

DEVELOPMENT OF ALGORITHM SOFTWARE MODULE FOR
ENHANCEMENT OF MESH NETWORK SECURITY

<https://doi.org/10.5281/zenodo.7722267>



ELSEVIER



Received: 10-03-2023

Accepted: 11-03-2023

Published: 22-03-2023

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Abstract: In this work, the algorithm software module for improving the security of the mesh network, the mesh architecture and its implementation, which analysts associate with the next stage of growth in wireless networks, are considered. Challenges and obstacles for a global mesh network are outlined

Keywords: Study of wireless network security analysis methods and tools

About: FARS Publishers has been established with the aim of spreading quality scientific information to the research community throughout the universe. Open Access process eliminates the barriers associated with the older publication models, thus matching up with the rapidity of the twenty-first century.

Mesh Technology used without , wireless networks usually sure decentralized without will be built , har one node from others independent works _ This of configuration right performance for devices each other with information they exchange Of this for each one transmitter body under service show contact channel for separately amplifier and the antenna is installed . As a result, the buyer receives an antenna unit consisting of elements that provide: computer , smartphones and another equipment for traffic transmission ;

Bluetooth connection;

service communication channel.

Budget mesh kits are dual-band. They are on 2 channels works : 2,4 and 5 GHz . Both are users for traffic to pass can _ 5 GHz channel faster , but radio waves when selected from the walls worse passes . 2,4 _ gigahertz frequency with problem of neighbors routers because of the air contamination to be can _ If necessary if , of the modules themselves from 5 to 2 GHz changes because _ imperfect connection never from whom is better . Two channel traditional one channeled to routers relatively important advantage is considered User and service show signals different in ranges being , this comfortable traffic to the speed contribution adds _

Modules different not _ Theirs of work nature connection to the place depend _ Home traffic at the entrance gateway installed and Internet signal from it cable or via Wi-Fi to nodes passes . Nodes the internet computers , telephones and another to equipment transmits _ Modules setup for you network your management , his in operation mistakes you will find possible has been applications there is Mesh

system what that common in a sense understand technology _ principles in more detail seeing to exit let 's go

Devices in the middle bridge construction : in 6 stages the router repeater as how adjustable + possible has been problems solution to do

Mesh systems how works

mesh technology used without , wireless networks usually sure decentralized without will be built , har one node from others independent works _ This of configuration right performance for devices each other with information they exchange Of this for each one transmitter body under service show contact channel for separately amplifier and the antenna is installed . As a result, the buyer receives an antenna unit consisting of elements that provide:

At the current stage, wireless connection systems are increasingly developing as part of information and telecommunication systems. Today , **Wi-Fi technology** , based on **the IEEE 802.11 standard** , is the most popular **wireless data transmission technology** that is developing rapidly. However, turning Wi-Fi into a corporate communication tool and a truly mass data exchange technology poses a serious challenge for developers of "seamless" inter-network roaming. This problem is solved within **the mesh architecture** , and with its implementation, analysts associate the next stage of growth **in wireless networks** . This is a multi-point network, whose devices (**mesh stations** , MP, **mesh - Mesh network points**) have router functions and can use different paths to forward the packet. **Mesh technology** is especially necessary when there is no wired infrastructure to connect stations. Such without , packages from one is sent **mesh stations** wired network to the gateway without enough before to the second . Bigger reliability for **mesh station** one how many to the neighbor have to be possible **mesh station** . Opinion **mesh networks** from mobile ad hoc networks come comes out (**MANET**) at the IP layer routing function done increased _ **MANET protocol** limited to work has , because in the IP layer conditions about never how information no wireless transmission and next door nodes . In particular , the IP layer of packages interventions and collisions as a result violation probability , as well as har one in connection applied modulation and coding scheme about information have not _ against , v **IEEE 802.11s mesh networks** routing mechanisms this information there is at the MAC level that is it works _ while routing much efficient does _ at the MAC level working routing protocol thanks to **mesh technology possibility will give** network coverage area one how many times increase _ That's a lot important because _ transmission speed increased as network coverage area decreases and **mesh technology** this the effect covers _ information networks , **mesh topology by organize done** , last one half past two year inside big to recognition deserves it happened Projects thousands access points and ten thousands to users

became **Mesh networks** different network and radio technologies integrated the most interesting solutions represents and therefore for constant respectively increased outgoing (mobility , QoS , security) subscribers requirements complete answer gives _

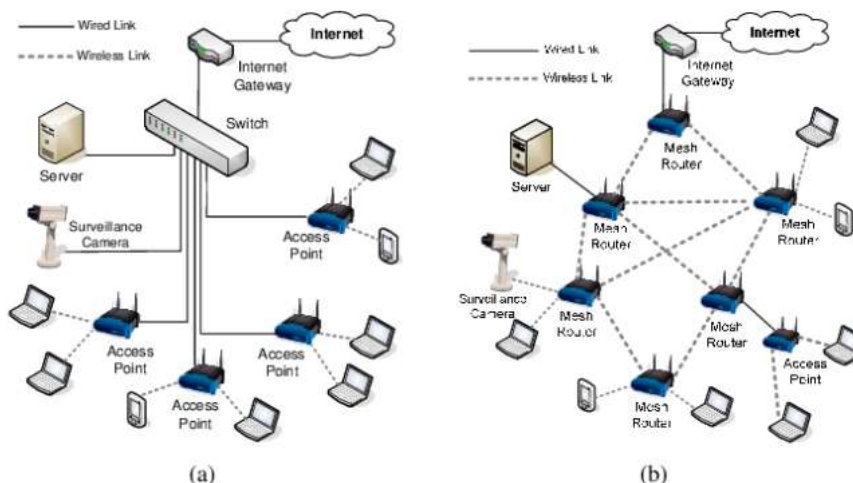
Mesh networks Mesh concept Today's to the day until cellular telephony mobile subscriber of the market vocal and information information per second one how many face per kilobit one how many up to a megabit at speed to transfer has been big demand demonstration did _ Created information systems global roaming of subscribers with which provides information of the network (many or less) one to the part rotation for intended . This the problem solution to do new (3G, WiMAX) current reach and available (Wi-Fi) data wireless transmission technologies improvement with depend _ Cluster to the structure based on such networks solve options one is Mesh technology . Mesh networks definition Mesh technology based on organize to do systems mobile contact war in the zone the only one objects with . Such systems digital information , video and vocal connections high at speed transmission provides as well as objects location determines _

Support - how OS of the network complete member of to be can _

Global mesh network for difficulties and barriers

With traditional Internet compared to , band networks most of the time ineffective will be because they are network width and connection quality does not guarantee . Inside a little content there is and familiar sites and of services the number very a lot not _ Most mesh network at the beginning to work drop off very difficult and to efficiency only a lot numerous with users (nodes). is achieved .

Mesh system what : mesh home 9 advantages of the network and 2 cons
Content With WiFi Mesh deal with it what that understand , even before routers setting need didn't happen the user also understands can _ Network performance for to you computer need not : program to your smartphone installation and one series simple manipulations perform enough _ What else is good about mesh technology? Read and find out.



The forgetful for guide : Wi- Fi n the password how to find can : life save to stay 4 options for Wi-Fi network : this what _

Mesh networks are 150-200 squares meter on the field houses and of apartments the owners with convenient Internet provides . meter . Even such a powerful router to the square service to do unlikely . Mesh technology appear from being before problem one how many routers installation or signal long to regions transfer will receive one developed to the device repeaters to add through solution done _ Both you too _ settings with bother to do need will be and repetition devices another to shortcomings has :

- Har one new Link Internet speed decline is considered Traffic decreased by 2 times or more.

- When moving around the living space, the laptop or smartphone is reconnected from the router to the signal repeaters. The result is an interruption. If the Internet disappears even for a short time, unpleasant things happen: video communication, online games and other activities are stopped.

Net system is this of transport continuously transfer . Usually , the sets consist of 2-3 modules consists of they are _ from each other away is installed . An example for , har one on the floor one to the point put _ As a result , wired connection with consecutively to topology have or star a peer-to-peer Wi-Fi network in the form of is taken . Second without , to you the key need will be because system elements usually to 2 LAN ports have _

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