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Damage Control—Advanced Persistent Threats and How Crypto Saves the Day

Technical Track: Advanced

Your perimeter has been breached. For most organizations that hear this sentence, it is over. Everything is on the table, your data, your customers, your accounts, email...; it all could be leaked today, or maybe right before the IPO. Worse, no system, account, code, or data can ever be trusted again – the attacker could have done anything while they were inside. Maybe the attacker works for you, maybe an administrator’s account was compromised – the vector does not matter anymore. The threat is grave, but what can we do to protect ourselves ahead of time for the day when it does happen. The answer is cryptography; proper use of cryptography can protect you from leaks, long-term account compromise, and the most dangerous threat of all – the unsettling worry that you cannot trust any of your data, ever again. Michael Maguigan and Dominic Carretto will mock a real compromise and show you two outcomes – which outcome are you preparing for.

Biography

Dominic Carretto began working as a contractor for the Delaware Criminal Justice Information System (DELJIS) while finishing his senior year in high school. He graduated from Wilmington University in 2004 with a Bachelor degree in Information Resource Management; soon afterwards he was hired by the State full-time. Over 12 years later; he joined the

Department of Technology and Information as a Senior Software Engineer where he has composed new security standards, policies and best practices for the State of Delaware. He is a self-taught expert in AngularJS and Google Material Design; focusing his passion for designing beautiful and functional user experiences for a mobile first strategy to State architected applications.

His free time is spent with his wife and their two-year old and 8-month old sons.

Michael Maguigan is the Founder of Midnight Source, Inc. and a contractor for the Department of Technology and Information. Formerly a team lead with one of Delaware's more successful start-ups, SevOne Inc., Michael founded Midnight Source Inc. Through Midnight Source Inc., Michael has worked with the State of Delaware for over five years, with agencies including the Delaware Criminal Justice Information System and the Department of Technology & Information. Recently, he and Midnight Source Inc. have taken on an advisory role for Nevada based network security firm, BlackRidge Technology. At eleven years old, he started learning to program – focusing a lot of his daydreaming in school on creating secure systems and looking for flaws in existing solutions. Today, he and his organization create SaaS and on-premise solutions for a number of different spaces; while helping other organizations draft modern security standards and policies, architect and implement secure – scalable – systems, and identify and resolve weaknesses in existing infrastructure.

Michael enjoys spending his free time with his wife and their two-year-old son and getting involved in his local church community.