Potential Solution – PDF Viewing Issue in iframe for SSDS_MK2_MOD_6C_IETM_64_Bit

Potential Solution – Fix PMA OE to support new 64bit version of S1000D IETM (A32)

This is a record done by myself, Colten (Cole) Everitt, of all of the steps I have taken in order to solve this problem shown highlighted in red above. First, I started out by simply studying a PMA and learning all of the ins and outs of the machine. I then went in deeper and used the terminal to look through mostly all of the folders located inside. I also went into looking at the HTML code of each distinct web link of the IETM. Before beginning anything, I completely reinstalled the newest PMA software/interface (version 3.1.8) on the PMA. I then installed the newest version of the IETM to make sure the whole machine was up to date. During the process, I furthered my understanding of VI which is a text editor used in the UNIX system using the terminal on the PMA.

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1. Could be a problem with Firefox browser configuration settings to view PDFs. You could view these settings in the URL – about:config. You can change/modify these settings using VI in the Mozilla.cfg file located in the file path: /usr/lib64/firefox.
    a. Example changes:
        i. //Used to allow IETMS to use . . .
        lockPref (“pdfjs.disabled”, true);
        Changed to →
        //lockPref (“pdfjs.disabled”, true);
        ii. //Used to allow IETMS to use . . .
        lockPref(“pdfjs.disabled”, true);
        Changed to →
        Pref(“pdfjs.disabled”, true);
        iii. //Used to allow IETMS to use . . .
        lockPref(“pdfjs.disabled”, true);
        Changed to →
        lockPref(“pdfjs.enabled”, true);
        iv. //Used to allow IETMS to use . . .
        lockPref(“pdfjs.disabled”, true);
        Changed to →
        lockPref(“pdfjs.disabled”, false);
        v. Many other combinations of permissions were tried for this setting as well as many other settings. These changes did not fix the problem.

2. Could be a problem with Firefox browser add on/plugin settings to view PDFs. You could view these settings in the URL – about:addons. You can change/modify these settings by adding/removing them on the web page. But you cannot add any new plugins if they already are not in the web page to begin with.
    a. These changes did not fix the problem because no additional plugins could be added.

3. Could be a problem with the current version of Firefox on the most up to date version of the PMA software.
    a. On the older PMA software version, Firefox ESR version 10.0.12 is loaded on.
        i. We would need to update this version of Firefox to a version between 19 and 30, or to the most up to date version.
            1. A new plugin to display PDFs in the iframe of Firefox would need to be installed, but I do not have the permissions to do so.
    b. Firefox version 45.6.0 is installed on the most up to date version of PMA software, which is a lot newer than version 10.0.12.
        i. The problem might be that there is need for a new plugin on the most up to date version of PMA software because of the version of Firefox being newer.
            1. The new plugin would have to be signed over, approved, and added to the PMA. But again, I do not have the network/internet access to do so.
    c. I also tried to test the newer version of Firefox in a simple RedHat Linux environment to see if it could display PDFs in the iframe.
        i. If this would have worked, then the problem could've been that the PMA software was blocking the PDF viewing on the PMA.

4. Could be an issue with a certain port not working correctly or being broken.
    a. Could not access any ports, tried another option.

5. Could be a problem with the firewall blocking the PDFs from being viewed in web browsers.
    a. The directories of "iptables" or "firewalld" contain the files in order to turn certain firewall settings off/on or contain the files in order to turn the firewall off completely. The exact path of these files is: (Log in as root) /etc/sysconfig.
    b. Exact error: "Server port 2245 is unavailable. Server terminated. 1495778645325 addons.productaddons WARN failed downloading XML. Status: 0: reason: error" (This is printed twice each time the IETM is ran).
    c. It is not a firewall problem because the same exact error occurred when the whole firewall was turned off completely.

6. Could be a client vs. server issue.
    a. Used the Linux command “wget” in order to command line download a certain PDF from the server and display on the client, thus bypassing the Firefox application for PDF viewing in the iframe altogether.
        i. In order to do this, the URL of a certain PDF has to be found either in the HTML of the IETM or in the source code of the IETM.
            1. If a URL cannot be found, then this might be a client vs. server issue.
                a. Several URLs for PDFs were found.

7. Opening PDFs using the Linux command “gnome-open (filename)” works if they are just opened in Firefox directly, not using the iframe.
    a. This tells me that somewhere, the URL for each PDF is wrong or not exactly correct somewhere in the IETM source code or HTML code.

8. Could be a problem with the source code for each page in the IETM.
    a. Cannot access the source code for the IETM; it is handed by a publisher.

9. Could be a problem with the HTML code for each page in the IETM.
    a. Right click to inspect page element source or press F12 on the web page where the “HTTP Error 404” occurs.
        i. <embedded src = “SERVER GROUP (NSG) </TITLE><META ID = “>>
            1. Change the above line in each of the IETM web pages that gets the PDF viewing error to: <embedded src = http://localhost:2245/798V2_HTTP/pmc_ssds_63273_ol798_02/figures/ICN-SSDS-MK2-HT341MH03-N-00720-A-01-1.pdf>
            2. The above highlighted in yellow is what the HTML code should be changed to in order for the error to go away.
            3. In order for an actual PDF to be viewed, the above highlighted in green needs to be provided, which is any direct path to a certain PDF stored in the figures directory in the IETM directory.
                a. This solution works for each and every PDF in the IETM. Once saved, PDFs will appear in the iframe viewer, but when the web page is switched to another web page and gone back into the original web page, the HTML code resets to the original value, which is incorrect and giving the error.

b. The IETM publishers need to input each correct PDF URL in each failure HTML source code on their end before they send us the final version of the IETM.

b. In the older version of the IETM (32 bit), the PDF HTML code looks exactly like the solution stated above, but none of the PDFs can be viewed in this version because of a missing plugin. But with that plugin installed, all of the PDFs probably could be viewed just like in the 64 bit version because the embedded source path is correct.

c. This problem seems to be the result of a publishing issue of the IETM to us.