

Software Defined Network for Efficient Transmission in Wireless Networks

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Abstract: SDN is a software defining network which provides an open flow approach in 5G technologies to avoid the traffic signals. The diverse requirement provides end-to-end services for network management. Networks have directly programmed efficiency and speed. The network provides parallel of sever for massive and large multiple processing. In such situation SDN controller enhances the logical properties. SDN has low rate of collision due to this there will be decrease in traffic signals through cloud computing. In cloud computing Big data mechanism, which eventually reduces the traffic. This mechanism improves in server virtualization. Particularly when the traffic signals are high, the network builds the hierarchical tree structure for standard speed. This mechanism maintains the global view in the application layer. SDN have packet switching to adjust the signals from wide traffic flow in the system. The key objective of SDN is to have standard speed in cloud computing with less collision in signals. The service-customized provide more flexibility in satisfying the larger frame work too. In wireless network full duplex transmission is used in MAC layer and physical layer to increase the spread spectrum. SDN have self interface in bandwidth and time-services. This mechanism provides the boosting spread spectrum efficiency. The impact of self-interface is not proposed in traditional spectrum. In optimal power allocation transmitter uses full duplex. SDN avoids the hidden terminal in receiving the network. The mechanisms have multiple transmissions in wireless-medium for the opportunisticcommunication.

Keywords: Software defining network (SDN) ,METIS, MAC Layer, Physical Layer, VMWARE, SDN deployment, Big data.

I. INTRODUCTION

Software defining network has the main feature with security application and it can reprogram the data at any time by dynamically adjusting the network-wide traffic flow to meet changing needs. Big data is the most important feature in SDN which is more useful in delivering the network with high speed. Bringing the big data with SDN is non-trivial challenge. Both VMware and Citrix were the technologies used. For management related applications the hadoop technique here traditional data network were dedicated with the applications like switch, router and application delivery controller which

enhances the functionality of dedicated controller of a hardware for various application features, which is known ASIC (Application Specific Integrated Circuit) with a specialized feature.

A generalization model has high bandwidth for today's application where large number of service providers provides special functionality like quality of service and security. To communicate between each applications from one to another the switching technique to configure. For traditional networking the control plane on each step to configure then the functionality of usage of mappings for the application where it stores all the information in data stores and flow entry for controller. The technique has open flow protocol for communication. SDN can also be defined by open networking concept. In this physical layer is used to forward the panel. Control panel for controlling all the devices where data couples are decoupled and logically centralized in network layer.

The main feature is they adapt to change their basic needs according to requirements which mainly provides on infrastructure layer, data link layer and application layer. SDN controllers maintain a global view of the network where they don't want to use thousands of protocols instead the SDN technique with high-latency and bandwidth properties are generated. This open flow standard has some limitation in areas like management, monitoring, data forwarding, servicing the data administration which includes the concept of distributed control and data packet which specializes the direct programmable, is controlled by network. In agile it adjust network for wide traffic flow to meet changing needs in the software. SDN controller is to maintain the whole global view of the network.

The problem is based on the functionality like configure secure, manage, configure, and optimize the network in speed. The automated SDN program can write them. In other open standards based on vendor neutral instruction are provided by SDN controller. Servers change the network with the traffic pattern, they push the access to corporate with the application layer. From Layer can connect from anywhere at any time. Many enterprise of data manager includes a private cloud; public cloud which results in additional traffic for direct connection. The raise of private cloud forms an additional network in SDN DEPLOYMENT MODEL. The flow table checks the flow of data packets in the receiver and transmits the signal. The reactive mode has a rule to create and install in flow table. To check for traffic matches and compares

with typical routing table. All static entries are installed in time and a great advantage of reactive mode is to build the multi scalable efficiency in between the infrastructure layer and network layer. It allows creating automation to build network services to run at high-density. Ethernet (10GbE) or Ethernet (40GbE) is an open standard flow. The application infrastructure policy implements the application layer for better residue networks and permit from one single network to manage thousands of ports which applies network segments for specific applications policies and networking services. As well as it provides open device package network hardware to support the network management.

Virtualization has conceptual explanation on application server but it is not beyond inter WAN and inter cloud connectivity. They use IP network for peer routers through VPN to network overlays and control multiple domains. A solution given here is by multiple connections transmission so that our speed will have high efficiency in main data center. A single data transmission has poor range. SDN Ethernet cannot describe about the VPN connections. The functions of big data have high range capacity so that more connections can be used for servers. The thousands of server is connected from one main server, so by doing this we can avoid traffic signals when comparing with the integrated network for higher signals the framework is in multiple processing. In physical and infrastructure layer we use virtualization strategy, due to lack of necessity and eliminate the unnecessary signals for better traffic flow in 5th generation which has the ability for capacity to reduce the cost effective also so that many can use this but still there will be less traffic signals at the same time but easily deploys the flow of signals to make it more rapid. Due to this efficiency of open control flow signals concept enables a network application for dynamic request with more security options as well as usage of cloud storage capacity. It enables the reduction of storage complexity at the sametime.

Usage of switching concept for numerous of multiple transmissions have evaluated but it cannot be done in data plane because of pure SDN switch but it can run in the central controller. To be more specific, open flow infrastructure is mainly concentrated in infrastructure layer and virtualized circuits which behaves and enables the communication in which the control layer and the infrastructure layer is dependent in that process. Protocols that can enable this communications include Open Flow, for the extensible messaging and protocols of the network with the configuration protocol when it needs to get communicated between the control layer and the application layer. There is no protocol used currently for better efficiency and highlatency.

II. RELATEDWORKS

A) *IT Technology in wirelessnetwork:*

Variety of signals should support all the topologies with better enhancement in traffic flow signals and also the requirements of the data and services of the data with the help of multi transmissions and some of the algorithms so that reductions will be avoided.[3].Most of the IT technologies use the cloud network but it is not practiced in most of the companies because still is on processing.[4] And in many of the companies in the telecommunication industry they are

practiced to increase the offloading delay and energy consumption. At the same time in network enables the storage of all the data.[8] Based on the demanding algorithm for both large and small scale networks and consistent work experience we divide the large elements into small

modules so that the work can be done parallel.[12] In hierarchical network, the flow of the data is scalable and also flexible which is an end-to end peer process on lower layer. In 3G and 4G requires more efforts and requirements for betterment of flow signal. [11]

B) *Logical function orientednetwork:*

The problem in logical is used for the arrangement of layers and for better communication process from one to another multiple topology in logical layer where the usage for transmission is at the data of physical layer.[13] But the access of the shared media avoids the traffic management at the same time. Collision will be avoided because of the usage of Ethernet with a known protocol to access the layertechnology.[4]

C) *General wirelessnetwork:*

The explanation in physical layer is the usage of token topology where packets are sent for the data to be transmitted and received [7]. The main advantage is packets can be returned to their destination paths [9]. There will be some collision so that delay can be occurred hence many of technologies are not practiced which can be implemented in future works[9].

D) *Mobile networkfeatures:*

This method explains about the future for better enhancement hence there will be a communication between machine-to-machine and machine-to-human from anywhere of the buildings so that the efficiency will robust and security will have high-latency with the ability of having denser range in radio-spectrum and capacity of energy will be minimal[20]. When there will be same device the modest will be fast but when there is different device the rage will be in between 6 Hz-100 Hz frequencies. In existing wireless technologies, including 4G LTE and has some other applications too and they will be extended by deploying it in new frequency bands and it improves the integration of the capacity.[22] More new radio techniques and signaling protocols can be improved by implementing morealgorithms[23].

High frequencies can be given in rural-areas and low frequencies in buildings so that signals can be maintained where as in campus hubs and logical topology will have range of 6Gz hence in most of the public networks it can be divided into two types where high frequencies *have* centimeter wave band and low frequencies will have millimeter wave band so that GSM model can be more efficient and the capacity of throughput.[15] Coordinated Multipoint (COMP) is a best feature to improve the 5G technology and improve the performance with network utilization. An example is frequency Division Duplex (FDD) which is used to implement in Time Division duplex (TDD) where it can also enable the signal connection in multiple area which regulate the inferior propagation caused by lower frequencies when they are compared with dispersion of paths andlatency.[19]

E) *Wireless NetworkVirtualization:*

Wireless network is storage virtualization networks

which allow the network optimization to transfer the rates, security, and reliability. All the network of server and services are connected to one path of the resources which is used without a physical component.[29] This network virtualization is useful for the network which experience a rapid, large and unpredictable increase in usage of the network and it involves in dividing a required available multipath into the individual channels which are already assigned in the packets. Hence for real time application, is used to separate the server or network device.[5] Software and the hardware vendors combine to offer external or internal network virtualization. The physical resources in cellular gateway includes the spread spectrum resources and they are efficient in infrastructure where they can be proposed easily resources, include the radio access network (RANs), core network and transfer network. They are two logical roles in virtualization are mobile network operation (MNO) and service provider (SP).[3]

Mobile network operation is a telecommunication service that provides wireless voice and data communication for mobile user.[30] Mobile network operation is also known as carrier service providers, mobile phone operator since they create a network of high end telecommunication device.[25] Mobile network operators have a number of base stations, in mobile they use a circuit -like chip in their cell phone to access the network which has extra feature to provide a voice dialing and receiving capability.[22] Mobile network operation also provide data communication through text messages and also they provide video communication[11]. To provide more connections we use some of the parameters like:

SP have collision which will be concentrating on providing the services by telephone, such as toll free numbers, they buy the services of the telephone supplier to do the services and they deal with the call itself. [17] INP are responsible for spectrum infrastructure resources and physical radio resources with the physical radio resources which does not require InP's [28]. The InP does not have RAN, spectrum. It can provide backhaul network service. [20]

III. RESEARCH ACTIVITIES

There have been implemented many research activities for developing the performance in 5G technology for its efficiency and bandwidth. The new architecture is SDN which is more agile with a standardized protocol called ONF. They have three layers in SDN which can be accessed by API's that is application programming interfaces where they can be used to communicate easily between thousands of server with logically centralized functions. In 2012 they formed the European telecommunication standard institute for the development of network functionality virtualized industries specification for high level automation.

In addition they provide MANO with more testing and behaviors. Virtual network functionality is used for monitor, update and terminate options. Besides they have packet switching process which is an end-to-end framework and forward path configuration is used. 5G air interface uses a METIS flagship with the help of mobile network operators with the concept called The Next Generation Mobile Networks (NGMN) which is an open forum to produce MANO functions. With the modular architecture, infrastructure layer is used where

the networks of mobile will be fixed with a converged network nodes and compromises the access nodes and cloud nodes. Here big data is implemented for cloud storage so that operators like enterprise verticals and associated links are used and the first scenario is sent and a chain of the modular network behavior assigns the

performance of the data. And finally they are mapped together and sent to the destination path.

[8]

In big data analytics for 5G the most common challenges are long-term trends, short-term trends and seasonal trends. High quality of network capacity, coverage, and the number of nodes. To be placed with the node-drones or mobile BTS operator deploys a 5G technology where changes are to be made in copper. Besides we cannot deal with such a massive volume, velocity, and variety of data. For example in general the analytic of the range of bandwidth we keep the monitoring operator with a higher degree of precision. The reason for using the big data is storing since don't want to check on daily basics where it can be checked once or twice of a month since absorption is done smoothly without compromising customers' experience.

To satisfy the use of relevant locations for the antenna which synchronizes the SDN because it make decision about the traffic which is to be sent and which needs to do the corresponding operations. These are done in application layer which allows us to use our own applications in network service workloads. The method is top-down approach and have less jitter which achieves high managing throughput and about the usage of advanced priority packet which has more dynamic in this environment so that triggers for state-driven can be changed accordingly. When there is high risk of congestion networks should be managed dynamically and new paths can be created with the priorities by packet forward switching concepts. Problems are identified by specifying the growth of demand for specific pieces of content. And it determines the appropriate BTS for cache and the relevant data. It can obtain a new revenue streams by recommending the system to retailers about the facilities targeted specific location cellular and social networks.

IV. SYSTEM MODELING

The basic resource have the beam division multiple access with the establishment innovation of centre at survey in multidisciplinary in the fields of computer science and medical fields. The main aim is to develop the virtualization basics of wireless and in the fields of industries too in the wave of millimetre frequencies in multi gigabit per second. METIS is driven by telecommunication with wireless communication with the speed of 1,000 and they use the additional feature of LTE deployment concept with the green 5G model, where green 5G provides more energy efficiency, sustainability and affordability. From physical layer, network layer and MAC layer they have done a project in IMDEA network based where they provide as much of service with flexible centre through open IT platform on cloud infrastructure with a design of networking and software solutions of very dense and heterogeneous for centralized processing with multiple dimensions (SDN/OPN). Hence in ad-hoc we can do the work by itself. It will not depend on any another so it can adjust

the traffic signals because we have given connection to BTS with the booster carrier of Pico-cell in (MANO/BSC).

MVNO will be providing the mobile services but they do not offer the required range of frequency packets of allocated signals to the proper radio spectrum. MVNO is equal to switchless connection resellers where they use traditional landline telephone market for proper connection in wired networks. MVNO is an entity that work independently of the mobile network operators can set their own pricing structures agreed with MVNO. They use X-as-a -service in cloud computing, IaaS is provided in INP and Naas is provided in MVNO. Moreover SAAS is also provided in SPs. MVNO which provides great useful to mobile services are not dependent to anyservices.

Fig:1 Architecture diagram.

In Fig:1 the architecture explanation speeds the connectivity and gives the connection to multiple broadbands and services. The cyber-physical system will enable the merging of radio-access network. For dynamic capacity decreases the energy consumption when we increase the resource utilization of network customizability, ensure stringent security and provide API-driven concept with growth of over-the-top innovation in mobile ecosystem. GSM is a digital cellular so we use in 5G technology for betterment of transmission of data. The technique used here is FDD and TDD and TDMA which is used in interfacing of all the network systems where the main function of operators are mainly controlled by GSM the main systems of the hardware are deployed and used with greater ensure which is mainly connected with the NSS and BSS where BSS plays a major role in controlling the traffic signals and avoids the collision and effective in cost-operation. The reason of using GSM has the ability in sharing the spectrum.

The 5G technology of the Inter Digital is forecasted by the expectation, besides blazingly faster data rates for real world technology into an end-to-end globally functions which has very high speed with users to devices with million numbers of network. In 5th generation 802.11 ac Giga bits and it will have enhanced battery consuming power compared to other generations. Nowadays we use many technologies but when we are using daily and it has been used by many people in day- to-day basis so there will be a great drawback of speed and energy consumptions and even there will be problem to store more data. So in order to reduce all these problems, we can frame a new solution by using the big data concept so that collision and usage can have more capacity. One more reason why we use fibre optics and twisted cable is for more energy sufficiency and it is an important aspect to connect in between the user and server application. The most key factor in 5G technology is to connect millions of people in one server which includes in many industrial fields and applications too even with more options giving timing schedules, remainders etc all these can be maintained only with the big data so we have implemented this with 5G technologies. Maximum peak is 150 Mbps to 10Gbps in wireless 5G media.

The low frequency of minimum peak is 100MHz to 3 GHz in MVNO. The most problem and drawback is usage of radio waves because it is harder to

transmit the frequency waves in large areas, buildings and stations to make it more easier we use SDN/ONF concept so that the frequency will be high than 1000 MHz where we use parallel flow of transmission in specific direction for the observed signal called MIMO (multiple-input multiple-output). Hence many of the companies need to improve their speed and technology since they started to have more algorithms which also enhance more connectivity. Connectivity is a key quench for huge technologies and they can demand the customer with the connectivity powers in accessing the network to start from user devices where they can send the data to a big data centre. The main parameters are used to verify the control of signals and checks the packets where the volume is defined about keeping the historical records that is in most of the industries there will be large collection of data's so to maintain all those we use volume.

Velocity is used to monitor all the sources if anything goes wrong it gives alarm sound or shows the error sometime it stops working but when we use parallel operations this can be controlled to one extent, an example for this is sensors where it can monitor continuously which is the important aspect for today's application and usage. Variety means usage of different scales in different operations where they differ accordingly to their operations and behavior. Variability is mostly used in increasing the speed and latency so that variety and volumes can also be increased simultaneously to check whether the operation is done properly or not. The final parameter is complexity where it is hard because it should adjust the data flows and important to link in between the capacity of all those behaviours and of all those structural operations. And finally all these operations are properly channelized by the layers of MAC layer, infrastructure layer etc. In fig:1 both CSMA/CD functions are used in multi paralleling of channels based on packet switching and the TTD/FDD method is implemented to make the traffic flow signals to be properly managed so that time divisions can be better for the collision and at the same time in the frequency division too because less in data loss. All these methods can maintain the signals to flow continuously without any problem in the efficiency of bandwidth and performance properties. In this we have used Frequency Division Duplex which will have two separate communication channels for sending and receiving operation. They use two twisted pair in the CAT5 cable.

The transmitter and the receiver does not interact each other because they have guard band .The guard band is placed between the station which have two symmetrical segments of spectrum for upper and lower links. Channel.FDD is used in cellular system and also in GSM system with the adequate spectrum where they separate the transmitter and receiver channel. In lower link they have 25-MHz band from 869 to 894 MHz .In upper link they have 25MHz from 824 to 849MHz. The disadvantage of FDD they are difficult in using multiple-input and collision is high.FDD works on cable to transmit and receive the channels separately. FDD is more widely used because of prior frequency spectrum and latest technology is used.FDD application is used to dominate the cellular business. FDD spectrum is more costly compared to TDD. The real time example is most cell-phone system use FDD. And other process is to implement the Time Division Duplex where we use single frequency band for transmitter and receiver. They

transmit the information through voice, video etc. each time slot have 1 byte. The time slot may be in variable length where as TDD system has alternating time slots where numbers are changed on their requirement.

A great advantage in TDD is they have single channel frequency spectrum that has the capability to synchronizes the transmitter and make sure that they do not overlap the time slot. Guard time is used between the time slots to prevent overlap so that the preference is given to the use of TDD now a day. TDD become more widely adopted as spectrum, they can be reallocated and repurposed. TDD has high speed to share the data quickly. Compared to FDD most of the usage is TDD. Real time example is wireless data transmission is used in TDD which will be using for the better performance and also says about TDD is explained clearly where the Base Station Controller has critical mobile network component that control one or more base transceiver station. Function for BSC includes radio network management. BSC work for mobile switching centre that is used with the external to BTS, have full capacity requirement. BSC service is a mediator between base station and MSC, used for mobile phone and other compatible devices such as land line or internet. BSC is used for handling the traffic measurement and hand over signals. Used in real world the best application is when they don't get a proper signal from BTS they use BSC will hand over the signal to another cell site to transmit power for mobile user which makes the energy capacity higher and also capacity of frequency and time domain throughput.

V. PROPOSED SYSTEM

The feature is to increase our spectrum edge and receive the maximum capacity in time frequency is OFDM (Orthogonal Frequency Division Multiple) with the LTE in the usage of data column, communication rate and delays can be avoided which makes our efficiency more speed for clear understandable our real-time examples like audio and video signaling. The general explanation is ,it takes time to buffer when traffics are more which will have less speed so to avoid we make them as smart grids in traffic for each transmission and to increase the speed more faster fast Fourier transform (FFT) and inverse FFT (IFFT) blocks since it provides the equalization in flexible for the usage and they support the sub-carrier adaptive modulation with the translated way in MIMO communications which has a advantage of cyclic prefix.

To make more channelized we use nyquist theorem which is used in time and frequency domains for making more flexibility in increasing the frequency exploiting white spaces with the bandwidth of cognitive radio networks. To make it more enhancements we use universal filtered multi-carrier (UFTM). Usage of filters will have the sub bands of basics frequency in MIMO side laps and the robustness of time and frequency will have more lateral capacities, which has the ability to short the length even in larger bandwidth. The most used application is long-burst communication which does not have zero padding with the improvement in spectrum frequency but more sensitive is in time compared with the frequency so the usage of guidelines should be acceptable in the limit with the additional application of inter-symbol interface. From the receiver frequency the

technology detection will have efficient in addressing the sub-symbols and carrier sub symbols since it divides the large modules into small independent modules and checks for Quality of service. The most future advancement is using the digital wireless network which addresses the lower broad band in day to day time challenges. The non-orthogonal access has a frame-structure in both the physical layer and high layer. Besides all these utilized the sparse code and code words because sparse code will be collected and finally they are used for mapping the data-symbols in multiple accesses with the low-complexity of adaptive resources in the rich literatures. In code words they have both systematic error detection and error-correction which has non-linear phase noise in both the decades of all the resources.

The 5G deployment will have both pros and cons in all. The alternative options will be deployed in sparse code words in non-linear phase noise. The wave network signals have efficient latency in large and high signals with the perfections of radio access. The wave form hinges on having larger capacity due to the trade-off, because they often prefer contradictory requirements. The most important factor which is more considerable for waveform design with the added feature of having the selection frequency and time domain. As the future of current trend is in 5G development because of well channelized at the same time there could be two different operating frequency for 5G system, which is below 6 GHz and above 6 GHz. Wave bands of spectrum radiation in radio access of both the spectrum code words. As each band will be employed for same and different deployment scenarios and enhancing with more OFDM and MIMO capacities and they would exhibit different propagation behaviors, 5G deployments the systems and could rely on more different waveforms for operation in the more than two bands. So by applying the OFDM concept we can achieve more features and enables the frequency signals, time signals, multiple carrier signals, CSMA/CD all these will be increased with spectral channels and also with all the sensitive information and independent of the frequency signals. These are the different parameters to enable the 5G technology.

The bandwidth is to channelize traffic free signals with the parameter of data rate per second bps to communicate the radio waves then the bandwidth will be transmitted with the nature of its medium and expressed in cycles per second whereas error rate can be detected by only 0 and 1 when 0 is transmitted and 1 is used for reception of transmission part the maximum bandwidth is 3100 HZ and capacity is 18,600bps but the transmission line will be limited. The connected graph has the velocity of summation of total values then of unconnected graph is represented by V so the summation is

$$\begin{aligned} \text{Connected graph } V &= (G, E) \\ \text{Unconnected graph } G &= (G_1, G_2, \dots, G_n) \\ \sum_{k=1}^n d_{ij} k \sum_{i=1}^n y_{ij} \sum_{j=1}^n v_{y,j} \text{Min} \\ \sum_{(x,y)} &= \dots + \\ y \sum_{j=1}^n k_{ij} \sum_{i=1}^n k &\leq j, \\ \sum x &\in \{0, 1\} \forall i, j, k \\ X(i, k) &\in \{0, 1\} \forall i, j, k \\ \sum v &= x(i, j, k) \forall \in G = y(i, j, k) \end{aligned}$$

It is calculated to find the better enhancement

than the previous works which has less collision in traffic signals by both the connected and unconnected. The strategy can be made to check the flow of signals more easily and traffic less since the decrement of the level will be noticed and that time it may redirect the files of traffic signals but the cost effective will be high for all the causes because it depends on both low-weight rules and high-weight rules. That time the variation will be more so it checks for SDN signals and then it may accept or deny the rules so the variation of all process depends on the criteria for the explanation about the enabling of CSMA and GSM features. Since there may be a change in the switching connectivity and forward packet path is used for better efficiency.

The energy and frequency consumption have the snap-shots to get increase in time spectrum. The flow of frequency in radio waves will have free-flowing but if any increase in more signals may affect the transition for some time and may change the time period. Then it is affected for some time until the free flow is channelized. At the same time it should check with all the behaviors mainly in functioning the signals from antenna and usage of Ethernet in the flash card. In the MAC layer, infrastructure layer and in logical layer all these layers are done in application layer for the advancement in 5G then the radiation will be high and speed compare to other layers. Besides routing concept selects the best path from server to destination which uses the packet switching which is done in logical layer which is included in all the technologies fields like electronic, IT sectors, telephone network and transportation network. If there is a problem in any of the path we switch to the technique called multiple routing so that it can alternate the paths for speed. We have both inter domain and intra domain of a SDN technique.

To represent more clearly and to check the error even we go for graphical mapping technique so that for future works it will be more useful. Then the usage for dynamic options have the problem where it can be sorted by its own but in static it is not the case we have to check each and every problem since we should monitor every minute that is the reason we switch dynamic routing to make our work more easier. At the same time there is an MTP protocol which is used to hide or change the key of a wanted or particular property of a system in network.

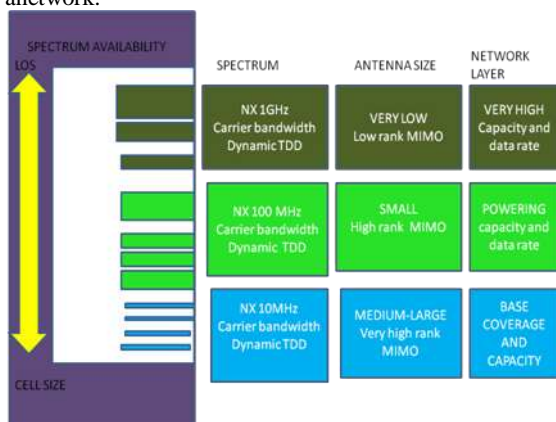


Fig:2 Expands about the availability of spectrum, antenna size and network.

From Fig:2 Expands the Spectrum Assets to Deliver Capacity and Experience Of 5g the changes can be made

in the behaviors of the process to adjust the signals in the transmission media in infrastructure layer. Signals is mainly used for transferring the media protocols that is to send any of the pictures or multi-media messages we can use this MTP so that it transfers speed enough and downloads faster since the advantage of using MTP is transferring of the music and video files too in the digital transmissions it makes the transfer function more portable and scalable since they allows parallelism operations too and additional feature is sending multiple images, videos etc where it allows to check again and the modification can be changed. By implementing all these efficiencies the 5G technology have more security operations and applications even which cannot be implemented this technique in traditional method with the service level.

The traffic flows can be specialized and channelized accordingly. Due to this the avoidances of the difficulty is integrated for large frameworks. In 1G it is the first generation which has 1G NET is otherwise called as analog voice which was the first network introduced in 1970. Later they used wireless data service to laptop by connection through modem which is a basic model and a basic service where as the next application is 2G NETWORK they used GSM /CDMA .This generation refer to digital voice system introduced in the year of 1990. they replaced analog to CDMA or TDMA. In CDMA they used 2G, later they again introduce 2.5G net with the base of TDMA. 2.5G net is used in internet access and sending emails. In 3G network they use WCDMA/HSDPA. This refers to 1Mbps and more depended in 3g version. In this 3G they used GSM, CDMA, WCDMA. 3G have more speed to access net worldwide roaming global travel. The advanced feature is 4G network where they have high spectrum in LTE. This was introduced in 2011. which produce very high speed compare to 3G where as in 4G we use all latest application multimedia features for ease communications.

VI. EXPERIMENTAL EXPLANATION

The spectrum has the ratio frequency of the antenna size and network layer. The range of the flow is from higher to lower. In spectrum block is 1GHz carrier band dynamic in TDD, In antenna size they have low rank in MIMO .the frequency is 80GHz-20GHz. In network layer they have very high capacity and data rates. The frequency is 80GHz-20GHz. The range of frequency in 100MHz carrier band dynamic in TDD, in antenna size they have high range in MIMO, in network layer they have power capacity and data rate with the frequency from 15GHz -4GHz. The range of frequency in 10MHz carrier band dynamic in TDD, in antenna size they have medium to large range in MIMO. in network layer they have base coverage and capacity ,with the frequency from 3GHz-400MHz.

The speed of spectrum bandwidth should be in the range of between 40 MHz frequency and the range should have clear transition snapshots. The advanced feature is we use artificial intelligence(AI) to make it more graphical and mapping in high definitions form for that it should have advance wearable technology. We use massive distribution with multiple input and multiple output so that it helps to provide the energy efficiency and coverage everywhere and super low latency. It should have battery power to provide wide scale and

super high speed with high capacity and scalable. Main advantage is providing more security efficiency, innovation. Highly reliable and high portability for the users. Giga bytes speed, dense area in a short range. Beside all these the range should have high range bandwidth in wideband where we use maximum of frequencies to the SDN. At the same time in some situations, have photo detector range so that the wavelength will have 850nm capacity with the use of copper pairs compounded by QSFP+DAC cabling ranges. Hence the massive usage in sparse codewords.

VII. CONCLUSION

The concept of SDN with other techniques are more manageable and connectivity of the network activities for its efficiency. The open interfaces have service-application in between the SDN network and big data. Communication in between the ad-hoc and METIS flash card explores efficiency in bandwidth, the collision is reduced. Customers can have full satisfaction by using the SDN concept. The usage of big data can transmit the signals with higher throughput. FDD and TDD is significant with full duplex mode. Full duplex is analyzed with MAC protocol. MAC protocol increases the spread spectrum efficiency in 5G network. The power allocation and open interface enables a new revolution in wireless media.

The obtained results have proper signals in the MIMO servers. The open flow standard is extended to remote management for fast solution. The browsing speed is high in overall area. The development in 5G technology includes SDN, METIS flash card, MIMO and cloud computing based on infrastructure layer. It supports all the interactive features like voice, video and broadband services. Bidirectional have accurate statistics in SDN which offers high quality. The level of availability performance will be high, so it is not affected by any of the data rates to servers or clients. SDN redefines the current architecture and concept since it balances the behavior like flexibility, security and network protocols. The network caching speeds the data access in 5G media.

The above tabular column explains about the range of each technique which I have implemented in this area. So the MIMO use a concept called cyclic-prefix which has a sub-carrier modulation. In Inp we use photo detector for detecting and tracking the signals in traffic range area. In this when comparing GSM has the lowest wide range capability and less latency but when we

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