



Monthly

e-Newsletter

December - 2021



Never stop learning, Because life never stop Teaching

“Dream is not something that you see while sleeping.
It is something that does not let you sleep.”

— A P J Abdul Kalam

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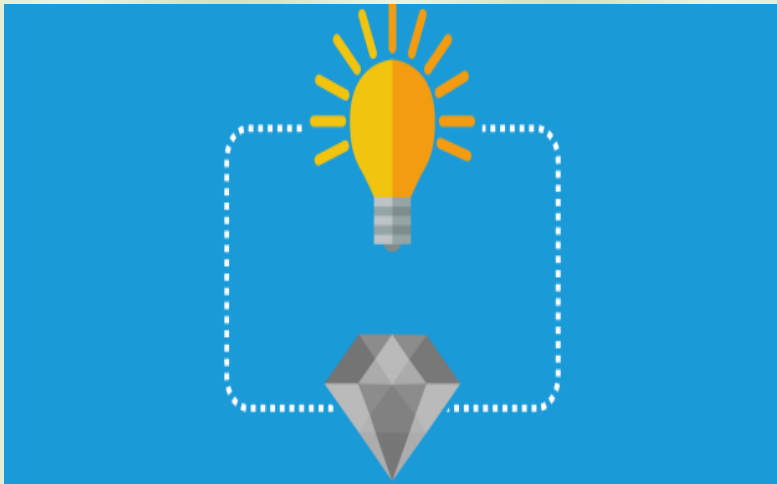
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READER'S CENTER

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DIAMOND BATTERY



New technology has been developed that uses nuclear waste to generate electricity in a nuclear-powered battery. New Diamond Battery Will Last 28,000 Years, Powered By Nuclear Waste.

The short lifespan of conventional batteries means they either cannot be used or have significant drawbacks in situations where it is not feasible to charge or replace them. For example, pacemakers, satellites, high-altitude drones or even spacecraft are low-power electrical devices where long life of the energy source is needed.

A US-based startup has combined radioactive isotopes from nuclear waste with ultra-slim layers of nano diamonds to assemble a battery that will last up to 28,000 years. And just for perspective, before this ridiculous battery runs out of juice, an average Indian would've died 400 times over (geez) more than a thousand generations would've passed by; and Jaegers might have finally sliced the last of Kaijus—who knows, those monstrous machines would be powered by one of these things.

Diamond battery will be available by 2023

The Nano Diamond Battery (NDB) says that the radioactive battery is 'completely safe' for humans and it hopes to start selling the battery to commercial partners, including space agencies for long duration missions, within the next two years.

The company is also working on a consumer version of the battery that could power a smartphone or electric car for over a decade without a charge. This doesn't just save the hassle of recharging our devices but also holds key to the environmental implications of the manufacture and disposal of batteries.



The technology behind diamond battery

The battery is powered by radioactive waste graphite--used in graphite-cooled nuclear reactors--which is encased in layers of nano-thin, single crystalline diamond, which act both as a semiconductor and heat sink. Each unit will contain a single crystalline diamond that absorbs energy from the isotopes. Now diamonds are rare and also have the highest energy-conductivity, meaning it quickly transfers heat from the radioactive graphite--and the transaction is so quick that it generates electricity.

The diamond layers not only collect charge, but also prevent radiation leakage. NDB even claims that the radiation levels emitted by the cells will be less than those emitted by the human body. The firm hasn't produced the batteries yet but has a proof-of-concept design, called "Diamond Nuclear Voltaic," which was presented in 2016 by scientists from the University of Bristol using waste graphite blocks.

HC/RO J SELVAMURUGAN

Sound Beam Technology

Futuristic audio technology will beam music directly to your head.

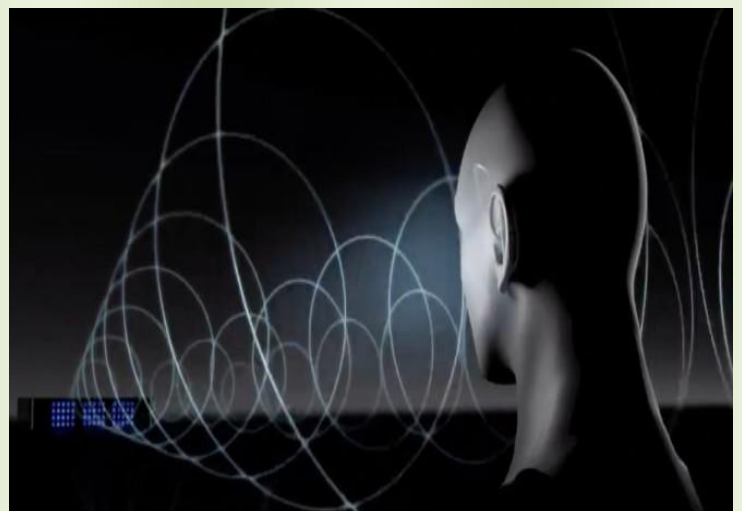
New futuristic audio technology developed in Israel allows music to be played in a person's head without any headphones or wires.

Noveto Systems is launching its new desktop device — the Sound Beamer 1.0 — on Friday, promising customers the chance to listen to music, watch TV and play computer games with little chance of disturbing anyone else.

The product works by using something called “sound beaming.” It employs a 3-D sensing module that first locates and then tracks the ear's position and uses ultrasonic waves to send audio to the listener, creating sound pockets around their ears. While sound beaming is not new, Noveto has created the first branded consumer item to employ the tech and has plans to unveil a “smaller, sexier” version of the prototype in time for Christmas 2021.

This week, buyers will have the option of using a traditional stereo sound, which will hit both ears evenly, or a 3-D option that creates a 360-degree audio experience that envelopes the listener, the company said. Because the device is headphone-free, the listener can still hear other things going on in the room.

Noveto expects the new product to be an earphone-free solution to many of life's mundane annoyances. Office workers can play music or listen to conference calls without bothering their colleagues and people in relationships can blast their favorite Metallica album or horror movie with little chance of disturbing their significant other.



The new tech is so anomalous it's hard for the company's CEO to even put into words. “The brain doesn't understand what it doesn't know,” Christophe Ramstein said. When he first tried out the device, he questioned how it was different from other listening experiences. “I was thinking, ‘Yeah, but is it the same with headphones?’ No, because I have the freedom and it's like I have the freedom of doing what I want to do. And I have these sounds playing in my head as there would be something happening here, which is difficult to explain because we have no reference for that,” the CEO said.

Grid computing

INTRODUCTION:

Grid computing, emerging as a new paradigm for next-generation computing, enables the sharing, selection, and aggregation of geographically distributed heterogeneous resources for solving large-scale problems in science, engineering, and commerce. The resources in the Grid are heterogeneous and geographically distributed. Availability, usage and cost policies vary depending on the particular user, time, priorities and goals. It enables the regulation of supply and demand for resources.

THE GRID:

The Grid is the computing and data management infrastructure that will provide the electronic underpinning for a global society in business, government, research, science and entertainment, integrate networking, communication, computation and information to provide a virtual platform for computation and data management in the same way that the Internet integrates resources to form a virtual platform for information.

Grid is a type of parallel and distributed system that enables the sharing, selection, and aggregation of geographically distributed "autonomous" resources dynamically at runtime depending on their availability, capability, performance, cost, and users' quality-of-service requirements. An enterprise-computing grid is characterized by three primary features - Diversity, Decentralization and Dynamism.

Diversity:

A typical computing grid consists of many hundreds of managed resources of various kinds including servers, storage, Database Servers, Application Servers, Enterprise Applications, and system services like Directory Services, Security and Identity Management Services, and others. Managing these resources and their life cycle is a complex challenge.

Decentralization:

Traditional distributed systems have typically been managed from a central administration point. A computing grid further compounds these challenges since the resources can be even more decentralized and may be geographically distributed across many different data centers within an enterprise.

Dynamism:

Components of a traditional application typically run in a static environment without the needing to address rapidly changing demands. In a computing grid, however, the systems and applications need to be able to flexibly adapt to changing demand. For instance, with the late binding nature and cross-platform properties of web services, an application deployed on the grid may consist of a constantly changing set of components. At different points in time, these components can be hosted on different nodes in the network. Managing an application in such a dynamic environment can be a challenging undertaking.

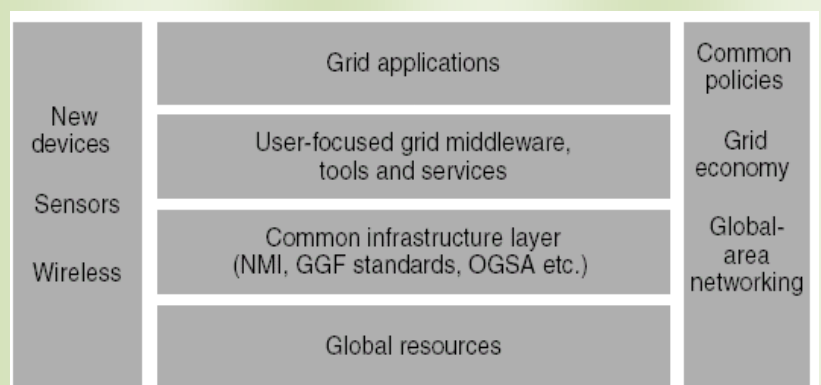
A COMMUNITY OF GRID MODEL:

Over the last decade, the Grid community has begun to converge on a layered model that allows development of the complex system of services and software required to integrate Grid resources. The Community Grid Model (a layered abstraction of the grid) being developed in a loosely coordinated manner throughout academia and the commercial sector.

The bottom horizontal layer of the Community Grid Model consists of the hardware resources that underlie the Grid. Such resources include computers, networks, data archives, instruments, visualization devices and so on. Moreover, the resource pool represented by this layer is highly dynamic, both as a result of new resources being added to the mix and old resources being retired, and as a result of varying observable performance of the resources in the shared, multi-user environment of the Grid.

Layered architecture of the Community Grid Model.

The next horizontal layer (common infrastructure) consists of the software services and systems, which virtualized the Grid. The key concept at the common infrastructure layer is

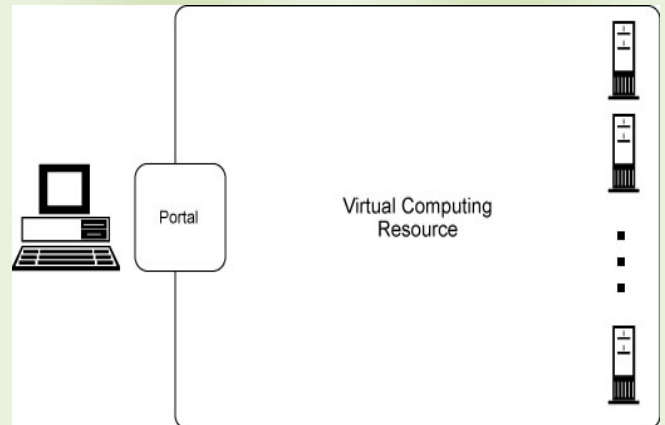


community agreement on software, which will represent the Grid as a unified virtual platform and provide the target for more focused software and applications. The next horizontal layer (user and application-focused Grid middleware, tools and services) contains software packages built atop the common infrastructure. This software serves to

enable applications to more productively use Grid resources by masking some of the complexity involved in system activities such as authentication, file transfer.

TYPES OF GRID

Grid computing can be used in a variety of ways to address various kinds of application requirements. Often, grids are categorized by the type of solutions that they best address. The three primary types of grids are



Computational grid

A computational grid is focused on setting aside resources specifically for computing power. In this type of grid, most of the machines are high-performance servers.

Scavenging grid

A scavenging grid is most commonly used with large numbers of desktop machines. Machines are scavenged for available CPU cycles and other resources. Owners of the desktop machines are usually given control over when their resources are available to participate in the grid.

Data grid

A data grid is responsible for housing and providing access to data across multiple organizations. Users are not concerned with where this data is located as long as they have access to the data. For example, you may have two universities doing life science research, each with unique data. A data grid would allow them to share their data, manage the data, and manage security issues such as who has access to what data. Another common distributed computing model that is often associated with or confused with Grid computing is peer-to-peer computing. In fact, some consider this is another form of Grid computing.

GRID COMPONENTS: A HIGH LEVEL PERSPECTIVE

Depending on the grid design and its expected use, some of these components may or may not be required, and in some cases they may be combined to form a hybrid component.

Portal/user interface

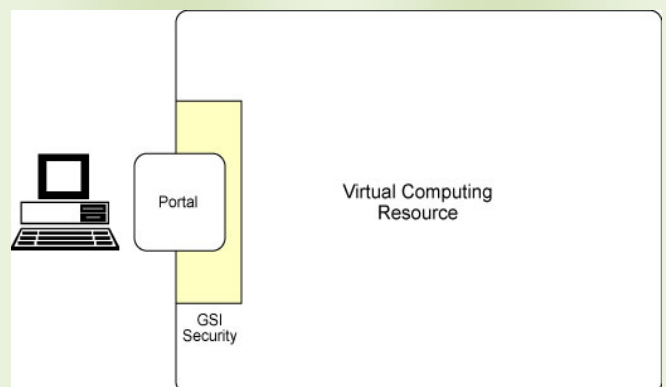
Just as a consumer sees the power grid as a receptacle in the wall, a grid user should not see all of the complexities of the computing grid. Although the user interface can come in many forms and be application-specific. A grid portal provides the interface for a user to launch applications that will use the resources and services provided by the grid. From this perspective, the user sees the grid as a virtual computing resource just as the consumer of power sees the receptacle as an interface to a virtual generator.

Possible user view of a grid Security

A major requirement for Grid computing is security. At the base of any grid environment, there must be mechanisms to provide security, including authentication, authorization, data encryption, and so on. The Grid Security Infrastructure (GSI) component of the Globus Toolkit provides robust security mechanisms. The GSI includes an OpenSSL implementation. It also provides a single sign-on mechanism, so that once a user is authenticated, a proxy certificate is created and used when performing actions within the grid. When designing your grid environment, you may use the GSI sign-in to grant access to the portal, or you may have your own security for the portal. The portal will then be responsible for signing in to the grid, either using the user's credentials or using a generic set of credentials for all authorized users of the portal.

Security in a grid environment Broker

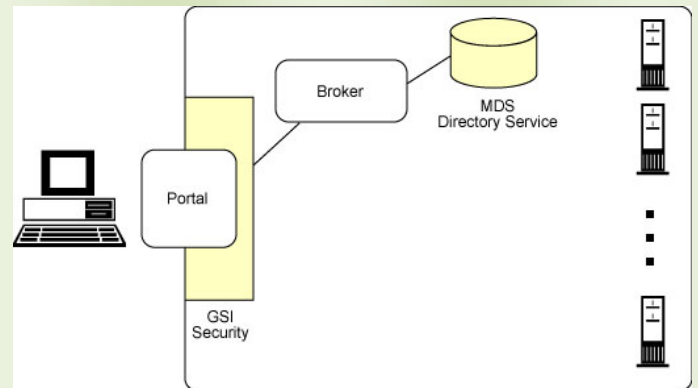
Once authenticated, the user will be launching an application. Based on the application, and possibly on other parameters provided by the user, the next step is to identify the available and appropriate resources to use within the grid. This task could be carried out by a broker



function. Although there is no broker implementation provided by Globus, there is an LDAP-based information service. This service is called the Grid Information Service (GIS), or more commonly the Monitoring and Discovery Service (MDS). This service provides information about the available resources within the grid and their status. A broker service could be developed that utilizes MDS.

Scheduler

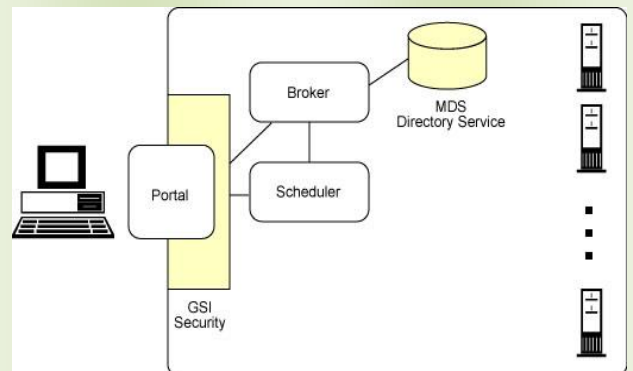
Once the resources have been identified, the next logical step is to schedule the individual jobs to run on them. If sets of stand-alone jobs are to be executed with no interdependencies, then a specialized scheduler may not be required. However, if you want to reserve a specific resource or



ensure that different jobs within the application run concurrently (for instance, if they require inter-process communication), then a job scheduler should be used to coordinate the execution of the jobs. The Globus Toolkit does not include such a scheduler, but there are several schedulers available that have been tested with and can be used in a Globus grid environment. It should also be noted that there could be different levels of schedulers within a grid environment. For instance, a cluster could be represented as a single resource. The cluster may have its own scheduler to help manage the nodes it contains. A higher-level scheduler (sometimes called a meta scheduler) might be used to schedule work to be done on a cluster, while the cluster's scheduler would handle the actual scheduling of work on the cluster's individual nodes.

Data management

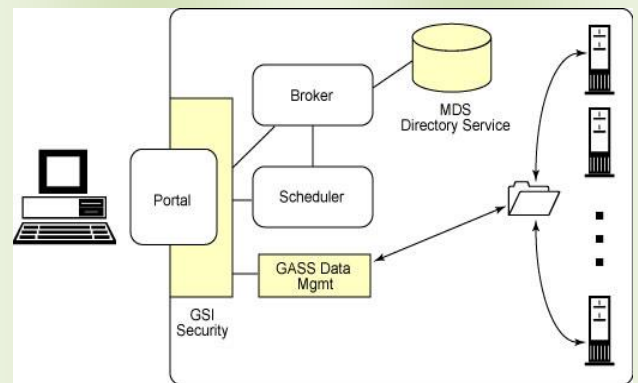
If any data -- including application modules -- must be moved or made accessible to the nodes where an application's jobs will execute, then there needs to be a secure and reliable method for moving files and data to various nodes within the grid. The Globus Toolkit



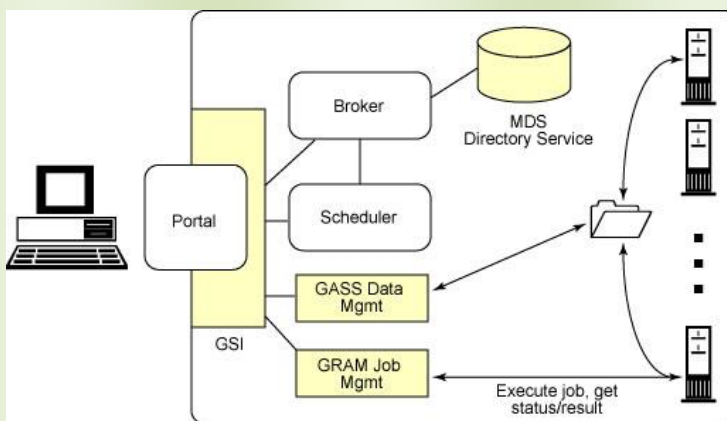
contains a data management component that provides such services. This component, known as Grid Access to Secondary Storage (GASS), includes facilities such as Grid FTP. Grid FTP is built on top of the standard FTP protocol, but adds additional functions and utilizes the GSI for user authentication and authorization. Therefore, once a user has an authenticated proxy certificate, he can use the Grid FTP facility to move files without having to go through a login process to every node involved. This facility provides third-party file transfer so that one node can initiate a file transfer between two other nodes.

Job and resourcemanagement

With all the other facilities we have just discussed in place, we now get to the core set of services that help perform actual work in a grid environment. The Grid Resource Allocation Manager (GRAM) provides the services to actually launch a job on a particular resource, check its status, and retrieve its results when it is complete.



Job flow in a grid environment



Enabling an application for a grid environment, it is important to keep in mind these components and how they relate and interact with one another. Depending on your grid implementation and application requirements, there are many ways in which these pieces can be put

together to create a solution.

ADVANTAGES

Grid computing is about getting computers to work together. Almost every organization is sitting on top of enormous, unused computing capacity, widely distributed. Mainframes are idle 40% of the time. With Grid computing, businesses can optimize computing and data resources, pool them for large capacity workloads, share them across networks, and enable collaboration. Many consider Grid computing the next logical step in the evolution of the Internet, and maturing standards and a drop in the cost of bandwidth are fueling the momentum we're experiencing today. Virtualization of the computing environment.

CHALLENGES OF GRID

A word of caution should be given to the overly enthusiastic. The grid is not a silver bullet that can take any application and run it a 1000 times faster without the need

for buying any more machines or software. Not every application is suitable or enabled for running on a grid. Some kinds of applications simply cannot be parallelized. For others, it can take a large amount of work to modify them to achieve faster throughput. The configuration of a grid can greatly affect the performance, reliability, and security of an organization's computing infrastructure. For all of these reasons, it is important for us to understand how far the grid has evolved today and which features are coming tomorrow or in the distant future

CONCLUSION

Grid computing introduces a new concept to IT infrastructures because it supports distributed computing over a network of heterogeneous resources and is enabled by open standards. Grid computing works to optimize underutilized resources, decrease capital expenditures, and reduce the total cost of ownership. This solution extends beyond data processing and into information management as well. Information in this context covers data in databases, files, and storage devices. In this article, we outline potential problems and the means of solving them in a distributed environment.

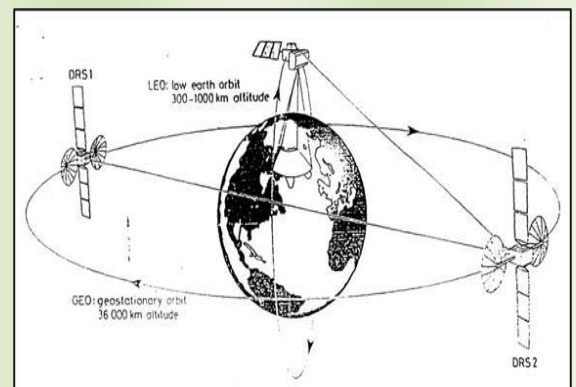
ASI/T APPALA NAIDU

Optical Intersatellite Communication Abstract

Satellite cross links generally require narrower bandwidths for increased power concentration. We can increase the power concentration by increasing the cross link frequency with the same size antenna. But the source technology and the modulation hardware required at these higher frequency bands are still in the development stage. Use of optical frequencies will help to overcome this problem with the availability of feasible light sources and the existence of efficient optical modulation communications links with optical beams are presently being given serious considerations in inter-satellite links. And establishing an optical cross link requires first the initial acquisition and cracking of the beacon by the transmitting satellite followed by a pointing of the LASER beam after which data can be modulated and transmitted.

INTRODUCTION

Communication links between space crafts is an important element of space infrastructure, particularly where such links allow a major reduction in the number of earth stations needed to service the system. An example of an inter orbit link for relaying data from LEO space craft to ground is shown in the figure below.



The above figure represents a link between a low earth orbiting (LEO) space craft and a geostationary (GEO) space craft for the purpose of relaying data from the LEO space craft back to the ground in real time. The link from the GEO Satellite to ground is implemented using microwaves because of the need to communicate under all weather conditions. However, the inter orbit link (IOL) can employ either microwave or optical technology.

SOUT

The European Space Agency (ESA) has programmed underway to place Satellites carrying optical terminals in GEO orbit within the next decade. The first is the ARTEMIS technology demonstration satellite which carries both microwave and SILEX (Semiconductor Laser Intro satellite Link Experiment) optical inter orbit communications terminal. SILEX employs direct detection and GaAlAs diode laser technology; the optical antenna is a 25cm diameter reflecting telescope. The SILEX GEO terminal is capable of

receiving data modulated on to an incoming laser beam at a bit rate of 50 Mbps and is equipped with a high power beacon for initial link acquisition together with a low divergence (and un-modulated) beam which is tracked by the communicating partner. ARTEMIS will be followed by the operational European data relay system (EDRS) which is planned to have data relay Satellites (DRS). These will also carry SILEX optical data relay terminals. Once these elements of Europe's space Infrastructure are in place, there will be a need for optical communications terminals on LEO satellites which are capable of transmitting data to the GEO terminals.

A wide range of LEO space craft is expected to fly within the next decade including earth observation and science, manned and military reconnaissance system. The LEO terminal is referred to as a user terminal since it enables real time transfer of LEO instrument data back to the ground to a user access to the DRS's LEO instruments generate data over a range of bit rates extending of Mbps depending upon the function of the instrument. A significant proportion has data rates falling in the region around and below 2 Mbps and the data would normally be transmitted via an S-band microwave IOL. ESA initiated a development programme in 1992 for LEO optical IOL terminal targeted at the segment of the user community. This is known as SMALL OPTICAL USER TERMINALS (SOUT) with features of low mass, small size and compatibility with SILEX.

The program is in two phases. Phase 1 was to produce a terminal flight configuration and perform detailed subsystem design and modeling. Phase 2 which started in September 1993 is to build an elegant bread board of the complete terminal. The link from LEO to ground via the GEO terminal is known as the return inter orbit link (RIOL). The SOUT RIOL data rate is specified as any data rate up to 2 Mbps with bit error ratio (BER) of better than 10^{-6} . The forward inter-orbit link (FIOL) from ground to LEO was a nominal data rate of 34 K although some missions may not require data transmissions in this direction.

Hence the link is highly asymmetric with respect to data rate. The LEO terminal is mounted on the anti earth faces of the LEO satellite and must have a clear line of sight to the GEO terminal over a large part of the LEO orbit. This implies that there must be adequate height above the platform to prevent obstruction of the line of sight by the platform solar arrays, antenna and other apertures. On the other hand the terminal must be able to be accommodated inside the launcher fairing.

Since these constraints vary greatly with different LEO platforms the SOUT configurations have been designed to be adaptable to a wide range of platforms. The in-

orbit life time required for a LEO mission is typically 5 years and adequate reliability has to be built into each sub-system by provision of redundancy improved in recent years. And GaAlAs devices are available with a projected mean time to failure of 1000 hours at 100 MW output power.

The terminal design which has been produced to meet these requirements includes a number of novel features principally, a periscope coarse pointing mechanism (CPA) small refractive telescope, fiber coupled lasers and receivers, fiber based point ahead mechanism (PAA), anti vibration mount (soft mount) and combined acquisition and tracking sensor (ATDU). This combination has enabled a unique terminal design to be produced which is small and lightweight these features are described in the next sections.

ASI/T APPALA NAIDU

What do we know about the new B.1.1.529 corona virus variant and should we not be worried

A coronavirus variant has been detected that contains a high number of mutations within its spike protein, some of which may help the virus to evade vaccine-induced immune protection.

Although the full implications of the discovery are currently unclear, scientists have emphasized the need for continued surveillance, and stressed that protective measures such as social distancing, mask-wearing and vaccination (where available) will help to limit its spread.

“New variants are constantly emerging, and better surveillance systems will inevitably pick more of them up. Many of these new variants fizzle out – including some of those previously considered VOIs. Unless B.1.1.529 is transmissible enough to outcompete the Delta variant, it may similarly disappear.”

WHERE IS IT CIRCULATING

The variant, named B.1.1.529, was first detected in Botswana on 11 November, although other cases have since been identified in South Africa and in a patient who travelled to Hong Kong from South Africa. In a statement released on 25 November, South Africa's Institute for Communicable Diseases (NICD) said that 22 positive cases had been identified so far, with further genome sequencing currently taking place that might identify others.

According to Prof Tulio de Oliveira, Director of the KwaZulu-Natal Research Innovation and Sequencing Platform at South Africa's University of KwaZulu-Natal, there are early signs from diagnostic laboratories that the new variant has rapidly increased in Gauteng province, a predominantly urban area containing the cities of Johannesburg and Pretoria, and may be present in other provinces.

SI/RO(M) VASANTA KUMARI

किडनी को रखना है लंबी उम्र तक हेल्दी और निरोग, तो आज से ही फॉलो करें ये 5 अच्छी आदतें

जीवनशैली में लाएं ये 4 बदलाव, किडनी रहेगी हेल्दी हम सभी प्रतिदिन कुछ ना कुछ ऐसा करते हैं, जिसका नकारात्मक असर हमारे शरीर के विभिन्न अंगों पर पड़ता है। यदि बात करें किडनी (Kidney) की तो यह शरीर का बहुत ही महत्वपूर्ण अंग है। यह शरीर में मौजूद टॉक्सिक पदार्थ को मूत्र के जरिए बाहर निकालती है। दिल के जरिए पंप होकर किडनी में पहुंचने वाले खून में मौजूद विषैले तत्वों को भी किडनी छानती है। इससे रक्त साफ हो जाता है। कई बार हमारी कुछ गलत आदतें, खराब खानपान, जीवशैली के कारण किडनी में पथरी, इंफेक्शन आदि समस्याएं हो जाती हैं। कई बार लोगों को समझ नहीं आता कि ऐसा क्या करें जिससे किडनी हेल्दी (Tips to keep Kidney Healthy) रहे। अपनी दिनचर्या में कुछ हेल्दी हैबिट्स को अपनाकर आप अपने गुर्दों या किडनी (Healthy Lifestyle for healthy Kidney) को लंबी उम्र तक स्वस्थ रख सकते हैं।



1. किडनी को निरोग रखने के लिए रहें फिजिकली एक्टिव

यदि आप खुद को फिजिकली एक्टिव रखेंगे, तो आप ना सिर्फ किडनी को बल्कि संपूर्ण सेहत और कई अंगों को स्वस्थ रख सकते हैं। एक्सरसाइज नहीं करते, तो 30 मिनट जरूर करें। वजन अधिक है, तो इसे कम करें। किसी भी तरह की फिजिकल एक्टिविटी जैसे योग, व्यायाम, एरोबिक, रनिंग, जॉगिंग अंगों को मजबूती देता है। एक्सरसाइज करने से किडनी स्ट्रॉन्ग रहती है।

2. किडनी रहेगी स्वस्थ जब लेंगे पर्याप्त तरल पदार्थ

यदि आप चाहते हैं कि आपकी दोनों किडनियां लंबी उम्र तक सही तरीके से स्वस्थ रहकर अपना कार्य करती रहें, तो लिक्विड का सेवन अधिक करें। प्रतिदिन 3 लीटर पानी पिएं, ताकि शरीर में बनने वाले टॉक्सिक पदार्थ मूत्र के जरिए बाहर निकल जाएं। तरल पादर्थ लेने से शरीर हाइड्रेटेड भी बना रहता है। उन फलों से तैयार जूस का सेवन करें, जो किडनी के लिए अच्छे होते हैं।

3. पौष्टिक आहार लें किडनी रहेगी हेल्दी

आप सप्ताह में 4 दिन बाहर का खाना खाते हैं, उनमें ना तो कोई हरी सब्जी शामिल होती है और ना ही अनाज, फल, पोषक तत्व तो किडनी पर इसका नकारात्मक असर होगा। जिन लोगों को डायबिटीज, हाई ब्लड प्रेशर की समस्या है, उन्हें जरा सी भी लापरवाही बरतने से किडनी की समस्या हो सकती है। डाइट में हरी सब्जियों, फल, अनाज, दूध, दही, लो फैट, लो कोलेस्ट्रॉल, लो कैलोरी, लो कार्ब्स युक्त फूड्स को शामिल करें। प्रोटीन, फाइबर, आयरन से भरपूर खाद्य

पदार्थों का सेवन करें। रोड साइड मिलने वाले जंक फूड्स, छोले-भटूरे, मसालेदार फूड्स, स्पाइसी चीजें अधिक ना खाएं। स्मोकिंग, शराब का सेवन किडनी को नुकसान (How to keep kidney Healthy) पहुंचाते हैं। अपनी मर्जी से किसी भी दर्व निवारक दवा, ओवर-द-काउंटर मेडिसिन के सेवन से भी बचें। किसी ना किसी रूप में इनका किडनी पर नेगेटिव असर पड़ता है।

4. किडनी की रूटीन चेकअप जरूर कराएं

कुछ लोग तीन-चार सल तक अपना फुल बॉडी चेकअप नहीं कराते और जब शरीर में कुछ लक्षण, दर्द, समस्याएं नजर आने लगती हैं, तो जाते हैं डॉक्टर के पास जांच के लिए। ऐसा आप ना करें, खासकर 35 की उम्र पार करने के बाद। किडनी में कब क्या समस्या हो जाए, आपको पता भी नहीं चलेगा। कई बार समस्या घर कर जाती है और लक्षण भी नजर नहीं आते हैं। तब तक किडनी की कार्य क्षमता कई प्रतिशत तक प्रभावित हो जाती है। बेहतर है कि आप प्रत्येक 6 से 1 साल में संपूर्ण बॉडी की जांच कराएं। किडनी की भी टेस्ट की जाती है, जिससे आपको पता चल सकता है कि आपकी किडनी हेल्दी है। (डिस्क्लेमर: यहां लिखी गई सभी जानकारीयां और सलाह सिर्फ सामान्य जानकारी के लिए दी गई हैं। किडनी से संबंधित किसी भी समस्या के होने या फिर जीवनशैली में बदलाव लाकर किडनी को हेल्दी रखने के उपायों को अपनाने से पहले आप किसी विशेषज्ञ से परामर्श जरूर करें।)

SI/RO(M) VASANTA KUMARI

QUIZ CORNER

1. An _____ is the generic term for a collection of private computer networks within an organization.
A. Intranet B. Internet C. Extranet
2. One Similarity between the internet and the extranet is _____.
A. Persons have to use password to gain access to information
B. Persons cannot gain access to information
C. information shared within work groups.
D. Information cannot be shared within work groups
3. Which of the following is not a function of a network.
A. News B. Data C. Sign D. Opinion
4. An E-mail is used to do all of the following except
A. Accept B. Forward C. Deliver D. Destroy
5. Another name for the World wide Web is _____.
A. Web B. Net C. Extranet D. Intranet
6. Which leading computer software business created programmes like Spread Sheet, Word and Power point?
A. Google B. Microsoft C. DELL
7. Who created Apple and died October 5th 2011?
A. Steve Jobs B. Steve John C. Steve Song D. Steve Nash
8. How can you prevent spyware from accessing your computer?
A. Don't click on advertisements
B. Keep your computer password protected
C. Download an anti-virus program
9. What are online threats ?
A. They are types of viruses which can harm your computer
B. They help your computer in being safe
C. They are different types of ICT Shortcuts
10. _____ is a form of real-time direct text-based communication between two or more people using personal computers or other devices.
A. Chat room B. Instant message C. Newsgroup D. E-Mail

Acknowledgement

We are highly thankful for reading out this compilation and hope it will be useful for you in our day to day professional and personal life. We would like to hear your interest areas, suggestions from you to make this newsletter more informative and interesting. Your views will definitely help us to create this newsletter as an effective medium to reach you with latest development in the fields of communication and technology.



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Answers to the Quiz

1	2	3	4	5	6	7	8	9	10
A	C	D	A	A	B	A	A	A	B