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Multiservice Delivery in Wireless Networks Management

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Abstract*:* A Wireless Sensor Network is a self-configuring set of connections of tiny sensor nodes communicate in the middle of themselves using radio signals, and deployed in measure to sense, observe and identify with the physical world.WSN provide a bridge between the real physical and virtual worlds. Allow the ability to observe the previously unobservable at a fine resolution over large spatiotemporal scales. A join that execute different than typical behavior (drop packets, scare routing system and save their assets by not ahead the other node packets) is identified as selfish node. The multiservice delivery between the source-destination pairs in distributed selfish wireless networks (SeWN), where selfish relay nodes (RN) expose their selfish behaviors. Research focus evaluating the trust of a node group and excluding selfish nodes for improving the network performance. In the network connectivity of selfish wireless networks (SeWNs) constituted by selfish nodes (SeNs). Source transfer the multi-service delivery to destination through Relay Node (RN). At the time of transfer, the selfish relay nodes expose their selfish behavior by doing dropping multiservice. In this environment, the network need to establish the connection between source and destination, for that source need to find the optimal path. Concept of Node selfishness management is constructed to manage the RN'sto manage the RN's node-selfishness information (NSI). It includes the degree of node-selfishness (DeNS), the degree of intrinsic selfishness (DeIS) and the degree of extrinsic selfishness (DeES). DeNs determines in terms of RN's historical behaviors, DeIS defines in terms of its available resources and finally DeES described by means of the employed incentive mechanism and the quality-of-service (QoS) requirements. Over the spread node-selfishness administration, a path collection criterion is considered to select the most reliable and through path in terms of RNs' DeISs precious by their accessible resources, and the optimal incentive are determined by the source to motivate forwarding multiservice of the RNs in the selected path. Simulation results show that this future model effectively manages the RNs' NSI, and the most select path selection and the optimal incentives are determined.

Key Words: *Selfish wireless networks, Relay Node, Quality of service, Multiservice Delivery, Telecommunication, End to End Service*

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I. INTRODUCTION

Today's mobile telecommunications service providers face strong competition to deliver new revenue-generating services to the market while decreasing related operational costs [1]. Mobile users are getting more demanding in their requirements for useful, personalized application offered at a reasonable price. Future service creation and delivery platforms as key network components are targeted to deliver more creative services and more quickly to a service provider's target market [6]. They support objectives for next-generation services, such as the ability to tailor services quickly and adaptable to individual customers and to provide an open platform for third-party service development [4]. Systems integrators are carrying together multiple SDP products of different vendors, combining the strengths of these different products, and ensuring to be in a standards based and open service-oriented environment [7].

Within 3rd Generation Mobile Networks, Internet-related concepts are being introduced more and more in the telecommunication environment. At the same time the industry is standardizing services and service enablers within the Open Mobile Alliance (OMA) [5]. OMA has defined a reference architecture called OSE that defines how basic services can be re-used and combined to integrate into new and advanced services. OMA's role is to create application level specifications for various services, uncertain to the basic network technology [8]. The missing part of the way to even more attractive new services is the glue that ties network and service enablers together and makes service creation easy and efficient. The Service Integration Environment (SIE) described in this thesis aims to provide an enabling technology for developing advanced applications for fixed and mobile networks [10].

Network technologies and services have changed through a virtuous circle of innovation. Service systems built by network operators offer business opportunities to third parties such as content providers, and they have contributed to the quick launch of new services [3]. This thesis will discuss the fundamental system to generate service revenue for network operators, or the SDP (service delivery platform).

Networks are now in a segment of evolution measured by the integration of IP (Internet protocol) technologies and the appearance of high speed mobile access technologies. The SDPs for this new location need to be advanced in

terms of the scope of networks and terminals they carry, the services they offer, and the business opportunities they provide [10]. This has led to consideration on what architectures should be adopted. The subsequent sectors discuss the Hitachi's involvement with SDPs for network operators and the hope outlook for this business [9].

SDPs for mobile network operators were first introduced about 2000, creating a new market that has rapidly extend to world major operators. The Japanese market pioneered the implementation of commercialized services by mobile network operators, with many new services appearing in front of equality initiatives such as the OMA (Open Mobile Alliance) [4]. These platforms provide an open environment that supports both various services and proven returns models. The length of with providing their subscribers with revenue generating services such as messaging, network operators have succeeded in providing an open business environment for many service providers so that they can increase as well as introduce new contented and services capably.

The service providers with simple service systems have been clever to offer monetized services to a large number of customers by using the charging and arrangement features furnished by network operators [7]. The network operators have improved their own revenue with fees for revenue collection for service providers and small package communications charges. In addition, prosperous smart contents and customers' acknowledgement of premium values attributable to global access are the reasons for the quick adoption of these business models in the mobile industry [1].

Hitachi is currently working on increasing SDPs in order to meet with the new requirements based on its expertise and incident in the SDP for mobile operators. User services will grow in speed and capacity to allow seamless use by users both of the fixed and mobile networks [3]. Since services are mounting to cover non-voice, voice, broadcast and network have power over applications, the junction of these services will in turn make new services.

The Hitachi Group has developed non-voice solutions, including service control platforms for bright home appliances, voice solutions using IP telephony and speech synthesis/recognition, broadcast solutions like video delivery platforms and image identification techniques, and network control solutions like VPN (virtual private network) control [2]. Hitachi will always work on further enhancements that will deliver revenue-generating solutions for network operators. These network services will be presented to service providers such as MVNOs with open application interfaces, and will work with various applications on the Internet.

As broadband services cause a great deal of content volume, the number of transactions through networks, together with machine-to-machine communication such as surveillance cameras will grow exponentially. As a result, performance supplies will become an order of magnitude higher than existing SDPs [2]. On the other hand, it is also anticipated that the ability to look into the content of communicating data, such as filtering and transfer functions will need to be further superior. Therefore, protocol processing which can be customized and is highly scalable shall be one of the key technologies to endure future SDPs.

Under these circumstances, Hitachi has residential and evolved a high-speed protocol engine called AWG (active web gateway). The improvements in feat of WAPGW (wireless application protocol gateway) that is developed with the technology [8]. At the present stage of development, the system is accomplished of processing 3,200 HTTP (hypertext transfer protocol) needs per second when it is run on a single blade server [3 GHz×2 CPUs (central processing units)].

The evolution of backbone networks will outcome in the interconnection of various access networks. Therefore, it is essential to have a secure validation platform to identify service users [5]. The GBA (generic bootstrapping architecture) standard of the 3GPP is a hopeful technology for extending the mobile SDP's scope of fixed and mobile joined services. A client function of the SIM (subscriber identity module) card in the mortal queries the HSS (home subscriber server) or other network operator database of key information via the BSF (bootstrap server function) server [7]. This provides an assemblage authentication method that is agnostic to the access network.

II. EXISTING SYSTEM

With the beginning of the ad hoc networks paradigm, novel security exposures arise. The classical mechanisms, namely authentication and encryption, for assuring security in adhoc networks seem to be inefficient in detecting incorrect forwarding attacks and denial of service problems. The existing mechanism suggested to enables routing protocols to detect packet dropping frauds. In fact, the nodes in the network monitor in dependently the behavior of each other, however, they need to collaborate to detect intruders and identify them. This mechanism allows only malicious packet dropping detection. It wouldn't envisage to discard malicious nodes and help in changing the routing path.

A) Demerits

- The existing system only detect the malicious packet drop but it couldn't tried to change the path of transmission.
- The system doesn't analysis the deep concept of selfish node.
- The loss of packet occur due to selfish behavior of the malicious node.

III. PROPOSED SYSTEM

During E2E multi-service delivery selfish relay nodes (RN) expose their selfish behaviors, i.e., forwarding or dropping multi-services in distributed SeWNs. In such distributed networks, consider RNs' available resources as their intrinsic factors, and both the service impact factors, i.e., the QoS requirements, and the factor of an employee incentive mechanism. Accordingly, the grade of intrinsic selfishness and the grade of extrinsic selfishness are defined as the influences of the intrinsic issues and the extrinsic issues on the node-selfishness, respectively, while the degree of node-selfishness (DeNS) exhibits the selfish behavior of forwarding multi-services. These DeIS, DeES and DeNS are all the RN's node-selfishness information (NSI). For the E2E multi-service delivery, the source and every RN should determine and maintain the information about its selfish behavior in terms of its intrinsic and extrinsic factors, and extract other RNs' NSI. According to those NSI, the source selects a unfailing and short path and maintains the reliability of this selected path by adjusting the incentives provided for exciting selfish RNs under an employee inducement mechanism.

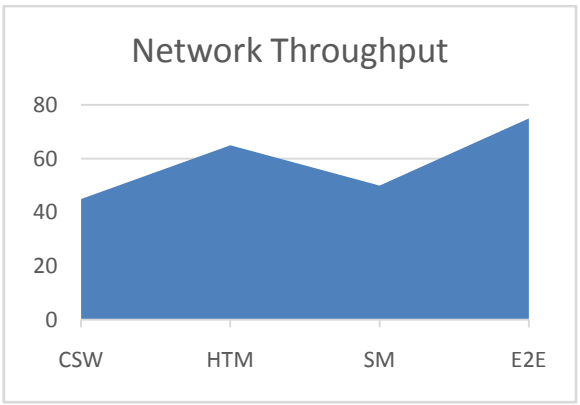
A) Merits

- The proposed method Improve the network security.
- It reduces the loss of pack by selecting optimal shortest path for multiservice delivery.
- The source should reduce the selection frequency and maintain the reliability of the selected path.

IV. EXPERIMENTAL RESULT

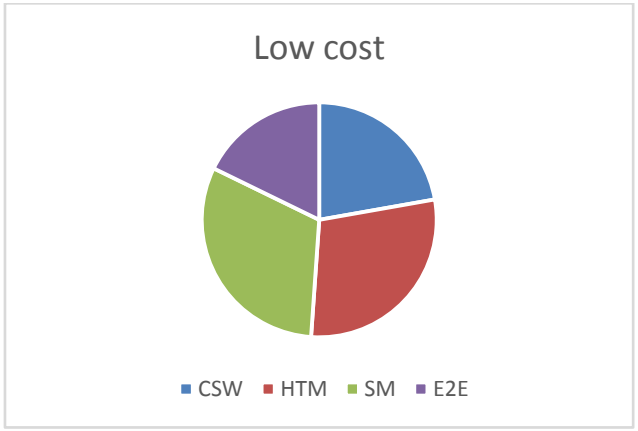
A) Network Throughput

In these experiments maximum throughput**.**CSW gives a result with throughput of 45%.HTM gives a result with throughput of 65%.SM gives a result with throughput of 50%.E2E gives a result with throughput of 75%.



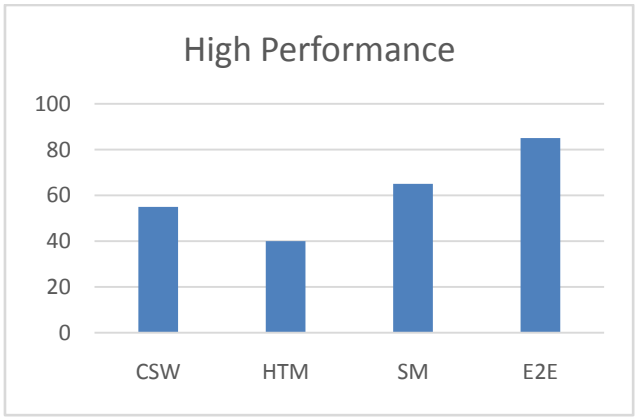
B) Cost

In these experiments describe cost rate**.**CSW gives a result with throughput of 50%.HTM gives a result with throughput of 65%.SM gives a result with throughput of 70%.E2E gives a result with throughput of 40%.



C) High Performance

In these experiments describe performance**.**CSW gives a result with throughput of 55%.HTM gives a result with throughput of 40%.SM gives a result with throughput of 65%.E2E gives a result with throughput of 85%.



V. CONCLUSION

Proposed system introduced the disseminated framework of the node-selfishness management, where each RN manages its Node Selfishness Information that is Intrinsic and Extrinsic information and other nodes' NSI and all source node manages the RNs' NSI in circulated SeWNs. In this support, the RN's models of intrinsic and extrinsic selfishness have been residential to manage its DeIS and DeES, and the other RNs' NSI has been obtained in terms of the RNs' past behaviors and their recommended NSI. Under this distributed framework of the node-selfishness administration, the path selection criterion has been planned to select the most reliable and shortest path for the multi-service delivery. Additionally, the best possible incentives have been adjusted by the source for maintaining the path dependability of the E2E multi-service delivery.

VI. FUTURE WORK

Future work of the proposed system has to improve the performance of the system, in the way of finding or improving path selection scheme. To improve the performances of the network include more factor to determine the selfish node. It may alter the incentive concept for relay node performance. But future work for this system is not a big deal.

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