

August 2008

New Requirements for VoIP Providers

On June 12, 2008 the FCC issued a Report and Order requiring Interconnected VoIP Providers to begin reporting on the percentage of subscribers who are residential clients.

Percentages are to be based on census tract data, rather than zip codes. Reporting will be done biannually on March 1 and September 1 using FCC Form 477.

This Order follows a string of new regulations that the FCC has imposed on Interconnected VoIP Service Providers since the term was coined in 2005.



Facts about the Universal Service Fund

Carriers that provide interstate or international telecommunications services for a fee are required to contribute to the Universal Service Fund (USF). A telecommunications service that has one end-point in the US and another end-point outside the US, is considered an international service subject to USF. Although the FCC allows USF fees to be passed on to the end-user, the carrier is ultimately responsible.

To avoid double USF payments, carriers that

already send USF contributions to the Universal Service Fund Administration Company (USAC), and also connect to other carriers, do not have to pay USF to their carrier that provides them capacity.

While Providers of Interconnected VoIP Services and other telecommunications providers are required to contribute to the USF fund, USF should not be collected on services that have been defined as non-telecommunications such as internet access.

What is Rain Fade?

Rainfall introduces attenuation by absorption and scattering of a microwave radio frequency signal. This weakening of the signal, or rain fade, is more prevalent in frequencies above 11GHz because the size of the rain droplet approximates the

wavelength at these frequencies. This is why the Ku-band (12/14GHz) suffers more rain fade than the C-band (4/6GHz). *Continued on page 2*



Did You Know The Law Office of Raul Magallanes assists with filing annual and quarterly USF certifications?

The annual 499A form is due every April 1st while the quarterly 499Q forms are due on the first of February, May, August, and November.

On Your Radar Screen FCC annual regulatory fees are due September 19.

Make sure to audit your FCC licenses to determine the right amount of regulatory fees owed. This is also a good time to determine if any antennas have been decommissioned and no longer need a license.

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Facts of Interest:

- A list of FCC regulatory fees can be found at <http://www.fcc.gov/fees/regfees.html>
- Webster's dictionary defines the word "antenna" as "a usually metallic device (as a rod or wire) for radiating or receiving radio waves."
- The International Telecommunications Union (ITU) was formed in Paris in 1865.

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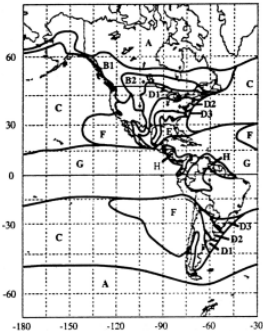
Rain Fade (continued)

The effects of rain attenuation on an uplink can be offset by increasing transmit power to compensate for the weaker signal. This additional power can be added as needed, through uplink power control (UPC) that increases the signal strength only when rain fade occurs.

Another way to counter the effect of rain fade is through site diversity which is the placing of redundant antennas at different geographical locations. In both cases, increased power and site diversity, there will be an associated cost.

The correct amount of power (or margin) to compensate for rain fade is calculated using statistical models of rain rate.

These models use historical rain rate data for different geographic regions. The most commonly used models are Crane and CCIR.



Narrow-banding in the Land Mobile Frequencies

The FCC has ruled that older equipment using frequencies between 150 and 512MHz, currently operating on 25KHz channels, must be replaced with new equipment capable of sectioning the bandwidth into 12.5KHz channels.

This process, now commonly referred as “narrow-banding,” is part of an FCC mandate to increase spectrum efficiency. The FCC has set a deadline of January 1, 2013 for

companies to complete the narrow-banding process.

Under current rules, voice systems must be able to provide one voice conversation in 12.5KHz of bandwidth while data systems must have a channel efficiency of 4.8Kbps per 6.25KHz of bandwidth. Any existing licenses for systems not converted by the deadline will be cancelled and licensees will be subject to a fine.

Is System Integration Patentable?

There seems to be a misconception about patents in the telecommunications service industry. The general belief is that a company needs to manufacture equipment in order to be eligible for a patent.

The reality is that system integrators can also apply for patents to protect the series of steps or “business method” used to integrate their systems. For example, one such patent could protect a unique method of supplying VoIP service to remote locations.

This type of patent concerns the method of putting different components together (e.g. equipment A connected to equipment B); even though the different components might be manufactured by others.



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VSAT Licensing in the Dominican Republic

VSAT Licensing in the Dominican Republic is handled by INDOTEL (*Instituto Dominicano de las Telecomunicaciones*).

A license application will require a homologation certificate; while the requirement of frequency coordination is handled on a case by-case-basis. Licenses are granted for periods of 5 to 20 years and may be renewed.

In some cases, temporary operations may be authorized by working an agreement with an existing in-country operator (concessionaire).

INDOTEL is one of the few regulatory agencies that do not charge a fee to process a VSAT application.