// HOW COULD A HACKER POSSIBLY CONTROL THE ENTIRE WORLD'S INTERNET?

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The global internet is interconnected through a combination of submarine fiber cables, terrestrial fiber backbone, and Internet Exchange Points (IXPs) as peering hubs between Autonomous Systems (AS).

Could a hacker control the entire world's internet by hacking satellites?
Not that easily! Although LEO satellite constellations like Starlink, OneWeb, and Amazon Kuiper have become mainstream infrastructure, satellite traffic still represents a minority share of total global internet traffic. So even compromising the entire satellite infrastructure would not be sufficient to control the world's internet.

Could a hacker control the entire world's internet by hacking ISPs?
Compromising just one or two ISPs? Definitely not!
But if a hacker successfully executes BGP hijacking — injecting fraudulent BGP prefixes into a large number of ISPs across multiple countries — they could intercept or blackhole a significant portion of global internet traffic. Even so, that still falls short of full control over the entire world's internet.

What about taking over authoritative DNS servers and DNS root servers across every country? That would be fairly significant — every connection that depends on DNS resolution could be manipulated. However, a far more impactful target would be large-scale public recursive resolvers such as 8.8.8.8 (Google) or 1.1.1.1 (Cloudflare), since the majority of devices worldwide rely on them.
It is worth noting that connections using hardcoded IPs would bypass DNS entirely and remain unaffected.

Even if all of the above vectors were combined simultaneously — mass BGP hijacking, DNS root server takeover, and physical compromise of submarine cable landing stations — complete control over the global internet would still be unattainable. The internet was architecturally designed to be resilient and decentralized since the ARPANET era, precisely to prevent any single point of failure or singular takeover.

//BAGAIMANA KIRA-KIRA HACKER BISA MENGONTROL INTERNET SELURUH DUNIA?

Jaringan internet seluruh dunia saling terhubung melalui kombinasi kabel fiber bawah laut (submarine cables), kabel fiber darat (terrestrial backbone), dan Internet Exchange Points (IXP) sebagai titik peering antar Autonomous System (AS).

Apakah hacker bisa mengontrol internet seluruh dunia dengan cara hack satelit?
Tidak semudah itu! Meskipun kini ada konstelasi satelit LEO seperti Starlink, OneWeb, dan Amazon Kuiper yang sudah masuk infrastruktur mainstream, porsi trafik satelit masih minoritas dibanding total trafik internet global. Jadi meng-hack seluruh infrastruktur satelit pun tidak cukup untuk mengontrol internet dunia.

Apakah hacker bisa mengontrol internet seluruh dunia dengan cara hack ISP?
Jika hanya satu atau dua ISP, jelas tidak!
Tapi jika hacker berhasil melakukan BGP hijacking — meng-inject prefix BGP palsu ke sejumlah besar ISP di berbagai negara — maka dia bisa melakukan intersepsi atau blackhole terhadap sebagian besar trafik internet global. Namun itu pun belum berarti menguasai internet seluruh dunia sepenuhnya.

Bagaimana jika melakukan takeover authoritative DNS server dan DNS root server di setiap negara? Lumayan signifikan — setiap koneksi yang bergantung pada resolusi DNS bisa dimanipulasi. Namun yang jauh lebih impactful adalah menguasai recursive resolver publik berskala besar seperti 8.8.8.8 (Google) atau 1.1.1.1 (Cloudflare), karena mayoritas perangkat di dunia menggunakannya. Perlu dicatat bahwa koneksi yang menggunakan hardcoded IP akan bypass DNS sepenuhnya dan tidak terpengaruh.

Bahkan jika semua vektor di atas dikombinasikan sekaligus — BGP hijacking massal, DNS root server takeover, dan kompromi fisik submarine cable landing stations — kontrol penuh atas internet global tetap tidak tercapai. Internet secara arsitektural memang dirancang resilient dan desentralisasi sejak era ARPANET, justru untuk mencegah satu titik kegagalan atau penguasaan tunggal.

Oops ! Tidak semudah itu ferguso !