

# Los Angeles Dodgers: How Breaking Data Barriers Gets Done



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Customer Spotlight Webinar

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**Tim Crawford:** Hello and welcome everyone, and thanks for joining us today for Intel's Customer Spotlight Webinar series. These webinars highlight innovative, industry-leading companies that are undergoing business transformation, have tackled business and technology challenges, and created new opportunities using Intel data-centric technologies and platforms.

I'm Tim Crawford, CIO and strategic adviser at AVOA, and your host for today's webinar. I'm excited that today we're going to feature the Los Angeles Dodgers. Like many enterprises, the Los Angeles Dodgers were challenged to keep up with the growing demands from around the organization. In today's webinar, we'll discuss this in more detail and how they addressed the challenge. So, with that, let's get into the discussion. And today I'm joined by Ralph Esquibel. Ralph, welcome to the program.

**Ralph Esquibel:** Good morning Tim and thank you for having me on today.

**Tim Crawford:** It's great to have you. It's wonderful to have the World Series championship Los Angeles Dodgers, I'm excited to say that. But for those that might be kind of out in yonder and might not know about the Dodgers organization and who Ralph is, why don't you take a few minutes and talk about your role and also the Dodger organization?

**Ralph Esquibel:** Yeah. Certainly. So, I am Ralph Esquibel, vice president of information technology for Los Angeles Dodgers. I grew up in Los Angeles as a lifelong Dodger fan and am both proud and blessed to be working for this organization I grew up dreaming for.

I have a small technology department of 13 employees—and who we are, or who are the Dodgers—well we're a Major League baseball team in the Western Division of the National League. We're the third-oldest stadium within Major League Baseball with Dodgers stadium opening in 1962. We've won eight consecutive MLD Western Division titles, we've participated in three of the four last World Series, and winning the championship, as you mentioned the past season, Tim.

Dodgers stadium is 50 years old, or shall I say 58 years young, depending on the way that you look at things. Beginning in 2020 we just completed \$110 million renovation, changing the pedestrian circulation around the venue, creating new center field plaza, numerous visual activations, a new sports bar, a new speakeasy, new food and merchandise location, and an update through our civilian feed in with new home run seats.

In addition to numerous technology upgrades, we completed a Wi-Fi 6 project this past season, one of the first for any stadium in North America. We've just completed a 5G implementation for both AT&T and Verizon—and T-Mobile to follow—and at IPTV the digital menu boards for all of our concession team.

Along with that, in 2013, we completed \$170 million renovation project, updating our concession technology, concession stands, field level overlook bars, and our player's area.

So, Dodgers stadium is not a small stadium, we have 56,000 seats which is basically the largest in Major League Baseball. We host at minimum 81 regular season games—well I won't say at minimum right? Considering COVID and what occurred this year.

**Tim Crawford:** Sure.

**Ralph Esquibel:** But typically, we'll have one or two preseason games. And I believe, if my memory serves me correctly, we've only missed one of the last, out of the last 11 seasons that I have participated, we've only missed one post season. So, yeah, we have a lot of baseball here and a lot of fans coming through our venue.

**Tim Crawford:** You know, that's an incredibly storied history, I mean whether you look at it from the fan perspective, the organization, the players, I mean it's just, it's an incredible organization. And then you look at the experience within the park, you know you talk about some of these renovations that you're doing and the fact that it's the third-oldest ballpark. If I'm correct, being a baseball fan myself, Fenway and Wrigley are the only other two stadiums in Major League Baseball that are older than Dodgers stadium.

**Ralph Esquibel:** That's correct.

**Tim Crawford:** So—

**Ralph Esquibel:** Yeah, and it's—you know we just came out of Texas looking at what the Texas Rangers put together as far as a new ballpark. And there are parts of me that are quite jealous of those teams that have new ball parks. Having a 58-year old ballpark, I mean it wasn't made originally for technology—at least not for the technology that we are looking at today. So yeah, there is something to be said about having a new ballpark.

**Tim Crawford:** Yeah, oh I'm sure, I'm sure if you could build it from the ground up. So, let's kind of dig into some of these pieces, and maybe back up a little bit and talk about some of the challenges that the Dodger organization was facing. You know, you talk about how the stadium itself was never built for technology, yet you talk about some of these newer technologies. Maybe let's start with the challenge, and then we will get into the solution. So, what were some of those challenges that you were kind of looking at or facing?

**Ralph Esquibel:** Yeah, well you said it. You know the challenge is basically we have an older ballpark and we want to ensure that we are one of the most innovative ball parks in the United States, and that's a very big challenge, right? How do you do that? The infrastructure needs to change; the actual building needs to change and needs to evolve with the technology. So that's one.

Number two is because we are so big as far as seating capacity with 56,000 seats, we are the most-attended venue in all the world, right? Just because of the quantity of events that we host. So that's the challenge when we start thinking about complexity of density. So, they are big obstacles to overcome.

**Tim Crawford:** Yeah, and you know it's—but it's more than just the stadiums too. Maybe you could talk about some of the numbers just to give folks the perspective of just like types of transactions, or types of activities that you are hoping to address.

**Ralph Esquibel:** Yeah, specifically when it came to our Cisco and Intel project with HyperFlex, the challenge was basically like here we are, baseball is changing, our organization is changing, and let me take you back to 2013.

Our technology stack in 2013 had been growing in complexity. We were just under new ownership; we had new injection of capital and resources. We were continually adding new technology, building new applications, creating and acquiring new datasets. And we transitioned from being a reactive company to a data-driven analytical organization, making quicker and better decisions.

So on the field and off the field, the data streams were being modeled, frequently analyzed, making real-time decisions, but the problem that we had was basically slow transaction times, a lot of bottleneck with legacy computing storage platforms. That was the real challenge—that we were trying to cure.

**Tim Crawford:** You know I know in past conversations, Ralph that you and I have had, you've talked about the data or the processing being batched and some of the challenges that came from that. Can you maybe kind of delve into that a little deeper?

**Ralph Esquibel:** Yeah. Because of the legacy computing storage platforms, the challenge was we weren't operating in real time. We were operating basically 24 hours behind. So, when transactions would take place, we would batch those transactions, and we had to carefully orchestrate when those transactions would be incorporated into any models. So timing was really crucial. We had to understand: okay, if this dataset is going to require six hours to complete, well, this needs to occur at 1:00 AM, so that way by 7:00 AM, our CFO and analytics staff can actually look at what the data is doing.

But the same time baseball ops—they have a game that's going on at 1:00 o'clock—so maybe what we're going to do is we're going to cheat and start their time, their processing time at 4:00 AM. So, we were doing a lot of that manual orchestration and that was just leading to a lot of customer frustration, right? And when I say customers, I am saying employees. And they are frustrated because their jobs aren't completing or running as efficiently as they expected, and that ends up being my problem at the end of the day.

**Tim Crawford:** Yeah, I can see how that kind of falls straight to you, as well as to your team. So, let's maybe shift gears a little bit and talk about how you kind of took on this challenge and kind of moved it forward. You know, how did—so you've got this challenge where you don't have enough processing power, you are having to batch some of the analytical work that the organization needs, maybe trying to

take resources from one place and put them somewhere else to try and skirt the issues a bit—how did you get around this? How did you kind of move beyond these challenges?

**Ralph Esquibel:** Well the first push was having a conversation with Cisco and Intel, and they basically sat down and said, Ralph, hey, we have this new product called Cisco HyperFlex and this is what it can do. And I recall going through the map and going through their design and just thinking it was vaporware—this can't be real. You are not going to take me down from—38 compute nodes consisting of two blade centers, a legacy SAN running, you know what we considered very fast storage at that point, which was a hybrid shelf running all of our machine's critical apps—down to this new HyperFlex system running 6 nodes. There is no way that that's going to happen.

And as we implemented Cisco HyperFlex with Intel® Optane™ [technology], we immediately witnessed exponential improved performance for compute storage in our network performance. And that was all based on their hyperconverged infrastructure. Models were running so quick.

In some cases, you know, and we were running 13X faster<sup>1</sup> than what we had prior with our legacy system. And I tell people that at one point in time, I can remember one of our data engineers coming up to me and saying, "Ralph something's broken."

"Well, what do you mean something is broken?"

"Well my job just finished and I don't expect it to finish for X number of hours you know, it has to be broken."

"Well let's check."

We knew what was going on; they had no clue but that was all based on this new Cisco HyperFlex with Intel Optane [technology].

**Tim Crawford:** Wow. And this is—this kind of changed the footprint too for you as well, right?

**Ralph Esquibel:** Oh yeah, you know, I have worked at some very large companies in my career, and I have a very small datacenter. Space is definitely one of those finite resources that we are constant, although we have a big stadium, space is definitely an issue at Dodgers stadium. We're always looking to minimize as much of the footprint as possible. So, we went down from two and a half, three racks of equipment, down to less than half of a rack. And we're talking about now I no longer have the UPS needs in that location, the electrical, the HVAC.

But more than that think about what I said when we first started Tim, you know I have very small staff. I have two server admins. If these server admins are focused on these 38 compute nodes, two blade centers are unique, a legacy SAN environment, and they are running updates to maintain security and just stability of the system when are they focused on innovation? They are really just focused to maintain that fragmented system, that broken technology.

And HyperFlex did much more than just free up resources or create efficiencies on datasets. They allowed us to be innovative, right? Because now I am no longer looking at babysitting a broken system. I'm focused on tomorrow and what tomorrow is going to look like for the organization and for our fans.

**Tim Crawford:** Yeah. And that seems to be even more critical and I know we'll talk about what that means especially in light of winning the World Series this year, a little later in the program. But let's kind of go back to something that you were talking about and that is the partnership with Cisco and Intel.

You've talked about how HyperFlex came, you know was a key piece to this. You've talked about how Intel and [Intel] Optane [technology] played into it. Maybe you could delve a little further into talking about that partnership and the process you went through, because I think that's important for folks to hear and listen. It wasn't, it wasn't straight forward, and you did have some questions as you went through it. But I think folks would be interested to hear how that went.

**Ralph Esquibel:** Yeah. I had a very—although he transitioned off of our account—I had a very good relationship with our account exec from Cisco, and he was the one who knew what my issues were because we would constantly talk about what are my challenges.

So, I would sit back and say, here is what I am looking to solve. What's in your..., what can you do to help me and move me forward. He brought in his engineer, and we sat down. As we started going through the numbers, I have to say, originally, I couldn't believe it. There was no way that were possibly going to solve this with what they were showing me. And as we started going a little bit deeper, we started to interact with the HyperFlex team, the Intel Optane team and as we started getting academically acquainted with the new solution, we started realizing: hey this is definitely possible. It looks right. We weren't going to know until we completely transitioned our workload over. But once we did, like I said, I am so glad. That was one of the best decisions I have ever made as a CIO with any organization: was trusting Cisco and really partnering with Cisco and Intel to do what was right for the Los Angeles Dodgers.

**Tim Crawford:** And Ralph I know in past conversations, you've talked about the importance of that trust especially when it comes to technology and maybe you could expound upon that a little bit.

**Ralph Esquibel:** I truly believe as a technology leader, you know our role is to take calculated risks, right? So, we want to be innovative, we don't want to be just static, relying on the technology and fighting fires. So, what we're constantly doing is helping our organizations improve, improve their bottom lines, develop efficiencies, and by doing that that's going to incorporate changes. And developing those calculated risks are really going to help us. And this was a calculated risk. I knew what we were up against, I knew that there was going to be challenges going from 38 to 6, it didn't make a whole lot of sense, but we got there. And it solved it, and now we have exponential capacity ready to go when this corporation needs us.

**Tim Crawford:** And so, let's kind of take and build off of that a little bit. You know we talk about how this kind of changes the game, no pun intended but maybe pun intended, for the Los Angeles Dodgers. How is it making differences? You mentioned that some of you are data analysts and some of your team are just pleasantly surprised and, in some ways, shocked with how good it has been. But how is this really changing things beyond that for the organization?

**Ralph Esquibel:** Well bottom-line is—look, with the models, with the datasets that we have now—with the models that we are developing and constantly evolving, we're able to make better decisions and more intelligent decisions. So, we have less failures within our organization, that's the easiest way to put it. Our datasets are growing because now we no longer are limited to those smaller datasets because we can turn around large queries now very quickly. So, the datasets are becoming more complex, larger, the models are becoming more complex, but they are being delivered faster which creates better decision making for all of our executives and all of our team.

**Tim Crawford:** How does this affect the experience for the front office, the back office, the fan, the players? Where does this kind of touch into it? Maybe you could touch on some examples whether it's at the gate, whether it's in the experience for the fan, can you maybe share a couple of examples there?

**Ralph Esquibel:** Yeah. So, when we started thinking about transaction times for the front office it's easy, right? They are no longer waiting on data. So that's going to be one.

From a fan perspective, as they enter into our venue everything that they do is very digital now whether it's going to be scanning ticket off their mobile device, or if it's going to be a piece of paper that they still have that we are transitioning away from over the next few years. You know those transactions need to be very quick. We want to get individuals out of their cars, into our venue as quickly as possible, and that's going to be stopped along the way at points of sale plus at our concession stands. So, developing those quick transactions, lessening those times that people are waiting stuck in lines, that is one of those examples that I can share that we're doing and we're building upon each and every year. We're trying to get more efficient, so that way fans can enjoy the game.

As related to players I guess the proof is on the field right now, right? We have a great team and they have bought into this journey. They've bought into this journey of data science and playing their best baseball that's possible. And that's what they are doing based on our platforms.

**Tim Crawford:** Yeah, I mean case in point the 2020 World Series Championships.

**Ralph Esquibel:** World Series.

**Tim Crawford:** Los Angeles Dodgers, right?

**Ralph Esquibel:** That's right.

**Tim Crawford:** I mean how cool is that being a lifetime Dodger fan and being able to be part of the organization and experience it? I just cannot imagine.

**Ralph Esquibel:** Yeah, I grew up not too far away from the stadium playing baseball, and I will tell you we grew up as Dodger fans. From the time that I was five years old, I always thought about being that kid who grows up and playing baseball for the Dodgers and winning a world series. I couldn't do it with the bat or a glove, but I could do it with technology.

**Tim Crawford:** That's awesome, that's awesome. And I think in summary, it really comes back to because of the advancement between the Cisco HyperFlex infrastructure and Intel Optane technology, everything is now real time. You are making decisions on the fly as opposed to having to wait to make decisions and time those decisions. It's quite a difference.

So, you know Ralph, one of the things that I think... that kind of begs the question of, and it's a great question, in the context of winning the World Series, but now that the Dodgers are the 2020 World Series champions, what's next? I mean you've hit the pinnacle of the baseball elite, right? Winning a World Series. Where do you go from here?

**Ralph Esquibel:** Well number one our goal is to win next year, again right? So, we want to be that, we want to be a dynasty. So, winning the 2021 World Series is top of mind.

But also look where we are today as an industry where we're focus on COVID, where we're challenged right now with what COVID looks like and what the implications are for the 2021 season and how are we dealing with that. And the facts are, that's what our focus is on today: is being able to provide a safe family friendly environment for fans to come back to Dodgers stadium and see all of the new technologies, see everything that we've built for them in 2020. So that's top of mind. I had said maybe a little bit above that is winning the world series for a second time in a row.

**Tim Crawford:** That's always the cream of the crop, right?

**Ralph Esquibel:** Yes.

**Tim Crawford:** You know what about the, you know when you think about the fan experience and kind of changing that up how does that change. How is this really changing the fan experience?

**Ralph Esquibel:** Really when we start thinking about real time and what that means and baseball has changed, right? It's a game of numbers. So, being able to provide those stats in real time in the venue across all of our platforms is an essential component of the game, right? It's really creates that unique experience.

Another thing is you know individuals that are paying money for any event—they want to have that unique tailored experience to them. So that is really what the next evolution is within the engagement as for sports, right? We want to create as unique experiences tailored to Tim, and what does Tim and his family enjoy doing or seeing when they attend a baseball game? And that is really what our focus is.

**Tim Crawford:** Yeah. I know for me, I'm a huge baseball fan, and for me it's the experience that you get, I mean just that energy when you enter the stadium when you are walking up to the stadium even before you enter. Just being excited for game day. But then when you're in the stadium regardless of whether you are sitting in your seat, going to get a hot dog or in this case a Dodger dog, or using the restroom, whatever the case may be, going to buy a shirt, I still want to be involved, I want to be connected and have that consistency.

**Ralph Esquibel:** Yeah, you want it—

**Tim Crawford:** But this is great. Go ahead.

**Ralph Esquibel:** Well thank you. What I was going to say is you want that bespoke experience, right? You want something tailored for you and that's what every consumer is after.

**Tim Crawford:** That's great. Okay so at this point we're going to shift to Q&A. We've got a couple of questions here again. So, Ralph, first question on the docket here, and I think this is a great question. You know you've talked a lot about kind of that on-prem experience, having the data center, having new technology within the datacenter, but yet a lot of organizations are asking about cloud and where cloud comes in. Are there opportunities for you when it comes to cloud providers? And I think the question here is just really kind of where does cloud fit into this or does it?

**Ralph Esquibel:** Yeah, as far as the cloud, we're already there, we're there with a variety of systems and services. Speaking specifically around the applications and services rendered within HyperFlex, yeah. There is a path defined, whether it's going to be Google AMP OS or GCP or other providers, specifically around disaster recovery and business continuity. But really, we're focused a lot on the expense of the computation and access to the data in the cloud. So right now, we have the means to accomplish everything that we'd like to accomplish on prem and really limit our costs. So that's very powerful especially in this economy today.

**Tim Crawford:** Yeah. No, that's great. So next question comes back to actually something you were talking about earlier about 5G. You know, 5G is widely popular from a topical standpoint. How is it that you are looking to leverage 5G within the stadium? Is it from a connectivity standpoint, are there more apps? I'm augmenting the question a little bit here but how is 5G going to play a role?

**Ralph Esquibel:** Well, definitely the biggest challenge for any venue is density, right? So, we have a capacity crowd Dodgers stadium 56,000 individuals and they want to get on their social media and share their experience. How is the best way to accomplish that?

One, when you start thinking about the backhaul and what's really necessary from a cell provider, 5G is one of those experiences that people are just going to be expecting. But when you start thinking about it 5G, is much more than just speed and capacity. What 5G also offers is there is a lot of benefits from the facilities standpoint, because now we get access to a lot more data. Millimeter wave is a big part of 5G, and it's a small part of what we're doing at Dodgers stadium right now, but millimeter wave is definitely one of those game changers to technology.

**Tim Crawford:** Now that's great. Next question. So, you talk about the impact of the technology during events and games. What about events, how is the technology leveraged? I think the question here is beyond baseball games, you know, there are other activities that happen within the stadium. How is technology used for those?

**Ralph Esquibel:** Well when you think about it, when we start thinking about inside the venue when fans are not there, and we're not hosting a baseball event—typically you know Dodgers stadium is really built for concerts. We've held concerts, galas, we have parties, we have corporate events. But we're



leveraging a lot of the same technology, so when we start thinking about IPTV and being able to push specific data to those TVs based on whatever events that we're hosting, that's an essential component.

Concessions, retail... that's going to be a concession, a very specific and essential component.

When we start thinking about outside of the venue, and how we're engaging with fans that digital social experience is definitely big. Major League Baseball has done a lot around the evolution of the ball park in the MLB App data plus the introduction of the MLB Rally app which is the new free-to-play game for Major League Baseball that allows you to make life predictions during events. So that's pretty big.

But there is a lot of lessons that we've learned because of COVID as well. How do we create engagements with fans that aren't allowed to show up to the ball park? That's become a very big challenge. And you know I am very proud to say, we've held Zoom parties with over 20,000 fans. And we're not talking about 20,000 Angelinos, I'm talking about individuals that are in Peru, individuals that are in Mexico City, individuals that are in Europe, and obviously a large chunk of people coming from the LA metro area. But these are all technologies that we're starting to learn and learn how to leverage.

**Tim Crawford:** Yeah. You know this next question actually kind of ties right into it. Have you considered extending the fan experience beyond the fields and games to between games or off-season engagement? And I think in today's day and age with COVID and we're all home and not able to experience the in-the-park experience how are you thinking about that? And what are some of those conversations, and how is technology playing a role in that?

**Ralph Esquibel:** Well, everything is really pushed to your mobile app, or it's going to be your social, right? So those engagements are there right now, and they are consistently being evolved. I think that's really what our focus is today working with major league baseball and understanding this is what our fan base wants. This is what their desire is, and this is how we'd like to engage with them when they are at home. So that's becomes a challenge because there is a lot of rights involved there when we start thinking about TV, when we start thinking about streaming, when we start thinking about Major League Baseball, and then our local markets. So, there is some politics that goes on there—I'm not going to lie.

**Tim Crawford:** Yeah. So next question and this is specific to Dodgers stadium, but I think it kind of exemplifies a bigger issue. How does the in-stadium experience remain "equitable" compared to Dugout Club to the AYCE seats in right field or the top deck near the Dodger logo? At what point does 5G get in the way of watching the game, and who is actually paying attention? I think this speaks to concerns that I have heard from other sports franchises that you want to augment, you don't want to replace.

**Ralph Esquibel:** Yeah, and I think that's what we're seeing today, right? When we talk about who is actually paying attention, right? The focus, that experience. That was one of the reasons why Major League Baseball put or mandated putting up net in and around the field of play, right? So we want to ensure that people are focused, and when they are not focused that they are kept safe. So that's one.

When we start talking about paying attention to the game versus your phone, you know individuals have their rights, right? So, I am not going to prevent somebody and not incorporate connectivity

whether it's going to be Wi-Fi or cellular experience at Dodgers stadium because we want to have a captive audience. No what we want to do is make sure that you are comfortable, you know. So, if you are working, and luckily it maybe you are working at the stadium, and maybe you are responding to an email or maybe you are socializing with other fans. We want to encourage that. That's just part of life, you know how frequently are you on your phone each and every day? My wife says I'm on my phone way too much. Honestly, it's probably true, but I will tell you if I don't have my phone next to me there is probably some anxiety building inside of me as well, so we don't want to create that either at Dodgers stadium.

**Tim Crawford:** Sure. And just like we don't want to turn this webinar into marriage counseling for Ralph. So, we only have time for another question or two. Let me kind of answer or ask the next one which is how has this new technology really kind of opened up the art-of-the-possible in terms of being able to do things you haven't been able to do before? Now, you've talked about a couple of examples of that being able to do it faster, but are there new things that you would have never through possible that now you are?

**Ralph Esquibel:** Yeah, when we started thinking about identity management, when we start talking about transactions in and around the ballpark and the way that we're able to refine the experience based on data, real-time data at Dodgers stadium I think that that was all because of Cisco HyperFlex and Intel Optane [technology].

And the specific that I can give you, is when we tried the redesign in 2020, we had 11 independent gates in and around the venue that we would make individuals walk through based on their seating. And what we were able to do because of the technology allowing us is identify those traffic patterns where people were coming in from, where they were walking around the venue, at what points in time, how often they got out of their seats walking to store, and we were able to redesign what we call the pedestrian design at Dodgers stadium which allows anybody entering at any gate and gives you complete access to the entire venue. That was all based on this technology, right? Without having that server farm, without having that HyperFlex array, we weren't able to develop these pedestrian models. That really allowed us to change fan experience, the layout of Dodgers stadium, and hopefully impact fan behavior next year.

**Tim Crawford:** Yeah. You know to that point you've talked in past conversations about by the numbers, the number of POS terminals, the number of handheld devices, the number of transactions every minute at every event, and how that now becomes valuable to be able to do it in real time. If anything, that's going to impact the fan experiences that are coming through the turnstiles, right? You are not going to necessarily have those long lines—you can get through much quicker than before or redistribute resources as needed. I don't know, what are your thoughts there?

**Ralph Esquibel:** Yeah, absolutely redistribute resources as needed. When we start looking, if you are coming in from the left field gate entrance and we see that 40 percent of our fan base is walking in though that location, great, you know what we can do is let's take down additional turnstiles or scanning pods, so that way we can handle that rush, and we're going to move things around dynamically. So that's one. And that we're doing today.

**Tim Crawford:** That's great. Ralph, fascinating conversation, thank you so much for taking part.

**Ralph Esquibel:** Thank you Tim. I appreciate it and I enjoyed the experience.

**Tim Crawford:** So that's all the time we have for today's webinar. I want to thank Ralph and the Los Angeles Dodgers for taking part in today's discussion.

Thanks again everyone for joining us. Be sure to check out all of the Intel customer spotlight webinars and look for an invite to our next webinar soon. Have a great day.

<sup>1</sup> Source: As reported by LA Dodgers from data and interviews provided in 2019.

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