**MEMORAMDUM**

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SUBJECT: Wireless Fidelity

**INTRODUCTORY SUMMARY:**

A Wi-Fi is a wireless technology. It can realize the connection between the computer and the computer through Internet connection without cable. Wi-Fi Internet access can be simply understood as the wireless Internet, almost all the intelligent mobile phone, tablet computer and notebook computer support Wi-Fi access, is a kind of wireless network transmission technology which is the most widely used nowadays.

**FEATURES OF WIRELESS FIDELITY:**

1. High transmission speed: can reach 11Mbps (faster than the fastest connection cable modem several times);
2. Automatically adjusting the bandwidth: can ensure the stability and reliability of the network. When where the signal is weak or interference, the bandwidth can be adjusted for 5.5Mbps, 2Mbps and 1Mbps;
3. Effective distance: It’s effective distance is long, in an open area, communication distance can be up to 305 meters, in the closed region, the communication distance is between 76 meters to 122 meters;
4. Range: As long as there are Wi-Fi certified products and equipment, you can at home, office or on campus, or at the airport, hotels, coffee shops and other public places, everywhere on the Internet link.
5. Security: Compared to the mobile phone, wireless routers and other equipment keep distant from the user; it makes people accept the radiation power density is much smaller;
6. Multi-function: Many companies provide wireless network to their sites and to the remote office staff. Large companies and campus often use Wi-Fi to link the office building. Internet service providers and wireless network operators are using Wi-Fi technology for Internet distribution in the user home and within the apartment and the commercial building.

**THE FUTURE OF WIFI:**

Since WIFI has applied to city, the prospect of WIFI is vast, digital map, Geographical advertisement, Ads for Wi-Fi free, construction of Internet of things.

1. Regional digital map: In Wi-Fi login page, Wi-Fi users will see the map of the near region from it. Operators can use the regional map for the surrounding businesses to advertise and dimension. users will get the latest information and links to different businesses in the region on the map, when they click on any advertising, This model for the user, not only they can find the nearest businesses, restaurants, ATMs, gas station, cinemas, hospitals and other living information in the neighborhood, but also they can find such as "the nearest film in cinema" or "the restaurant quality of food taste" further information.
2. Geographical advertising: Pushing ads by using the WIFI locations, so advertisers and advertising to attract potential customers are most likely to buy their products.
3. Ads for Wi-Fi free: Typical usage condition of this model is : users need to watch the ads on the login page, or fill in the questionnaire before they use WIFI service, as long as the user choose and submit the survey can get free Internet access.
4. The construction of Internet of things: Wi-Fi is an important form of broadband wireless access network, can achieve high-speed wireless local area connection, with the accelerated expansion of the application fields of Wi-Fi application, the types of products are increasingly rich, Wi-Fi is the basic of the net of things.

**APPLICATIONS:**

WIFI covers great range from hot pot to whole city. NetEase technology news in January 23rd pressed that recently, Shanghai city started wireless cooperation. The plan will make a construction of 200 ~ 300 Wi-Fi base stations, wireless monitoring based on Wi-Fi-Mesh, WiMAX second, after the completion of the theoretical rate of 54Mbps, laptop use in actual environment access rate can reach 1 ~ 2Mbps. the goal is computer, intelligent mobile phone can be networked no longer need to be connected the cable .**CONCLUSION:**

Although Wi-Fi has encountered some difficulties, but the prospect of this advanced technology is still very attractive, it can play an important complementary role for 3G in the region and in a certain range, the WIFI technology with its advantages of location will have broad prospects for development.