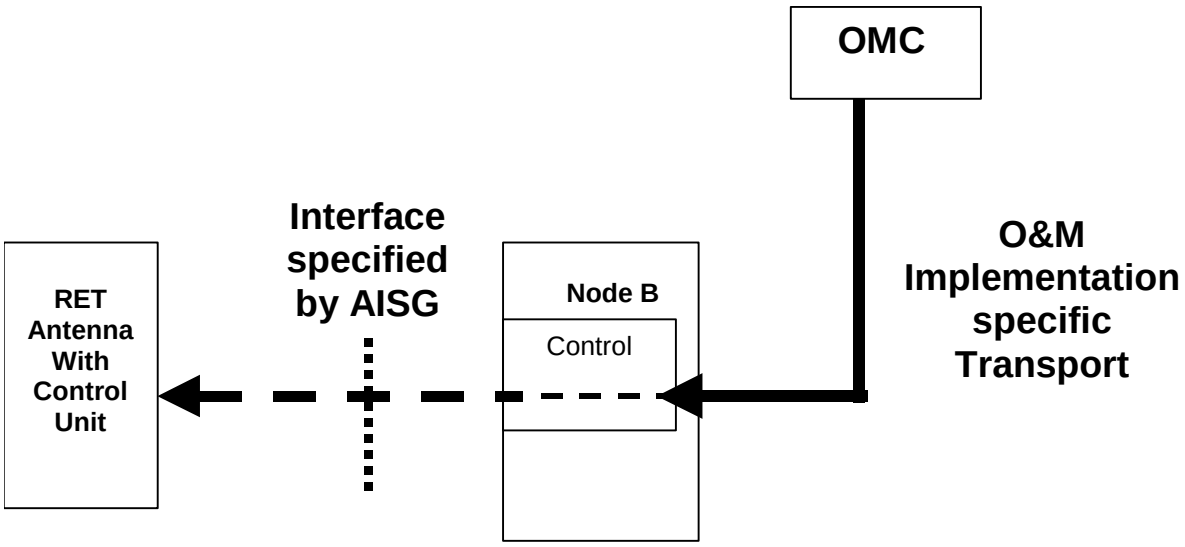

Figure 1:

The groups aims have been explicitly expanded to include Tower Mast Amplifiers (TMA); in the original document these were referred to only as "associated base station sub-systems embodying remote control or monitoring'.

As far as the Group is concerned, membership is world-wide, and already include contains large non-European companies such as Andrew Corp and Decibel Products. The full membership can be obtained from http://www.bcba15324.pwp.blueyonder.co.uk

The Group was formed because of pressure to get product onto the market, and a realisation that the absence of any agreed standard was a bar to this happening, other than through closed arrangements between specific manufacturers and specific OEMs. The Group's initiative created late last year (November) has grown rapidly into an informal organisation with more than 40 companies either in full membership (party to the NDA) or associate membership (receiving only specification drafts).

Members of the Group have disclosed commercially-sensitive information within the Group on the basis that the information will be treated in confidence and not used by members for purposes other than those for which the information was provided. This is the purpose of the NDA, and on this basis the working papers of the Group have not been made public.

The AISG hold a number of requests for copies of the Public Draft, due shortly, from a number of networks in Europe, the US and the Far East.

The Group circulated a Press Release at 3GSM Forum (Cannes) in February and received several membership enquiries in consequence. At present no charge is made for membership of the Group, although a small charge is made for attendance at some meetings to cover the cost of hospitality. Those members specifically interested in the TMA activity hold some separate meetings as a sub-group, chaired by Simon Mellor (REMEC-Airtech).

2. How long will it be in existence?

The initial tasks should be completed by the end of this year. After this, there will be ongoing work in maintaining the standard. This could be handed off to another body, but the width of representation within the present group is an important feature of its work.

There is some discussion of possible future migration to an IP-based protocol in the future and the present group could be a forum for agreement on this.

The group is the first world-wide forum for BTS antenna-line equipment manufacturers and it may have some other on-going functions in this role.

3. Application of the Interface Standard

The standard as currently drafted provides a means of addressing antennas and antenna-line equipment using a simple HDLC-based protocol, terminating at a defined interface at the Node-B/BTS. A number of different implementations are already likely. These already include:

1. Control by means of a lap-top carried to the Node-B by visiting engineering staff.
2. Extended control by dial-up or GSM modem (with or without local control intelligence) at the Node-B.
3. Extended control by connection of the Antenna Line to a router or other interface device, allowing connection as part of the Node-B to the OMC and its associated element manager.

These are clearly not the only possibilities. AISG currently sees its task as defining communication within the Antenna Line and across its associated interfaces, not in being prescriptive about the way in which this sub-system is integrated into a wider network.