

Why backbone in space



Hyper fast photon backbone

△ Backbone Data Point

◻ LEO Access Point

⋈ Earth client device

To design the future, I have to predict it.

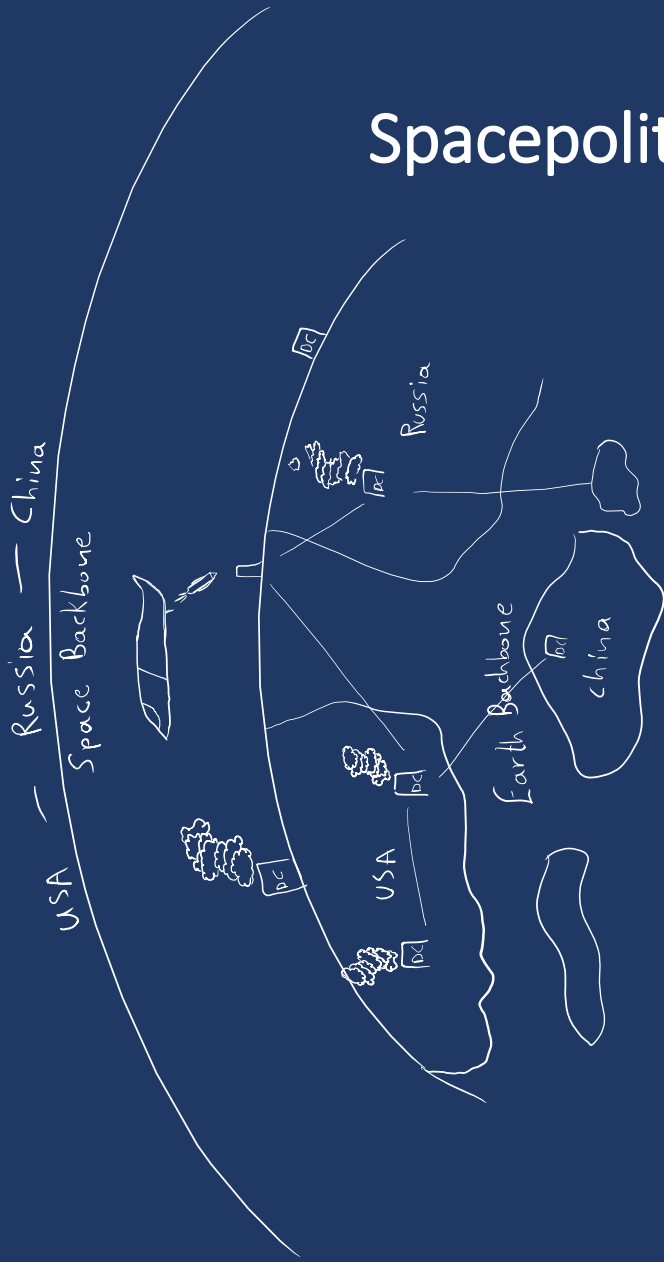
I am 15 years old. To take into action this project, it will take me another 15 years. So, how the near space will look like in 2040?

Now, the world is in the phase of the infrastructure development in space. Cargo goes to space full, and comes back to earth almost empty.

In 2040, a huge part of this infrastructure will be brought into play. Then cargo will go full and will come back full.

We might see high loaded traffic in space. I would say, that independent space communications in a short distance from space objects will be preferred because of financial, networking, stability, and why not political reasons too.

Spacepolitics seems more interesting than geopolitics



When taking decisions politics is antagonistic, and almost as powerful as economy.

All the wars that are happening and seem like getting out of control between great and major powers, do not seem to affect space and spacepolitics.

I assume, USA, Russia, and China will not trust even the greatest ally to Ground-mounted structure if they got the chance to have independent backbone, even if that requires to share it with the enemy.

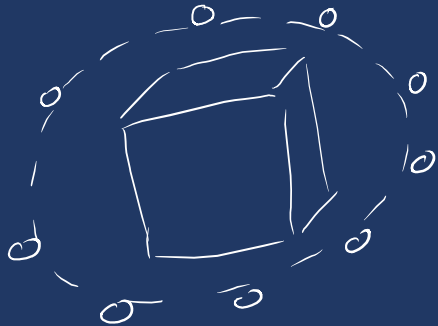
Watching USA and Russia have a common mission in space, I feel that Space-war will not be soon.

In order to succeed, I will use future's criteria

In the future, definitely new technologies for data communications will be invented and in use. Quantum computers work with light. We will not need UPSs, sockets, or electric current. We will have photons. Why we need nuclear plants or solar panels for energy production, when we have the main source of energy: the Sun, and photons.



To make the mission effective, human presence is avoided



Backbone hop (point)

produces energy, channels photons
and ensures functionality among modules

○ tiny modules (CPU, memory, storage)

modules define backbone's functionality
provides multithread and redundancy

— — — photon internal channel

In 2040, infrastructure will be built not by humans, but by algorithms. That means they are going to use modules. So, there will be spare modules as long as we standardize their interfaces. In this way, modules will be compatible for decades without being directly impacted by new technologies. Also, modules could be reprogrammed by themselves, and not only self-serviced, but self-created too.

Module infrastructures need direct communication.

Infrastructures will monitor data on Earth and in Space, evaluate the possible dangers, meet the final target, and execute automatic rearrangement with ultimate purpose the completion of their mission.