

# 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"> <li>1. Bulletin Board</li> <li>2. Committee Voting</li> <li>3. eCredit</li> <li>4. eLRS</li> <li>5. eMTR</li> <li>6. eSuite Messages</li> <li>7. OASIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Bulletin Board</li> <li>2. Committee Voting</li> <li>3. eCredit</li> <li>4. eLRS</li> <li>5. eMTR</li> <li>6. eSuite Messages</li> <li>7. OASIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Bulletin Board</li> <li>2. Committee Voting</li> <li>3. eCredit</li> <li>4. eLRS</li> <li>5. eMTR</li> <li>6. eSuite Messages</li> <li>7. OASIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Bulletin Board</li> <li>2. Committee Voting</li> <li>3. eCredit</li> <li>4. eLRS</li> <li>5. eMTR</li> <li>6. eSuite Messages</li> <li>7. OASIS</li> </ol>
<ol style="list-style-type: none"> <li>8. CAM</li> <li>9. eData</li> </ol>	<ol style="list-style-type: none"> <li>8. eData</li> <li>9. MSRS</li> <li>10. pjm.com</li> </ol>	<ol style="list-style-type: none"> <li>8. eSuite Authentication</li> <li>9. pjm.com</li> </ol>	<ol style="list-style-type: none"> <li>8. eSuite Authentication</li> </ol>

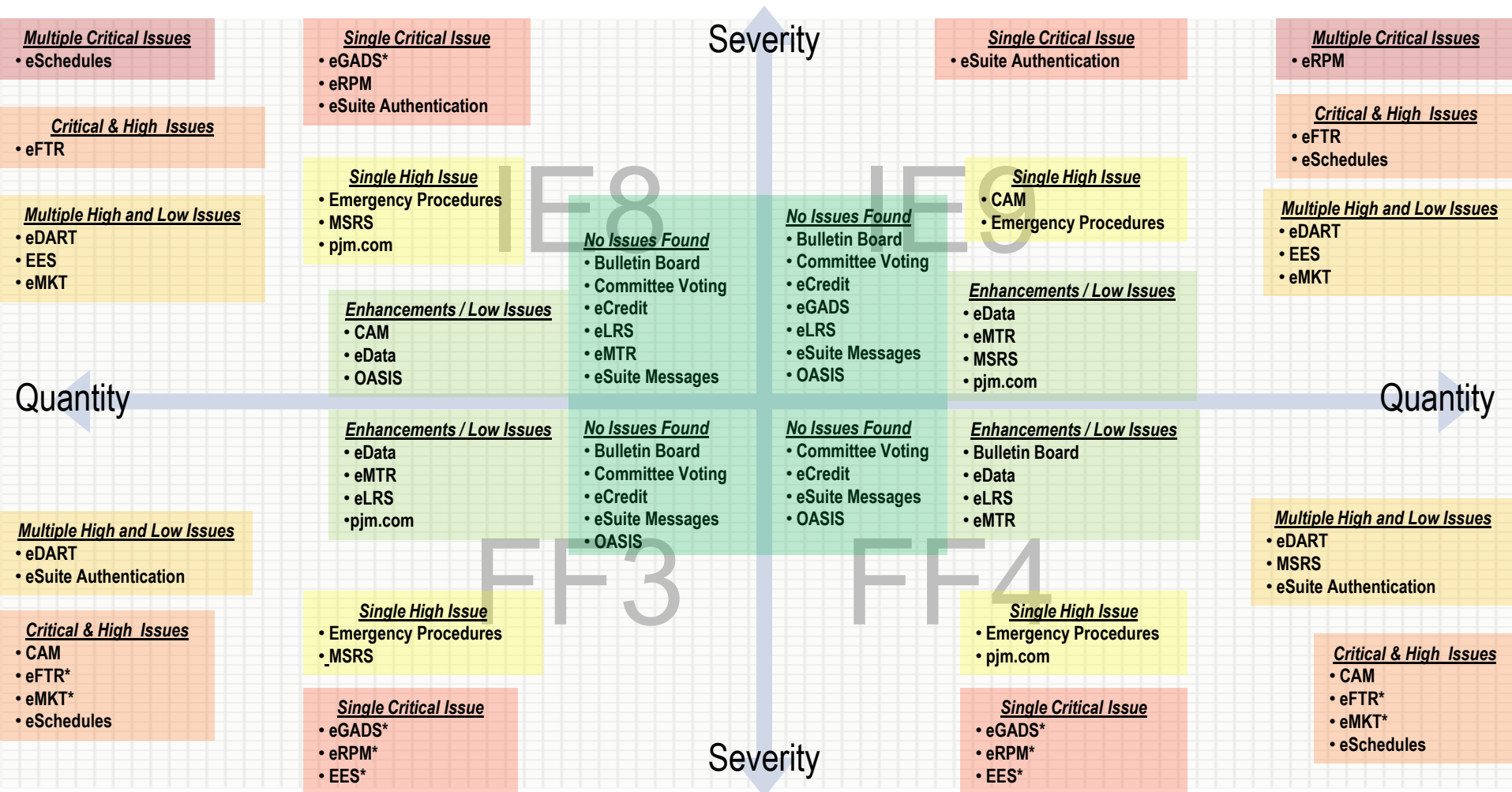
\*Fully functional indicates all core functionality behaves as expected with no critical or high issues.

# 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 (AC<sup>2</sup>) 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

## Issue Classification

**Critical** – Core Application Functionality Cannot Occur

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Critical

Severity / Impact of Issues

Low

Quantity of Issues

High

**No Issues Found**

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

**Single High Issue**

- CAM
- Emergency Procedures

**Enhancements / Low Issues**

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

**Single Critical Issue**

- eSuite Authentication

**Multiple Critical Issues**

- eRPM

**Critical & High Issues**

- eFTR
- eSchedules

**Multiple High and Low Issues**

- eDART
- EES
- eMKT

## Issue Classification

**Critical** – Core Application Functionality Cannot Occur

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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
- pjm.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