A Conceptual Discussion on Implementation of Multiple "Local Internet and Local-Web" over Limited Radius-Zones Using Simple "Linux-Clustered Nodes", A Strong Free-Wifi and Social-Media Like Android/IOS Mobile Application Features

The internet is a global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices. It is a network of networks that consists of private, public, academic, business, and government networks of local to global scope. [1] The **World Wide Web** (**WWW**), commonly known as the **Web**, is an information system where documents and other web resources are identified by Uniform Resource Locators (URLs, such as https://example.com/), which may be interlinked by hyperlinks, and are accessible over the Internet. [2] However, the combined "Web and Internet" as we know today is dominated and manifested by "Search Engines" in general and by "Google" in particular. Armed with "Big Data Clustering" techniques from their infinite Database-Inventory and near-future AI-based catering of curated information, the Google controls, dictates and sets the narrative on filtered data and news-contents to be provided to terminal-end-users. To overcome such mammoth manipulation of human psychology and preferences, building parallel custom "Search-Engines" in global-scale alone will not suffice and it's important to overhaul the very concept and notion of "internet and web" as we know of today.

In recent years, there have been attempts to create decentralised internet helped by block-chain technology, to free the internet from the control of regulatory authorities and monopolistic tech giants. Fundamentally it wants to replace centralized intermediaries with a decentralized, peer-to-peer network of providers. However these projects face several hurdles, such as attracting enough users and service providers to make the network competitive with traditional services. Also misuse of anonymity for illegal purposes is a major threat in Block-Chain world. Lastly, blockchain networks depend on network-participants to run the software that keeps the system running. "If the monetary rewards for participation are not attractive enough to incentivize these contributions, participants may stop contributing their computational resources." [3] To create an alternative, we hereby propose creation of multiple "Local Internet and Local Web" maintained by institutions, government or private-players over the same locality or distributed localities, with individual data-centers may or may not be inter-connected to each other by optical-fibers.

Before we go into the technicalities, let us just briefly mention that "Social-Medias" or "Facebook" specifically today is kind of an intra-web within a web, controlled by centralized monitoring body. This is not only because of its' enormous volume of users, but also because of its' unique features like Internal "Pages" for products, individuals or organizations, which

mimics that of unique Web-Pages over the internet identified by Domain-Names, IP addresses or URLs. Exhaustive Application features like that of Facebook can give the same User-Experience to that of a "World-Wide Web over the Internet", analogically speaking.

Technical Explanation:

Let us consider three devices for e.g. (i) A personal Desktop representing a localhost from where a local server is run. A local server is run from that using say a XAMPP configuration, which is an abbreviation for cross-platform server-services like Apache, MySQL, PHP and Perl. Starting the Apache and MYSQL servers from XAMPP-Control will allow us to see local PHP or JavaScript based application in local browser, by setting the path of the concerned folder in the local browser. For e.g. file path - **127.0. 0.1/RootIn/index.php or localhost/ RootIn/index.php .** The MYSQL database is also hosted from the same desktop. Now the local desktop is provided with internet-connection via separate modem via mobile-hotspot, in this case being a (ii) J4 Galaxy Smart-Phone. Since both the J4 Galaxy and the Desktop are connected to the same network, the local-host application can be opened from the browser of the J4 Galaxy as well, by replacing the file path with that of the internal ip4 address of the desktop i.e. for e.g. ***9*.1*8.*3.9*/ RootIn/index.php** . And we can further Login, Register and do all file-operations of upload and download inside the "RootIn" Application inside the desktop from the J4 Galaxy client side. Now a (iii) third device a J2 Galaxy Smartphone (which incidentally doesn't even have a SIM Card) is availing Wifi from the J4 Galaxy as well. And because both the J2 and the Desktop is connected to the same network of J4 Galaxy, the J2 is also able to access the application and features from the Desktop local server via file-path ***9*.1*8.*3.9*/ RootIn/index.php** . What it implies is that if a local server from a Desktop or "Connected Node of CPUs" is hosted by a strong Wifi network and if other separate devices are connected to the same network, then the local server and its' consequent application features can be availed by browsers from the other devices or client-sides, without even inherent internet or even SIM connection on their part. Also separate browser type Android applications could be developed, where the client side devices can directly log-into the database of the localhost-computer, without needing to type the local ip or path of the application, whenever they are within concerned Wifi-Zone. This will allow Users or Clients to upload, download data, create profile and see other curated content available from the Local-Host database, like a local Social-Networking experience as well as that of a local search-engine with local contents. This in a nutshell is the structure of the proposed "Local Internet and Local-Web**".** What are the minimum required components? (i) A Linux Clustered Multiple CPUs or Nodes (10-20) acting together as a Poorman's Mainframe. (ii) A very Strong Free-Wifi …. Say Upto a Range of 500-1000 meters. (ii) And lastly, a Browser come Social-Media like Android application for Client-

Side interface. 2 aspects of this local-internet can be that there are scope for having similar multiple-internets and local-web in the same zone. This reduces the scope of monopoly of catering of contents by any single entity. Also similar such distributed local-internets can further be inter-connected via optical fibers say over intra-city or inter-city locations and gradually scaled-up as “interconnected, distributed, local-internet and local web.”

Where to Start Pilot-Projects:

One of the best places to start such a pilot project is a Major Mall area. As Malls usually provide free-Wifi, the next-logical step should be to create a “Local-Internet and Local Web”. Shops, Brands, Franchises can set-up their interactive Web-Pages and Product cataloguing inside the Local-Web. Visitors can be incentivized to download the Application, Create-their profile and offered promotions on digital-procurements via the application. Pool-Chat or Group Chat areas with Local-Hashtags can be generated, with audio-video interactive communication within the audience as “Talk to Strangers” facility. Promotional Screening of Movies or Net-Series can also be featured in such local-web areas. A Gradual increase in Zone-Radius of the Wifi further allows greater Client-Base as well as enrichment of the database with local recognized and unrecognized Retailers and Vendors and cataloguing of their products. Another place to start such pilot projects would be Public or Private University areas or Multiple Colleges under the Same Board-University, with data-centers connected via optical fibers. There are always scope for modification and further value-add features.

Thanks and Regards

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References

[1] https://en.wikipedia.org/wiki/Internet

[2] https://en.wikipedia.org/wiki/World_Wide_Web

[3] https://www.investopedia.com/tech/can-decentralized-blockchainbased-internet-become-reality/