

FROST & SULLIVAN

*HID GLOBAL*

**2022**  
**ENABLING**  
**TECHNOLOGY**  
**LEADER**

*GLOBAL PRIVATE TLS*  
*CERTIFICATES INDUSTRY*

## Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. HID Global excels in many of the criteria in the global private TLS certificates market.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Customer Impact</i>
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

### *HID Global – A Trusted Identity Solutions Provider*

HID Global, headquartered in Texas, USA, is a leading trusted identity solutions provider. The company has approximately 4,000 employees globally, and offers a broad portfolio of products and services broken down into six business segments:

1. **Physical access control** – includes physical access control products and services such as credentials, readers, and controllers.
2. **Secure Issuance** – focuses on services such as identity issuance, card personalization, and encoding solutions.
3. **Extended Access Technologies** – includes desktop and embedded biometric, RFID, and contactless readers.
4. **Identity and Access Management Solutions** – offers identity lifecycle management, multi-factor authentication, credential management, and digital certificate solutions.
5. **Citizen Identity Solutions** – an end-to-end portfolio of highly secure government-to-citizen physical, mobile, and biometric ID solutions.
6. **Identification Technologies** – provides tags, beacons, and services to identify, track, and add trust to activities and assets

Within the Identity and Access Management solutions, HID Global has three different solution segments:

1. **Workforce Identity Management** – helps organizations manage the identities of the employees and users through multi-factor authentication, visitor management, and other access control solutions.
2. **Consumer Authentication** – helps banks and financial organizations verify and authenticate consumer identities and provides risk management services.
3. **PKI and IoT Management** – includes services that deliver security benefits of Public Key Infrastructure(PKI) and Digital Certificates to address four different use cases:
  - a. Enterprise network security
  - b. IoT Device Security
  - c. Website security
  - d. Validated identity & trusted transactions for regulated uses cases such as U.S. Government sensitive information access, electronic notarization of documents (eNoatry) and authenticating validity of Electronic Prescription for Controlled Substances (EPCS).

As part of its growth strategy, HID Global has acquired companies to expand its product portfolio. In 2014, HID Global acquired IdenTrust, a public certificate authority, to develop its public key infrastructure (PKI) and IoT capabilities. In 2019, it acquired HydrantID, a vendor specializing in private PKI use cases such as enterprise network protection and IoT device security use cases.

### ***PKIaaS – Addressing PKI Implementation Challenges***

Handling the massive number of certificates across the web, email, connected devices, and digital signing services is a significant obstacle that restricts adoption of PKI by organizations. In addition, each

*“HID Global’s primary mission is to help organizations build trust among end consumers without enduring operational complexity or higher overall cost. HID Global’s Public Key Infrastructure-as-a-Service (PKIaaS) helps organizations experience all the benefits of having an internal PKI without needing to manage the infrastructure.”*

*- Swetha Krishnamoorthi,  
Senior Industry Analyst, Cybersecurity*

certificate type has a different validity period and a different renewal cycle: organizations spend critical man-hours in manual tracking of certificate inventory across the entire organization and managing renewal cycles for different certificate types.

As a result, many organizations have restricted their PKI implementation to public TLS certificates for websites, as these were mandated by the browser vendors. Other use cases of PKI solutions, including SMIME

certificates, enterprise network security, IoT device security, code signing, and document signing solutions, have yet to witness strong growth in demand.

Additionally, with the growing popularity of private CAs such as Microsoft CA, many organizations have an internal PKI. A subject matter expert typically sets up the entire PKI and trains the network administrators with regards to operationalizing the PKI. Over time, organizations have deployed long-running PKIs without the staff to properly operate and scale them to meet the challenges of increasingly complex cyber security landscape.

HID Global's primary mission is to help organizations build trust among end consumers and within its internal networks without enduring operational complexity or higher overall cost. HID Global's Public Key Infrastructure-as-a-Service (PKIaaS) helps organizations experience all the benefits of having an internal PKI without needing to manage the infrastructure and keep up to date with operational best practices required for securing and scaling such PKI. HID Global delivers high-quality and flexible PKIaaS to its customers with its multi-tenant platform.

There are three solutions provided by HID Global's PKIaaS:

#### *Dedicated Issuing CA Service*

PKIaaS includes a dedicated issuing CA service aimed at enterprises seeking to issue private trust certificates. The dedicated issuing CA service provides a branded trust anchor along with management of all online Issuing CA. The advantage of the dedicated issuing CA service is that organizations do not need to manage or maintain private CA(s). At the same time, organizations can still identify the issuing CA as the trust anchor within their environment, thereby reducing the cost and complexity of managed PKI service.

Any organizations leveraging Microsoft's Certificate Authority (CA) for certificate issuance for internal end-points that benefit from strong authentication and data encryption find value in this service. The HID PKIaaS supports various integrations such as Microsoft auto-enrollment, Microsoft Intune, Google MDM, Jamf MDM, Airwatch MDM etc. It also provides robust certificate lifecycle management capabilities through standard based protocols such as ACME, SCEP, EST and RESTful APIs. This service works well for organizations that don't need their own off-line root.

#### *Private Root PKI Service*

HID Global's private root PKI service provides full turnkey service, including private root key generation ceremony and management of all offline key material and online issuing CAs. A root key generation ceremony is a process that generates a unique pair of public and private root keys. The root key generation process must be conducted in a secure, offline air-gapped vault. HID Global stores the private keys of each customer in dedicated hardware security modules (HSMs). Customers' private keys are stored in a maximum-security storage facility located under a 200 ft granite mountain.

This is a popular use case among large enterprises with unique trust models or PKI hierarchies. For example, organizations that need to secure connected IoT devices with a long lifespan requiring high-security root certificates will find this model useful.

#### *Trusted TLS/SSL service*

In addition to these services, HID Global also issues standard TLS certificates on an annual subscription basis. These certificates include domain validation (DV), organization validation (OV), extended

validation (EV), code signing, document signing, and S/MIME certificates.

### ***Flexibility and Scalability through PKIaaS***

HID Global initially analyzes the business needs of the organization to identify the right kind of PKI use cases and most appropriate certificates. After determining the extent and scope of the engagement, HID Global determines the annual subscription cost. The service is quite flexible. If the organization issues more certificates than planned, the extra charge drips on to the next cycle. As a result, customers do not have to go through the inconvenience of securing additional budget out of cycle to issue more certificates or add new services.

Annual subscription pricing covers customer support, maintenance, and initial onboarding for organizations. In addition, HID Global's pricing provides multi-year predictability for customers. The individual digital certificate pricing also includes support to maximize the value of using a digital certificate.

HID Global delivers the PKIaaS through its cloud-based platform, Account Certificate Manager (ACM). Instead of introducing a new technology that security administrators must learn to operate, ACM integrates with the existing certificate protocols in the organization. For example, ACM supports the ACME protocol and thus offers ACME-based services for both public certificates and private PKI offerings. HID Global also offers a RESTFUL API that enables organizations to deeply integrate with custom applications.

HID Global's PKIaaS is designed with hybrid infrastructure where it leverages multi-region cloud service for public facing services and uses robust security of HID managed datacenters for sensitive components such as private key (cryptographic keys) material for issuing CA(s). This provides best of both worlds: Scalability and Security. HID has multiple datacenters across the globe for scalability and resiliency as well as addressing use cases that require local data residency due to local regulations.

Additionally, since the certificate protocols and the management tool are hosted on the cloud, organizations can quickly scale up their PKI operations globally across different regions.

The CA's cloud-based PKIaaS and digital certificate sales were the key contributors to growth over the last two years, accounting for over 26% of HID Global's IAMS product line revenue. The company's PKIaaS is tailored to address the requirements of small and medium-sized enterprises. However, PKIaaS has also addressed the complexities of a large enterprise customers.

HID Global follows Scaled Agile Framework (SAFe) for its research and development processes. SAFe uses customer feedback as input for product development and requires organizations to deliver value to customers incrementally. HID Global collects customer feedback through its sales, support, and product marketing teams.

HID Global is pursuing several initiatives, such as HashiCorp Vault integration, dashboard and reporting enhancements, and self-service capabilities for small and medium-sized enterprises to purchase and manage certificates. The company pursues the mission to offer a one-stop global solution for PKI services across an enterprise in the long term.

## Conclusion

---

Managing digital certificates and PKI solution deployments requires specific skills in addition to general cybersecurity competence. As a result, organizations struggle to find the resources needed to handle

*“HID Global follows Scaled Agile Framework (SAFe) for its research and development processes. The company pursues the mission to offer a one-stop global solution for PKI services across an enterprise in the long term.”*

*- Swetha Krishnamoorthi,  
Senior Industry Analyst, Cybersecurity*

mammoth certificate volumes. This resource constraint translates to organizations restricting PKI usage to the most critical applications mandated by business priorities or regulatory compliance.

HID Global has been active in the trust and identity services business for a long time. The company has leveraged its experience and

expertise to build a PKIaaS solution that reduces operational complexity and provides a smooth customer experience.

With its strong overall performance, HID Global earns Frost & Sullivan’s 2022 Global Enabling Technology Leadership Award in the private TLS certificate market.

## What You Need to Know about the Enabling Technology Leadership Recognition

---

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

### Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Technology Leverage*

**Commitment to Innovation:** Continuous emerging technology adoption and creation enables new product development and enhances product performance

**Commitment to Creativity:** Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

**Stage Gate Efficiency:** Technology adoption enhances the stage gate process for launching new products and solutions

**Commercialization Success:** Company displays a proven track record of taking new technologies to market with a high success rate

**Application Diversity:** Company develops and/or integrates technology that serves multiple applications and multiple environments

#### *Customer Impact*

**Price/Performance Value:** Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience:** Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience:** Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience:** Customer service is accessible, fast, stress-free, and high quality

**Brand Equity:** Customers perceive the brand positively and exhibit high brand loyalty

