

Web Browser Compatibility Assessment

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Background:

PJM is researching the compatibility of our websites and eTools with newer versions of Web browsers to improve support for our members. Currently, PJM's website tools require a specific version of Internet Explorer to ensure that all functions work properly. To better support members' needs, PJM is exploring supporting newer versions of Internet Explorer and some alternative browsers.

Status of Current Phase:

PJM has tested the compatibility of our websites and eTools with a variety of operating systems and browsers. With the results of this research, PJM will plan its official support for a broader set of Web browsers for some of our websites and will upgrade other systems that currently depend on very specific browsers and versions.

Internet Explorer 8	Internet Explorer 9	Firefox 3	Firefox 4
<ol style="list-style-type: none"> 1. Bulletin Board 2. Committee Voting 3. eCredit 4. eLRS 5. eMTR 6. eSuite Messages 7. OASIS 	<ol style="list-style-type: none"> 1. Bulletin Board 2. Committee Voting 3. eCredit 4. eLRS 5. eMTR 6. eSuite Messages 7. OASIS 	<ol style="list-style-type: none"> 1. Bulletin Board 2. Committee Voting 3. eCredit 4. eLRS 5. eMTR 6. eSuite Messages 7. OASIS 	<ol style="list-style-type: none"> 1. Bulletin Board 2. Committee Voting 3. eCredit 4. eLRS 5. eMTR 6. eSuite Messages 7. OASIS
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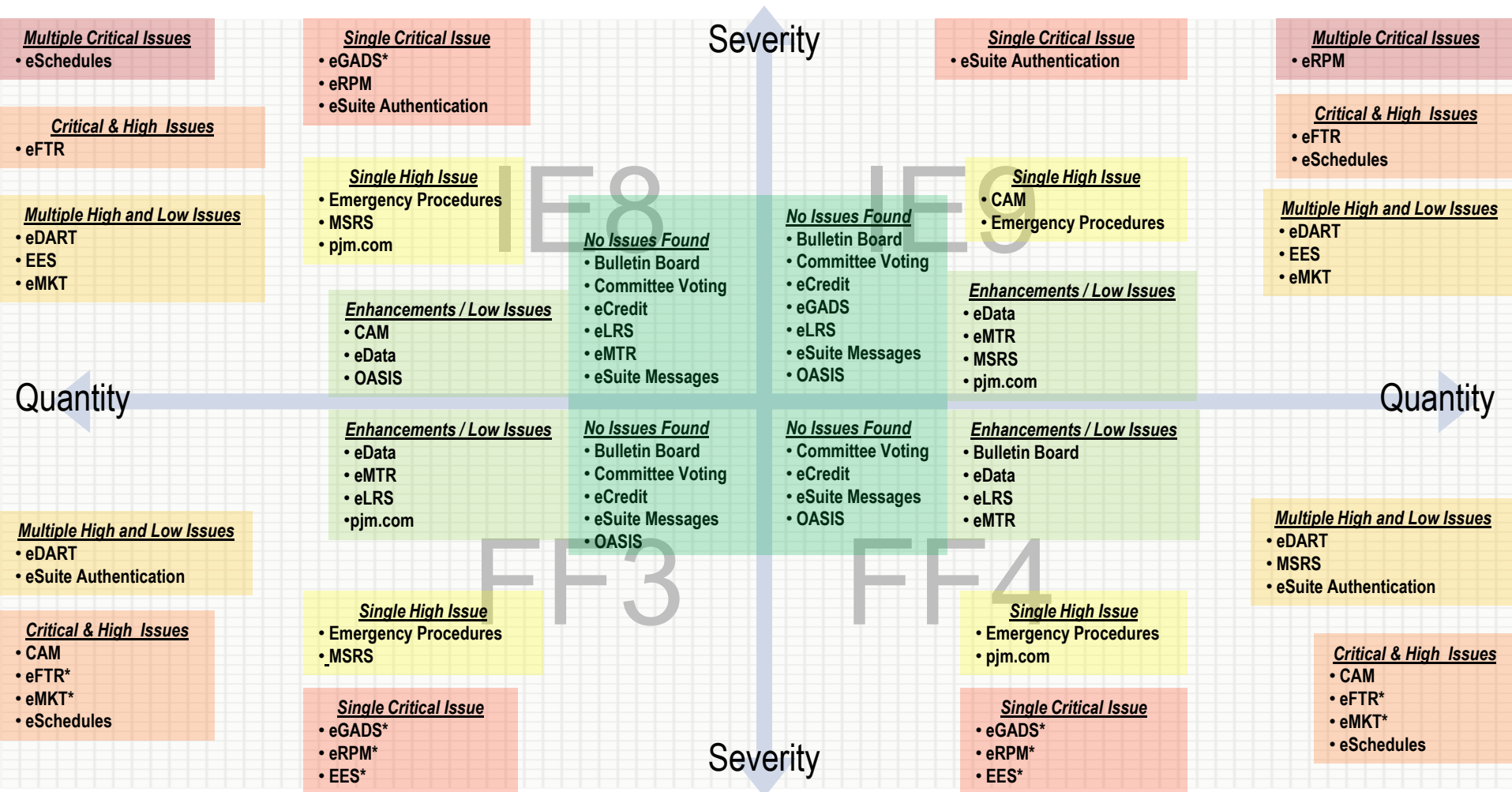
*Fully functional indicates all core functionality behaves as expected with no critical or high issues.

Assessment Results:

Summary of Results – All Browsers

Issue Classification

- Critical** – Core Application Functionality Cannot Occur
- High** – Core Application Functionality Can Occur w/ Workaround
- Low** – Application is not consistent across OS/Browser Versions
- Enhancement** – Nice to have / Cosmetic Update



* Indicates roadblock/testing obstacle encountered limiting full assessment

Implement Support Structure for a Variety of Browsers – *underway*

- PJM to publish a list of eTools that are supported on multiple browsers
- Members may contact PJM to receive technical support for these eTools while using an expanded list of compatible browsers and versions

Develop Plan for Updating eTools – *initial plan due in September*

- Based on the results of the assessment, PJM will prioritize upgrades/fixes to enable a broader set of eTools on multiple browsers and versions
- Coordinate development schedule with Advanced Control Center (AC²) activities

Update PJM membership on status of supported browsers – *ongoing*

- PJM to provide updates at member meetings as appropriate
- More information available at

<http://pjm.com/about-pjm/browser-compatibility.aspx>

Questions?

Appendices

Operating Systems Tested

Windows XP

Windows Vista

Windows 7

Mac OS X Snow Leopard (1.6)

Browsers Tested

Internet Explorer 8

Internet Explorer 9

Firefox 3

Firefox 4

- All pass/fail criteria was determined by comparing functionality against the behavior in the currently supported version, Internet Explorer 7.
- The assessment team performed testing on a variety of “base case” test conditions. These conditions included validation of “look and feel”, navigation/hyperlinks, browser specific tests, application functionality and application specific test scenarios that were outlined by each application’s business lead.

Legend

- No Issues Found (76)
- Low Defects / Enhancements (62)
- High Defect (59)
- Critical Defects (76)
- Outlier for Browser/OS

Assessment Results

Detailed Results by Browser/OS

Application	Internet Explorer 8			Internet Explorer 9		Firefox 3				Firefox 4			
	IE 8 (Windows7)	IE 8 (Vista)	IE 8 (XP)	IE 9 (Windows 7)	IE 9 (Vista)	FF 3 (Windows 7)	FF 3 (Vista)	FF 3 (XP)	FF 3 (MAC)	FF 4 (Windows 7)	FF 4 (Vista)	FF 4 (XP)	FF 4 (MAC)
Bulletin Board	●	●	●	●	●	●	●	●	●	●	●	●	●
CAM	●	●	●	●	●	●	●	●	●	●	●	●	●
Committee Voting	●	●	●	●	●	●	●	●	●	●	●	●	●
eCredit	●	●	●	●	●	●	●	●	●	●	●	●	●
eDART	●	●	●	●	●	●	●	●	●	●	●	●	●
eData (PRD)	●	●	●	●	●	●	●	●	●	●	●	●	●
eData (TRN)	●	●	●	●	●	●	●	●	●	●	●	●	●
EES	●	●	●	●	●	●	●	●	●	●	●	●	●
eFTR	●	●	●	●	●	●	●	●	●	●	●	●	●
eGADS	●	●	●	●	●	●	●	●	●	●	●	●	●
eLRS	●	●	●	●	●	●	●	●	●	●	●	●	●
Emergency Procedures	●	●	●	●	●	●	●	●	●	●	●	●	●
eMKT	●	●	●	●	●	●	●	●	●	●	●	●	●
eMTR	●	●	●	●	●	●	●	●	●	●	●	●	●
eRPM	●	●	●	●	●	●	●	●	●	●	●	●	●
eSchedules	●	●	●	●	●	●	●	●	●	●	●	●	●
eSuite Authentication	●	●	●	●	●	●	●	●	●	●	●	●	●
eSuite Messages	●	●	●	●	●	●	●	●	●	●	●	●	●
MSRS	●	●	●	●	●	●	●	●	●	●	●	●	●
OASIS	●	●	●	●	●	●	●	●	●	●	●	●	●
pjm.com	●	●	●	●	●	●	●	●	●	●	●	●	●



Summary of Results – Internet Explorer 8

Issue Classification

Critical – Core Application Functionality Cannot Occur

High – Core Application Functionality Can Occur w/ Workaround

Low – Application is not consistent across OS/Browser Versions

Enhancement – Nice to have / Cosmetic Update

* Indicates roadblock/testing obstacle encountered limiting full assessment

Critical

Severity / Impact of Issues

Low

Quantity of Issues

High

Single Critical Issue

- eGADS*
- eRPM
- eSuite Authentication

Multiple Critical Issues

- eSchedules

Critical & High Issues

- eFTR

Single High Issue

- Emergency Procedures
- MSRS
- pjm.com

Multiple High and Low Issues

- eDART
- EES
- eMKT

No Issues Found

- Bulletin Board
- Committee Voting
- eCredit
- eLRS
- eMTR
- eSuite Messages

Enhancements / Low Issues

- CAM
- eData
- OASIS



Summary of Results – Internet Explorer 9

Issue Classification

Critical – Core Application Functionality Cannot Occur

High – Core Application Functionality Can Occur w/ Workaround

Low – Application is not consistent across OS/Browser Versions

Enhancement – Nice to have / Cosmetic Update

* Indicates roadblock/testing obstacle encountered limiting full assessment

Critical

Severity / Impact of Issues

Low

Quantity of Issues

High

Single Critical Issue

- eSuite Authentication

Multiple Critical Issues

- eRPM

Critical & High Issues

- eFTR
- eSchedules

Single High Issue

- CAM
- Emergency Procedures

Multiple High and Low Issues

- eDART
- EES
- eMKT

No Issues Found

- Bulletin Board
- Committee Voting
- eCredit
- eGADS
- eLRS
- eSuite Messages
- OASIS

Enhancements / Low Issues

- eData
- eMTR
- MSRS
- pj.m.com



Summary of Results – Firefox 3

Issue Classification

Critical – Core Application Functionality Cannot Occur

High – Core Application Functionality Can Occur w/ Workaround

Low – Application is not consistent across OS/Browser Versions

Enhancement – Nice to have / Cosmetic Update

* Indicates roadblock/testing obstacle encountered limiting full assessment

Critical

Severity / Impact of Issues

Low

Quantity of Issues

High

Single Critical Issue

- eGADS*
- eRPM*
- EES*

Critical & High Issues

- CAM
- eFTR*
- eMKT*
- eSchedules

Single High Issue

- Emergency Procedures
- MSRS

Multiple High and Low Issues

- eDART
- eSuite Authentication

No Issues Found

- Bulletin Board
- Committee Voting
- eCredit
- eSuite Messages
- OASIS

Enhancements / Low Issues

- eData
- eMTR
- eLRS
- pjim.com



Summary of Results – Firefox 4

Issue Classification

Critical – Core Application Functionality Cannot Occur

High – Core Application Functionality Can Occur w/ Workaround

Low – Application is not consistent across OS/Browser Versions

Enhancement – Nice to have / Cosmetic Update

* Indicates roadblock/testing obstacle encountered limiting full assessment

Critical

Severity / Impact of Issues

Single Critical Issue

- eGADS*
- eRPM*
- EES*

Critical & High Issues

- CAM
- eFTR*
- eMKT*
- eSchedules

Single High Issue

- Emergency Procedures
- pjm.com

Multiple High and Low Issues

- eDART
- MSRS
- eSuite Authentication

No Issues Found

- Committee Voting
- eCredit
- eSuite Messages
- OASIS

Enhancements / Low Issues

- Bulletin Board
- eData
- eLRS
- eMTR

Low

Quantity of Issues

High