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A novel approaches for multi broadcast networking using recent technologies

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Abstract:

Now a days most of service providers lack in their connectivity of internet servers. To over come this multiple service providers are connected to same node to provide a lossless connectivity, which will improve the network connections stability. Recent days new fastest cellular networks has been implemented which provides a 4G networks. They can provides a networks speed of maximum 5MB/sec. Lacking of signal coverages in most of the areas which are under development. So we can't get continuous networking connectivity durning travelling. In this proposed system multiple networks are connected to increase the network speed. In case of lack weak network coverage data compensation occurs between available networks. This connections may be of wired or wireless.

I.INTRODUCTION

We use a concept called teaming. The combining or aggregating together of network links in order to provide a logical link with higher throughput, or to provide redundancy, is known by many names such as channel bonding, Ethernet bonding, port trunking, channel teaming, NIC teaming, link aggregation and so on. This concept as originally implemented in the linux kernel is widely referred to as bonding. The term networking teaming has been chosen to refer to this new implementation of the concept. The existing bonding driver is unaffected. Network teaming is offered as an alternative. By this concept we connect multiple networks using a device raspberry pi model 3, which will act as an component to connect network manually.

2.3 Existing System

Cellular technology is what mobile phone network are based on, and it's the name "cell phone". Cellular technology basically refers to having many small interconnected transmitter as opposed to one big one. The other main concept of cellular technology was that they were "multiple access", meaning that they placed multiple voice or data connections into a single radio channel. Till now mobile broadband has developed to 4 generation services provided to external systems, such as laptop, wireless modems etc… They provides a maximum network speed of 5 MB/sec. Lacking of signal coverages in most of the areas which are in under development. These networks are not efficient durning travelling and broad casting.

II.DESIGN AND IMPLEMENTATION

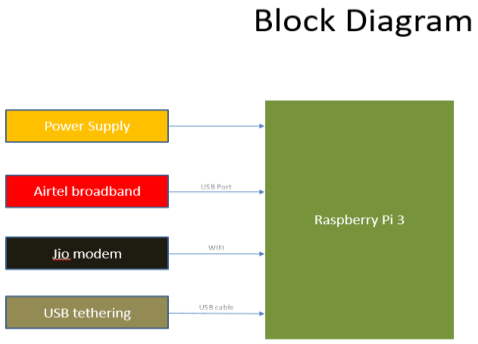


FIG 1: BLOCK DIAGRAM OF PROPOSED SYSTEM

Raspberry PI 3:

FIG 2:PICTURE OF RASPBERRY PI 3

The Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundationto promote the teaching of basic computer science in schools and in developing countries. The original model became far more popular than anticipated, selling outside its target market for uses such as robotics. It does not include peripherals (such as keyboards, mice and cases). However, some accessories have been included in several official and unofficial bundles.

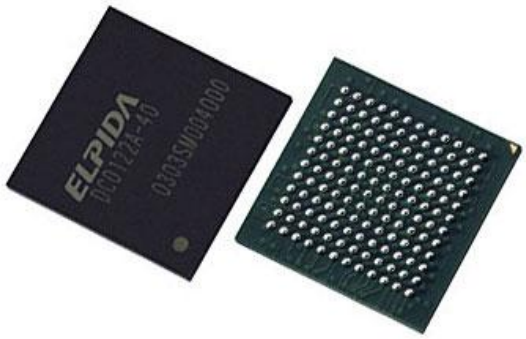
BOARDCOM CHIP:

Broadcom organizes the fabrication of the processor chip, most recently the BCM2837 chip and the wifi processor BCM43438, which is used by the charitable Raspberry Pi Foundation. The foundation requested help from Broadcom making the Raspberry Pi card, a motherboard which is free of DRM or corporate control of any kind, which can interact with hardware, and which can be bought and controlled by children.

SMSC CHIP:

Super I/O is a class of I/O controller integrated circuits that began to be used on personal computermotherboards in the late 1980s, originally as add-in cards, later embedded on the motherboards. A super I/O chip combines interfaces for a variety of low-bandwidth devices.The original super I/O chips communicated with the central processing unit via the Industry Standard Architecture (ISA) bus. With the evolution away from ISA towards use of the Peripheral Component Interconnect (PCI) bus, the Super I/O chip was often the biggest remaining reason for continuing inclusion of ISA on the motherboard.Modern super I/O chips use the Low Pin Count (LPC) bus instead of ISA for communication with the Central processing unit. This normally occurs through an LPC interface on the southbridge chip of the motherboard.Companies that make super I/O controllers include Nuvoton, ITE, Fintek, and Microchip Technology. National Semiconductor used to make super I/O controllers but sold that business to Win bond, which already had a competing super I/O controller business. In 2005, Win bond then spun off its logic businesses to a wholly owned subsidiary, Newton. SMSC made super I/O chips and then got acquired by Microchip Technology.

ELPIDA CHIP:



Elpida Memory, Inc. was a corporation established in 1999 that developed, designed, manufactured and sold dynamic random-access memory (DRAM) products. It was also a semiconductor foundry. With headquarters in Yaesu, Chūō, Tokyo, Japan, it was initially formed under the name NEC Hitachi Memory in 1999 by the merger of the Hitachi and NEC DRAM businesses. In the following year it took

on the name Elpida. In 2003, Elpida took over the Mitsubishi DRAM business. In 2004, it listed its shares in the first section of the Tokyo Stock Exchange. In 2012, those shares were delisted as a result of its bankruptcy. In 2013, Elpida was acquired by Micron Technology.

Power Adapter:

An AC adapter, AC/DC adapter, or AC/DC converter[1] is a type of external power supply, often enclosed in a case similar to an AC plug. Other common names include plug pack, plug-in adapter, adapter block, domestic mains adapter, line power adapter, wall wart, power brick, and power adapter. Adapters for battery-powered equipment may be described as chargers or rechargers (see also battery charger). AC adapters are used with electrical devices that require power but do not contain internal components to derive the required voltage and power from mains power. The internal circuitry of an external power supply is very similar to the design that would be used for a built-in or internal supply.

Connecting Cables:

Connectingcables are networking hardware used to connect one network device to other network devices or to connect two or more computers to share printers, scanners etc. Different types of network cables, such as coaxial cable, optical fiber cable, and twisted pair cables, are used depending on the network's physical layer, topology, and size. The devices can be separated by a few meters.

USB:

USB, short for Universal Serial Bus, is an industry standard that was developed to define cables, connectors and protocols for connection, communication, and power supply between personal computers and their peripheral devices.

LAN:

An Ethernet crossover cable is a type of twisted pair Ethernet cable used to connect computing devices together directly that would normally be connected via a network switch, Ethernet hub or router, such as directly connecting two personal computers via their network adapters.

MODEMS:

A modem (modulator–demodulator) is a network hardware device that modulates one or more carrier wave signals to encode digital information for transmission and demodulates signals to decode the transmitted information. The goal is to produce a signal that can be transmitted easily and decoded to reproduce the original digital data. Modems can be used with any means of transmitting analog signals, from light-emitting diodes to radio. A common type of modem is one that turns the digital data of a computer into modulated electrical signal for transmission over telephone lines and demodulated by another modem at the receiver side to recover the digital data.

IV. Summary

We have proposed and discussed a scheme for multiple network interfacing into a single protocol using a concept called teaming. By this we can obtain a high speed networking and lossless network connectivity.

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