# Age Protect

Paul Trevithick*, Denise Tayloe†, Alexander Yuhimenko‡

May 29, 2023. Revised May 29, 2023

**Abstract**

AgeProtect enables service providers to perform age verification of their users so they can offer age-restricted content and services consistent with prevailing laws and regulations. It supports users of all ages and protects minors by delegating access control decisions to their guardian. AppProtect assumes that users have software agents running on their devices, and that service providers will integrate third-party age verification services. AgeProtect is an open technical specification that governs the interactions between agents, service providers, and age verification services. This paper describes the AgeProtect specification as well as an initial implementation.



## 1 Introduction

Internet users use apps and websites offered by service providers that adhere to many laws and regulations. Some of these laws and regulations (e.g. COPPA[1]) govern what services the user can access based on their age. These are called *age-restricted* services. There is no internet-wide, standardized way for service providers to restrict user access to age-restricted services. Some service providers have argued that it is infeasible technically to do so, or that doing so would be cost prohibitive [need to add references]. ...talk about how teenagers have learned to fib about their age to gain access...[need references]

## 2 Overview flows for Adults and Minors

Age protect can be used by internet users who are minors or adults, although the flows differ between them. In the next two subsections we provide a high level overview of the adult and minor flows, respectively.

*The Mee Foundation
†PRIVO, Inc.
‡Swift Invention, Inc.
[1]ftc.gov/legal-library/browse/rules/childrens-online-privacy-protection-rule-coppa

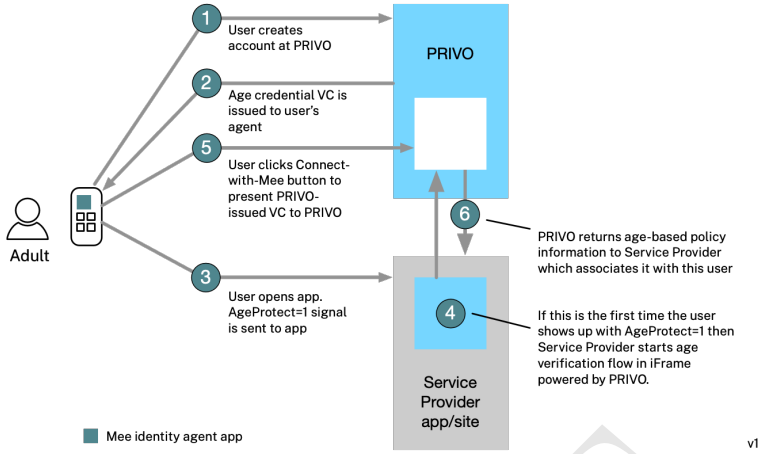


Figure 1: Adult Internet User Flow

### 2.1 Adult user flow

As shown in Figure **??**...

### 2.2 Minor user flow

As shown in Figure 2 the Minor user flow is more complex than the Adult user flow described in the previous subsection. It involves two people, the minor user as well as their adult guardian.

## 3 Technical specifications

### 3.1 AppProtect HTTP header

...to be written...we need to describe the AppProtect=1 HTTP header (which is identical in structure to the Global Privacy Control[2])

### 3.2 Initial implementation

### 3.3 AgeProtect HTTP header

...describe how the AgeProtect HTTP header is implemented by the AppProtect Mee connector.

[2] globalprivacycontrol.org

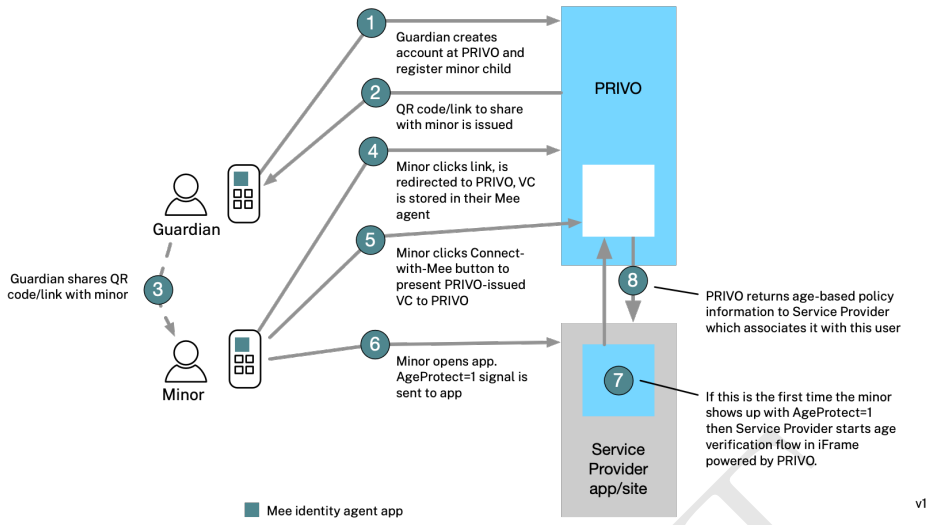


Figure 2: Minor with Guardian Flow

...describe how the AgeProtect HTTP header is detected by service provider apps and websites

### 3.4 Connect-with-Mee button

...describe how the PRIVO age verification service implements Connect-with-Mee

### 3.5 AgeProtect Verifiable Credentials

...describe both the PRIVO import, and the PRIVO present Mee connectors and how they have been integrated into the Mee identity agent

### 3.6 Integration of PRIVO

...describe how our prototype service provider integrates the PRIVO service...iFrame, data exchange, capturing user policy, etc.