FAQ

LoJack for Laptops

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TECHNOLOGY

COMPUTRACE PERSISTENCE TECHNOLOGY

What is Computrace® persistence technology?

Computrace persistence technology consists of two components:

Application Agent: This is the part of our LoJack® for Laptops technology that you install in your computer. It maintains contact with the Absolute® Monitoring Center. When you report a theft, we communicate with the Agent to determine the location of your computer, who has it, and what they're doing with it.

It is installed in the operating system by running an installer. It makes regularly scheduled calls over the internet to the Absolute Monitoring Center and provides device and location data. The Application Agent also manages the Absolute "helper" applications to support activities like data delete commands or to aid in theft recovery.

Persistence Module: Installed in the BIOS (or the firmware) of most laptops at the factory and activated during the first call of the Application Agent to the Absolute Monitoring Center. It restores the Application Agent if it's been removed. For example, if a thief steals a computer and reinstalls the operating system, the Persistence Module restores the Agent. The Persistence Module remains dormant until the Application Agent is installed.

What is BIOS?

BIOS = basic input/output system. Its primary function is to identify and initialize system component hardware (like video display cards, hard disks, etc.). The BIOS can also be referred to as firmware. Visit the BIOS page on Wikipedia for additional information.

I understand that the Persistence Module improves persistence. What is persistence and why is it of value to me?

Persistence relates to the ability of our Agent to survive operating system re-installations, hard drive reformats, hard drive replacements and hard drive re-imaging. Persistence is critical in order to survive unauthorized removal attempts if the device is at risk. The extra level of persistence provided by the Computrace BIOS Persistence Module enables the Absolute Theft Recovery Team to track and recover computers that have been stolen even if the hard drive has been tampered with or removed. It provides customers with the highest level of software-based computer theft recovery available on the market.

The persistence capability is strongest in laptops with the Persistence Module embedded in the BIOS of the computer.

Are there different types of persistence?

There are two levels of persistence for the Computrace Agent. The highest level occurs when the persistence module is embedded into the BIOS of the computer. In this scenario, there is no additional hardware or software configuration needed for the Agent to be persistent. Computers that do not have the Computrace BIOS Persistence Module will have the software version of the persistence module installed in the partition gap on the hard drive.

How does the Persistence Module become embedded into the BIOS firmware of a computer?

Through our partnership with leading computer manufacturers, our Persistence Module is embedded in most computers during the manufacturing process.

On which computers is the Persistence Module embedded?

Here is a current list of all computers that are manufactured with our Computrace Agent embedded in the BIOS.

What if someone steals my laptop and reformats the hard drive or reloads the operating system? How does LoJack for Laptops work in this scenario?

If our Computrace Agent was embedded in the BIOS (or firmware) of your computer, and you purchased our software to activate it – then LoJack for Laptops will reinstall itself even if a system restore, hard drive reformat, or a hard drive replacement occurs.

Computers that do not have the Agent embedded in the BIOS have a less effective method of persistence. In this instance – and in order to make it more difficult for a typical thief to defeat the software – you can change the boot order in the BIOS to hard drive first and set a password to prevent access to the BIOS. This will make it difficult for thieves to reformat the hard drive, which in most scenarios will remove the Agent.

If Computrace persistence technology is embedded in the BIOS of my computer, do I still have to purchase your service?

Yes. A subscription to our service is still required. It provides you with the Application Agent you must install. This is the component that actively communicates with the Absolute Monitoring Center. The Persistence Module in the BIOS will remain in a dormant state until the Application Agent is installed in the computer.

What happens if I flash my BIOS? Will I need to reinstall the software?

No. If the Persistence Module in the BIOS has been enabled, the self-healing capability will repair the Agent software and your computer will still be protected. The enable/disable state of the Persistence Module is stored in a part of the BIOS that cannot be flashed to remove it.

Will LoJack for Laptops still work if I undergo an IMAC (install / move / add / change) process such as replacing a hard drive?

Yes. The BIOS-resident self-healing capability will survive IMAC procedures such as imaging, hard drive replacement or operating system changes, and will continue to protect your computer.

What if my computer does not have the Persistence Module embedded in the BIOS firmware?

You can easily install it in the partition gap on the hard drive of your computer. This allows the Application Agent to survive a standard operating system reinstall. However, unlike BIOS persistence, the Application Agent will not survive a hard drive swap.

Can the Computrace Agent in LoJack for Laptops be detected?

The Agent is very difficult to detect. The software runs as a non-descript service, and is not listed as an application. Nor does the product show up on the programs menu listing or as a system tray icon.

How easily can the Computrace Agent be removed from my computer?

Our Agent is one of the stealthiest and most tamper-resistant clients on the market. It is incredibly persistent and allows you to maintain a connection with your computer. If our Persistence Module was embedded in the BIOS firmware of your computer during assembly, our Agent can survive operating system re-installations, hard drive reformats and even hard drive replacements.

What if an unauthorized user still manages to delete the Computrace Agent?

Our Agent employs a self-healing technology referred to as persistence that allows the Computrace Persistence Module to essentially rebuild the Application Agent software even if the service is deleted.

What if I want to remove the Computrace Agent in LoJack for Laptops from my computer?

If the Agent has been activated and you are an authorized user with the correct password, you can submit a request to have the Agent removed from your computer within your Customer Center account.

What is the footprint, or size, of the Computrace Agent?

The Computrace Agent has a very small footprint, requiring less than 200Kb of disk space. It occupies a small amount of memory when idle, and when placing a call the Agent optimizes data transfer, which means a very low demand is placed on the network.

Is the Computrace Agent monitoring my activities on the computer?

No. The Agent is only collecting standard data points for transmission to the Monitoring Center on the next scheduled call. Further action and data point collection occur only if the computer is reported stolen by you.

I am concerned about privacy issues. What kind of information do you collect from my computer?

Standard communication between your computer and our Monitoring Center occurs once a day and consists of basic information like memory size, hard drive size, type of processor, type of operating system, user name, IP and Mac addresses. If you decide to activate the Geotechnology capabilities, it will also report on the location of your computer.

There is no active monitoring of your computer until you report a theft. After a theft is reported, your computer will contact our Monitoring Center every 15 minutes. This increased contact allows the Absolute Theft Recovery

Team to obtain specific details about where your computer is located, who is using it, and what they're doing with it.

ABSOLUTE MONITORING CENTER

How often will my computer communicate with the Absolute Monitoring Center?

Our "always on" Agent contacts the Monitoring Center once each day without any action from you. If you report your computer lost or stolen, Agent contact increases to every 15 minutes. In the event of a theft, we have Real Time Services that allow us to send an SMS message to initiate contact with the Agent in your computer versus waiting 24 hours for the next call.

I have been notified that my computer is not contacting your Monitoring Center. What should I do?

If – after reading the information in the notification email – you are still uncertain if you are protected, you may want to reinstall LoJack® for Laptops by Absolute® Software. Follow these steps:

1. From the computer you want to protect, log in to the LoJack for Laptops website using your email and password.
2. Click **Remove** from the My Subscriptions tab.
3. If you have multiple licenses assigned to your email address, click **+** next to the registration code to expand your list. Select the appropriate computer details.
4. Click **Flag for Removal**. The registration code details will indicate **Agent has been flagged for removal**.
5. Click **Install** to begin the installation process.
6. When the **Install LoJack for Laptops** page appears, click **Download** for the appropriate system (Windows or Mac).

You will receive a confirmation message when the installation is successfully completed.

Where is my data stored?

Absolute Software hosts the Absolute Monitoring Center in a co-location hosting facility owned by Telus Corporation. The Telus facility provides restricted access security, redundant high-speed access to the internet and redundant power supply to the Absolute Monitoring Center. Absolute has implemented a full backup and restore plan with nightly backups stored on a separate server and weekly offsite backups. Absolute has mandated a maximum down-time of 4 hours for website access and a maximum of 24 hours to restore the Agent communications server for a site-contained catastrophic event.

What if your server is unavailable when the Agent tries to call?

If the Computrace Agent in your computer is unable to connect to the Monitoring Server during its regularly scheduled time, it will attempt to call every 15 minutes until successful.

How do I know that the Monitoring Center is safeguarded against access to unauthorized users?
We have implemented numerous safeguards to restrict unauthorized access to the Absolute Monitoring Center. The Absolute Monitoring server can only be accessed via client-initiated Computrace Agent communications. Access requires two-way authentication ensuring only valid Computrace Agents can access the server. All Agent communications are encrypted with RC4 128-bit encryption.

CONNECTIVITY

Can the Computrace Agent in LoJack for Laptops work through firewalls (including personal firewalls) to reach the internet?
If you can browse, then LoJack for Laptops will work. Our goal is as close to zero-configuration as possible.

What kind of internet connection should I use?
LoJack for Laptops will work using any DSL, wireless, or cable internet service provider. We are also compatible with most Satellite ISPs.

Does LoJack for Laptops work on desktops?
Yes. You can install LoJack for Laptops on any desktop, laptop, or tablet computer using any of the operating systems detailed in the product system requirements.

Besides laptops, does LoJack for Laptops work on any other electronic devices such as plasma TVs, iPods, or iPhones, etc.?
LoJack for Laptops will only work on a desktop, laptop, or tablet computer.

OTHER TECHNOLOGY (Encryption, Cables, etc.)

I have encryption software and the Computrace Persistence Module embedded in the BIOS of my computer. Will I have to worry about compatibility?
No. Computers that have the Persistence Module embedded in the BIOS should have no compatibility issues with encryption products.

I have a lock and cable – why do I need LoJack for Laptops?
Locks and cables are somewhat effective as a visible deterrent to theft, but in practice cables can very easily be ripped out of a secured laptop with nothing more than a good, strong tug.

PRODUCTS & FEATURES

PRODUCTS

	Theft Recovery	Data & Device Security	Geotechnology	$1000 Service Guarantee
Premium Edition	●	●	●	●
Standard Edition	●	●	● IP Address Only	

Is there a corporate version of LoJack for Laptops?
Yes. The same technology that protects a single laptop is available for any organization with a deployment of computers. Visit our website for more information.

FEATURES

Theft Recovery

What do you mean by "Theft Recovery"?
Exactly what it says – we will help to recover your computer if it is stolen. If this happens, the Absolute Theft Recovery Team will work with local police to locate it and return it to you. We recover thousands of stolen computers each year.

How does this work?
If your computer is stolen, contact us. The next time your computer connects to the internet it will silently switch to theft mode with Agent contact increasing from once per day to every 15 minutes. This increased contact will allow the Absolute Theft Recovery Team to forensically mine your computer using a variety of procedures including key captures, registry and file scanning, geolocation, and other investigative techniques to determine who has your computer and what they're doing with it.

Most importantly, we will use our technology to pinpoint the physical location of your computer and work closely with local law enforcement to recover it.

My computer has been stolen. What should I do?

If you are a LoJack for Laptops customer with an active subscription and your computer has been stolen, you must complete the following steps:

1) Report the theft to local law enforcement as soon as possible
2) Report the theft to us. Log in to your account and complete the Report a Theft tab

The next time your computer connects to the internet, the status will shift to high alert. This will increase the frequency of contact from once per day to every 15 minutes so the Absolute Theft Recovery Team can closely track and collect information from your computer. Once we have collected enough information, we will work closely with local law enforcement to recover your property.

My computer was stolen, but I did not install your product. Are you able to recover my computer?

Unfortunately our software must be installed and activated on a computer prior to theft in order to allow the Absolute Theft Recovery team to track and recover it.

What is the Absolute Theft Recovery team?

The Absolute Theft Recovery team helps to return thousands of computes to their rightful owners each year. The team is comprised of former police officers and seasoned law enforcement professionals who have worked hard to build positive relationships with police and security agencies around the world.

What does the Absolute Theft Recovery team do?

When you report a computer theft, our Theft Recovery team jumps into action using Computrace technology to obtain specific details about where your computer is located, who is using it, and what they're doing with it.

How does the Absolute Theft Recovery Team work closely with local law enforcement?

Since our background is law enforcement, we know exactly what police officers need to carry out a successful investigation. Using our technology, we collect information and do all the paperwork – providing it to investigating officers so it can easily be used as evidence in their efforts to obtain subpoenas, search warrants, and other tools they need to solve the crime and recover your property.

I am thinking about buying a second-hand computer. Can you tell me if it is stolen?

We are unable to provide this type of information. If you are uncertain, you should contact your local law enforcement agency who can provide you with further guidance and available resources.

Data & Device Security

How will Data & Device Security help me?

Data & Device Security provides you with a variety of features that you can use to secure your device and the data it contains. Features include the ability to lock your computer to deny access to any unauthorized users.

You can also display a message on a lost or misplaced computer to aid in its return. If your device contains sensitive personal information, you can send a Delete command to wipe some or all of the data from your device.

What is a Delete command?

Delete is a feature that enables you to remotely delete sensitive data if your computer has been stolen or lost. You can set up a Delete request so that sensitive data on the computer is deleted the next time the computer calls in to the Monitoring Center. You can select some or all of the data depending on the situation and the data your computer contains.

Can the data be recovered once it has been deleted?

No. The data is not recoverable.

How does Delete work?

The Delete operation uses an algorithm that ensures all data previously contained on the magnetic media is permanently erased.

When most computers delete a file, the computer does not actually remove the contents of the file but rather unlinks the file from the file directory system, leaving the contents of the file in the disk sectors. This data will remain there until the operating system re-uses the same sectors when writing new data. Until the old data is overwritten (which may take months or even longer) it can be recovered by programs that read disk sectors directly, such as forensic software. In addition, even if a sector is overwritten, the phenomenon of data remanence (the residual physical representation of data that has been in some way erased) can make deleted data forensically recoverable.

In order to be sure that a file has been deleted properly, it is necessary to overwrite the data sectors of that file. It is not sufficient to erase or format the drive, as there are numerous forensic tools available to recover "lost" data on disk drives. This specification requires that every single location on a magnetic media device be written to three individual times, first by writing a fixed value (0x00) once, then its complement value (0xff) once, and finally random values once.

Our Delete algorithm exceeds this standard by overwriting the data 7 times (rather than 3) and by performing additional operations. The algorithm:

1. Overwrites the target area 7 times – the first 6 writes with an alternating pattern of 1s and 0s and the final write with a random value
2. Writes random data to the file
3. Changes the file attributes to "directory"
4. Changes file date/time stamp to a fixed value
5. Sets the file size to "0"
6. Changes the file name to a randomly-generated file name
7. Removes the new file name from the directory

Does the Delete capability adhere to the US Department of Defense 5220.22-M Magnetic Media Sanitizing Standard?

No. There are no software-only solutions that adhere to this standard as it requires physical destruction of the media by disintegrating, incinerating, pulverizing, shredding or melting the disk drive.

Can Absolute invoke a Delete command on my computer without my permission?

No. We cannot run a Delete command as it requires components that only a customer would possess (login/password, etc.).

How long does it take to perform a Delete request on a Windows PC?

The time it takes to perform a Delete command varies according to a number of factors on the target computer:

- Number of files
- Number of files > 100 Kbytes
- HDD speed
- Processor speed
- Available RAM
- Presence of Anti-Virus software

It takes longer to delete files than a normal (operating system level) delete because of the thoroughness of the Delete algorithm. On average, the deletion speed on a Windows XP computer with a Pentium M 1.8Ghz CPU and 504 Mb of RAM is approximately 100 MB/minute. A "typical" delete can take anywhere from two minutes to several hours, depending on the type of computer and the volume of data to be deleted.

Can a Delete command be stopped?

Once the Delete process has begun, it cannot be stopped. If a computer is rebooted during this time, the Delete process will continue where it left off.

Are hidden files also deleted from Windows PCs?

Yes.

Geotechnology

What is Geotechnology and how does it work?

Geotechnology allows you to determine the physical location of your device. You can see the location on an internet map within your Customer Center account. It's a great way to determine if your device is mislaid, lost, or on the move without your permission.

What type of technology is required to geographically locate my computer?
GPS (if your computer has a GPS receiver) or Wi-Fi technology allows you to track your computer on an internet map. You will be able to see current and historical locations. NOTE: The Standard edition of LoJack for Laptops provides IP address location information only.

What measures are in place to enhance the accuracy of the geolocation results generated by Wi-Fi networks?
There are two types of Wi-Fi networks: infrastructure and ad-hoc. Infrastructure networks use routers that are wired into a network similar to Wi-Fi routers used in offices (static locations). Ad-hoc networks are created when people set up their computers to allow other people to share their network connection. Since most ad-hoc networks are being broadcast by laptop (mobile) users, it's likely the physical location of these networks will constantly be moving which can result in some outlier hits.

Computrace geotechnology looks for and removes hits on ad-hoc networks. This limits the number of unknown or strange locations that may appear on the map in your Customer Center account.

How do I enable geotechnology?
You can do this within your Customer Center account.

Service Guarantee

What is the service guarantee and how does it work?
You will be eligible to receive up to $1000 if we are unable to recover your computer or perform the data delete service. Some conditions apply. More details are available on our Service Guarantee webpage.

With which products is the service guarantee available?
The service guarantee is available with LoJack for Laptops – Premium edition. Read the Products section of this FAQ for more information.

INSTALLATION & REGISTRATION

Is LoJack for Laptops easy to install?
LoJack for Laptops is very easy to install. The installer is a standard Microsoft MSI install package.

I did not receive a registration code with my purchase. Where is it and how do I find it?
The location of the registration code depends on how you purchased LoJack for Laptops:

- **Online purchase from** www.lojackforlaptops.com: Your registration code was provided in the order confirmation email.

- **Retail store purchase:** Check inside the box. Sometimes the registration code will appear near the barcode.
- **Bundled purchase:** Often LoJack for Laptops is provided as a part of your computer purchase. If this is the case, you should contact the computer manufacturer.

Visit the Absolute Global Support website for more information or to contact us.

I have forgotten my login information for my Customer Center account. What should I do?

You must reset your login information on the login page. Your new login information will be emailed to you.

I would like a refund. How do I request one?

We can provide refunds for products purchased from our website Refer to your purchase confirmation email for more information.

If you purchased from a retailer or directly from another vendor, please contact them regarding their refund policy.

Can I install a single license of LoJack for Laptops on more than one computer?

No. Each license is unique and can only be installed on one computer. If you have other computers that need protection you will need to purchase additional licenses.

Is the LoJack for Laptops license transferable?

Yes. The license is transferable but there are some restrictions. Read the service agreement FAQ for more information.

My license expired so I bought a new one but I am unable to install it. What should I do?

You cannot install a new license on top of an existing license – even if the existing license has expired. To correct this, contact us.

I would like to register multiple computers under one account. How do I do this?

Make sure you use the same registration information for each computer as you install the software. This will allow you to see all of your computers within a single account.