Beyond the Network: Future IT

If the realm of imagination has anything to do with it, IT of the future is personalized ads as you walk past a store, holographic meetings with colleagues in different countries, and biometric identification from sensors on just about every surface. There's also a hidden part to that world, a network tying it together, making the applications communicate with each other and work in harmony so that the human experience of that technology is seamless.

We're seeing this future emerge every day. The impact it has on business practices is so staggering that companies who fail to adapt simply disappear, replaced with forward-thinking companies that put talent, technology, innovation and strategy, at their helm.

Sarah Khokhar explains, as we go Beyond the Network with Cisco IT.

Take a step back to 1958, when making reliable transistors and finding a way to combine them into one device using silicon was still in the research phase. Silicon Valley didn't exist yet. Computers as we know them today, were a myth. In this era, US corporations remained on the S&P 500 list on average for 61 years. Today, companies are replaced approximately every 2 weeks. With such an aggressive failure-rate, what keeps companies afloat in this technological evolution?

Depending on your role, your answer might change drastically, and for CIOs everywhere, the answer is embracing the change, digitizing, and understanding how to merge technology with strategy. In fact, maybe we should change the CIO role to Chief Information Technology Officer, because essentially, they are the leaders that are ushering in digital transformation.

The future of IT rests on the shoulders of the CIO, a role that has traditionally been one of caution and predictability. The CIO of today and of the future needs to enable the rest of the business to use technology in a more effective way. They need to be adaptive, agile, and constantly learning. Cisco SVP and CIO Guillermo Diaz Jr. spoke at Cisco Live! Barcelona early in 2018 about digital transformation.

Announcer: Without further ado, I'd like to present our first presenter, who's known to his colleagues and friends at Cisco simply as 'G'. He's an 18-year Cisco veteran, and actually started his career in telecommunications in the US navy. He is a true visionary who inspires us all. He believes strongly in ROI, but not ROI as you may think return on investment. Rather ROI as in relationships over issues. Please join me in welcoming our CIO and Senior Vice President, Guillermo Diaz Jr. to the stage.

Guillermo Diaz: ….how do we digitize this world? …this is what's going on in Barcelona. They're one of the smart cities. Wi-Fi hotspots, it's a living lab where it's constantly moving, constantly innovating, and bringing the culture with it. 1.6 million citizens that are part of that innovation. Part of the culture movement. …smart meters, fiber optics, and Wi-Fi, hopefully Cisco routers all over the city. Digitizing the city, the smart city. We're all digitizing our businesses, I know that I am. My CEO has asked me, 'G, I don't want you to just digitize IT, I need you to help me digitize Cisco. And help our customers through programs like this, being able to understand how where we're going and how to help digitize their businesses. And … by the end of 2019, digital transformation, and we're all going through it, some of us in more mature phases than others, but the spending on digital transformation is going to increase 42% in the next year….Its gonna happen, we're going to digitize our businesses.

What is Digital Transformation then? According to The Enterprisers Project, an online community of CIO's and senior IT leaders, digital transformation is the integration of digital technology into every aspect of businesses, resulting in fundamental shifts to how businesses operate and how they deliver value to customers. Beyond that, it's a cultural shift that challenges old-school practices and processes in favor of experimentation and newer practices like removing siloes between organizations, collaborating across business units, or running IT as a service rather than back-room support. That's a big one, by the way. IT is integral and is often cited as one of the top five elements of a good transformational framework, along with customer experience, operational agility, workforce enablement and culture and leadership.

A research report by Couchbase, a NoSQL data platform, revealed that of 450 heads of digital transformation for enterprises across North America and Europe, 80% are at risk of being left behind by digital transformation, while 54% believe that organizations that fail to keep up with digital transformation will go out of business or be absorbed by a competitor within four years. Guillermo has been working on a solution to prevent this from happening at Cisco. It's called Future IT.

> **Guillermo**: Future IT is the best people working in an agile and dynamic way driving continuous innovation to deliver unprecedented outcomes, delivered through the thing that brings it all together, which is the pervasive, secure, and intuitive network….How do you bring the best people and teams, with the right skills, at the right place, at the right time, the best people and teams together, regardless of organizational boundary or geographical boundary, in an agile and dynamic fashion, so bringing them together, bringing them together fast, to drive continuous movement, continuous innovation, because we want to be able to innovate, but we also need to make sure our business is improving at the same time. So continuous innovation to deliver unprecedented outcomes. And unprecedented is a big word, it hasn't been done yet, we haven't been able to crack the code…And you can thread that through one major component, and that is the network, the pervasive, secure, and intuitive network.

Let's delve into these four areas a bit more by looking at this concept of Future IT in the context of Cisco strategy and technology.

First, it all begins with Best People & Best Teams, or the 'Who' that will make Future IT a reality. People are at the heart of everything for Cisco. They are the culture of the organization, the brains behind the technology, the force that keeps the business moving forward. When it comes to a problem, having the best people is the difference between success and failure. Traditional organizations have separate divisions. Finance, HR, Sales, IT and all of these different organizations have different strategies, cultures, and goals even if they share the same company name. In fact, one of the biggest barriers of digital transformation and shifting a business forward is culture. Ricardo Bartra, SVP and CIO of DHL agrees.

> **Ricardo Bartra**: I think it's a people issue, and not about people in wrong connotation, but it is on attracting the right people, retaining the right people, and motivating the teams to be more cohesive, dynamic, agile teams. I always take this seriously when I have an opportunity to talk to my folks. People don't care about how much you know until they know about how much you care. So motivating, we being the beacons of influence, and every IT member on any team, we have the accountability of technology leadership. Every day is your time. We need to actually be able to convince our business partners on the possibilities of technology capabilities today. Some people see it as way too out there, so we need to care for our leadership so we can learn, so we can grow, so we can lead, and we need to retain those people so they are part of this agile, dynamic, fast innovation cycles, improvements, right, but it is the right people. That also means the right people with the right skills. And there is a place for everybody. You cannot build a bicycle if you don't know how to build it, or that the business needs to have a bicycle. So all the way from how we get the business requirements that's the traditional model, right. How we get it, how we then formulate a solution, how we build

a solution to make it sustainable, everybody plays a role. It has to be, it has to basically be based on people. At the end, our most important asset for me, is always people.

Bringing the right people together entails shedding those siloes and trusting one another's skillsets – hence why Cisco ITs phrase of the year is 'Inspire Trust.' It requires an aligned vision. It requires a culture of leveraging the best resources regardless of where they come from, and by resources we mean people, technologies, or solutions.

> **Guillermo**: Technology is always going to change, if you don't bring people along the journey, if you don't bring the organization, the skills and the mindset, the technology is going to continually change. You're not going to be able to keep up with it, and then it creates a kind of chasm between those two things. So the technology is way out here, but the people haven't shifted… Future IT is enabled by technology and innovation, but it's powered by culture. It's powered by the people.

Future IT requires Dynamic Teams and an agile mindset. With a forward-thinking culture and mindset of working together, the idea of static teams then seems to be a hindrance to innovation. The tendency toward dynamic and agile teams that come together for short periods of time to complete a task and then return to their respective areas of expertise means that fewer resources are lost in shuffling or re-shuffling organizations. Rather than creating a new organization, a dynamic team has one purpose, one goal, and everyone is aligned to that vision until the goal is reached, or that team continues to evolve as newer iterations of that goal are required.

Alice Chan-Saiki, manager and Continuous Delivery expert at Cisco explains,

> **Alice Chan Saiki**: The Continuous Delivery discipline teaches us to look at the end-to-end development cycle more holisitcally. It starts with applying the Minimum Viable Product mindset or MVP in our strategy and product definition. Once that's defined, the business and IT team will continue to stay together throughout the sprint cycle and execute the MVP based on the LEAN scrum model. But to me, more importantly, as we deploy our product, we really need to focus on getting that fast feedback loop and look for opportunities to continuously improve and innovate. Lot's of people think about continuous delivery transformation is about process and tools, but in my mind, the most important piece is the mindset shift. Because what it really transforms is fundamentally the way we work today.

At a higher level, the world around us is changing . What's viable today might not be viable six months from now. Continuous Delivery allows teams to dismantle traditional siloes because all teams within the project have visibility into what is happening in real-time.

> **Ricardo**: Guillermo talks about being agile and dynamic as an example of those pillars he thinks in terms of thought leadership, but it's true. Today…it's to deploy a hundred times faster, its to deploy much faster than we ever did before. And that requires us to be agile, dynamic, that requires us to be a different construct even within our own teams. Teams that are able to go across multidisciplines, connect with the business and have these minimum viable product cycles whereas we start painting the Mona Lisa, the Mona Lisa starts taking shape in front of our eyes, so adoption and correction happen real-time. That is dynamic, agile, and a different thinking construct. So in my view, all of this comes together because with this new model, velocity of innovation, this velocity of improvements goes into this one hundred times faster. Bimodal is speeding IT up or fast-forwarding IT is the name of the game today.

Fast is a key component to success in the digital landscape. The ability to be predictive and proactive and to mobilize is half the battle toward retaining a competitive advantage.

In a McKinsey report on "The Five Trademarks of Agile Organizations", experts in the field noted that agile organizations work less like a machine and more like a living organism. This quote is pulled from the 2018 article: "Networks of teams work within a people-centred culture, they operate in rapid learning and fast decision cycles, they are enabled by technology, they share a common purpose and they co-create value for all stakeholders".

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While high tech, financial services, telecom, and media and entertainment industries are leading the way in agility, any team or organization can become agile, and Cisco's continuous delivery team teaches these principles and mindsets across the business. Whether in IT, operations, supply chain, sales or even marketing, agility allows everyone to move forward quickly, without sacrificing quality of services. Along with moving forward quickly, with the best resources and dynamic and agile teams, continuous development is an important feature of maintaining a competitive advantage in an ever-evolving landscape.

The next theme of Future IT is Continuous Innovation.

> **Guillermo**: We have this notion of continuous innovation, but its really continuous everything. It's continuous learning, its continuous improvement, its continuous skill development and the more that I can drive that notion, the more I think the people will want to continually work in that fashion.

One of the defining differences of continuous innovation is the idea of 'self-operating' and that is where the pervasive, secure and intent-based network comes into the conversation. By focusing efforts on making the network and technology self-provisioning, self-learning, self-healing, and self-defending, people have the leeway to innovate where it makes a difference. The visibility into what customers need and what stakeholders want, allows for more efficient and impactful innovators. But, empowering people also means providing them with the tools and information they need to leap forward.

> **Ricardo**: Fifteen, twenty years ago, a brick-and-mortar business could survive being a brick-and-mortar business. Today you cannot. Today, you have to understand that people will be walking around with these powerful devices called telephones, our own mobile devices, that if we do just a basic comparison, one of these mobile devices is more than 150,000 times more powerful than the computer that sent men to the moon. And everybody has it... Our capacity to produce information has increased.

The capacity to harness and process data needs to keep pace with that rate of production.

The customer is at the heart of digital transformation. Customer journeys directly impact the bottom-line. More seamless, personalized and contextual experiences tie into that vision of the future mentioned earlier. Self-service is a part of it and Cisco is addressing the customer of a very specific target market.

Cisco has launched an online platform in Australia - called Cisco Start Marketplace - designed to provide a seamless end-to-end buying experience targeted at SMB customers. Bailey Szeto, VP in Sales, Marketing and Channels IT, explains more about the platform and the original problem.

> **Bailey Szeto**: ….we weren't paying attention to the small-to-medium business market. In fact, when someone goes onto cisco.com, and says 'hey, I'm interested in this product', if the deal is worth less than one million dollars, I can guarantee it's going to take quite some time before a seller gets in contact with the customer. In fact, some of the statistics show that for some of the smaller deals, it might be a good 10 days or more before the potential customer hears back from Cisco. So we recognized that even though it's a smaller deal size, it's a total addressable market, the amount of money that could be made here is quite substantial. What we wanted to see is if we could accelerate the response to these customers and…could this be self-serviced? …In short, I jokingly say, for the first time in Cisco history, we've put a 'Buy' button on cisco.com…

This particular issue required the expertise from a large group of people. It started in the Asia Pacific region, where a team was already realizing that the customer experience for smaller deals was flawed. As the team delved further into the issue, they started to realize the magnitude of what a solution could potentially look like and the resources they would need. Executives recognized the issue was a Cisco-wide problem. Breaking down the platform into simple parts made it clear which teams would be involved and they ranged from Commerce IT for the backend commerce platform–Cisco has over 2 million SKUs–cisco.com for the shopping cart experience, product

comparison databases were created by the business entities themselves, operations for processing orders, and the partners team on fairly distributing orders to partners.

> **Bailey**: It needed to involve people from different parts of the business as well as in IT….at no point did anyone in the group say, don't include that group. The traditional siloes just weren't there. Each group accepted that they all had a role to play… We got together the best people to make this happen because the timing is so short and the visibility is so high.

For Cisco, a company that doesn't traditionally have a public commerce platform on its website, this was a massive leap into the unknown. The backend to the marketplace was created using a lot of Cisco's own technology, its cloud-native development. The benefit of using internal environments is that it's already connected to the data, tools and technology needed to make the platform work. It also means that the next cycle of development will target the platform specifically where it needs improvement. The guesswork is taken out of the process because of the amount of data science involved. Cisco's dynamic and agile teams can then incorporate whomever in the business that is best skilled to enhance the second evolution.

Which leads to the final piece of Future IT – Business Outcomes, or positively identifying innovations that make a difference. Future IT innovations will be measured by their results, because at the end of the day, Cisco is a 50 billion dollar corporation. And if IT is going to evolve as needed, being connected to the business needs will enable co-creation and drive innovation for partners and customers. Although Cisco is still early in the journey to Future IT, some unprecedented outcomes in IT and in partnership with other functions within Cisco include: 97% faster pace of new feature releases, which improves the velocity to business value, a 60% drop in security vulnerabilities, and a 50% decrease in cost to resolve customer issues. Future IT will evolve over time, for now, Cisco is striving to keep ahead of the ever changing business landscape.

What does this mean for the future of CIO's and digital transformation? Echoes of Guillermo's solution are resonating inside Cisco and IT, but as we researched and spoke to leaders of industry outside of Cisco, it became apparent that these challenges are universal.

> **Ricardo**: … the challenge of the CIO today is to understand the bimodal nature of our business. We need to understand the old, harness the new, and we need to put the right technology layers in between with real, intentional architecture to bring it all in place so we can contend with these trends of globalization, consumerization, and productivity expectations… Today, we're talking about digitalization in a completely different perspective. It's the next turning point. It is basically finding those small innovation ideas versus those big ideas that could become the next unicorn. It's about drones, it's about machine learning, it's about crypto currency or blockchain. So we have transcended from just automating to envisioning a complete new set of capabilities that will give us a completely different experience and will add a different competitive advantage to companies that are able to realize that and move forward. Today, more than ever, every business is a digital business.

Thank you for listening, this was the Future of IT with Beyond the Network. This episode was written and produced by Sarah J. Khokhar. Special thanks to Arthur Woo and Douglas Alger for recording assistance. Don't forget to follow and like our podcast on SoundCloud or iTunes.

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