



Browsers and devices standard

We follow the principle of progressive enhancement and user of web standards. This means building pages in a layered way so that everyone can access the basic content and functionality, using any capable browser or internet connection.

At the same time, people using more advanced technology or greater bandwidth will be given as much visual and interactive richness as their environment can support.

Audience

- Developers
- Testing team
- UX designers
- Project managers
- Relationship managers

Requirements

Browsers are assigned a 'level of support' by TfL Online. These are summarised below and **must** be adhered to when developing digital services for TfL.

Browser/OS support matrix

1. Grade A - fully supported

Capable, modern and high-usage browsers: All content must be able to take full advantage of web standards, with advanced presentation and behavioural layer.

- All content and functionality **must** work
- Variations in presentation **must** be minimised*

Browser	Operating system(s)
Chrome (latest version)	Windows 7/8/8.1/10, Vista, XP, Linux, Mac OSX
Internet Explorer 11	Windows 7/8.1/10
Internet Explorer 10	Windows 7/ 8/Vista
Internet Explorer 9	Windows 7/ Vista
Firefox (latest and previous version)	Windows 7/8.1/10/Vista/XP, Mac OSX
Opera 12	Windows 7/8/Vista/XP
Safari (latest version)	Macintosh/Mac OSX

2. Grade B - partially supported

Medium to lower-usage browsers: Assumed to be capable of modern web standards and functionality.

- All content and navigation **should** work
- Where functionality cannot be provided as intended, an alternative **should** be presented, failing which missing functionality should be hidden
- Unsupported features **must** degrade gracefully and not obscure content

Browser	Operating system(s)
Opera (11 and above – excl latest version)	Windows 8
Firefox (16 and above – excl latest version) inc Extended Support Release	Windows, OSX and Linux
Safari (6 and above – excl latest version)	OSX

3. Grade C - legacy support

Incapable, antiquated or rare browsers: These may have been previously popular, with low or decreasing trends in usage. We maintain legacy support for these as they may still have significant use in some corporate environments.

- Core content and functionality **should** work

- Unsupported features **should** degrade gracefully and must not obscure content or navigation

Browser	Operating system(s)
Internet Explorer 7	Windows XP

4. Grade D – legacy; not supported

These may still be in use in some corporate environments where no other browser available. It is worth noting that many major internet companies (including Google) no longer support these browsers.

- In some cases, additional effort will be required to ensure services are functional on these browsers but it has to be where there is no possibility of corporate users changing to a supported browser

Browser	Operating system(s)
Internet Explorer 6	Windows (all applicable)

*Our site uses responsive design and it is the nature of the medium that variations in layout will occur at different breakpoints as content flexes to fill the screen. Layout variation in response to screen width is acceptable (eg expansion and wrap of headings and text, and changes in layout defined by media query breakpoints).

Device support

Based on our user statistics, we aim to test on a list of popular current devices (mobile, slate and tablet - portrait and landscape) across various mobile platforms and browsers to cover as much of the mobile range as possible.

This list will be reviewed on a regular basis.

Popular devices (Jun-Dec 2015)

Mobile

Device	Operating system	Browser
Apple iPhone (latest)	iOS	Latest version of Safari, Chrome and iOS
Samsung Galaxy S5	Android	Latest version of Android, Chrome
Samsung Galaxy S4 LTE	Android	Latest version of Android, Chrome
Samsung Galaxy S4 Mini	Android	Latest version of Android, Chrome
Samsung Galaxy S4 Mini	Android	Latest version of Android, Chrome
Samsung Galaxy S6	Android	Latest version of Android, Chrome
Samsung Galaxy S3	Android	Latest version of Android, Chrome
Samsung Galaxy Note S3 4G LTE	Android	Latest version of Android, Chrome
HTC One M8	Android	Latest version of Android, Chrome

Full-sized tablets

Device	Operating system	Browser
The New iPad	iOS	Latest version of Safari, Chrome
Samsung Galaxy Tab 3	Android	Latest version of Android

Mini tablets

Device	Operating system	Browser
Nexus 7 (Android 4.1)	Android	Latest version of Android, Chrome
Kindle Fire	Android	Latest version of Android, Chrome

Why we do this

We want to give the best experience to all our users and ensure that whatever device or technology they're using, our content is always available.

We also know that technology is always changing, so we need to be adaptable and allow small variations in browser experience.

Type: Standard
Owner: TfL Online Compliance
Department: TfL Online

Version history

Version	Date	Summary of changes
1.0	11/12/2013	First issue
2.0	07/12/2015	Third Issue
4.0	01/02/2016	Fourth Issue

Review history

Name	Title	Date	Comments
Valerie Clarke	Senior Analyst	10/7/2014	To be updated September 2014
Olaf Stephenson	Senior Analyst	07/12/2015	Updated September 2015
