

Interview with Mr. Doug Fay

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Interviewee: Mr. Doug Fay – Chief Technology Officer at Cinemark USA, Inc.

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Summary:

I had the pleasure of interviewing the Chief Technology Officer of Cinemark, Mr. Doug Fay. Mr. Fay has experience with software development as well as databases and networking. At Cinemark, a multi-billion dollar company, Mr. Fay manages the entire IT department and leads them to provide the company's technical solutions. During our interview we discussed the technology used at Cinemark and what his team handles.

Interview:

We began the interview by discussing Mr. Fay's tasks as the Chief Technology Officer at Cinemark. Mr. Fay leads a team of 42 (at time of interview) IT professionals who work together with their own unique skillsets to fulfill the company's software needs. Some of the things that he and the technology teams are responsible for include the Cinemark Theatres mobile application, Point of Sale systems at the registers at the various theatre locations, as well as the different types of networking around facilities. We also discussed some of the technical security procedures implemented at Cinemark.

The Cinemark Theatres mobile app is the home of Cinemode and Cinemark Connections. Cinemode was designed in response to complaints about the texting, calling, and general use of mobile devices at theaters. It prompts the user to place the device in silent and to not use the phone for the duration of the movie. If the user complies, then the app then rewards the user with points or discounts at concessions. I was curious about the how the app knows if I am done with the movie or not, Mr. Fay explained to me how the application previously used geolocation services, but, due to the issues that arose from that approach they switched over to a timer based algorithm. The other core feature of the Cinemark Theatres application is the Cinemark Connections implementation which allows users to also gain points for their different purchases

Interview with Mr. Doug Fay

at concession or ticket booths. Cinemark Connections connects to their Point of sale system which they also developed.

Mr. Fay explained to me that their Point of Sale System was a modified Windows Embedded Operating System that connected to the secure Cinemark network to handle transactions. The Cinemark network connects their various locations, they primarily use Cisco 2560 switches and on their servers they use Microsoft .NET and SQL. Cinemark also has backup servers that work in case their primary servers go down or are compromised. Their primary network provider is AT&T but if for any reason, like weather, AT&T's network is unusable the fall back on their own network cabling which connects the theatres together. Cinemark even has satellites on their facilities in case they would like to broadcast a live event. But with all this data being transferred there has to be security to ensure the confidentiality of the data.

Mr. Fay told me a few things that Cinemark does to ensure a secure network. For example, they block any host with an IP coming from a region where Cinemark is not present and they also block any IP that has multiple attempts to connect to a server to avoid that IP from overloading that server with extraneous requests. Regarding the security on the Point of Sale systems they use a tokenizing system so even if someone gets into the Cinemark network only the token could be lost, and since the token carries none of the customer's data no confidential or personal information could be stolen.

As well as answering my questions about Cinemark's technology Mr. Fay also gave me some insight on the where the world of technology is headed. Mr. Fay mentioned the growth of Internet of Things, Augmented and Virtual Reality, Machine Learning, and Artificial Intelligences. Another thing that Mr. Fay touched upon was the growth of data analytics. He stressed on how there was a bigger and growing need for data scientists who could analyze, and interpret data from varying metrics. Throughout the interview Mr. Fay also recommended that I learn C# and work with Xamarin to gain more experience with software development, he also recommended that I look into SQL and different cloud platforms like Azure, and Amazon Web Services Cloud platform to gain more experience with servers. Overall the interview was a great experience to learn more about corporate technology running in a multi-billion dollar company that has millions of customers annually, as well as getting some insight on where technology is headed.