

Making Internet Accessible to All: It's Not Rocket Science

Peak Time preliminary round case, prepared by Strategy Labs



ALL INFORMATION, DATA
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AND MAY NOT BE USED OR
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PEAKTIME COMPETITION

Briefing

Business

- NewCo is a company that will provide high-speed connectivity to the Internet to organizations and communities that do not have such possibility due to unfavorable geographical location and too high costs preventing investments to install fiber in these areas.
- The business will operate a network of satellites, launched to an optimal altitude that maximizes coverage area that satellite signal covers, as well as minimizes broadband latency. Due to recent technological progress, such service will be provided at a very competitive price relative to less advanced other satellite networks.

Your task

- You are a team of external advisors to a socially-responsible investment fund that wants to invest into this idea and build a successful and sustainable business around.
- Your task is to prepare a business plan that will maximize NewCo's returns to investors. This plan will be presented in annual meeting with key investors.
- Because of the fund investment policy, everything that the NewCo will earn above ROI of 20% per year will be used to subsidize remote communities to get free Internet provided by the NewCo. Internet for disadvantaged communities!

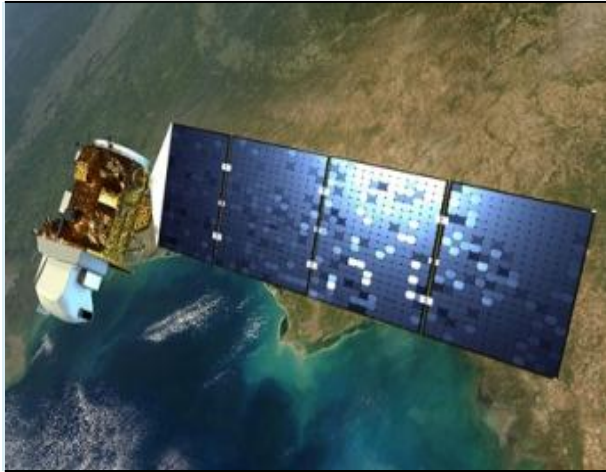
Key questions

- Which space port should be contracted to minimize launch costs?
- What is best client acquisition strategy that will maximize returns and optimally utilize capacity of satellite constellation: which clients should NewCo acquire and what is best timing to enter new market (within scope of 10 years you will analyze)?
- What are the key risks entering this market, and how should the NewCo mitigate them?

Your deliverables are expected to be sent in a form of .ppt presentation (max 4 slides: 1 cover, 1 assumptions, 1-2 results). They should contain: your business plan (10 year P&L, with ROI for investors calculated); answers to key questions; other explanations and supporting materials. Please EXPLICITLY state all relevant assumptions, and CLEARLY present your logic.

The NewCo will be expanding its satellite constellation and increasing data throughput capacity by launching new satellites to orbit every year

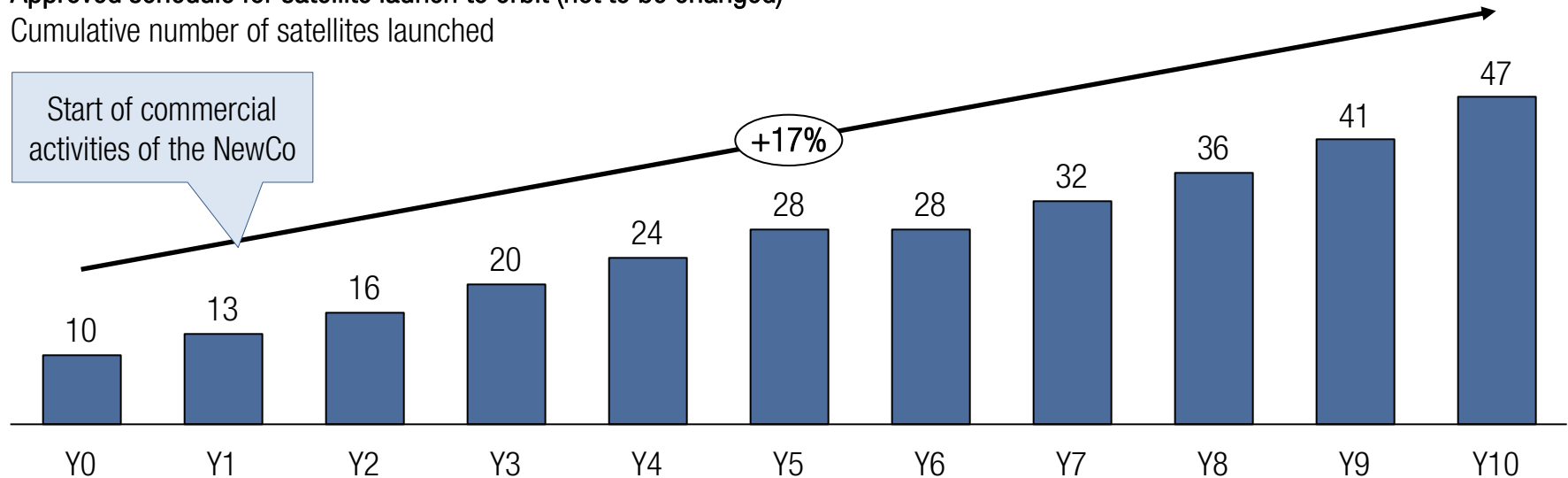
Technical specifications of satellites



- Building cost of 1 satellite – 1,5 M US; due to learning curve effects, building cost decreases 20% after producing more than 20 units.
- Satellite coverage radius: 1800 km; 1 satellite weight: 200 kg.
- Satellites will operate full year calendar year - 365 days.
- Total surface area covered by satellite constellation increases linearly with the number of satellites launched to orbit, individual coverage areas do not overlap.
- Maximum data transfer rate per satellite is 15 Gbps.
- System technical capacity allows to achieve 1 Gbps = 125 Mb/s.
- Effective data throughput – 90% of maximum capacity.
- Once new client is acquired, NewCo will work with him at least 10 years.

Approved schedule for satellite launch to orbit (not to be changed)

Cumulative number of satellites launched



The NewCo is looking at different contractors to sign a long term agreement (for 10 years) for launching satellites to rent launch pad and purchase rockets

- In order achieve little broadband latency (main advantage against higher orbit satellites), it is critical to launch satellites directly into orbit over equator.
- Different latitude has significant impact on the total distance to reach destination - satellite release point in orbit over equator.






- Launch rocket will carry only NewCo satellites (not to be combined with other cargo).
- Rocket fuel is the same for all rockets, price 15 USD / liter



Location	• South Africa	• Mexico	• China	• Indonesia
Estimated rocket flight distance to destination orbit over equator (km)	• 14 500 km	• 13 000 km	• 16 000 km	• 12 000 km
Launch rockets offered	• Adventurer II	• Speedy Gonzales	• Arrow 2	• Cool-o-sphere
Launch pad rent & cost of 1 rocket *	• 21 M USD	• 24 M USD	• 19 M USD	• 20 M USD
Fuel consumption to carry rocket body (liters / km)	• 355 L / km	• 390 L / km	• 365 L / km	• 370 L /km
Fuel consumption per additional 1 kg of cargo	• 0,4 L / km	• 0,45 L / km	• 0,35 L / km	• 0,4 L /km
Max fuel tank capacity (liters)	• 5,8 ML (mega liters)	• 7 ML	• 6,5 ML	• 6 ML

Note: * Any of the rockets presented have technical capacity to bring up to 10 satellites, limit to total weight of rocket & cargo (satellites)

There are 5 markets that the NewCo could potentially enter, yet it is important to maximize total revenues and optimize utilization of all satellite constellation

Potential service users	Market size (# of service buyers)	Probability to acquire a client	Minimum requested coverage of Earth *	AVG daily data usage per client	Pricing for data traffic	
Retail	 <ul style="list-style-type: none"> Maritime 	<ul style="list-style-type: none"> 180 thsd. 	<ul style="list-style-type: none"> 30% 	<ul style="list-style-type: none"> 50% 	<ul style="list-style-type: none"> 30 Gb 	<ul style="list-style-type: none"> Per usage: 0,1 USD / Mb
	 <ul style="list-style-type: none"> Offshore Energy 	<ul style="list-style-type: none"> 150 	<ul style="list-style-type: none"> 40% 	<ul style="list-style-type: none"> 25% 	<ul style="list-style-type: none"> 150 Gb 	<ul style="list-style-type: none"> Per usage: 0,1 USD / Mb
Wholesale (resale)	 <ul style="list-style-type: none"> Big Internet Companies 	<ul style="list-style-type: none"> 10 	<ul style="list-style-type: none"> 50% 	<ul style="list-style-type: none"> 50% 	<ul style="list-style-type: none"> 150 thsd. Gb 	<ul style="list-style-type: none"> Fixed: 135 M USD / month
	 <ul style="list-style-type: none"> Governments & International Agencies 	<ul style="list-style-type: none"> 80 	<ul style="list-style-type: none"> 20% 	<ul style="list-style-type: none"> 15% 	<ul style="list-style-type: none"> 25 thsd. Gb 	<ul style="list-style-type: none"> Fixed: 30 M USD / month
	 <ul style="list-style-type: none"> Trunking data for Mobile Operators to re-sell 	<ul style="list-style-type: none"> 180 	<ul style="list-style-type: none"> 30% 	<ul style="list-style-type: none"> 45% 	<ul style="list-style-type: none"> 50 thsd. Gb 	<ul style="list-style-type: none"> Fixed: 60 M USD / month

- Notes:
- *Per cent of total surface area of the Earth that is being covered by full constellation of satellites of the NewCo.
 - None of the markets are expected to grow in size in next 10 years

Other information that might be useful

- The NewCo will need to buy data that it will later re-sell through its satellite networks. The acquisition price has been agreed to be 0,027 USD / Mb, and will not change in the upcoming 10 years.
- Operations & Maintenance expenses make 30% of Gross Revenue.
- Sales & Marketing expenses make 15% of Gross Revenue.
- General, Administrative and HR expenses every year are estimated to be flat and to amount to 250 M USD.
- Other expenses are estimated to be 75 M USD per year.
- No capital expenses should be assumed.
- Income tax rate: 20% (no tax loss carry forward should be assumed).
- Initial investment into building up supporting infrastructure is estimated to be 400 M USD.
- Satellites depreciate linearly over 5 years; other assets depreciate linearly over 5 years.