Planet eStream Accessibility Whitepaper

Introduction

Planet eStream recognises the importance of accessibility guidelines and is committed to an ongoing process of web interface enhancement to ensure that as many users as possible, including those with a wide range of disabilities, are able to gain useful access to the media content made available by the feature rich Planet eStream Unified Media Platform.

This whitepaper aims to articulate how Planet eStream supports accessibility, provide a detailed overview of recent accessibility legislation, the key date milestones to be adhered to, and how the Planet eStream development roadmap supports that legislation.

Planet eStream's Support for Accessibility

Core features of the web interface providing assistance to users with visual and hearing impairment include:

- Responsive web design, to ensure that web pages render well on a variety of devices and window or screen sizes
- Support for desktop web browser zoom functionality
- Interface customisation tools including support for meeting W3C colour contrast guidelines
- Closed captioning for video media, where subtitle data is available
- Integrated Subtitle Editor, which enables users to create subtitles, edit existing transcriptions and upload or download subtitle files
- Options to upload associated documents and media, including audio transcriptions and other informative items in a wide variety of formats, to the 'Related Media' area associated with each media content item
- Automated Transcription Services, including a free transcription tool powered by Mozilla DeepSpeech, or the option to contract directly with third party transcription providers for greater accuracy and/or to offer support for other languages
- Information regarding available 'related media' items and links to other resources can be included in the 'comments' panel on each media item view page
- Standard, theatre mode and full screen video player viewing options

To ensure that all Planet eStream customers receive the best possible user experience, and in response to the formalisation of accessibility guidelines in recent EU and UK legislation, the Planet eStream team has worked to significantly enhance the experience of its software platform for users who can benefit from the inclusion of accessible technologies in product design.

It is important to note that whilst accessibility primarily focuses on people with disabilities, many accessibility requirements improve usability for everyone, especially in limiting situations. For example, providing sufficient contrast benefits people using the web on a mobile device in bright sunlight or in a dark room. Captions benefit people in noisy situations and in quiet environments. Some people have age-related functional limitations and may not identify these as "disabilities". [1]

Disclaimer

This content is provided for informational guideline purposes only and should not be relied upon either as legal advice, or to determine how these accessibility regulations might apply to any individual organisation. The information is provided "as-is" and Planet eStream makes no warranties (express, implied or statutory) as to the content included in this document.

Accessibility Regulations

Planet eStream is committed to assisting our customers to be able provide a high-quality resource to their users and to comply with legal obligations arising from recent regulations setting out accessibility standards for their websites and mobile applications.

At this time, the most significant government legislation relating to accessibility requirements in the UK for many of our clients is:

The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018 [2]
These Regulations transpose Directive 2016/2102 of the European Parliament and of the Council on the accessibility of websites and mobile applications of public sector bodies (OJ No L 327, 2.12.2016, p.1 [3] into UK law.

These Regulations came into force on 23rd September 2018 and apply to all public sector bodies with the exception of [4]

- schools or nurseries - except for the content the public need to use their services;
- non-government organisations like charities (unless they provide services that are essential to the public or aimed at people with disabilities);
- public sector broadcasters and their subsidiaries;

Further and Higher Education bodies such as Colleges and Universities are therefore directly affected by the legislation.

Other organisations providing services (including schools) do however have general legal obligations to make 'reasonable adjustments' under the Equality Act 2010 (or Disability Discrimination Act 1995 in Northern Ireland) where appropriate, and therefore implementing website and application accessibility guidelines contribute towards good practice in this respect. [5]

Compliance requirements [6]

Key Date Milestones

Public sector bodies subject to the regulations (see phased approach below) will need to be able to demonstrate compliance from 22nd September 2019.
Full compliance is being introduced in three stages as below:

Website or application	Compliance required after
New public sector websites (published after 22 September 2018)	22 September 2019
All other public sector websites (published prior to 23 September 2018)	22 September 2020
Public sector mobile applications	22 June 2021

Actions

In general, compliance with the regulations can be achieved by meeting two main requirements, which are to;

1. Meet Accessibility Standards in order to make websites 'perceivable, operable, understandable and robust' for all users.

These four principles may be interpreted as follows: [7]

a. **Perceivable** - information and user interface components must be presentable to users in ways they can perceive.
Users must be able to perceive the information being presented (it cannot be invisible to all of their senses);

b. **Operable** - user interface components and navigation must be operable.
Users must be able to operate the interface (the interface must not require interaction that a user cannot perform);

c. **Understandable** - information and the operation of user interface must be understandable.
Users must be able to understand the information presented, as well as the operation of the user interface (the content or operation cannot be beyond their understanding);

d. **Robust** - content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.
Users must be able to access the content as technologies advance (as technologies and user agents evolve, the content should remain accessible).

In practice, this can be achieved by ensuring websites meet the international accessibility standard, WCAG 2.1 AA or its European equivalent, EN301 549.

Exceptions [16]

In some situations, it may not be achievable to meet this standard for the whole of an existing website or mobile application.
It can be the case that making the changes to your website or application would cause what the new legal requirements call a 'disproportionate burden'.

In order to argue that something is a disproportionate burden, it is necessary for the public body organisation in question to carry out an assessment. This assessment can only consider things that are relevant, which may include:

• the benefits to users with disabilities of meeting the standards
• the cost of meeting the standards
• how it is used by people with disabilities - how often and for how long
• an organisation's size and resources

Examples of irrelevant things would be lack of time or knowledge, or not having given enough priority or resource to meet the standards.

Following an assessment, if it is determined that compliance with the accessibility requirement would impose a disproportionate burden, a public body must:

• explain in its accessibility statement the parts of the accessibility requirement that could not be complied with;
• where appropriate, provide accessible alternatives to documents held by that public sector body that are not available on their website or mobile application. [2]

2. Publish an Accessibility Statement

The statement will make clear the level of accessibility across the website or application in question. Where there are barriers, the statement will inform users of alternative routes to access. The statement will also enable users to contact the website owner/administrator if they identify issues.

The accessibility statement should: [8]

- list any inaccessible parts of the website or app;
- show how people with access needs can get alternatives to content that is not accessible;
- provide details on who to contact to report accessibility issues;
- provide information on the enforcement procedure if people are not happy with the response;
- be published in a fully accessible form;
- follow a consistent format.

The statement will need to be regularly reviewed by the public sector body and kept up to date as appropriate and at least annually.

The Government Digital Service (GDS) has provided a Sample Accessibility Statement for owners/administrators to use as a basis for producing accessibility statements. This is available at https://www.gov.uk/government/publications/sample-accessibility-statement

This Sample Statement for use by UK organisations is based on the 'Model Accessibility Statement' as published by the EU. [9]

A useful blog post summarising the EU Model Statement may be found at https://siteimprove.com/en/blog/how-to-write-an-accessibility-statement-according-to-the-eu-web-accessibility-directive/ [10]

Rights of Individuals and Enforcement of the Regulations [15]

Rights

If a person believes that a website or mobile application of a public sector body has failed to comply with the accessibility requirement, that person may notify the public sector body of the failure.

A person may request information that has been excluded from a website or mobile application of a public sector body in an accessible format and the public sector body must provide a response to such a notification or request within a reasonable period of time.

If a public sector body does not comply with this request, or if a person is dissatisfied with the response received, that person may complain to the applicable enforcement body.

Enforcement

A failure by a public sector body to comply with the accessibility requirement will be treated as a failure to make a reasonable adjustment under relevant sections of the Equality Act 2010 (or Disability Discrimination Act 1995 in Northern Ireland).

Following investigation by the enforcement bodies, which are the Equality and Human Rights Commission in Great Britain and the Equality Commission for Northern Ireland, if a complaint is upheld, the name of the public body and the enforcement body's determination will be published, which may result in reputational damage and discrimination claims.

How Planet eStream Supports Organisations in Meeting Their Accessibility Obligations

To assist organisations using the Planet eStream software platform products to operate in compliance with their Accessibility Regulations obligations, the Planet eStream team is fully committed to ensuring that the design and functionality of the eStream product's website and applications properly support the needs of users who may have accessibility requirements.

In order to realise this commitment, Planet eStream has included enhanced accessibility projects in its Product

Devel-opment roadmap to address the following requirements:

Planet eStream Website Compliance

Planet eStream website structure and functionality is designed to meet WCAG 2.1, AA level requirements and accessibility enhanced release versions of this website have been made available since prior to 23rd September 2019. This is to ensure organisations using Planet eStream websites published from 23rd September 2018 onwards can be compliant with the Accessibility Regulations and that websites which were published prior to 23rd September 2018 could also be compliant well in advance of the 23rd September 2020 deadline relevant to these sites.

To ensure that all Planet eStream platform websites can comply with the accessibility requirements, the development team works in line with the four design principles as described above under 'Actions' section 1) and implementing the associated WCAG 2.1 guidelines. [11, 12]

The Planet eStream website includes an additional option to link to an organisation's Accessibility Statement and make this available to users of the Planet eStream resources.

Planet eStream Web Content Compliance

In our experience, much of the content that end users publish to their organisation's Planet eStream website is already subject to, or in the future will be subject to, accessibility requirements under the regulations.
Different types of content will fall under the scope of the requirements at different timing milestones and the section below will explore what types of content being added to Planet eStream are subject to the regulations, and when the regulations take force for these different types of content.

Time-Based Media

Time-Based Media can be defined as media of one or more of the following types of content: audio-only, video-only, audio-video, audio and/or video combined with interaction. These different types of time-based media then fall under one of two headings; pre-recorded time-based media (uploaded video and audio content) and live time-based media (live broadcasts).

In our experience, pre-recorded time-based media is typically the most common type of content uploaded to Planet eStream websites, but these assets do not specifically come into scope until 23rd September 2020 irrespective of the key date milestones shown in page 2 of this document, titled 'Key Date Milestones'. Any pre-recorded video and audio assets published to Planet eStream after 23rd September 2020, will be subject to the regulations.

Our initial research indicates that pre-recorded time-based media that is television or radio content recorded Off-Air or added from the Planet eStream Connect service would be considered to be 'Third-Party' and as such is exempt from the regulations, now and ongoing.

Live time-based media assets, such as live streams of events, are also exempt from the regulations now and ongoing.

Documents and Images

Various document formats and image-based resources are also commonly published on eStream websites.

Office format documents, such as PDFs and Microsoft Office documents, have been in scope since 23rd September 2018, so organisations should ensure that their new uploads are created in an accessible format. [13]
PDFs can be saved in PDF/A format and Microsoft publish accessibility guidelines for Office documents at https://support.office.com/en-gb/article/create-accessible-office-documents-868ecfcd-4f00-4224-b881-a65537a7c155 [14]

Photo and image format assets are governed by accessibility regulations in line with the key date milestones shown on page 2 of this document in the section titled 'Key Date Milestones'. Accessible information will be available to visually impaired users via alt attributes, providing that descriptive text has been entered by the user uploading or managing the content.

Types of content that are exempt from the Accessibility Regulations are listed and described in 'Appendix A' [24].
An implication of this is that most of the time-based media and Office file format documents currently published on a Planet eStream website may not be in the scope of the regulations and therefore do not give rise to an issue with compliance.

Planet eStream Caption and Transcription Creation Tools

Planet eStream allows for the upload of Closed Captions/Subtitles (SubRip .srt format) to video and audio content published on the system. An integrated Subtitle Editor enables users to create subtitles, edit existing transcriptions and upload or download subtitle files. It also allows for the upload of transcripts as 'Related Media', which are then accessible via the item's view page. Both features assist users in meeting their accessibility requirements.

Additionally, Planet eStream offers automated Speech Recognition (ASR) tools to provide convenient and time saving assistance to clients generating their own closed captions and transcriptions to accompany their newly recorded and existing time-based media content items. The service includes a free transcription tool powered by Mozilla DeepSpeech, or the option to contract directly with third party transcription providers for greater accuracy and/or to offer support for other languages.

Planet eStream Mobile Application compliance

Planet eStream publishes 'Mobile Upload' applications for iOS and Android based devices.

These applications are made available for the convenience of users who would like a simple way to upload media to the Planet eStream platform from a mobile device.

They do not provide an interface to access media or other resources that are published on the Planet eStream website, so making content available to consumers in an accessible manner is not of direct relevance to these applications. Users cannot use them browse the eStream site or playback media or view documents.

Use of these mobile applications is entirely optional regarding end user access to the Planet eStream platform and alternative functionality regarding upload of media is provided to mobile device users via the main Planet eStream web interface, which is available in an accessible manner using standard web browsers on the mobile device.

The'Planet eStream Upload & Live Streaming' application for iOS is available on the Apple App Store at
https://apps.apple.com/gb/app/planet-estream/id543908904

It is designed to meet WCAG 2.1 AA requirements where possible and uses native controls and allows selection of accessible colour pallet and themes as supported by the iOS operating system. It is tested to operate in conjunction with the standard 'VoiceOver' screen reader and is regularly updated.

The 'Planet eStream Upload App v2' application for Android is available on Google Play at https://play.google.com/store/apps/details?id=uk.co.planetestream.estreamapp&hl=en_GB&gl=US .It is not currently under active development and was built under older Android O/S environments. Its design is based on the use of native controls, therefore screen magnification and other accessible features included in the Android O/S are functional and it does operate in conjunction the 'Talkback' screen reader. A limitation regarding theming would be that the Invert Colour feature works but high contrast fonts and buttons selection is not available.

Regarding both mobile applications, inherent limitations may be present due to the core purpose of the products. Users with no, or very limited, vision are likely to encounter limitations with directly verifying suitability and quality of the actual video content being captured by the application. There may also be limitations for users with no hearing in directly verifying suitability and quality of the actual audio content being captured by the application. These limitations may be mitigated if another person who is less affected by these disabilities is available to verify the media content and quality.

Planet eStream Compliance Testing

Planet eStream utilises a combination of manual test procedures and automated testing tools in order to verify compliance with WCAG 2.1 guidelines.

Planet eStream Manual Testing

Testing focuses on confirming that common limitations to accessibility will not be encountered by users accessing the web interface and media content.

Such limitations to accessibility may particularly include:

- lack of keyboard accessibility
- link text that is not descriptive (for example, 'click here' links)
- lack of colour contrast for text and important graphics and controls
- images not having meaningful alt text (where alt text is needed)
- online forms not being marked up correctly (Labels and controls need to be associated correctly)

Planet eStream Automated testing

Automated testing is carried out using software tools commonly employed for accessibility assessment. Examples of such tools are aXe [17], Accessibility Insights for Web [18], Google Chrome Lighthouse [19].

Planet eStream Interface and Device Support

The Planet eStream platform is designed to work in conjunction with assistive technologies incorporated into commonly used web browsers, applications and devices.

Planet eStream compatibility guidelines are available at https://planetestream.co.uk/support/techdocuments/pdf/End%20User%20Device%20Guidance.pdf

Planet eStream is intended to operate with recent versions of commonly used tools such as NVDA [20], JAWS [21] and VoiceOver [22] screen readers and ZoomText [23] screen magnifier applications.

References

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Appendix A - Exempt Content Types

These Regulations do not apply to the following content of a website or mobile application of a public sector body:

a.   Office file formats published before 23rd September 2018, unless such content is needed for active administrative processes relating to the tasks performed by the public sector body. Examples include Microsoft Word Documents, PowerPoint Presentations, Excel Spreadsheets and PDF Documents;

b.   Pre-recorded time-based media published before 23rd September 2020. Examples include Pre-recorded Audio Only files, Video Only files and Video and Audio Files;

c.   Live time-based media. Example includes Live Broadcasts Events in Audio Only, Video Only and Combined Video and Audio formats;

d.   Online maps and mapping services, as long as essential information is provided in an accessible digital manner for maps intended for navigational use. Examples include Google Maps, Route Planners;

e.   Third-party content that is neither funded nor developed by, nor under the control of, the public sector body. Examples include 'Like Buttons' on social media websites. Our initial research also indicates that any television or radio content recorded Off-Air or added from the Planet eStream Connect service would be considered to be 'Third-Party' and as such is exempt from the regulations;

f.   Reproductions of items in heritage collections that cannot be made fully accessible because of either:

g.   The incompatibility of the accessibility requirement with either the preservation of the item concerned or the authenticity of the reproduction; or

h.   The unavailability of automated and cost-efficient solutions that would easily extract the text of manuscripts or other items in heritage collections and transform it into content compatible with the accessibility requirement;

i.   Content of extranets and intranets published before 23rd September 2019, until such websites undergo a substantial revision; and

j.   Content of websites and mobile applications qualifying as archives.

In this regulation:

a.   "Archives" means a website or mobile application which:
   a.   Only contains content that is not needed for active administrative processes; and
   b.   Is not updated or edited after 23rd September 2019;

b.   "Extranets and intranets" means a website that is only available for a closed group of people and not to the general public;

c.   "Items in heritage collections" means privately or publicly owned goods presenting an historical, artistic, archaeological, aesthetic, scientific or technical interest and that are part of collections preserved by cultural institutions such as libraries, archives and museums; and

d.   "Office file formats" means a document in a format that is not intended primarily for use on the web and that is included in web pages, such as Adobe Portable Document Format, Microsoft Office documents or their open-source equivalents.