Ubiquitous Availability of Affordable Virtual Health Care Services over Broad Band Internet, Telecom, TV and IT Infrastructure

Summary

1. Affordable medical and health care services should be available to all citizens of a country as their fundamental right. 2. Shortage of hospitals, qualified medical staff and specialists in hospitals forces patients to physically report to the Out Patient Deaprtments (OPDs) after seeking appointments even for basic consultation, diagnosis and treatment prescription. This results in delays, missing appointments apart from incurring heavy charges. 3. Fortunately, with rapid proliferation of basic broad band Internet, telecom, two way interactive TV and IT support based services in which all countries are investing, a versatile infrastructure is being created which can easily carry the much needed and affordable virtual health care services to the patients sitting in the comfort of their homes.

Analysis

Virtual medical and health care services currently being provided from hospitals and medical research institutes **can be made available to every home having two way interactive TV connection.**

The motivation is ***to exploit the technology and infrastructure of telcos for the distribution of hospitals provided medical services to millions of homes as e-health diagnosis and prescription services spending minimal incremental capex and opex.***

Around 80 % of technology and infrastructure for both telcos and hospitals is already in place and thus only needs integration investment and efforts. *Therefore, even in this down turn, companies can expand their businesses through partnerships based Managed Capacity, Managed Services, Managed Distribution and outsourcing deals to optimize and defer capex and streamline opex.* **Such an arrangement results in synergy, increases efficiencies, lowers costs, offers better pricing to customers, weakens competition, increases market share, enhances revenue, yields good margins and stable ROCE for all stake holders.**

Medical specialists working in hospitals or at homes can be available on a two way interactive health care TV channel just like they are available in hospitals for consultation. Any one desirous of seeking consultation for diagnosis and/or prescription can log in to the vernacular health care TV channel, register as a patient through the TV remote, pick and chose the specialist, and enter into the consultation process through two way interactive TV where both the patient and the specialist can view each other on the TV screen and talk to each other also through a simple web cam/video telephony connection from the STB at home. **This is exactly like IP TV with a video telephony connection.** ***IP TV can be implemented even on an upgraded two way HFC.***

There are millions and millions of cable TV connections and these are now being made two way digital voluntarily so as to compete with DTH/IP TV. All the cable operators or telcos would carry this niche channel simply because they would get a revenue share. ***BWA, 3G, WiMAX and LTE served through femto cells offer even mobility. Thus, a patient can also be at the work place and yet is able to consult the chosen specialist.***

For the consultation process requiring any tests before prescription for the treatment is issued, the specified tests are entered by the specialist for the patient and a vernacular mail is sent just like e-ticket. The patient gets the tests done and enters the results back into the form/up loads its scan or faxes the same. The consultant can see the form and even check if the patient is viewing the health care TV channel to complete the consultation and issue the e-prescription for the treatment just like e-ticket for air travel.

Payment process is also implemented through e-transfer of funds or pre-paid or credit cards. This would cost the patient 1/3rd of what is charged during the physical visit to the hospital. The patient can buy the medicines at own convenience. This maintains strict confidentiality about the medical history also.

This virtual health care service is what the world in general is looking for and all the developing countries need this.

This is the most cost effective way of forward integration of health care business with telecom, TV, IT and content aggregation businesses throwing open the alternate revenue earning opportunities for all stake holders. This is also one of the quickest ways for hospitals and medical research institutes to become global health brand.*The standards laying bodies like ITU-T, ETSI, 3GPP, 3GPP2 and various other forums can consider making such operation of networks and data center mandatory for all service providers in the world.*