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Better virtualization options on the way

The virtualization market is dominated by two vendors: Amazon Web Services and VMware. Both have the largest market share in their respective fields, the former in cloud-based solutions and the latter in on-premises virtualization. Now, those two platforms are compatible with each other.

Virtualization review

Traditional servers and desktops use computer hardware inefficiently. Their multitasking capabilities are limited and a lot of computing power is wasted on unnecessary tasks. Virtualization software alleviates these problems by splitting one physical server into smaller virtual machines so power is more evenly distributed.

For example, if you need your server to handle both an in-house database and an online service, you might want to limit the resources it devotes to the in-house database so your customer-facing website never lacks capacity. Or, you might want to create 10 virtual desktops on your server so employees can access their work from cheap workstations with little more than an internet connection.

On premises vs. the cloud

There are countless ways you can use virtualization to make your IT more efficient, but only two options for implementing the infrastructure it is based on. You can either virtualize servers directly connected to your local network, or you can virtualize cloud-based servers that you connect to via the internet.

VMware is the most popular choice for virtualizing on-premises servers. It requires a bigger upfront investment in hardware and IT maintenance than cloud-virtualized servers require, but gives you more control over how everything is set up and secured.

Amazon Web Services (AWS) is the most popular choice for cloud-based virtualization because it is simple and affordable.

In the early days, moving from on-premises virtualization to the cloud meant rebuilding the entire setup from the ground up. Fortunately, AWS announced last year that VMware users would be able to essentially copy and paste their on-premises (virtualization) servers to the cloud. That upgrade finally became available to users in August 2017.

Virtualized disaster recovery

This new partnership is great news for VMware users. If your business has a local virtualized server, it can be configured to automatically move to the cloud when your office is damaged or without power. When handled properly, customers and remote employees can continue to access your servers without any interruption of service.

So in addition to significantly reducing hardware expenses, virtualization improves business continuity. To get the most out of this technology in your office, give us a call today.

Is strategic planning the key to IT cost optimization?

How a Fortune 500 company saved millions using this win-win negotiation tactic.

When it comes to renewing IT contracts, cost optimization is typically top of mind. While there are several ways to approach renewal negotiations, the most effective means to achieve long-term cost-savings is by leveraging a comprehensive *future demand roadmap*. Why? It's the key ingredient in a recipe to maximizing your cost optimization opportunity and producing a 'win-win' scenario for both parties.

Competitive bid or sole source negotiation?

If your provider has not been performing or your future demand isn't best aligned to your providers strength and experience, the more common *competitive bid* or *RFP approach* is best. But this approach could make the negotiation more difficult as it instantly puts your incumbent vendor on notice. The provider may respond with discounts but you can be sure they will do their best to win in other areas of the contract that favor their best interests. They might include annual COLA increases or uncapped time and material-based Statements of Work (SoWs), for example, that can add up in the future.

On the other hand, if your provider is performing at a high level and their experience aligns with your expected future demand for the next 3-5 years, *sole source* negotiations should be the preferred path. This approach benefits both parties. Clients benefit by avoiding potential transition challenges and the time-consuming process of vetting multiple providers, while the provider benefits in avoiding the costs of sales activities and competition. With both parties focused on renewing the relationship, the discussion can proceed directly to outlining the key commercial constructs and asks of your provider.

Maximizing leverage: how one company got the upper hand

Having established the willingness to enter into *sole source* negotiations with your incumbent provider, it is critical to assess your leverage. Companies with a pre-approved and financially backed multi-year demand forecast are appealing to providers as they represent *a clearly defined multi-year, sole sourced, revenue opportunity*. Multi-year client commitments are extremely valuable to providers, so companies with a solid demand forecast have a strengthened position at the negotiation table.

I recently worked with a Fortune 500 company that was in the third year of a 10-year technology refresh roadmap when their system integrator's agreement was up for renewal. The provider saw potential for a multi-year minimum spend commitment and jumped on the opportunity to propose a renewal without competitive bidding, citing their solid performance to date, experience gained, and fit for future phases. The provider, having established a healthy relationship with this company through the initial phase of this modernization roadmap, sought to secure commitments to downstream phases via a multi-year renewal of the agreement worth over $100 million.

With this amount on the line, the company needed to analyze their savings options and take advantage of having a long-term plan in place.

Empowered with a strong recent history of solid provider performance, a clear 5-year forecast of future demand, and shared interest to renew, the mutually preferred path was to first look to negotiate an agreement extension. The company knew they had leverage with their solid pipeline of confirmed demand and wanted to maximize their return in commercial negotiations. With leverage on your side, the focus shifts to packaging your "ask".

Key attributes the company leveraged from their sourcing plan:

- A clearly defined and comprehensive understanding of the value their business would bring to a Systems Integrator or IT provider as a well-known company
- A healthy relationship with their incumbent Tier 1 Systems Integrator
- A confirmed and financially supported long-term commitment to fund their plan
- An annualized opportunity of spend

Validating the strength of your negotiating position with market intelligence

Once the company had a firm grip on where they stood with their IT strategy, they sought market intelligence and expert consulting to further validate the strength of their negotiating position. Unbiased outsider assistance paired with their strategic multi-year demand forecast and provider sourcing plan gave them the leverage to negotiate highly favorable and cost-effective terms with their provider. Even though the company was in an advantageous position, their vendor was happy to skip competitive bidding and make material, sustainable commercial concession to secure a multi-year commitment from the company.

Win-win outcomes

As a result, the company "won" by securing:

- $15M in incremental savings over a 5-year spend commitment
- A competitive and more favorable payment structure
- Improved warranty terms
- Capped contingency on a fixed fee structure
- Extended COLA adjustments

The suppler "won" by securing:

- $100M+ revenue commitment over a 5-year term
- A contract extension without competitive bidding

There is a long list of benefits when it comes to implementing a long-term IT strategy but the ability to leverage that strategy to negotiate otherwise unattainable cost-savings in your provider renewal may be at the top of the list

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Robinson Tuesday, November 14th.**

If you're challenged by meeting the demands of the always-on business while
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Time: 11:30am-1:30pm
Where: Ditka's Pittsburgh, 1 Robinson Plaza, Pittsburgh, PA 15205

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13 real-world digital transformation success stories

CIOs at Sprint, Xylem, JetBlue and other leading organizations are spearheading digital initiatives to drive business growth. These digital transformation examples detail IT leaders' strategies, implementations and challenges.

Story by: Clint Boulton of CIO

Companies are increasingly launching digital initiatives to expand or build digital capabilities aimed at business efficiency or top-line revenue growth. And as digital transformation success stories emerge, the trend is gaining steam.

Nearly 2,600 CIOs Gartner surveyed last year said they devote 18 percent of their budgets to digital transformation, a figure set to increase to 28 percent by 2018, Gartner analyst Andy Rowsell-Jones told CIO.com. Going digital often means significant challenges and consequences, says Rowsell-Jones, adding that companies are overhauling their business models and allocating more of their IT budgets to catch digital disruptors.

Indeed, a new Gartner survey shows that 95 percent of 3,160 CIOs expect their jobs to change or be remixed due to digitalization. Respondents believe that the two biggest transformations in the CIO role will be the need to become a change leader, followed by increased and broader responsibilities and capabilities. Moreover, technology trends such as cybersecurity and artificial intelligence (AI) will significantly change how CIOs do their jobs in the near future.

"The CIO's role must grow and develop as digital business spreads, and disruptive technologies, including intelligent machines and advanced analytics, reach the masses," says Rowsell-Jones. "While delivery is still a part of the job, much greater emphasis is being placed on attaining a far broader set of business objectives." Those areas include innovation and talent management.

The stakes are high. Leading digital companies generate better gross margins, better earnings and better net income than organizations in the bottom quarter of digital adopters, according to Harvard Business School. Leaders post a three-year average gross margin of 55 percent, compared to just 37 percent for digital laggards.

To help you on your digital way, CIO.com checked in on 13 digital transformations underway at some of the world's leading brands. Following are snapshots of their digital initiatives in progress.

Sprint

If you've ever wondered what digital transformation looks like at a telecommunications carrier, look no further than Sprint. The telco, under pressure from large rivals such as Verizon and AT&T and in merger talks with T-Mobile, is reinvesting in technology after years of significant cost reduction, says CIO Scott Rice, who is leading the charge. The focus is largely around analyzing data to improve the customer experience.

Sprint is using Elastic Stack open-source software to churn through 50 terabytes of data generated by logs, databases, emails and other sources to gauge the performance of Sprint.com. That data helps IT staff determine where glitches are impeding Sprint's ability to facilitate transactions, ranging from basic browsing, to phone purchases, to upgrades consumers are trying to complete online. Analyzing bugs and other delays helps Sprint determine when and why a customer is abandoning a transaction. Previously, each application team monitored its own software performance, creating large data silos that couldn't be leveraged to bolster performance, Rice says. "It's a redesigned [customer] journey based on data," Rice adds.

Sprint has also created a Hadoop-based data lake to analyze customer data, in an effort to improve the way it recommends products to consumers. For example, a 10-year user of Android phones will get Android phone offers. "It's about building a breadth of information about you and your relationship with us," Rice says. Sprint's transformation is continuing across all aspects of the business and the "IT organization is right in the middle of every transformation project," Rice says, adding that he is moving most of the organization to agile development conducted in small, self-directed teams to improve software delivery.

Town of Cary, N.C.

You might not associate the term "digital transformation" with a municipality but Town of Cary, N.C., CIO Nicole Raimundo is trying to create a slice of Silicon Valley in the south. She's eliminating more than 100 disparate legacy applications the town uses to operate, including work orders, permits and onboarding, in favor of Salesforce.com. "I embarked on a platform strategy that would enable us to very quickly get quick wins," Raimundo tells CIO.com. The platform, which includes field service, IT service management, marketing and collaboration tools, is intended to help Raimundo get a 360-degree view of Cary's citizens, including utilities payments, parks and recreation class registration and other details.

Raimundo and her staff of 30 also built a "skill," essentially a small app for Amazon Echo that will allow citizens to start the process of opening up work orders and other tools without using the phone to initiate such business processes. And, recognizing that people increasingly wish to facilitate transactions through messaging tools, she is also exploring the use of chatbots to let citizens initiate processes with town departments through their phones. "Our goal is to meet our citizens where they are," she says. Also afoot: internet of things, including smart lighting, smart parking and smart recycling on the town's municipal campus, which she says serves as a sort of innovation lab for emerging digital tools.

As part of this big culture shift, Raimundo has also created open workspaces and has employed agile and design thinking processes to propel minimum viable products. The Town of Cary has also hosted hackathons, ideally to lure talent from the local Research Triangle Park, which includes Red Hat, Cisco Systems, IBM, Microsoft and other top tech vendors. "Those are drivers to bring in the talent we want," she says.

Xylem

CIO Nicholas Colisto has his hands full at Xylem. The maker of water management solutions includes five business units that have added several disparate systems over time. "The business was having trouble making [technology] decisions because they were so fragmented," Colisto says.

Colisto's staff has spent the past several years consolidating legacy IT systems in favor of a single platform focused on fostering customer engagement, operational efficiency and growth. The Xylem Integrated System (XIS), or Xylem One, as it's also known, leverages social, mobile, IoT, analytics and other tools in a service-oriented architecture to help connect employees with customers. XIS helped the company generate over $30 million of net value in 2016. "We created a business operating platform," Colisto says.

In 2018, IT will continue to execute initiatives across all priorities, but there will be more emphasis on business simplification efforts to better establish a continuous improvement culture, Colisto says. This will include a Global Business Services (GBS) unit designed to provide a new service delivery model and roadmap for savings through process improvements, standard technology platforms and robotic process automation (RPA).

StubHub

When CIO Marty Boos joined StubHub five-plus years ago the ticket retailer's infrastructure was struggling to handle the sheer volume of a business that processes thousands of ticket transactions daily for concerts and sporting events. Leveraging Linux servers and technology from VMware, Akamai and Oracle, Boos built a private cloud that scales elastically. To better support global transactions in the wake of StubHub's purchase of Ticketbis, Boos is close to picking a public cloud vendor to process payments locally in 44 countries worldwide. "We're going to use that to get the transaction closer to the consumer," Boos says.

The private but soon-to-be hybrid cloud supports several customer-facing initiatives. With more than 50 percent of StubHub's traffic funneling in from mobile devices, Boos' team is enabling sellers to use their phone to take a picture of tickets and post them online. The IT department is also working with business development teams to add music and other content to reimagine StubHub.com as more of a destination website, and mulling how to enable groups of Facebook friends to purchase and pay each other for tickets. "A lot of what we're doing is making discovery and planning processes easier for customers," Boos says.

HD Supply

Frank Olszewksi is preparing for the day when the construction industry finds itself "Uber-ized" and "Airbnb-ed" by digital trends in service delivery. To prepare for that day the HD Supply CTO has shifted a virtualized and software-defined data center into a co-location facility (so he doesn't have to manage data centers) where the hypervisors and container technologies are programmable. That is, Olszewski's engineers can shift, spin up and wind down compute resources by clicking a few buttons.

Olszewski says that this construct, combined with customer-facing mobile technologies will prepare HD Supply's maintenance staff and field service agents to take pictures of parts with their smartphones, which query the company's back-end systems to find out what fulfillment center they are located in. Ideally, this will enable HD Supply to provide same-day delivery to its customers. In the future, Olszewksi says that HD Supply may rent others' distribution centers "Airbnb" style, as needed. "I need to be ready to handle these workloads, six or 12 months from now," Olszewski says. "We will test, investigate and play with a few things."

JetBlue

At JetBlue, CIO Eash Sundaram has deployed high-speed internet and streaming, mobile payments, and other tools to improve passengers' experiences. Earlier this year the company launched JetBlue Technology Ventures (JTV) to invest in startups seeking to bring to the travel market machine learning and analytics as well as new approaches to customer service. Think of it as another channel for innovation. "If you just pile everything into the mothership, things don't move as fast as you want them to move," says Sundaram, who has also set his sights on near field communication as a replacement for self-service kiosks and check-in desks.

Domino's

Domino's Pizza has incorporated capabilities to allow consumers to place orders from any computing device. The company's AnyWhere platform allows you to place orders through smartphones, smartwatches and smart TVs, by entering orders into the Domino's website, and by tweeting and texting emojis. "Choice drives our whole mobile and digital platform," Domino's CIO Kevin Vasconi tells CIO.com. "Millennials love that." Domino's current challenge? Getting Dom, its voice-activated virtual assistant, to understand and facilitate all of the different ways people order food through speech.

Target

Target's digital journey has suffered through its fits and starts and a devastating data breach in 2013 didn't help matters. To help jumpstart its digital transformation, the retailer hired CIO Mike McNamara from Tesco, where he had led several digital initiatives for the U.K. grocery chain. McNamara spent much of 2016 flipping the software development model from outsourced to insourced and spearheading custom software development, including new supply-chain applications to better align inventory availability with consumer demands.

Wal-Mart

Like Target, Wal-Mart has been refashioning its software stack as a custom platform, which includes a new search engine and several cloud applications. Based on OpenStack, Wal-Mart's new ecommerce platform is designed to help the retailer compete better with the OpenStack cloud platform. In fact, open source is a huge part of Wal-Mart's digital transformation. The group earlier this year launched OneOps, a platform that lets programmers test and switch among different cloud providers, a crucial benefit as companies embrace hybrid cloud models.

Capital One

Capital One has built a huge banking and credit card business thanks to solid customer service, with a major assist from digital capabilities. Its mobile banking app was among the first to support Apple's TouchID biometric software. In 2016, the bank was the first to enable voice-activated financial service transactions via Amazon.com's Alexa virtual assistant. Now CIO Rob Alexander is overseeing a major shift to devops to facilitate faster software creation. "Winners in banking are going to be the ones that recognize that technology is really going to play a central role in how consumers want to bank in the future," Alexander tells CIO.com. "We've got to be great at building software."

CVS

Pharmaceutical retailers are rarely mistaken for digital innovators. CVS Health is trying to change that by consolidating its websites and mobile applications. It later hired CDO Brian Tilzer to lead the company's digital strategy but rather than whine and lament what many in his position view as a threat, CVS CIO Stephen Gold welcomed the addition to the executive suite. To that end, Tilzer and Gold opened a digital innovation lab in Boston in 2015. Early projects, including digital prescription and insurance card scanning and integration with Apple Watch, have come to fruition. The company also integrated technology from startup Curbside into a mobile app that lets shoppers order and pick up products in front of a CVS store. Gold says the innovation team's remit is to fail fast. "Part of the output of innovating is going to be things that don't work and that's fine as long as you discover that early in the process as opposed to late in the process," Gold says.

Walgreens

CVS' chief rival Walgreens has been steadily transforming its business as well, with CIO Abhi Dhar assuming the reins of the company's digital strategy in 2015. With what he describes as a "maniacal focus on customers," Dhar has redesigned the company's mobile app to allow consumers to manage their medication schedules from their Apple Watches and enabled Balance Rewards members to earn and redeem points using Apple Pay.

Subway

Subway's transformation is only in its infancy but CIO Carman Wenkoff is leaving little to chance. He's hiring more than 150 technology, marketing and operational professionals to help overhaul the company's mobile app and redesign the sandwich chain's stores for the future, including self-service kiosks and other capabilities. Wenkoff this summer also tacked on the title of CDO, which he says will help bring coherence to the business strategy.