Management & Information Technology Newsletter

EVOLVE

a Salesian College Association for Professionals initiative

## Android N
Everything you need to Know   pg. 4

DESIGNING
HETEROGENEOUS
MEMORY ARCHITECTURES

Harshit Sharma, BCA 4th Semester

Recent packaging technologies that enable DRAM chips to be stacked inside the processor package or on top of the processor chip can lower DRAM energy-per-bit costs, provide wider interfaces, and deliver substantially higher memory bandwidth. However, these technologies are limited in capacity and come at a higher price than traditional off-package memories. The most obvious means to achieve this balance is to employ both on- and off-package memory in heterogeneous memory architecture in NUMA (non uniform memory access) configuration.

Different contemporary DRAM technologies have not provided a sufficient gap in capabilities to justify using one DRAM technology to cache another. However, stacked DRAM technologies, in which DRAMs are stacked with through-silicon-visa on or adjacent to the processor chip, could change this.

The NUMA organization provides the highest potential bandwidth, because both memories can be accessed in parallel. It also provides the lowest latency and energy because requests are never serialized between the two memories. However, this approach depends on the OS to allocate memory pages appropriately.
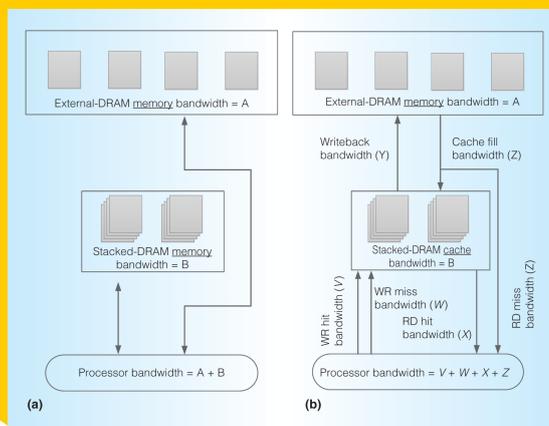
The bandwidth and energy advantages of emerging stacked DRAM memory technologies offer new opportunities and challenges to memory system architects. Effective use of these memories will likely require innovations in data placement and migration to simultaneously exploit the total bandwidth available in the system and provide greater bandwidth and lower

Source: *Institute of Electrical and Electronics Engineers (IEEE).*

true Athlete
Prashant Oraon, BBA 4th Semester

As an athlete, you don't ever want to rub your competitor's face in his loss regardless of how nasty this opponent may have been to you in the past or how desperately you want to beat him. You never want to go outside of the sport to embarrass or humiliate your opponent in the process of your victory. You never want to be disrespectful. Regardless of what you're feeling inside about your competitor or the outcome, you want to keep your mouth shut and control yourself. This is even truer if what you have to say or do is ultimately demeaning or bad-mannered. Being a true champion means that you have to conduct yourself with class regardless of the level that you compete at.

Being a part of Salesian College, Siliguri Campus, I am proud to have won the "Athlete of the Year 2014-15". I wish to thank Alberra Club for encouraging me and the college for helping me prove myself and win the coveted title.

BRICK AND MORTAR
TO CLICK AND
CONQUER

Fr. Aju Kurian, Vice Principal, Salesian College Siliguri

Congratulations to the Departments Bachelor of Business Administration and Computer Applications, especially the editorial team for bringing out the next issue of e- magazine "Evolve". Definitely the theme chosen *online marketing* is the need of the hour because of the influence the social media play in giving direction and setting tone to the entire marketing strategies.

The world is constantly evolving. The life style and communication have changed. Driven by the rapid change and technological advancement the entire globe is made to look so tiny. The fact is same in the world of commerce and industry too. Of course the recession has hit few countries but most countries growing leaps and bounds in the area of economy and there is emergence of newer countries replacing the older one and occupying important position in the global economic scenario. The development of the nation in the area of economy depends enormously on the Small Business Enterprises (SBEs) which are recognised as one of the main contributors to economic development and employment growth. The revolution in information technology (IT) and communications changed the way people conduct business today. The business atmosphere has observed a sweeping transition from a 'brick and mortar' world to 'click and conquer' world.

In recent years, increasing numbers of businesses have been using the internet and other electronic media in conducting their marketing efforts, giving the chance for Electronic Marketing to grow in a very dramatic and dynamic way. It has emerged as new marketing phenomenon, the philosophy and the strategy and has crept into every sphere. It is a new philosophy and a modern business practice involved with the marketing of goods, services, information and ideas via the internet and other electronic means. It is nothing but achieving marketing objectives through applying digital technologies (Smith and Chaffey, 2005). Strauss and Frost define it as: "the use of electronic data and applications for planning and executing the conception, distribution and pricing of ideas, goods and services to create exchanges that satisfy individual and organizational goals". Implementing E-Marketing by Small Business Enterprise can change both the shape and nature of its business all over the world because the increase usage of the Internet and other Electronic Marketing tools in electronic transactions might create not only a lot of opportunities for Small Business Enterprises but also can eliminate some of the dangers and greatly reduce the cost factor.

The new wave of social media marketing mainly done through social media/Web 2.0 tools like Blogs, Wikis, RSS, Social Networks, Forums/Communities is not only limited to only large organizations, but is also gaining hold in Small and Medium Enterprises globally. Capturing the voice of the customer and understanding and satisfying their needs have significantly become important factors in trade. Consumers tweet, blog, share, use Facebook or some other forum to dissect every detail of what brands claim and promise in marketing - right from product performance to customer service. The key deliverables that social media promise to provide are not just constrained to large organizations but also to every SBE in creation of brand awareness, developing initial level of trust in the organizations, generation of sales, engaging customers in interactions, and influencing customer purchase decision in a major way.

The development in the Online marketing communications are moving toward interactions between individual recipients and consumers rather than being directed from a marketing organization to masses of consumers. The social networking that allows the quick and easy dissemination of information greatly influences the choices and preferences of consumers and even the direction in which market should proceed. Without doubt to survive in competitive market and to further its growth the role played by the electronic media cannot be belittled.

BUSINESS
THE ONLINE
WAY

Anirban Ghosh, Asst. Prof, Dept. of Management

The online marketing industry is complex and ever changing, but an attractive one for anybody who stays up on modern trends. The industry is dictated by new hardware, new software, new companies and new user preferences. There is always a competitive advantage for early adopters while those lagging behind miss out on a key opportunity to retain their positions. The years ahead will be great years for online marketing with almost every industry going online with change of time.

Social channels like YouTube dedicated to hosting billions of videos and advertising platforms like Facebook and Bing are already offering advertisers video options. It's a sign that users are becoming more accepting of video ads online, and as that trend continues. With Google's ownership of YouTube, the possibilities are virtually limitless. App indexing will lead to an explosion of apps. Google has offered app indexing for a while. A mobile-optimized site works wonders for appealing to the mobile crowd, but soon, apps will begin to replace them. Apps can do everything that websites can, except in more intuitive, convenient, accessible ways. We're still several years away from apps completely replacing websites as a medium. Google announcement that mobile traffic overtook desktop traffic in 10 different countries shows that mobile will completely dominate desktop in the years to come. It's clear that Google's banking on desktop traffic fading away, meaning the smart money rests on mobile-focused online marketing.

Digital assistants will lead to a new kind of optimization. Search engine optimization (SEO) and pay-per-click (PPC) advertising are two highly popular strategies for getting your site seen by thousands of previously unknown visitors. Digital assistants like Siri and Cortana do utilize traditional search engines, but only when necessary to find information. The key to optimizing in this new format is to make sure your business information is easily accessible to these assistants. Virtual reality seems to be in the forefront of technology change. There are dozens of different virtual reality devices set to release in the next few years, some of which are dedicated for specific applications like video games, and others which are available for general use. Oculus Rift and other VR devices will introduce an entire new medium of online advertising, with integration to popular social media platforms, video channels, and even forms of direct messaging. Wearable technology will pave new ground. Apple Watch, a first generation smart watch, is already there in the market; being imitated by Chinese companies. Though, we can expect many companies to come up with such devices. Such devices will change the landscape of local marketing, and will do more to blur the lines between online marketing and real marketing.

In the Indian context the government has announced a 100 per cent FDI through the automatic route in the marketplace format of e-commerce retailing, giving a boost to foreign companies such as Amazon and eBay as well as domestic players such as Flipkart and Snapdeal. The e-commerce industry has grown rapidly in India logging a growth rate of over 60 per cent. Studies have estimated the size of the industry at around $38 billion by the end of 2016 and it is expected to touch $50 billion in 2020.

Thus, we may fairly say that our selling and purchasing habits are going to be gently and steadily moving towards online mode; making a clear shift from the traditional manner of commerce.

Android N
Everything you need to Know

Abhro Bhattacharjee, BCA 6th Semester

Google has surprised everyone with the spontaneous announcement of the Android N Developer Preview. This early version of the next major Android software update, due to be released later in the year, gives us a good indication of where Android is heading and what we can expect in the full release. Available on some Nexus devices (Nexus 6P, Nexus 5X, Nexus 6, Pixel C, Nexus 9 and Nexus Player), the Android N Developer Preview is a test version of the new Android software, primarily intended for developers. Like previous Developer Preview versions (such as Android M, which later became Android Marshmallow), the first version of this software does not contain all the new features of the next version of Android, but only parts. Google said that the final version of Android N will be sent to all manufacturers this summer.

Menu between the System Settings

A hamburger menu button (the icon with three lines) has now been embedded into the system settings. When a user is in the Bluetooth menu, for example, they can quickly jump to the other system options using this left side menu. This menu is already a standard in other Google applications.

Reply to Messages from the Notification Bar

Of the new additions, this is possibly the feature which most

resembles Apple iOS. Messages can now be answered from the notification itself. With this, the user will not need to leave an app to answer a message or even unlock their phone.

Multi-window Mode

As we saw in the Android M developer preview, Google has been working hard to bring a native and efficient multitasking system to Android. Although the function was eventually omitted from Android 6.0 Marshmallow, with Android N, Google now seems ready to make the leap. The image below shows the multi-window feature, which works on both tablets and phones and mirrors what you can currently get on some Samsung and LG devices. Like most major platform changes, developers will have to opt in for the split screen mode to allow their apps to run smoothly. This can be done by adding a new attribute called: resizable Activity. This attribute allows developers to specify the minimum size the app can be resized to and to determine whether resizing will be immediate or the application needs
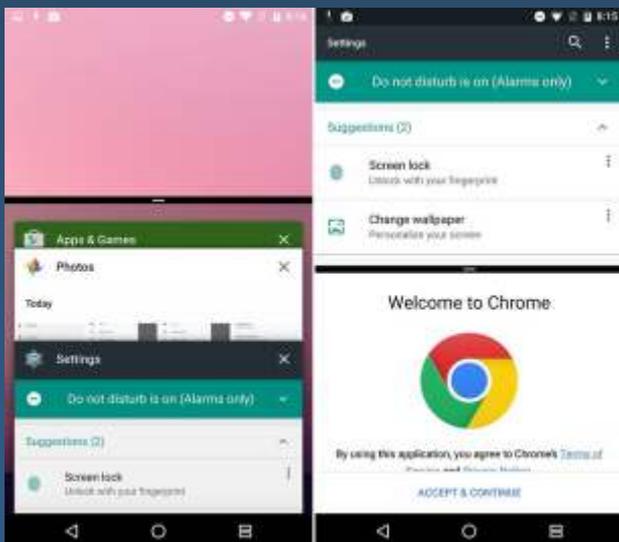

to restart with the required dimensions.

New Notifications Panel

The notification panel has been completely redesigned, perfectly aligning with what we had seen in earlier leaks. Icons above the notification shade are now more prominent, and on the far right there is a dropdown toggle to expand the panel. It is now possible to respond to messages directly from within a notification; a feature that uses the same Remote Input API that Android Wear makes use of. Notifications can now also be "stacked", optimizing the space in the notification area. Developers can choose to stack notifications from the same application in a single line. These can then be expanded using the expansion button or a two-fingered gesture.

Enhanced Doze Mode

The energy saving mode Doze has been improved in Android
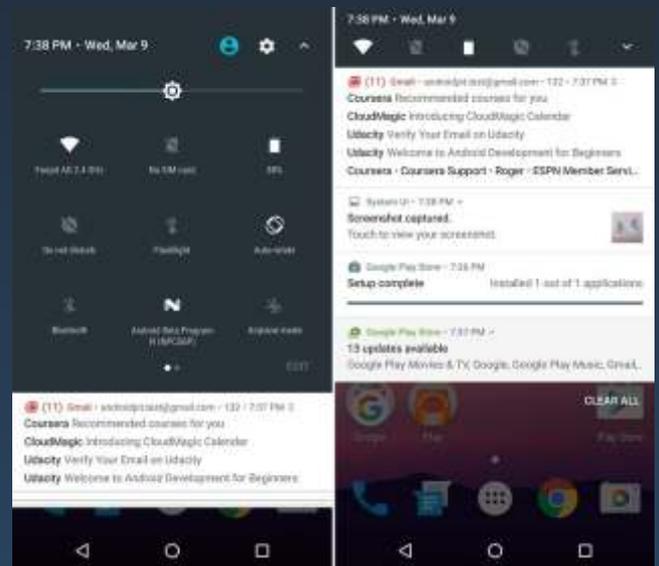
N. Previously, the feature had only worked when the phone had remained completely undisturbed for a long time, i.e. when you're sleeping, but now Google says Doze will also save battery any time the screen is turned off. We will have to test the new system more thoroughly to find out what impact it has on energy consumption. A system like this that comes into effect every time the phone's display turns off might not be something everyone is keen on, but we'll have to see how it works in practice. It is possible that a less extreme version of Doze mode, one that monitors the energy consumption of apps without impairing the usability and notifications, might be worked out.

Android N is purely a codename right now, so what will the new version be called? There are already a lot of possibilities, but the major front-runners are Android Nutella and Android Nougat. If previous years are any indicator, Google will share the official Android N name in the weeks before the release of the 2016 Nexus devices.

Source: https://www.androidpit.com/android-n-release-date-news-features-name

Quitting your job??
Things you must do!!

Rahul Bansal, BBA 4th Semester

Last week, a cousin texted me on Whatsapp informing about quitting his job- wrote a resignation letter, handed it over and just walked away! This is a very odd process to quit and may sometimes leave you in trouble or fill you with a sense of regret.

Whenever you make a decision to quit, you have to give a notice about your quitting according to the firm's policy. By the time you have decided to quit a job and sought out and accepted another one, your heart is not really in it any more. You won't be likely receiving any new projects and in many cases you won't be giving your 100% in your current ones. The theory is, "When people are ready to leave, they should do so right then and there."

During your tenure in a firm you might have been, at times, openly critical of your boss and his style of management. I being a son of a businessman and having a business background have a full understanding of the pressures and challenges of bringing up a business from scratch. Take an opportunity to apologize for your criticism and stupid comments on your boss as you are leaving. If you don't do it the regret will remain with you for a long time until you get an opportunity to express them.

No matter what terms you leave your job on, do not burn bridges. People will always remember how you have handled yourself when you left. Even if you had a great relationship with your colleagues, a mishandled exit can leave a bad taste. The people you work with have the potential to be your references, your future business partners, and your lifelong friends. Instead, share your contact details, connect on social media, and don't just say you will stay in touch, but make sure you actually do.

After quitting do buy your stock options. You never know what could happen. You may buy stocks worth rent of several months knowing that it would be the last time you ever saw that money. The company in future can execute a brilliant turn around and your investments would end up paying off. Even if you can buy part of your stock options, make sure you buy some or all of them, as you don't want to regret it when the company becomes the next big thing.