

## **Public Consultation Paper: 2004 Digital 21 Strategy Comments from Intel Semiconductor Ltd.**

### **Position Statement**

Intel welcomes Government's efforts to encourage the use of wireless technologies including WLAN and believes that further spectrum reform and Government influencing in these areas can enhance Government's efforts to achieve the goals of its Digital Strategy.

### **WLAN**

The paper makes little mention of the government's direction and support in promoting a broader adoption (by both the government and general public) of the use of the IEEE standard 802.11 wireless technology (or WiFi for short) as one way to "support Hong Kong's pursuit and as a champion to promote Hong Kong's international image as an aspiring, dynamic digital city." This is an area where government could play a more proactive role by introducing, enabling, and deploying WiFi technology and innovative end user applications for key areas where WLAN Internet access is most beneficial. Such uses include wireless schools for teaching and learning; doctors and nurses in public hospitals using wireless devices such as tablet PCs or PDAs to streamline the diagnostic and medication processes; tourists using wireless handheld devices to access information on favorite tourist spots, restaurants, shops, museums, etc.

While the government can count on the telecom service providers to set up public WLAN hotspots of the type we have already seen in Hong Kong (such as in coffee shops, retail food chains, shopping centers, airport, etc.), we recommend that the government take a more proactive stance to work with the telecom operators to enable more hotspots in other locations such as public parks, libraries, museums, train stations, and bus stops, etc. One way to do this is for the government to absorb the cost of building wireless access points in public amenities and let the telecom service providers charge the public for ongoing usage based on their own fee structures.

### **Spectrum**

If spectrum is left to be managed through "command and control", inefficient uses and technologies can be locked in. This has become more costly with the growing demand for diverse wireless uses and the increased ability of technology to minimize interference.

Two promising spectrum management techniques: 1. the creation of largely unregulated, unlicensed bands, and 2. the grant of increasing use and technical flexibility to licensees can serve as guides for additional reform. Both techniques give users more freedom to innovate and respond to changing market forces without seeking government approval. Accordingly it is submitted that the Government should begin spectrum reforms that will consider increased availability of unlicensed spectrum use and flexibility for licensees.

Spectrum easements for new technologies ("overlays" for agile radios or Ultra Wide Band ("UWB") for "underlays") should be created where they will not impose significant interference on existing licensees. Non-interfering limits for particular technologies

should be specified in objective terms, *e.g.*, “non interfering use” by an agile radio on a particular frequency could be defined as requiring it to shut off within 2 microseconds after detecting that the incumbent license has begun transmitting.

There are many opportunities where the Government can provide the structure and flexibility to enable Hong Kong to be a leader in spectrum use and well positioned to take up expanding uses for WiFi, WiMax and UWB technologies.