

Worldwide, Regional and National Unlicensed and Unprotected RF allocations, for Wireless Network Access (including Social Issues)

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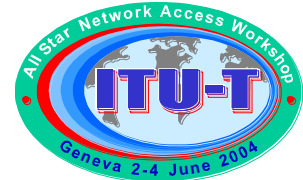
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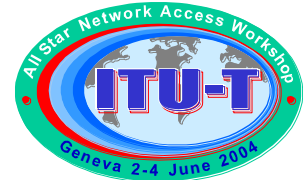
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This presentation is based on personal views and a research in Middlesex Univ.; the opinions expressed in this presentation are solely those of the author



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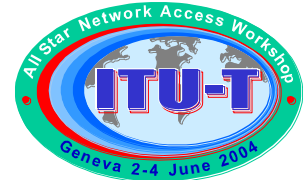


License Exempt RF Network Access

- Exempt any equipment not interfering
- Immunity to interference, little incentive to use RF resources efficiently.
- Anticipated increased demand
- Likelihood of causing interference
- Developed Countries usually exempt RLANs
- ITU-R SM. 1538 ‘Technical, operating parameters & spectrum requirements for SRDs’
- Is protection of 5 GHz LE RLANs needed?
- Globalisation and free circulation promote similar regulations and standards for LE
- Roaming; new technologies



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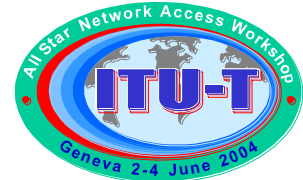


Promoting Broadband by License Exemption

- Broadband policy and deployment
- Grants by government, tax relief, drastic deregulation to change the competition regime
- Implications For Developing Countries
- Different views: NRAs vs Administrations



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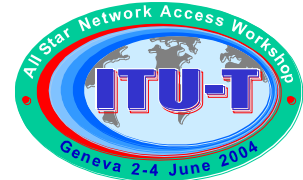


Market Power

- Unfair competition of equipment suppliers ('hotspots'), with licensed cellular ('cash-cow') operators?
- How should regulators respond when mobile overtake fixed subscribers & vice versa
- Top down technology (for harmonization and roaming) vs. neutral market -based technology (for innovation)



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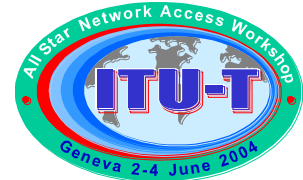
Europe Vs USA

RF, Power, Spurious

- EU ERC/REC 70-03
- Most RF with limits
- 100 mW
- Category B is more stringent (up to 37 dB)
- CFR47 Part 15
- Specific bands
- 4 Watts and more
- Category C (USA, Canada and Japan) ITU-R SM-329



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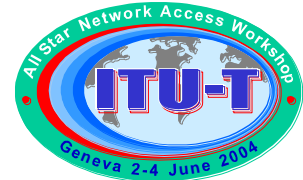
EU Vs USA

Public services, Market based *Minimal Regulation, interests of citizen-consumers*

- Acceptance of regulatory standards
- Consider to connect RLAN to the public switch
- UK; CEPT SE38 deals with sharing in 5.8GHz
- EU "telecoms package" Directives
- Preference for market-based solutions
- Unprotected RF bands for public services and connected to public networks
- Suitable rules for WISPs, targeting mainly rural areas
- Powell Task Force



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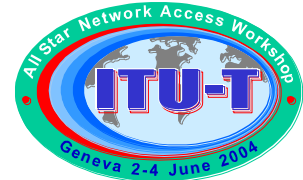
Europe Vs USA

Cultural Aspects

- *Centralised Top-Down*
- *Liberté, Egalité, Fraternité*
- *L'état c'est moi (the state is me); citizen/consumer obligation*
- Cathedral
- Directives
- *Laissez faire laissez passer*
- Freedom
- Abraham Lincoln (1863) 'Gettysburg Address': Government (RF) of the people, by the people, for the people
- Bazaar
- Caveat Emptor



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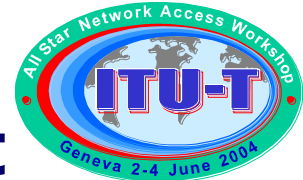
Europe Vs USA Surprise

Europe is more liberal than the US

- Conformity to industry regulation (R&TTE); Liberalization and Re-Regulation
- FCC 47CFR Part 2: verification, declaration of conformity, and certification



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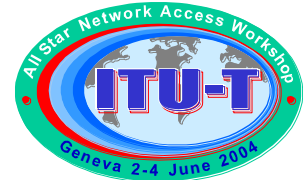


License Exemption & Internet Freedom

- LE RLANs & WISP connect computers to the Internet
- LE Completes other internet platforms (cable, fixed, fibre, satellite, ADSL, VoIP, power lines, cellular, DVB-T...) to offer personal comms
- Even LE is telecom services LE (like Internet Information Services) is not bounded in the US, by the full range of common carrier regulation under the USA TA 96Title II
- Success- with no regulation & no charge; what would happen to Internet if it was regulated like RF?
- Internet and License Exempt RF bands have no governance
- License Exemption & Internet stimulate small companies, provide motivation and ability to participate



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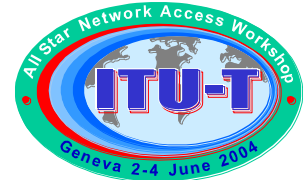


License Exemption and Internet (2)

- Both promote socio-economic benefits, innovation & the information society
- The bottom-up involves tens of thousands of practitioners
- Internet is a typical American example of bottom-up success, opposite to the top-down European GSM success
- Non-regulation of the Internet seems to provide an advantage to the US worldview



Conclusion



- US provides more spectrum for network access to License exempt than Europe
- Europe is more liberal than USA in equipment approval
- More license exempt RF -bandwidth and power- is needed to citizens and industry

Thanks