DIRECT INTERNET ACCESS PROJECT FOR NORTHERN CYPRUS

TESLA

GLOBAL CLOUD XCHANGE
a RELIANCE company

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OVERVIEW TO THE ISLAND

The surface area of the TRNC which is the third largest island of the Mediterranean is 3.355km2. The small size of the area increases the use of a number of technological capacities, such as population density and frequency fullness, allowing market players to easily develop strategies to cover the whole country. According to the reports of August 2017, the island hosted 1,500,000 tourists. Although these characteristics of the market are expected to contribute positively to the growth and product diversity of the electronic communications sector, the heavy bureaucratic processes has limited the growth of the broadband market. However, the need for electronic communication and internet access capacity grew exponentially.

THE PURPOSE OF THE PROJECT

The capacity of the Turkish Republic of Northern Cyprus to access the Global Internet network is now 75Gbit/Ps. This capacity does not meet the need and interruptions occur from time to time. The average line speed per person on the island is 1,5-2Mbit/Ps. The real internet speed capacity of North Cyprus is one twentieth of Turkey. Due to this problem for years, both end-users, foreign investors and local private sector organizations have been experiencing serious problems. The problem becomes enormous when central and substructure problems are added to the island's inadequate internet access speed problems.

DETAILS OF PROJECT

GLOBAL CLOUD XCHANGE NETWORK DIAGRAM WITH PERFORMANS BOUNDARY
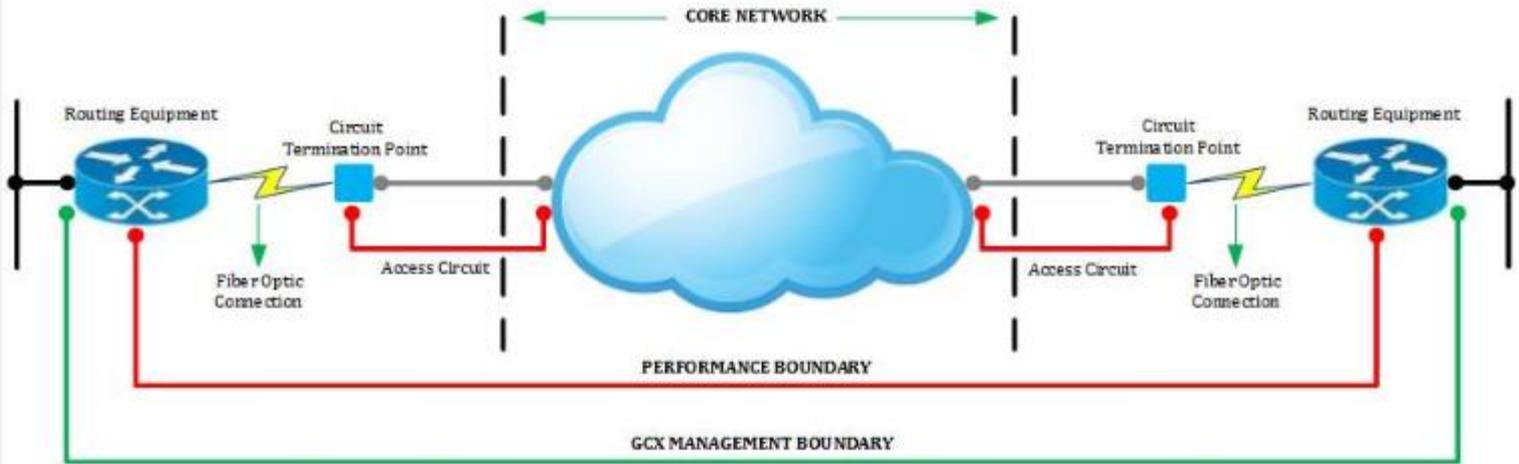
Global Cloud Xchange has set up its active network structure as Direct Internet Access by making international service agreements for high-speed, low-latency, direct backbone access and direct service to Tesla. Tesla is committed providing access networks and the active network structure and the entire device inventory on-site by only authorized personnel of GCX. In this way, GCX has guaranteed the route of communication and has shown that Tesla will provide the special service demanded by it. With this service provided by GCX, Tesla is able to provide a fully dedicated and dedicated internet access backbone service with 10Gbit/Ps speed in the Turkish Republic of Northern Cyprus. Tesla's internet access capacity can be upgraded to 100Gbit/Ps internet. The Turkish Republic of Northern Cyprus will soon become the new technology base of the region and will have new investment opportunities in tourism, finance, health, education, communication and other fields. This special backbone created by Direct Internet Access is installed between the Data and Communication Center of Tesla in Girne and the Frankfurt POP point of Global Cloud Xchange.
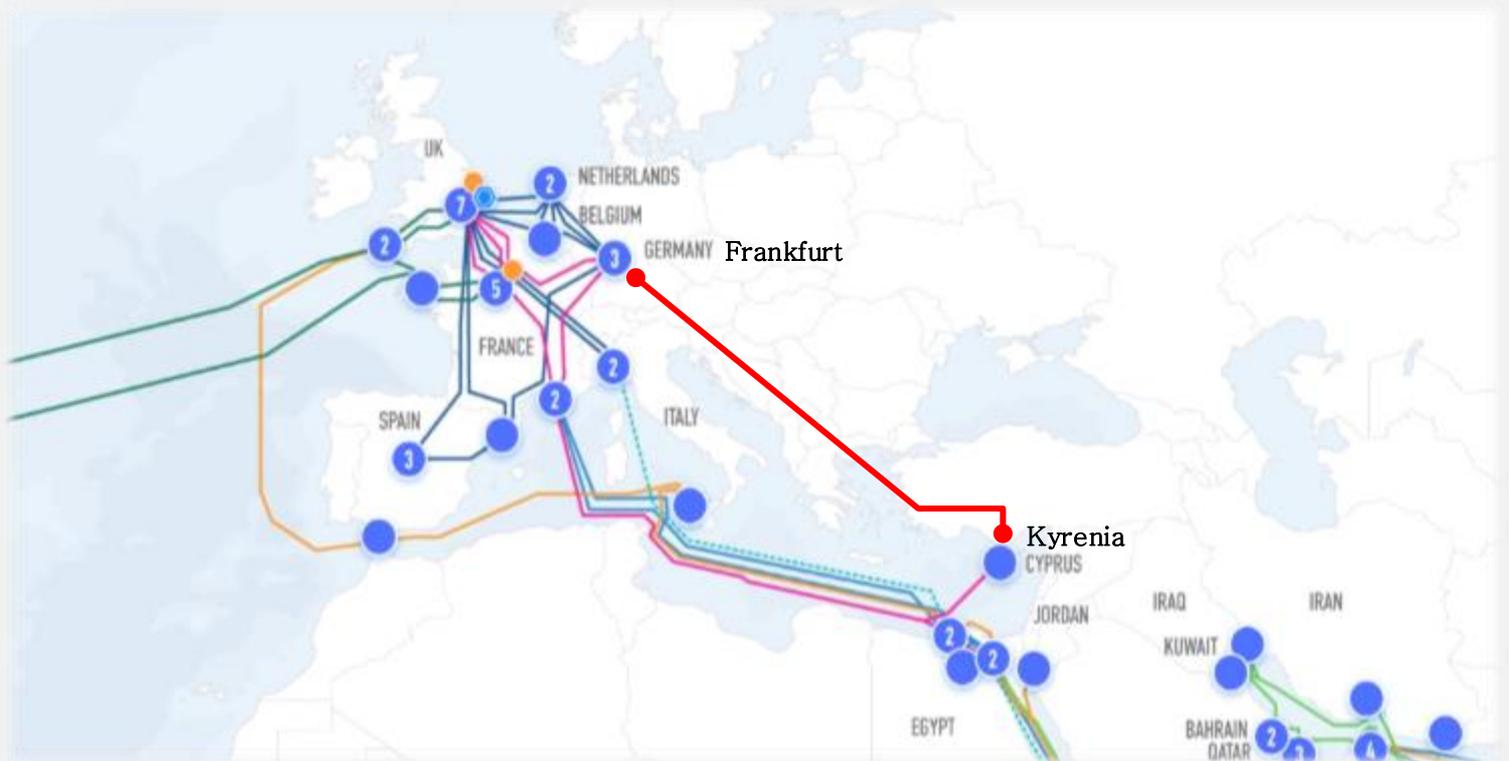
Tesla – GCX Network Diagram
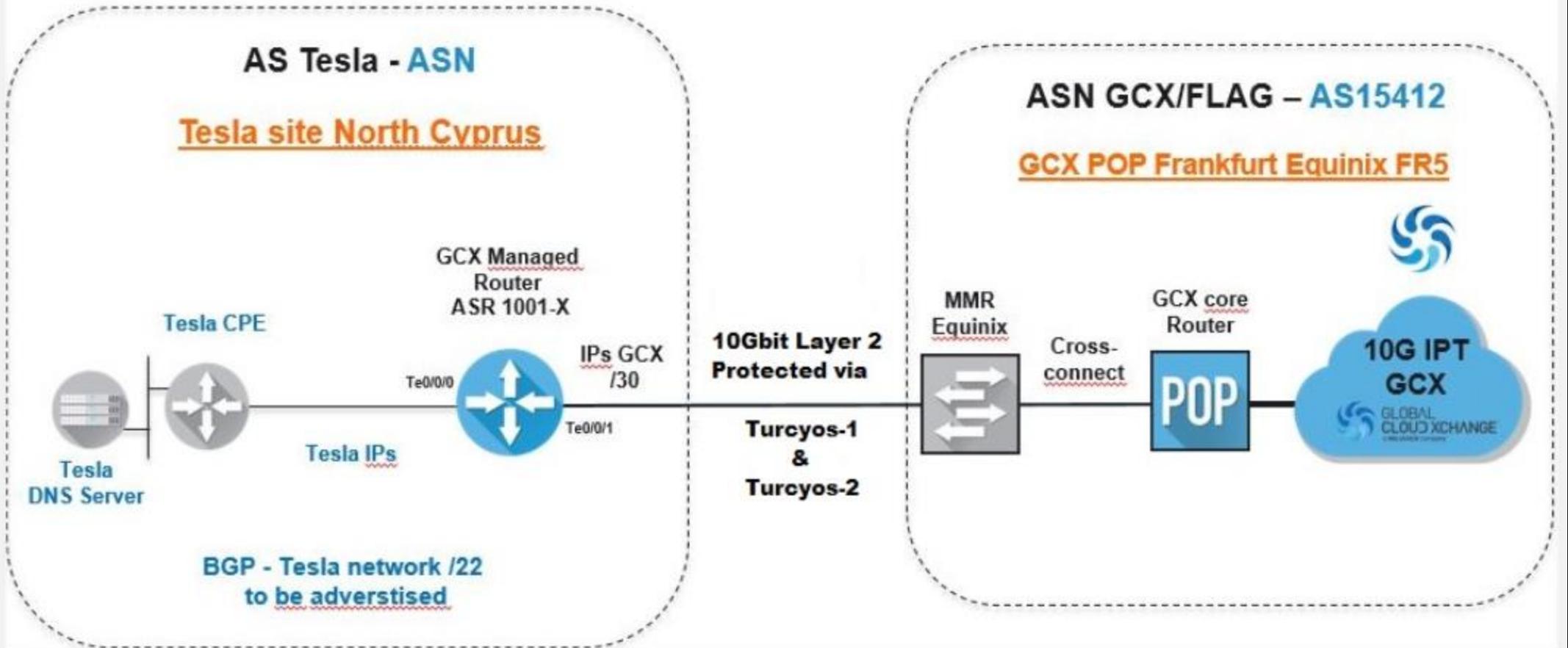
PROJECT START NOTIFICATION...

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TESLA

Engin DEMIRBORA

108 VADI CADDE

ISTANBUL, 34014

TURQUIE

Thursday, 24 May 2018

Dear Mister Demirbora,

We are pleased to announce the Tesla-GCX project has started.

We will provide 10 Gb Direct Internet Access managed by Global Cloud Xchange.

The maximum delivery time will be 12 weeks for the bandwidth and Cisco Class Operator router.

We will give you regular updates during the installation process.

We wish you all the best for your project and the development in the region.

Feel free to ask for any point.

Best regards,

Stephane Caumont
Managing Director Benelux, Scandinavia & France

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A Blok Kat:1 MicroOffice
34235 Esenler / Istanbul
TURKEY

Paris, March 21th, 2019

To: Selda Turgut & Engin Demirbora

Dear Selda, Dear Engin,

As sake of clarification, please note that, it is especially mentioned in the contract that Global Cloud Xchange provide a managed internet access, that means that Global Cloud Xchange purchase to a tier partner a Local Internet access and Global Cloud Xchange fully managed the routing equipment and the circuit.

Feel free to ask for any point.

Best regards,

Pierre Godard
Senior Sales Manager

BENEFITS OF THE PROJECT

Internet access traffic at all private sector, state and user levels will reach high speeds. Audio, Video and Data transfers will be safe, fast and uninterrupted.

The interest of local and foreign investors in the Northern Cyprus ecosystem will increase and the economy will grow.

Data and Communication security will reach to maximum level.

The world's leading data and content provider companies will be able to broadcast from North Cyprus, thus ensuring great financial strength and reliability.

Northern Cyprus may become a part of the global communication, thus reducing the cost of communication will increase the demand for services.

Data Storage and Electronic Communication services will provide data security and control and will eliminate the country's dependence on foreign countries and the problem of trust

Thanks to its large data storage capacity, it will be one of the preferences of international organizations and users.

Due to the fact that it will be an Internet Xchange Point, it will be preferred by communication organizations between countries.

Integration with scientific and academic communication systems will be provided.

Thanks to Data and Communication Centers, all services will be provided among the companies that use medium-sized information technology with storage space, equipment, hardware and server rental service provided to the sectors. By Powerful Communication system, service will be provided to users in different sectors such as Internet service providers, banks, exchanges, companies, educational institutions, government agencies and research laboratories.

Best Regards

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TESLA IN THE PRESS

SUPPORTING A REGION'S DEVELOPMENT

INTERVIEW / THE DIGITAL EDGE

PUBLISHED 13 JUNE 2018

Founded in 2003 in Turkey, **Tesla Internetwork is a technology company that helps businesses from every sector succeed** in changing world and environment through innovative and performance IT and telecommunications solutions.

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Over the years, Tesla Internetwork has built up strong expertise in communications, disaster recovery management, data storage, clustering and virtualization services, which it is now leveraging through in-depth training programs to the benefit of its customers. Since April this year, Tesla Internetwork has served businesses in northern Cyprus under the brand of Literula Information and Communication. It operates as an ISP and data center provider, offering Tesla Internetwork's services in northern Cyprus. Tesla Internetwork's director, Engin Demirbora, has great ambitions for the development of the region. Here he tells us how his company will help support development and growth.

AN INTERVIEW WITH
Engin Demirbora
Tesla Internetwork

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WHAT ARE THE MAIN CHALLENGES THAT YOUR CUSTOMERS ARE FACING?

Internet infrastructure in northern Cyprus is limited and for years, users in the region have faced a recurring challenge when it comes to their Internet experience. With average download speeds as low as 1.5Mbps and 2Mbps when compared to other parts of Europe, not to mention regular service interruptions, both consumers and local businesses are limited in the extent to which they can relying on the Internet for their day to day business or development. Added to this, switchboard and infrastructure problems pose further difficulties. Long distance telephony and urban fiber optic infrastructure are extremely limited meaning Internet Service Providers in the country are forced to rely on expensive wireless antennas and high-frequency radio to reach the Internet users and organizations. These can bring about related issues for quality of service, as well as potentially having an impact on health. We decided we wanted an alternative for our customers that would offer better quality of service to support the development of businesses on the island. We know there is huge demand as Cyprus is ideally located on the Mediterranean at the crossroads of Europe and Middle-East.

SO WHAT'S THE SOLUTION YOU IMPLEMENTED?

To meet the initial requirements of our customers, we have implemented a high capacity 10 Gbps managed Internet access service anchored with carrier-class equipment for optimum performance and reliability, which is available to enterprises in northern Cyprus through our data center of Literula.

PLEASE EXPLAIN HOW GCX WAS KEY IN PROVIDING THIS SOLUTION.

Tesla Internetwork continues to strive to support the growing Internet bandwidth requirements of its customers. GCX was recommended to us as a suitably reliable partner for the provision of high bandwidth Internet. GCX combines the ability to provide broad international coverage for network solutions – with 67,000 kms of submarine cables – and the capacity to offer the most relevant technical and commercial solutions.

Our solution includes a managed high-performance router on our premises and communication links to provide connectivity to the Internet. And as part of this turnkey solution, GCX offers us project management, network monitoring, proactivity, strong SLAs and on-site maintenance customized to our requirements.

GCX owns the world's largest private subsea cable network, spanning more than 67,000 route kms, which consists of five cable systems, spanning the globe and linking up established markets in Europe and North America, to the Middle East and Asia. GCX's network directly connects the USA, UK, France, Germany and of course Cyprus, with all countries in the Gulf region, and key Asian markets like India, Singapore, Hong Kong and Japan. In fact, GCX's HAWK express subsea cable connects Marseille to Alexandria with a capacity of 20Tbps and lands in Cyprus, which is key for the development of the region and offers capacity for our future developments.

Furthermore, the relationship we developed with GCX through the project was very supportive and their technical team understood our exact needs. We knew we would not only have the solution we needed now, but also that we contracted with a reliable and flexible partner with a potential for further connectivity projects.

...the relationship we developed with GCX through the project was very supportive and their technical team understood our exact needs.

ENGIN DEMIRBORA

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WHAT THE IMMEDIATE AND FUTURE BENEFITS THAT YOU SEE WITH THIS SOLUTION?

As part of the managed Internet access solution, GCX will provide a tailored service to meet our requirements in terms of how we support our customers. We will also benefit from the vast reach of the GCX global network with its "on-net" ecosystem of Internet users in India and South East Asia where economies are growing at some of the fastest rates worldwide and Internet consumption is exploding. This is a great advantage for any company looking at Cyprus as a key hub location for a data center. What's more, through CLOUD X Fusion, GCX also offers direct connectivity to a vast ecosystem of Cloud providers including AWS, Microsoft Azure and Alibaba Cloud, which we see as a great advantage for our customers.

WHAT ARE THE FUTURE PROJECTS?

Tesla Internetwork and GCX have already started to collaborate on new projects to anticipate the requirements in terms of bandwidth in the region, thus, further supporting its economic development. We'll keep you posted!

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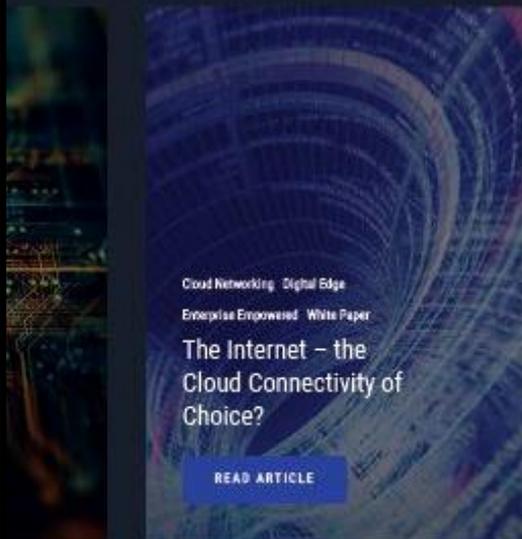
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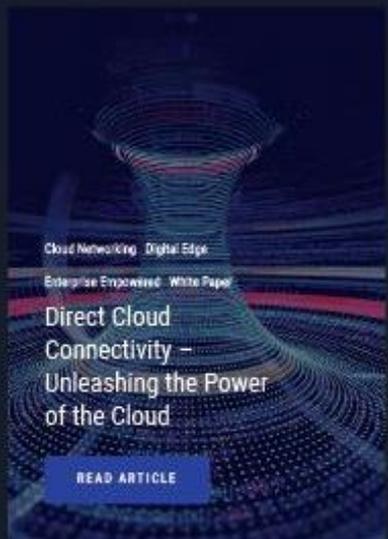
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Teknoloji 30.05.2018 - 18:48, Son Güncelleme: 30.05.2018 - 23:43

Tesla ve Global Cloud Xchange arasında stratejik iş birliği

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Kuzey Kıbrıs Türk Cumhuriyeti'nin internet erişim ve elektronik haberleşme hızını dünya standartlarına yükseltecek dev iş birliği gerçekleşti.

2003 yılından bu yana Bilgi ve Haberleşme Teknolojileri konusunda projeler üreten ve entegrasyon hizmeti veren Tesla ile dünyanın en büyük Sualtı ve Karasal haberleşme omurgalarına sahip operatörlerinden Global Cloud Xchange proje ortaklığı yapıyor. Bu stratejik iş birliği ile adanın internet erişimi ve elektronik haberleşme hızı dünya standartlarına yükselecek. Ağustos ayında hizmete girecek yeni Fiber Optik haberleşme omurgası sayesinde, KKTC Dünyanın önde gelen internet içerik sağlayıcıları, teknoloji kuruluşları ve veri depolama merkezleri için de büyük fırsatlar yaratacak.

Konuyla ilgili olarak açıklama yapan Tesla Proje Direktörü Engin Demirbora, "Tesla'nın teknoloji markası Literula'nın Girne'de bulunan Veri ve Haberleşme Merkezi'nde sonlanacak olan Fiber Optik omurga ile ada yüksek hızda internet erişimine sahip olacak. Böylece uluslararası veri haberleşme şebekelerine rahatlıkla ve güvenle erişim sağlanabileceği gibi aynı zamanda bu merkezde kritik müşterilere sunucu barındırma, depolama, kümeleme, sanallaştırma ve felaket yönetimi gibi teknolojik konularda da hizmet verilecek" dedi.

TESLA
DATA AND COMMUNICATION CENTER
SERVICES

CLOUD SERVER

ENTERPRISE SERIES

Fully managed, edge to edge high available design. State of art infrastructure with minimum downtime possible in a rack. Ready to provide agility for enterprise applications and requirements. Fully managed, edge to edge high available design. State of art infrastructure with minimum downtime possible in a rack. Ready to provide agility for enterprise applications and requirements.

BUSINESS PRO

Business Pro servers are perfect for businesses that require stability and performance with a reasonable price. With redundant storage and reliable servers, business pro series offers guarantied performance for business that would like to host business application like crm, e-commerce web sites. Business Pro provides easy management and scalability with mid-level enterprise servers with total control over server and with automation support.

CLOUD STORAGE

DRIVE ENGINE

Access Easily from Everywhere. Define privilege to chosen IP addresses. Mount the drive to your server, or to your personal computer without any limitations. Get backup of VMware or XenServer. Drive Engine is a smart storage gateway that can be connected directly to your servers using wide-area network (Internet) with protocols like NFS, SMB, iSCSI. Drive Engine can also be used as a shared storage in between clients in a company or in an office using operating systems like Windows, Linux and MacOS.

Access Easily from Everywhere

Drive Engine provides samba, nfs, iscsi and webdav protocols for clients to connect

Great for Disaster Recovery

You can take your daily backups by using Drive Engine and start them on PlusClouds when disaster happens.

A Remote Drive for Backup

Drive Engine acts as a drive on the VMware and KVM machine to be able to used as a drive like a sata drive

VIRTUAL PRIVATE CLOUD

PlusClouds VPC is a virtual private cloud is an environment for enterprises to host their servers in a virtually isolated network. By using PlusClouds virtualized network functions you can build your self a virtual datacenter within PlusClouds cloud infrastructure. PlusClouds provides various different network functions for enterprises to build their infrastructure according to their requirements such as proxy, nat, firewall, application firewall, load balancers etc. In addition to private infrastructure you can also use various different gateways to protect your network like Juniper vSRX, VyOS, pfSense, ufw etc.

LOAD BALANCER

PlusClouds Load Balancers is genuinely made for web applications and high traffic web sites, such as e-commerce websites or blogs. With Load Balancers you can distribute your load in between your application servers with the traffic control features you are looking for. PlusClouds Load Balancers provides SSL support either self signed SSL, Signed by CA or LetsEncrypt. With just a simple config from the panel, you can change the traffic load in between servers or you can distribute the load when you scale up or scale down. Load Balancers also provide a speed enhancement for your applications when you turn on the static file cache enhancement. By this way your application will be streaming files from unlimited number of channels.

APPLICATION FIREWALL

PlusClouds Application Firewall is a managed and tuned implementation of ModSecurity with OWASP Security Rules, built on top of PlusClouds Load Balancer product. By using PlusClouds AppFW you will be securing your application from various different attacks like;

SQL Injection

Cross Site Scripting

Local File Inclusion

PHP Code Injection

With pre-installed and maintained OWASP rules your application will be bullet proof. You can either use PlusClouds AppFW behind your Load Balancer or Proxy, or you can position AppFW as a gateway for your Load Balancer or your application.

PROXY AS A SERVICE

PlusClouds provides a free proxy as a service for users who would like to stay behind the firewall and, does not want to expose their server to public Internet. Proxy service is a really simple service that you will be able to use with a couple of click. Just redirect your traffic to our proxy service either by DNS or other custom solution to our public proxy service and then create a record to reroute your traffic to your application behind the firewall.

DOMAIN NAME SERVICE

With Our Cloud DNS Service speed-up connections to your website in 5 minutes! Your browser determine the geographical location of the closest DNS server and redirect the DNS request from the six different DNS servers to the physically closest one. Unnecessary resolution times and irrelevant servers are thus removed from path, and your website loads quicker.

MONITORING SERVICES

BLITZ ENTERPRISE MONITORING

Monitor all systems, devices, traffic and applications of your infrastructure. Everything you need is contained in PlusClouds Blitz Monitoring Service.

Blitz Network Monitoring Service is a Zabbix based monitoring tool for all kinds of network and network traffic. Monitor your network traffic with Blitz Network Monitoring Service, get detailed reports and share them.

Blitz is monitoring and managing your servers with Blitz Templates which are contains thousands of sensors.

Collect Statistics

You can collect your networks statistics as data or graphic, create your personal sensors and start monitoring your servers with one click

Alerts

Blitz alerts you when it discovers warnings or unusual events. With our Orchestrator LEO you can get notifications directly from PlusClouds Panel. You can easily setup notifications via email. With our powerful API you can even write your own notification scripts.

Remote Access

Blitz also gives you allow to access your servers remotely when it notifies an alert. Also Blitz makes you can execute a command or script remotely.
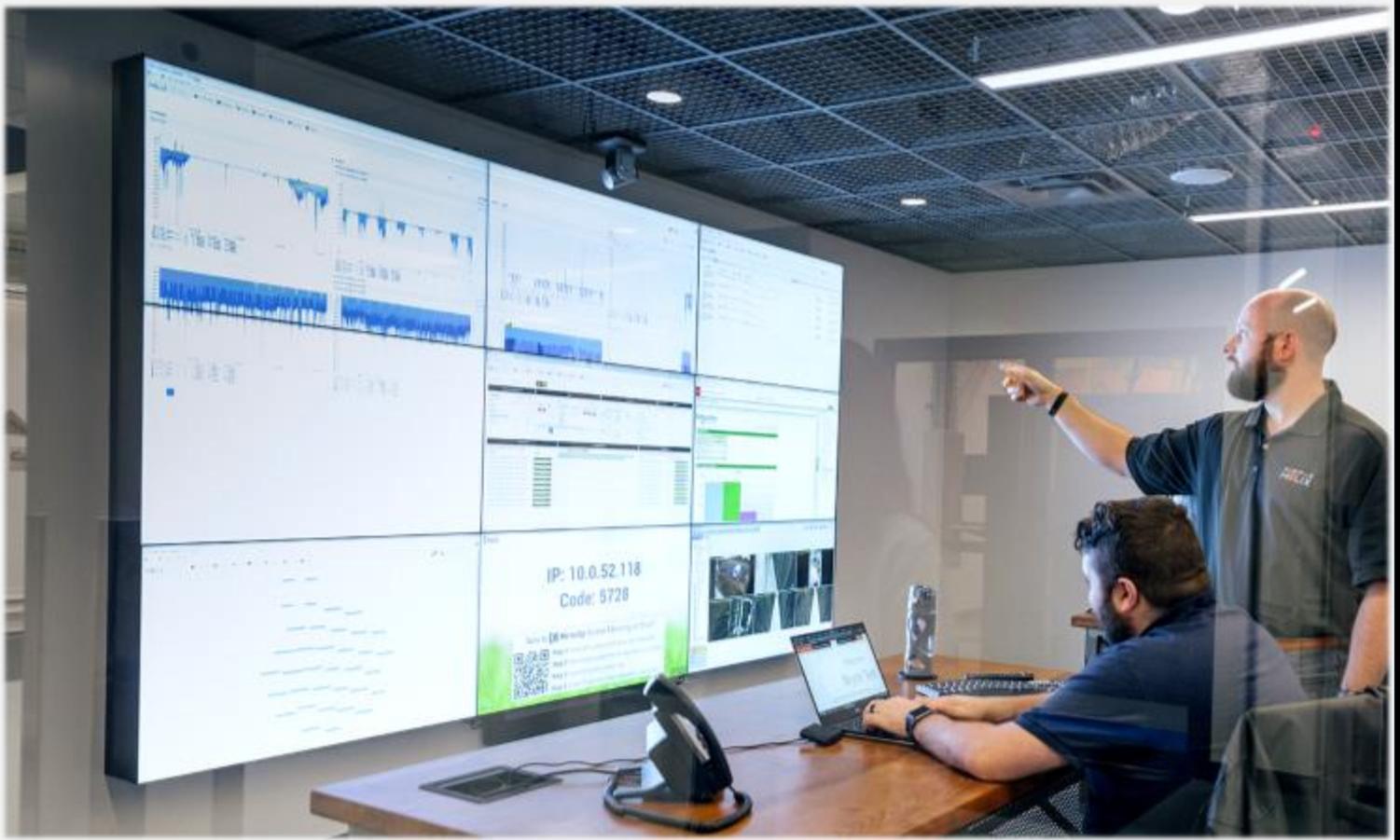
MPLS AND WDM TECHNOLOGY

In parallel with its electronic communications investment in the Turkish Republic of Northern Cyprus, Tesla plans to serve the existing internet backbone via fiber optic lines with Wavelength Division Multiplexing (WDM) and Multiprotocol Label Switching (MPLS) technology. In this way, the electronic communication infrastructure of the island will have the latest technological transport and switching systems used by the world. Let's take a closer look at these technologies, which ensure that electronic data is transported in the most secure, fast and manageable way;

Wavelength Division Multiplexing

(Wavelength Division Multiplexing) is a technology that uses multiple lasers to send a multi-beam laser at different wavelengths at the same time. Each signal transmits data (text, audio, video, etc.) in a unique color band. It can support up to 160 different wavelength beams at the same time and each beam can reach 10Gbit / Ps data transmission speed. The system provides more than 1Tbit / Ps data transmission with a thinner cable than the hair. WDM technology has become the main tool for the expansion of the fiber optic network today due to its economic and efficiency.

Multi Protocol Label Switch

Multi-Protocol Label Switching is a highly scalable and protocol-independent information transport system. In MPLS networks, information packets are assigned labels, and the packet transmission is performed only depending on the contents of the tags, regardless of the content of the package. This allows the establishment of point-to-point communication circuits, independent of the mechanism and the protocols used. MPLS is a member of the packet switching networks' family. It is used to transport many different traffic including IP packets and natural ATM, SONET and Ethernet frames.

INTERNET EXCHANGE POINT

One of the most important projects Tesla's planned in the region is the IXP. An internet exchange point (IXP) is a physical network access point through which major network providers connect their networks and exchange traffic. The primary focus of an exchange point is to facilitate network interconnection through an exchange access point instead of third-party networks. Internet exchange points were created to minimize the part of an Internet service provider's (ISP) network traffic that had to go through an upstream provider. IXPs provide a common place for ISPs to exchange their Internet traffic between autonomous network systems. The exchange points are often established in the same city to avoid latency.

The Advantages of IXP include

- Allowing high speed data transfer

- Reducing latency

- Providing fault tolerance

- Improving routing efficiency

- Improving bandwidth

The physical infrastructure includes one or more high-speed network Ethernet switches. The traffic exchange in an IXP is enabled by the Border Gateway Protocol (BGP). The traffic exchange is managed through a mutual peering agreement conformed to by all ISPs. The ISPs normally specify the routes through the peering relationship. They may choose to route the traffic through their own addresses or addresses of other providers in the network. In some scenarios, the IXP serves as a backup link to allow traffic to pass through in case of a direct link failure.

TESLA
Bilgi ve Haberleşme Teknolojileri

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