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EXPRESS COMPUTER

INDIA'S FOREMOST ENTERPRISE IT MAGAZINE JUNE 2014, ₹75

WHY ENTERPRISES ARE EXCITED ABOUT MOBILE CRM

INTERNET OF THINGS: The India story

THE WORTH OF CLOUD

Now that enterprises have started moving to the cloud, they need to leave the traditional RoI baggage behind. What, then? Look at new ways to determine its value

edit

ABKI BAAR, TECHNOLOGY APAAR

HIGH TIME THE NEW GOVERNMENT PRESSED THE PEDAL ON ICT AND TURNED THE GROWTH STORY HOLISTIC

When you sit down to write an edit on the very day election results in the world's largest democracy are announced, it is hard not to be touched by the surge in people's mood.

But that's just about how much I'm going to give it leeway for. Like Kejriwal would have said (or should have said): Miles to go before we sweep.

While we have seen and heard a lot of I-told-you-so's, cries of wolf and not-fairs in the past few days (ever since the upswing for Modi/BJP appeared on the horizon), there is so much work to do that any victory parade is not only premature but uncalled for.

It is hight time the conversation moved to setting things right: the sooner, the better. And time it moved from the prolonged kerfuffles on caste, religion and *laddoos* to a well-reasoned discourse on nation-building, mess-clearing and forward-moving.

The key pillars of such a conversation, in my opinion, are legislative, industrial, technological and environmental—which, if taken cohesively together, will lead to a rise in India's stature and improvement in its human development index.

In the tech aspect, which is our concern here, there have been several lost opportunities in the past 10-15 years. To give but one hint, we celebrated the year of broadband several years back, but are we a broadband nation yet?

Sure, we have done really well in software exports and the BPO sector, but as a consumer and "owner" of technology, we are way, way behind others.

Thankfully, things are at a stage where they can take off big time—and if the new decision makers in government would just give them a nudge, it would help.

Already, India is said to be the No. 2 market for Facebook in terms of user base. Over 40 million smartphones were sold in the country in 2013—a three-fold annual increase. And around 250 million Indians use the Internet.

And yet there is no IT manufacturing to boast of. Much of the apps and content used here are either developed elsewhere or their IP is owned by firms abroad. Most of the young IT graduates entering or working in the industry are "code mules" rather than cutting-edge programmers, creative types or risk-takers.

To put it straight, even if tritely, the ICT scenario in India is not developing holistically.

For some initial years of its growth and recognition on the world stage, it might have been all right for India to follow a lopsided or opportunistic model. But for India to stake the claim as a true IT power, the ICT story needs to be accelerated as a whole. What the government must do is press the pedal and shift the gear.

Files to go before we tweet.

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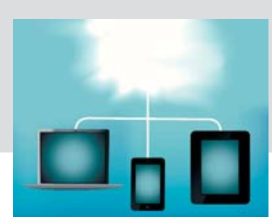

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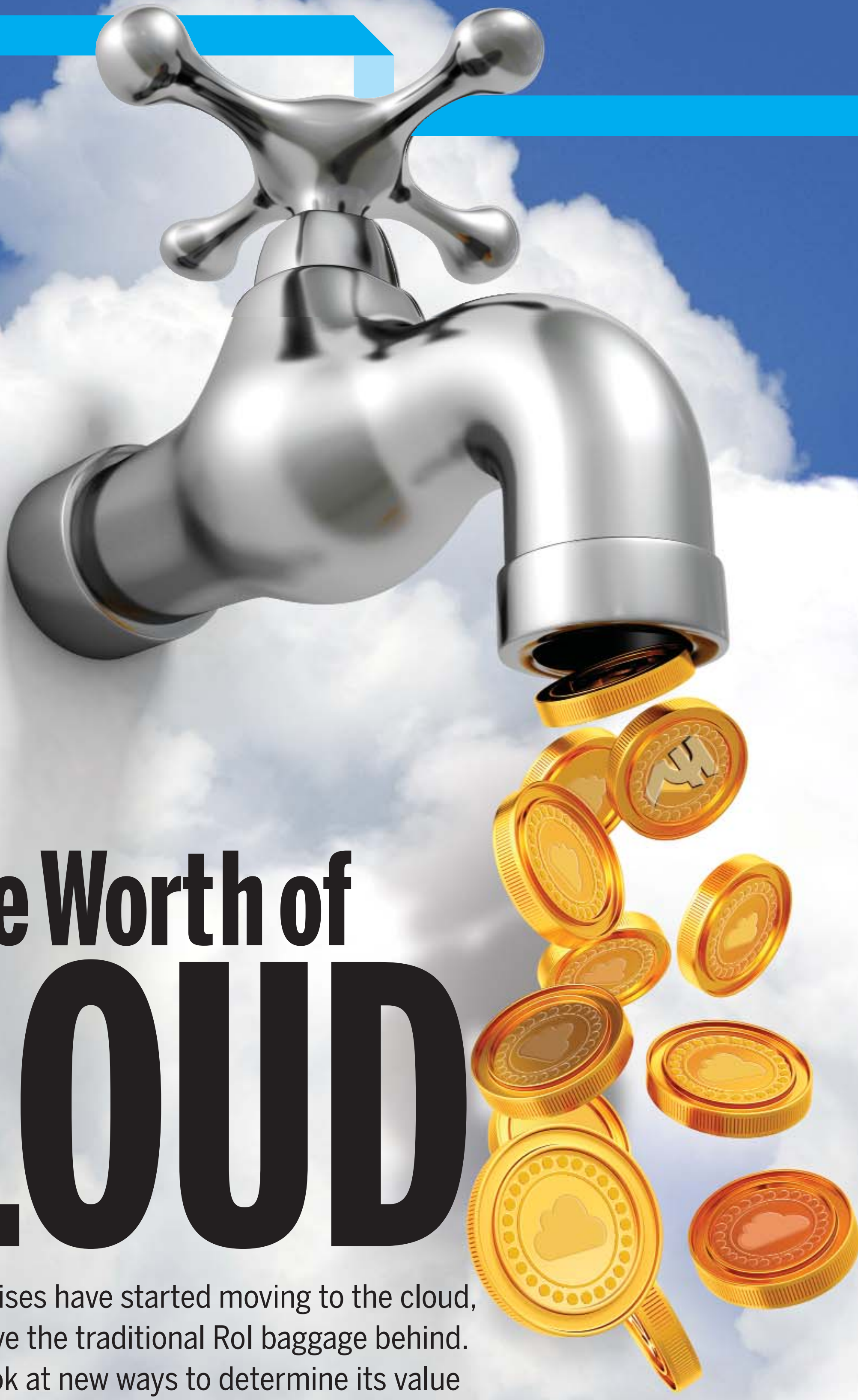

The Worth of CLOUD

Now that enterprises have started moving to the cloud, they need to leave the traditional RoI baggage behind. What, then? Look at new ways to determine its value

BY HARSHAL KALLYANPUR

PUBLIC CLOUD SERVICES MARKET IN INDIA

$556.8 MILLION IN 2014

$421 MILLION IN 2013

As a mobile ad exchange that serves more than 31 billion ad requests per month, across the globe, Vserv.mobi needs an IT infrastructure that is not only scalable as per demand but can also deliver the same level of performance across multiple geographies.

To achieve all this, the company adopted cloud computing. Explaining the need for such an infrastructure, Ashay Padwal, Co-founder and Chief Technology Officer at Vserv.mobi, says, “It is not possible for us to exactly understand and estimate the traffic. For us, the elasticity or scalability of our infrastructure, without any human intervention, was the key consideration while providing our service to the consumer.”

“We cannot wait to figure out how much traffic a consumer might bring to us and whether we have that infrastructure in place, or do we need to provision it. And therefore, cloud was a natural choice,” he adds.

Vserv therefore built its ad exchange platform keeping the cloud in mind. The company’s IT infrastructure is hosted across multiple data centres of Amazon in different geographies. This allows Vserv to eliminate latency issues and meet the response times that ad requests typically demand. “When an ad request comes to us, we have to respond to it within a 200 ms timeframe,” informs Padwal.

“Because everything is automated and I can keep adding and removing servers (as per requirement), we are able to manage 2.4 billion ad requests per day with a four-member team. Putting in this level of capex on a fixed infrastructure, and running it with 70% utilisation, and a three year depreciation on hardware—we see significant RoI on cloud in comparison,” he says.

Companies such as Vserv are prime examples of enterprises that are making the most of the cloud era. They have understood the benefits that cloud has to offer, and are taking a cloud-first approach, building or renting applications that are designed for the cloud.

Although cloud computing, with its 'low/no capex, easy opex' model, is especially appealing to startups and SMBs, its scalable and agile IT deployment model works well for large enterprises too.

That is why cloud computing is steadily gaining momentum in India among startups as well as enterprises. According to a recent Gartner estimate, the public cloud services market in India is on pace to grow 32.2% in 2014 to total $556.8 million, an increase from the 2013 revenue of $421 million. The research firm believes spending on software as a service (SaaS) will total $220 million in 2014, growing 33.2% over last year.

According to Gartner, SaaS is the largest overall cloud market segment, followed by infrastructure as a service (IaaS), totalling $78 million, and business process as a service

> Everything that enterprises use or don't use in the cloud, but provision, is chargeable.
>
> **Monish Darda**
> CTO, Icertis

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> Co-founder and Chief Technology Officer, Vserv.mobi

(BPaaS), totalling $75 million. In terms of future potential, from 2013 to 2018, BPaaS is expected to grow from $62.3 million to $204 million; SaaS from $166 million to $636 million; and IaaS from $58 million to $317 million.

A lot of this growth can be attributed to the fact that when organisations turned to the cloud for saving cost on IT, the technology has delivered.

But is cost saving the only measure of success for cloud? What could be the other factors pertaining to RoI? Then again, are hard numbers the only way to make a business case for cloud? Let's take a look.

Why go for cloud?

There is no denying that the biggest pull factor for a lot of enterprises is that the cloud promises to reduce their spend on IT. In most enterprises, IT is still considered a cost centre, and any saving on this front, however small, is welcomed by CXOs.

What the cloud allows them to do is they can do way with their age old infrastructure—without buying new infrastructure and being tied to it for the next few years. They do not have to worry about licensing any more, as much of it is handled in a consolidated manner in the cloud. Management costs are lower, too, as now it is the cloud service provider's headache to ensure the infrastructure is always running, secured, patched and chugging along as smoothly as they want.

Says Monish Darda, CTO, Icertis, a Microsoft-based cloud solution provider, "If I store my files on Amazon or Azure or any cloud service provider and compare my storage costs, there are two big differences. The storage is, by default, disaster recovery(DR) and high availability enabled in the cloud. This is not necessarily true for all storage on-premise. People might use tape backups for large volumes of data but they may not have DR and high availability at all."

He further says, "There may not be a geographical separation between two copies of the data. In the cloud, you cannot avoid this. You get it with your cloud storage, whether you want it or not. Even if the customer does not choose a geo-replication service (at additional cost), the data is still replicated at a different location for backup."

With the traditional approach to infrastructure, even if an enterprise decided to create a redundant and highly available environment, it would end up spending double the cost of its critical infrastructure in order to create a mirror infrastructure. This would further translate into additions in management, power and space costs. With a cloud service, this cost is taken care of by the service provider.

Jignesh Upadhyay, Director, Presales - Service Assurance Solutions at CA, shares a similar view. He says that offering the same level of service uptime turns out to be cheaper with a cloud service provider, because the cost of the infrastructure to offer that level of uptime is divided among all the customers and the service provider can take advantage of economies of scale.

"As an application developer, whenever I size my application, I always plan for certain buffer capacity. As we add up all the buffers, we end up with a 40 to 50% spare capacity. All of this risk can be passed on to the service provider, as long as I get the response time I signed for, as long as I can service the number of users I had signed for. And I am able to pay the service provider as per that usage," he says.

Darda shares a somewhat different perspective on this. He says, "Running a Windows server in a data centre might cost around $150 per month. But the same server in Azure might start costing $200. Obviously, it is more expensive. However, enterprises need to think beyond cost in terms of whether the in-house infrastructure has a high availability server and storage to back it up, or if they have even invested in capabilities to make it highly available."

As such, cost is not the sole reason that organisations look at or should look at when adopting cloud. With cloud, enterprises are able to provision resources in hours or days as opposed to months with traditional infrastructure. This makes it easier for enterprises to reduce the product development lifecycle and take it faster to the market.

Furthermore, by reducing resource provisioning times, enterprises can go back to the drawing board, make amends to their products, test them and roll them out—all in a time which was previously allocated to just procuring the very IT resources required for this process. As the improved product rolls out in the market, the RoI starts flowing in the form of higher customer satisfaction.

Prashant Gupta, Head of Solutions (India), Verizon Enterprise Solutions, shares a similar perspective. “What enterprises need to look at is the value they are trying to derive out of their cloud investment. Any RoI model cannot be defined just on cost. The real value comes by what is your expectation out of the cloud deployment,” he says.

This sentiment finds echo with some CIOs. Take Rajendra Deshpande, CIO of BPO firm Serco Global Services, for instance. He believes that if somebody is trying to make a business case for cloud only on cost savings, they cannot get their cloud implementation right. “The IT organisation needs to clearly understand whether their cloud effort is to address pain or gain. While they would obviously look at payback, if the cloud adoption does not solve a business pain area, then the move is of no use.”

Serco, for instance, has a survey application being delivered out of the cloud. To get a survey done across the entire customer base is a big challenge. Setting up the hardware and software just for a small period is quite a task. Doing this through the cloud drives the business benefit. However, what's more, the company is able to reach out to a larger audience. For a performance application that it has also hosted in the cloud, it is able to deliver the application experience on mobile devices like the iPad.

“90% of enterprises talk about cost saving when it comes to the cloud. [But] if you go to your CFO with the cost saving option, he will not buy your business case for cloud. Cloud is no longer an IT play, it is a business play,” says Deshpande.

This is true in Vserv's case too. While the company was able to eliminate the capex associated with setting up hardware at various locations, the business benefit that it gets far outweighs the initial cost savings. The company's platform can respond to an ad request within the latency limits because these requests can be served from the nearest location (because the Amazon cloud is spread across multiple zones). When a customer brings in more traffic, he does not have to wait because Vserv is able to spawn additional infrastructure within a few minutes and service the additional traffic coming in. Furthermore, as the service is cloud-based, the company is able to deliver ads across a variety of applications on various mobile end points.

Going wrong with RoI

While cost is not the absolute factor in choosing the cloud or realising its

> In the cloud world, the cost of migration is the primary investment.

Vishnu G Bhat
Senior Vice President and Global Head, Cloud & Big Data, Infosys

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Rajendra Deshpande
CIO, Serco Global Services

> The risk perception and cost benefit could be different for each service. There is no single formula that will say 'move everything' or 'don't move everything' to the cloud.

Sridhar Iyengar
Vice President - Product Management, ManageEngine

> IT assets will always be at different phases of their lifecycle. Therefore, enterprises need to segregate them into different categories and decide what can be moved to the cloud

benefits, it is an important consideration. There are several factors that an enterprise tends to look at when making assumptions on how it would size, build and operate its cloud infrastructure. And these are areas that can throw up hidden costs or anomalies that the organisation might not have factored in.

The first assumption that can go wrong is that the cloud would require the exact same infrastructure as an on-premise or traditional setup. This can result in over-provisioning IT, which translates into additional cost overheads.

Says Padwal of Vserv, "What a lot of enterprises do is, if they had 10 servers on a fixed infrastructure, they come to the cloud and ask for 10 servers. They then try to estimate RoI on it. That's where they see their estimations go wrong."

In Vserv's case, the company had started right out of the cloud with its applications. It did not really have a legacy to deal with. However, there might be a case wherein an enterprise is trying to migrate an application or some part of its application stack to the cloud. If this migration process is not estimated and planned right, the enterprise might start incurring costs that it had not factored in previously.

Other assumptions or events can give a false picture too. Says Vishnu G Bhat, Senior Vice President and Global Head, Cloud & Big Data, Infosys, "When an organisation looks at realising RoI on the cloud, it assumes that it would be moving certain workloads to the cloud over a particular period. If it is not able to move all of these workloads, it's a big risk. The benefits start kicking in only after the workloads have been moved. There could be various factors for this derailment. It could be business readiness, or technology or regulatory readiness from a cloud perspective."

Deshpande of Serco agrees that enterprises tend to forget the factors associated with migration or whether an application is to be cloud-enabled. This is where their underlying assumptions could go wrong.

"If you're migrating something to the cloud, you need to factor in the time in which you will phase out your current hardware or software running that application. Your transition time has to clearly articulate this, else you end up keeping paying for both your existing hardware and software and your cloud adoption."

However, if the enterprise does get its migration right and moves and starts operating from the cloud, there are other aspects of cloud which could throw surprises when the organisation gets its cloud bill.

According to Darda of Icertis, everything that enterprises use or don't use in the cloud—but provision it—is chargeable. "I've seen people running into bills of thousands of dollars per month, without realising that they have left instances on—the ones that they did not need," he says.

"From an ROI perspective, enterprises think that it's great that they can provision resources in the day and turn it off at night and cut costs by 50%. But they tend to forget to turn it off at night, because they don't have the process or they do not have the automation in place," he explains.

If an enterprise wants to leverage the volume and the cost parity of the cloud, this process cannot be manual and has to be automated with tools, many of which are already available with the cloud service provider.

Furthermore, a lot of enterprises tend to think that they can easily carry their governance rules and compliance processes as applied to the on-premise infrastructure over to the cloud. Many of these rules and processes are manual or time-consuming and may not lend themselves to the more agile nature of the cloud. While organisations need not throw all such procedures out of the window, they should tweak and adjust them as appropriate.

"They should have a trust but verify mechanism in place, where they can have the users provisioning resources. But it should be monitored and verified to check if what they asked for is really what they need," says Darda.

Nitin Mishra, Senior Vice President - Product Management, Netmagic, talks about how organisations tend to overlook

costs they might not have incurred with their on-premise infrastructure but are likely to bear in case of cloud. He explains, for instance, that when enterprises host applications in-house, the power cost is a part of the administration bill and is not given to IT. However, with a cloud service, those costs are factored in.

Furthermore, when the IT infrastructure is managed internally, any additional management workload is often taken as an incremental work for the people already deployed to manage the infrastructure—not so for the cloud, in which such work is done by the external service provider.

Likewise, when the enterprise data reaches a certain threshold, in case of in-house infrastructure, the enterprise just ends up buying more hardware. Internally, such additional expenses are kept in check by questioning the need for additional storage and asking the staff, from time to time, to clean up data or delete what is not required. This frees up some space that can be re-utilised.

"But with the cloud, storage is, in principle, available infinitely. Therefore, users keep on utilising it, and may end up storing more than they should—and the enterprise keeps paying for it," explains Mishra.

"In many cases, organisations don't even know why some virtual machines (VMs) were switched on and nobody wants to risk switching them off, as they do not know how it will affect the business," he says.

He also highlights other cost surprises. For instance, an overseas cloud provider may not show the TDS cost in its catalogue or the costs change when exchange rates change.

Doing it right

To get the RoI estimation right, an enterprise adopting cloud would first need to clearly outline the objective of its initiative and the business outcome it expects. Going with an assumption that it would be cheaper to run an application on the cloud as opposed to running it in-house may not necessarily be the right approach or yield the desired results.

At a basic level, the cloud provides good returns if: the dynamics of the business supported by the application have changed such that the workload can no longer be predicted; the outreach of the application would be across multiple users spread spread out locally or globally; or the enterprise is looking at new delivery channels to expand business.

However, there are a few things that enterprises can take cognisance of, when making their RoI assumptions. Bhat of Infosys believes that an enterprise should first carry out a current state assessment. They should assess the current state of their infrastructure and applications, and whether these applications can adapt to the cloud environment. If they require extensive re-architecting, the cost of transition can

> Even after the RoI calculation is done, it is important to check it on a monthly basis and keep validating the cash outflow to the service provider—whether it is in the same line or if there are gaps.

Nitin Mishra
Senior Vice President - Product Management, Netmagic

> A lot of returns on the cloud are based on how well the enterprise is able to utilise the underlying infrastructure

be quite high and have a significant bearing on RoI.

"Most enterprises only take an infrastructure view in the current state when doing an assessment. It is very important to do an assessment of the workloads of the application itself and the effort to make these applications cloud-ready," says Bhat.

Gupta of Verizon says, "A cloud readiness assessment should be done before you start moving to the cloud. Based on the assessment, you can decide which application, what time frame and which cloud provider offers you an environment that is closest to your requirements."

According to Deshpande of Serco, IT generally tries to make a business case for cloud by measuring the cost of cloud versus that of running a traditional infrastructure. However, the IT assets will always be at different phases of their lifecycle. Therefore, enterprises need to segregate them into different categories and decide what can be moved to the cloud.

Besides this, if the enterprise has a lot of data to migrate to the cloud, it has to plan the migration well—else the transformation could take so long that the organisation will end up bearing the cost of running it in- house as well as the cloud costs.

"Start with something which is absolutely not integrated with the core infrastructure, which can be tried and tested and understood well. It is really not worth comparing your current spend versus what will you be spending in the cloud. You will need to clearly articulate the business benefit," says Deshpande.

The way an application is built to run on the cloud is different from the traditional IT infrastructure. Workloads need to be handled differently, the I/O aspect needs to be looked at. Sizing requirements have to be tighter and, once hosted, running and maintaining the application also needs a slightly different approach. All this is necessary for the organisation to realise full benefits of the cloud.

Padwal of Vserv shares a similar opinion and says, "What is the cost of the talent that would be required to adapt to the cloud. If the cloud effort fails, what would be the cost? It's a good idea to go ahead with a small PoC, and go in a phased manner so that even your talent pool starts understanding and moves in that direction."

Furthermore, some organisations have highly sensitive data. They need to evaluate the cost versus risk. According to Sridhar Iyengar, Vice President - Product Management, ManageEngine, the decision is never across-the-board and some services or applications may have to stay in-house.

"The risk perception and cost benefit could be different for each service. There is no single formula that will say 'move everything' or 'don't move everything' to the cloud," he says.

Mishra of Netmagic, on the other hand, believes that a lot of returns on the cloud are based on how well the enterprise is able to utilise the underlying infrastructure.

For instance, in the returns calculation, it is important to look at the per core, per GB cost rather than the absolute cost of a hosted machine (considering that different solutions may allow different physical-to-virtual ratios). Many people look at the overall features of the cloud, the DR part, but they miss out on such nuances wherein they can get better physical-to-virtual ratios.

"On a per-unit basis, they might end up paying more for a technology, but in reality they might need fewer units and it would work out better from an RoI perspective," he says.

Taking stock of the bigger picture, Mishra says, "Even after the RoI calculation is done, it is important to check it on a monthly basis and keep validating the cash outflow to the service provider—whether it is in the same line or if there are gaps."

Bhat of Infosys says, "In the cloud world, the cost of migration is the primary investment. You are not buying anything. You are moving workloads, and what enterprises need to look at is how much money will be spent on migration tools, the migration effort and when will the effort start showing returns: what is the payback period?"

Once the cloud adoption is beyond the payback period, there will be a net differential in the cost of running applications. The RoI needs must include a sufficient time frame that takes into account the cost of transitioning to the cloud. Once the transition is made successfully, the spend is primarily operational expenses. There are no assets that depreciate. The licensing changes to a consumption-based model. And once the enterprise reaches a certain point in that transition journey, it will start to see returns.

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KATHLEEN OWENS
NOVELL & ATTACHMATE

Kathleen Owens, President and General Manager – Novell & Attachmate, talks to Pankaj Maru about how the company is rebuilding its brand image in the market, dealing with competition and the changing technology scenario. Excerpts:

"Our focus is to help customers by providing better control of IT"

What kind of competition does Novell face today in its various markets?
We see some competition across all markets, for example from Microsoft. There are other competitors specific to particular markets. The focus is on making sure that we address those markets and specific customer needs. In India, one of the challenges was that the customers were just not aware of Novell's offerings.

On the Filr side of our business, there's competition from Dropbox, NetApp, Citrix and some other solution providers. Filr was developed specifically for enterprises and that's how we stood out in the market amidst the trends of BYOD and consumerisation of IT. Our focus is to help customers by providing better control of IT with a high level of security by leveraging the existing infrastructure and controlling IT cost.

So, at the moment, where do Novell and Attachmate stand in the market?
Both the brands, in some ways, face similar challenges. Eastern and central Europe are really strong markets for us. A lot of historical Novell technologies, like GroupWise, are much stronger in central Europe than in other parts of the globe. For us, that market has struggled a bit in recent years around Attachmate and some of the Attachmate solutions are focused on connecting back to the mainframe systems. India doesn't have many of those mainframes. I think IBM left India in 1967 and they returned in 1985. Consequently, there aren't many mainframes and so the market opportunity in India is not the same as in other parts of the world. So, these are the factors that drive market opportunity and they certainly play out in our business.

How are you pushing these brands?
Based on customer conversations, we will focus on their needs through our solutions. Besides, we are providing our solutions through third-party partners that are hosting them over the cloud or enabling them. Also, we focus on ensuring that those solutions are cost effective, secure and give IT more control. Our cloud-based solutions help our customers with the option to leverage their existing infrastructure and IT investments. Moreover, we are building partnerships that help address some specific customer needs, which creates some positive impact on the brands.

How are you dealing with Novell's brand image in the market?

One of the challenges with Novell is battling a 30-year-old brand, probably with an impression that it's not as relevant. But I think we have done a good job of tackling it. We continue to develop relevant solutions for both our existing and new customer base. So, when I look at the Novell brand specifically, there's been a lot of progress made and good work has been done around connecting with customers, understanding their challenges and tackling them.

Was there a disconnect between Novell and its customers?
Prior to 2011, when Novell was acquired by the Attachmate Group, part of our strategy was very channel focused and I think we lost direct touch with some of our customers then. We wanted to leverage the channel where we can get scale and have meaningful relationships through good partnerships. But now, we are trying to reconnect with the customers. I think if you somehow lose touch with your top priorities, it's hard to understand how you can help and add value to customers. I think we have done a much better job in the past few years, reconnecting and getting that value back and that's probably the one thing which we have done differently.

How can Novell and Attachmate be more relevant today?
It is certainly in the mobility space. I had read something from IBM that 67% enterprises in India are going to invest in mobility related initiatives in the next year. We see that trend across the globe, because that can really impact business competitiveness and there's a lot to making mobility work. It is about getting the right data out there, in a format that the user is able to consume, making it more secure and enabling your workforce to be productive. Certainly, we continue to focus on the area whether it is about accessing mission-critical information or accessing files. So, the more we can really focus on what our customers are trying to solve, I think the better we will be able to do as a partner. And that's what we are really focused on now.

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CRM

ON THE MOVE

Spurred on by growth in mobility and social media, enterprises are mobile-enabling their customer relationship efforts

BY HEENA JHINGAN

With consumer satisfaction becoming one of the top priorities for organisations, customer relationship management (CRM) is gradually becoming central to their digital initiatives.

According to the research firm Gartner, globally, CRM software will be the top priority for additional spending on enterprise applications, as organisations are most focused on customer retention/satisfaction and attracting new customers. Gartner observes that mobile and social technology requirements are also driving CRM spending, with mobile devices forcing the change even faster than social networks.

Enterprise mobility impact has trickled down to the CRM level. Ease of use and access to information on the fly, have made mobile devices the undisputed winner as far as access media is concerned. Mobility is here to stay and penetrate deeper into the enterprises' IT skin. Going by the IDC report, the mobile work force will surpass 1.3 billion people by 2015, representing 37.2% of the world's overall work force, and a similar trend is likely to reflect in Indian market as well.

Even though uptake of enterprise mobility and related applications is still at a nascent stage in India, some of the developments in the market promise exciting times ahead. Industry veterans

Currently India has more than 160 million Internet users, of which 86 million access Internet using their mobile devices

believe, with nearly 80 million smart devices against about 100 million desktops in the country, the industry is nearing a tipping point. Currently, India has more than 160 million Internet users, of which 86 million access Internet using their mobile devices. Also, LinkedIn ranks India among its top four growth markets for the mobile usage.

As per Springboard Research, India's mobile workforce is expected to grow 53% over a period of four years— to reach

One of the biggest challenges enterprises initially faced was that their CRM solutions were very data heavy that could not run properly on basic mobile devices.

Benoy CS,
Director - ICT Practice,
Frost & Sullivan

Our strategy is to offer hybrid solutions that support our old solutions as well as new mobile-enabled applications.

Atul Tuli,
Senior Sales Director - Oracle CX (Customer Experience) Solutions,
Oracle APAC

205 million by 2015, out of which as many as 65% will be equipped with smart mobile devices. This is an obvious push for vendors to think mobile is every aspect of their offering.

Benoy CS, Director - ICT Practice, Frost & Sullivan, says that CRM is an old practice that hardly saw any major development for several years, till the mobile dimension came into the picture. In practice, broadly there are two approaches to take CRM to mobile. One way is to web enable and access the traditional CRM software on mobile, and the other one is to develop CRM applications for mobile.

"These are two different concepts that need to have specific strategies," says Raju Vegesna, Chief Evangelist, Zoho. Most of the large enterprises that already had CRM systems in place, in a bid to quickly jump on to the mobile bandwagon, simply web-enabled the solution, to be able to access those on mobile.

India's mobile workforce is expected to grow 53% over a period of four years, to reach 205 million by 2015, out of which as many as 65% will be equipped with smart mobile devices

Mobile invasion

For any technology to take off, there are certain barriers of adoption it must cross, says Benoy of Frost & Sullivan.

"One of the biggest challenges that enterprises initially faced while migrating their existing CRM solution to mobile, was that since these CRM solutions (SAP and Oracle in most cases) were very data heavy and large systems that could not run properly on basic mobile devices. The CRM vendors thus started pushing the case for smart devices to propel adoption of mobile CRM solutions," he says.

"However, it did not help the vendors much, as the smartphones at that point of time were expensive and also issues of device management were still unresolved. In the mean time, several other players with cloud-based thin applications like Salesforce.com that could run smoothly even on basic feature phones, took the market by storm, prompting the market leaders to rethink their mobility strategies and make technology acquisitions to make their offerings more agile," says Binoy.

In fact, many cellular service providers have taken a plunge in the mobile CRM business. There are several small developers in the India market, developing specialised applications. In most cases, it is unsustainable for them to reach out to enterprise customers directly. The cellular service providers white label these solutions and sell to the enterprises with value adds like SIMs and other applications.

"It is a win-win case for all, as the enterprises can de-risk by not depending on a small player, which may or may not exist in the future and instead have long term SLAs with the telco. For the service provider, it is and additional revenue stream," Benoy reasons.

Gartner expects CRM apps to grow 500% by 2014 and reports that there will be 1,200 CRM apps of various flavours in app stores. The research agency citing a CIO survey of more than 2,000 people, says that vendors will need to build mobile apps around their specific strengths.

Value in apps

Agrees Vegesna of Zoho, cautioning that enterprises should not expect a single CRM application to do everything.

He feels mobile offers vendors, a rich ground to develop use cases for greater adoption of the mobile CRM.

"Basically, there are certain native CRM apps and then there are a set of CRM-supporting apps. For example, there could be an instance of an auto exhibition, where a company wants to convert all the visitors into its leads and send them emails. In that case, it might be using an app to scan visitors' batches, another app to convert the scanned information to text, and yet another application to send out emails. In such cases, the enterprises might end up using several CRM supporting applications.

"We in fact, even have a tool called 'mail magnate' that helps enterprises track and connect with their key accounts," he says, adding that Zoho has been working with customers like Cleartrip Pvt Versito, People Strong and FS-Curtis India.

Manoj Khilnani, Country Marketing Head – Enterprise, BlackBerry India cites a similar case of Bangalore Traffic Police using BlackBerry devices and application to issue challans. "The application, though may not be a pure CRM application, but it does something that typically a CRM app is expected to do — trigger action on leads," he says, adding that insurance is yet another sector, besides telecom and retail that has shown good traction in adoption of mobile CRM.

"Success of mobile CRM will largely depend on the industry's ability to identify and develop use cases around the technology", says Atul Tuli, Senior Sales Director - Oracle CX (Customer Experience) Solutions, Oracle APAC.

He gives an example a Bangalore-based manufacturing company uses Oracle CRM on Demand Disconnected Mobile Sales, a native Mobile Sales Application which send/receives data to and from a server, that in turn connects to CRM On Demand. The company uses the solution for their service desk. The filed staff punches information on their mobile devices and the update happens once they are in the network area. "It is not possible for the field staff to be 'always on' as there could be remote locations with network issues. Such an app, thus comes handy," Tuli says, adding that Siemens, Kotak Bank, Reliance Finance are some of Orcale's customers using mobile CRM in different forms.

"Another customer that uses Oracle's mobile CRM solution, is a white goods manufacturing company, which is hardly using any desktop CRM. It does all their CRM activities on mobile," says Tuli. Non-government organisation HelpAge India has also deployed Oracle CRM on demand to provide fund-raisers with real-time access to donor information and establish better relationships with donors.

Lenskart.com, an online retailer of eyewear, has mobile-enabled most of its CRM channels. Lenskart CEO Peyush Bansal says, "We use best in industry solutions for each channel (voice/social media/email/chat) and integrate them with our homegrown system. Currently we are using this for experimentation; going forward, we plan to leverage it for more handy analytics and prompt response."

However, mobile has its own limitations of screen size, data processing speed and security. Thank God, there is cloud at the backend!

Cloud and social integration

Industry experts say even though a large number of Indian enterprises are still using legacy CRM solutions, they do not see them building those applications from the scratch. Companies realise that to stay ahead of the competition, they must replace traditional excel sheet-based systems with solutions that enable access to key information directly from the field. They have tried to do this by embracing cloud-based CRM applications.

According to Gartner's estimates, in 2012, almost 39% of the CRM software market revenue was delivered by SaaS (software as a service). During 2016, more than 50% of the CRM software revenue is expected to be delivered by SaaS.

A challenge that most enterprises face is that they are working with old technology, observes Tuli of Oracle. "They don't know how to move those systems to mobile. Our strategy is to offer hybrid solutions that support our old solutions as well as new mobile-enabled applications so that the customers' investments do not go waste."

Khilnani of BlackBerry points out that though traditionally, CRM implementations in India were mainly focused on sales, marketing & campaign management, now CRM has become an enterprise-wide initiative. "All three key areas of operations— service, marketing and analytics are important components of CRM pack," he says.

Over the last three to four years, CRM

"A major chunk of CRM applications available in the market today are designed to provide management data, rather than improve workflow for people in the field."

Kumar Siddhartha,
Managing Director,
Sage Software Solutions

Many of the social platforms now support customer list import, so enterprises can match customers to social media profiles has evolved from being just service centric. In fact, chief marketing officers are today investing more in CRM than the CIOs, says Tuli. "We offer a best of breed offering after taking into account the need of all the LoBs (line of businesses) within an enterprise. We don't just recommend Oracle CX (cloud-enabled customer experience solution), but we offer them solutions depending on the pain points of the users," he adds.

With a shift in the way, a CRM solution is now being perceived. Social media platforms have become a critical part of the overall CRM strategy of organisations, as communication through these has the potential to impact the organisations' business and brand. Thus, enterprises are increasingly interested in technologies that encourage development of customer communities and social networks. Gartner predicts social CRM to grow by 28.4% annually until 2015.

While enhancements in integration have allowed social networks to become accessible to businesses, the marketing teams still find it tough to sift out new customers or upsell opportunities. Post, tweet and status planner tools, allow marketing staff to plan their social communications ahead of time and many of the social platforms now support customer list import, so enterprises can match customers to social media profiles.

Social media offers several opportunities, at the same time, it has its own challenges as well, points out, Nibha Aggarwal, Director-Product Marketing, Amdocs. She says, "With proper social CRM tools, traditional customer relationship management practices can be extended to social media. It is important to develop collaborative experiences on social media and the solution must enhance experience."

The mobile shift

Another big change that the shift in CRM usage has led to, is in the form of the look and feel of the mobile CRM solutions.

Tuli of Oracle stresses that a solution is successful only if it is accepted by the users, a software might be great, but if it does not compel users to adopt, it serves no purpose. Not all tools and features might be required on a mobile offering, so it is no use cluttering the mobile space. "Most CRM solutions have tools that are available in any other accounting or financial application, I believe it must also have some good to have features to push the usage," he adds.

"A major chunk of CRM applications available in the market today are designed to provide management data, rather than improve workflow for people in the field. These applications are typically laden with many features and functions that mobile workers don't need or can't use. Navigating the menus and options is often slow for remote wireless users, which ultimately causes confusion, frustration and abandonment of the application," says Kumar Siddhartha, Managing Director of Sage Software Solutions Pvt. Ltd.

"Therefore it is extremely important to provide the right set of data to the right user and make navigation fast and easy for the end user. Data management and delivering the right data to the right user, is actually not a very complicated process. Though, there is a complete science behind ensuring that data is managed and delivered intelligently. It is here that a mobile CRM's capability to define smart workflows, rules and alerts comes into play.

There are a few other challenges to mobile CRM in India—the most crucial ones being security and connectivity. A mobile theft will also mean theft of crucial information of the company. There are other critical security concerns like handset security, transmission security, backend security, etc.

Mobile CRM is typically based on internet and that can be a big challenge when it comes to India. India is still picking up with its mobile internet penetration, with 3G services being mostly available in key cities and a major chunk of internet user still using the GPRS and Edge technology. Moreover, the industry will face the real test in developing use cases that will help mobile CRM to drive revenues.

Vegesna sums up, saying that whatever might be the permutation and combination of tools that an organisation uses, key factors are that how much can each piece be customisable and how well it is integrated—all goes well if the integration is done effectively.

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ASHISH THAPAR
VERIZON INDIA

Verizon recently released its Data Breach Investigations Report, DBIR 2014. Ashish Thapar, Head of Global Consulting & Integration Services, Verizon India, talks to Jasmine Desai about the still weak links in enterprise security. Excerpts:

"Organisations need to put in a clear security matrix for big data"

As compared to last year, are organisations now becoming more aware about where their data is residing?

Organisations are clearly lacking in terms of the data identification. Because of the dynamic environment in organisations, people need to be very aware in terms of changes that keep on happening there. With every change, there is a lot of scope for the potential breach that can happen. They may attain a particular stature and identify particular data elements, but just because there is change driven either by business or by IT, organisations need to be clear in terms of impact of that change — what data elements it will bring in, which data elements it will change, which new threat avenues it will open. For example, an internal portal becoming an external portal—does it open up any privacy related issues, has user consent been taken? Maintaining compliance is really difficult in IT and BPO. Organisations have to align their internal change with the ever changing compliance landscape.

Is ignoring log files still a very common security weakness?

Log correlation remains very important, but organisations need to have a global perspective and look at the entire horizon to really ascertain its security stature. Internal fraud detection capabilities have really helped. However, presently, fraud detection is becoming less important in terms of the breach discovery, law enforcement and discovery by unrelated parties; i.e. fraud by third party is rising much faster. Thus, it goes to show that it is not only important to look at one's own logs, but also to take intelligence input from the industry group or share the data with CERT, to be aware of the global risk intelligence.

In spite of security systems in place, is proper monitoring a big issue?

It continues to be the challenge, as it needs continuous focus. In some of the big investigations we did, if the system is sending logging to a particular log correlation system, even in that system, the IP address of the forwarding system is wrong. People should not have a false sense of security just because they have implemented a log correlation engine. How strong the integration is what matters and how strong the network flow reading is. It is not about the end-point log, but also about network flow information, which can tell a lot about APTs. These kinds of threats do not generate much noise—unless you look into what is happening in and outside the network.

Is it easy to breach air-gapped systems?

With increase in automation and in human-machine interface, these systems are becoming more connected to the TCP/IP systems. The more they get connected, the more they become vulnerable. These systems need to be assessed. Risk assessment is the only way to risk profile these kinds of infrastructure and deployments. Organisations need to be clear in terms of network architecture, connectivity, third-party software and third-party management.

Where do organisations start integration of solutions and processes?

Log correlation and SIEM solutions are very important. It depends on how the solution has been integrated and configured. It all depends on what is the value organisations are deriving from the solution—in terms of signature rules that have been implemented. Organisations need to see if they are really integrating it with the entire landscape and with the intrusion prevention system. Thus, if a particular threat is detected, immediate preventive action can be taken. They also need to look if it is integrated with the anti-virus system and with network flow sensors.

How can organisations make big data more consumable for risk management officers?

Organisations need to be very clear with data identification and classification, before they even start their journey on big data. They need to be very careful about what that data is, where the data is coming from, where it is being sent and how the data is being protected in all three areas: data addressed, data in transit, and data under processing.

Data classification is very important because organisations need to be sure about what kind of data elements are being gathered. It could be card holder data where PCI compliance comes in; it could be health records so HIPAA comes in; it could be personally identifiable information where a lot of state laws or EU directives come into play; it could be personal information where 11 amendments of IT Act talk about personal information. They also have to look at how the data is securely destroyed. Thus, organisations need to be aware of the complete data lifecycle. They need to put in a clear security matrix when they handle big data areas.

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INTERNET OF THINGS: IS IT HAPPENING?

Despite the hype and potential of IoT to automate processes and make life smarter, several issues can hinder its adoption in India

BY PANKAJ MARU

With cloud and mobility gaining some maturity the world over, tech giants like Cisco, IBM, Google, GE, Qualcomm, SAP, Intel, Bosch, ARM and others are all geared up to give a big push to the new concept of Internet of Things (IoT).

Although IoT as a technology is futuristic in nature, these vendors are betting big on it and pitching it differently in the market—each eyeing for itself a bigger chunk of the potential revenue from IoT devices and solutions.

Cisco, one of the early IoT proponents, defines it as Internet of Everything (IoE), German engineering firm Bosch calls it Internet of Things and Services (IoTS), and GE states IoT as Industrial Internet. Likewise, Intel and IBM term it as Intelligent Systems and Smart Planet respectively.

Every vendor is trying to present IoT under different nomenclature and marketing it based on how its own interests are fulfilled best.

For instance, Cisco differentiates IoT and IoE by pointing out that the former as a concept has been in existence for quite some time but the latter encompasses more value creation. According to Nal Gollagunata, Director – Business Development, Cisco India & SAARC, IoE is actually the one that brings in a lot of value, while IoT is just about connecting devices on any network like M2M (machine-to-machine communication)—but it doesn't include people and processes.

"IoE actually has four elements to it—devices, data, processes and people; when these four pieces are put together, it will help to drive business impact. When devices are connected, data gets generated, which is then processed using data analytics and then people can actually use that processed data for making business decisions," says Gollagunata.

In spite of the fact that these vendors have drawn some lines around IoT offerings, they have attempted to come together to work in the area of standardisation of technology and devices, through a group. In March this year, AT&T, GE, Cisco, IBM and Intel formed the Industrial Internet Consortium (IIC) to drive IoT globally.

Market opportunities

According to the Cisco IoE Value Index study released in 2013, globally, $14.4 trillion of value will be at stake over the next decade (2013-2022). The company defines value at stake as the potential bottom line value that can be created or will migrate among private sector companies and sectors based on their ability to harness IoT.

The study further estimates that for all the participating vendors in this sphere, the total addressable market will touch $4.1 trillion in annual revenue by 2016.

According to Shalil Gupta, Insights and Consulting Director, IDC India, vendors will have big opportunities around IoT in solutions, services, analytics, integration and platforms.

"IoT will offer a good edge to C-level professionals like COOs, CMOs and CFOs and they will get more value out of IT. Use cases like M2M communications would be the technical driver, while IoT would be the business driver," says Gupta.

IDC has its own estimates of the potential revenue from IOT. "Globally, there will be around 30 billion end points, which will generate revenue of $8.9 trillion by 2020, as per IDC estimates. This offers opportunity for user organisations as well as vendors," says Gupta. He adds that cloud and mobility actually enable IoT in six key areas: connectivity, platform, service, software, analytics and devices.

Ganesh Ramamoorthy, Vice President - Research, Gartner, says that primarily, for the top 10 tech suppliers, the IoT market is across the globe, and they are trying to offer industry-specific solutions.

"From the customers' point of view, these suppliers are mostly looking at major clients like the Fortune 500 for IoT and also the demand at large is coming from end user organisations in the US and Europe regions," says Ramamoorthy.

In terms of solutions usage, Gupta of IDC suggests that the large enterprises would adopt those IoT solutions to improve their service levels and

> IoE actually has four elements to it – devices, data, processes and people; when these four pieces are put together, it will help to drive business impact

Nal Gollagunata
Director – Business Development, Cisco India & SAARC

> Vendors will have big opportunities around IoT in areas like solutions, services, analytics, integration and platforms

Shalil Gupta
Insights and Consulting Director, IDC India

> The healthcare sector will be the biggest adopter of IoT, and today there are a range of wearable devices available in the market

Ganesh Ramamoorthy
Vice President - Research, Gartner

> In last 12-18 months, we have seen a rise in awareness levels in the market, specifically on the M2M side of IoT.

Prabhu Ramachandra
Director, WebNMS

processes proactively by using sensor-based analysis and customised technology and solutions. "This would help companies to become more reliable, deliver services faster and differentiate in the market," says Gupta.

The India market

There is a lot of talk about IoT in India, but there's no specific data to indicate the market potential in the country. However, factors like lack of adequate infrastructure and connectivity, network and power outages and others might act as obstacles in IoT adoption.

"There is no data available in the Indian market at this point of time. And it's difficult to predict whether India will have a proper infrastructure in place even by 2020 to drive IoT here. But by 2020, we could see some investments happening from large user organisations," says Ramamoorthy of Gartner.

In Ramamoorthy's view, the motivation for adopting IoT changes from one industry to the other. Three verticals—energy and utility, automotive and healthcare—he says, are seeing good adoption.

"In the energy and utility sector, enterprises are adopting smart grids to manage and monitor large infrastructure and effectively use power. In the automotive sector, new vehicles are fixed with electronic systems like advanced driver assistant systems which can integrate with the vehicles' main systems for better control and monitoring of vehicles," says Ramamoorthy.

According to Ramamoorthy, the healthcare sector will be the biggest adopter of IoT, and today there are a range of wearable devices available in the market that help one to monitor several body functions. IoT enables such devices to automatically transmit data over a wireless network to doctors, health advisors and hospitals.

Other opportunities for IoT in India exist in large projects such as smart buildings and cities, smart traffic management, water management, etc.

In India, companies like Cisco, Bosch, WebNMS and many others are banking on large private as well as government enterprises to offer their solutions and products.

"In the last 12-18 months, we have seen a rise in awareness levels in the market, specifically on the M2M side of IoT, which was not there three years ago. Today, ATM operators, retailers, telcos and automotive companies are showing lots of interest in M2M," says Prabhu Ramachandra, Director – WebNMS, a part of Zoho Corporation. He adds that adoption of the technology, even though it is low, is on the B2B side rather than consumer side.

Talking about its India customers, Gollagunata of Cisco says that one of its clients is a Pune based automotive vendor that is among the top three in India. "The solution is helping the customer generate real time reports tracking movement in the plant, monitoring assets as well as finding out supply shortages," he says.

Stressing on the real-time nature of reports and data, Gollagunata says that earlier, it used to take a whole month for the company to get those utilisation and assembly line reports, but now data is available in real time. This helps the management to take prompt action in case of any issues at the plant.

For WebNMS, firms such as mobile tower operators and power grids are using its M2M solutions for monitoring and management on a trial basis. "Basically they (customers) are trying to understand how much these solutions can help them in reducing overall costs and managing infrastructure remotely," says Ramachandra.

Then there are IoT solutions developed by the India research units of global firms. Developed primarily for advanced markets, these might find their place in India over time. For instance, Bangalore based Robert Bosch Engineering and Business Solutions Limited (RBEI), a 100% subsidiary of Bosch, has developed many solutions around IoT in the past few years. These include software applications like smart street lighting to help improve the safety in public spaces and optimise power consumption and intelligent Transport Management System (iTrams) for fleet operators and original equipment manufacturers (OEMs) to manage their vehicles efficiently.

Since the IoT concept is new and typically requires huge investments, most customers are first looking at pilots or trial-based implementations.

"From CIOs' and enterprises' perspective in India, there's a need to have a business case around IoT. They are aware of IoT, but are still figuring out what value and benefits it can bring to businesses. So at this point of time, they are thinking whether it makes sense to invest in IoT or not," says Ramamoorthy of Gartner.

What Indian CIOs think

In general, Indian CIOs are aware about IoT to an extent, but call it as a futuristic technology. As per a recent IDC survey of 50 Indian organisations, 30% of them had some idea or vision in mind around M2M, with regard to IoT, but they are not fully aware of the benefits it can bring.

According to KNC Nair, Group CIO, Muthoot Group, IoT is definitely futuristic in nature. But he feels that in the technology world, the future comes faster. "As we have seen in the case of mobile phones in India, who would have thought that mobile phones would reach so fast across India in such huge numbers," he says.

"From an Indian enterprise perspective, IoT is still at a very preliminary stage and its usage and application would be more or less by large enterprises and organisations," says Nair.

Likewise, Jitendra Singh, Group CIO, Nagarjuna Fertilizers & Chemicals, also considers IoT to be at a very nascent stage and immature for enterprises to adopt. "In terms of IoT usage and adoption, broadly it has two areas – IT and the manufacturing sector. On the IT side, it will be largely adopted by internal IT of

From an Indian enterprise perspective, IoT is still at a very preliminary stage and its usage and application would be more or less by large enterprises

KNC Nair
Group CIO, Muthoot Group

Security concerns in Internet of Things are not so threatening as to hamper its adoption

Jitendra Singh
Group CIO,
Nagarjuna Fertilizers & Chemicals

organisations and enterprises," he says.

According to Singh, the manufacturing sector will take much longer to adopt IoT, maybe more than 5-7 years.

Singh says that internal IT will largely adopt IoT for better control and monitoring, while industrial IT will use IoT for automation of processes, to reduce time and cost; and to improve overall efficiency—though industrial IT would be quite slow to adopt it.

Taking a different view that pertains to interoperability, V Srinivas, EVP – IT, Sanmar Group, says, "Basically, IoT in an Indian enterprise context has many areas that need to be dealt with. For instance, there is an issue around technology and device interoperability. Most vendors want to push their own proprietary software products and devices or operating systems, so there needs to be a commonality; otherwise, it poses a big challenge."

Srinivas opines that even before Indian enterprises start to think of IoT, the fact remains that not many organisations have actually invested in office or plant/factory automation (M2M). In terms of technology challenges, Srinivas makes a very valid point about how Indian enterprises continue to use the old technology or infrastructure, causing a "technology conflict."

"Compared to other countries, Indian enterprises don't refresh hardware more frequently or in a time bound way, which could easily lead to the situation of "technology conflict." So, whether the existing or old infrastructure and systems can continue to work or support the new version of software or technology remains a key problem," he says.

Despite these challenges, Indian CIOs are quite positive about IoT. Interestingly, Nair has done some experimentation around IoT at his organisation, Muthoot Finance, which provides cash loans against deposit of gold items across India. The organisation is exploring ways to use IoT for enhancing the safety and security of gold packets and deposits.

"Internally, we are doing a pilot project that involves tagging gold packets with RFID tags and motion detection sensors, which helps in auditing of gold packets through devices. This allows easy detection and monitoring of entire packets in a short time," says Nair.

> Most vendors want to push their own proprietary software products and devices or operating systems; there needs to be a commonality
>
> **V Srinivas**
> EVP – IT, Sanmar Group

Similarly, ATMs in India can be embedded with chips and systems that can identify or detect the actual customers using some IoT based devices and technologies. This could fortify security of ATMs as well as bring down the cost of physical security and dependency on human guards.

Concerns around IoT

"IoT also has its own set of challenges as well. Infrastructure is among the key challenges in India. How can we see interconnectivity with devices where there's no power in the rural areas?" asks Nair.

"Another challenge is the lack of ecosystem around IoT. There's a lack of technology standardisation for interconnectivity of devices from different vendors. Besides, there are prevailing concerns of data security and privacy," cautions Nair.

Giving the example of the UID project in India, Nair says that many people are having concerns around the UID project and have apprehensions over the personal data and its security. "These apprehensions are natural," says Nair.

Singh of Nagarjuna Fertilizers agrees that security is a key concern around IoT, but plays them down. "Those security concerns are not so threatening as to hamper adoption. Probably, most CIOs/CISOs will try to adopt IoT with a pinch of salt as it's more to do with the mindset."

Even vendors admit that security remains a key aspect in IoT. "Though I don't call security a concern, but it's a very important metric the way people look at it today," says Gollagunata of Cisco.

Ramachandra of WebNMS says, "Given such concerns, we are offering our solutions that can easily run in a private cloud and also follow standard security mechanisms like encryption, SSL over HTTPS and others."

Talking about the lack of adequate ecosystem around IoT, Ramachandra says that vendors, technology suppliers and system integrators will all need to work together to build the ecosystem—it's more like the chicken-and-egg problem at the moment.

Another concern voiced by CIOs is that IoT will actually push the demand of storage and data access or the Internet, and could easily put an additional cost burden on enterprises.

"IoT will see a surge in demand for storage solutions and no enterprise can afford to invest in on-premise storage. The only option to save the cost on storage is to have cloud-based storage. Besides that, cost linked with accessing data is another factor that enterprises will need to look at," says Srinivas.

He suggests that the service providers (Internet and telcos) need to consult with policy makers and government authorities like TRAI to ensure that the cost of data access and usage remains low. "This would ensure enterprises are able to use IoT-based solutions. This also links to the state of infrastructure in India, because IoT needs high speed Internet and connectivity," he says.

Going by the prevailing views, though IoT brings ample benefits and opportunities for enterprises, India still has a long way to go before IoT becomes a big reality here.

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SUNIL PADMANABH
GARTNER

Many organisations are today rushing to deploy cloud-based talent management solutions without a clear understanding of the implementation challenges. Sunil Padmanabh, Research Director, Gartner, gives an insight into how enterprises can get these cloud implementations right, in an interview with Jasmine Desai

"In a cloud delivery model, the word 'customisation' is absent"

Most organisations don't understand the difference between solution configuration and customisation. How does this impact the deployment of a cloud-based talent management solution?
Organisations are aware that cloud is all about standardisation, but they still think that they can get lot of customisation in the cloud environment as per their needs. They think that the vendors will do the same amount of changes that they earlier used to. It comes as a surprise that vendors provide only extensibility and configuration skill when it comes to uniqueness. Organisations know configuration and customisation in their environments, but in the cloud, it's a different ballgame. The word customisation is absent in a cloud delivery model. To keep the uniqueness, the vendors provide upgrade safe functionality. For example, vendors like Ramco HCM and SuccessFactors provide extensibility kit wherein there is upgrade safe extensions, through which one can make processes and functionality unique to the organisations and fine-tune them with these kits. When the upgrade comes, it does not affect the existing application and its functionality.

Vendors circumvent the need for the customisation. However, the whole cloud delivery model has enforced more discipline than ever before. Unless compliance and regulations require, IT leaders are trying to keep it as standard and as global as possible.

In what way do organisations tend to underestimate the complexity of data migration and integration?
The moment organisations want to install HR systems in the cloud, the whole exercise requires the HR related data, employee data, business rules and data attributes, to be copied from the existing system to the new cloud system. There is a complexity in new system matching the data attributes to the older system. It might not match exactly in terms of HR data attributes, employee attributes. It needs some tweaking of column extensions, data mapping, additional effort in data mapping and migration. Somehow, users tend to oversimplify it. But during implementation, they realise that it is the same complexity they have to go through. It does not change from on-premise to the cloud. This knowledge is not very well-known and users are not very clear about this concept.

Apart from the user interface, which other factors are driving adoption of talent management tools?

Usability and self-service are driving major adoption of these tools. For example, managerial self-service, employee self-service. These functionalities accelerate participation in terms of contribution of HR related information and leveraging of information — collected across the organisation, to be consumed by HR managers.

Organisations often lack strong assessment criteria and tools to evaluate the service partner's capability to implement a cloud-based application. What do you suggest here?
Basically, organisations are not aware of the pluses and minuses of one tool versus the other and of what should be the criteria and complexities when it comes to choosing the vendor. They are maturing, but not yet completely developed in terms of how they can contract a vendor in the cloud. Clients do not factor these in their assessments. They need to go into deeper details of SaaS contracting, application roadmap for next three years, the kind of partner ecosystem the vendor has tied up and the kind of innovation they can demonstrate. Cloud is still maturing and organisations still do not have all parameters at their disposal.

How is the Indian market different in terms of challenges?
The Indian market is growing rapidly. Vendors like SuccessFactors and Ramco have been growing at more than 100% in this part of the world. Indian organisations are using HCM and talent management as the first step in experimenting with cloud. They feel it is low risk and safer. It is the first step for them towards understanding how cloud works for their environment.

The challenge is mostly in terms of the change management. Change management is not feasible in the cloud every now and then. Once in cloud, organisations upgrade every quarter, free of cost. It involves clear understanding of expectations. It also involves readiness of the cloud transformation journey itself— in terms of keeping processes and work-flow simple etc. Lot of focus needs to be on underlying business processes to accommodate the cloud.

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FEATURE BUSINESS INTELLIGENCE

BI DEPLOYMENT: Horizontal or Vertical?

Should a company look at a horizontal design for business intelligence applications or does going vertical make more sense? Read on

BY SANJAY SHAH

The company where Mr. Basu works, ABC Corporation, is a conglomerate of several different types of businesses operating under one single legal entity. Mr. Basu was the head of SBU-A till the past year. But now he heads the BI Initiative. Growth in the past couple of years has been good. The group has invested in an ERP system and various modules of the system are under different stages of implementation. The MD firmly believes the continued growth and profitability will depend on taking the right decisions at the right time and based on data rather than on gut feelings. For this he feels that the time has come to invest in BI Technologies and applications. He has engaged Mr. Waghmare, who is a BI Strategist for guidance, and internally the initiative is driven by himself and Mr. Basu.

Mr. Basu feels that the BI applications should be designed horizontally. But the MD feels that they should be designed vertically.

The financial year has ended well and there has been good top line growth, but the bottom line is under pressure. So the mood of the MD is mixed.

Lata (MD's Secretary): Good evening Mr. Basu and a happy new year. the MD and Mr. Waghmare are waiting for you.(*She winks*). But be careful, the MD is not in a very good mood.

Basu: Thanks, Lata.

Basu enters the MD's room.

Basu: Good evening, Sir. Good evening, Mr. Waghmare.

MD: Good evening, Basu. (*Sounding a little irritated*) We have exchanged so many emails on the basic BI strategy, i.e. whether to design applications horizontally or vertically. I see that you are still not convinced!

MD's secretary rolls in a tray with three glasses of chilled kairi panhe (a delicious Maharashtrian drink made from raw mangoes).

Basu: Sir, I have talked to many CIOs in different large companies, and all are saying that we should design horizontally and not vertically.

Waghmare: Hey, I don't understand what you are saying. What is horizontal and vertical in BI application design?

MD: Let me explain. The terms horizontal and vertical are our

nomenclatures. By 'horizontal', what Basu means is that first we should build dashboards that give a big picture of all the major areas of business. In each area we do not go down too much into details. By ‘vertical’, what I mean is that you take up one critical area of business and build dashboards as well as analytical tools just for that area. With this approach, the senior users are able to see a big picture of the area using a dashboard, and the analysts are also able to drill down to the lower levels of detail if required.

Basu: Mr. Waghmare, I feel that it is very important to show to the top management, the overview of business on a daily level. With this they will be able to know whether our ship is going in the right direction. Later on, we can always make detailed reports. That way you keep the top team happy and they know that their BI spend is showing some results.

Waghmare: Mr. Basu, I do see the point which you are trying to make.

MD: But what I feel is that if we do not give analytical reports to the analysts, they will not be able to act upon the observations of the senior team.

Waghmare: What you are saying is also right. It is in fact a perennial debate. And I believe, it can be resolved only by trying out both the approaches observing the results.

Waghmare: (*continuing*): ABC Corp is a large organisation. Let’s start in SBU-A the horizontal methodology, and lets start in SBU-B the vertical methodology. And lets meet up in about 3 months’ time, and review the results after the first quarter ending.

MD: Yes, that’s a good idea.

The team briefly discusses the business outlook of the current quarter and after about another half hour they disperse.

After the first quarter ending, a BI implementation meeting is once again called by the MD. Mr. Basu comes for the meeting. He is wearing a flashy red tie and his face shows considerable confidence. He has been able to make an impressive looking dashboard (showing almost 20 different areas), which has been highly appreciated by the Board Members. He has also, discreetly, found out what the MD has been doing in SBU-B and has been told that they have been barely able to do some two areas. So, Basu has come prepared to take the *kudos and he feels that he would now be able to head the BI implementation across the conglomerate.*

Lata: The MD is in a really good mood today.

Basu (*surprised*): Thanks, Lata.

Basu knocks and enters. The MD and Mr. Waghmare are having a cup of tea.

MD: Tea, Mr. Basu?

Basu (*accepting a cup of tea*): We had an excellent presentation of our BI initiative to the Board members yesterday. I am glad to say that it was very much appreciated.

MD: Yes, that's true. The board members did like the look and feel of the dashboard, the colour combinations and the ability to see the big picture and drill down to the SBU level and fix responsibilities. Mr. Basu, I must say that I am greatly impressed.

Basu: Thank you, sir. So now you must be convinced that my approach is correct.

MD: I did not say that!

Waghmare: MD, let's see your dashboard.

The MD opens up a dashboard and it shows up on the projector screen. It is a simple dashboard. Two major elements of Working Capital viz Account Receivables and Inventory are shown on a screen. The user is able to drill down to the SBU level details of the Working Capital. They are able to see a simple KPI of Working Capital as a Ratio of Sales. The previous year numbers are also available for comparison. There are some additional sheets showing Item level details of Inventory, and customer level details of DSO.

Waghmare: What I can see is that in SBU-A, where the horizontal method was implemented, the working capital ratio to sales has more or less remained in line with the previous year. However, in SBU-B, where the vertical method was adopted, the working capital ratio to sales has reduced by almost 23%. This had the effect of releasing almost Rs100 crore locked in working capital.

MD: That's right.

Waghmare: Mr. Basu, can you open your P&L dashboard and tell me the ratio of interest to sales ?

Basu: The ratio of interest to sales for SBU-A has been about 6% in both the years, while in case of SBU-B it has dropped from 6% to about 4%.

Waghmare: The profitability has therefore increased by about 2%, even though the gross profit ratio has remained the same. Well that's quite impressive.

Basu: But you see that is not very important. Today in SBU-A, the numbers of orders, dispatches, inventories, sales, cash on hand, AR, collections, etc, are all available daily. I have created an automated subscription, which sends all the key numbers to all the members of the board at 9 am each day.

Waghmare: That is true, but with all the numbers available, yet the profitability has not improved.

Basu: Well the circumstances have been challenging. There is recession all around, people are not paying on time etc.

Waghmare: But SBU-B has also been operating in more or less the same environment. How did they manage to release over 100 crores of working capital and improve their operating margin by 2% ?

Basu (*sweating a bit in spite of the chilled AC temperature*): I..I don't know. I am sure that the MD must have put a lot of pressure on SBU-B.

MD (*laughs*): As Jan Carlzon once said, "Without information, people cannot take responsibility; with information they cannot avoid taking it."

MD: Basu, just as you discreetly tried to find out what we were up to in SBU-B, I also tried to find out what your team was up to in SBU-A. I found out that while SBU-A also has all the information at the top level, the actual executing team did not have the required information to act on. Due to this, they were not able to achieve the results which my team achieved.

Waghmare has immediately understood the MD's strategy, but is trying to make Basu understand the same by asking probing questions.

Waghmare: I am not able to understand. Both the SBUs are using the same ERP. So how is it that SBU-A did not have access to information?

MD: A very valid question, Mr. Waghmare. Let me explain. Instead of focusing the time of my BI team on the different areas of dashboard, I first asked myself which is the most painful area. I and my team came to a conclusion that Working Capital management was the most painful area and a lot of our investment is blocked in the same. Even a small reduction in working capital would release a lot of money for other critical requirements, and would also reduce our interest cost.

Waghmare: Very true.

MD: So I first created a dashboard of two important Working Capital components viz the Inventory and the Account Receivables. All the numbers, which I needed were available from the Balance Sheet and from the P&L Account.

Basu (*a bit cheesed off*): Yes, that's the approach we also took. We have also created most of our dashboards from the Balance Sheet and the P&L Account.

MD: Once I saw the trend, I realised that Inventory and AR ratios to sales were both creeping up. So I called in my ERP expert and tried to explain to him that I needed the Inventory and AR data at a lower level of detail. I needed the Inventory Turns at the item level, and I needed DSO at the customer level. We tried to calculate the Inventory Turns for a few items from the ERP screens, and similarly we tried the DSO also. But from the ERP it is very difficult to generate such analytical ratios, which require data from many accounting periods. So we were not progressing well in this.

Waghmare: True, the ERP is more of a transaction processing tool. Trying to generate data intensive reports would not only be difficult, but also bring down the performance of the ERP.

MD: Yes, we realised that. So I brought in by BI expert and explained to him my predicament. He said that this should not be a problem at all. In just a couple of weeks he had two reports ready for me, the Inventory Turns report at Item level, and the DSO report at Customer Level. Both these reports are attached to my dashboard in different worksheets. In each of these reports, I could see a big picture and then also drill down to lower levels of detail. The BI expert had also created Inventory Turn and DSO Buckets, so that I could immediately filter out the bad performers.

MD (*continuing*): After that it was easy. I called in my factory manager and my credit control manager and showed them the reports. Both of them were amazed at the ease with which they could identify the items/customers, which were to be acted upon. Both said that they spent enormous amount of time in doing exactly the same things. They acted very quickly and in a month's time, we started seeing the results.

Waghmare: So the important learning is that while in both the SBUs the senior team knew the problem, only in SBU B the problem was actionable. The executive team had a shortlist of items/customers to act on. While such information was not available in SBU A, and due to which they could not act on despite best intentions.

MD: Exactly!

Waghmare: Mr. Basu, I am consulting in various large organisations. In each organisation, I know for sure that the senior management team generally knows their overall data quite well. They know the order book, the sales, dispatches, AR, collections. They may not have formal systems for this in place, but the informal network keeps them updated on critical numbers. However, what they don't know is the intelligence which lies in the large data mountains. While they can hold the credit manager responsible for a high DSO, it is not enough. The credit manager needs tools to act on. In absence of the tools, he is helpless and the time goes by and the woes worsen.

Waghmare (*continuing*): I know of a company which had implemented a similar AR tool, and by consistent usage of the tool their AR ratio to Sales continuously reduced year on year.

MD: So, the key is in providing the right tools to the people in the front line.

Waghmare: Yes, providing the tools and its consistent usage will certainly bring in results.

Waghmare: So the key learning of the last three months' experiment is that the deliverable of BI should not be just fancy reports; the deliverable of BI should be measurable business benefits!

MD: Well said, Mr. Waghmare and thank you for suggesting us to carry out both the horizontal and vertical approaches and learn from doing.

MD: So Basu, how would you like to proceed?

Basu: V...vertically, Sir!

Lata watches Mr. Basu come out of the MD's cabin. His shoulders are stooped and he is wiping his forehead. She stifles a smile...

Providing the tools and its consistent usage will certainly bring in results. The deliverable of BI should not be just fancy reports; the deliverable of BI should be measurable business benefits

Observations

BI Initiatives must have well stated measurable business benefits. For example, AR DSO should reduce by 15 days, Inventory Turns should increase to 20, Period Closure should be 3 days etc. BI initiatives also should be personally supervised by the CXO team to ensure that it receives the due importance and that the results get delivered.

Design Principles

- Design the BI reports in such a way that the users are able to see a big picture of the domain area.
- The BI reports should also enable the users to drill down to the problem areas.
- Highlight the problem areas by discretising the data, so that the problem areas are immediately identified and the user does not have to do the job of searching.
- The BI reports should also, wherever possible, show a trend of key KPIs so that the team is able to find out whether the situation is improving or not.

This article builds further on two prior articles on the topic published in Feb. 1-15 and Apr. 16-30, 2014, editions. Sanjay Shah is the CEO of Pune-based Prosys Infotech, which specialises in developing BI solutions on the Microsoft BI Platform. He can be contacted at sanjay@prosysinfotech.com.

COLUMN

ROHIL SHARMA

ARE YOU SAFE AGAINST VUCA?

Volatility, uncertainty, complexity and ambiguity characterise any business environment today. High time Indian enterprises did something about it

The key challenge faced by businesses today is that new and varied threats continuously appear on the horizon

The types of challenges that an organisation faces these days are increasing. Organisations are potentially facing closure from cyber attacks and significant loss of business due to negative publicity in social media such as Facebook and YouTube. The significant negative impact on United Airlines over a video on YouTube ('United Breaks Guitars' by Dave Carroll) is a case study that is referred across organisations on the disaster what a single video on YouTube can do to the reputation of an established old-world economy company such as United Airlines.

In the wake of VUCA, the key challenge faced by businesses today is that new and varied threats continuously appear on the horizon, for which corporates aren't prepared. Cyber attacks, social media negative publicity, electromagnetic attacks are no longer only a realm of Hollywood (Ocean's Eleven), but a very probable event in the near future. Progressive companies need to prepare themselves to be able to build organisations that are resilient.

It is estimated that 75% of companies in existence today will face an incident in the next 18-24 months, which can potentially shut down the company. According to Gartner, of those companies that face these life threatening major disasters, 80% will shut down or go bankrupt in the following 24 months.

All this leads to the popularity of Information Technology Disaster Recovery (ITDR) and Business Continuity Process (BCP)/Business Continuity Management (BCM). Advanced practitioners of risk management closely look to integrate BCM and ITDR solutions into their enterprise risk management (ERM) programs.

Business Continuity Management System (BCMS) is frequently confused with Business Continuity Process (BCP), Disaster Recovery, IT Disaster Recover and Crisis Management (CM).

In layman terms, BCP is the plan for an individual department or function within an organisation. Each department such as Payroll, Marketing, Human Resource, etc., will have their individual BCP; consolidated together for the organisation these plans are referred to as the BCMS (BCM and BCMS are synonymous).

On the other hand, Disaster Recovery refers to civic plans at the government level, which manage catastrophic natural disasters such as floods, earthquakes and acts of terrorism impacting large number of humans. Information Technology Disaster Recovery (ITDR) is solely focused on the recovery of IT whether it is networks, data centres, servers or applications. Crisis Management's focus is limited to the control of a particular event, which may be classified as crisis such as fire, bandh, riot or civil unrest that may impact an organisation.

ITDR started being used as a term in the 1970s, when for the first time, organisations such as Banks, Insurance Companies, and Airlines started to rely heavily on IT for their day-to-day operations. BCP and BCM evolved over the next couple of decades when organisations realised that while the core of their business maybe IT, the people and processes were equally important in the process of recovery; organisations realised that it was useless if the backup data centre recovered, but there weren't trained people to operate those computers and applications. BCMS is far more holistic in its approach to business recovery and resilience.

Beyond resilience

Companies, typically under the banner of 'resilience', take measures like having a risk management function for risks that cannot be forecast. With VUCA here to stay, organisations need to decide to move beyond resilience and face the

opportunities presented by the unexpected.

Unfortunately, VUCA preparedness is lagging in India when compared to others globally. Governments such as USA, UK, Australia, Singapore, the UAE, amongst other have standards on BCM, which mandate both government and private organisations to have plans and processes in place to ensure business continuity. A progressive and stable government at the centre in India should create BCM standards for organisations in India to follow and adhere to.

India, more than other countries, needs preparedness for VUCA. As a nation, we are in a geopolitically sensitive region. Our neighbours are known to revel in our misfortune and are known to encourage and support hostile acts of terror on our soil. We have seen attacks on our hotels, so what prevents a future attack on key BFSI institutions—or even an electromagnetic attack?

In all this, technology innovation is playing a big role. There are hundreds of startups as well as big companies that are bringing out very good products to mitigate the increased risks in VUCA environment. There are companies focusing on computer virus threat detection and prevention areas. These companies monitor the world's network traffic pattern and can raise the preventive alarms before the attack can happen or release the solution just in case your organisation is victim of it.

There is another set of organisations that is educating the businesses and also providing solutions in the area of people, process and technology. They are bringing out technology features like continuous data protection/replication, single click restore, automatic fail over to another server, data replication at hardware array level. There are solutions available in the market, which can monitor all your data centres and give you dashboard kind of report indicating the health of the systems, disks etc.

Hardware vendors are manufacturing systems with built-in strong security, fault tolerant, resilient systems.

Other aspects include processes and people. Organisations need to plan for their day to day processes, which they follow in normal situation. To run their business smoothly and continuously, they need to plan for various triggers. These organisations also need to plan that how these processes can run smoothly from remote locations. Same is required from a people perspective. Are all the people in the organisation are safe and traceable? Who will perform what role? How can an appropriate alert reach in time to the appropriate person? Technologies are now advanced to such a great level that organisations can plan, track and simulate the situation in advance.

As the complexity of threats increases, the future of BCM/ITDR is in automation; no longer it is possible to work on traditional methodologies of BCM & ITDR. Attacks and incidents have never come with an appointment. Unfortunately, due to globalisation, we now work in a 24x7 environment; BCM and ITDR managers do not have the luxury of addressing issues during non-office hours, here automation allows them to address attacks from anywhere. The CIO, CRO and BC Head today need automation that gives them enterprise wide real-time visibility, availability check, manageability into their systems, processes and people via mobility.

The adoption of not only automation, but also that of fundamentals of BC, is extremely low in Indian organisations. In India, the MNCs with HQs overseas are the most advanced in BCM and IDTR, as they are driven from overseas. A small subset of Indian companies with global aspirations, and specifically those in the BFSI sector, which benchmark themselves against global giants are moving towards BCMS. In the Indian pharmaceutical sector, we are seeing some early adopters— primarily by mandates from the FDA. A bulk of Indian Large Enterprises and SMEs are yet to develop formalised plans for BC or deploy BC automation. Unfortunately, a nasty disaster only will motivate them. The silver lining is that hopefully they will take a generational leap and move directly to BC & ITDR automation.

Rohil Sharma is CEO of Perpetuuiti.

COLUMN

MARK LAZAR

PREVENTING FRAUDS THROUGH VOICE BIOMETRICS

Call centres, especially in the financial sector, can significantly reduce frauds by installing voice biometrics solutions that work quietly in the background

Contact centres in the financial industry are vulnerable to "professional fraudsters", whose systematic attacks account for the majority of total fraud calls. Some contact centres are responding with a new generation of voice biometric systems that silently detect known fraudster voices during incoming calls. The goal of these new systems is to increase fraud protection without disturbing customer experience.

Contact centre vulnerability to professional fraudsters

Contact centres in the financial industry have seen growing attacks by professional fraudsters to breach accounts and conduct fraud. Traditional security questions don't stop professional fraudsters, who are skilled in social engineering and armed with stolen identity data. Industry analysts now identify the contact centre as a security weak link exploited by fraudsters in the face of tightened online security.

Behind the professional fraudster's success is the weakness of the security question paradigm. Today's fraudsters buy stolen identities and leverage social networks to answer most security and out-of-wallet questions. Fraudsters also socially engineer agents, who have to play the conflicting roles of customer service (making callers happy) and security (being suspicious of callers). By repeatedly and systematically calling, fraudsters learn enough to pressure agents into security breaches. In fact, studies at various contact centres find that 70%-95% of total fraud calls are "repeat attacks" by a small set of professional fraudsters. Contact centre fraud is a classic 80/20 problem – most fraud calls are by a minority of the bad callers.

Voice-print screening detects "repeat" calls by known voices, and repeat calls constitute the majority of fraud attacks on the call centre

New voice biometric solution for fraudster detection

In response, contact centres at banks and card issuers are turning to voice biometric systems for fraud detection. Voice biometric technology works by profiling and recognising a human's unique vocal characteristics, or "voice print". [Human voices have mathematical representations that are unique and not easily masked without detection.] To perform fraud detection at contact centres, voice biometric systems store the voice prints of known fraudsters in a database, and then screen incoming calls against this database to detect a fraudster's voice.

Upon detection, the system notifies the live agent or fraud management system. The key to this new generation of voice biometrics is its "passive" operation – calls are silently screened without caller interruption. No questions are asked about callers. Agents proceed normally until they are alerted to any fraudster detection by the system. Today's passive operation of voice biometrics is a key advantage over historical systems, which were required to operate "actively" – interrupting callers with specific questions or instructions in order to screen calls.

Moreover, for higher performance, these systems combine voice biometrics with predictive analytics that factor in other non-biometric variables, including account or call meta-data With these advanced techniques, these systems can achieve accuracy at scale at large call volumes.

Benefits to the contact centre

Such voice biometric systems can provide significant benefits to the contact centre:

1. **Stronger fraud protection** – These systems can significantly reduce fraud dollar losses and the number of fraud attacks. That's because voice-print screening detects "repeat" calls by known voices, and repeat calls constitute the majority of fraud attacks on the call centre. Therefore, the system is able to subvert the majority of these attacks, which lowers losses due to fraudulent calls and ultimately discourages those fraudsters, who move on to other banks. The "80/20" rule of contact centre fraud – the majority of fraud is frequent repeat calls by a minority of fraudsters – makes this a rewarding application for voice print tracking.

2. **Greater fraud visibility and analytics** – Voice biometric systems have the capability to track an individual fraudster's voice even as it calls across multiple accounts and time. With that tracking capability, the system can become a rich database of fraudster activity and behaviour. The contact centre can gain visibility into fraud patterns or fraudster details that was not possible before. This may translate into insights that can improve contact centre security or efficiency.

Voice biometric systems have the capability to track an individual fraudster's voice even as it calls across multiple accounts and time. With that tracking capability, the system can become a rich database of fraudster activity and behaviour.

3. **Reduced vulnerability to social engineering** – Although fraudsters can trick or coerce agents, their smooth talk doesn't fool a voice biometric engine. By alerting agents during a call, or by alerting the fraud management system even after an agent has been fooled, the voice biometric system reduces the contact centre's vulnerability to social engineering of agents.

As fraudsters have evolved with new technologies and techniques, so should the contact centre evolve its security technology. Call screening against a fraudster voice print database may be a quiet way to augment contact centre security without disturbing customers.

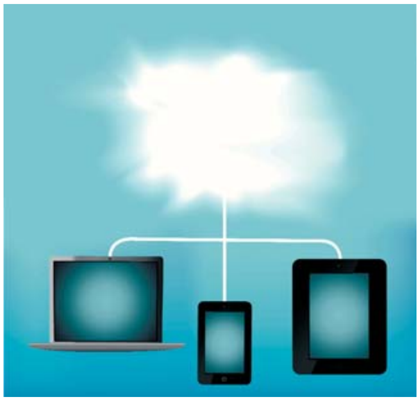
Mark Lazar is Global Vice President, Enterprise Risk Management, Verint Systems.

COLUMN

MANISH SHARMA

DESKTOP VIRTUALISATION FOR SMBS

Given their growing appetite for IT but limited resources, small and medium businesses can benefit enormously from desktop virtualisation



SMBs can turn to desktop virtualisation to meet security and compliance mandates, by moving data off end points and into the data centre

Desktop virtualisation delivers all the computer performance required for businesses to remain competitive in today's market, while addressing their top IT priorities and liberating them from IT infrastructure management hassles at an amazingly low cost.

Staying current with the latest and greatest in hardware and technology is challenging for organisations of any size, especially so for small-to-medium sized businesses (SMBs) that are often extra challenged with limited resources and personnel. It's no surprise that today's SMBs are moving toward desktop virtualisation, which offers a modern and cost-effective approach. Desktop virtualisation is a viable alternative to traditional PCs. It delivers all the computer performance, manageability and security required for businesses to remain competitive in today's market.

Recent studies, focused on the state of IT for SMBs, reveal growing IT budgets and also continued rapid adoption of virtualisation technology, cloud services and tablets in the workplace. It's been also observed that while a sizeable number of small and mid-sized companies have already adopted desktop virtualisation for their business, many others are looking into adopting the technology in the near future. However, limited IT staff and IT budget constraints continue to remain perennial challenges for this segment.

Such findings are intriguing as they reflect the need and growing shift towards modern computing solutions, as the use of tablets and leveraging the cloud continue to escalate.

Desktop virtualisation, therefore, makes sense for SMBs, as IT budgets are expected to grow and accommodate BYOD (Bring Your Own Device) and cloud office environments, while staff sizes to manage the environments remain the same.

Desktop virtualisation offers the following benefits to SMBs:

Long-term reduction of IT costs and IT staff headaches: Continual management of multiple individual PCs, desktops and hand-held devices is time-consuming, cumbersome and costly. Already strapped IT staff members can leverage desktop virtualisation technologies to control and make system-wide updates and upgrades from a single centralised source in a timely fashion, rather than updating workstations and BYOD devices one by one. The payback is — freed time to focus on other projects and fewer headaches; thanks to the streamlining of IT.

Sharing his experience, Gopinath TK, Head-IT, The Bhavasara Kshatriya Co-op. Bank Ltd, who recently deployed desktop virtualisation solution in the bank, says, "we were facing problems like frequent downtimes and wear and tear, slow machines resulting in slower operations, cumbersome management of individual PCs, virus threats and issues related to data security. It is at this stage that we sought to deploy an agile technology (desktop virtualisation) that addressed these challenges, squarely."

In the long run, desktop virtualisation offers a reduction in administrative and maintenance costs, which increase over time with company size.

Improved enforcement of security and compliance mandates: SMBs are particularly concerned over the management of their end users — with security and compliance topping the list, and for good reason. For example, a significantly high number of laptops are stolen or sometimes even lost every year at public places such as airports, etc. The loss of business-critical information is a very real threat particularly for industries like financial services, healthcare and government.

SMBs can turn to desktop virtualisation to meet security and compliance mandates, by moving data off

end points and into the data centre where it can be more efficiently and securely managed. Compared to a conventional desktop, a virtualised desktop is more secure given that its data never leaves the data centre. The result is a drastic decrease in vulnerability and data loss.

Increase in overall employee productivity: The impact on overall employee productivity is also worth considering. In typical scenarios, a desktop machine going down means lost productivity, as that employee has to sit around and wait for the workstation to be repaired.

With desktop virtualisation, however, IT can get the user up and running again on a new instance of the original virtual desktop. The immediate ability to access the same desktop from a different device means no more lost time when such IT problems arise. Additionally, the fact that desktop virtualisation supports BYOD devices such as laptops, tablets and smartphones, means IT is able to support the demand for a virtual working environment and immediate access to information.

As the demand for IT to support business growth increases among SMBs—while staff sizes are expected to remain the same—now is as good a time as ever to consider desktop virtualisation for making the most of your resources. By enabling streamlined IT processes and enhanced employee productivity in today's BYOD world, desktop virtualisation can provide a step ahead for SMBs.

IT staff members can leverage desktop virtualisation technologies to control and make system-wide updates and upgrades from a single centralised source in a timely fashion, rather than updating workstations and BYOD devices one by one. The payback is – freed time to focus on other projects and fewer headaches

Manish Sharma is Vice President - APAC, NComputing Inc.

Shoppers Stop deploys QlikView for faster data analysis

QLIK, A PLAYER in user-driven Business Intelligence (BI), recently announced that Shoppers Stop, a retail department store in India, is using the QlikView Business Discovery platform to streamline its business operations and increase sales.

For a retailer, the ability to quickly access information including sales figures and customer buying patterns is a top priority. Prior to using QlikView, Shoppers Stop was using traditional BI tools and Microsoft Excel to compile reports. The process was lengthy and did not offer users the valuable, time-critical insights to business users.

To stay competitive and maintain its growth momentum across 67 stores in India, Shoppers Stop needed a flexible BI platform that will not only enable faster data analysis, but also uncover insights to help them make better decisions for the business. The Shoppers Stop team decided to roll out the QlikView Business Discovery platform to its buying and merchandising teams. The implementation and adoption was completed in under two months, allowing Shoppers Stop to derive value in a very short period.

Krishnakumar Avanoor, General Manager, Technology at Shoppers Stop, said, "We can now focus on analysing the data to help us streamline the business. Instead of spending several hours or even days to manually extract data and generating reports, we can now use QlikView to discover insights from the data and make better decisions with just a few clicks."

"QlikView was an instant success upon the rollout. Our users tell us that it is now much easier to dynamically refresh the data, giving them the confidence to try out new reports. Around 80% of our buying and merchandising staff are currently utilising the tool and we expect this number to continue to grow."

Jaydeep Deshpande, Regional Marketing Manager, Qlik India, said, "We are happy that Shoppers Stop is using QlikView to make strategic business decisions and achieve tangible business results. Our mission is to help organisations in India like Shoppers Stop get on a natural path from data to decisions, by allowing users to interact with data quickly and freely to generate insights that they never imagined. This is what QlikView calls Business Discovery, which is integral in driving the success of all modern organisations."

Shoppers Stop is also planning to extend QlikView to its mid-level management users in the field via mobile devices and tablets.

Indian insurers to spend Rs 4.1 billion on mobile devices in 2014: Gartner

INDIAN INSURANCE FIRMS are expected to spend Rs 117 billion on IT products and services in 2014, a 5% more over 2013, according to the research firm Gartner. This forecast includes spending by insurers on internal IT (including personnel), hardware, software, external IT services and telecommunications.

Insurers in India are on pace to spend Rs 4.1 billion on mobile devices in 2014, a rise of 35% from 2013.

"Gartner research shows that most Indian insurance CIOs view mobile enablement of applications and services as a very important component of their strategies to improve sales and channel effectiveness," said Derry Finkeldey, Research Director, Gartner. "This is especially important as insurers compete to reach agents and customers distributed across the country and outside of saturated urban markets."

Overall, the mobile device market in India is showing strong growth. For example, the nascent tablet market in India is projected to grow 160% in 2014. As the tablet market breaks through the Rs 200 million mark this year, growth is expected to be in the moderate double-digits range.

The much larger Rs 3.8 billion market for other mobile devices will grow 24% in 2014, with a revenue of Rs 926 million. While the Rs 11 billion mobile network services market is growing, the Rs 12.8 billion fixed network segment is on a decline, and will be overtaken in size by mobile spending by 2016.

Alt-N introduces MDaemon private cloud for Indian SMEs

US BASED ALT-N Technologies has launched MDaemon Messaging Server, a private cloud version of its flagship software solution, for Indian small and mid-size enterprises (SMEs) and businesses. The company has launched MDaemon Messaging Server, keeping in view the growth and acceptance of cloud among users across verticals.

"Indian SMEs would prefer MDaemon messaging product over Microsoft Exchange as it doesn't involve IT or hardware refreshments, software product licenses as well as it is easy to manage without any dedicated IT department or staff," Jerry Donald, Co-CEO, Alt-N Technologies said.

According to Donald, the MDaemon messaging product is not directly competing with Microsoft Exchange, but it is an affordable alternative for small businesses or enterprises having a user base of 50-100.

"In India, there are cross vertical opportunities in transport, media, government, manufacturing and logistics. In small and mid size organisations, where there are IT related challenges related to cost and manageability, people are more likely to use our products," Donald said.

"We provide our software solution to our channel partners and distributors, who then host it on their infrastructure or third party service provider. Based on the pay per user model, these partners offer solutions to customers," Donald said.

Globally, the company offers its products and solutions through channel partners and resellers. In India, Alt-N has a few key channel partners, including Bangalore based Sparr Electronics, which is with the company for past 17 years, and the other one is Delhi based Cyberspace Networking Systems.

"We expect a 25-30 percent increase in our sales revenue in the Indian market," Donald said.

Alt-N earns major portion of sales revenue through its on-premise software offerings. In terms of mailing/messaging software market share, Microsoft continues to dominate the market with 80 percent stake, while remaining 20 percent is distributed among 10 different vendors, including Alt-N Technologies.

- by Pankaj Maru

Trend Micro launches security solution with integrated mobile device security for SMBs

TREND MICRO, has announced upgrades to its Worry- Free Business Security, with version 9.0, to equip small- and medium-size businesses (SMBs) with enterprise-grade security capabilities that address and mitigate threats across endpoints, from desktops to mobile. The company claims that the offering is the only SMB solution available that provides complete user protection with integrated mobile device security with the option of cloud management.

"Since SMBs are more acutely affected by BYOD and consumerisation, Trend Micro is committed to providing dynamic, yet affordable, solutions that deliver greater functionality and ease-of-use," said Dhanya Thakkar, Managing Director, India & SEA, Trend Micro. "The ability to protect data across a business, regardless of who has access, is essential to a comprehensive approach to security. With integrated mobile device protection, Worry-Free Business Security 9.0 helps companies secure critical business information whether in the office or on-the-go."

According to IDC, from 2012 to 2013, the use of BYOD smartphones in small businesses increased from 53% to 88%. During the same period, BYOD tablet usage increased from 30% to 56 %. These trends reinforce the growing need for SMBs to adapt their security strategy and provide protection for all endpoints—from PCs and Macs, to mobile platforms.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SAP India announces unified strategy for cloud

SAP INDIA HAS announced a unified strategy of delivering next-generation cloud solutions to enable customers better manage their critical assets and relationships, namely HR, Finance, Customer and Procurement.

"The cloud has profoundly changed the way people interact. In enterprises today, IT is required to scale up, provide real-time insights into business and help companies decide, respond boldly and quickly," said John Ruthven, Senior Vice President, Cloud and Line of Business, SAP Asia Pacific Japan.

"Businesses today are exposed to situations beyond cloud that includes managing people, costs and achieving customer satisfaction', said Rajamani Srinivasan, Vice President & Chief of Staff, SAP India.

"With a well-defined cloud road map and customer-first focus approach, SAP is empowering customers to leverage and extend their existing investments with the flexibility of deployment choices," he added.

The unified cloud offering provides simpler, faster and richer than ever before with a holistic approach that include:

- **Cloud HR:** Solutions from SuccessFactors, an SAP company, to drive workforce strategies and insights with confidence, and empowering people to take charge of their career.
- **Cloud Finance:** SAP Cloud for Financials (formerly SAP Financials OnDemand), SAP Cloud for Travel (formerly SAP Travel OnDemand) and SAP Business ByDesign solutions will enable real-time intuitive financial insight to everyone across the business, assisting in compliant accounting and financial reporting for global enterprises.
- **Cloud Customer:** SAP Cloud for Sales, SAP Cloud for Service, and the new SAP Cloud for Marketing are collaborative, connected and insightful solutions using the underlying technology available in SAP Cloud for Customer (formerly SAP Customer OnDemand). A user-centric design makes it easy-to-use, while also empowering customer-facing personnel to make every customer engagement more relevant, personal and differentiated.
- **Cloud Procurement:** Ariba, an SAP company, combines industry-leading cloud-based procurement and invoicing applications with the world's largest Web-based trading community to help companies connect and collaborate with a global network of partners more efficiently and effectively than ever before.

UBS selects Juniper for building enterprise data centre infrastructure

JUNIPER NETWORKS RECENTLY announced that global financial services firm UBS has selected the company to build a next generation enterprise data centre network infrastructure.

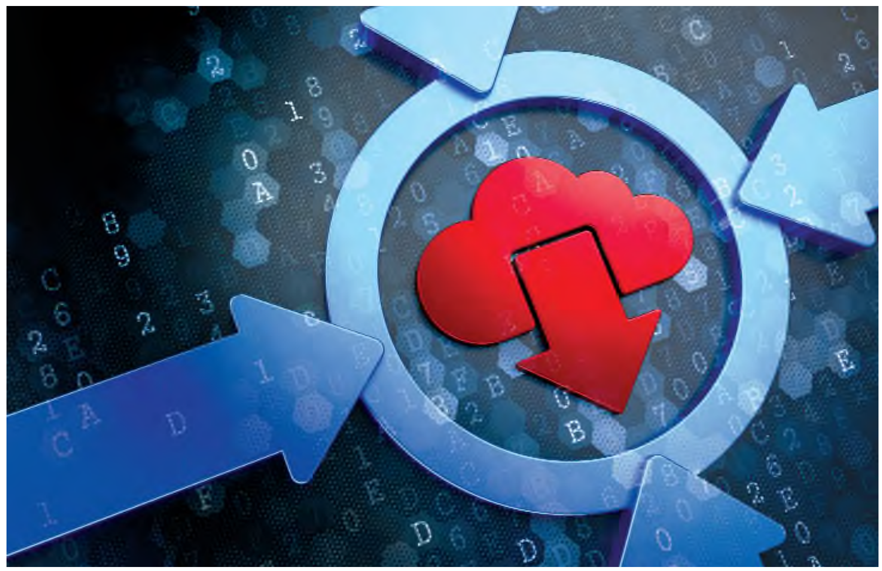
UBS plans to implement key components of Juniper Networks' MetaFabric architecture, an open standards-based architecture with proven routing, switching, security, management and orchestration solutions, to support the bank's current and future business goals.

Juniper will build a carrier-class, ultra-scalable, network architecture for UBS. The networking architecture will serve as the building block to help virtualise multiple UBS data center environments.

"Banks are re-engineering their business models in light of changing market and regulatory conditions, changing customer behaviour, and emerging technologies. Managing this transformation in financial services requires an intelligent High-IQ network infrastructure that knows how to fluidly adapt to business demands. It also requires building private clouds that deliver applications with high performance and agility," said Shaygan Kheradpir, CEO, Juniper Networks.

"Juniper's technologies enable financial services institutions to realise the benefits of carrier-class, ultra-scalable cloud data centre solutions that are virtualised, secure, and flexible enough to accommodate the performance demands of their clients anywhere, anytime," he added.

Suse brings high availability to private clouds



SUSE HAS ANNOUNCED the addition of high availability to SuseCloud, its OpenStack distribution for building Infrastructure-as-a-Service private clouds. Suse Cloud 3 is the one of the first enterprise OpenStack distributions with automated high availability configuration and deployment, to help ensure the rapid startup and continuous operation of private cloud deployments.

"A highly available infrastructure gives customers confidence in their private clouds, whether for development and testing, high-priority batch processing, or rapid roll-out of a new promotional campaign," said Michael Miller, Suse Vice President of global alliances and marketing.

"Administrators can deliver enterprise-grade Service Level Agreements through their private clouds, and less unplanned downtime means businesses have access to the resources they need, when they need them."

Suse Cloud includes components of Suse Linux Enterprise High Availability Extension, a complete open source clustering solution. Suse Linux Enterprise High Availability Extension can help enterprises protect mission-critical workloads running on x86 servers.

With Suse Cloud, administrators can eliminate service failures due to downtime of the private cloud's control plane and ensure continuous access to the resources the line of business needs to maintain agility. Deployment and configuration is automated through integration in the Suse Cloud Administration Server, which provides a Crowbar project-based framework for installing and managing the physical cloud infrastructure.

Intel focuses on tablets and two-in-ones

INTEL HAS ANNOUNCED that it will focus on tablets and two-in-one tablet-cum-laptops to grow in the country.

At a press briefing, Intel recently showcased a portfolio of these devices available in the Indian market recently, offered by various OEMs and developer momentum to drive applications for Intel Architecture based device.

Intel estimates the overall tablet demand in Asia Pacific and Japan will be up 32 per cent Year-on-Year in 2014. In particular, India, Indonesia, Japan and Australia will equate to 59 per cent of tablet demand. Tablet demand in India is forecast at 16% of the Asia Pacific and Japan (ex-China) demand for 2014.

According to Narendra Bhandari, Director-Software and Services group, Intel Asia Pacific and Japan, "There are over 200 million middle-class potential customers in India alone for different screen sizes across different price points. We are seeing a lot of traction in the 7 to 9 inch space here. We are working with our OEM partners to bring Intel-based tablets starting Rs. 10,000."

"We are also being aggressive in customising our solutions for the enterprises as well as manifesto driven state governments and working with developers to drive localised applications," he added.

Spammers using mobile apps to bait victims

IN THE FIRST quarter of 2014, attackers started imitating messages from mobile applications, says a report by the Kaspersky Lab.

As per the report, the spammers especially like the popular mobile messengers WhatsApp, Viber and Google Hangouts: notifications purportedly sent from these applications were used to spread both malware and harmless adverts. The rising popularity of mobile devices means that phishing attacks targeting Apple IDs are becoming more frequent.

Many gadget owners are used both to synchronisation of their contacts and to the fact that messages from mobile applications can arrive via email, so few would be suspicious of the fact that WhatsApp is not directly linked to an email service. This lack of caution could prove costly, since the attached archive contained the notorious Backdoor.Win32.Androm.bjkd, whose main function is to steal personal data from users.

"Recently we have seen a growth in the number of attacks targeting mobile users. Gadgets have become popular even among those who had little interaction with computers and are less familiar with computer security. This opens up new vectors of attacks for spammers and phishers. To protect themselves, users should remember not to open emails from unknown senders and especially not to click any links in these emails, which inevitably pose a risk to user security. Clicking unsafe links threatens user security regardless of which device is used – they pose a danger to desktop computers and mobile gadgets alike," said Darya Gudkova, Head of Content Analysis & Research Department at Kaspersky Lab.

Where has the spam gone

The list of countries most frequently targeted by malicious emails has undergone some changes since the third quarter of last year. The US's share (14%) grew 3.68 percentage points (pp) while the contribution of the UK (9.9%) and Germany (9.6%) decreased by 2.27 and 1.34 pp respectively. As a result, the US, which was third in the previous quarter, returned to the top of the rating in Q1 2014.

Sources of spam by country

The top three spam sources remained unchanged from the previous quarter: China (-0.34 pp), the US (+1.23 percentage points) and South Korea (-0.91 pp).

Phishing

The email and search portals category topped the rating of the phishers' most popular targets (36.6% of all attacks). Second came social networking sites with 26% followed by financial and e-pay organisations and banks (14.7%)

Malicious attachments in email

The main goal of most malicious programs distributed via email is to steal confidential data. However, in Q1, malware capable of spreading spam and launching DDoS attacks was also popular. Most popular malicious programs are now multifunctional: they can steal data from the victim computer, make the computer part of a botnet, or download and install other malicious programs without the user's knowledge.

The percentage of spam in email traffic

The percentage of spam in total email traffic during the first quarter of the year came to 66.34%, down 6.42 pp from the previous quarter. However, compared with the same period of Q1 2013, the share of spam in Q1 2014 barely changed, falling by only 0.16 pp.

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