

Dongle Competitive Analysis Checklist

March 2010



1025 West 7th Avenue
Denver, CO 80204
1.800.4.KEYLOK
www.KEYLOK.com

Dongle Competitive Analysis Checklist

***Last year \$53 Billion of software
was stolen!***

**How much money are you losing
to software pirates?**

Software manufacturers everywhere have been impacted by the growing global trend of software piracy. Although piracy rates have increased only slightly in the last few years, the dollars lost to software piracy continues to grow significantly.

More and more software companies are implementing security solutions to reduce losses to software piracy. There are several methods being used and they can be categorized in two ways 1) Software based, or 2) Hardware based.

This paper will focus on hardware keys.

Four Concerns and Questions Everyone Has When Choosing An Anti-Piracy Solution... *And How Hardware Dongles Overcome Them All*

1. **How is this going to impact my customers?** Face It. Your clients don't care about piracy. That is YOUR Problem. So, if you integrate the wrong Anti-Piracy Solution into your application and it causes disruption for your clients, they will be furious and you will lose them to the competition!
2. **How much is this going to cost?** Regardless of the method you choose, your pricing model is going to change. You are either going to pass this cost on to the customer or you are going to absorb it. In many cases, the revenue increases and recuperated losses associated with eliminating piracy more than offset the cost of implementing security, but you will need to understand the total cost of this program and the impact on your revenues and margins before you make that decision.
3. **Is this going to work?** You need to implement a solution that will actually prevent software piracy. There are many things to consider in this evaluation and you need a provider who will act as your partner, not just a software or hardware manufacturer, to help you understand the best methods to ensure the most comprehensive security possible within your own application.

4. **How is it going to impact my own organization?** Is my support staff going to be bombarded with issues? How much time will it take my development staff to integrate this solution into our application and do we have the skills internally to develop a solution ourselves? Can our new partner provide expertise and assistance to ensure an effective implementation or do we need to rely solely on our own developers to become anti-piracy experts?

| Hardware dongles offer cost effective, bulletproof security. They can be implemented quickly, yet still offer you maximum protection from software pirates. They can be transferred from one machine to another. Licensing and security is tied directly to the dongle, not a piece of hardware on a PC, which prevents your customer from using the software on another machine without reregistering the software. Additionally, you eliminate the complicated task of continually updating and modifying software code to stay ahead of the hackers who want to steal your software. You get paid for every copy of software being used and your customers get flexibility.

How to Evaluate Hardware Dongle Solutions...

The Top 15 Things to Demand of your Dongle Manufacturer

Product Functionality

1. **Security Methodology.** You can protect your application in two ways: 1) Through the use of a wrapper around your executable files, commonly referred to as the Shell method, or 2) through the use of functions which are embedded directly into your application code, commonly referred to as the API method. The Shell method should only be used if you do not have access to the source code but need a protection method or used in conjunction with the API method. The Shell method offers a basic level of security. Once it is broken, a generic hack can be made available and be applied to your application. The API method allows you to devise protection specific to your application. You will embed functions throughout your application based upon your needs and the creativity of your developers. Even if another software vendor's product is hacked, your application remains secure. Combining the Shell and API method within your application offers the best protection available from the dongle manufacturer.
2. **Environments Supported.** What platforms or operating systems do you need to run on? What development tools do you use? Does the dongle manufacturer support your environments?
3. **Model.** What type of dongle do you need? Serial, Serial 9 pin to 9 pin, USB, Parallel. If serial or parallel, do they need to be pass-through devices? What device drivers are needed for the model you want to use? Does it operate in HID mode?
4. **One Time Development.** You want to be able to develop your interface once and have this interface work across all dongles; serial, parallel, USB and network. You don't want to develop and maintain a separate interface for each different dongle you plan to deploy in the field.
5. **Ease of Implementation.** How easy can the dongle be integrated with your application? How long will it take to get the evaluation dongle up and running? What do you need to do to change from an evaluation version to a full production version? What material is available to help with the integration? Is there sample code available? What other training or support does the manufacturer offer to help with implementation?

6. **User Defined Memory.** How much memory is available for your specific requirements? All dongles have memory locations which are reserved for the dongle manufacturer's predefined security functions and algorithms. However, the amount of user-defined memory varies between dongles. User defined memory allows you to store information on the dongle and provides you with the flexibility to interact with the dongle according to your requirements. For example, you could use a memory location to store a variable limiting the user to certain pieces of functionality. You could then update this memory location based upon your business rules to provide access to the previously restricted functionality.
7. **Expiration Date Functionality.** Expiration date checking is typically built into the core functionality of the dongle in one of two ways: 1) A physical clock on the dongle which offers an independent time source but the clock needs a battery which is subject to failure, or 2) the use of an algorithm to set the expiration date in memory. The dongle manufacturer should offer built-in functions to check whether the system date of the computer has been tampered with and return an error code if it has. You can then determine how you want to handle the error. This date can be used within your application to set the expiration of the demo period or the expiration date for a lease/rent period.
8. **Network Capability.** Does the dongle support concurrent use or do you need to ship a dongle for each individual user? Is the dongle preconfigured for a specific number of users or do you have the ability to update it? For example, the dongle manufacturer may set a limit on the dongle which cannot be changed. Let's say the number is 20. What happens when you hit 21 users? If there is a predefined limit, you will need to buy a new dongle. Otherwise, all you would need to do is update the dongle once you collect your money from the client.
9. **Remote Update.** Can the dongle be updated in the field? You want to have the ability to update and interface with the dongle remotely. This allows you to extend an expiration date for a demo version of your software without having to ship another dongle. You can incorporate this functionality directly into your application and offer the user a menu pick or you can create a separate program or utility which you email to the end user. All dongle manufacturers will provide you with the ability to write to the dongle at your office, but you need to make sure you can write to the dongle after it has been shipped.
10. **Smart Card.** Do you need enhanced physical security characteristics as dictated by Smart Card devices? Do you need a tamper-proof device?

Reliability

11. **Field Failure Rate.** What is the field failure rate of the type of dongle you need? What is the lifetime field failure rate of the manufacturer? The field failure rate has a direct impact on your customers. If the dongles are failing in the field, there will be significant impact on your customer's ability to run your software. You want a very low field failure rate.
12. **Warranty/Guaranty.** What type of warranty is provided? What do I have to do to get a dongle replaced? How long do you need the dongle to last? The warranty should match your expectations. What if the dongle does not work? Does the dongle manufacturer make it easy for you to get a replacement or do you have to jump through several hoops just to get it replaced? You should only have to pay for dongles which actually work.
13. **Quality Assurance Process.** What does the manufacturer do to ensure quality? What type of testing is done before the dongle is shipped to you?
14. **Anonymity.** Many dongle manufacturers see the ability to leverage your customers for advertising as a real advantage to their business. But having their name plastered on the dongle that ships with your software is also an advertisement that your dongle was built by XYZ Company, exposing you to further risk of piracy by hackers who have successfully hacked this dongle on some other application.
15. **Development Team Turnover.** What has been the history of turnover within the development team of the manufacturer? High turnover and participation by large numbers of developers over time exposes their products to hacks and other security risks by disgruntled employees or others who have intimate knowledge of the manufacturer's products.
16. **Physical Properties.** What types of materials are used to prevent physical damage? Will the device last?

Price

17. **Base Price.** What is the base price of the dongle?
18. **Extra features/functionality.** Are there any additional or “up sell” fees for other features or functionality?

Customer Service

19. **Order Fulfillment.** What is the order fulfillment process? How easy does the manufacturer make it to order dongles? How long does it take to fill your order? Are there multiple shipping options available? Does the manufacturer keep you informed about the status of your order? Is there a guaranteed turnaround time? Accurate, fast order fulfillment is important when you are waiting to ship your product to your end-user.
20. **Customer Support.** What happens if you have a problem? What if one of your end-users needs help? Will your manufacturer's support process force you into an email dialogue which leaves your client up the proverbial creek, or will they work immediately and directly with you and your clients to resolve the issue quickly? What about their support staff? Are they certified developers? Do they have the expertise and experience to help you and advise you with your unique integration? What kind of ongoing education and certification standards are in place? Do they have high turnover?
21. **Standards.** Does the dongle manufacturer have any customer service/support standards? If so, what are they? How does the dongle manufacturer measure up to those standards?

Licensing

22. **Licensing Options.** Several licensing options are available and can be used in the following ways: 1) Demo/Evaluation – restrict the number of times or the timeframe a customer can run the software, 2) Lease/Rent – restrict the period for which the software can be run, 3) Software components – limit the components or modules which can be run, 4) Networked or concurrent licensing – limit the number of users who can run an application, and/or 5) Pay per use – limit the number of times an application can be run. You need to ensure the dongle has the flexibility to support the licensing model you want to implement.

Visit our website at www.keylok.com to request your free KEYLOK evaluation kit. Or to discuss your specific requirements, you can contact one of our sales representatives at (800)453.9565. Your rep will also be able to send you any additional information you need and send you your KEYLOK Evaluation Kit.

Dongle Competitive Analysis Checklist

	KEYLOK			
1. Security Methodology	Both methods supported. S-LOK for Shell method. Comprehensive set of API functions to integrate into your application code.			
2. Environments Supported	Windows and Linux. Check out www.keylok.com/support/environments for development platforms.			
3. Model	Serial, Serial 9 pin to 9 pin, USB and parallel. Serial, serial 9 pin to 9 pin and parallel are all pass-through devices. HID mode for Fortress			
4. One Time Development	All development is completely portable to all supported platforms.			
5. Ease of Implementation	Guaranteed integration with your application within 30 minutes. Extensive source code samples for supported platforms.			
6. User Defined Memory	All dongles are supplied with 112 bytes of user defined memory 120 bytes in Fortress			
7. Expiration Date Functionality	Algorithm based date functionality.			
8. Network Capability	Supports concurrent use. Dongles are not pre-configured for a set number of users. You have complete control over the number of users.			
9. Remote Update	Remote update capabilities.			
10. Smart Card	Fortress is a Smart Card device. It is EAL5+ compliant.			
11. Field Failure Rate	Lifetime field failure rate < .1%.			
12. Warranty/Guaranty	KEYLOK warrants for a period of twelve (12) months after date of purchase its software and the keys as set forth in our Agreement and License.			
13. Quality Assurance Process	Each dongle goes through over 600 individual tests before it is shipped to you.			
14. Anonymity	Complete anonymity. No manufacturer information is printed on the dongle.			
15. Development Team Turnover	The development team who created the dongle over 20 years ago are still with KEYLOK and oversee all of the development and product enhancements.			
16. Physical Properties	USB dongles have a double coating of solid materials over the circuitry. Fortress dongles are tamper-proof.			

17. Base Price	For orders of 10 – 24: Fortress \$29.00 USB \$21.00 Parallel \$16.00 Serial \$45.00 Consult www.keylok.com/pricing.html for other order sizes.			
18. Extra Features/Functionality	No extra fees or charges. All features are built into the base price.			
19. Order Fulfillment	All orders are guaranteed to ship within 24 hours of being placed. Most orders ship the same day. Orders can be placed via the web, fax or phone. Several shipping methods are available to you. Shipping status is emailed to you.			
20. Customer Support	All support reps go through a 14 step certification process before they are allowed to take your call and KEYLOK follows this with ongoing education, ensuring you get the level of support you need. All calls are guaranteed to be returned within 2 hours.			
21. Standards	All calls are returned within 2 hours if you happen to leave a message. Most calls are answered as they are received..			
22. Licensing Options	Demo/Evaluation, Lease/Rent, Software Components, Networked and/or Pay Per Use are all available with the KEYLOK dongle			