



## Testing the Digital Standard: Smart Baby Monitor

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This post is part of a [series](#) that aims to assess the Digital Standard by testing the methodology with a few representative smart devices connected to the Internet of Things. You can view and download our full methodology to conduct your own assessments, and read our assessments of other devices as the project continues.

### The Digital Standard

In 2018, New America's Open Technology Institute (OTI) launched a project to [educate people](#) about the [Digital Standard](#), a new framework for evaluating the privacy and security of internet-connected consumer products and software. The Standard was developed by a group of organizations, including [Ranking Digital Rights](#), in collaboration with [Consumer Reports](#). Building off this work, we're selecting a few representative products and apps and putting them through the tests that the Digital Standard describes. Our [methodology](#) will include exactly how we judged each indicator, including what information was needed in order to measure whether the indicator was met, where we looked for it and where we found it, and how we interpreted the inevitable vagueness and edge cases. Below you'll find information related to the first product in this series: a smart lock.

### The Smart Lock

The product for our first round of Digital Standard testing is a smart lock, which is made by a well-known company that also produces traditional interior and exterior hardware and locksets. The lock consists of a touch keypad that faces the exterior side of a door and a deadbolt facing the interior of the door. The lock does not include a keyhole to override the keypad, and therefore may only be locked and unlocked using the keypad. The smart lock interfaces with mobile devices using a mobile application, operated by a third-party company, that can also be used to operate other types of smart devices. The lock is also compatible with major home assistant products.

*Note: For the purposes of this project, we will not be revealing the manufacturer, service provider, or any other company or product names for the devices we are testing. Our goal is to develop and document a process to implement the Digital Standard, and we feel that publishing specific information about the products we are testing detracts from that process.*

## Terms of Service and Privacy Policy Documents

✓ Pass   ⚠ Partial Pass   ✗ Fail

### — Terms of Service —

Indicator	Smart Lock	Final Results
<i>The company clearly discloses which terms of service apply to the product/service in question.</i>	<ul style="list-style-type: none"> <li>The smart lock is connected using an app that manages the lock from the user's mobile device. That app is managed by a third-party company.</li> <li>The third-party company's terms of service are located on their website.</li> <li>The box in which the product is sold contains a pamphlet detailing this same information, though it isn't completely clear to a casual user that these are the only terms of service that cover all activities of the lock.</li> </ul>	✓
<i>The terms of service are easy to find.</i>	<ul style="list-style-type: none"> <li>The terms of service were listed on a small pamphlet in the smart lock box, and are also available on the website under the tab "Legal" and the tab "Terms of Service."</li> </ul>	✓
<i>The terms of service are available in the language(s) most commonly spoken by the company's users.</i>	<ul style="list-style-type: none"> <li>We cannot tell from the U.S. website in which countries the product is sold.</li> <li>The U.S. website only lists the terms of service in English.</li> <li>However, when testers traveled to Canada, they discovered that the website now showed terms of service in English and French. This may mean that websites specific to various countries display terms of service in regional languages when user's IP addresses locate them in non-English speaking countries. Testers can also try to make use of Virtual Private Networks (VPNs) to make their requests appear to come from other locations.</li> <li>This is challenging for testers, and also does not recognize that U.S.-located users may speak languages other than English.</li> </ul>	⚠
<i>The terms of service are presented in an understandable manner.</i>	<ul style="list-style-type: none"> <li>The terms of service uses examples, has definitions of terms, and although it contains legal language, it is comparatively clear.</li> </ul>	⚠

— Privacy Policy —

Indicator	Smart Lock	Final Results
<p><i>The company clearly discloses which privacy policy applies to the product/service in question.</i></p>	<ul style="list-style-type: none"> <li>• The smart lock is connected using an app that manages the lock from the user's mobile device. The website for the app shows that the device is subject to more than one privacy policy.</li> <li>• The first privacy policy listed on the website for the app refers to the policy for use of the website. Although the language could be more explicit, the privacy policy on the website for the app appears to cover all products that use this website.</li> <li>• The second privacy policy listed on their website applies to the company's products and services. They produce other smart home devices.</li> <li>• The site notes that both of these policies were updated within the last six months, and specifies that the previous policies can be found in a Google document, and it provides the URL for that document.</li> <li>• The website clearly identifies the components of the product or service to which the privacy policies apply, with two different privacy policies for the product and the website.</li> </ul>	<p>✓</p>
<p><i>The privacy policy is easy to find.</i></p>	<ul style="list-style-type: none"> <li>• The privacy policies for the app are available on the website under the tab "Legal" and then the tab "Privacy Policy."</li> </ul>	<p>✓</p>
<p><i>The privacy policy is available in the language(s) most commonly spoken by the company's users.</i></p>	<ul style="list-style-type: none"> <li>• We cannot tell from the U.S. website in which countries the product is sold.</li> <li>• The U.S. website only lists the privacy policies in English.</li> <li>• The website lists a secondary "product" privacy policy, which includes a specific note for "registered users from the UK or European Union/EEA" to describe issues specific to those jurisdictions, which indicates that they must have some users who reside there. The website does not provide a complete list of products that are subject to the "product" privacy policy, but the smart lock is a "product" and is likely included.</li> <li>• The smart lock product privacy policy also contains information about how the company complies with the EU-U.S. Privacy Shield Framework and Swiss-U.S. Privacy Shield Framework. This also indicates that there may be some users who reside in these jurisdictions. However, unless testers access a company's website from every country where users could be suspected to live, and have information on product distribution, this test cannot be completed as written.</li> </ul>	<p>✗</p>
<p><i>The privacy policy is presented in an understandable manner.</i></p>	<ul style="list-style-type: none"> <li>• The privacy policy uses examples, has definitions of terms, and although it contains significant legal language, it is comparatively clear.</li> </ul>	<p>⚠</p>

## Terms of Service and Privacy Policy Change Notification

✓ Pass   ⚠ Partial Pass   ✗ Fail

### — Terms of Service —

Indicator	Smart Lock	Final Results
<i>Commitment to notify users about changes to the terms of service.</i>	<ul style="list-style-type: none"> <li>The smart lock is connected using an app that manages the lock from the user's mobile device. That app is managed by a third-party company. The third-party company's terms of service are located on their website.</li> <li>The terms of service on the website for the third-party app that manages the lock notes that it will notify users when the company makes material revisions or modifications to these terms by posting a notice or new version of these terms on the site, and/or by directly notifying consumers.</li> </ul>	✓
<i>Disclosure of how users will be directly notified of changes to the terms of service.</i>	<ul style="list-style-type: none"> <li>The terms of service on the website for the third-party app that manages the lock notes that it will notify users when the company makes material revisions or modifications to these terms by posting a notice or new version of these terms on the site, and/or by directly notifying consumers.</li> </ul>	✓
<i>Disclosure of timeframe for notification prior to changes to the terms of service coming into effect.</i>	<ul style="list-style-type: none"> <li>The terms of service on the website for the third-party app that manages the lock states that the modifications will be effective upon posting unless otherwise indicated.</li> </ul>	✓
<i>Maintains a public archive or change log of the terms of service.</i>	<ul style="list-style-type: none"> <li>No past terms of service or changes are documented in the terms of service for the app and the policy does not contain any commitment to retain documentation about past policies for consumer reference.</li> </ul>	✗

### — Privacy Policy —

Indicator	Smart Lock	Final Results
<i>Commitment to notify users about changes to the privacy policy.</i>	<ul style="list-style-type: none"> <li>The lock is connected using an app that manages the lock from the user's mobile device. In this case, the device is subject to more than one privacy policy.</li> <li>The app manufacturer's website lists two privacy policies: one for use of the website, and one for use of the manufacturers' products and services.</li> <li>The privacy policy on the website for the third-party app that manages the lock notes that it may be updated from time to time to reflect changes to their information practices, and that users will be notified by email or other communication method. It also says that all other updates will be made through their website by means of posting an updated version of their privacy policy.</li> <li>The same language is used for the website privacy policy and device privacy policy.</li> </ul>	✓

<p><i>Disclosure of how users will be directly notified of changes to the privacy policy.</i></p>	<ul style="list-style-type: none"> <li>The privacy policy on the website for the third-party app that manages the lock notes that if the company makes any material changes to its privacy policy that users will be notified by email or other communication method. It also says that all other updates will be made through their website by means of posting an updated version of their privacy policy.</li> </ul>	<p>✓</p>
<p><i>Disclosure of timeframe for notification prior to changes to the privacy policy coming into effect.</i></p>	<ul style="list-style-type: none"> <li>The privacy policy on the website for the third-party app that manages the lock notes that modifications to the privacy policy will be effective upon the data indicated in the posting.</li> </ul>	<p>✓</p>
<p><i>Maintains a public archive or change log of the privacy policy.</i></p>	<ul style="list-style-type: none"> <li>Both the product and website privacy policies link to a document that lists the privacy policy before it was changed on April 1, 2019. It also indicates that the previous policy took effect on September 20, 2017.</li> <li>However, no privacy policy is documented prior to September 20, 2017, and there is no commitment in the privacy policy to retain documentation about past policies for consumer reference.</li> </ul>	<p>⚠</p>

## Process for Terms of Service Enforcement

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company or organization clearly explains what types of activities it does not permit.</i>	<ul style="list-style-type: none"> <li>The smart lock is connected using an app that manages the lock from the user's mobile device. That app is managed by a third-party company. The third-party company's terms of service are located on their website.</li> <li>The terms of service page includes links to "product specific" documents, with two lock products listed. Neither of them is the same as the lock we are testing, so testers must assume that only the standard terms of service apply to the smart lock in question.</li> <li>That set of terms of service includes a number of activities in the category of "Your Use of the Site and Services."</li> </ul>	✓
<i>The company or organization clearly explains why it may restrict a user's account.</i>	<ul style="list-style-type: none"> <li>The list of reasons that the company may restrict the user's account is listed in the terms of service category "Your Use of the Site and Services."</li> </ul>	✓
<i>The company or organization clearly discloses the mechanisms it uses to identify accounts that violate the rules.</i>	<ul style="list-style-type: none"> <li>There is no information included in the terms of service that describes mechanisms the company uses to identify accounts that violate the rules.</li> </ul>	✗
<i>The company or organization clearly discloses whether any non-government and non-judicial entities receive priority consideration when identifying accounts to be restricted for violating the company's rules, and if so, how that priority status is conferred.</i>	<ul style="list-style-type: none"> <li>There is no information included in the terms of service describing whether any actors would receive priority consideration when identifying accounts to be restricted for violating the company's rules, or if so, how that priority status would be conferred.</li> </ul>	✗
<i>The company or organization clearly explains its process for enforcing its rules.</i>	<ul style="list-style-type: none"> <li>There is no information included in the terms of service that describes the company's process for enforcing its rules.</li> </ul>	✗
<i>The company or organization provides clear examples to help the user understand what the rules are and how they are enforced.</i>	<ul style="list-style-type: none"> <li>There are no examples provided to help the user understand what the rules are and how they are enforced.</li> </ul>	✗

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## Transparency About Terms of Service Enforcement

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company or organization publishes data about the number of accounts it restricts or closes on its own initiative.</i>	<ul style="list-style-type: none"> <li>The smart lock is connected using an app that manages the lock from the user's mobile device. That app is managed by a third-party company. The third-party company's terms of service are located on their website.</li> <li>The terms of service page includes links to "product specific" documents, with two lock products listed. Neither of them is the same as the lock we are testing, so testers must assume that only the standard terms of service applies to the smart lock product in question.</li> <li>The terms of service list a number of activities in the category of "Your Use of the Site and Services."</li> <li>There is no information about reporting requirements and processes included in the product terms of service.</li> <li>The app provider does not publish a transparency report.</li> </ul>	✗
<i>The company or organization publishes data about the number of accounts it restricts or closes as a result of a government request.</i>	<ul style="list-style-type: none"> <li>There is no information about reporting requirements and processes included in the smart lock's terms of service.</li> <li>The app provider does not publish a transparency report.</li> </ul>	✗
<i>The company or organization publishes data about the number of accounts it restricts or closes as a result of a request from private third parties.</i>	<ul style="list-style-type: none"> <li>There is no information about reporting requirements and processes included in the smart lock's terms of service.</li> <li>The app provider does not publish a transparency report.</li> </ul>	✗
<i>The company or organization clearly discloses that it notifies users when it restricts or closes user accounts.</i>	<ul style="list-style-type: none"> <li>There is no information about user notification processes included in the smart lock's terms of service.</li> <li>The app provider does not publish a transparency report.</li> </ul>	✗

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# Identity Policy

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<p><i>The company does not require users to verify their identity with their government-issued identification, or with other forms of identification that could be connected to their offline identity.</i></p>	<ul style="list-style-type: none"><li>• Users are not required to submit government-issued ID.</li><li>• There is no requirement in the terms of service that users use their legal names.</li><li>• However, the terms of service identifies a list of types of information that users may provide when dealing with customer support. This includes name, phone number, email address, postal addresses, credit card or other billing information, and any feedback.</li><li>• In order to set up an account the app requires users to verify their account using a phone number and email address. Although any number or email could be used, users must have access to these accounts in order to verify.</li><li>• Theoretically you are not required to use your legal name, and could provide false information without violating the terms of service, but information required upon account set up like a valid phone number and email address could be used to link to an offline identity.</li></ul>	<p>⚠</p>

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## Security Oversight

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company has systems in place to limit and monitor employee access to user information.</i>	<ul style="list-style-type: none"><li>The privacy policy and all other documentation available on the company website does not describe employee access policies, or identify ways that employees are limited from accessing user information.</li></ul>	✗
<i>The company has an internal security team that conducts security audits on the company's products and services.</i>	<ul style="list-style-type: none"><li>The privacy policy and all other documentation available on the company website does not describe internal review processes or audits, or indicate whether there are specific employees responsible for conducting them.</li></ul>	✗
<i>The company commissions third-party security audits on its products and services.</i>	<ul style="list-style-type: none"><li>The privacy policy and all other documentation available on the company website does not describe third-party review processes or audits.</li></ul>	✗
<i>The company ensures that third-parties who process data on behalf of the company implement the required technical and organizational measures to protect user data.</i>	<ul style="list-style-type: none"><li>The privacy policy and all other documentation available on the company website does not describe third-party requirements for data protection practices.</li></ul>	✗

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## Third-Party Requests for User Data

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company explains its process for responding to non-judicial government requests.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy includes a broad category titled "When We May Share Information."</li> <li>One of the listed situations is "when required by law," but there is no description of what process the company follows for determining how to respond to non-judicial government requests.</li> <li>Companies can be legally required to share information with governments through non-judicial requests such as subpoenas, so this statement is a minimum disclosure notifying users that they may disclose information through non-judicial government requests.</li> <li>However, this disclosure is not specified within the privacy policy, and other than listing government requests as a category of information, the privacy policy does not describe any process for responding.</li> </ul>	✗
<i>The company explains its process for responding to court orders.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy has a broader category titled "When We May Share Information."</li> <li>One of the listed situations is "when required by law."</li> <li>The policy does not discuss whether "when required by law" is describing the receipt of a court order, or whether some other legal mechanism could be used to force information sharing.</li> <li>Other than listing government requests as a category of information, the privacy policy does not describe the types of requests or a process for responding.</li> </ul>	✗
<i>The company explains its process for responding to requests from foreign jurisdictions.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy includes a broad category titled "When We May Share Information," which indicates that they may share information "when required by law." However, it does not distinguish between domestic and foreign jurisdiction requests, nor does it describe any process for responding to any such requests.</li> </ul>	✗

<p><i>The company explains its process for responding to requests made by private parties.</i></p>	<ul style="list-style-type: none"> <li>• The smart lock's privacy policy includes a broad category titled "When We May Share Information."</li> <li>• Listed situations that may apply to "private parties" are: (1) Organizations affiliated with the parent company. (2) Third party service providers that provide billing services, website functionality, facilitate communications, enable customer support, and other services connected to the website or communications. (3) With user consent, such as when they enable an account integration with any of the company's other services. (4) To a buyer or a potential future buyer of the business.</li> <li>• Although the company provides some detail about the circumstances in which they will share user information with private third parties, the policy does not discuss a process for this sharing, merely that the company may share information with the listed parties.</li> <li>• The policy does note that the company may choose to aggregate or anonymize use information and share it with partners or others for market research or other business purposes.</li> <li>• The policy also specifies that the company will only share user information with third-party service providers only to the extent necessary to support their products or provide the contracted services.</li> <li>• The privacy policy does not go into detail about a process for responding to requests. The list included in the privacy policy seems to apply to proactive sharing of user data, not reactive in response to a request.</li> </ul>	<p>✗</p>
<p><i>The company's explanations include the legal basis under which it may comply.</i></p>	<ul style="list-style-type: none"> <li>• The smart lock's privacy policy includes a broad category titled "When We May Share Information."</li> <li>• Although the policy lists situations in which the company will share information, it does not provide any information about compliance with requests.</li> </ul>	<p>✗</p>
<p><i>The company commits to carry out due diligence on requests before deciding how to respond and to push back on unlawful requests.</i></p>	<ul style="list-style-type: none"> <li>• The smart lock's privacy policy contains a broad category titled "When We May Share Information."</li> <li>• Although the policy lists situations in which the company will share information, it does not provide any information about any process to assess the legality of requests or how the company determines its compliance with requests.</li> </ul>	<p>✗</p>
<p><i>The company provides guidance or examples of implementation of its process.</i></p>	<ul style="list-style-type: none"> <li>• The smart lock's privacy policy includes a broad category titled "When We May Share Information."</li> <li>• There are no examples about how these information sharing processes may be implemented.</li> </ul>	<p>✗</p>

# Data Control

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The definition of "user information" includes information collected from third-parties.</i>	<ul style="list-style-type: none"> <li>• There is no definitions section in privacy policy, but third party information is covered in the "Information We Collect" list, covering cases where the owner integrates product with other products.</li> <li>• Third party information is not exempted from general owner rights laid out elsewhere in the policy.</li> </ul>	✓
<i>Users can control the collection of their information.</i>	<ul style="list-style-type: none"> <li>• The privacy policy for the smart lock has a number of instances where information is collected that seems possibly extraneous to the operation of the product, but which is not explicitly described as controllable by the owner.</li> <li>• In particular, there is no method by which to prevent the service from keeping a log of who locked or unlocked the lock and when.</li> <li>• Owner control of information is explicitly granted in specific cases, namely in the collection of location information.</li> </ul>	⚠
<i>Users can delete their information.</i>	<ul style="list-style-type: none"> <li>• The privacy policy instructs users on how to delete their information using the affiliated app.</li> <li>• The privacy policy indicates that users may delete all affiliated data, though doing so will result in termination of the service.</li> </ul>	✓
<i>Users can control how their information is used to target advertising.</i>	<ul style="list-style-type: none"> <li>• The privacy policy does not include targeted advertising as a use of customer information gathered through the operation of the product.</li> <li>• The privacy policy does indicate that targeted advertising through a third party happens on the manufacturer's website.</li> <li>• The privacy policy includes information on how to opt out of the website targeted advertising.</li> </ul>	✓
<i>Clear explanation of how users can control whether their information is used for targeted advertising.</i>	<ul style="list-style-type: none"> <li>• The privacy policy does not include targeted advertising in the list of uses of personal data gathered from the device itself.</li> <li>• The privacy policy instructs visitors on how to use the Direct Marketing Association's opt-out mechanism to stop targeted advertising on the manufacturer's website.</li> </ul>	✓

<p><i>Users can obtain a copy of their information.</i></p>	<ul style="list-style-type: none"> <li>• The privacy policy explicitly gives users the ability to “review” their information by logging into their online account.</li> <li>• It is not clear whether or not the online account presents the entirety of the information that the company collects about users.</li> </ul>	
<p><i>Disclosure of what user information users can obtain.</i></p>	<ul style="list-style-type: none"> <li>• While the privacy policy does give users the ability to obtain their own data from the service, it is not specific about what data is available, and the language used is confusing.</li> </ul>	
<p><i>Users can obtain their information in a structured data format.</i></p>	<ul style="list-style-type: none"> <li>• The privacy policy does not indicate that user downloads are available in a structured format, except in an aside to the company’s European Union- and United Kingdom-based customers, as is required under the EU’s General Data Protection Regulation.</li> <li>• However, the data download offered by the provider contains entries in a structured format (specifically in a comma separated values format), which fulfills the requirement of this indicator.</li> </ul>	
<p><i>Users can obtain all public-facing and private user information the company holds about them.</i></p>	<ul style="list-style-type: none"> <li>• The privacy policy does not indicate that users have the ability to obtain all public-facing and private information about themselves.</li> </ul>	
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# Data Collection

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>Disclosure of the type of user information collected.</i>	<ul style="list-style-type: none"><li>The privacy policy is detailed in what it collects, offering categories expanded by examples, and emphasizing the privacy risks of voluntarily connecting the product to services offered by other parties.</li></ul>	✓
<i>Disclosure of how user information is collected.</i>	<ul style="list-style-type: none"><li>The terms of service for the smart lock do not include what methods are used to collect the user information that they list as collecting.</li><li>Many of the types of information listed are not collected in any single obvious way.</li></ul>	✗
<i>Test the product's sensors to determine whether they give clear indication when they become activated.</i>	<ul style="list-style-type: none"><li>The only sensor in our test lock is a Bluetooth receiver used for proximity sensing the user's phone if the user has enabled the auto-lock or auto-unlock features.</li><li>There is no indication at the lock that a sensor is activated, but when the user gets within range, the door audibly unlocks and the keypad lights up.</li><li>These indications, in addition to the opt-in nature of the auto-lock and -unlock features and the informative setup flow for those features within the app, are an adequate indication for a Bluetooth beacon.</li></ul>	✓

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# Minimal Data Collection

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<p><i>The user information collected is only that which is directly relevant and necessary for the service.</i></p>	<ul style="list-style-type: none"><li>• The smart lock's legal documents are explicit about each type of data collected and how it is used with regard to the operation of the lock.</li><li>• Note that the legal documents do refer to the possibility that the manufacturer may collect unspecified data from third parties if the owner decides to connect their lock with other products.</li><li>• This information is understandably hard to define in a privacy policy, as it depends on the third party and the functionality of the third party product.</li><li>• Regardless, there could have been more detail in this element, even if only through examples.</li></ul>	<p>⚠</p>
<p><i>Product still works when all permissions not relevant to product's functionality are declined.</i></p>	<ul style="list-style-type: none"><li>• The smart lock upon factory reset is set to collect the minimum amount of data necessary to function, mainly the user's name, phone number, and email address.</li><li>• If a user does not wish to be able to control the lock from a smart phone, the keypad on the lock will operate as designed even in the absence of that personal information.</li></ul>	<p>✓</p>

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## Data Use

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company puts limits on the use of my data that are consistent with the purpose for which the data is collected.</i>	<ul style="list-style-type: none"><li>• The smart lock's privacy policy includes permitted uses of personal information that are not reflected in the purposes for which the data is collected.</li><li>• In particular, the privacy policy includes "market research" as an intended use of the data, but does not mention it as a purpose of collection.</li></ul>	✗
<i>The company explicitly discloses every way in which it uses my data.</i>	<ul style="list-style-type: none"><li>• The smart lock and accompanying app do not appear to demonstrate any uses of data not disclosed in the privacy policy.</li></ul>	✓

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## Data Retention and Deletion

✓ Pass   ⚠ Partial Pass   ✗ Fail

— Criteria: The company retains data only as long as relevant and reasonably necessary to provide service to me. —

Indicator	Smart Lock	Final Results
<i>The company on its own deletes outdated and unnecessary personal information, or renders that data to be reasonably de-identified.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy states that personal information will be deleted after it becomes unnecessary for the purposes of dealing with a request to the company or for the purposes of dealing with a user's account or relationship with the company.</li> <li>However, in the case of lock activity the provider says it may keep data for "at least ninety days" and does not give an upper limit on the retention period.</li> </ul>	⚠
<i>The company provides specific retention periods for different types of information that are reasonably scoped to get rid of outdated and unnecessary personal information.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy indicates that most of the data that the service collects will be deleted after it is no longer needed to provide the service.</li> <li>The lock's privacy policy states, however, that some types of data will be kept for "at least ninety days after account deletion" which is vague and open-ended.</li> </ul>	⚠

— Criteria: I can delete the data the company has about me that is not needed to provide the service. —

Indicator	Smart Lock	Final Results
<i>The company offers easy-to-find and -use controls that allow users to delete data not necessary to render service.</i>	<ul style="list-style-type: none"> <li>Neither the smart lock app nor the web interface offer the ability to delete user data short of the deletion of the entire user.</li> </ul>	✗

— Criteria: My account and information are deleted when I leave the service. —

Indicator	Smart Lock	Final Results
<i>All user information is deleted when the user's service is terminated, or the service no longer operates.</i>	<ul style="list-style-type: none"> <li>The smart lock's privacy policy states that users' personal information will be deleted upon request, but it allows for the service to retain some specific types of data for "at least ninety days" and doesn't specify under what circumstances the retention would exceed that period.</li> <li>The lock's privacy policy does not address what happens to personal data in the event that the company ceases operation.</li> </ul>	✗

## Threat Notification

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company will notify the relevant authorities without undue delay when a data breach occurs.</i>	<ul style="list-style-type: none"><li>The smart lock's manufacturer's legal documents contain no commitment to inform relevant authorities in the event of a data breach.</li></ul>	✗
<i>The company clearly discloses its process for notifying data subjects who might be affected by a data breach.</i>	<ul style="list-style-type: none"><li>The lock's manufacturer's legal documents do not describe how they will go about notifying affected data subjects in the event of a data breach.</li></ul>	✗
<i>The company clearly discloses what kinds of steps it will take to address the impact of a data breach on its users.</i>	<ul style="list-style-type: none"><li>The lock's manufacturer's legal documents do not describe any steps they will take in the event of a data breach to address the impact on its users.</li></ul>	✗

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## User Notification About Third-Party Requests for User Information

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company notifies users when government entities (including courts or other judicial bodies) request their user information.</i>	<ul style="list-style-type: none"><li>The legal documents relevant to the smart lock do not mention any notifications to the user in the case of governmental requests for data.</li></ul>	✗
<i>The company notifies users when private parties request their user information.</i>	<ul style="list-style-type: none"><li>The legal documents relevant to the smart lock do not mention any notifications to the user in the case of private party requests for user data.</li></ul>	✗
<i>The company clearly discloses situations when it might not notify users, including a description of the types of government requests it is prohibited by law from disclosing to users.</i>	<ul style="list-style-type: none"><li>The legal documents relevant to the smart lock do not mention any situations in which they would not notify users of requests for data.</li></ul>	✗

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## Transparency Reporting

✓ Pass    ⚠ Partial Pass    ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company lists the number of requests it receives by country.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists the number of requests it receives for stored user information and for real-time communications access.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists the number of accounts affected.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists whether a demand sought communications content or non-content or both.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company identifies the specific legal authority or type of legal process through which law enforcement and national security demands are made.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company includes requests that come from court orders.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists the number of requests it receives from private parties.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists the number of requests it complied with, broken down by category of demand.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company lists what types of government requests it is prohibited by law from disclosing.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The company reports this data at least once per year.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗
<i>The data reported by the company can be exported as a structured data file.</i>	<ul style="list-style-type: none"> <li>The manufacturer does not produce a transparency report that we could find.</li> </ul>	✗

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# Governance

✓ Pass    ⚠ Partial Pass    ✗ Fail

Indicator	Smart Lock	Final Results
<i>Explicit and clearly articulated policy commitment to human rights, including freedom of expression and privacy.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policies or other documentation expressing a commitment to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>The board of directors exercises formal oversight over how company practices affect freedom of expression and privacy.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policies or other documentation describing board-level oversight processes relating to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>An executive-level committee, team, program or officer oversees how company practices affect freedom of expression and privacy.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policies or other documentation describing executive-level oversight processes relating to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>A management-level committee, team, program or officer oversees how company practices affect freedom of expression and privacy.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policies or other documentation describing management-level oversight processes relating to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>Provides employee, volunteers or other staff training on freedom of expression and privacy issues.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation employee, staff, or volunteer training processes relating to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>Maintains a whistleblower program through which employees, volunteers or other staff can report concerns related to how the company treats its users' freedom of expression and privacy rights.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing an employee whistleblower program.</li> </ul>	✗
<i>As part of its decision-making, considers how laws affect freedom of expression and privacy in jurisdictions where it operates.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing consideration of laws in the jurisdiction and how they impact freedom of expression and privacy, in its decision-making processes.</li> </ul>	✗
<i>Regularly assesses free expression and privacy risks associated with existing products and services.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing assessment processes for existing products and services regarding risks to human rights, including freedom of expression and privacy.</li> </ul>	✗
<i>Assesses free expression and privacy risks associated with a new activity, including the launch and/or acquisition of new products or services or entry into new markets.</i>	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing assessment processes for new products, services, or activities regarding risks to human rights, including freedom of expression and privacy.</li> </ul>	✗

Assesses free expression and privacy risks associated with the processes and mechanisms used to enforce its Terms of Service.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation discussing evaluation of freedom of expression and privacy risks when enforcing its terms of service.</li> </ul>	X
Conducts in-depth due diligence wherever the company's risk assessments identify concerns.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation disclosing that it conducts due diligence regarding concerns raised in any risk assessments in formal policy documents or in other communications that reflect official company policy.</li> </ul>	X
Senior executives and/or members of the company's board of directors review and consider the results of assessments and due diligence in decision-making for the company.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing executive or board-level review processes relating to conducting or using assessments of risks to human rights, including freedom of expression and privacy, and due diligence in decision-making.</li> </ul>	X
Conducts assessments on a regular schedule.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing any timeline or interval on which they conduct human rights impact assessments.</li> </ul>	X
The company initiates or participates in meetings with stakeholders that represent, advocate on behalf of, or are people directly and adversely impacted by the company's business.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing consultation with stakeholders that represent, advocate on behalf of, or are people directly and adversely affected by the company's business.</li> </ul>	X
Clear disclosure of processes for receiving complaints.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing a process for receiving human rights or privacy complaints. It does have mechanisms for seeking support from the company, but not complaints specifically. It does have information describing how to register Privacy Shield complaints, but those are with a third party and specific to Privacy Shield.</li> </ul>	X
Clear disclosure of process for responding to complaints.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation describing a process for responding to human rights or privacy complaints it receives.</li> </ul>	X
The company reports on the number of complaints received.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation reporting the number of human rights or privacy complaints it receives.</li> </ul>	X
The company provides evidence that it is responding to complaints.	<ul style="list-style-type: none"> <li>The service provider has no language in any of its policy or other documentation providing evidence that it is responding to human rights or privacy complaints it receives.</li> </ul>	X

## Open Source

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<p><i>Software is open source, meaning published under a license approved and listed by the Open Source Initiative.</i> <i>(<a href="https://opensource.org/licenses/alphabetical">https://opensource.org/licenses/alphabetical</a>)</i></p>	<ul style="list-style-type: none"><li>• In the category called “terms notices” the product says that it may contain third-party software, including open source software, and that the third-party software is subject to its own applicable license terms.</li><li>• The website includes a link to a separate document that contains a list of the types of third-party software used, which are specifically open source, and the licenses or copyright information for each.</li></ul>	<p>✓</p>

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## Interoperability

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The manufacturer does not use software, copyright, or other devices to restrict the use of products and services that would otherwise be possible to use with your existing products (e.g., set-top boxes, third party applications, etc.).</i>	<ul style="list-style-type: none"><li>• The smart lock's manufacturer has a page on their website detailing the products from other manufacturers that interoperate with the smart lock.</li><li>• But, there is no information about the API that we could find, nor information about who a third party manufacturer should contact to begin interoperating with the lock.</li></ul>	⚠

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## Ownership

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company does not retain any control or ownership over the operation, use, inputs, or outputs of the product after it has been purchased by the consumer.</i>	<ul style="list-style-type: none"><li>• The app associated with the smart lock relies on a third party server run by the manufacturer in order to operate and the manufacturer details conditions in their terms of service under which it may terminate a purchaser's access to the manufacturer's servers.</li></ul>	✗

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## Resale

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>If a consumer sells the product on the private market, the new owner has access to the full functionality of the original product.</i>	<ul style="list-style-type: none"><li>• There is no indication that a subsequent purchaser cannot take ownership of a second-hand lock, and the manufacturer's FAQs include information on resetting a lock for sale.</li></ul>	✓
<i>The company does not restrict the transfer of ownership.</i>	<ul style="list-style-type: none"><li>• The lock's legal documents do restrict the resale of the software accompanying the lock, but this seems to refer to attempting to sell the mobile app as if it were developed by the purchaser in order to make money.</li><li>• In addition, the privacy policy for the lock has instructions on how to disable an account with the service in the case of the product being sold, and the FAQ has instructions for resetting the lock to factory defaults on the same occasion.</li></ul>	✓

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# Functionality Over Time

✓ Pass    ⚠ Partial Pass    ✗ Fail

Indicator	Smart Lock	Final Results
<i>The product life cycle is communicated to the potential owner before purchase.</i>	<ul style="list-style-type: none"> <li>While the lock's manufacturer offers a warranty on the operation of the physical lock as well as the electronics of the "smart" portion of the lock, nowhere in the documentation is there any statement that the service will continue to be available for a set period of time.</li> </ul>	✗
<i>Every feature of the product will continue to work the stated product life cycle; that is, the manufacturer will not 'brick' certain parts of the product during that time frame.</i>	<ul style="list-style-type: none"> <li>The manufacturer of the lock makes no explicit claims about the life cycle of the lock, however it does have the ability to unilaterally disable some of the lock's functionality due to its reliance on the manufacturer's servers to lock and unlock.</li> </ul>	✗
<i>The manufacturer will not cease to support the functionality I come to expect during the product life cycle.</i>	<ul style="list-style-type: none"> <li>The manufacturer of the lock does not provide a life cycle for the lock, and therefore does not promise to support its functionality through the life cycle.</li> </ul>	✗
<i>Replacement services will exist if the manufacturer ceases to support the functionality during the product life cycle.</i>	<ul style="list-style-type: none"> <li>The lock manufacturer does not provide for a product life cycle, nor does it address the existence of replacement services should it cease to support the lock's functionality.</li> </ul>	✗
<i>The company commits that, in the event the company is sold or acquired, the new owner will maintain the intended functionality for the full product life cycle.</i>	<ul style="list-style-type: none"> <li>The lock manufacturer makes no claims about the actions of any future owner of the company.</li> </ul>	✗

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## Privacy by Default

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>Targeted advertising is off by default.</i>	<ul style="list-style-type: none"><li>• The smart lock itself does not engage in targeted advertising, but the smart lock manufacturer's website does, according to the privacy policy.</li><li>• The targeted advertising is by default enabled, and only offers an opt-out mechanism in the privacy policy.</li></ul>	✗
<i>User interface settings which are optimal for privacy are set by default.</i>	<ul style="list-style-type: none"><li>• The smart lock keeps a log of every time it is locked or unlocked, and by whom, if it can tell. These logs are kept by default, which is not the optimal privacy setting.</li></ul>	✗

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# Best Build Practices

✓ Pass
⚠ Partial Pass
✗ Fail

Indicator	Smart Lock	Final Results
<p><i>The product was built with effectively implemented safety features.</i></p>	<ul style="list-style-type: none"> <li>• Best build practice 1: The code inspection returned five security related permissions issues, including the potential to provide sensitive data to other apps.</li> <li>• Best build practice 2: The lock app does not use signature-based permissions.</li> <li>• Best build practice 3: The lock's app generally specifies restrictions on data sharing, though the app has some configuration errors that leave parts of the potentially oversharing data with other apps on the device.</li> </ul>	<p>✗ ✗ ✗</p>
<p><i>The software does not make use of unsafe functions or libraries.</i></p>	<ul style="list-style-type: none"> <li>• The lock's app generates 12 warnings, and 2 errors for correctness. The warnings are mostly for version mismatch errors, the errors are namespace issues. The general section flags 9,224 syntax errors.</li> </ul>	<p>✗</p>
<p><i>The software is not overly complex.</i></p>	<ul style="list-style-type: none"> <li>• The lock contains a lot of code. The APK file is 75M. While it has a very large class tree, and pulls in a number of third-party Java classes, they all seem plausible for the functionality of a smart lock, or a sibling device such as a doorbell camera.</li> </ul>	<p>✓</p>

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# Authentication

✓ Pass
⚠ Partial Pass
✗ Fail

— Criteria: A product has an authentication system that corresponds to the sensitivity of the user data it manages. —

Indicator	Smart Lock	Final Results
<i>If a product supports user accounts, it has an authentication system for accessing those accounts.</i>	<ul style="list-style-type: none"> <li>The app requires the creation of an account on their system, and the creation of a password before allowing any further action.</li> </ul>	✓
<i>If a product is packaged with an account with default credentials, those credentials are unique to the instance of the product.</i>	<ul style="list-style-type: none"> <li>The app does not have default credentials, you are instead forced to create new credentials in order to do anything.</li> </ul>	✓
<i>If a product has an authentication system, the user must authenticate each time they want to use the product.</i>	<ul style="list-style-type: none"> <li>The app does not make you reauthenticate after restarts or reboots of the device.</li> </ul>	✗
<i>If a product has an authentication system, it requires at least two pieces of information to authenticate users.</i>	<ul style="list-style-type: none"> <li>The app requires an email address, password, and SMS number. It sends verification codes to the email address, as well as via SMS.</li> </ul>	✓
<i>For products that handle sufficiently sensitive data, users can choose to use multi-factor authentication.</i>	<ul style="list-style-type: none"> <li>The app handles potentially sensitive data, such as locational information, and has far reaching permissions, and there does not appear to be an option to allow multi-factor authentication within the app.</li> </ul>	✗
<i>For products that handle sufficiently sensitive data, users can choose to use multi-factor authentication whenever the product is activated, or when a device is unrecognized.</i>	<ul style="list-style-type: none"> <li>There does not appear to be an option to allow regular multi-factor authentication within the app.</li> </ul>	✗
<i>If the product uses a password/passphrase for authentication, it requires that passwords are at least 8 characters long.</i>	<ul style="list-style-type: none"> <li>The app requires the password to be at least 8 characters.</li> </ul>	✓
<i>If the product uses a password/passphrase for authentication, the password/passphrase may be at least 20 characters long.</i>	<ul style="list-style-type: none"> <li>The app did not enforce an upper limit on any of the tested passphrases.</li> </ul>	✓

<p><i>If the product uses a password/passphrase for authentication, it requires that passwords are reasonably complex.</i></p>	<ul style="list-style-type: none"> <li>The app requires passwords to be 8 characters long, and requires one each of an upper-case letter, a lower-case letter, a number, and a special character.</li> </ul>	<p>✓</p>
<p><i>If the product uses a password/passphrase for authentication, it allows all reasonable characters as input.</i></p>	<ul style="list-style-type: none"> <li>The app allowed all special characters that were attempted.</li> </ul>	<p>✓</p>
<p><i>If the product uses a password/passphrase for authentication, it is compatible with popular password managers.</i></p>	<ul style="list-style-type: none"> <li>On the login screen, the app allowed the copy/paste function from a password manager to input username and password.</li> </ul>	<p>✓</p>
<p>— Criteria: A product that has an authentication system resists attempts to break it. —</p>		
Indicator	Smart Lock	Final Results
<p><i>The product allows users to be notified via an out-of-band medium when account security settings are changed.</i></p>	<ul style="list-style-type: none"> <li>The app does not allow for or send out-of-band notifications, such as by email or text message, whenever a user changes a security setting.</li> </ul>	<p>✗</p>
<p><i>To change a password/passphrase/pin, a user must enter the previous password/passphrase/pin, or have access to a secondary system that is used to reset it.</i></p>	<ul style="list-style-type: none"> <li>Logged in: When you are already signed into the app, it does not require entering an old password, or confirmation via a secondary system to change a password.</li> <li>Not logged in: When you are not logged in and click “forgot my password,” the app requires a mobile number, or an email address.</li> </ul>	<p>✗ ✓</p>
<p><i>The product notifies users when account security settings have changed.</i></p>	<ul style="list-style-type: none"> <li>The app does not notify users when account security settings have changed.</li> </ul>	<p>✗</p>
<p><i>If the product has an authentication system, it also has a system to prevent brute-force/dictionary attacks.</i></p>	<ul style="list-style-type: none"> <li>The app does not seem to limit the number of login attempts in any way.</li> </ul>	<p>✗</p>
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# Encryption

✓ Pass   ⚠ Partial Pass   ✗ Fail   NA

Indicator	Smart Lock	Final Results
<i>Transmission of user communications or information is encrypted by default.</i>	<ul style="list-style-type: none"> <li>• Test 1: The site advertised “two-layer encryption” as well as an “additional encryption mode.”</li> <li>• Test 2: The lock uses TLS v 1.2 encryption by default for all communication with the manufacturer’s servers.</li> </ul>	⚠ ✓
<i>Transmission of user communications or information is encrypted using unique keys.</i>	<ul style="list-style-type: none"> <li>• The lock uses new session keys when establishing encrypted connections with the server.</li> </ul>	✓
<i>Users can secure their content using end-to-end encryption.</i>	<ul style="list-style-type: none"> <li>• This app does not provide an interface for enabling or disabling end-to-end encryption. However, it also only communicates with the provider’s servers, and does not allow users to create or share content.</li> </ul>	NA
<i>End-to-end encryption is enabled by default.</i>	<ul style="list-style-type: none"> <li>• The app offers no ability for the user to communicate with other users, or directly with the company.</li> </ul>	NA
<i>User information and communications are encrypted by default when at rest.</i>	<ul style="list-style-type: none"> <li>• The lock app does record logins to the local phone storage, and does not encrypt that data at rest. It does not record any other data on the device after configuration or use. This information alone reveals no information about the user.</li> </ul>	NA

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## Known Exploit Resistance

✓ Pass   ⚠ Partial Pass   ✗ Fail   NA

Indicator	Smart Lock	Final Results
— Browsers —		
<i>The software is secure against known bugs and types of attacks.</i>	<ul style="list-style-type: none"><li>• While the evaluation of browsers makes sense for devices such as tablets or phones, most IoT devices will not ship with browsers.</li><li>• The lock does not use a browser.</li></ul>	NA
— Apps —		
<i>The software is secure against known bugs and types of attacks.</i>	<ul style="list-style-type: none"><li>• The app had a CVE from 2018, but appears to have been updated to address the vulnerability.</li></ul>	✓
— Connected Devices —		
<i>The software is secure against known bugs and types of attacks.</i>	<ul style="list-style-type: none"><li>• We were not able to obtain the firmware on either the lock nor the wireless device that connects the lock and a user's home network, so we could not run this test.</li></ul>	<i>unable to run test</i>

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## Vulnerability Disclosure Program

✓ Pass   ⚠ Partial Pass   ✗ Fail

Indicator	Smart Lock	Final Results
<i>The company has a mechanism (ex: a bug bounty program) through which security researchers can submit vulnerabilities they discover.</i>	<ul style="list-style-type: none"><li>The product website does not include any information about processes or mechanisms for disclosing found vulnerabilities to the company.</li></ul>	✗
<i>The company discloses the timeframe in which it will review reports of vulnerabilities.</i>	<ul style="list-style-type: none"><li>The product website does not include any information about processes or mechanisms for disclosing found vulnerabilities, and does not include any information about timeframes for review.</li></ul>	✗
<i>The company commits not to pursue legal action against security researchers.</i>	<ul style="list-style-type: none"><li>The product's terms of service specifically outline activities that would violate these terms, many of which are part of regular security research processes, such as probe, scan, attempt to gain the source code, and test the vulnerability of any device, service, software, system or network.</li><li>The terms of service also assert the right to investigate violations and consult and cooperate with law enforcement to prosecute users.</li><li>The product's end user agreement restricts users from disassembling, reverse compiling, or reverse engineering the product, without any exclusion for security research purposes.</li></ul>	✗

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## Security Over Time

✓ Pass    ⚠ Partial Pass    ✗ Fail

Indicator	Smart Lock	Final Results
<i>The product life cycle is communicated to the potential owner before purchase.</i>	<ul style="list-style-type: none"> <li>The product's warranty warrants the device against defects in materials and workmanship under normal use for a period of one year from the date of purchase.</li> <li>The end user agreement addresses the product's software, and does not describe any timeline for commitments to service or update the software.</li> </ul>	✗
<i>Software updates are authenticated.</i>	<ul style="list-style-type: none"> <li>The product's end user agreement addresses the product's software, and does not describe any method or process for authenticating updates.</li> </ul>	✗
<i>Automatic software updates.</i>	<ul style="list-style-type: none"> <li>The product's end user agreement indicates that the product will, without additional notice, check for automatic updates, and that the product will let the company know that the updates have been installed.</li> <li>The end user agreement further states that users will receive updates automatically, and that the only way for them to decline these updates is to cease using the device.</li> </ul>	✓
<i>Notification of software update.</i>	<ul style="list-style-type: none"> <li>The product's end user agreement indicates that the product will, without additional notice, check for automatic updates.</li> <li>Users will receive updates automatically.</li> <li>No information is available describing notification or processes for notification about updates.</li> </ul>	✗

# Product Stability

Indicator	Smart Lock	Final Results
<i>The software is not susceptible to crashes.</i>	<ul style="list-style-type: none"><li>• We did not run the tests in enough permutations on the lock app to have conclusive results.</li></ul>	<i>unable to run test</i>
<i>If the program is forced to unexpectedly terminate, it shuts down in a safe and responsible fashion.</i>	<ul style="list-style-type: none"><li>• We did not run the tests in enough permutations on the lock app to have conclusive results.</li></ul>	<i>unable to run test</i>
<i>The software is not vulnerable to algorithmic complexity attacks.</i>	<ul style="list-style-type: none"><li>• We did not run the tests in enough permutations on the lock app to have conclusive results.</li></ul>	<i>unable to run test</i>

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