Bishop Fox | Case Study

BUILT-IN SECURITY IN IOT DEVICES

august

Home Security Meets Cybersecurity

About August
August had a vision to revolutionize home security by bringing it into the Internet Age. August saw the front door not only as a mechanism for keeping the bad guys out, but also as a tool for letting the right people in — at the right times, on the right terms, and always at the homeowner's discretion.

The August Smart Lock lets users create virtual keys to their home and easily grant access to house cleaners, dog walkers, delivery services, guests, friends, and family—and control how long that access lasts—all from a smartphone

Connecting devices to the internet introduces new areas for innovation, improvement, and intrusion. Connecting a lock to the internet meant that August Home had the unique challenge of maintaining customer confidence while introducing a new approach to securing their front door using the August Smart Lock.

The Challenge
August had to solve the challenges introduced by hosting their product's functionality in the digital rather than physical realm — they needed to secure homes without introducing backdoors to the back door.

"When you look at our product ... if it were to get hacked or compromised in some way, it's not just a camera or an air conditioner," said August Product Manager Tom Russo. "We are an IoT company, but we are also a security company. We looked at our lock differently than some of the IoT products that are out there. Those products could afford to leave IoT security as an afterthought. But we couldn't."

HIGHLIGHTS

CUSTOMER	August
WEBSITE	august.com
ORGANIZATION TYPE	IoT
SERVICES PROVIDED	Application and IoT Penetration Testing
SUMMARY	• August engaged Bishop Fox to assess the security of its IoT products: • August Smart Lock • Application August Connect • Bishop Fox conducted a thorough review of both platform components and delivered a detailed report of findings and recommendations. • August's engagement with Bishop Fox represents their commitment to the security of its platform and providing peace of mind to their customers. • IOT represents a ripe new attack vector; August is setting a precedent by prioritizing security.

To ensure the security of its product, August sought a firm that could assess all aspects of the product — hardware, firmware, and software. Their search led them to Bishop Fox.

Eager to help pioneer and architect the security design with August, we brought our top mobile experts and leading product security researchers in to assess the project.

As Bishop Fox identified potential issues, the August team got to work on implementing new and innovative methods to strengthen their products' security. This collaborative approach led to more creative and effective solutions.

Chris Dow, Vice President of Software at August wanted more than just a checkbox tick saying that their Smart Lock was secure, he wanted to work with a team that would partner closely with his team along the way.

> **"** Bishop Fox brought different disciplines to the project, people who understood all aspects of what we were working with.
>
> As we designed the encryption and authentication model for the lock itself, Bishop Fox's team reviewed the design as we did it. **"**
>
> *Chris Dow, Vice President of Software at August*

Working together during the encryption design allowed August to build solid IoT security in to all aspects of their Smart Lock before deployment.

"Throughout this project, it was clear that we were all working towards the same goal – a secure product. Trust and collaboration is important when the stakes are high. It was great working as an extension of the August team over several versions and releases of the Smart Lock," said Ragan.

The Result

August put the security of their product and their customer's peace of mind at the forefront of their design. As a result of their partnership with Bishop Fox, their Smart Lock went to market with two-factor authentication, Bluetooth Low Energy (BLE) technology encryption, and an update feature that allows August to seamlessly release security advancements to users.

August's commitment to the security and well-being of its customers led to a well-designed and industry-leading product — a product that we at Bishop Fox use in our own offices.

> **"** Early on, it was apparent to us that August had a talented engineering team and they cared about being the most secure smart lock on the market. **"**
>
> *Rob Ragan, Partner at Bishop Fox*

About Bishop Fox

Bishop Fox is a global security consulting firm providing penetration testing, web app assessments, and risk mitigation services to help businesses protect data and assets from cyberattacks. We provide actionable cybersecurity guidance to the Fortune 1000, high-tech startups, and financial institutions worldwide.

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