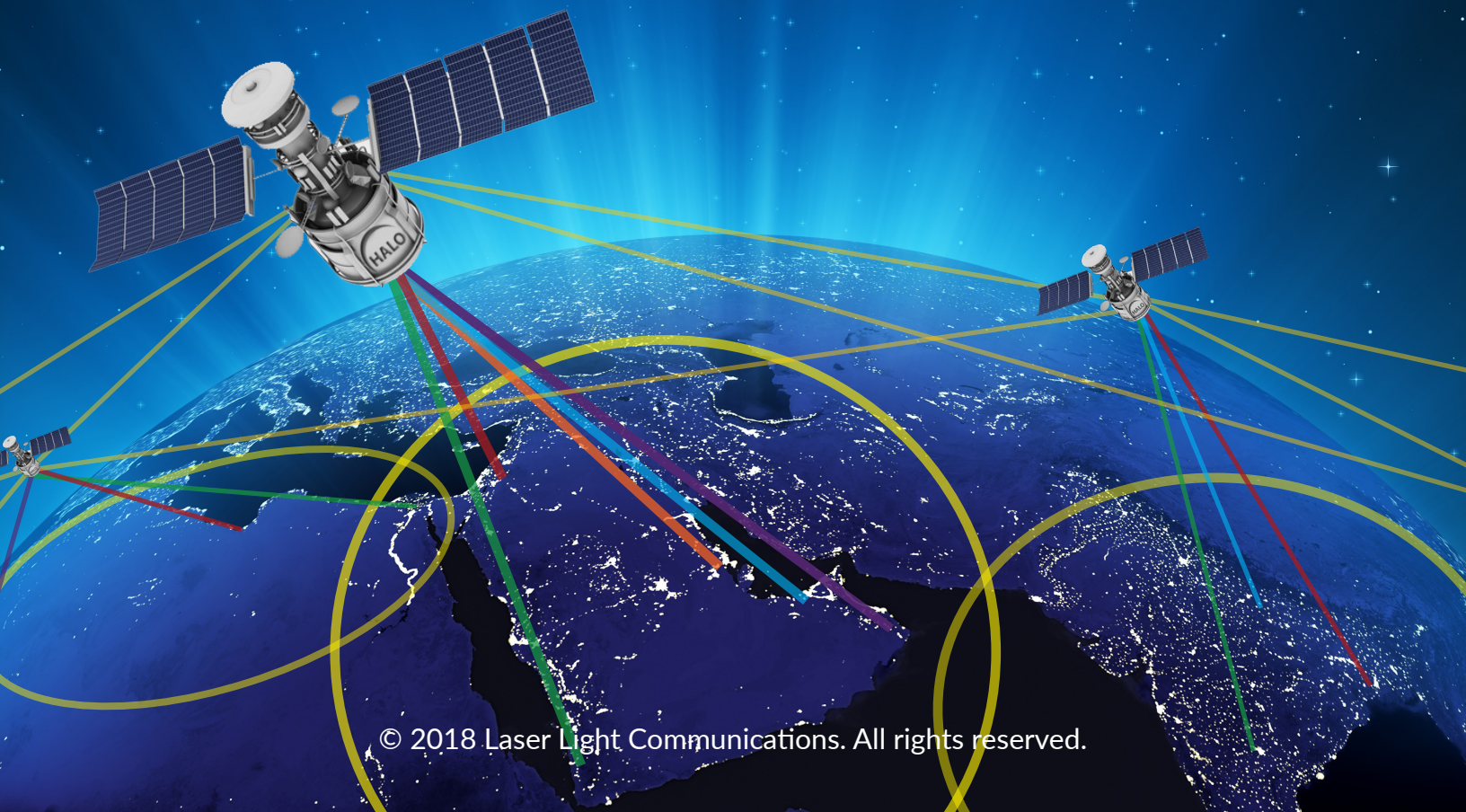
LASERLIGHT
the power of light®

Laser Light Global Limited

Executive Summary



A New Kind of Global Network
THE POWER OF LIGHT ®

An All-Optical Global Hybrid Network
Software-Defined, Secure & Efficient

The Power of Light® provides Connectivity without Boundaries™

Laser Light will fully deploy an All-Optical Hybrid Global Communications Network called HALO (High Articulation Laser Optics™) by FY2020. The ALL Optical MEO satellite constellation will connect with next-generation Software-Defined optical transport infrastructure at 100 initial customer locations around the world.

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CORPORATE OVERVIEW

Laser Light Global Limited (Laser Light) intends to be "First to Market" with the World's 1st All-Optical HALO Global Network System™. Laser Light's hybrid network design will converge infrastructure of a "global viewing" satellite constellation with the location diversity of existing undersea cable and terrestrial fiber networks. When meshed into a single, fully-interconnected platform, and managed by its patented StarBeam™ Operating System, HALO will have the operating efficiency of satellite, the throughput capacity of subsea cable and terrestrial fiber, and the scale and scope of an end-to-end global SDN & NFV network, capable of providing unmatched security, lower CAPEX/OPEX investment, and the flexibility to deliver state of the art products and services for its customers world-wide.

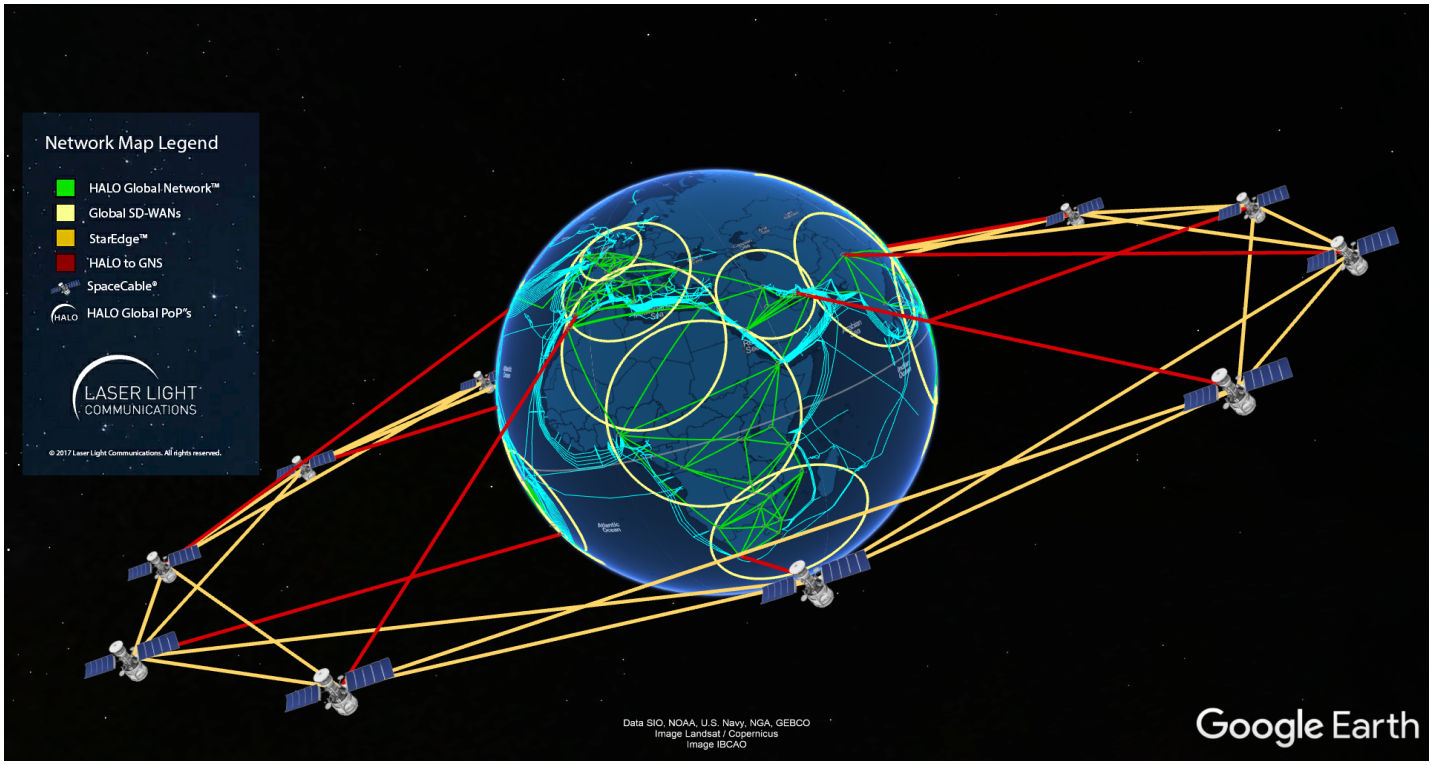
HALO GLOBAL NETWORK™ SUMMARY

The Laser Light HALO Global Network™ intends to offer its SpaceCable® products as a complimentary or alternative equivalent service option to existing legacy cable/fiber systems – a First for Satellite - via industry standard service level agreements with a full network capacity of +33 Tbps – 48 200Gbps inter-satellite cross links; and 72 customer service links of 200Gbps bi-directionally. HALO will be comprised of a global footprint with an all optical satellite constellation overhead; its proprietary Extended Ground Network System (XGNS) comprised of terrestrial fiber in coherent rings; serving an initial 100 Points of Presence (PoP's), spatial distributed within 20-25 SD-WAN's, strategically situated in high growth markets for bandwidth. HALO also brings to the high bandwidth market another 1st – a fully, autonomous network via its patented StarBeam™ operating system.

HALO GLOBAL NETWORK ADVANTAGE – Alternative Equivalent Optical Network

The HALO System will serve as a global alternative to existing terrestrial and submarine fiber networks. Global demand for content and data traffic is anticipated to double by 2020. Carriers are under increasing pressure from their customers – enterprises, OTT/Content providers; wireless providers; financial institutions; government - to respond to this demand with greater flexibility, lower cost, and greater security. Additional, global tier 1 carriers are considering adoption of Software-Defined Network technologies to achieve some of these goals. HALO addresses these specific customer expectations by deploying an efficient global, hybrid network, operating on an SDN, end-to-end platform, which will offer its customers a flexible geographically diverse footprint, lower OPEX, and government-grade security for their data management than any legacy fiber/cable networks.

The figure below depicts Laser Light's "high complexity" optical transport network autonomously routing traffic amongst HALO Ground Nodes located at various customer locations to one or more HALO System Satellites either directly, or indirectly via supporting XGNS fiber infrastructure.



THE HALO GLOBAL NETWORK SYSTEM – Operating Standards

The HALO Global Network System has been designed to ensure compatibility with industry standard optical communications technology. As an "all optical" service, the HALO System will rely on optical spectrum (196.5 THz; 1.525 - 1.565 um) rather than licensed radio frequency spectrum. Laser communications is currently outside the regulatory norms of the national and international Regulatory Agencies.

In addition, optical spectrum is an unlimited, unlicensed resource and its use does not present the licensing challenges or costs associated with the RF spectrum utilized by traditional satellite communications systems. The HALO System's utilization of industry standard optical equipment ensures a seamless service transition between its optical satellites and existing terrestrial fiber infrastructure whilst maintaining 99.999 percent system availability. The HALO System is software-defined capable to manage customer demands for data as they might increase, or decrease.

PROVEN TECHNOLOGY & BUSINESS MODEL

The origins of Laser Light's technology are from over 25 years of public and private investment – US and Global - in Free Space Optics, commonly referred to as laser communications. From Teledesic in the late 1990's; the US Department of Defense Program "TSAT", (Transformational Satellite) in 2005-2007; to recent international civil science successes in 2013-2015 with the LADEE-Laser Communications Demonstration Payload (NASA) and the EDRS demonstration payload – "SpaceDataHighway" (ESA), the evolution of laser communications has reached a point of reliability that makes it "market ready". Underscoring that fact are several ongoing laser communications projects – Government and Commercial, e.g. EDRS; Facebook; BridgeSat; Xenesis & Laser Light. Key differences between these efforts are their scale and scope; complexity; and underlying business models.

Laser Light's business model is based on a ***Hybrid*** network design which seeks to use the efficiency and CAPEX/OPEX advantage of laser communications deployed on satellite, providing a high bandwidth, global reach, whilst relying on the diverse and cost-effective local distribution advantage of terrestrial fiber. Interconnecting the World's 1st Optical Satellite System with local metro fiber infrastructure, for example, creates a balanced, mutually supporting optical network that can be truly disruptive in the economics of transporting large amounts of data over significant distances by ***overflying*** the OPEX costs and risks inherent in terrestrial networks, e.g. outages; security; congestion; political upheaval.

In sum, Laser Light' Business Model intends to re-invent the data transport delivery model in the same way subsea/terrestrial fiber networks, a generation ago, impacted copper networks.

DEVELOPMENT PROGRAM COMPLETE

Between 2013 – 2015, Laser Light conducted a global industry Request for Information (RFI) process and pre-qualified 24 US and European equipment vendors and integrators, all interested in providing the specific elements of the HALO System. The HALO network design is based on commercially available hardware (COTS) in the fields of optical communications and state of the art software-defined networking, avoiding expensive technology maturation expenses and minimizing overall technology risk. The key elements of the HALO Global Network have been awarded or in final negotiations – Ball Aerospace (Optical Satellite System); L3 Communications (Ground Node Systems); CloudSmartz (StarBeam OS). Laser Light has entered into a global interconnection agreement with Equinix ensuring market access via Equinix facilities world-wide. The Laser Light Program has been featured in numerous conferences since its announcement, including the Pacific Telecommunications Conference (PTC) in January 2014, where it presented its overall business and technology strategy, and again at PTC 2017, where it reported the conclusion of its development, and commencement of its financing and deployment schedule. In July 2017, it presented at NASA's Working Group Session for commercial laser communications interoperability and standards as a "High Complexity" next-generation optical system.

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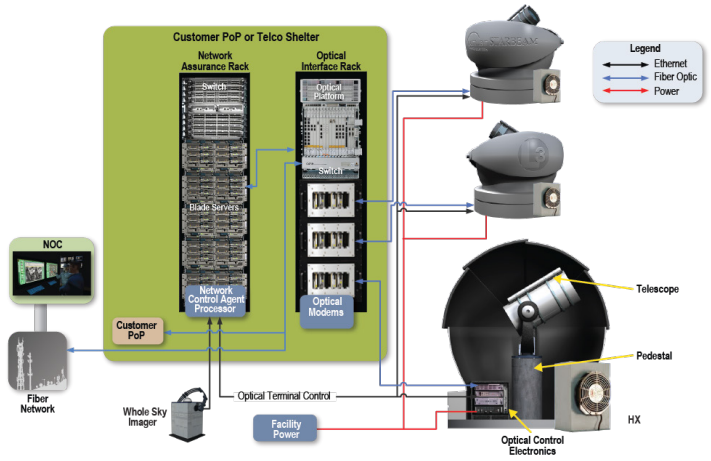
RESEARCH-BASED CUSTOMER PRIORITIES

The HALO System is capable of offering traditional carrier circuit solutions, but rather than adhering to the fixed circuits, fixed route models, HALO allows customers to purchase a Global Access Circuit; connecting any multiple points on the globe, via its “SpaceCable®” offering, at a firm fixed price, regardless of route or circuit size, amongst HALO’s 100 global PoP locations, as their demand dictates, without requiring a new contract; at a lower, blended rate; with “real-time” provisioning.



The diagram to the left depicts a HALO System Ground Node which can be situated on the roof or adjacent to a Customer PoP or Telco Shelter Location.

The HALO System, however, has a more disruptive impact in the transport of large data packets (+TB, +PB) globally, “On-Demand”, as a service, volume priced product only – customer self-provisioned via encrypted portal, for anytime delivery, Direct Connect to any of HALO’ 100 global PoP’s, situated at local data centers, CDN’s, or corporate campuses meshed within its 20+ SD-WAN’s.

GLOBAL BANDWIDTH CHALLENGES

- Off-Network charges from current suppliers
- Lengthy provisioning periods extending their service offerings into new markets
- Problematic “Build or Buy” decisions, until the new market potential is validated
- QoS, and network costs in terms of allocating bandwidth where their customers need it, when they need it, e.g. short-term demands driven by events, such as the Olympics, or disasters, with the ability to by-pass expensive routes, or bottlenecks, or outages
- Uncertain vulnerabilities to cyber hacking, undersea cable cuts
- Inherent costs for redundancy, resiliency and support from their existing network service providers.

THE HALO NETWORK ADVANTAGES

- No “Off-Net” charges across the entire HALO Network elements
- Once interconnected and registered, customer can self-provision their own service offering without requesting new circuits/market access
- Customer presence immediately established via HALO PoP’s in over 20+ SD-WAN’s, or independent PoP’s
- Short-term or long-term presence available via HALO PoP’s – existing or new edge markets.
- HALO optical service cannot be jammed, hacked, or cut whilst in-transit, and is insured accordingly
- Disaster recovery as a Service (“DRaaS”) is an inherent service, without additional cost, for HALO customers.

HALO Customer Market Opportunities

Regional Service Providers
Optical Satellite as a Service (OSaaS)

Enterprise Customers
On-Demand as a Service (ODaaS)

Security & End-to-End Control
Secure-Network as a Service (SNaaS)

Laser Light will be a strategic partner, supplier of bandwidth, and secure communications to service regional service providers, enterprise (data-centric) customers and provider of security and end-to-end control. These market opportunities allow customers to utilize Laser Lights HALO Global Network for Optical Satellite as a Service (OSaaS), On-Demand as a Service (ODaaS), an Secure-Network as a Service (SNaaS).

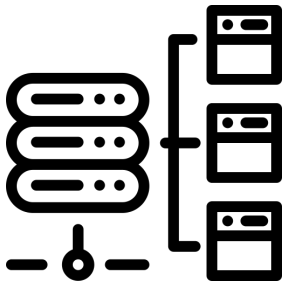
REGIONAL SERVICE PROVIDERS: Optical Satellite as a Service (OSaaS)

A small number of large European and US telecommunications companies have dominated the international bandwidth transportation industry of global undersea and fiber networks for decades.

Regional telecommunications companies and companies with international bandwidth needs – incoming and outgoing – must rely on these networks to deliver their traffic across oceans, continents, regions, countries and cities. The construction of terrestrial and undersea fiber backbone networks is extremely costly and when coupled with their high operating costs, including high tariffs, and data intrusion imposed by regulatory regimes in many countries as these fibers passes through their sovereign territory, routes are becoming more competitive, less secure/private, and capacity upgrades not yet economical.

Laser Light will be a strategic partner to these regional carriers, by means of interconnection and service agreements, to route their traffic to their customers from its Peering Points and PoP's, allowing them to extend their networks, globally, using the infinite reach of the HALO Network – at significantly lower cost, greater privacy & security, with more flexible provisioning. OSaaS is a global service priced pursuant to a flexible contract, for specific locations, on a blended rate, or preferably as a committed service, at a firm-fixed price, to any location, at any time, as the demands of the customer requires.

ENTERPRISE (DATA-CENTRIC) CUSTOMERS: On-Demand as a Service (ODaaS)



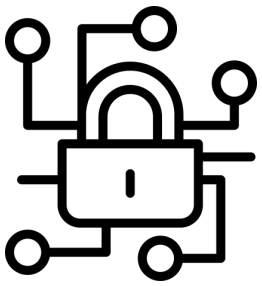
Enterprises – financial; large global corporate; OTT/Content providers - government, civil, or military; and wireless firms seeking anticipated large backhaul challenges stemming from 5G and IOT expansion are ideally suited for HALO' Direct Connect service, aka HALO Bandwidth ON Demand ("ODaaS").

ODaaS is intended for sophisticated companies with global delivery challenges which seek alternatives to long-term contracts for optical wave length or fiber-pairs. For example, upon registration as a HALO customer, it can self-provision the transport of its own data – on-site, or in the Cloud – via a secure web portal. Provisioning simply requires logging onto the customer-facing portal, entering the customer' registration code, select the destination for delivery of the data, time/date of transport, upload to data for delivery, and "initiate'.

Upon completion of the transport, customer will receive an email indicating successful delivery, latency, and a single price based on transport data volume, i.e. 1TB. No account rep required; no contract required. HALO's SDN & NFV platform allows this highly-efficient, secure service at a significant disruption to existing, and planned competitive services.

Laser Light will be a supplier for large, and medium-sized enterprises, interested in an alternative to the optical transport services they receive today, if not as a primary service provider, than as a complimentary provider to legacy carriers, but at significantly lower cost, greater privacy & security, with more flexible provisioning. ODaaS may be priced as a volume-based pricing service, without a contractual priority, or with a contract to ensure priority and preemption of others in favor of its service delivery.=, any time, as the demands of the customer requires.

SECURITY & END-TO-END CONTROL: Secure-Network as a Service (SNaaS)



As evidenced by the recent announcements of the construction of an undersea cable directly connecting the US and Europe; US and Africa; EU and Brazil, many groups - nations and corporations - are concerned with data security and the ability of "bad actors" to tap terrestrial/undersea fiber/cables to monitor traffic and harvest data. ***The HALO System cannot be jammed, or monitored, like traditional fiber networks, thus sales to governments and those institutions seeking greater security of their data is anticipated.***

HALO also overflies certain countries, and territories which may demand access to data in transit under transparency regulations. For example, HALO has tested marketed a Secure-Network as a Service offering ("SNaaS"), which could offer financial institutions an insured, secure network between a banking HQ's and its global banking subsidiaries. Through a roof installation of a HALO optical node at each subsidiary location, globally, the HQ can exchange highly confidential customer information to/from these subsidiaries on a totally secure network, overflying both regulatory reporting requirements and vulnerable fiber/cable infrastructure.

Laser Light will be a provider to these customers to whom privacy & security, and the integrity of their data in-transit is of paramount importance – media, content, financial, government entities. HALO can provide an encrypted 10Gbps – 100Gbps circuits, relying on COTS encryption; block-chain; and quantum optical key bit modulation. SNaaS may be priced as an access circuit, or volume-based service.

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