Beyond the Network: What's In Store

In 1936, Sylvan Goldman, the owner of Humpty Dumpty grocery stores in Oklahoma City, was looking for a way to boost sales. As with most markets in the United States, shoppers strolled the aisles of his stores with a wire basket on the crook of one arm gathering the items they wanted. Sylvan had noticed that when a customer's basket became too full or too heavy they stopped shopping. If only they could carry more and yet still have a hand free to shop with.

Sylvan considered installing tiny railroad tracks to automatically move baskets around his stores, but that didn't seem practical. His next idea was what he called a "folding basket carrier." He attached two baskets and wheels to a folding chair and – voilà – the shopping cart was born. The carts weren't an immediate hit – Sylvan actually resorted to hiring models to shop in his stores with the carts to coax people into using them – but they obviously caught on eventually. Try finding a major supermarket today without shopping carts, or an online store without a shopping cart icon.

A simple idea – helping customers carry more goods – fundamentally changed the shopping experience. More than 80 years later, one company is envisioning the retail store of the future. Imagine a store that is more convenient for shoppers, enhances employee productivity and can actually improve operations by learning from customer activity. Doug Alger explores the Connected Cisco Store as we go Beyond the Nework – and beyond the shopping cart.

Think about the last time you went shopping and what was inconvenient about it. Perhaps it was difficult to find an item or you had to make multiple trips to and from a dressing room because something didn't fit. Maybe lines were long. Now imagine running a store and its challenges. The inventory process could be inefficient or the checkout system outdated. Store fixtures might be inflexible or products selling poorly.

If you were in a position to remake a store from the ground up, what would you change to make the experience better – for those who shop there and those who run it? Rachael Weiss, global program manager for Cisco Stores, was in that position when she and her team set out to create a retail store of the future – one that would provide those better experiences and be a technology showcase.

The Cisco Store program includes two physical stores, pop-up shops at large trade shows and an online store. Beyond selling the various Cisco-branded apparel and paraphernalia they carry, the stores are meant to connect people – especially employees – with Cisco, highlighting good things the company does around the world.

The centerpiece of the program is the store at Cisco headquarters. The store is impressive – an expansive, brightly lit space with modern design elements. A globe at its center shows 360-degree videos, while other content appears on wall-mounted screens – including visualization of data analytics that are used to improve store operations and customer service. There's a smart fitting room that displays information about products carried in and possible accessories. Shoppers can even skip the checkout line, paying instead with an app on their phone.

All of that is today. Not long ago, it was just a small, outdated retail space off of one of the company cafeterias. Rachael explains.

RACHAEL WEISS: "The old store was dated in every way. I mean, we think about it in terms of the merchandise and the fixtures, but the customer experience wasn't really what we wanted to represent showing Cisco technology. The merchandise was all navy and black, it didn't really speak to our customers or solve for how they use merchandise, so customer gifts or employee engagement. The fixtures weren't flexible so from a merchandising standpoint we were really stuck and we couldn't reinvent ourselves the way a retail store would in the mall. The vision for this new store was to truly reflect the brand personality, with merchandise employees would be proud to own from retail brands they like and brands that stood for causes they care about such as sustainability, being eco friendly, giving back, and minority-owned businesses. We wanted to really create an experience for our employees and customers that would instill pride and a deeper understanding of how Cisco technologies work."

DOUG ALGER: "How long of a process is it to do this?"

RACHAEL: "So the actual physical part of the store took the longest amount of time. We started demo and construction in June of 2016, so if you look at the full project it took almost two years. In the meantime we had a temporary space where we housed the store and it looked almost like a batting cage in one of our cafes. But the majority of the timeline as I said was actually construction and the remodel. The cool part about this project being the Cisco technology piece – the Cisco core infrastructure including the Meraki cameras and Cisco Vision, the core networks – that all went up actually in a matter of weeks. The partners we integrated with took a little bit longer, but we consider ourselves a living lab so that we can add or remove features as we learn more about our customers and use data to gain efficiencies for both our associates and our business operations. So the truly exciting part of this is if a similar customer in the retail space or even in any other industries wanted embark upon a digital transformation in the same way we did they could really do that in a matter of weeks. Pretty quickly. And the reason our project took so long is because we were remodeling the walls and we were knocking out beams, so that was the hard part and why it took so long. So the technology itself was really the most exciting part to see come together so fast."

DOUG: "When you talk about remodeling the store, this wasn't put in a couple of new racks, put a new coat of paint. This was a really comprehensive reset to that space and how it was to be used."

RACHAEL: "Exactly. I mean the space went from about 500 square feet to about 2500 square feet. So in terms of why the project took so long, think about when you're building a new building or you're remodeling your home. There was a lot of finish choices that went into that, a lot of budget reviews that went into that. But in terms of the technology and some of the coolest features of the store and what we're most proud of that actually went up pretty quickly and was working in a matter of weeks."

DOUG: "Talk about some of the solutions that have been rolled out in the store."

RACHAEL: "What's important is to lay the foundation about our strategy. So everything we've done in this store really goes back to four main points and those are number one, creating an amazing customer experience; number two enhance our associates' productivity; of course protecting our brand security and then improving store operations. We really wanted to build a solid Cisco technology stack foundation, including Meraki solutions, so that we were able to plug and play different partner technologies as needed. We wanted this flexibility. And this has proven to be a really good strategy as we've had several partners exit and new ones enter. We've been able to do this fairly easily without any major resets or additional investments other than new hardware and software."

"So our associates obviously have more tools at their disposal to monitor shrink – right, what we call stealing, basically. Employees are on their best behavior but every single item we have had stolen at any external pop-up shops has been able to be tracked down because of the Meraki solutions we have in place. And even in some instances where nothing has been stolen – like we thought we had a very big disruption in one of our pop-up stores at Cisco Live and so we went through all the footage, it was very dramatic but what we discovered was it was just a

mannequin falling over at 3 am. But we're able to even pinpoint when that happened so it's pretty cool. We're also able to see traffic patterns when we make merchandise changes to see which areas are drawing the most interest. We can measure engagement in some of our retail-tainment, some of our more entertaining, fun things in the store. And innovations, like our Opal 360 screen or a new innovation we're bringing in called Lumo Play, which is an interactive game that you can play on the floor of the store. We're also able to tap into VR technology with the Meraki new fisheye cameras. So it's pretty cool the things that we're able to do. Since Meraki's launched the new access points – the MR55 – we're able to leverage all the greatness that is WiFi 6. We've also discovered that they're a better fit for our stack as we're a small to medium-sized business so we're actually transitioning over to those right now in the full store stack. We use them in our travel stack but now we're bringing them into the physical stores as well."

"One of our favorite customer features in the store is our smart fitting room. And our smart fitting room is basically based off of RFID technology and partner technologies from Intel, Impinj, Sato, Avery Denison, and Keonn to name a few. We can uniquely identify each item in the store to offer special features to our customers in the fitting room, like asking an associate to bring them a different size or seeing if we have additional colors online. Customers can also see complimentary items that are a good match for the items that they've brought into the fitting room, and they can even leave feedback. The RFID also allows us to track our own inventory in real time so not only does this help us in understanding stock levels but we can see when an item might be in the wrong place in the store and we can alert an associate to move it back."

"Loss prevention's also addressed. So if an item leaves the store it triggers a few things to happen. A message appears on all of the Cisco Vision Digital Signage in the store, alerting the customer and associates that they have forgotten to pay, and then the Meraki cameras are able to capture the footage of those last few seconds to instantly replay and pinpoint which customer may have left with an upaid item."

"We're also using technology to entertain. As I mentioned earlier, retail-tainment. We're creating personalized items for our customers in the store. Right now we can create personalized greeting cards in the store to go along with any gifts or item you want to purchase. This custom card kiosk is with a partner called Card Isle and we create those special moments at Cisco like when an employee starts their first day or when they have received a promotion or even more of the personal things like celebrating a birthday or other life milestone. And then one of our big points of pride is that this year we were featured at Cisco Live in the technology keynote showcasing the Meraki fisheye cameras and the Occulus integration. So that's been pretty exciting for us to not only work with these partners internally at Cisco but to also show how we partner together in a sense to help better develop the products and show how they can be used in different ways."

DOUG: "From having all of these different solutions in place and the store has been up and running for months and months, what have you learned?"

RACHAEL: "We've learned a lot. As I mentioned earlier, when we reset the physical stores we designed the space so that we could change the displays a lot more often and be a lot more flexible in how we merchandise, react to if were sold out of a SKU and we need to change in a different way. And so what we're able to do is validate these merchandising changes so we can understand how the traffic patterns may change in the store or different areas of the store where customers are more engaged. We can tell which products they're looking at. And then obviously we can see – comparing that to sales, what that looks like. So which products are the most popular based on location. If a red shirt was sitting on a shelf for 2 weeks and didn't sell and we moved it to a different area of the store and now we're sold out we're able to see how those location changes are impacting our sales. We're also able to see with the different partner innovations we're bringing in what engagement looks like there as well as engagement with our digital content that's playing in the store. So I mentioned earlier a product that we feature in the store called the Opal 360. And what this is, it's a large, 360-degree screen and we've been able to place a Meraki camera directly over that screen and measure engagement in terms of how long customers

are dwelling in that, which content they're most engaged, which content they're looking at. And because it's a 360 screen we can even pinpoint it down to which side of the screen they were looking at. So it's pretty interesting. We're also able to understand our operations a lot better and understand efficiencies for our associates a lot better. Obviously traffic ebbs and flows throughout the day. We're able to understand which areas of the store need more attention at what times. We're able to more efficiently schedule our associates based on those traffic patterns as well. And we're able to work with Meraki for example before they even release some of these products, so there's a mutual benefit there. We're able to somewhat test these products and ask them relevant questions that a customer might ask, like a retail customer might ask. Ask for different use cases that might be available. And so we're actually part of the product iteration – you know, at the tail end – but actually able to help move that product to be customer ready."

DOUG: "Any surprises that came up?"

RACHAEL: "I mean definitely there's solutions that you come up with on paper, right, or in a meeting and you think are a great idea and we've been able to fine tune some of those things. So for example we created with Timbuk2 as a partner a new custom backpack kiosk in our San Jose location. So employees could come in, they could design their own cool backpack on an iPad and then in just a few short weeks it could be mailed to your home. And we thought this was such a cool idea. We had gotten feedback before we brought it into the store, everybody loved it. The graphic interface is very cool. But when we put it in the store nobody bought any backpacks. And people were over there and looking at it and everybody was saying how they were so cool but nobody was really designing their own backpack. And so we dug into this with some customers after watching the traffic patterns and seeing how much interest was there but not seeing any sales result, and what we discovered was the kiosk was engaging and fun but the process took so long that what our customers really were after – they wanted the end result, so either they wanted us to create some suggestions for them that they could choose from and then quickly customize or they wanted to be able to use the tool that we created in the store but back at their desk or on their phone, right? They wanted to be able to take this experience away, think about it, play with it, customize it, and then come back into the store and be able to finish that sale. And so I think had we not noticed this pattern pretty quickly in the store through the data analysis we were able to do with our dashboards – I mean I think we would have got to the answer eventually but I think we noticed it as a pattern very quickly versus just an anecdotal thing, right? And so we were able to just dig in right away and solve the problem just in a matter of a week or two versus seeing a dip in sales over a whole quarter or something like that. We were able to use those dashboards to get to the answer pretty quickly."

"Another thing we learned was just in the whole fine tuning of the smart fitting rooms. So you know when you're using RFID technology it doesn't really recognize or care that a wall might be in the way so initially we had a real hard time setting the sensitivity of the sensors and the readers to understand an item in the dressing room versus an item on the outside of the dressing room. So we learned a lot about that and how to solve for that. There's actually special paints you can buy that blocks the RFID so we were able to paint the dressing room that way. And then in terms of the sensitivity around the doors of the store we were able to adjust that and even at some points just develop our own standards of how far away something has to be from the door. So there's just a lot of learning there. It wasn't really a surprise but just you think you have this ready to go solution out of the box and it requires a little bit of fine tuning."

DOUG: "You mentioned traffic patterns at one point. What there anything that came from that? Did you end up reconfiguring the store at all?"

RACHAEL: "We definitely learned which areas of the store are the best to put new merchandise or merchandise that maybe people need to understand more about. So sometimes we have merchandise that needs a little more explanation so if we're able to move that near a digital sign that might be able to explain that, that's been more helpful. We've also learned which areas of the store – kind of like when you think of a grocery store, you always

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know the outer perimeters are the things you need, right? Like you know where the milk's going to be. You know where the bread's going to be, so you're able to merchandise those items pretty much anywhere because people will find them. And then you're able to take some of your more premium placements in the store and then put newer items there. Items that might need some discovery so that shoppers can get in front of those items. We've also learned how we can just change the fixtures around in different ways so that we're not just creating new merchandise in the same fixtures, we're able to actually move the fixtures around and the fixture system we purchased is very modular so that we can reinvent the way the store works. We can even move fixtures out of the space to create almost even an event space. We've also been able to do some storytelling in the store. So we've dedicated certain areas of the store to have a theme, so for example corporate social responsibility, so we have a specific area of the store where the content on the digital screens are playing, talking about our bridge to possible campaign and the different stories where Cisco has enabled some really great changes in the world and society, and in those areas of the store we try to merchandise like items. So an item that may benefit a less fortunate community or a buy one, give one type of item. And that creates a great dynamic in the store where it sparks a conversation. Our associates are pretty well-versed on the products in the store and how they can help benefit others. And so that's been exciting to have customers – because they're mostly our employees – be really engaged with the stories that we're telling. Not just about our products, not just about our campaigns, but basically about the whole brand, right? What Cisco stands for. And then it's really cool on top of it when you have that layer of all the technology in the store and our employees get to understand how they all work together."

DOUG: "How universal - the things that have been deployed here and what you've sought to do with the store – how appicable is this for others in different retail environments? They're not looking at an employee audience with company branded materials et cetera. Is what's being done here, does this apply?"

RACHAEL: "Absolutely. And I think, going back to when this project started that was fundamentally the approach. So, we consider our peers to be other retailers, not promotional suppliers, not employee stores. So we think like a retailer would – small, medium-sized retailer – but we think like a retailer would think. So we approach our customers in that same way. We know that not every customer that comes through those doors is looking for the same experience. We know some people are shopping for themselves. Some people are shopping for others. Some people are there to source something for an event. So we understand there's different personas that are in there shopping. We understand retailer pain points, right? How to convert those eyeballs on the phone into people walking into the store, into the physical space. We have a lot of these same pain points. We also – just because we're the Cisco Store and just because we're on the Cisco campus we couldn't start our operation piece fresh, right? So we work with different operations partners and their tech stacks weren't going to change just because we wanted to reinvent the store, just because we wanted to enhance our digital journey. So we still had to connect and make all the different technologies and reporting systems and the back end of our inventory – we had to make all that still work with the new things that we were bringing in. That's the way a retailer would work. They may merge with another retailer. That happens very common in the grocery world, right, where all these different grocery stores are buying each other up and now you have six different legacy systems that you have but you want to still create similar customer experience for everyone walking through your doors. And we understand those pain points that these retailers are working with. We understand how they're trying to be flexible with how they merchandise, how they're trying to be more efficient. We understand how associate turnover in the retail world is – you know, it's a barrier, right? You want your associates to be experts but if people only work seasonally or they may only work in your store for six months how do you have that knowledge transfer? How do you train people and get them up to speed so fast so that they are experts at the products in your store to offer those excellent customer experiences. That's why going back to everything we do in the store it goes back to those four things of creating an amazing customer experience, enhancing associate productivity, protecting the brand security, and improving store operations, because that's not what typically an employee store would care about but that's what a retailer would care about. And so that influences every decision we make from which hat we bring into the store

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and which brands we look at all the way through the technologies we choose, the systems we choose, the data and reporting we look at. What we want is to create more customers just like any other retailer. We don't have physical stores in every single Cisco campus but we want every single Cisco employee to feel that they can reach out to us and purchase something from the Cisco Store Program."

DOUG: "So what did we learn? If someone else is at that starting point what advice would you give them? If you're going to tackle this –"

RACHAEL: "Yeah."

DOUG: "– keep in mind…"

RACHAEL: "The advice that I would give someone else – another retailer, another industry – would really be to ensure that you have a solid foundation. Our Cisco core infrastructure has allowed us to work with multiple partners in our ecosystem that help us solve our business challenges. And having that solid foundation, that core infrastructure, had even allowed us to quickly react when things go wrong. When you're trying to be innovative and work with some of these cutting edge technologies sometimes these new innovation partners don't always make it to scale. Our first smart fitting room partner actually was a great partner to us but their business ended up going under and they're no longer around. So while that was frustrating we didn't really have to start over with our foundation to be able to bring in a new smart fitting room partner. We had all the components in place to be able to work with similar and different technologies. So if we want to layer in RFID, if we want to layer in augmented reality the core foundation that we've laid allows us to do that and allows us to pivot or change gears if we need to or if we want to. Or if we discover something new. If we're learning things about our customers with all the data that we're gathering – maybe this year it's a smart fitting room and maybe next year it's a personal stylist feature, or something else. We might learn more that will want us to enhance a feature or bring in new ideas. And so I think really, truly making sure that your foundation and your core infrastructure is done right and allows you that flexibility to be able to add and take away as needed. I mean you may even need to do that – I mean, we only have a few physical stores but coming from the retail world – you know I've worked for an with retailers where you have hundreds of doors, right? Thousands of doors. You may have very different audiences. You may have a 500 square foot store. You may have a 5,000 square foot store, right? So how do you add and take away different components, different experiences, different technologies, different features. And having this same core foundation whether we are in a physical store in San Jose or whether we're setting up a temporary pop-up shop across the world that's only open for five days, we have the same foundational setup so that we're able to react and do different things."

DOUG: "When you started how did you define what success was going to look like for the store?"

RACHAEL: "Really for us – you know and again for us it's unique, right? I think most retailers would say 'Oh, we want to see our sales increase.' Right? So we definitely wanted to see that and we have. But really what we wanted to see as well, which probably doesn't make us any different than any other retailer, is increased engagement. For us that really meant that our employees were really proud to work here and really proud to own something with the brand on it. So for us it was that increased engagement. Continuous success for us also is the ability to scale. Can we be in more locations? Can we serve a broader audience? And so that's where we're at right now, is we're at that point where we're trying to grow and scale our program to be more visible to additional employees around the world. To be able to be in front of more customers whether it's in our physical store or in our pop-up stores and then be able to have more iterations of those pop-ups if possible."

DOUG: "And so, X number of months in, what's the verdict? How's it doing?"

RACHAEL: "Yeah. A little over a year and a half in, I mean sales are way up. Way, way, way up. And we've gone from doing one pop-up shop a year to this year we'll be doing three – three big ones, three major ones. We

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were never customer facing before and now we host customers all the time. Not sure which customers I'm allowed to mention but several very big retailers, and that's just the starting point. I mean now we're starting to be customer facing and give tours and have conversations with multiple different industries. So, it's great because shopping is a paradigm everyone can relate to and everyone can understand. Initially I think a lot of account managers thought oh, well, only retail customers should probably come through this store. And that way of thinking has quickly shifted now that more people have visited and they say oh, you know what? I get how this works because I shop, I go to a store, but I could totally see how this sort of an ecosystem or this story of technology or whatever they're looking at could apply to financial services, or to healthcare or to manufacturing. So it's pretty interesting to talk to people in all these different industries, too, because they have a lot of unique ideas that actually help us improve our experience as well."

DOUG: "What's the number one question they normally ask, or what's the thing that most catches their eye?"

RACHAEL: "One of the number one questions they ask is 'How long did this take to do? We don't have this kind of time. How long did this take to do?' And as I said earlier the actual technology piece didn't take all that long to do. That's what's exciting about this, is your digital transformation doesn't have to be this long painful journey, right? You can – with the right foundation – build upon what you may or may not have, right? We're not saying hey wipe the slate clean and start from scratch. We're saying ok let's look at what you have. Let's look at where you want to be and how we can get there. And we have that same problem because we run our program with an operations partner. Their tech stack's not going to change, their infrastructure's not going to change because this one employee store wants to be different. That's the a-ha moment for everyone, when they say 'Ok, everything you've shown me is super cool and yeah you're Cisco so of course your employee store's going to have everything that Cisco does, but let's be realistic. I have 2,000 doors, I already have six different legacy systems in place. How am I supposed to realistically create the experience you're showing me in my locations?' And we're able to peel that back pretty easily and show them here's what we did and here's how. And we're honest – we're able to be thought leaders in this space because we'll show them, too, like here are our pain points. We use a different point of sale system – for laymen's terms, like the checkout, right? – we use a different system in the U.S. than we use in Europe, but we want to create this same experience for the customer. So I mean we're used to these things, too, where we have multiple different systems. That's probably the number one thing, that they're always pleasantly surprised that it's not out of reach or unbelieveably long and painful to get to where we're at and how they could do it to."

DOUG: "What's next?"

RACHAEL: "For us, we are really trying to scale the program. Right now we have two physical stores as I mentioned for our employees. We also have an e-commerce online store and we're trying to figure out more ways to scale that to be available to more employees across the globe. So we're further enhancing our e-commerce solutions and we're also looking at ways to be in more locations without increasing our staff. Things on the horizon, maybe fully automated stores. We're also looking to build some pretty cool tools to enhance this store's technology discovery experience. So, right now we can give you a guided tour. You have us there to ask questions. There's obviously a lot of visible technology in our stores, but there's a lot of invisible technology, right? There's a lot of stuff in the ceiling, behind the walls. But some of those things are enabling the really cool features in our store. So how do you know about that? How do you ask questions? How do you discover that unless you have that tour guide with you? So we're trying to solve that with a cool augmented reality tool that we're working on. So stay tuned because we have some really cool things that we have in the works. And more ways to shop. More ways to engage. And some really cool ways to discover and learn."

DOUG: "Any final thoughts you would like to leave people with?"

RACHAEL: "Start small. I mean we – like I said – we were able to get the tech part of our new solution up pretty fast and we started with small, core infrastructure of basics we knew we needed to have and that's allowed us to build some really cool solutions and it's allowed us to build upon so we can scale and grow and create even more enhacements for the future. So, I think just start small and just start, right? I think it doesn't have to happen all at once. You can really build upon this and keep going. It doesn't have to be everything in a day. Your digital journey can start now. It can start small. And it's a journey so you can keep going."

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