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Netflix In India

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As many of us would have heard that Netflix has finally made its way to India and the subscription prices start from as low as Rs 500 per month.

Netflix is a very popular streaming service in the US and boasts of 70 million home worldwide. It has a myriad of award winning-TV series such as House of Cards, Daredevil, Orange is the Black and a wide range of on-demand blockbuster movies. Netflix altered how entertainment was consumed in US. After giving its customers the option to watch an unlimited number of DVDs per month in exchange for a fee, Netflix turned into an online streaming service. Consumers can now watch their famous TV shows at their convenience without ad breaks and no fixed timings.

The very first question that comes to our mind is that if bandwidth in India a issue for seamless streaming? According to the reviews, streaming is not a big issue as it is pretty good especially compared to other streaming channels available like Star's Hotstar. The picture quality is good and it gives a smooth, continuous and advertisement free HD stream. Many can argue that they rather download torrents instead, but the recent government crackdown on torrent providers may pose a bigger problem in the future of pirated downloads.

Netflix is the world's top video streaming service that allows users to watch content on screens ranging from a smart phones to a smart television.

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Netflix in India

Netflix is known for making use of Big Data Analytics to give its subscribers what they like to watch. But Netflix in India has very limited catalogue and lot of content doesn't even show up on internet. For instance, House of Cards, which is a Netflix production could not be searched. However, all the new titles are there and there is no dearth of titles that India has never had access to. But still a large of the Netflix catalogue is made up of English shows and has very limited Indian content. Barring a few popular movies titles like Piku, Lootera, Andaz Apna Apna, etc, there is not much to see here. Netflix is working on getting more partners on board.

A significant number of Indians have been ruing the lack of decent television programming for long, and there is a market for English language shows (illegal downloads of Breaking Bad and House of Cards here are among the highest in the world). But the big question is if this English content will ever overtake, or even come close to, locally produced content in India. Internet speeds might improve and 4G will be a reality soon, but will Orange Is The New Black replace, say, Saath Nibhaana Saathiya?
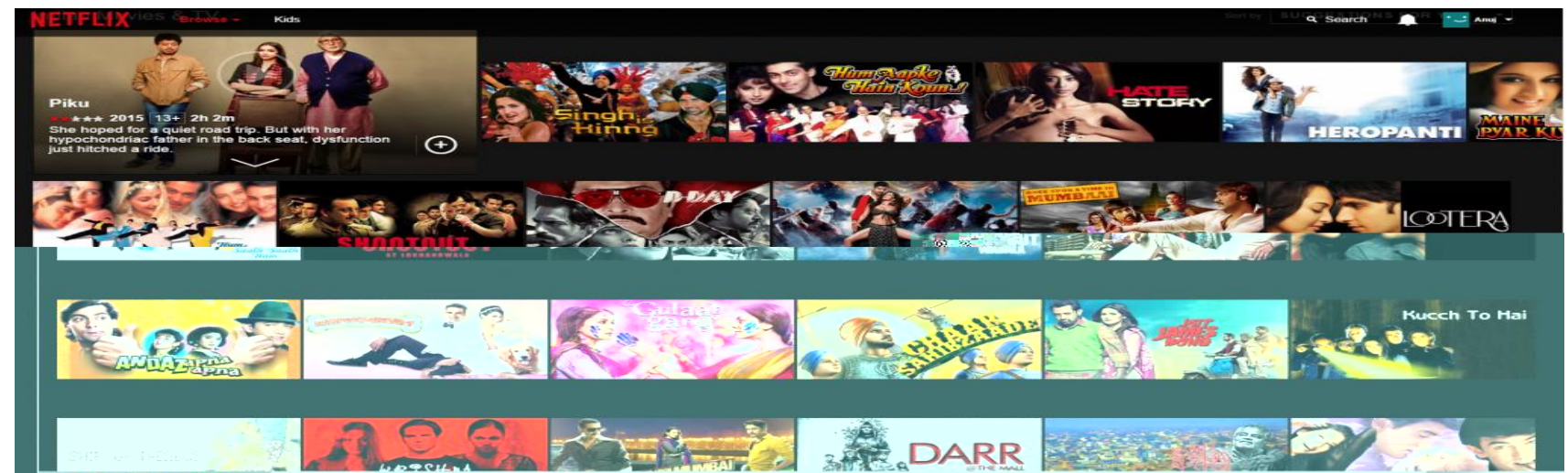
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Cloud storage appliances: What they are and who provides them

We look at the cloud storage appliance market – everything from local gateway presentation of the cloud, via hybrid cloud, to the new generation of cloud-resident appliances.
Cloud Storage Appliances have evolved to make cloud storage a more practical proposition in work and office contexts. They act as a translator and accelerator that will allow business systems to access public or private cloud storage as if it were local storage.

Why are they needed?

While cloud storage has a lot going for it – including less hardware to buy and manage, usage-based pricing, and easy access from anywhere – what works well when storing smartphone photos and email doesn't always work so well in an enterprise context.
It is one thing to use a 2 623F6 17.0484 6289n807.2 623.76 reW*7822857ET00 0 07.2 623..95

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⊘ Cloud storage appliances: What they are and who provides them

What's more, what works well at home or in a café, where each individual probably uses different apps and services, may work less well when you have a group of collaborating workers all on the same applications and datasets, and all on the same office internet connection.

Unlike legacy enterprise applications, web apps are (usually) designed to cope gracefully with the latency and bandwidth issues associated with connection over a wide area network such as the internet.

A hardware gateway can help by including local storage as a cache or buffer. This is especially useful in common use cases such as cloud backup and archiving, where local caches can accelerate backup operations and access to online data.

Cloud storage gateways have evolved in something of a continuum, but we can see distinctions emerge, as well as step-changes in their capabilities and intended uses.

- **On-premise gateway** is the most usual model. An appliance (physical or virtual) sits on the premises, connected on one side to the LAN and on the other to the cloud.
- **Cloud controllers** aim to provide services similar to those offered by traditional enterprise storage arrays, except that the data is stored in the cloud.
- **Cloud-integrated storage** provide a higher degree of integration between cloud and local storage. In effect, they assume you will have both, and they treat the cloud storage as one of several tiers, dynamically moving data to the most appropriate tier based on policies.
- **Cloud-resident gateway** has the same idea as cloud-integrated storage but resident in the cloud as a virtual appliance, these serve applications that have been migrated to the cloud.

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⊘ Cloud storage appliances: What they are and who provides them

Ten cloud-resident gateways
Here are some examples of companies that participate in this space.

Amazon's AWS Storage Gateway sends only changed data to save bandwidth, and allows primary data to stay on-premise via gateway-stored volumes.

Barracuda Backup acts as an on-premise backup target, before reduplicating data and sending it to cloud storage.

CTERA's cloud storage gateways provide NAS and backup services, blending local storage for speed and local sharing with cloud storage for backup, remote office synchronization and so on.

EMC CloudArray (formerly TwinStrata) provides iSCSI or CIFS/NFS access to a cloud-based storage tier, with dynamic local caching for performance.

Microsoft StorSimple is a hybrid local storage device with cloud connectivity. It is designed to work as primary on-premise storage, while using Azure for cloud-based archiving, backup and DR.
Which cloud storage gateway you should choose will depend on a number of variables. For instance, what type of data will you be accessing? How big are the files? Will you use streaming? How random are your data access patterns and how responsive will they be to automated tiering? Which is more important, data access or minimizing cost? And, of course, are there regulatory and auditing issues that might mandate encryption or require a verifiably non-rewritable scheme?

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Security: Be Afraid, Be Very Afraid

What's keeping IT buyers up at night? Security and OSes top the list.

Only half of surveyed IT pros believe their organization's data is adequately protected and consider IT security a top priority for 2016. Almost 60% also believe their organization is not adequately investing in IT security.

Security Perceptions(% of those who selected agree or strongly agree)
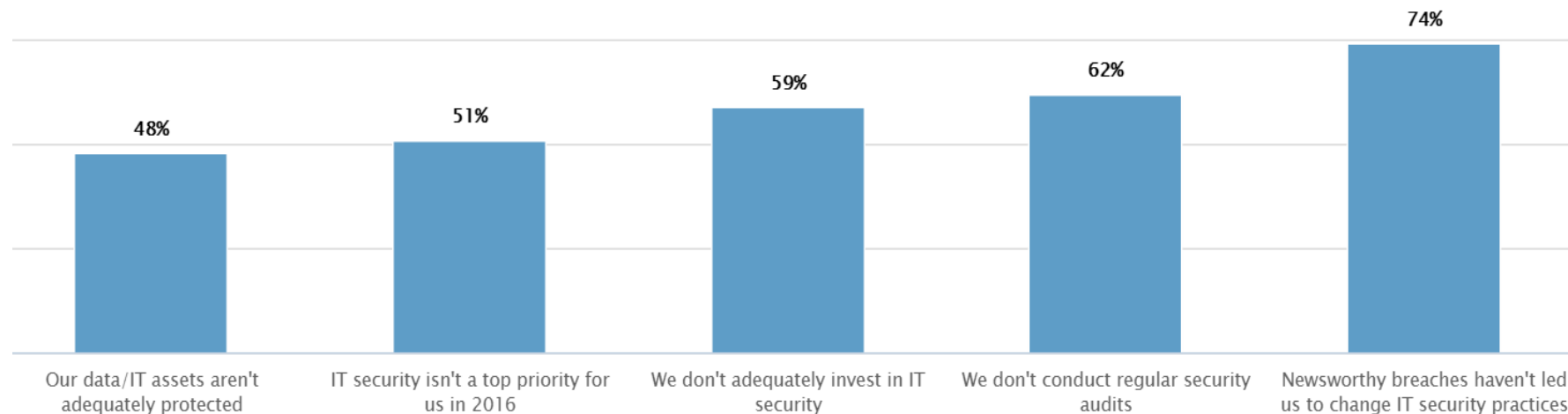
About three-quarters of surveyed IT pros consider their organizations at risk for technology, IT security, and man-made disasters or incidents. IT spend on security hardware, software, and services will remain flat year over year with IT professionals planning to allocate 6% of their total budget to security.

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Plus, many organizations aren't conducting regular security audits or updating security practices to help protect against worldwide increase in security breaches. In other words, there's still a lot of room for improvement when it comes to securing IT environments from the threats lurking in the shadows, especially as news of hacks haunt the headlines.

Disaster risk perceptions (% of those who selected moderate to high risk)
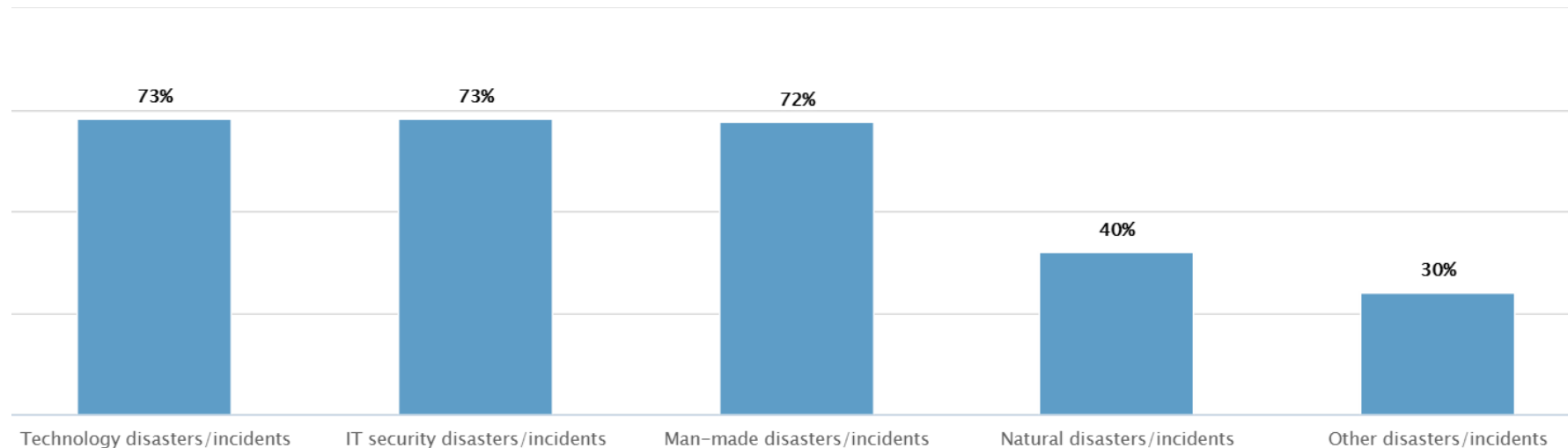
Microsoft Windows 7 is still the most adopted OS, followed by Windows XP—a dead OS walking (and not a great one to have around) when it comes to security. Of the most popular OSes, Windows 8 has the lowest penetration rate.

Microsoft Windows Server 2003 had its end-of-service in April 2015, so it's not shocking that fewer IT pros are using it. (Though it's still present in 60% of companies.)

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IT pros say their top OS initiatives for 2016 are upgrading to Windows 10 and migrating from Windows Server 2003. In addition, surveyed IT pros who've allocated budget to OS upgrades do expect to upgrade older hardware during these OS projects.

Top OS projects IT pros plan to spend budget on (Asked of those planning to allocate 2016 software budget to OS)

Windows 10	47%
Windows Server 2003 migration	32%
SQL Server 2005 migration	12%
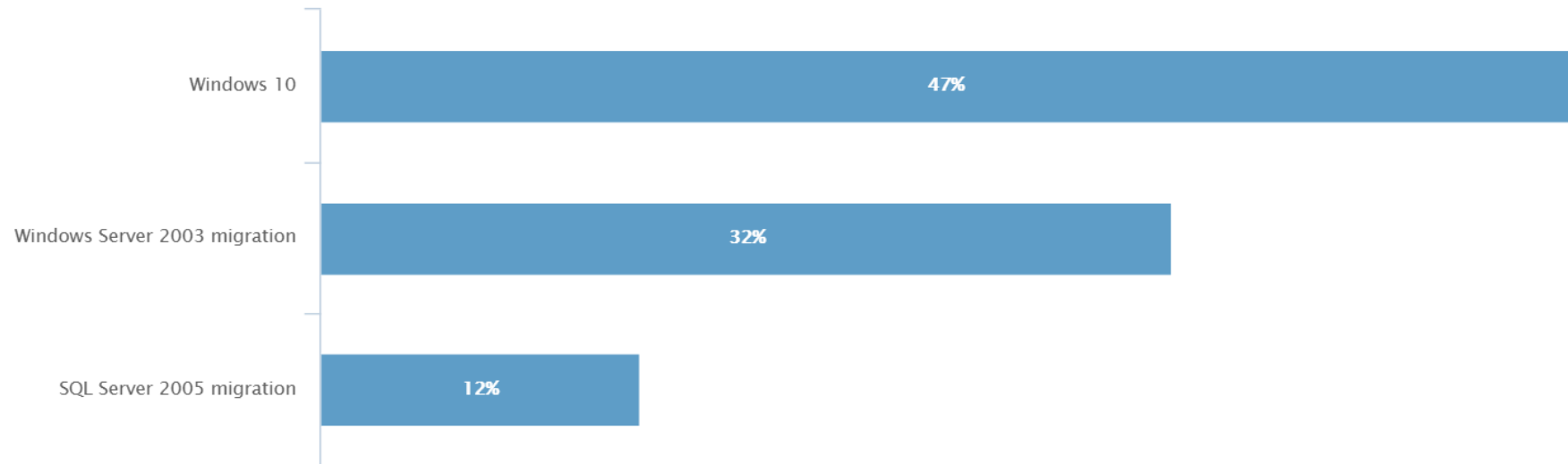
Top planned hardware purchases as part of an OS project (Asked of those who know what OS projects will get budget)
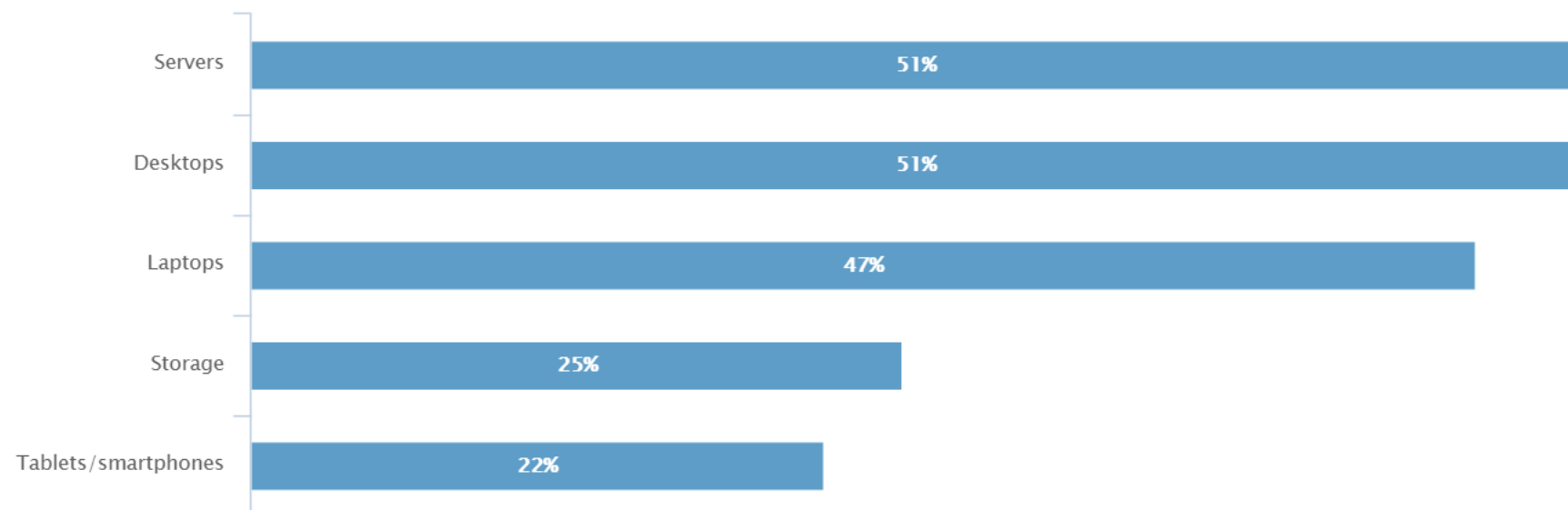
Servers	51%
Desktops	51%
Laptops	47%
Storage	25%
Tablets/smartphones	22%

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BITCOIN

Bitcoin is a form of digital currency, created and held electronically. No one controls it. Bitcoins aren't printed, like dollars or Euros – they're produced by people, and increasingly businesses, running computers all around the world, using software that solves mathematical problems. It can be used by individuals, businesses and developers.

Here are some terms that would help one to get along with Bitcoin.

1. **A bitcoin** - without capitalization, is used to describe bitcoins as a unit of account. It is also often abbreviated BTC or XBT.

2. **Bitcoin wallet** is loosely the equivalent of a physical wallet on the Bitcoin network. The wallet actually contains your private key(s) which allow you to spend the Bitcoins allocated to it in the block chain. Each Bitcoin wallet can show you the total balance of all Bitcoins it controls and lets you pay a specific amount to a specific person, just like a real wallet. This is different to credit cards where you are charged by the merchant.

3. **A private key** is a secret piece of data that proves your right to spend bitcoins from a specific wallet through a cryptographic signature. Your private key(s) are stored in your computer if you use a software wallet; they are stored on some remote servers if you use a web wallet. Private keys must never be revealed as they allow you to spend bitcoins for their respective Bitcoin wallet.

4. **A cryptographic signature** is a mathematical mechanism that allows someone to prove ownership. In the case of Bitcoin, a Bitcoin wallet and its private key(s) are linked by some mathematical magic. When your Bitcoin software signs a transaction with the appropriate private key, the whole network can see that the signature matches the bitcoins being spent. However, there is no way for the world to guess your private key to steal your hard-earned bitcoins.

5. **A Confirmation** means that a transaction has been processed by the network and is highly unlikely to be reversed. Transactions receive a confirmation when they are included in a block and for each subsequent block.
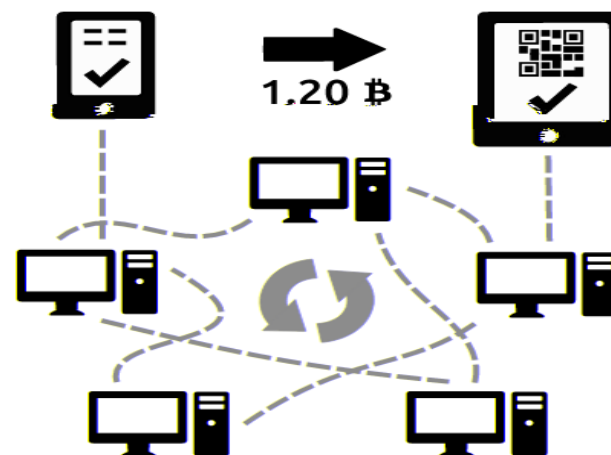
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Launched in August 2011, Blockchain.info provides data on recent transactions, mined blocks in the block chain, charts on the Bitcoin economy, and statistics and resources for developers. Experiencing a rapid expansion during the course of two years, Block chain exploded from 100,000 users to over 3,500,000 users.

A full copy of a currency's **block chain** contains every transaction ever executed in the currency. Block chain is currently the provider of the world's most popular Bitcoin wallet, the most widely used Bitcoin APIs, the most popular block explorer and search engine, and has what is widely recognized as the strongest, most trusted brand in Bitcoin.

The Basics for a new User

As a new user, you can get started with Bitcoin without understanding the technical details. Once you have installed a Bitcoin wallet on your computer or mobile phone, it will generate your first Bitcoin address and you can create more whenever you need one. You can disclose your addresses to your friends so that they can pay you or vice versa. In fact, this is pretty similar to how email works, except that Bitcoin addresses should only be used once.

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Balances - block chain

All confirmed transactions are included in the block chain. This way, Bitcoin wallets can calculate their spendable balance and new transactions can be verified to be spending bitcoins that are actually owned by the spender. The integrity and the chronological order of the block chain are enforced with cryptography.

Transactions - private keys

A transaction is a transfer of value between Bitcoin wallets that gets included in the block chain. Bitcoin wallets keep a secret piece of data called a **private key or seed**, which is used to sign transactions, providing a mathematical proof that they have come from the owner of the wallet. The **signature** also prevents the transaction from being altered by anybody once it has been issued. All transactions are broadcast between users and usually begin to be confirmed by the network in the following 10 minutes, through a process called **mining.**

Processing – mining

Mining is a distributed consensus system that is used to confirm waiting transactions by including them in the block chain. It enforces a chronological order in the block chain, protects the neutrality of the network, and allows different computers to agree on the state of the system. To be **confirmed**, transactions must be packed in a block that fits very strict cryptographic rules that will be verified by the network. These rules prevent previous blocks from being modified because doing so would invalidate all following blocks. Mining also creates the equivalent of a competitive lottery that prevents any individual from easily adding new blocks consecutively in the block chain. This way, no individuals can control what is included in the block chain or replace parts of the block chain to roll back their own spends.

Bitcoin lets you exchange money in a different way than with usual banks. As such, you should take time to inform yourself before using Bitcoin for any serious transaction. Bitcoin should be treated with the same care as your regular wallet, or even more some cases!!!

Net Neutrality

- On April 6 2015, Airtel has created quite hype in the telecommunications industry with its Zero platform. Through this platform, Airtel will provide free access to the users of certain applications which signed up with the company. It has received critical appraisal from its partners like Sachin Bansal of Flipkart. However, this affected the Flipkart app in a negative manner.

- Airtel Zero platform seems like a step to compete with a similar platform announced by Facebook-Reliance partnership in the form of Internet.org. Apart from the common marketing strategy, both violate 'net neutrality'.

What is net neutrality?

- Firstly, we need to understand what exactly net neutrality is. Net neutrality means Internet that allows everyone to communicate freely. It means a service provider should allow access to all content and applications regardless of the source and no websites or pages should be blocked, as long as they aren't illegal. It's like a fixed-telephone line, which is equal to all, and no one gets to decide who you call or what you speak. Another aspect of net neutrality is level playing field on the internet. This means, all websites can co-exist without hampering others. All websites are accessible at the same speed and no particular website of application is favored. For instance – like electricity, common for all. Net neutrality also means all web sites and content creators are treated equal, and you don't have to pay extra for faster Internet speed to a particular site/service.

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Net Neutrality

Why should I bother or what will happen if there is no net neutrality?

To put it out straight, if there is no net neutrality, the Internet won't function as we've known it too. It will mean Internet Service Providers (ISP) will be able to charge companies like YouTube or Netflix as they consume more bandwidth, and eventually the load of the extra sum will be pushed to the consumers. Similarly, ISPs can then create slow as well as fast Internet lanes, which will mean all websites cannot be accessed at the same speed and one can do so only on paying an additional sum. For instance, currently, you have a standard data package and access all the content at the same speed, irrespective of whether its an international website or desi. Similarly, ISPs can also charge extra for the free calls you make using services like WhatsApp, Skype and others, and eventually the load of additional payable sum by the OTT players will be pushed onto consumers.

Net Neutrality is extremely important for small business owners, startups and entrepreneurs, who can simply launch their businesses online, advertise the products and sell them openly, without any discrimination. It is essential for innovation and creating job opportunities. Big companies like Google, Twitter and several others are born out of net neutrality. With increasing Internet penetration in India and given that we are becoming a breeding ground for startups and entrepreneurs, the lack of net neutrality should worry us greatly. Besides, it is very important for freedom of speech, so that one can voice their opinion without the fear of being blocked or banned.

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Net Neutrality

Net Neutrality in India

- Taking the recent events into account, its time net neutrality is imposed in India too. Since the past couple of years, the instances of Internet censorship in India have increased manifold. In 2011, India adopted the new 'IT Rules 2011' that supplemented the IT Act 2000. These rules **made** it mandatory for Internet intermediaries **to** remove objectionable content **within** 36 hours of receiving complaint. But the terms

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Net Neutrality

Should we support the Free Basics services to be provided by Facebook?

- For the past couple of days, Facebook users across India have received a notification informing them that either one or many of their friends have allowed Facebook to send a message to the Telecom Regulatory Authority of India asking them to support "Free Basics in India". This is has come following TRAI's second round of consultation on certain questions around Net Neutrality in India.

- This is a smart move by Facebook, given that during the previous consultation process by TRAI on pretty much the same questions, more than a million people in India wrote to TRAI opposing Net-Neutrality-violating corporate schemes like Free Basics and Airtel Zero.What Facebook is trying to do now is gather support for its NN-violating Free Basics scheme in India by possibly misleading millions of its users.The problem with Free Basics is that it is based on the concept of "Zero Rating", where some services can be given free and others will be charged for. For example, if you want are using Free Basics, Facebook will be free, but Twitter or WhatsApp might not be. Thus, Zero Rating violates Net Neutrality.That might be ok in this specific case - but if we allow this to become a standard practice in the industry, then large network providers will be in a position to pick and choose the services given to their consumers. A big telecom company might charge more from a smaller start-up to be on par with a competitor

- So if you see anyone signing the petition or sharing it – ask them, 'are you in support of violating net neutrality', because by signing the petition, that is what they would be doing.

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Latest Trends

1. "Outside-In" Accelerates

- In today's highly interconnected markets, many of the most important new business forces are taking shape outside the walls of your enterprise. To respond effectively to these changes, you'll need a shift in mind-set, from inside-out to outside-in: leveraging innovation and technology outside your enterprise, from cloud to bring your own technology (BYOT) to cocreation and more.

- A year ago, many business leaders found it difficult to accept this new outside-in reality. Now we're finding that the outside-in trend is not only accepted, but also being put into action. In fact, we consider outside-in to be the megatrend from which the other five trends flow.

2. Industry Ecosystems Emerge

- One manifestation of the outside-in trend is what we call cocreation. Partners, clients and vendors are creating ecosystems to provide deep analytics, market sensing, planning and co-creation of products and services to ensure that needs are rapidly sensed and met. Partners in a broad ecosystem can together fulfill those needs. Value is shared among multiple partners, not a single participant.

- Initially, these ecosystems focused on the "Internet of Things" (IoT) and what some call the Industrial Internet. But now their reach has broadened. We're seeing ecosystems form around digital insurance, payment systems, healthcare, transportation and more.

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Companies such as Uber and Airbnb are massively disruptive. Expect to see many disruptive ecosystems form in traditional vertical markets, where partners can address the emergent needs of clients driven by big data and analytics better than going it alone.

3. Big Data Analytics Enters the Boardroom

- Last year, we spoke of big data's need to get fast. That's happening, with business analytics increasingly available in near-real time, thanks in large part to advances in nonrelational databases and other key technologies. Now big data is also moving into the boardroom. A new digital leadership, led by tech-savvy "double deep" executives who know technology and the business, is demanding quantitative insights into customers, products and partners. These executives are necessary to help navigate disruption, increase the enterprise's focus on analytics, and form deep partnerships to create value.

- Again, this shift is being driven by the larger outside-in trend. While early implementations of big data were homegrown, today many analytics solutions are available from vendors and partners. Similarly, much of the data that the new breed of digital leadership requires is coming from outside the organization. For example, how well is a product performing in the marketplace? Who are potential partners, and how well are they delivering against their most important performance metrics? These are new, outside-in ways of creating value.

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4. "3rd Platform" Shift Deepens the Critical Skills Gap

- The "3rd Platform," driven by SMAC (social, mobile, analytics and cloud), generates a wide skills gap versus traditional IT skills.

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5. Digital Leadership Becomes More Defined

- Increasingly, business and IT executives need to be proficient in both technology and business, and not — as in the past — just one or the other.

- The rise of the chief digital officer (CDO), a relatively new job title, reflects this growing need. CDOs need to be in tune with technologies that provide short cycle times for rapid growth, market sensing, analytics and response to markets. They need to understand mobile and other front-office systems that promote customer engagement and collaboration. CDOs also need to understand the requirements of both older back-office systems and regulatory compliance, and be ready to modernize these systems to deliver savings and agility while maintaining the expected stability.

6. SMAC Meets the Internet of Things

- SMAC is moving the enterprise from the office out into the larger world. SMAC has a symbiotic relationship with Internet of Things, each supporting the growth of the other. IoT will act as an accelerator for SMAC as more devices come online, and it will add value to SMAC because of the increased context these devices bring us, empowering organizations to conduct new, different kinds of conversations with their customers.

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| 2012	2013	2014	2015
Big data	Strategic big data	Smart machines	Smart machines
Extreme low-energy servers	Integrated ecosystems	Web-scale IT	Web-scale IT
Next generation analytics	Actionable analytics	3D printing	3D printing
App stores and marketplaces	Enterprise app stores	Software-defined anything	Software-defined applications/infrastructure
IoT	IoT	IoT	IoT
In-memory computing	In-memory computing	Cloud/client architecture	Cloud/client computing
Mobile-centric applications/interfaces	Mobile applications/HTML5	Mobile apps and applications	Risk-based security/self-protection
Cloud computing	Hybrid IT/cloud computing	Hybrid cloud & IT as a service broker	Advanced pervasive/invisible analytics
Media tablets and beyond	Mobile device battles	Mobile device diversity/management	Computing everywhere
Contextual/social user experience	Personal cloud	Era of the personal cloud	Content-rich systems

The Treasure Hunt Quiz

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Infinit-I is back with the Treasure Hunt Quiz. A simple crossword that will give you a chance to win 100 JAM credits. Mail us the answers at infiniti@iimidr.ac.in. latest by 15 Feb 2016. The subject should be Treasure Hunt Quiz | Jan 2016.

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Down
1. Apple's Bluetooth LE device
2. Facebook is to Internet.org as Airtel is to
4. Equal access to all content and applications regardless of the source

Across
3. Most Adopted OS
5. provides NAS and backup services, blending local storage for speed and local sharing
6. Initial Focus of ecosystems in industries
7. World's top video streaming service
8. Microsoft's Hybrid Local storage device with cloud connectivity
```
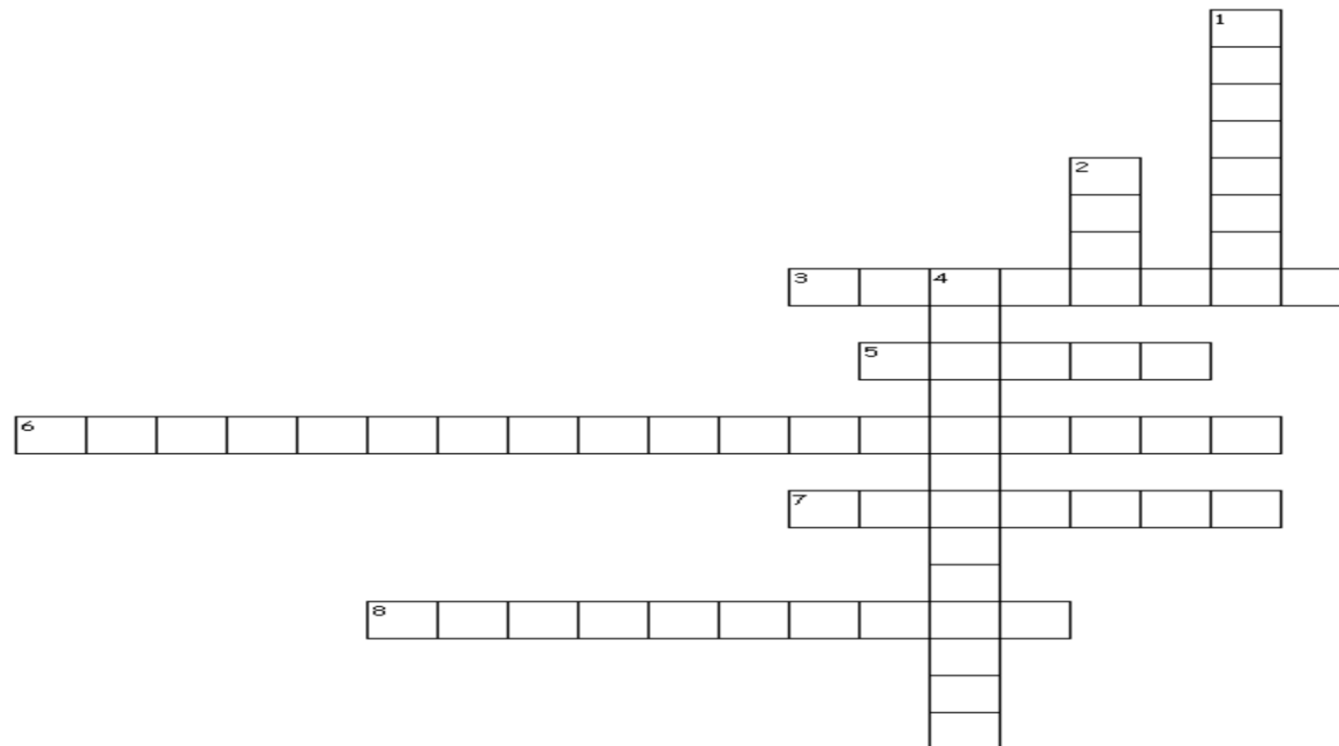
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"Have the courage to follow your heart and intuition. They somehow know what you truly want to become." – Steve Jobs

Team Infinit-I

Anil|Bidyut|Mayur|Nipun|Nishant|Nishtha|Pulkit|Sahil|Sameeksha|Smriti|Suma|Urvashi