

Product Brief

The True Cost of E-mail Encryption

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Abstract: E-mail encryption doesn't have to be as complex and costly as it has been in the past. New solutions using IBE (identity-based encryption) eradicate the need for digital certificates by calculating key values based upon identity characteristics like a recipient's e-mail address. Of all of the e-mail encryption offerings based upon IBE, [Trend Micro](#)'s technical design and true cost of ownership stand out from the crowd. When ESG created a model to compare the costs of PKI and IBE solutions, Trend Micro Encryption delivered a 78% savings over a PKI alternative.

Trend Micro Encryption Delivers 78% Savings Over PKI

ESG's cost model estimates that these benefits can result in a very real 78% cost savings over more cumbersome PKI alternatives. CISOs should use the model as a template for their own environments; change the number of seats, the cost of a full-time employee, and the software acquisition costs accordingly.

Encryption can be a scary technology. Given this, what better reason to outsource the bulk of the geeky security operations to an expert? Trend Micro Encryption's cloud-based architecture provides the confidentiality and integrity benefits of e-mail encryption without the technology headaches. This alone should make Trend Micro Encryption a top e-mail encryption choice for most organizations.

Based upon ESG's estimates, Trend Micro Encryption with Identity-based Encryption (IBE) costs about 78% less than the PKI equivalent .

Table 1. PKI vs. Trend Micro Encryption IBE Cost Comparison

Cost Categories	Competitive PKI	Trend Micro IBE
Servers	\$30,000	\$0
E-mail encryption gateways	\$40,000	\$2142.86
Capital cost, software	\$20,000	\$10,000
Software maintenance cost	\$4,000	\$2,000
Software client installation	\$15,625	\$7,812.50
E-mail encryption solution installation	\$4,687.50	\$937.50
Development of user training and courseware	\$1,875	\$375
Cost of user training (lost wages)	\$71,250	\$17,812.50
Help desk costs	\$15,833.33	\$1,900
Ongoing management and operations	\$39,000	\$9,750
Total	\$242,270.83	\$52,730.36
Difference	459% of IBE solution	22% of PKI solution

Source: Enterprise Strategy Group, 2010.

The Analysis and Solution

ESG's model is based upon an enterprise of 1,000 users based in two different facilities. To calculate the potential savings, ESG considered server costs; e-mail encryption gateway hardware costs; capital costs for software; software client installation costs; software (non-client) installation costs; user training courseware development; user training time costs; capital costs for software maintenance and support (1 year); and, finally, cost of IT operations, management, and administration.

The Trend Micro IBE solution is designed to streamline the e-mail encryption architecture, ease user registration, simplify business processes, and offload key management tasks to the cloud. This should make e-mail encryption much more attractive to reluctant organizations. Aside from these benefits, however, Trend Micro's IBE-based e-mail encryption solution can also deliver real financial benefits from the initial purchase through product deployment and ongoing operations. Based upon ESG's research, these savings can be significant: in ESG's cost model, the total cost of a typical PKI-based e-mail encryption solution cost is more than four times as much as a Trend Micro Encryption alternative.

To read the results of the full analysis go to <http://us.trendmicro.com/us/products/enterprise/email-encryption/>.