SecureMetric Technology

PKI in a Box

PKI in a Box is an innovative Public Key Infrastructure (PKI) appliance built by a team of highly experienced PKI and Cryptography experts with the objective to simplify PKI implementation with complete feature set needed to operate a full-blown PKI out of the box. It includes a complete Certificate and Hardware Token Lifecycle Management System, can support unlimited number of Certificate Authorities (CAs) and/or subordinate CAs; Registration Authority (RA) either via centralized or distributed RA model; and a Validation Authority (VA) that supports both Certificate Revocation List (CRL) and Online Certificate Status Protocol (OCSP) for support XML and PDF signing with common Time-stamping functionalities with integrated Hardware Security Module (HSM) onboard.

New Way to Deploy PKI

If you never thought of utilizing PKI due to expensive investment, now you can start with a new thought via our PKI in a Box offer.

- Maximizing your ICT security via PKI security mechanism.
- Cost saving in the long run by setting up your own internal CA.
- Fully in control for the internal CA hosted in your own premises.
- Outsource implementation and support work to qualified PKI experts.
- Common Criteria EAL 4+ Certified core with hundreds of mission critical implementation worldwide.

Case Study

“We were looking for a long term solution to save cost without jeopardizing the security of our network where SecureMetric came to propose PKI in a Box and we thought that the solution fulfills our requirements. We are happy to discover that PKI Appliance also supports future PKI related projects that we have in store for Ambank.”

Ismail Bin Hussin,
Head, IT Security Operations and Disaster Recovery Ambank Financial Group
Why PKI in a Box

In the past, traditional way to implement a full-blown enterprise class PKI system require extensive PKI expert resources with an average of 3 to 9 months overall project lifecycle depend on the complexity of the project. The complexity of the overall projects not only relate to the PKI software but also all the interrelated components such as operating system, databases, network configuration, administration, security control mechanisms, and more.

The diagram shows elaborate a typical full-blown PKI implementation, the actual no. of server server can be multiplied accordingly to the expected system performance capacity and workload.

Now with PKI in a Box, it will be able to simplify the PKI implementation by reducing the overall project lifecycle from months to weeks, and eventually lower down tremendously on the total ownership cost. The appliance with complete feature set which will also eliminate the hassle for separate hardware acquisition (Server, HSM, etc.) and 3rd party software component installation (Operating Systems, Databases, etc.). As now everything are in a box by one single vendor, it will offer the end customer a single point of contact for all support calls.

Elaborate few possible PKI in a Box implementation scenario
SIMPLIFY.
The PKI Implementation

Benefits

- Faster and Easier Deployment
- Much Lower Total Ownership Cost
- Scale Up or Scale Down Options
- Simplified Support & Maintenance and Efforts
- Single Point of Supply for Both Hardware and Software
- CC EAL 4+ Certified CA Core & FIPS 140-2 Level 3 Validated HSM

SecureMetric’s Role

01 The only PrimeKey’s certified trainer and exclusive partner for Asia
02 Joint development experience with PrimeKey’s R&D
03 Lower project costs by leveraging on SecureMetric cost advantage
04 Dedicated local technical support
05 Compliment PrimeKey’s offer with Token Management System, Distributed RA System, HSM, PKI devices and digital signature solutions.

Full Blown PKI Implementation VS. PKI in a BOX

<table>
<thead>
<tr>
<th>SecureMetric’s Role</th>
<th>Project Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Total No. of Server</td>
</tr>
<tr>
<td>02</td>
<td>Installation and Configuration of Operating System, Database</td>
</tr>
<tr>
<td>03</td>
<td>Testing and QA effort</td>
</tr>
<tr>
<td>04</td>
<td>Acquisition of HSM</td>
</tr>
<tr>
<td>05</td>
<td>Learning Time</td>
</tr>
<tr>
<td></td>
<td>System Maintenance &amp; Support</td>
</tr>
</tbody>
</table>

5 to 20
Average 3 months up to
9 months

1 box up
Average 4 to 7 weeks

- Hardened
- 1 week
- Included
- Weeks
- Simplified, single vendor
## What is inside PKI in a Box

PKI in a Box comes with an modularized and flexible software stack. Based on Security Foundation Platform (SFP), all application components are operated as virtual machines bringing the maximum flexibility to the system, simplifying procedures like updates or backups, and making your PrimeKey Appliances re-usable.

Centrally controlled by an Virtual Gateway (VGW), separation of virtual networks maximizes the security by tight control of the data flow between the involved software components. Whether Windows or Linux based applications, with the flexible and efficient virtualization layer, all Third-Party systems can be easily integrated and managed.

An HSM abstraction layer (VHSM) hides the complexity of the underlying technology simplifying the integration of software components that require access to the secure hardware.

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>Height: 88.4mm (2. HU) Width: 430mm (19&quot;) Depth: 633mm Weight: 12.5kg (27.5 lb)</td>
</tr>
<tr>
<td>Interfaces</td>
<td>4 x USB 2.0 (2 on the front panel, 2 on the rear side) 2 x T GB: Ethernet (RJ-45) 1 x VGA (D9) 2 x PS/2 Mouse &amp; Keyboard Serial Port (D9)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Redundant 2 x 500W, Typical Efficiency &gt; 80% 110/240V, 50/60Hz</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Typical 80W Maximum 135W</td>
</tr>
<tr>
<td>Environmental Temperature</td>
<td>Operation +10°C to +50°C (+50°F to 122°F) Storage -10°C to +55°C (+14°F to 131°F)</td>
</tr>
<tr>
<td>Conformity</td>
<td>CE, RoHS, FCC</td>
</tr>
<tr>
<td>Shipping Dimensions</td>
<td>Height: 247mm (9.73&quot;) Width: 582mm (22.91&quot;) Depth: 766mm (30.16&quot;) Weight: 7 kg (15.4lb)</td>
</tr>
<tr>
<td>Supplied Accessories</td>
<td>Rack Mounting Rails, US and EU Power Cords, Smart Card Reader, 10 Smart Cards</td>
</tr>
<tr>
<td>OCSP Response</td>
<td>80 per second</td>
</tr>
<tr>
<td>Certifications</td>
<td>FIPS 140-2 Level 3 (HSM), Common Criterial EAL 4+ CA Core</td>
</tr>
<tr>
<td>Additional Features</td>
<td>Integrated Token + Certificate lifecycle management; Capable of distributed RA architecture</td>
</tr>
<tr>
<td>Network</td>
<td>Dual Ethernet Interface</td>
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</tbody>
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