
LoopLearn Technical Specifications

Version 1.04 June 2020

The most recent version of these Technical Specifications are available at <https://looplearn.net/technical-specifications>

1. Introduction

This document sets out technical specifications of the LoopLearn App, the LoopLearn Attendance Devices and the LoopLearn Service.

1.1 Definitions

Unless otherwise specified the terms used have the same meaning as in the LoopLearn Terms of Service (<https://looplearn.net/terms-of-service>).

Device means a tablet, laptop or computer that meets the technical requirements stipulated in clause 4.1.

Supported Browser means any version of Chrome, Firefox, or Safari not older than 12 months old

Supported Mobile Device means any Android 8.1 or greater or iOS 11 or greater

1.2 Assumptions

(a) Technical assumptions

In such cases where the LoopLearn Attendance Device will report image data back to the cloud, the Customer has a reliable internet service allowing for the transmission of images from the LoopLearn Attendance Device's to the Customers AWS S3 bucket. Such service should be capable of transmitting 20Mb of data every 10 minutes per LoopLearn Attendance Device installed, Kiosk devices with high volumes of user traffic require 250Mb of data every 10mins. Response times of the Customer internet service will affect the performance of the Service.

The Customer operates a secure network on which the LoopLearn Attendance Device's sit. LoopLearn Attendance Device are not exposed to the open internet.

LoopLearn Attendance Devices are able to connect to the internet on port 443 using HTTPS/HTTPS WebSocket's in order to maintain updates and report metadata.

Power and network connectivity will be supplied to the LoopLearn Attendance Device

(b) Usage assumptions

The Service will be used only in accordance with the LoopLearn Service Terms

The LoopLearn App is designed to be used by Customer administration staff. It is not suitable for visitors or organisation members.

1.3 Scope

The LoopLearn App can be used to monitor the attendance data received from LoopLearn Attendance Devices

The LoopLearn Attendance Devices can be used to collect people registration information, sign in and out data, and attendance data (who is present in the space). The LoopLearn Attendance Devices are designed to be used in internal well-lit spaces.

Where the LoopLearn Attendance Device is a LoopSensor, it is expected that people will face the LoopLearn Attendance Device during the attendance capture period, multiple LoopLearn Attendance Device's may be required where people face or approach from many directions.

Where the LoopLearn Attendance Device is a LoopKiosk, it is expected that people will approach the kiosk as otherwise directed for each device's settings and capabilities.

1.4 Compliance

Any materials, methods, processes, tests and inspections, which are not stated in these Technical Specifications or other specifications forming part of the Agreement shall comply with the requirements of the relevant Australian Standards or ISO Standards or National Standards of the country of origin (as applicable).

Where devices are supplied under a pilot, or any other testing program, the Customer agrees that such devices may not be certified under the relevant standards required for mass production devices and may still be required to undergo formal compliance testing.

Refer to the LoopLearn Terms of Service for further compliance details.

2. LoopLearn App and LoopLearn Attendance Devices

2.1 Performance

The LoopLearn App and LoopLearn Attendance Devices will function in accordance with the scope, as set out in clause 1.3 above and the applicable LoopLearn Service Terms.

2.2 Availability

The LoopLearn App and LoopLearn Attendance Devices will be made available in accordance with the requirements set out in the applicable LoopLearn Service Terms

2.3 Peripheral Data Collection

In order for the LoopLearn App and LoopLearn Attendance Device to function in accordance with these Technical Specifications and the LoopLearn Service Terms, LoopLearn will collect peripheral data of Authorised Users as defined in the LoopLearn Privacy Policy

3. Services

The LoopLearn Service is defined in the Service Description

4. Customer Access Devices

4.1 Technical Requirements - The LoopLearn App

(a) Hardware

The LoopLearn App can be accessed via a Supported Browser (for the web application)

Any Device used to access the LoopLearn App must have an internet connection that meets the following requirements:

- A broadband internet connection or greater

(b) Software

The LoopLearn App can only be accessed via a Supported Browser or a Supported Mobile Device.

If a Supported Browser or Supported Mobile Device provides for automatic updates to the latest version of that browser, and that version is not listed above, it will not be a Supported Browser or Supported Mobile Device and the LoopLearn App may not be accessible from it. Customers are responsible for ensuring that they access the LoopLearn App from a Supported Browser or Supported Mobile Device and LoopLearn is under no obligation to make the LoopLearn App accessible from browsers other than Supported Browsers or Supported Mobile Devices.

(c) Access Credentials

In order to access the LoopLearn App, Authorised Users must have Access Credentials. The Access Credentials consist of the following

- an individual username for each Authorised User
- an individual password for each Authorised User

A username and password will be provided for an administrator account, the Customer is responsible for adding any new users as it deems necessary.

The LoopLearn App allows for multifactor authentication, and this is a recommended for all users.

(i) Password Specifications

Authorised User passwords must contain the following:

- At least 8 characters
- at least one number
- at least one capital and one lower case letter

4.2 Technical Requirements - The LoopLearn Attendance Device

- (a) LoopLearn Attendance Devices will require an ethernet or wifi connection (see later) as well as a stable power supply.
- (b) The LoopSensor devices require 12V/2A DC power over a 2.1mm barrel jack, the power connector may change from time to time with new or updated models. It is critical the device receives at least 2A or image sensors will not function correctly. A POE+ splitter (at least 24 watts) may be used.

- (c) The LoopKiosk devices require a standard 240C AC power connector.
- (d) The LoopLearn Attendance Device runs a dedicated custom build of Linux. It has been hardened and configured to only allow inbound connections on SSH and is locked down so that only a certain user can connect.
- (e) The LoopLearn Attendance Devices are designed to be a plug and play appliance. No data is stored on the device other than temporary files which are erased on restart and through periodic sweeps. A settings file is kept on the device.
- (f) Each LoopLearn Attendance Device has a unique identifier which is registered with the customers LoopLearn account. Only the customers devices will work on their customer account, devices from other organisations will not register with other customers accounts.
- (g) Using the LoopLearn App the customer must assign the registered LoopLearn Attendance Device's to the rooms in which they are located
- (h) The LoopLearn Attendance Device will receive an IP address over DHCP when connected via the ethernet - this is the simplest setup. WiFi connections require the relevant SSID and security details to be configured. It is expected that the device will sit on the customer organisations network and behind the firewall and will not be directly accessible from the internet.
- (i) The device is managed over HTTPS and in some cases SSH by LoopLearn support staff.
- (j) LoopLearn may require VPN access to the network which will allow LoopLearn support staff access to each LoopLearn Attendance Device on port 22. This is to allow LoopLearn to troubleshoot any issues which may arise with the devices.
- (k) As an IoT device, the LoopLearn Attendance Device will "phone home" to allow LoopLearn support staff to see they are online and for us to push patches to them. The devices require HTTPS outbound access to the internet for this to occur. Such access needs to support web sockets.
- (l) The transfer of any images or metadata is always conducted over HTTPS
- (m) In order for the customer to be in complete control of images at all times, LoopLearn Attendance Device make use of AWS S3 buckets to store image data.
- (n) The customer grants the LoopLearn Attendance Device and LoopLearn App systems access to the customer AWS S3 bucket.
- (o) The customer will be provided with a guide to setup your AWS S3 bucket during implementation.