

# ioXt 2020 Base Profile

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#### **Abstract:**

The ioXt 2020 base profile may be used by any device which is not defined in another profile.

This profile requires the device to meet all the level one pledge item test cases.

## **Keywords**



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# 2 Document Version Information

| Version | Date    | Author            | Description                           |
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| 0.2     | 4/2/20  | Brad Ree (ioXt)   | Added introduction                    |
| 0.3     | 4/2/20  | Brad Ree (ioXt)   | Updated abbreviations and definitions |
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# 4 Introduction

#### 4.1 Purpose

This document provides the specifications required to certify a device such that the manufacturer may use the ioXt Compliance mark. This specification defines which devices may be certified under the profile, along with the test plan which must be met. The test cases are defined in the ioXt Test Case Library document.

In general, a profile shall define the devices which may be certified using the profile, a threat model, and test plan. The ioXt 2020 base profile shall cover all device which are not covered under another profile. Thus, the device definition is significantly different than other profiles. Further, there is not a threat model provided.

ioXt approved labs must be explicitly approved to execute this profile and shall be governed with the ioXt Lab Agreement.

### 4.2 Acronyms and Abbreviations

| Acronym | Definition   |
|---------|--|
| VDP     | Vulnerability Disclosure Program or Vulnerability Reporting Pledge |
| AA      | Automatically Applied Update Pledge                                |
| SE      | Security Expiration Date Pledge                                    |
| VS      | Verified Software Pledge   |
| UP      | No Universal Password Pledge                                       |
| PC      | Proven Cryptography Pledge   |
| SI      | Secured Interface Pledge   |

#### 4.3 Definitions

| Term          | Definition  |  |
|---------------|---|--|
| Anti-rollback | Preventing a device from accepting a software update which is   |  |
|               | older than the current version.   |  |
| Manufacturer  | The entity which is certifying the device. This may be the company which produces the device, or the company which is marketing the |  |
|               | device to the end consumer.   |  |
| ioXt Pledge   | A single security principal which a manufacturer agrees to fulfil.  |  |



| ioXt Yardstick         | The definition of the core elements for each Pledge item which     |
|------------------------|--|
|                        | must be met to achieve a specific level for each pledge item.      |
| ioXt Test Case Library | This document describes all test cases which are recognized by the |
|                        | ioXt Alliance.   |
| Profile                | A device specific test plan which must be met in order to be       |
|                        | certified by the ioXt Alliance.                                    |

#### 4.4 References

# 5 Profile Overview

The ioXt 2020 Base profile shall be used for any device which is NOT defined by any other ioXt profile. The base profile is used to certify that the device meets baseline (Level 1) requirements for each Pledge Item.

## 6 Device Definition

This profile may be used for all devices which are not covered under another profile's device definition.

# 7 Test Plan

The ioXt 2020 Base profile is used to certify that the device meets the level one requirements for all ioXt Pledge items.

#### 7.1 Automatic Security Updates

#### 7.1.1 AA1 Software Updates Supported

| Yardstick<br>ID | Yardstick Name             | Test<br>Case # | Test Case Name             | Notes |
|-----------------|----------------------------|----------------|----------------------------|-------|
| AA1             | Software updates supported | AA1            | Software updates supported |       |

#### 7.1.2 AA2 Software is Maintained and Updated

| Yardstick | Yardstick Name                     | Test   | Test Case Name             | Notes |
|-----------|------------------------------------|--------|----------------------------|-------|
| ID        |                                    | Case # |                            |       |
| AA2       | Software is Maintained and Updated | AA2    | Software is Maintained and |       |
|           |                                    |        | Updated                    |       |



#### 7.1.3 AA3 Security updates are made available to impacted parties

| Yardstick | Yardstick Name                      | Test   | Test Case Name            | Notes |
|-----------|-------------------------------------|--------|---------------------------|-------|
| ID        |                                     | Case # |                           |       |
| AA3       | Security updates are made available | AA3    | Software updates are made |       |
|           | to impacted parties                 |        | available to impacted     |       |
|           |                                     |        | parties                   |       |

#### 7.2 Security Expiration Date

#### 7.2.1 SE1 Expiration date (or end of life notification policy) published

| Yardstick<br>ID | Yardstick Name   | Test<br>Case # | Test Case Name                               | Notes                                |
|-----------------|--|----------------|--|--------------------------------------|
| SE1             | Expiration date (or end of life notification policy) published | SE1.1          | End of life Notification policy is published | Minimum notification time is 1 year. |
|                 |  | SE1.2          | Expiration date is published                 | Minimum support time is 1 year       |

# 7.3 Vulnerability Reporting Program

### 7.3.1 VDP1 VDP in place

| Yardstick<br>ID | Yardstick Name | Test<br>Case # | Test Case Name | Notes |
|-----------------|----------------|----------------|----------------|-------|
| VDP1            | VDP in place   | VDP1           | VDP in place   |       |

#### 7.3.2 VDP2 Accept external submissions

| Yardstick<br>ID | Yardstick Name              | Test<br>Case # | Test Case Name              | Notes |
|-----------------|-----------------------------|----------------|-----------------------------|-------|
| VDP2            | Accept external submissions | VDP2           | Accept external submissions |       |

#### 7.4 Verified Software

## 7.4.1 VS1 Manufacturer has an update patch policy

| Yardstick<br>ID | Yardstick Name                          | Test<br>Case # | Test Case Name                          | Notes |
|-----------------|---|----------------|---|-------|
| VS1             | Manufacturer has an update patch policy | VS1            | Manufacturer has an update patch policy |       |

# 7.4.2 VS2 Software images including plug-ins and apps are signed and verified

|           | 0              | 010 |        |                |       |  |
|-----------|----------------|-----|--------|----------------|-------|--|
| Yardstick | Yardstick Name |     | Test   | Test Case Name | Notes |  |
| ID        |                |     | Case # |                |       |  |



| VS2 | Software images including plug-ins | VS2 | Software images including    |  |
|-----|------------------------------------|-----|------------------------------|--|
|     | and apps are signed and verified   |     | plug-ins and apps are signed |  |
|     | ана арра ана андина таки           |     | and verified                 |  |

#### 7.4.3 VS3 Proven cryptography

| Yardstick<br>ID | Yardstick Name      | Test<br>Case # | Test Case Name      | Notes |
|-----------------|---------------------|----------------|---------------------|-------|
| VS3             | Proven cryptography | VS3            | Proven Cryptography |       |

#### 7.4.4 VS4 Anti-rollback

| Yardstick<br>ID | Yardstick Name | Test<br>Case # | Test Case Name | Notes |
|-----------------|----------------|----------------|----------------|-------|
| VS4             | Anti-rollback  | VS4            | Anti-rollback  |       |

#### 7.5 No Universal Passwords

# 7.5.1 UP1 Must have user authentication, and must not use common and predictable passwords, or require user to change at initial use

| Yardstick | Yardstick Name                     | Test   | Test Case Name            | Notes |
|-----------|------------------------------------|--------|---------------------------|-------|
| ID        |                                    | Case # |                           |       |
| UP1       | Must have user authentication, and | UP1    | Must have user            |       |
|           | must not use common and            |        | authentication, and must  |       |
|           | predictable passwords, or require  |        | not use common and        |       |
|           | user to change at initial use.     |        | predictable passwords, or |       |
|           |                                    |        | require user to change at |       |
|           |                                    |        | initial use.              |       |

# 7.6 Proven Cryptography

#### 7.6.1 PC1 Standard cryptography

| Yardstick<br>ID | Yardstick Name        | Test<br>Case # | Test Case Name        | Notes |
|-----------------|-----------------------|----------------|-----------------------|-------|
| PC1             | Standard cryptography | PC1            | Standard cryptography |       |

#### 7.7 Secured Interfaces

## 7.7.1 SI1 Interfaces are secured against remote attack

| Yardstick | Yardstick Name                 | Test   | Test Case Name                 | Notes |
|-----------|--------------------------------|--------|--------------------------------|-------|
| ID        |                                | Case # |                                |       |
| SI1       | Interfaces are secured against | SI1.1  | Remote attack: All certifiable |       |
|           | remote attack                  |        | interfaces contained in the    |       |
|           |                                |        | device shall be Certified      |       |



| S | SI1.2 | Remote attack: Unused  |  |
|---|-------|------------------------|--|
|   |       | Services are disabled  |  |
| S | SI1.3 | Remote attack:         |  |
|   |       | Authentication         |  |
| S | SI1.4 | Remote attack: Secured |  |
|   |       | Communications         |  |

# 7.8 Security by Default

This profile does not have any test cases for this pledge item.

# 7.9 Profile Specific

This profile does not have any profile specific test cases.

