Entrust Cryptographic Center of Excellence (CryptoCoE)

Take command of your crypto

Cryptography is dynamic, with changes taking place on various axes. New digital practices, such as DevOps, IoT, cloud, and multi-cloud environments, exponentially increase risks that lead to business disruption and security threats. As enterprises adopt new IT practices that expand their crypto footprints, the need for a CryptoCoE has become essential for securing a broadening attack surface.

Regulations and compliance standards around the world require businesses to encrypt their customers' personal and financial information. Also, as computing devices become more powerful, key lengths and algorithms must evolve to protect organizations from brute force attacks. The pace of change is accelerating and new challenges arise daily.

These dynamics disrupt traditional crypto and PKI planning, as organizations increasingly rely on those technologies to improve their overall security postures. If not managed properly, crypto can expose critical infrastructure to vulnerabilities. As crypto evolves, policies and processes need to be amended to maintain compliance with updated security standards.

This environment requires organizations to implement and enforce a solid crypto management strategy in order to boost overall digital security. Vulnerabilities resulting from mishandled crypto and PKI can lead to costly business disruptions, data breaches, and brand erosion.

BENEFITS

- Visibility into your end-to-end crypto and/or PKI environments
- Expert-by-Your-Side
- Ongoing strategic guidance and support
- Comprehensive crypto and/or PKI assessment
- Automate compliance testing
- Institute Best Practices
- Mitigate risks in cloud and multi-cloud environments
- Measure compliance with internal policies and external requirements
- Governance planning
- Improve data security

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Entrust Cryptographic Center of Excellence

> « **Strategic Planning Assumption: by 2021, organizations with crypto-agility plans in place will suffer 60% fewer cryptographically related security breaches and application failures than organizations without a plan.** »
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> Gartner, Better Safe Than Sorry: Preparing for Crypto-Agility, refreshed August 6, 2019

Core security assets require a strong crypto strategy

A solid crypto and PKI management strategy can help security, compliance, and risk professionals lead their organizations in establishing a CryptoCoE. Crypto is critical infrastructure that requires expertise and dedicated resources to bring it under control and into compliance. It calls for a set of organizational standards and best practices to rein in rogue crypto and establish governance. The Entrust CryptoCoE encompasses five main pillars:

• Discovery
• Analysis
• Remediation Strategy
• Best Practices
• Maintenance

It's designed to augment operational cryptographic and PKI processes with tools and expertise providing increased insight into the cryptography that organizations rely on to maintain secure operations and comply with regulations that are applicable to their businesses.

The building blocks for a Cryptographic Center of Excellence

The Entrust CryptoCoE is comprised of five building blocks that solve for specific gaps in your crypto and/or PKI environments.

These building blocks can be employed in a modular format to deliver a custom experience based on your organization's specific needs.

Entrust Crypto Health Check

Our crypto health check arms security, compliance, and risk teams with the tools and resources they need to mitigate crypto-related threats. We place an expert-by-your-side, make recommendations based on best practices, and leverage our unique discovery tool to bring hidden crypto into view. Our tool scans your IT environment, builds a cryptographic inventory, and scores it against cryptography standards and policies. Our team then makes recommendations for a strong crypto strategy, which is delivered in a board-ready report. This mobilizes your team with everything needed to build a CryptoCoE and greatly reduce the number of cryptographic vulnerabilities throughout your IT ecosystem.

Crypto Governance Consulting

Our crypto experts can supplement your team as trusted advisers to your organization. They deliver expert guidance and support on the policies, procedures, processes, and people who define and implement the controls surrounding your cryptographic systems. The consultancy culminates in a crypto roadmap on how to achieve your defined goals.

Entrust Cryptographic Center of Excellence

« The #1 challenge to enabling applications to utilize PKI is the lack of visibility of the security capabilities of existing PKI (ranked #5 in 2019) »

Ponemon Institute 2020 Global PKI and IoT Trends Study

PKI Governance Health Check

A proper PKI implementation goes beyond technology. It needs to demonstrate essential compliance standards for audits. In addition, your PKI should be built to support both current and future business requirements. Our experts can review your PKI policy documentation (CP, CPS, RPS, PDS) and review the roles, processes, and policies that have been established for your organization. Our experts will compare those policies with best practices, standards, and your business use cases and applications. Then, we will deliver actionable recommendations to provide you with clearly defined and formal documentation that's designed to close procedural gaps and reduce risk.

PKI System Health Check

It's not uncommon for an organization to be operating a PKI that was originally deployed 10 or 20 years ago. This timeline typically surpasses resource tenure and creates a knowledge gap. Over that time, an organization is likely to have increased its digital sophistication and its number of use cases.

It's important that the technology and software that comprise your trust environment is up to date and adapts to changes in your business. For example, modern digital ecosystems typically require a PKI that can grow and add capacity — or one that can seamlessly interact with remote apps and modern systems. We can help guide your teams by assessing the status of your existing PKI implementation – including the equipment and algorithms in use – to help ensure it meets both current and future business requirements.

PKI Governance Consulting

A crucial step in the initial design and deployment of an effective PKI is the formal documentation and definition of the policies that will be used to govern your PKI. Our experts are readily available to support you by defining the policies, roles, and procedures according to best practices, so they can then be enforced within your organization.

Conclusion

Entrust builds trust through assessment and advisement. Our expert services help build confidence in your organization's crypto and PKI security posture so that we can help you maintain compliance, enforce policies, and deepen engagement with regulatory agencies.

Entrust Cryptographic Center of Excellence

> « **A barrier to a successful encryption strategy is the ability to discover where sensitive data resides in the organization. Sixty-seven percent of respondents say discovering where sensitive data resides in the organization is the number one challenge.** »
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> Ponemon Institute 2020 Global Encryption Trends Study

The Entrust difference

Entrust works as a trusted partner alongside your security, risk, and compliance teams, delivering value through unique skill sets and expertise. We supplement your team by applying our skills, tools, and methodologies to your organization. This provides your enterprise with security, efficiency, and continuity as we help you plan and manage your crypto-dependent systems.

Let our team help navigate the ongoing challenges associated with managing your crypto environment. Trust our experts to help construct best practices and define strategies that work across your unique IT environment to support a Best Practices framework.

About the Entrust Cryptographic Center of Excellence

Entrust, a leader in cryptographic security solutions, is the first certification authority (CA) to offer a Cryptographic Center of Excellence. It's designed to help organizations balance the risk associated with IT practices that expand crypto use cases by accelerating a crypto strategy for enhanced digital security. We work alongside security, risk, and compliance teams as a trusted partner, sharing our specialized expertise in encryption technology, best practices, and an advanced discovery tool to help bring crypto under control. The Entrust CryptoCoE comprises cryptography experts who offer significant industry experience and provide our customers with a pool of accessible subject matter experts. The CryptoCoE is structured to remain at the forefront of this dynamic domain and offer our customers access to continually updated best practices.

ABOUT ENTRUST CORPORATION

Entrust secures a rapidly changing world by enabling trusted identities, payments, and data protection. Today more than ever, people demand seamless, secure experiences, whether they're crossing borders, making a purchase, accessing e-government services, or logging into corporate networks. Entrust offers an unmatched breadth of digital security and credential issuance solutions at the very heart of all these interactions. With more than 2,500 colleagues, a network of global partners, and customers in over 150 countries, it's no wonder the world's most entrusted organizations trust us.

The information provided herein does not, and is not intended to, constitute legal advice; instead, all information, content, and materials provided are for general informational purposes only.

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