Marketing Info No. 30 – RADIUS Support

Introduction to RADIUS

Remote Authentication Dial-In User Service (RADIUS) is a client /server protocol that enables remote access servers to communicate with a central server to authenticate dial-in users and authorize their access to the requested system or service. The RADIUS protocol was originally designed for Remote Access and Accounting services for ISPs (in other words, for data services) and is covered by the following specifications: RFCs2865 & 2866.
RADIUS has been adapted to work with VoIP services and has become a de-facto standard for VoIP gateways to communicate with billing and pre-paid systems. This has been done by the use of 'vendor specific parameters' (VSPs). The most well known set of VSPs are from Cisco's implementation (also adopted by PortaOne, for example).

WTL RADIUS Support

In a 'pure' WTL solution there is no need for RADIUS because all calls (VoIP or not) generate their own CDRs and are authenticated in the switch's internal Pre-Paid database.
However, in networks of equipment from multiple vendors it would be useful for WTL equipment to support RADIUS.

There are a number of stages to the support of RADIUS by WTL:

1. WTL produce RADIUS Accounting Reports - Allows WTL equipment to generate CDRs in a RADIUS format so that they can be received by a RADIUS-compliant 3rd party billing package.
2. WTL as RADIUS Server – Allows WTL equipment to act as a billing or Pre-Paid server for 3rd party gateways.
3. WTL as RADIUS Client - WTL equipment requests authorisation from RADIUS Server before accepting call. Allows interoperability with external Pre-Paid packages (for example, PortaOne).

Beyond the list above, it is possible to create a wide variety of call scenarios using RADIUS: IVR dialogs, routing requests, CDR reporting, callback requests and so on. There are no plans to support these scenarios but this will be governed by customer requests.
Stage 1 is the basic 'RADIUS support' for WTL equipment. The practical use is that it allows operation with external billing systems. In other words, post-paid services.
Stage 2 of the RADIUS support will allow the IP-only Soft IVR product to be positioned as an IN-type solution. This means that a Pre-Paid service could be offered to a VoIP network based only on RADIUS messages. There would be no need for the calls themselves to go through the Soft IVR, only the call control messages. Therefore there would be virtually no capacity limit on the number of simultaneous calls that could be supported.
Stage 3 means that WTL can claim to offer a RADIUS-based IN gateway where we would report call status to a 3rd party server and in return get rerouting instructions, call duration allowed for this user etc.

WTL have registered with IANA (the Internet Assigned Numbers Authority) and has been allocated the Private Enterprise Number (PEN) 5220. This allows WTL to develop our own VSPs (vendor specific parameters).