



Features Overview

Validian has the next generation of Information Policy Management & Intrusion Prevention Against Cyber Attacks that secures existing and/or new mobile, non-mobile and web applications on, and the storage, access, retrieval, transfer and receipt of digital information and data on or between, mobile and/or non-mobile devices, servers and data bases over wired, wireless and mobile networks for peer-to-peer (P2P), client-server and server-to-server transmissions. Validian also prevents improper access, hacking and hijacking of critical installations and infrastructure.

Validian has invested over \$40 million in developing and completing its underlying technology.

There are no other technologies or solutions, including Public Key Infrastructure (PKI), Secure Sockets Layer (SSL), Transport Layer Security (TLS), Pretty Good Privacy (PGP), Smart Firewalls, Intrusion Detection, Intrusion Prevention or Threat Prevention, that do what Validian does the way that Validian does it.

Validian uniquely provides:

Feature: Next Generation of Intrusion Prevention Platform comprised of a **unique application authentication process** using asymmetrical keys and non-third party certificates: that **PREVENTS** any access of or communication between applications until and unless they are mutually authenticated with each other; that authenticates all applications to a communication or transaction; and then authorizes them to communicate with each other, establishing the trust necessary for a secure access and exchange;

- uses the same industry standard cryptographic algorithms, public (asymmetrical) keys and private (symmetrical keys) as other crypto protocols but applies them differently to obtain dramatically better results
- thereby **PREVENTS**, not just detects, hacking and unauthorized access of critical applications and of sensitive Digital Information, including impersonation, spoofing, phishing, Man-In-The-Middle and Man-In-The-Browser attacks. Validian has the only technology that **PREVENTS** more than 90% of the successful cyber attacks in the world today because more than 90% of these cyber attacks are initiated or directed at the application.
- can also provide integrated authentication of the application, end user and host mobile or non-mobile device
- prevents unauthorized access, hacking and hijacking of servers, data bases and critical installations and infrastructure.

Feature: Next Generation of Policy Management, the Validian Information Policy Management Platform, which enables IT managers to provide and to reconfigure dynamically information and crypto policies governing communication of data, including changing encryption algorithms, keys, key life time and level of compression, and to distribute these automatically, immediately and transparently to all end points without having to re-develop or re-install the software.

- no other technology or solution can do this - Mobile Device Managers cannot dynamically change policies
- neither can SSL/TLS, PKI, PGP & IPsec, which also are stuck with the "PICK ONE" syndrome of coding only one algorithm and symmetrical key, and which takes several months and significant cost to change even once
- current Validian policies apply Authentication, Encryption, Key Management and Variable Compression, but other policies, such as Permissions & Access Control, Advertising, Information Redaction and Billing can be added

Feature: Validian's technology is Designed & Architected to Secure Mobile Communications

- protects critical information and networks from BYOD challenges
- all other crypto protocols including SSL/TLS, PKI, PGP and IPsec were invented before 2007 when the smartphone was invented; they were never designed to secure mobile communications; do not migrate to mobile; and cannot be extended to work on mobile

Feature: a unique addressing scheme that is abstracted from, and independent of, Internet Protocol (IP) addressing

- enabled applications are IP address independent
- immune to Denial Of Service Attacks
- eliminates infrastructure reconfigurations due to IP address changes
- ideal for roaming mobile applications where IP address changes every cell
- enables the immediate location and authentication of communicating applications, including mobile, which are assigned different IP addresses each time they travel through a different cell
- facilitates communication between non-compatible devices, cell sites and networks

Feature: variable compression and encryption of the same data at the same time inside the sending application.

- greatly reduces bandwidth consumption and increases security and speed of mobile communications
- SSL/TLS, PKI & PGP cannot compress and encrypt the same data rather only compress or encrypt

Feature: encryption of the data inside the sending application followed by secure transfer of that data in a virtual tunnel from inside the sending application to inside the receiving application where it is decrypted, so that the data cannot be stolen before the encryption process or after the decryption process.

- *all other technologies use industry standard "end-to-end" encryption, including SSL/TLS, PKI and PGP, where data can be stolen just before "end-to-end" encryption encrypts the data or just after it decrypts the data.*

Feature: encryption & decryption using "dynamically changing" instead of "stored" symmetrical keys to encrypt data or Digital Information of any size, type and format, including: sensitive Government, business and personal information; confidential medical records; texting; pictures; and music, videos and movies.

- *unlike SSL/TLS, PKI and VPN's, with Validian the keys cannot be stolen to decrypt stolen encrypted data .*

Feature: secure P2P communications as well as client/server and server-to-server.

- *SSL/TLS, PKI & PGP cannot secure P2P*
- *furthermore, the use of Validian's P2P infrastructure results in significant operational cost savings as compared to the traditional client-server infrastructure that burdens enterprise, government, social media and mobile messaging operations*

Feature: a secure, efficient Internet (i.e. IP-based) advertising, marketing and notification channel that transports and delivers graphic rich advertising content through mobile, web and non-mobile applications viewed by end users

- *automatically provides Validian channel partner's and their customers ability to monetize by channeling advertising directly or via advertising aggregators (e.g. Google, Bing/Microsoft, Yahoo) to be viewed by enterprise and consumer end users*
- *prevents hacking and unauthorized access of these Internet advertising channels as a means of gaining unauthorized access to data, Digital Information, devices and network systems*
- *very efficient because variable compression reduces consumption of bandwidth due to transfer of graphic rich advertising content*
- *ability to turn on or off enables channel partners and their customers to decide to monetize by either charging one-time and/or periodic fees and/or sharing the revenue generated by advertising*
- *also enables delivery of one time or periodic notifications or announcements to end users*

Feature: secure storage of digital information on mobile and non-mobile devices

- *the Validian Safe takes data that has been encrypted by Validian and stores it encrypted on hardware without decrypting and re-encrypting like DAR encryption for hard drive security*
- *this means there no gap for unauthorized parties and hackers to exploit*

Feature: dynamic and systematic data logic that automatically adapts to: form of connection (e.g. wired, wireless, mobile, dial-up); connection speed and bandwidth; and regardless of size, format or type of data.

- *this greatly reduces management, administrative and operational overhead and costs*

Feature: even Validian's features are dynamic - each feature can be turned on or off in any combination of features and for any combination of endpoints

- *provides maximum operational and administrative flexibility and control*
- *enables Validian's channel partners to charge by the feature or combination of features if so desired*

Feature: Validian's technology enables Rapid, Consistently High Quality Development of Secure Applications

- *a simplified Software Development Kit (SDK) enables any developer without any security or SSL expertise or experience and only 2 hours of initial online tutorial training to integrate Validian's technology into any existing or new mobile, non-mobile or web application in only one to a few days*
- *the SDK provides intuitive C++, .NET, JAVA & Android Studio APIs that accelerate the development and ease the integration of collaboration-oriented capability directly within applications*
- *Validian has pre-built 6 modules for delivering data over TCP/IP or UDP, which enables applications to be assembled in 2 to 3 weeks instead of the standard 3 to 5 months its takes to develop an average application*
- *whereas SSL/TLS, PKI and PGP require a developer with security expertise and can take from 4 to 24 months per application plus the 3 to 5 months it takes to develop the application*

Feature: Validian's technology is cross platform ready and multi platform interactive

- *Validian has been architected, designed and coded to be cross platform ready.*
- *Validian's server component currently works on any Microsoft operating system: (e.g. Windows Server 2003/2008, Windows Small Business Sever 2003/2008 and XP, Vista, 7 and 8) and can be migrated readily to any Unix and Linux operating system;*
- *Validian's non-mobile client component works on Microsoft Windows XP, Vista, 7 and 8 and can be migrated readily to any Apple operating system;*
- *Validian also can work on any mobile operating system including: Google Android O/S, any Apple iOS, the various Microsoft Windows mobile operating systems (e.g. windows mobile 7 and 8), and Blackberry 10 O/S.*