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 already 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 Current Support for Accessibility

Core features of the current 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 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
- 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.
- 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 been working 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 and in quiet environments. Some people have age-related functional limitations and may not identify these as "disability". [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 disabled people);
• 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

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 disabled people - 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 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) is currently working on the model template that website owners/administrators must use as a basis for producing accessibility statements.

The template for use by UK organisations will be 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 Will Support 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 the current Product Development roadmap to address the following requirements:

Planet eStream Website Compliance

Planet eStream website structure and functionality will be verified to meet WCAG 2.1, AA level requirements and an official release version of this website will be made available before 23rd September 2019.
This will 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 will 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 are working in line with the four design principles as described above under 'Actions' section 1) and implementing the associated WCAG 2.1 guidelines. [11, 12]
More detailed information is included in 'Appendix A'.

The Planet eStream website will include an additional option to upload 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 B' [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 already allows for the upload of Closed Captions/Subtitles (SubRip .srt format) to video and audio content published on the system. It also allows for the upload of transcripts as 'Related Media', which are then accessible via the items view page. Both features currently assist users in meeting their accessibility requirements.

Additionally, Planet eStream is working to include automated Speech Recognition (ASR) technologies into the platform feature set. This is intended 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.

For customers wishing to minimise their in-house workload when generating high accuracy captions and transcriptions to assist their end users, Planet eStream is also working to include easy access to third party professional human-based service provision.

The development of both an ASR service and access to third party professional human-based service providers is currently scheduled for introduction in 2020 and before 23rd September 2020.

Planet eStream Mobile Application compliance

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

These applications will be updated to ensure full compliance with Accessibility Regulations prior to 23rd June 2021.

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)

Manual testing is carried out with reference to the US Government 18F team guidelines and checklist [16]

Planet eStream Automated testing

Automated testing is carried out using software tools such as aXe [17], Wave [18] and SiteImprove [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 - Website Compliance and WCAG 2.1

The Guidelines

The Web Content Accessibility Guidelines (known as WCAG 2.1) are an internationally recognised set of recommendations for improving web accessibility.
They explain how to make digital services, websites and apps accessible to everyone, including users with impairments to their:

• vision - like severely sight impaired (blind), sight impaired (partially sighted) or colour-blind people;
• hearing - like people who are deaf or hard of hearing;
• mobility - like those who find it difficult to use a mouse or keyboard;
• thinking and understanding - like people with dyslexia, autism or learning difficulties.

In order to make best use of web content, users with Accessibility requirements may typically need to:

• use a keyboard instead of a mouse;
• change browser settings to make content easier to read;
• use a screen reader to 'read' (speak) content out loud;
• use a screen magnifier to enlarge part or all of a screen;
• use voice commands to navigate a website.

WCAG 2.1 Design Principles - Applying the Guidelines

Applying the guidelines to the associated design principles enables web designers to construct websites with high levels of accessibility and which comply with Accessibility Regulations.

Principle 1: Perceivable

To meet 'WCAG 2.1 Principle 1: Perceivable' users need to be able to recognise and use the service with the senses that are available to them.
Techniques used to achieve this are to:

• provide text alternatives ('alt text') for non-text content;
• provide transcripts for audio and video;
• provide captions for video;
• make sure content is structured logically and can be navigated and read by a screen reader;
• use the proper mark-up for every feature (for example, forms and data tables), so the relationships between content are defined properly;
• not use colour as the only way to explain or distinguish something;
• use text colours that show up clearly against the background colour;
• make sure every feature can be used when text size is increased by 200% and that content reflows to a single column when it's increased by 400%;
• not use images of text;
• make sure the service is responsive - for example to the user's device, page orientation and font size they like to use;
• make sure the service works well with assistive technologies - for example, important messages are marked up in a way such that screen readers recognise their importance.

Principle 2: Operable

To meet 'WCAG 2.1 Principle 2: Operable', users must be able to find and use the content, regardless of how they choose to access it (for example, using a keyboard or voice commands).
Techniques used to achieve this are to:

- make sure everything works for keyboard-only users;
- let people play, pause and stop any moving content;
- not use blinking or flashing content - or allow the user to be able to disable animations;
- provide a 'skip to content' link;
- use descriptive titles for pages and frames;
- make sure users can move through content in an intuitive and logical way;
- use descriptive links so users know where a link will take them, or to what content a downloadable link is directed to;
- use meaningful headings and labels, making sure that any accessible labels match or closely resemble the label being used in the interface;
- make it easy for keyboard users to see the item their keyboard or assistive technology is currently focused on ('active focus' techniques);
- only use things like mouse events or dynamic interactions (like swiping or pinching) when they are strictly necessary - or let the user disable them and interact with the interface in a different way;
- make it easy for users to disable and change shortcut keys.

Principle 3: Understandable

To meet 'WCAG 2.1 Principle 3: Understandable', users must be able to understand the content and how the service works.
Techniques used to achieve this are to:

- use plain English;
- keep sentences short;
- not use words and phrases that people may not recognise, or provide an explanation if this is unavoidable;
- explain all abbreviations and acronyms, unless they are well known and in common use, for example UK, EU, GB, VAT etc.;
- make it clear what language the content is written in, and indicate if this changes;
- make sure features look consistent and behave in predictable ways;
- make sure all form fields have visible and meaningful labels - and that they are marked up properly;
- make it easy for people to identify and correct errors in forms.

Principle 4: Robust

To meet 'WCAG 2.1 Principle 4: Robust', it must be ensured that the content can be interpreted reliably by a wide variety of user agents (including reasonably outdated, current and anticipated browsers and assistive technologies). Techniques used to achieve this are to:

- use valid HTML so user agents, including assistive technologies, can accurately interpret and parse content;
- make sure the code lets assistive technologies know what every user interface component is for, what state it is currently in and if it changes;
- make sure important status messages or modal dialogs are marked up in a way that informs the user of their presence and purpose, and lets them interact with them using their assistive technology;
- let the user return to what they were doing after they have interacted with the status message or modal input.

Appendix B - 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.