In answer to the question It is our belief that the future of the Internet is based on content centric networking (CCN &/or NDN or COAST).

CCN is a methodology to develop the core Internet configuration to directly support data-centric and location independent communication services.

The Internet formed out of ARPANET (**Advanced Research Projects Agency Network**) in the 1960s It was never designed or even envisioned to deliver the plethora of modern services and content that it is being asked to deliver now. when it was originally designed at most it was designed to enable users to send email messages between hosts by comparison in 1981 there were 213 Arpanet Hosts Norman, Jeremy M (2004). Moving forward to now

With a current worldwide estimated population of 7.8 billion, approximately 4.93 billion people have access to and use the internet frequently. That means that **63.2% of the world population** uses the internet. Akamai (2018)

Along with the increase in volume and amount of internet traffic the content of the internet has changed from being composed of textual information to now being composed of

Type	**Percentage Traffic**
Video	57.7
Web	17
Gaming	7.8
Social Media	5.1
Content Market Places	4.6
File Sharing	2.8
Audio Streaming	1

Statista (2018)

CCN Networking was designed to address the modern needs of the internet and internet based content delivery services by

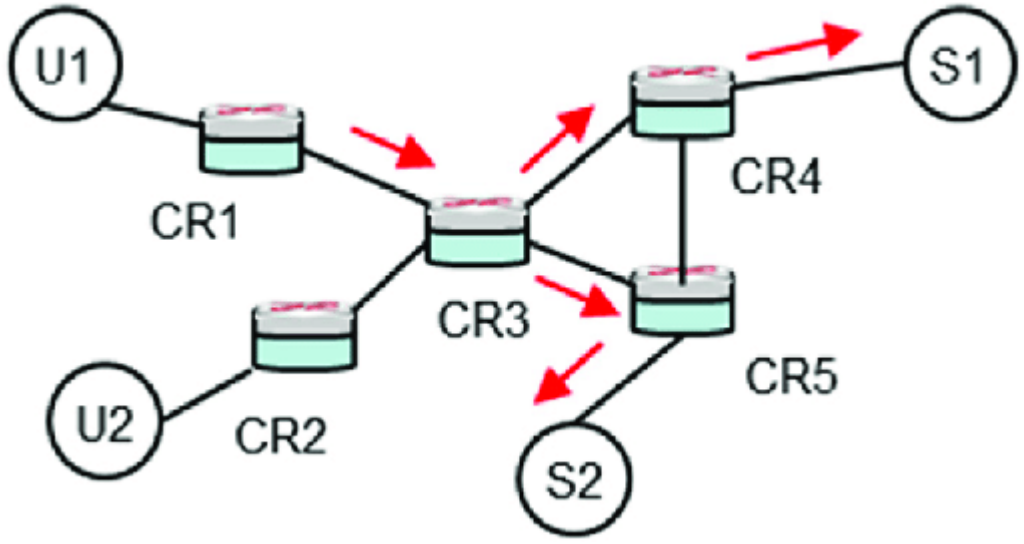
- Providing a High Level of security to the data in transit
- Allow for efficient data exchange
- Ability to scale (Vertical and Horizontal) to meet the demand of modern internet use

In the case of streaming media services such as Video streaming (Netflix, Amazon Video etc) or Audio Streaming (Spotify , Apple Music) content is multicast potentially to millions of users and in real time in this case a CCN would have some major advantages over the current infrastructure in use.

1. Security the CCN security is defined at the block data level and not on the connection between two or more hosts as in traditional TCP/IP networking making the connection highly secure which is important when dealing with media due to the Desire to protect content from unauthorised use.

2. Flexibility as a CCN uses names (NDN) rather than IPv4 or IPv6 IP addresses these names can be location independent and are more flexible than the traditional IP addresses.

3. Scalable the solution allows for caching, load balancing and has been designed from the ground up to cater for multicast traffic this can be seen by how content is routed through Content Routers (CR)



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