

QUADRUPLE PLAY NETWORK AND EDUCATIONAL SYSTEMS: PROMOTING BETTER INFORMATION AND KNOWLEDGE TRANSFER

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ABSTRACT

Technologies are always changing; there are so many Networking Systems are already evolved; Quadruple Play Network [QPN] or QPN is an important and most dynamic network which is able to bear voice, data, audio and video services any time and frequently. Quadruple Play Network [QPN] is based on optical fiber cable and it is useful in banking, marketing and some other business activities including possibilities of its uses in educational domain such as online education, e-education, e-learning, improving campus based learning and so on. The Quadruple Play Network [QPN] is an important domain and comes with so many multimedia based opportunities. This paper is talks about Quadruple Play Network [QPN]; its characteristics, need and role; especially application and future possibilities in educational and learning sector.

Keywords: Quadruple Play Networks, QPN, Technologies, Knowledge Transfer, Information Technology, Information Science and Technology, Managing Systems, Communication Systems, E-Learning

INTRODUCTION

Quadruple Play Network [QPN] is an important network and helpful in so many activities as like other network. We know that, Quadruple Play Network [QPN] is a value added data network which is able to provide not only data but also voice, TV, Video at any time based on optical fiber cable. Network is important name in today's age and useful in business, health, commerce, education and other sector. In today's age, we are habituated with networking systems. There are two types of networking systems i.e. Telephonic Network and Data Networking. Telephone Network is responsible for voice based communication where as computing networking is fall under the category Data Network. Quadruple Play Network [QPN] is basically helpful in higher education institute for several new educational domain and regular campus based education.

OBJECTIVE

The main aim and objective of this paper is includes; but not limited to as follows:-

- To know basic about Quadruple Play Network [QPN] and its characteristics and benefits;
- To know about Quadruple Play Network [QPN] and PON and their relationship; with special reference to several network strategies employed in PON;

- To learn about Quadruple Play Network [QPN] and its application in the educational systems;
- To know about PON Architecture and its types;
- To find out possible uses and possibilities of Quadruple Play Network [QPN] in educational systems.

Quadruple Play Network [QPN] and PON: Basics

Quadruple Play Network [QPN] is a kind of Network which is able to play several media at a time which is able to play several media at a time which includes voice, data, video and TV service. This is carry content, AV material faster than conventional media and network as it is lies on optical fiber cable. The Quadruple Play Network [QPN] is based on PON architecture and which is point to multipoint concept based. It is provide unlimited and heavy band width to the user [04, 14, 15]

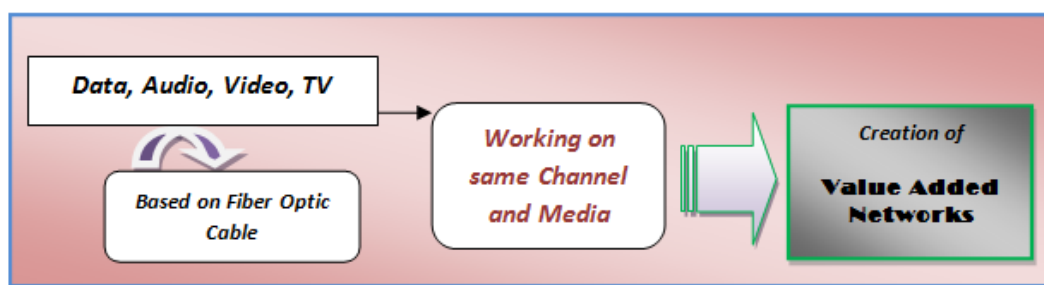


Fig: 1. Fiber Optical-The main base of QPN based Networks

Other hand, PON is Passive Optical Network, which is based on point to multipoint concept. In PON architecture maximum resource sharing is possible as it is run under optical fiber cable. This is a single, shared and optical fiber which uses passive optical systems to divide the signal to the specific user [16, 17, 19]. The modern internet is uses sharing of video, conference, IPTV, PON based Quadruple Play Network [QPN] play an important role. In educational systems betterment and particularly in following educational domain:-

- Online Education;
- Off Campus Based Education;
- E- Learning;
- Smarter University Education;
- Online Learning and so on.

Future potentials and contemporary scenario with Quadruple Play Network and PON based architecture

There are so many benefits and opportunities possible from the Quadruple Play Network [QPN] based network; now lets look such benefits and advantages at a glance:-

- Through Quadruple Play Network [QPN] it is possible to collect content of every type with audio, video, TV service and conventional text and information;

- Quadruple Play Network [QPN] provides higher bandwidth; thus downloading and uploading of healthy file become easy with Quadruple Play Network [QPN];
- It is very much simple and minimizes networking costs; as it helps many way than conventional networking systems[06, 08, 16];
- Quadruple Play Network [QPN] is helpful in future modification as well as expansion process;
- According and using topology of any kind is permitted in Quadruple Play Network [QPN] based technology and thus use depending upon need may choose topology such as star, ring, bus, tree and so on;

It is also helps individuals subscriber user, as it is comes with single shared optical fiber system;

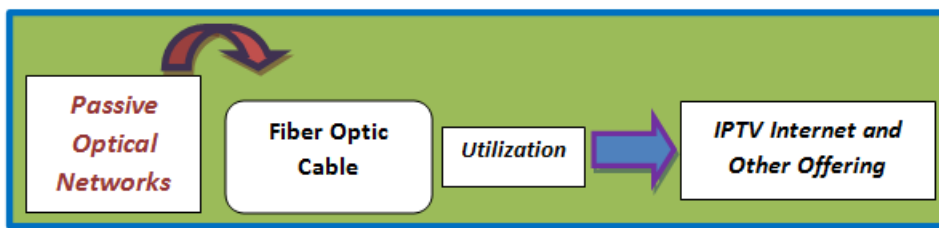


Fig: 2. Showing PON and QPN relationships

In PON, Optical fiber cable uses a passive optical extracted to divide the signal and towards individual user. In PON one single point then split in to so many point or multiple point.

Quadruple Play Network [QPN] in Educational Systems

Networking Technology is an integral part of today's educational systems. Thus, in several educational activities, Quadruple Play Network [QPN] is needed but in higher education it is mainly useful:-

- Quadruple Play Network [QPN] promotes online education and e-learning many way and thus it helps in several activities such as content generation and dissemination, important official document, paper wise module file, recorded lecture or workshop delivery, exam related documents, online result and evaluation, assignment uploading and downloading, full text book or course work delivery and so on;
- Self learning is one of the important activities in Quadruple Play Network [QPN]; it is helpful for private education and corporate education. Here one can get course ware, recorded lecture and video from the dedicated websites[04, 08, 12, 18];
- Today university wise TV services is there, in so many departments, libraries, hostels and administrative buildings and so on; thus Quadruple Play Network [QPN] is possible to use there;

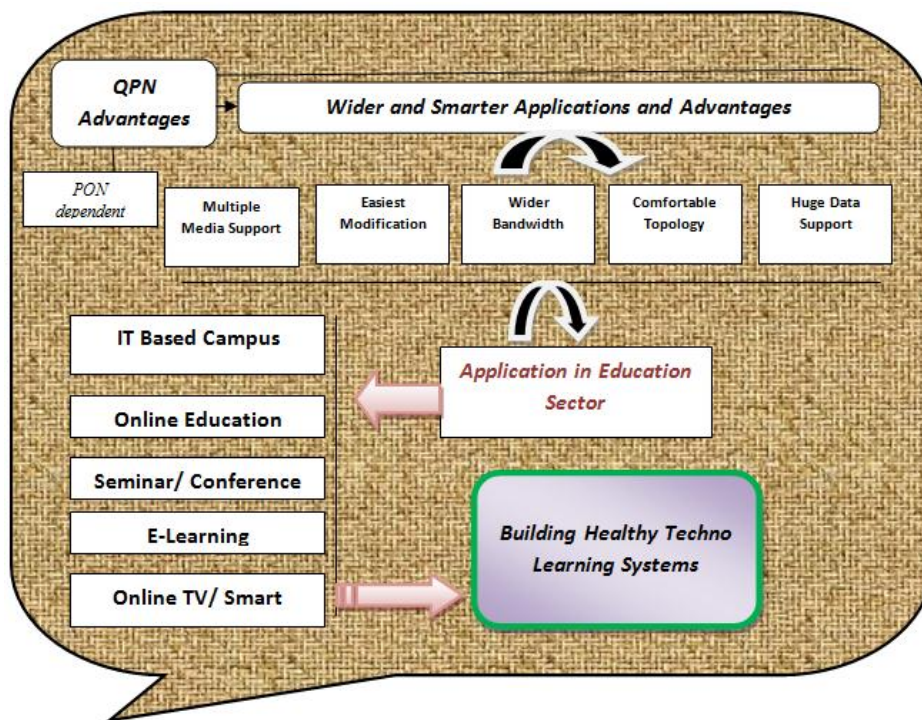


Fig: 3. Showing wider possibilities of QPN in general and Education Sector

- It is also promote campus based education or regular education; as it is also promote or provide value added service to the campus based education;
- Providing instruction/SMS related to education is possible in Quadruple Play Network [QPN] based education[19];
- It provides sharing redundancy and higher bandwidth and diversity;
- It promote education technology and e learning many ways;
- It promote administrative activities f an educational institution[20];
- As it is provide content based service thus also helps in Library Science; it may provide content service, A/V Services to the students, teaching and other registered staff and user of the campus[21];
- It helps directly and indirectly; research and innovation activities in an educational institutions.

Quadruple Play Network [QPN] and Requirement

Quadruple Play Network [QPN] is depended on so many things; now look these briefly; one by one:-

- It is essential to use FTTH [Fiber to home] / FTTx [Fiber to terminal]for content, A/V deliver to the user rather than stretching a set of fiber optical line to each other;
- Here Wi-Fi is need to use in long distance; through any kind of direct connection is not need to the internet;

- Wireless IP Phone installation is needed for communication between the homes[22].

SUGGESTION

- Universities need to use Quadruple Play Network [QPN] based system for conventional distance and online education to rejuvenate it[23];
- In Regular and campus based education it may be used for several activities such as Class room teaching, remote learning, academic and administrative work and so on;
- After installation of Quadruple Play Network [QPN]; it is essential to check security system properly [24].

CONCLUSION

Quadruple Play Network [QPN] is based on PON and so it is advance and fast. It is multimedia supported and thus support Audio, Video, TV, Voice and Data and thus widely applied in so many fields such as business firms, Governmental activities and so on. It is promote several Governmental activities and hence today E-Governance, E-Business become easier [10, 12, 19]. Similarly smart university education is also an important gift of Quadruple Play Network [QPN] based systems.

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