Home Networks

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Throughout history, according to one historian, changes of revolutionary scope have occurred all around the world. But these transformations are so gradual that it is difficult to locate them in retrospect, and even more so while the process of change itself is occurring. The arrival of the twenty first century met with much enthusiasm and an inevitable notion that any reference to the new millennium indirectly referred to an overnight advance into the future. To what extent has our perception of the future, seen from the vantage point of a dying century, become present is a question that does not provide us with a correspondingly exhilarating answer. Numerous antecedents of an entirely different present, however, were laid or were given a more formidable boost in the 1990s than they had hitherto received. These ideas indicated an era of greater reliance on technology for adding (more) comfort and efficiency (for some) to life. One such concept is that of Home Networking.

As of 1997, the term Home Networking found its use only in the tech-lexicon of computer professionals, and the substance remained basically a promising theory with unimaginable technical and economic potential, yet too precarious to invite exclusive attention from all quarters. A few companies had taken the initiative by displaying their respective prototypes of the networked home scenario but none of these organisations could predict with certainty the viability of their innovative pet project. Particularly in the masses, it was an unknown hypothesis; most people were unable to see any possible association between their houses and the networking thing. As regards its familiarity in the third world, it was the stuff Hollywood's sci-fi flicks were made of and just like the movies, too distant from reality. The growth of multiple PC households; broadband solutions for transfer of digital content like video, MP3 and digital photograph; reduced prices; and greater mobility provided by wireless connectivity in home network appliances changed much of the earlier attitudes toward home networking, without undue emphasis, dramatically. The US$137 million worth of market of 1999 has far outdone its expected share in global economy estimated at US$1.4 billion for the year 2003 (Cahners In-Stat Group). The massive boost does not come as a surprise to most analysts who see the popularity of a connected home as the single most important development of the current century.

Home networking is the technology that enables sharing information by various appliances within the house for the purpose of controlling, storing and managing data for greater convenience. Through home network appliances, PC and high-speed Internet access. whether the PC takes on the role o residential gateway in future, the refrigerator, television or a completely new standalone device, is still being debated by the networking giants. A typical LG internet-enabled-refrigerator for instance allows the user to not only download music and recipes from the Internet but is also equipped with Internet remote control features and build-in home server capabilities.

Like most mega ventures, Home Networking has evolved from its simplest from to a more diversified and dynamic phenomenon. It has had to undergo different phases to assume its present shape. Presumably then, it would evolve into an area very different from that we know as home networking today.

In the first phase Home Network referred to a connection of PCs through Local Area Network (LAN), which initially served corporate organisations and education institutions to meet their needs of greater security and connectivity. The second phase brought the consumer closer to the romanticised networked home, where all gadgets and gizmos talk to each other and where various "islands of technology" are networked through small, unseen applications. The third prospective phase in home networking is believed to be the incorporation home networks in the architectural sector whereby every new house will be built in accordance with the requirements of an interconnected and interpretable household. As such, home networking has come about with the continued efforts of various scoters, which were formerly working within their separate orbits, but have now joined hands forming huge conglomerates aiming at the realisation for the networked wonderland.

The best part about home networks is that once installed, it does not require detailed understanding of the technical complexities involved. The user's knowledge about the interface is limited merely to the corporeal functionalities only.

The wired home and office has already become a fact of life in the advanced societies of Europe, Far East, Western Hemisphere and more recently the Middle East, out to the common man in Third World, the possibility of smart home and workplace amounts to wishful thinking. And this is, by no means, the only issue. The intricacies involved in building a general acceptance for a groundbreaking concept cannot be easily overcome. Despite a price range still too lofty for many people and inconceivable for most, the buzz about installation and standardisation hassles, popular reluctance to embrace home networking as a way of life even in the affording segments of society, the hype about Home Network is on.

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Home networking is the technology that enables sharing information by various appliances within the house for the purpose of controlling, storing and managing data for greater convenience. Through home networking application system, it is possible to connect the PC, home entertainment devices like DVD player, TV, digital camera, stereo system and other home appliances like refrigerator, microwave oven, washing machine, air conditioner, etc. to access digital content, connect every home appliance with the other and to operate electronic appliances from remote places through the internent.

The information appliances are the cornerstone of future home networks. Most electronic appliances, however, will not undergo radial modifications apart from a few additional features facilitating communication between appliances and association with the Internet. It is widely held by networking analysts that internet-aware electronic equipments offering entertainment functions will be the principle propelling force of home networking industry. With technologies like University Plug and Play, home appliances are all set to overhaul the PC as the centre of information and an indispensable component of Home Network in the coming years.

The digital information appliances are linked, by means of a Residential Gateway, with broadband Intenet connection through Power Line Communication, Phone Line, or Wireless system. A residential/home gateway is the central element of the entire Home Network. It serves as a

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What is it then that makes the idea of a connected home worth the money and the fret? Home Network is the closest we have been able to get to the futuristic lifestyle of the preceding century. Through the downloading features it enables users to access pertinent information and entertainment options with ease and rapidity, with internet remote control and operation system, the user can keep track of grocery times in the refrigerator that need restocking, regulate room temperature of launder clothes while at the office. No longer would it be needed to forego a favourite TV show due to an emergency when the digital TV comes with a wireless recording facility that can be activated through the cell phone. Greater home security is attained through pop up messages on the computer screen in case of a crisis situation such as fire, electricity break down, or outside intrusion. With so much t offer home networks can be expected to fast penetrate the regular household. According to one report the Home networking products are likely triple over the next 5 years, a grand target by any standards. As home networks organisations set their eyes on the Asian and African markets, it remains only a matter of time before the home networking "neoculture" sends ripples through our lives and becomes a contemporary reality for each home in every part of the world. ■