The Future of Work podcast is a weekly show where Jacob has in-depth conversations with senior level executives, business leaders, and bestselling authors around the world on the future of work and the future in general. Topics cover everything from AI and automation to the gig economy to big data to the future of learning and everything in between. Each episode explores a new topic and features a special guest.

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Jacob:	Hello everyone, and welcome to another episode of the Future of Work podcast. My guest today is Tracy Reinhold, who's the chief security officer at Fannie Mae. Tracy, thank you for joining me.
Tracy:	My pleasure, Jacob.
Jacob:	So I was looking at your LinkedIn, and you have a pretty cool background, and I always like to start with some background information about guests. And so you used to be at the FBI as the associate executive assistant director, and you were at the FBI, I think, for like 20 years. And then [00:00:30] you were the vice president of global investigations at Walmart. So both of those seem like pretty cool jobs.
	Maybe you can give us a little bit of information around, what were you doing in those previous roles?
Tracy:	Sure. Absolutely. So, I was a career agent at the FBI. Spent 22 years there, and finished off, as you mentioned, as the associate EAD for national security. In that respect, [00:01:00] inside of the portfolio was counter-terrorism, counter-intelligence, weapons of mass destruction and our intelligence division.
	Prior to taking that role, I was actually in charge of the FBI's intelligence program. A great opportunity, director Mueller provided me with a lot of opportunities to be successful and I enjoyed it. We did a lot of work, obviously, in the counter-terrorism space and in protecting the national security.
	Subsequent [00:01:30] to my departure from the FBI upon retirement, I was recruited by Walmart to actually establish their global investigations team, an answer to an investigation that was being conducted by DOJ relative to the Foreign Corrupt Practices Act. So in that role, was able to establish investigative teams basically all over the world, from China to India to South Africa to South America, as well as in the U.S. [00:02:00] Fantastic opportunity and enjoyed my time there and then was recruited to Fannie Mae about three years ago.
Jacob:	So in all these various roles, I kind of think of Jason Bourne and I think of like all these different films out there that depict the FBI and the CIA and various kind of security stuff that's going on and hackers. Were you involved in that kind of world at all?

Tracy: [00:02:30] So movies are great and they're just that, they're movies. The work that the bureau does is oftentimes very methodical, painstaking into detail to make sure that ... you got to remember that all the cases that we bring forth are brought forth for prosecution. So attention to detail and clarity of what was accomplished is critical as we walk into the public space with this.

When I was [00:03:00] an assistant special agent in charge at our Detroit division, I did have the cyber program, but generally speaking, what we do is not nearly as glamorous or exciting as it appears to be in the movies, although no less important.

Jacob: How'd you get in the whole world of security? Like when you were younger, did you grow up knowing you wanted to be in the security space or did you just kind of evolve into that?

Tracy: It's funny you say that, you [00:03:30] know, I had always wanted to be a Marine, so I did that and then realized that there was other things I'd like to do, and then decided that the FBI was a good career path for me. And you got to remember, put this in the context of pre 9/11 timeframe. Back before 9/11, what the FBI did was a lot of reactive work. Bank robberies, extortions, those sorts of things. 9/11 happened and the complexion of the FBI changed from a reactive [00:04:00] to a more proactive posture.

So in that proactive space, it became important to utilize intelligence and technology, so that we could actually identify individuals and/or organizations engaged in nefarious activity against the interest of the country. So in order to do that, it changed the way that I saw my own career path developing and transitioned from a violent crime background into a national intelligence background. Because that's where the need [00:04:30] was.

So that's a natural segue from a career in federal law enforcement into the security space in the private sector, hoping to bring some of the lessons learned during that career and help organizations better protect themselves in today's evolving threat climate.

Jacob: Makes sense. So what does a typical day in your life look like? How do you start your day, how do you end your day and what gets filled in between?

Tracy: [00:05:00] So one of the things, especially ... well, let's talk about Fannie Mae, for example. Fannie Mae is actually transitioning into new space. So where we've put up 862,000 square feet in downtown DC, another 330,000 square feet in Plano, Texas, and probably another 800,000 that we're going to start to develop in Northern Virginia. So what that does is present a lot of opportunities to be creative and to reinvent [00:05:30] the way that we protect our assets, our people and our contractors and visitors.

So for me, a normal day is, we will review the overnights that came in. I have set up a open source intelligence process there at Fannie Mae that allows us to query open source data for any potential vulnerabilities or threats that might manifest themselves to Fannie Mae. We look at that and then I meet with my security director and his team

to make sure that the physical space is secured. Normally, [00:06:00] a lot of liaison with our CISO, who's my counterpart over the information security portfolio at Fannie Mae. A lot of collaboration there. And then just regularly addressing issues that manifest themselves during the day, as well as leading a team of security professionals.

Jacob: Are you an early riser? Some of the executives that I talked to you in previous episodes tell me that they get up at like four o'clock, go to the gym before they start their day. Are you like that as well?

Tracy: [00:06:30] I think it becomes part of your life. I learned a long time ago that if I don't work out in the morning, I won't do it. Because by the end of the day, you're too tired. So I do that before I go to the office in the morning. Definitely not four o'clock, those days are over, thankfully, but I do hit the gym before I go to work, and then usually get to the office 7:30, 7:45, which is to me not an early riser at all. It's a pretty normal day. [00:07:00] And then usually wrap the day up by 6:00 or so.

Jacob: So sounds like you have a good ... I guess you can call it work-life balance, which is a rare word that is in use these days now. A lot of people talk about work-life integration, but it sounds like you have a pretty good separation where you're home around six o'clock, which is nice.

Tracy: Yeah, well, I think it's important and I try to stress this with the folks that work with and for me, is that to be one-dimensional is not actually what success looks like. [00:07:30] So in order to balance your life and your work is critically important. So having other interests in other areas that you'd like to focus on, actually makes you more productive in the work environment, because you are a whole person and not a caricature of a security professional.

Jacob: You've also become pretty successful in your career and in your profession. Do you attribute that to anything specific? Did you have a lot of great [00:08:00] mentors during the course of your career? Are there certain practices or routines that you do regularly that you think helped kind of get you to where you are, or was it just plain old hard work?

Tracy: No, so I think that there's hard work and there's smart work, and I think that for me anyway, what has allowed me to be successful to whatever degree is understanding that as a leader, [00:08:30] you are only as good as the people that you lead. So my job is to identify and develop subordinates so that they can be successful in their own careers. I had a mentor early on in my career who used to say that when you think you are a wheel, you're part of the problem.

So understanding where you fit into the matrix and that your role as a leader and as a manager of other people is to ensure [00:09:00] that they're provided opportunities to be successful. I learned a long time ago that allowing the workforce to take credit for great ideas is almost a guaranteed method to success.

So what I tell my teams is that if it is a success, it is yours, if it is a failure, it is mine. My job is to allow them to work in an environment that they can thrive [00:09:30] in and that they can stretch and if you do that, nine times out of 10, that sense of belonging and ownership in the process really manifests itself in the successful completion of whatever activities you're engaged in. And as the leader, that's reflected back on your own leadership style. So empowering and protecting the people that you work with, to me, has been the route which I've taken that it has given me whatever [00:10:00] success I've been able to obtain.

Jacob: I love that quote of if it's a success it's yours, if it's a failure it's mine, because I know a lot of companies talk about this notion of leadership in terms of being a coach and a mentor, but what I find is that when I talk to a lot of these people, it's only partially true. It's true to the point of like, I'll be your coach and your mentor up until the point where you start to get near my level of success, and then I will keep you there or push you down [00:10:30] because I don't want you to become more successful than me.

Tracy: It's funny you say that Jacob because one of the guys that I worked for long time ago, he told me, he said, A team leaders select A team subordinates, B team leaders select C team subordinates, because they don't want to be challenged. It's always been my desire to hire people that know more about what we do than I do. I'm not a subject matter expert in any particular field. I'm a reasonably good manager and I have some [00:11:00] leadership skills, but identifying and allowing the growth of people on your teams is what makes you successful.

I'll give you an example. For me at Fannie, one of the best accolades I can get is when a member of the security team promotes out of that team into the core business. So first of all, they serve as an ambassador to the team and secondly, it demystifies the process of security and makes everybody understand that the process is there to [00:11:30] enable the success of the core business.

I never want to be the smartest guy in a room. Really, it's not a problem, but I want to encourage people to challenge me. I want them to tell me, hey, that's not a good idea, here's a better idea. And if the idea that they come up with is better, then the credit is theirs.

Alluding to what you said earlier, a lot of leaders have a tendency or not a lot, but some have a tendency to [00:12:00] take ownership of good ideas even if they weren't their own, which I think is, it's a short-term success, but it doesn't lead to long-term fulfillment.

Jacob: Have you ever had a situation during the course of your career where you felt like you worked for a really bad manager or a bad leader? And of course you don't need to say the company or who, but do you have any stories that perhaps people can relate to, as far as working for maybe a manager, a [00:12:30] leader that is not that great at what they're doing?

Tracy: Yeah, I think everybody has an example of that during the course of their career and for those of us that have gone on the leadership track, usually what propelled them initially was the idea that they didn't like working for somebody who they didn't feel had the skillset necessary to lead an organization. And so early on, as opposed to a negative, I actually have a [00:13:00] sort of a positive story.

I had a boss years ago who was a former Navy SEAL, really just a stand-up guy and I went in to complain to him and he was my boss's boss, and I was complaining about what I felt was inappropriate it. And he was a good guy, he just sat me down and he said, well, Tracy, here's the deal. Either step into the program and accept responsibility or accept a mediocre leadership that you have today.

[00:13:30] So for me, that's the driver. More than negative story, it's the guys like this fella who took the time to sit down, instead of just dismissing my complaints and saying, okay, fine, if you feel you have the skillset necessary to lead, then step into the breach. Otherwise, you have to accept what you get.

And I think for me, that's always been the driver, because he was the kind of guy that looked out for his people, made sure that they got the opportunities they needed to be [00:14:00] successful, and took responsibility for failures.

Jacob: I love it, it's kind of like a tough love mentality approach, which makes a lot of sense. And so I have a bunch of other follow-up questions but I realized that we never even talked about Fannie Mae and some people listening to this might be thinking, well, what is Fannie Mae? So maybe you can give a little bit of context around the company, what you guys do and how big you are as far as how many employees work there.

Tracy: Right, so let's not get into the exact [00:14:30] number of employees but I will tell you what we do is that we provide liquidity to the housing market and the secondary mortgage industry. So the easiest way for me to explain that to you is that if a large bank provides a home loan to somebody, they then transition that loan over to Fannie Mae who then provides the liquidity back to the bank, so that they can continue to lend money.

So when I look at Fannie Mae as, is the great equalizer that allows the American public [00:15:00] to experience home ownership. If you remember in the early '30s, the U.S. was a nation of renters because nobody could get a mortgage, because the banks could only loan what they had in their assets. So the creation of Fannie Mae created an environment that would replenish the coffers of banks by acquiring loans and bundling them into mortgage-backed securities.

So what this does in essence [00:15:30] and everything else is how they do it, but that is the gist of what Fannie Mae does, is provide liquidity to the primary lenders, so that everybody in this country has an opportunity to secure a home loan. It's a great process and if you think about when it was created during the Depression and the need that was there and need still exists today.

And so the folks that do the core business of Fannie Mae that buy mortgages, bundle [00:16:00] them into billion-dollar bundles and sell them as mortgage-backed securities, provide a critical resource fund for major financial institutions, so that folks like you and me can actually own a home. It's kind of a cool way to do business. Freddie and Fannie both do that and they're a duopoly and I think that they provide a great service to the country in that respect, which was part of what actually drove me to think about coming to [00:16:30] work for Fannie, is that mission was important to me. So I could get my head around the fact that what they were doing at the end of the day was making lives better for other people.

So I am not in the core business of Fannie Mae, I'm not a trader, I'm not analyst that works on those platforms, so that's my understanding of what we do at Fannie Mae.

Jacob: Got it, and as far as employee size, yeah, we don't need to talk about the details but there are thousands of people that work there.

Tracy: There are thousands [00:17:00] of people.

Jacob: It's a good-sized company, so it's not like there's 50 people just in a startup in the basement somewhere.

Tracy: No, so when you look at it, if you look at the public filings, it's a $12 billion a year company. And what they do if you look at the GNP of the United States and how much of that is tied to the housing market, so part of our responsibility in the security arena is to make sure that A, it's a safe and secure place for people to work [00:17:30] and B, that we have a route to recovery from any potential business disruptions. Because the failure of us to complete our job has an adverse impact on the economy of the U.S.

So while it's sort of a boutique firm in that there's only 10,000 to 12,000 employees and contractors, when you think about the financial impact of them being unable to do the mission, you start to understand the critical nature [00:18:00] of the Fannie Mae family and the way that it could potentially derail things if we didn't keep it running.

Jacob: Absolutely, all right, so let's transition into a little bit, looking at work and security and some of those fun topics. So to get started with, I'd love to hear your perspective, just when you look at work in general, you've been in the workforce for a while. I'm sure you've seen things change during the course of your career. So if somebody were to [00:18:30] ask you now, what do you think about work? All the different discussions that we're having around technology and AI, contractors, Millennials, what pops into mind when you think about the current state of work as we know it?

Tracy: So what I really think of is that almost all companies are tech companies. If you get right down to brass tacks. So let's just look at the financial sector at first. Without the capabilities [00:19:00] that technology provides, we couldn't do the volume of business that we do today because this just would overwhelm a human. So when you think about leveraging technology in that respect, it actually enables us to be more effective and more efficient than we were before.

Now with that comes some inherent risks. So there's systems risks, as far as penetrations, malware, malicious [00:19:30] code, those sorts of things, but your biggest risk relates to the people that empower the technology. Because that is your biggest vulnerability.

So if you look at ... I just look in the security space for an example. If you think back 25, 40 years ago, it was guards and gates, that's really how you would define that process. If you look at it today, [00:20:00] when you leverage cutting-edge technology in the security space, it enables you to protect the core business of whatever company you belong to, in a way that is almost invisible and is actually cost effective.

So to me, the biggest driver or the biggest difference over the period of my work life, the 30 years that I've been in the work field, is that technology has enabled us to be more successful and at a better price.

Jacob: [00:20:30] And I love this notion that every company is a tech company, because you're right, regardless of the industry that you look at, those companies wouldn't be able to exist without the heavy investments they're making in technology. I've been to go visit a reclaimed wood manufacturer here in the Bay Area and when I went there, they gave me a tour and like one of the cool things that they were talking about is that they were a tech company that just happened to be in the reclaimed wood business. And it was amazing to see just like [00:21:00] the amount of technology and the servers and it looked like I was in some sort of Silicon Valley tech startup, it was amazing. I think we're seeing that across the board.

Tracy: No, I agree and I think that what you'll find, even if something that you would assume would be very labor intensive like the home building industry, when you look at the CNC design machines that are used to craft rafters, for example, so much faster than we would have [00:21:30] done this 15 or 20 years ago. And it enables these companies to be more productive and more efficient than they would have been if they were relying purely on human capital.

So I agree, I think that by the way, I'd love to visit that place in the Bay Area but I think that you hit the nail on the head. It doesn't matter what your core business is, it is always enabled and enhanced by technology.

Jacob: Yeah, totally agree. Okay, so that's [00:22:00] definitely something that you're paying attention to, is this world of technology, and then obviously you're in the security space, so what's your current take on the state of security for organizations? We keep hearing about the Internet of Things and connected devices, so what's your take on what's going on?

Tracy: So huge, first of all, and I think that done the right way and let me just give you a couple of examples that we use. For example, sensor technology in our new buildings. [00:22:30] We use sensor technology on every one of our floors to enable us to determine traffic patterns. You think, well, what's that got to do with security?

So think about an evacuation of a building. Human nature dictates that people will revert back to where they're the most comfortable. So if you can somehow design your evacuation routes based on well-traveled paths within the building, people will not have to rethink the way that they do that.

So what we do is we leverage that [00:23:00] sensor technology in our ceilings that are fixed to all of our light fixtures, we then aggregate that data and compare it against what we're going to do as far as an evacuation process. We also use that for space utilization. So security in and of itself is great, but if you can then leverage that and harness that technology to help a building occupancy plan, you're actually providing a value and a service to the company that was not intended when they first [00:23:30] started to think up a security protocol.

So one of the things that I try to keep in mind is that security is a cost center for any company. It's not adding money to the bottom line, as opposed to what it really does, which is take money away from it. So in order to be viable, you have to think about what kind of technology can we leverage in protecting the building that will also enhance the building operation and the utilization of space by the core [00:24:00] business?

So if you're in a leased space, for example, you may not need X number of thousands of square feet based on utilization studies. If the sensor technology, which is there in the building, which is being leveraged by my command center is harnessed, it allows us to provide a service back to the organization, which will make the organization more productive and possibly downsize on space or better maximize the space that they're currently using. So that's one of the things that we do.

The other thing is [00:24:30] leveraging technology to enhance access control to what you consider your critical space. So what we do is we use our turnstiles, which are then connected to our destination elevators. So if you're a visitor to my space for example, I'll give you an RFID card, that card is coded, which only allows you to have access to the guest lobby.

So even if you got onto my elevator and went somewhere, you couldn't access another floor with that badge. [00:25:00] That also then allows you to reduce the headcount of your physical guard force. So turnstiles, what? $65,000 for a turnstile. If that turnstile is replacing three shifts a day, you think about the dollars saved versus what your capital investment was for the technology itself.

So when you make the pitch to your C-Suite, you have to be thinking about what the return on investment is for the [00:25:30] utilization of technology, because there is a capital investment associated with that. And if you can't articulate how you're going to realize that return on investment, chances are you're not going to be allowed the investment in technology in the first place.

Jacob: That's pretty cool, so you got the sensors going on, you got the RFID badges that are there. So now of course I have to ask, are there any other interesting ways that you guys are using technology inside of your spaces or for your workforce?

Tracy: So one of the things, if you have [00:26:00] an area that is sensitive, whether it's your server room, whether it's an MDF on the floor, you want to make sure that you utilize dual controls or so. For us, we use biometrics, in addition to the card. So it's not enough to have the card, it's kind of like back in the government where you could have the clearance but if you didn't have the need to know, it didn't matter.

                So it's the same concept here, you can have a badge, but if you don't have a need to be in the server room, then you're not going to be in [00:26:30] the biometric box. So you're not going to be able to utilize and whether that's facial recognition, retina scan or fingerprint, it doesn't matter. They all have pluses and minuses and as technology evolves and as those technologies evolve, particularly, you will see more and more opportunities to leverage biometrics.

                But let's just be honest, so there's a lot of people who are uncomfortable with that and so part of your job as a security professional is number one, the integrity [00:27:00] of the data and number two, is the ability to articulate to your workforce why this is a good idea and why we're not going to be big brother when we use this. It's for the protection of the proprietary information that the company owns and it's in your interest and the company's interests to adhere to this.

                Obviously, CCTV has been around forever, but integrating that CCTV ... so for example, in a garage with the scream alerts. [00:27:30] So you want to integrate your CCTV, your access control panels, as well as your central command system. So for example, we have locations all over the country. We manage those from a centralized location. It allows us to save on headcount, it also allows us to have instant access and instant recall for any physical location that we use.

                Scream alerts in garages are great because people are really uncomfortable in urban environments. [00:28:00] By utilizing that along with the passage point system, what you end up getting is if somebody ... there's an audible cry for help in a garage, it will automatically redirect cameras to those locations, so that you capture that event, which automatically then triggers an alarm in the command center and you can actually dispatch a resource to that location quickly.

Jacob: Man, you guys got some really high tech stuff going on right there.

Tracy: But we didn't. This is the point. I guess the point [00:28:30] I'm making is that we took the opportunity associated with the new buildings to leverage technology. So before, it was purely a physical guard force before I got the Fannie Mae. What we did is we sat down with some critical vendors in that space, educated the C-Suite as to the benefits associated with that, and we did that in an ROI fashion so that it made sense to the business mind.

                [00:29:00] It wasn't about ... we tried to get away from security speak, so that ... because you're decision-makers in any company are not security professionals. They're the CEO, the CFO that run the core business. So you need to be able to articulate the value-added in terms it resonates with them, so that they can actually free up the

funding necessary for you to execute on these technology enhancements. If you don't do that, [00:29:30] if you can't get to the right person in the company, then you're fighting for budget with every other line item in the organization and you will never win that way. So you've got to be creative and you've got to understand where the value is.

So I've cut my security budget in half in three years, including the capital investment. I've done that by reducing our physical guard force but leveraging technology. So you can imagine if you're the CFO and you're saying, well, [00:30:00] I'm looking at a reduced cost, but I'm looking at enhanced protection. This is a win-win for me. I can now take those resources and put them back into the core business of the company, which allows the company to grow and to be successful, but doesn't diminish our ability to protect it.

So that's kind of the discussion that we have at Fannie.

Jacob: So this is for a ... you said some of the new buildings. So would you say that your new buildings, would you call them smart buildings?

Tracy: They are smart buildings and they're also [00:30:30] LEED certified. So we try to take a sustainable approach because we all share the environment, and then we take that same smart technology and we leverage it in our core business and in running the building. So the building is run by a smart design system that allows us to maximize utilization of utilities. Sort of silly things such as programmable window shades that are based ... [00:31:00] so we base those on ... we did a study on the sun location during the day, so we do sunlight harvesting, so that it reduces the amount of utilities that we use in the facility.

So nothing is independent. You talked about the Internet of Things, so separating or stovepiping security and facilities and resiliency into different areas, actually is self-defeating. If you combine and leverage the resources of all three [00:31:30] of those, you actually end up with a much more secure, environmental friendly and effective environment in which to do your work. So it's a pretty cool approach, really.

Jacob: Yeah and I love the smart technology stuff. I have a bunch of smart technology in my home, so now I'm quite intrigued by some of the stuff that you have going on there. So you have programmable window shades. Are there any other areas where smart technology is used? You mentioned lighting, is there like voice command stuff? Do you have like touch [00:32:00] screen things going on there?

Tracy: We do, so we use a lot of wayfinding in our new buildings, which is ... so if you take a workforce and you move them from one part of the city into another, there's going to be a natural amount of angst that's associated with the move, because people in general don't like change. So what you want to do is to facilitate that change in a way that embraces technology, but also allows the workforce to be comfortable.

So when you go on to a floor in our new space, [00:32:30] as soon as you get into the space there is a wayfinding board, and not only does it help you locate people and

places but it also provides a service. So what's around town, where can I eat, where can I get a cab? Where can I park my car at one of the locations, what is it going to cost me? Is my airline on time? All of those things are available as soon as you breach the security of our building.

So we use that to help our employees [00:33:00] be more grounded and know what's going on in the world around them. A matter of fact, I flew out yesterday evening. So before I left the office, I went to our wayfinding board and checked on my flight. It's that quick, and it's a great way to do business. We don't use desk phones anymore, everything is done over the internet, so that it's much faster, it's streamlined. We have sit-stand desks that are automated. [00:33:30] A very open concept.

So you put all of that together and it creates an environment that produces a better product in a shorter period of time.

Jacob: Man, you guys are ... I know personally, at least when I think of Fannie Mae, I didn't think of such a modern tech enabled type of organization, but you guys are rivaling some of the best tech companies [00:34:00] that are out there, in terms of how you're thinking about tech and utilizing tech internally. So it's really fascinating to hear all these things that you guys are deploying.

Tracy: I put most of that on our CEO, Tim Mayopoulos, who has taken a new approach to modernize the organization. And one of the benefits of that is that it actually then attracts the next generation of workforce. So I don't know how much [00:34:30] time you spend in DC, but it's very government-centric, obviously, and it's very traditional government buildings. So when you look at this new building that we have going up downtown, and not only is it great for the workforce today, but it enables us to attract the workforce of tomorrow, by providing the type of environment that people expect in cutting-edge industry.

And I think that it's very ... it's a really smart approach by the [00:35:00] organization to make sure that they maintain relevance going forward. It's just really, really smart and it's a great ... and it's not that they were extravagant in the way that they built the building, what they were conscious of is, what's going to make us a better organization and what's going to make us a place where people want to come and work?

So I think for that reason, the utilization of technology, by putting ... we have an app now that we can [00:35:30] use on our phones that integrates with our system in the building and it's encrypted and it's secured, but it's so convenient for our folks. Putting a geofence around the building for mass notifications, as opposed to doing a mass notification that would hit the office in Dallas. Well, they don't care if it's snowing in DC, but if you are inside that geo fence, you will get the notice. So you don't have to call people out, the geofence [00:36:00] that we've established allows us to target the delivery of mass notification to the appropriate workforce.

So it's all of those things that makes it kind of a neat thing to do.

Jacob: So it's interesting that you think or actually you're finding that technology is acting as a way to attract talent. So is that something that you're seeing within Fannie Mae? Like when people walk in there, they're like, oh man, this is some pretty cool stuff, like I'd love to work here.

Tracy: Yeah, I think [00:36:30] when you compare where we were to where we are today, and I think you voice it really well, this is not what I thought Fannie Mae was. And that's the reaction that we get.

                So integrating all of that together into a consolidated footprint that allows us ... so we had five buildings in DC, we were consolidated into one. When you think about the economy of working, so instead of having to schedule a WebEx [00:37:00] meeting or hoping that somebody's in their office, you go up two floors as opposed to seven blocks down the street, and it's those types of things that are attractive to folks that want to be effective and efficient. Putting in state-of-the-art kitchens on every floor, putting open communal spaces, we use ... all of our room reservation systems are all online.

                Everything we do is electronic now. And so [00:37:30] that allows us that connectivity that we need to be productive.

Jacob: I feel like every time I ask you something, you guys got like all this other crazy new cool stuff that I didn't even know about. Is there anything else as far as technology that you think listeners should know about or would find interesting as far as stuff that you guys are using? I know you mentioned apps, you have geofencing and standup desks [00:38:00] and smart buildings. You guys are definitely a couple years in the future, as far as physical space, which is awesome, but is there anything else that you want to share that we didn't cover as far as tech?

Tracy: I think the important thing when you think about tech and innovative technology is making sure that the platform from once that is delivered is understandable to the vast majority of your workforce. So technology is great [00:38:30] unless your people are either afraid of it, unaware of it, unfamiliar with it, or intimidated by it.

                So one of the things that we do is to have these lunch and learns for our employees, where we take the effort and bring in experts to talk and to simplify the utilization of this technology, so that they are more likely to utilize it. If you have great tech and nobody uses it, [00:39:00] then you've wasted a lot of money.

                So educating your workforce and doing it in a way and a non-threatening manner is critically important, whether it is mass notification, whether it's an emergency operation center, whether it is your capital markets floor and your new hoot and hollers. It doesn't matter, if they don't know how to use it, they won't use it and you've wasted all that benefit.

                So I would say from a technology perspective, we still have to [00:39:30] think about the people aspect associated with the utilization of technology. Technology's great but in

and of itself, it's not going to solve your problem if you can't bring your workforce along with the advancement of the technology.

Jacob: Very well said, totally agree with you there. What about workplace technology? So can you talk about maybe some of the tools that employees use to get their jobs done? Are you guys using like internal social networks? Can everybody use whatever device they want? [00:40:00] All these different emerging digital technologies that companies are using internally. Wearable devices, augmented virtual reality, how are employees actually working at Fannie Mae?

Tracy: It's funny you say that because during the design phase of the new buildings, we used virtual reality to showcase the new space, because it wasn't built yet. So you had to ... they virtualized it, and then you would use wearable [00:40:30] devices when we would sit down with the board and go through it, so that they could get an understanding of what that is.

In today's Fannie Mae, just like any other company, we use internal social media like nobody's business. We post tons of stuff on that every day. We use that as a mass communications tool for non-critical issues. So, hey, there's ... and I was just looking at it this morning, so you get your Yammer feed every day, you get [00:41:00] all sorts of information that you didn't know was out there.

So it serves two purposes, number one, it connects the employees, but it also serves as a great information highway for them in a non-structured environment. Anybody can post to it, anybody can read it, it's not unique and it allows that connectivity when reinforced with the relocation to the new space, it just makes perfect sense.

I talked a little bit [00:41:30] about the room reservation systems, everything is online, everything is automated and it really works well. We have new virtual video conferencing capabilities between our offices, which is fantastic. All of our conference rooms are set forth with directional cameras. So they're voice-activated, so if I'm at the end of the table and I'm speaking, versus the guy at the front of the table, the camera will automatically adjust so that you are on the screen.

It's a great way [00:42:00] to do it, it's fairly simple and we do that because we can, based on the advances in technology and video and audio technology. Telephony for example, has a two-week shelf-life. So you think about that, the phone you bought today is almost outdated by the time you get it home. It's the same thing here. And we do this with the idea that behind the wall, technology is expandable [00:42:30] and adjustable to the advances in technology that we anticipate coming forward. Because you don't want to recable a building. You want to put enough bandwidth in that building so that as you ... as technology evolves, you can continually update without the major costs associated with the back end.

Jacob: Yeah, absolutely, recabling a building does not sound like an easy thing.

Tracy: Yeah, not a fun thing, yeah.

Jacob: What is it actually like to work at Fannie Mae? So it sounds like you [00:43:00] have, it's not all cubicles the way some people might think, it sounds like very modern space, but what about how it's actually like to work there? For example, do you guys have workplace flexibility? Are you guys ... what sort of leadership and management programs do you have going on? Like what's the vibe and what it's like to work there?

Tracy: Yep, so we have a huge ... there's a huge capability for folks to work remote and that's been enabled by technology. So [00:43:30] all of the workforce is allowed to do that, which is fantastic. As an example, I'm remote today. So it adds to productivity. The company itself is a big believer in empowering people and providing them the opportunity to be successful.

           So we have our core values at Fannie Mae. One of them is that we're very customer centric. If you are in my space, [00:44:00] the security space, your customer is Fannie Mae. So delivering to them in a way that would delight the customer. So one of the things that we talk about at Fannie Mae, if you are in the capital markets room, how do you do that? If you are in single-family, if you're in multifamily, if you're in HR, how do you do that?

           We have, for example, Thursday night socials where you basically mix and different units put [00:44:30] this on every week and it gives you an opportunity to have almost a learning session followed by a social engagement. It's a very social company, it's very attuned to the needs of their employees and if you embrace the values and the behaviors of Fannie Mae, which are basically to look out for others, then it creates a very enjoyable place to work.

           I enjoy working there. I [00:45:00] think that it's very open, especially in the new environment. It just breeds that. So we have senior vice presidents that sit on the floor with line employees. So it breaks down that distinction of how life used to be versus what's more productive and conducive to collaborative environment than the traditional office versus open [00:45:30] space.

Jacob: Did you have any pushback on that from some executives that were kind of like, ah, I'm not comfortable with that. I want my office. Sometimes there's that mentality of like, I want it the way it used to be and stop touching my stuff. Did you ever get any of that?

Tracy: So I think that's everywhere and it's not necessarily senior and senior executives. Changes is different. So one of the biggest challenges that we faced in the Washington DC area [00:46:00] was moving from upper Northwest, which was sort of a leafy part of the city into the central business district. So there was some angst associated with that. Riding the Metro, working downtown, those sorts of things.

           But at Fannie, what we've done is that executives have actually taken the initiative to not occupy the offices. So leadership by example, by sitting amongst the employees, sends a pretty strong message [00:46:30] culturally, as to what the expectation is. So Tim feels very strongly of leadership by example, by allowing executives to set that tone for the employees.

And I'll tell you, the offices in the new space are great, they're all glass, they're rapidly becoming what we call huddle rooms, which are, you don't need to reserve them, you have a quick meeting you need to make a private call. We have these huddle rooms you go in, they're soundproof, you go in and you [00:47:00] do it. It's glass, you can still see, it's still transparent but affords you that degree of privacy that you need for maybe a personal conversation or an HR discussion without alienating those involved from the rest of the workforce.

So I haven't seen the type of resistance I had anticipated, which is actually refreshing and I think now that we've got people into their new buildings, as we continue to populate the building, there's [00:47:30] a buzz that's generated. Well, when can I move? When can I do it? Because what we bring back to our other buildings as we go through this transition is what a great space it is, what a great opportunity, what a great work environment, and how the technology in the new building is enabling us to be better at what we do.

Jacob: I know that in the past when I've talked with various people in security or CIOs or CTOs, they always give me these [00:48:00] crazy statistics that people just don't realize. Like when I spoke with the CIO of IBM, he was telling me that they get like thousands of hacks a day. Like people are just constantly trying to penetrate their systems. I'm assuming that you guys are no different. People are always trying to get through your walls and you always need to be aware of what's going on. So how do you, I guess, how do you deal with all that? Can you give people a sense of scale [00:48:30] as far as security? Like how often are people trying to break through and how are you dealing with all that and staying up to date on everything?

Tracy: Well Fannie Mae is no different than any other company. So any company that is known is susceptible to penetration attacks every day. We're no different than anybody else, our CISO here and his staff do a phenomenal job of protecting the network from external intrusion, but ... and I want to reinforce [00:49:00] that the biggest risk that any company faces relative to whether its phishing or the introduction of malware, is the unattuned employee.

So one of the ways that we help to protect the organization is by educating the workforce about what phishing is, how malware is introduced into your system and how to be vigilant. Because they are the first line of defense in any [00:49:30] cyber penetration. You will always go for the easiest route. Protecting the network, protecting the edge routers, those sorts of things is what they do every day, but on top of that, they couple that with an information security awareness program that allows the line employee to understand their responsibility in protecting the network. It's not the CISO's job, it's everybody's job to protect the network, and you can do that by being smart and being [00:50:00] informed.

So I think in that respect, Fannie Mae does a really good job because we have a lot of proprietary information and non-public information that needs to be protected. So that, when you look at what we do for a living and how they use NPI, it's critical that that is protected and the CISO and his team do a fantastic job of that. And the employees take ownership in their responsibility in protecting the integrity of the data as well.

So I think it's a nice [00:50:30] relationship between the employee and information security and physical security that works collectively to protect the interest of the organization and our customers.

Jacob: Are you worried at all about the increasing use of technology and security? So you guys have a lot of sensors that are deployed in the buildings. You have a lot of different technologies that employees are using and some might say, oh, the more technology you [00:51:00] use, the more susceptible you are to hacks. We've heard stories of smart technologies at homes getting hacked, smart cars getting hacked. So are you in any way worried that the more technology you deploy inside a Fannie Mae, perhaps the more risk you might have, or is that kind of not something to be concerned with?

Tracy: I think that the easy answer for that is that you should be aware of the inherent risks. That doesn't mean [00:51:30] you should be worried, but you need to be proactive in the efforts that you take to protect your internal network and your closed systems to make sure that the gaps and the vulnerabilities that are there, are monitored and addressed.

So it's a double-edged sword. If you don't use technology, then you lose that competitive edge. If you do it, you're susceptible to certain types of risks and vulnerabilities. Being aware of what those are is how you protect the organization [00:52:00] from them. Not using them I think puts the organization at a disadvantage. You shouldn't use them blindly, you should be aware of the risks and you should be cognizant of the fact that those risks may manifest themselves in a multitude of manners. That's fine, but not using them and not leveraging technology I think is counterproductive to the productivity of any organization. So using it smartly [00:52:30] and making sure that you're informed and that you maintain the vigilance that you need to protect those systems, is what's critically important.

So I'm not worried per se, I'm aware, and I think that's the difference.

Jacob: Oh man, that's a great quote. I love that. Not worried, aware. I think that's a fantastic way to ... or fantastic message for people to be aware of when it comes to different technologies and stuff like that as well. When you think of like the future [00:53:00] of security, companies are only investing more in technology, more AI, more everything, what do you think the future of security is going to look like? I've seen various science-fiction movies where they have like AI brains that are kind of monitoring everything. Do you think we're going to get to a world where all this stuff is monitored by AI or where's all this heading?

Tracy: So let me look not quite that far into the future and [00:53:30] say that the next iteration is going to be the collaborative efforts of CSOs and CISOs, and a unified effort to protect the organization, both from a physical and cyber perspective. Because more and more, they're interconnected, and the stovepiping that exists in some organizations is counterproductive to the protection of that organization.

I'll give you an example. So in our new space, the CISO and I have designed and share [00:54:00] a central command center, because it breaks down the divides between the cyber world and the physical world. And we can leverage each other's skill sets to make sure that the organization is optimally protected.

I don't really have an issue with AI. Once again, it's the same concept, know what you're getting and know how to leverage it and understand the limitations. There's not a single technology out there that is the answer to everything. It's the combination of [00:54:30] technology that allows us to create an environment that is smart, safe and secure.

I'm a big believer in leveraging that because unfortunately, humans always cost more money every year. So your workforce costs money, so what you can accomplish with technology saves you money on the bottom line. That's not to say that you don't need a physical guard force, because think about what else a guard force provides [00:55:00] for you. All of our guards are emergency medical technician trained, and we do that intentionally, so that if we have a health issue on the floor, before 911 arrives, they will actually know what to do to help save a life.

So you're not going to have technology that does that for you today, you may in the future, but you don't today. So the aggregation of technology and human resources is where I think for the next foreseeable future, [00:55:30] is going to be critically important. Leveraging both and optimizing both without minimizing either of those sides, I think that's what success looks like in a security field.

Jacob: So I just have a couple fun questions for you before we wrap up. Before I ask you some of these rapid-fire fun questions, any last parting words of wisdom that you want people to know about when it comes to security or technology or anything that you guys are working on over at Fannie Mae?

Tracy: So from a security perspective, I would say this, be a student of the business. [00:56:00] Understand what you're protecting. It's not enough to be a security expert, you have to understand the core mission of the organization, in order to effectively protect it.

Jacob: I like it. I think that's a great way to sum that up. All right, so now some fun rapid-fire questions for you. The first one is what's the most embarrassing moment you had at work?

Tracy: Not knowing. And that's why [00:56:30] I believe you have to be a student of the business. If you don't understand the question, you can't actually formulate the answer. So anytime you start someplace new, this happens, and so what I did in order to not have that happen again is I ate a bunch of humble pie and went to the leaders of the different parts of the organization and said, I need you to make me smart on what we do, because I don't ever want to be there again.

Jacob: So you had a situation where you didn't know something.

Tracy: Absolutely, always.

Jacob: If you were a superhero, who would [00:57:00] you be?

Tracy: Oh, how about Thor?

Jacob: Oh, I like it. What's a book that you recommend? And it could be a business book or a non business book.

Tracy: A book that I recommend. I read so many of them. Hang on, let me just pull this up here because I just finished one. So I read for enjoyment more than anything else. So I try not to [00:57:30] spend too much time on this, but I just read a fantastic book and it is ... it's a little different and it was about the ... and I'm trying to remember the name of it and I'll get to it in a second. But it is Daughters of the Night Sky, based roughly on the utilization of women pilots in the Second World War by the Soviet Union, it's a fascinating [00:58:00] story.

Jacob: Wow, and what was it called again?

Tracy: Daughters of the Night Sky.

Jacob: Daughters of the Night Sky. Wow, all right, that sounds intriguing, it sounds like something I think my wife would definitely love that as well.

Tracy: Yeah it was a great book.

Jacob: All right, I'll check that one out. If you were doing a different career, what do you think you would have ended up doing?

Tracy: A cabinetmaker.

Jacob: A cabinetmaker? Oh, wow, that's very different. If you could have dinner with anybody alive or dead, who would it be?

Tracy: My wife.

Jacob: Oh, sorry to [00:58:30] hear. If you could live anywhere in the world, where would it be?

Tracy: Asheville, North Carolina.

Jacob: Oh, that was an easy one. If you could get rid of one work place practice, what would it be?

Tracy: How do I put this? Taking credit for other's work. That's a huge problem.

Jacob: [00:59:00] Yeah, no, in many companies that's a huge problem. And if you could implement one workplace practice, what would it be?

Tracy: Transparency in ... how do I ... instant acknowledgment of whose idea something was. So that you couldn't hide it.

Jacob: Got it, yeah, it kind of goes back to the previous one that you mentioned. [00:59:30] Well, those were all the questions I had for you, Tracy. Thank you so much for taking time out of your day. Where can people go to learn more about you or Fannie Mae? I know you're on LinkedIn, but anything that you want to mention for people, please do so.

Tracy: No, I think that's good and if they just Google Fannie Mae or go to fanniemae.com, there's a plethora of resources about the organization. And as I said before, they serve a very valuable function in the economy [01:00:00] today, and it's filled with really good people who want to do the right thing. LinkedIn is fine for me, you can Google old speeches and stuff like that on C-SPAN, etc. But other than that-

Jacob: And are you guys hiring in case people want to know? You guys looking to fill some roles?

Tracy: Everybody's always hiring. With the right skills you can always find a job.

Jacob: Exactly and do you guys ever ... do you have any articles or things written about Fannie Mae and kind of this transformation that you're going through or is that not publicly discussed as much?

Tracy: I don't [01:00:30] know if it is. I know we do a lot of internal blogs on it, but I don't think there's been anything in the normal media, so to speak. But if you're in DC, you should look it up at 15th and L, it's great.

Jacob: Very cool, well, Tracy, thank you again for taking time out of your day, really appreciate it.

Tracy: Absolutely, thanks Jacob.

Jacob: Sure thing and thanks everyone for tuning in to this week's episode of the podcast. My guest again has been Tracy Reinhold, the chief security officer at Fannie Mae and I will see all of you guys next week.