

Citrix Connectivity Help

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Purpose of this Document

As everyone is aware there are times that users have various issues and woes while using Citrix. To resolve those woes and issues, users either contact the ALTESS Service Desk or the SPS Helpdesk. Once the ticket is received, the user might have to wait a certain amount of time before his/her issues are looked at by the respective party. This document is hopefully going to alleviate some of the wait time users have when submitting a ticket to those Service Desks.

How is this document going to do that? I have compiled a list of issues/annoyances that users see [on a daily basis, once a week, or maybe even once a year] and how users can resolve those issues on their own, no ticket or phone call required. This document will empower the users to get immediate help with issues with no wait time needed by simply following this document and the steps shown therein to be back to work in no time. Please remember though that some of these fixes are not the end all be all of the issue. In some cases, even after following the directions contained in this document, a user might still have to open a ticket.

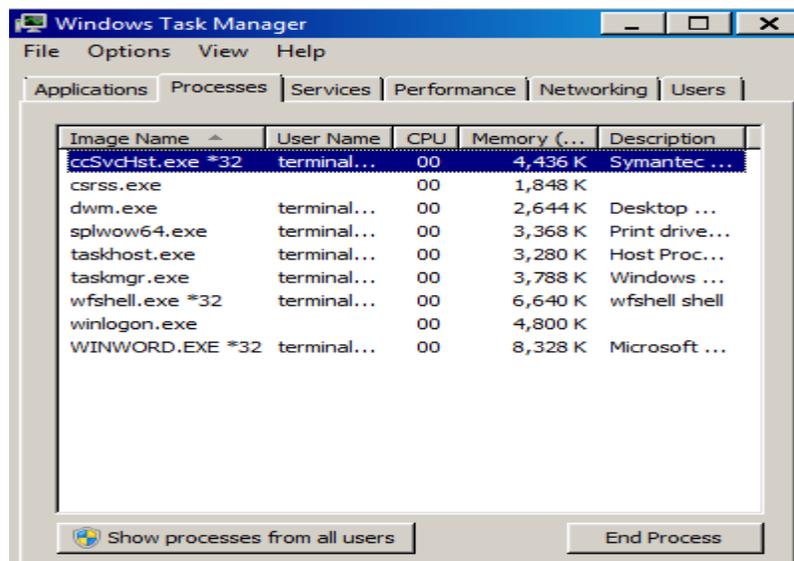
How to use this document: Links to common issues that I have either resolved or worked on an individual basis with users are in the Table of Contents. If a user has an issue, click on the relevant heading in the Table of Contents, and it will take the user to the instructions to help resolve the issue.

This is an expanding document and as I see more recurring issues or questions, this document will increase in size.

Print Preview Freezing:

A frozen print preview window can come in many forms, but the most common is when the screen goes grey/white, and you can no longer interact with Citrix. A white screen can also indicate Session Reliability has kicked in as well (we will cover this later). To resolve a frozen print preview window (without having to close PD²) follow these steps.

- 1) On your keyboard hold the left Ctrl key and press F3. If using this key combination doesn't work, try SHIFT-CTRL-ESC. This will open Task Manager.
- 2) Once Task Manager is open, you will see several tabs. Click on Processes as shown in the screenshot below.



- 3) Highlight the process called WINWORD.EXE *32.
- 4) Click on the button End Process.

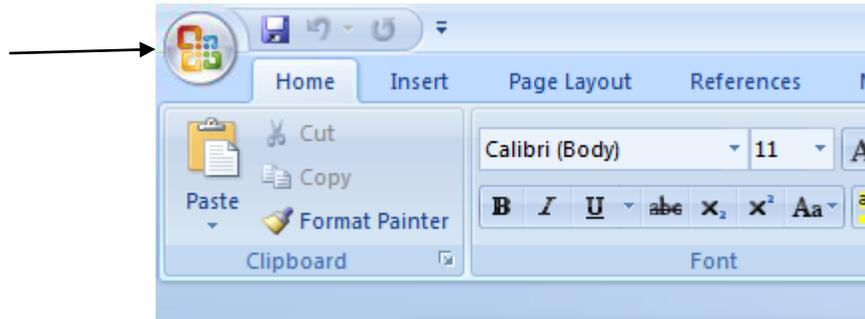
This will terminate the users' frozen Word session but still leave their PD² functional. If you see more than one WINWORD.EXE open for the user, click the End Process button for each one of them.

Closing Word/ PD² Correctly

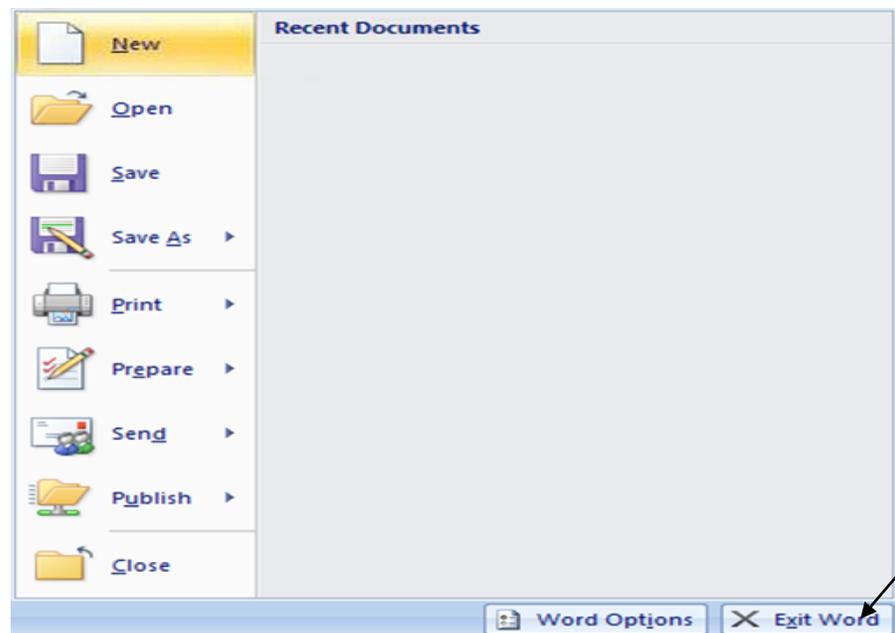
As some users know, Citrix can cause hung sessions when applications are not terminated correctly. To make sure users close Word/ PD² properly, follow these steps.

To close Word:

- 1) Click on the Windows Logo icon in the top left corner (shown in screenshot).



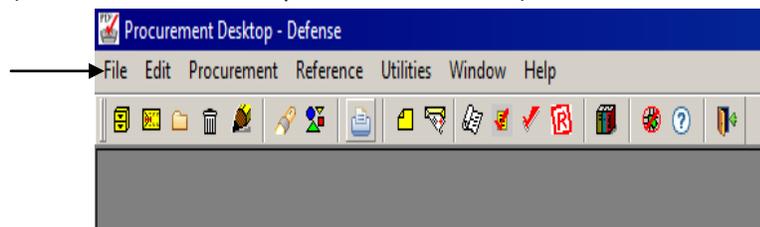
- 2) Click on Exit Word (shown in screenshot).



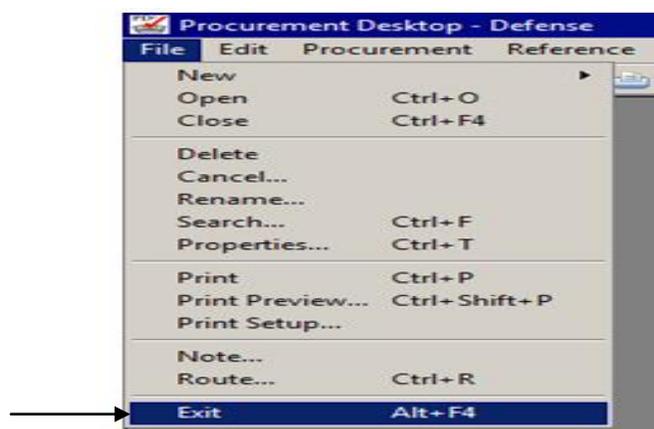
There are two ways to close PD².

Option One

- 1) Click on File in the top left corner of PD² (shown in screenshot).



- 2) Click on Exit (shown in the screenshot).

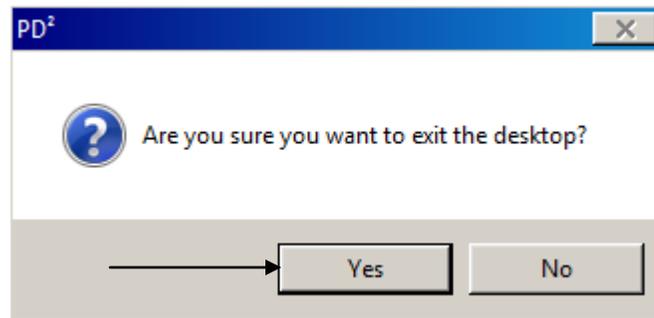


Option Two:

- 1) Click on the door icon in the center of PD² (shown in screenshot).



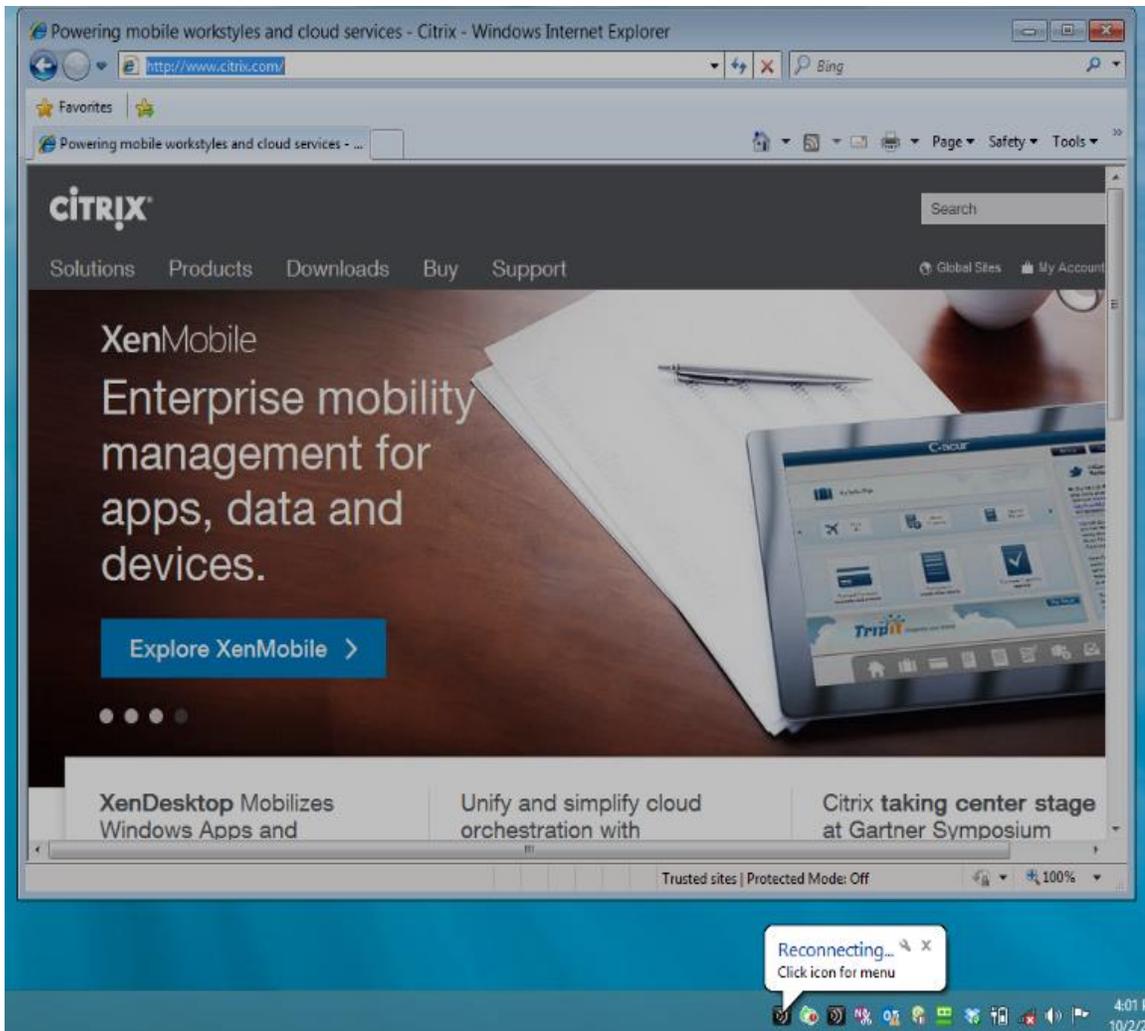
- 2) A dialog window will pop-up; click Yes (shown in screenshot).



Session Reliability:

Session Reliability (referred to as SR for the remainder of this document) allows users' sessions to remain "open" during times of network interrupts or extreme slowness. What I mean by "open" is that Citrix will keep the application open on the user's monitor, but the application will not take input from the user until Citrix can reconnect to the servers. During this "open" state there are several ways to tell if a SR has been triggered. The following screenshots are what users will see if SR happens on their computer.

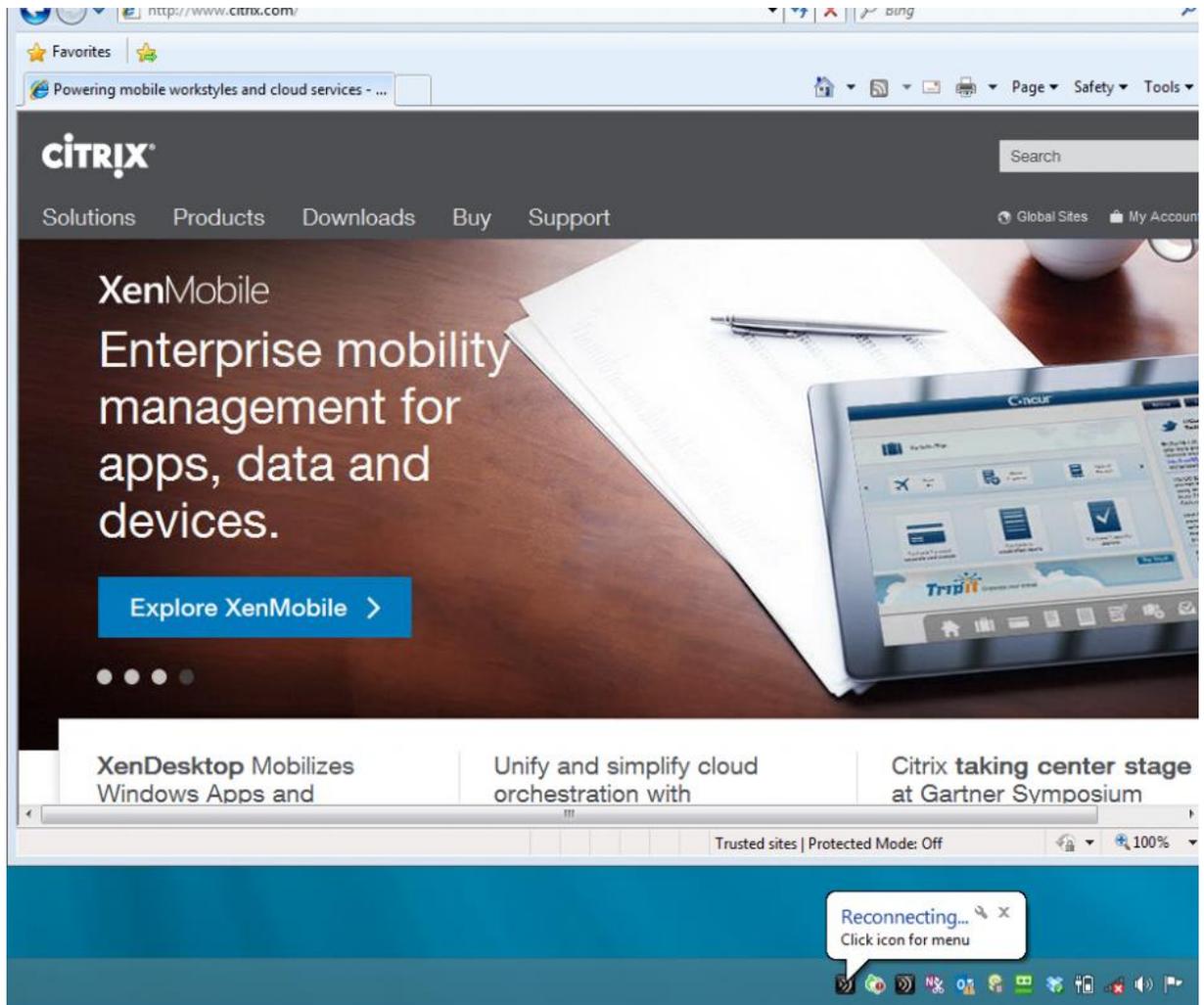
If users are using Receiver 4.x, when SR is triggered, the screen will look like this:



In this screenshot, two things are happening.

- 1) The application the user has open will gray itself out. When the user tries to interact with the application, it won't do anything.
- 2) The Receiver Plug-in is displaying a message that says it is trying to reconnect to the user's application.

If users are using Citrix Plug-In 12.x, when SR is triggered, the screen will look like this:



This screenshot looks almost the same as the one for users who are running Citrix Receiver, but the application doesn't gray out.

Sometimes SR can be triggered and your application goes solid white.

If any of these screenshots are seen, the user should give Citrix time to try and re-establish connection to the application. SR will only try for 3 minutes, so if after 3 minutes the application still looks odd, refer to the section in this document titled, "Closing all Connections in Citrix".

Now there are many factors between everyone's site locations and where the Citrix servers are located that could cause SR not to function at all, e.g., firewalls, security lock-downs, and STIG settings. Since I don't control every site's firewalls and computer lock-down policy, I cannot guarantee that SR will work. I have tested SR at several sites which worked fine and yet other sites don't.

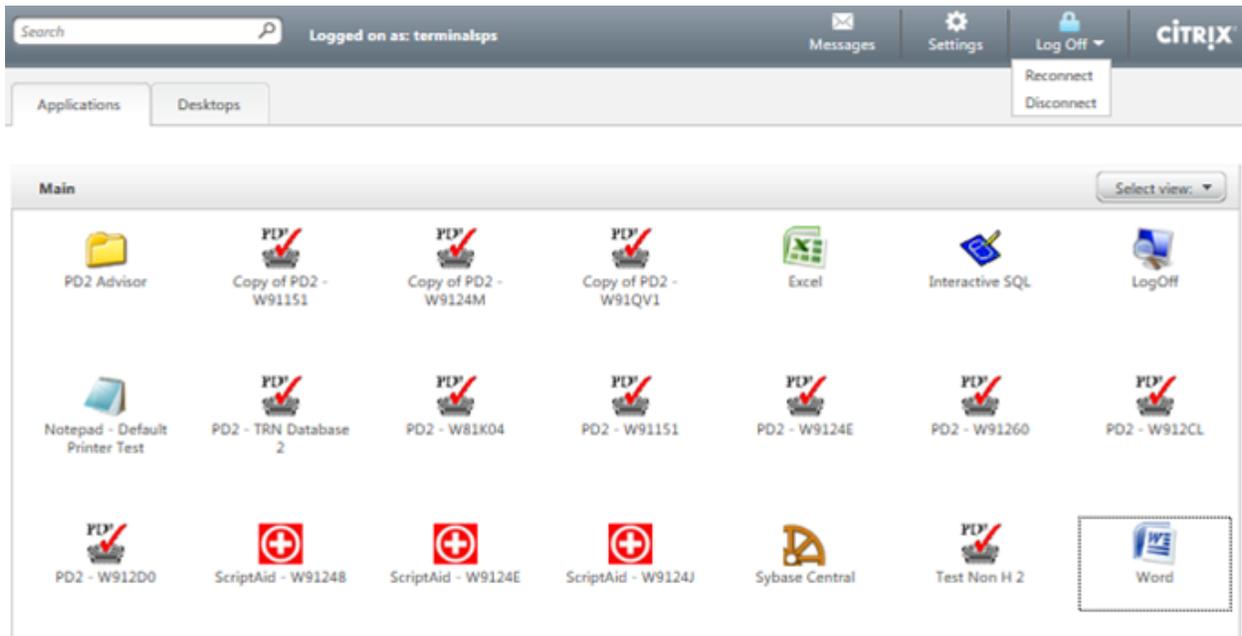
Reconnecting to Disconnected Applications

Reconnecting to disconnected applications has many advantages. It allows users to move from computer to computer without losing work, allows users to go to lunch and come back without losing work, and the biggest benefit when it comes to Army networks is the ability to get kicked out and still get reconnected to the applications. Now as with SR, certain security settings can prevent a successful reconnection to a user's disconnected application. I am going to go over how users can reconnect to applications that have been disconnected and hope that it works at a majority of sites.

There are a few scenarios that I will show users how to disconnect/reconnect to their Citrix sessions. Each scenario will show the users how to use the 12.3 Web Only plug-in and the Citrix receiver Plug-in to disconnect/reconnect. Please remember that users can only be disconnected from applications for 30 minutes before Citrix will terminate the connection and all unsaved work is lost. If users are going to be away from their computer for longer than that, they should log out of PD² and Citrix correctly.

Scenario 1: User is getting up from their desk to go to the printer or lunch. Also, the Citrix website HAS NOT timed out. (Do this BEFORE pulling out your CAC). This scenario covers both Web-Only Plug-in users and Citrix Receiver users.

1. On the Citrix website, hover over the Log Off button on the top of the screen (See screenshot)



2. As users hover over the Log Off, they will see Reconnect and Disconnect options. Click on Disconnect. When the users click on Disconnect, they will be logged off the website, and Citrix will place their application (PD² or Word or both) in a disconnected state on the server.
3. Close Internet Explorer.

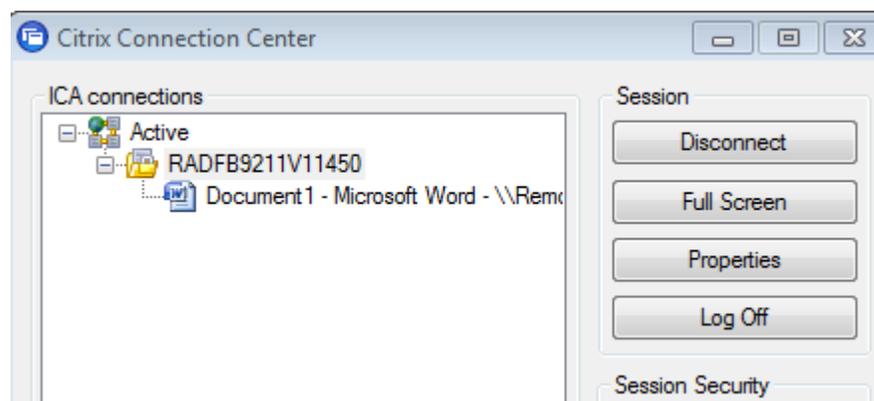
Scenario 2: User is getting up from their desk to go to the printer or lunch. Also the Citrix website HAS timed out due to inactivity (Do this BEFORE pulling out your CAC). In this scenario, I will cover Web-Only plug-in users and Citrix Receiver users in separate steps, as they are different.

Users of Web-Only Plug-in:

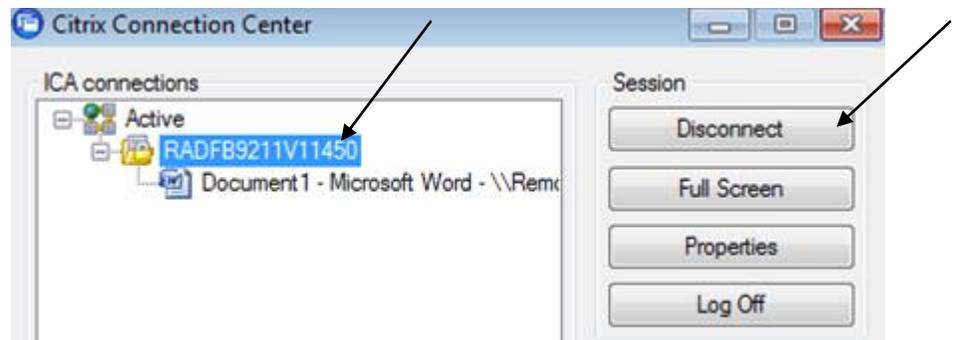
1. Down by the user's clock, on the local machine, he/she will need to open the Connection Center (screenshot below).



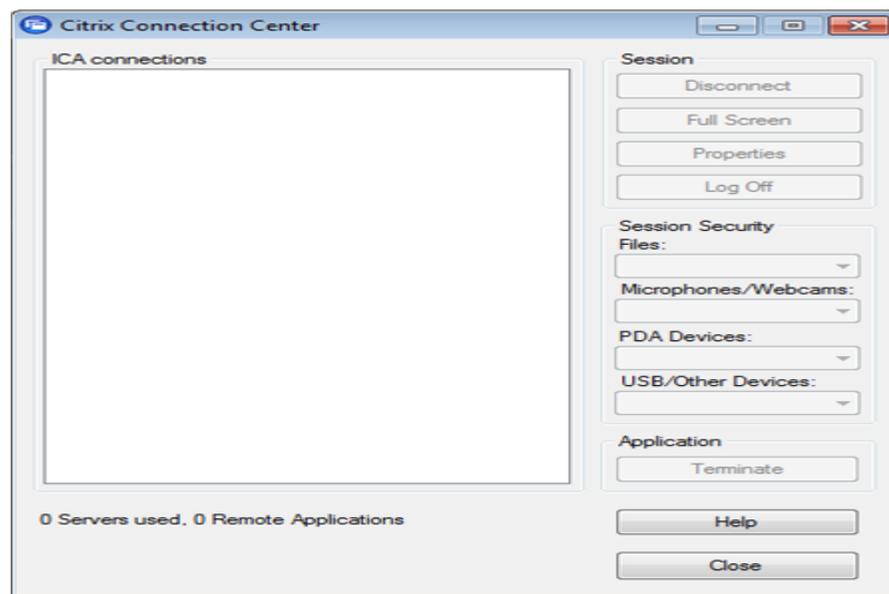
2. Once the Connection Center is open, users will see a screen that shows them the servers they are on and what application they have running on said server (screenshot below).



3. To disconnect the users from their application, the users will highlight the server name and click on Disconnect on the right side of Connection Center (screenshot below).

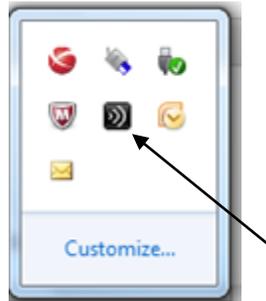


4. When there is no server listed in Connection Center, the user has been fully disconnected from the server (screenshot below).

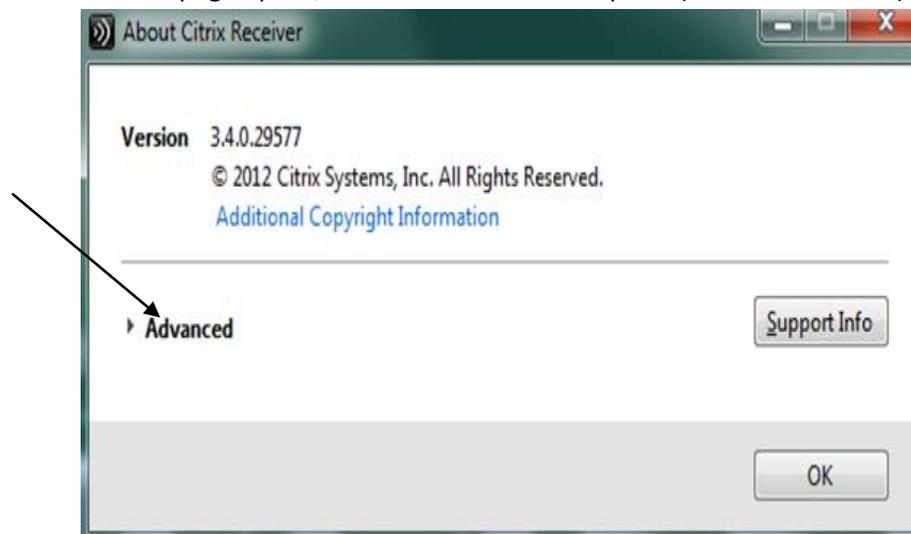


Users of Citrix Receiver:

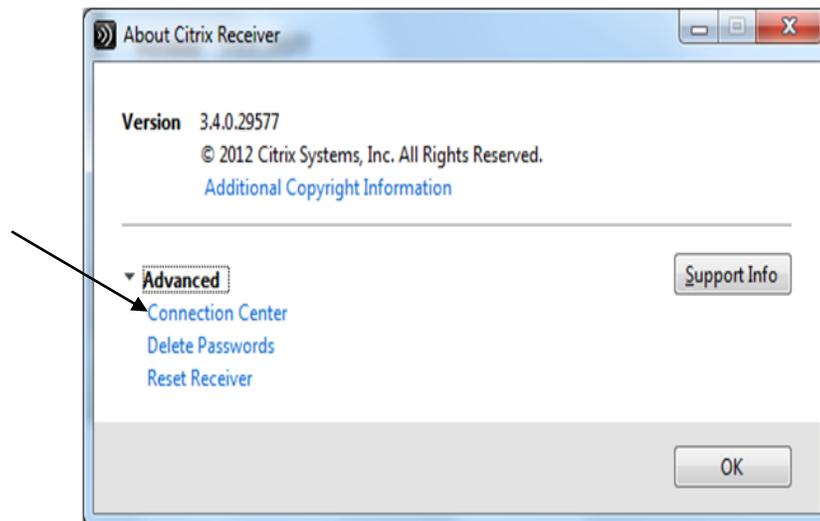
1. Down by the user's clock, on the local machine, he/she will need to locate the Citrix Receiver icon (screenshot below).



2. Right click the Citrix Receiver icon and select About.
3. Once the About page opens, click on the Advanced option (screenshot below).

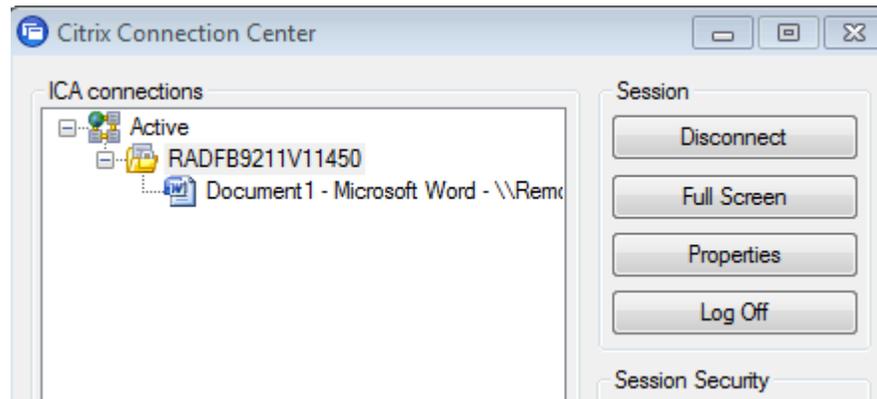


4. When a user clicks on the Advanced option, the user will be presented several different options. The user will click on Connection Center (screenshot below).

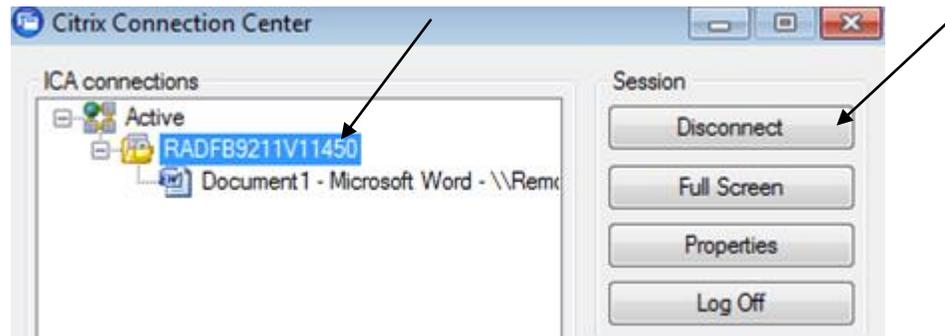


5. Once the Connection Center is open, users will see a screen that shows them the server

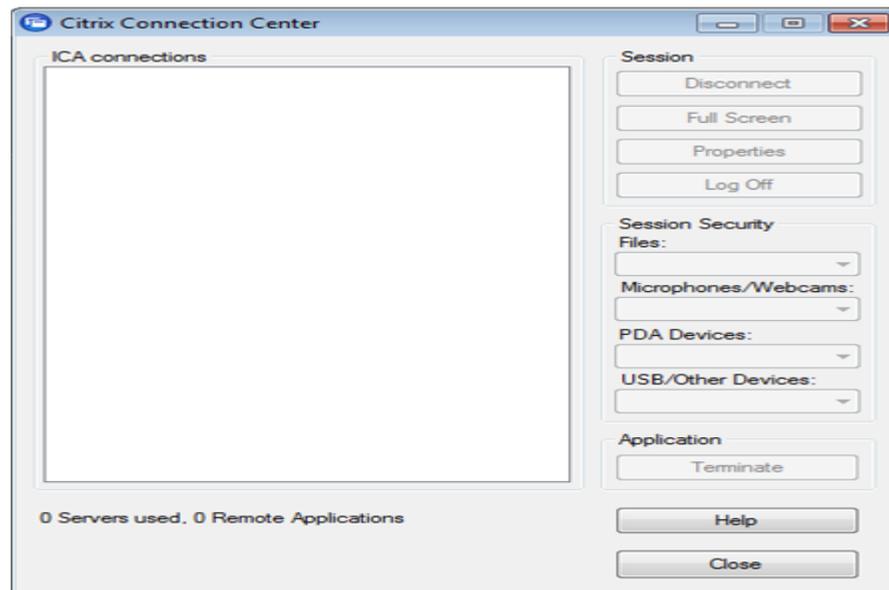
they are on and what application they have running on said server (screenshot below).



6. To disconnect the users from their application, the users will highlight the server name and click on Disconnect on the right side of Connection Center (screenshot below).

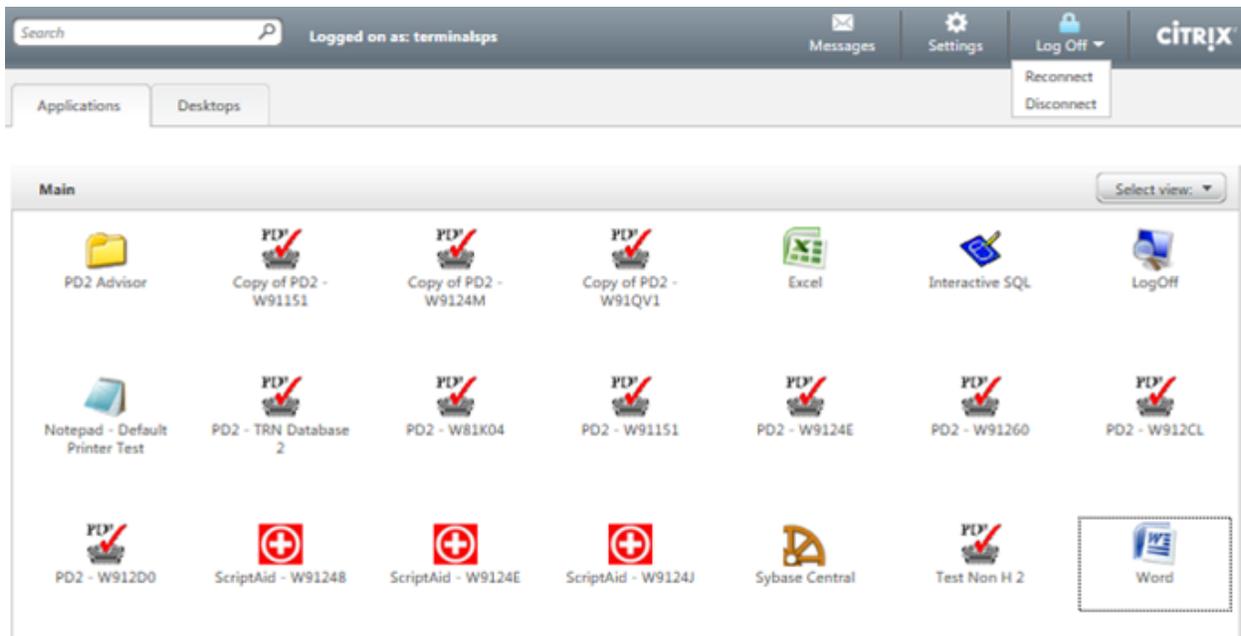


7. When there is no server listed in Connection Center, the user has been fully disconnected from the server (screenshot below).



When users are back at their desk and ready to log back into Citrix, one of two things will happen. Upon logging back into Citrix, the plug-in on the users' local machines could automatically reconnect the users to their disconnected session (without the user clicking on anything), or the users will have to click on reconnect. If Citrix automatically relaunches their application, that is great and no need to follow the directions below. The below instructions will work for both Citrix Web-Only Plug-in and Citrix Receiver users.

1. When users log onto the Citrix website, and Citrix does not reconnect them to their application, hover over the Log Off icon on the top of the page.
2. Click Reconnect (screenshot below).



3. Citrix will try and reconnect the user's disconnected session on the server.

There are of course some caveats to Citrix actually reconnecting users to a disconnected session. If the user did not follow these instructions, and the user's session is still active on the server, these instructions will not work because the user's session has to be in a disconnected state. When users disconnect their session and log back into the website after returning to their desk, Citrix could take up to 2 minutes to automatically reconnect their session. Users should give Citrix 2 minutes (to see if Citrix will automatically reconnect them) before using the reconnect option above. CAC users might have an issue sometimes depending on how long they are away from their desk. This is because ActivIdentity will close the connection between their computer and the server, so when Citrix reconnects to their application, ActivIdentity doesn't know how to send the server their CAC information. The ActivIdentity

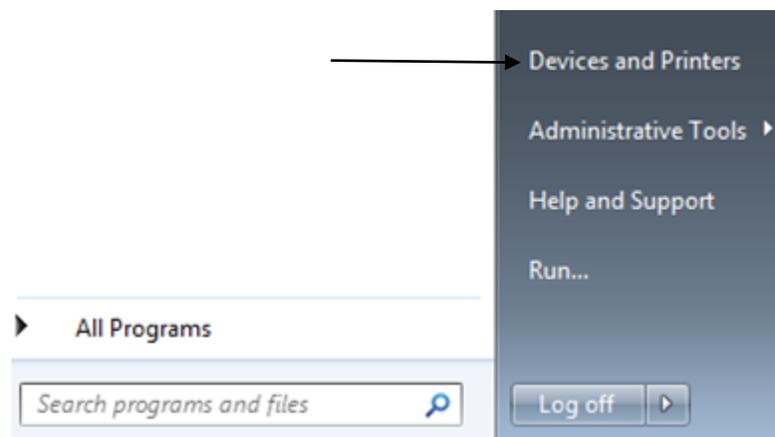
timeout is something I cannot control and will be on a site by site basis of whether some users can and others cannot reconnect to Citrix. Don't let these caveats scare users into not using the disconnect/reconnect features of Citrix though, because when it works, it will be an invaluable tool for every site's user base.

Setting Default Printer (on local machine):

Citrix maps every one of the printers on the users' local machines whenever PD² is launched. Since most XenApp servers run with 15-20 users, if each user has 10 printers, that is a total of 200 printers that Citrix will have to map to the server. This amount of printers causes slowness, freezing, and increased utilization on the XenApp servers. To help alleviate this issue, a new policy will be implemented that will only allow a user's default printer to be mapped into Citrix.

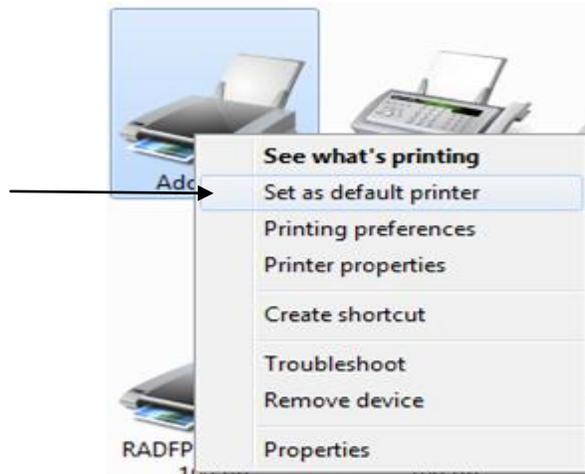
Citrix only maps users' printers on initial (first connection) connection into the environment, so users will need to make sure they have the printer they want to use set up as the default printer on their local machines BEFORE logging into Citrix. Follow the steps below to set a user's local default printer (the below guidance will assume your OS is Windows 7).

- 1) On the user's local machine, open Devices and Printers from the Start Menu (screenshot below).

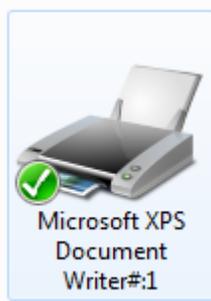


- 2) Once Devices and Printers is open, right-click the printer the user would like to set

as the default printer and select Set as default printer (screenshot below).



- 3) Once the default is set, the user should see a Green Check next to the printer that was set to default (screenshot below).



After the above steps are followed, the user can login to Citrix. IF the user wants to change their default printer AFTER they have logged into PD², they have to completely log out of PD²/Citrix, change the default printer, and then log back into Citrix.

So a user has Adobe PDF mapped using the instructions above, but while working in PD² the user needs to print to a different printer. How does the user, without logging out of Citrix, accomplish this?

How to print a document without having to logout of Citrix is shown below.

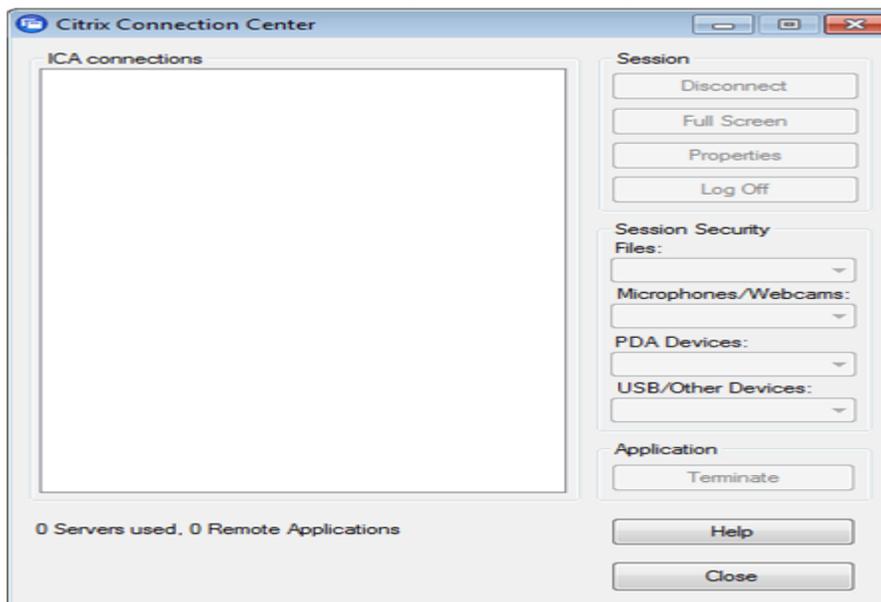
When working in Word or other documents in PD², users still have to the option to use 'Save As' and save the document to the users local C:\ which shows up a V:\ in Citrix. Once the document is saved on the user's local machine, locate the document and print it using any printer that that the user has installed locally. This can be done without logging out of Citrix at all.

Connections in Citrix

Throughout this document users have been hearing me talk about Connection Center (A LOT). Connection Center (referred to as CC for the rest of this topic) is an important piece of Citrix and is an invaluable tool for users to use when troubleshooting, terminating, and reconnecting/disconnecting (as discussed earlier in this document). The next portion of this document will show users how Connection Center can be used for assisting themselves when coming across issues while using Citrix. At the end of this topic, I will go over how Citrix actually works, so that users can better understand what has to happen for PD² to actually run.

There are many different "states" of Connection Center (Review the disconnect/reconnect section of this document on how to open Connection Center using Citrix Receiver). CC can tell users if they are hung on a server, or if they have a connection to Citrix even though there is no application open on their computer. CC can also be used to terminate hung applications, or it can provide users with the server they are connected to if they are putting in a ticket. I am going to show the user each "state" of CC and talk about each one, so that users can understand what they see (or don't see) in CC.

Let's talk about the blank CC first (screenshot below).



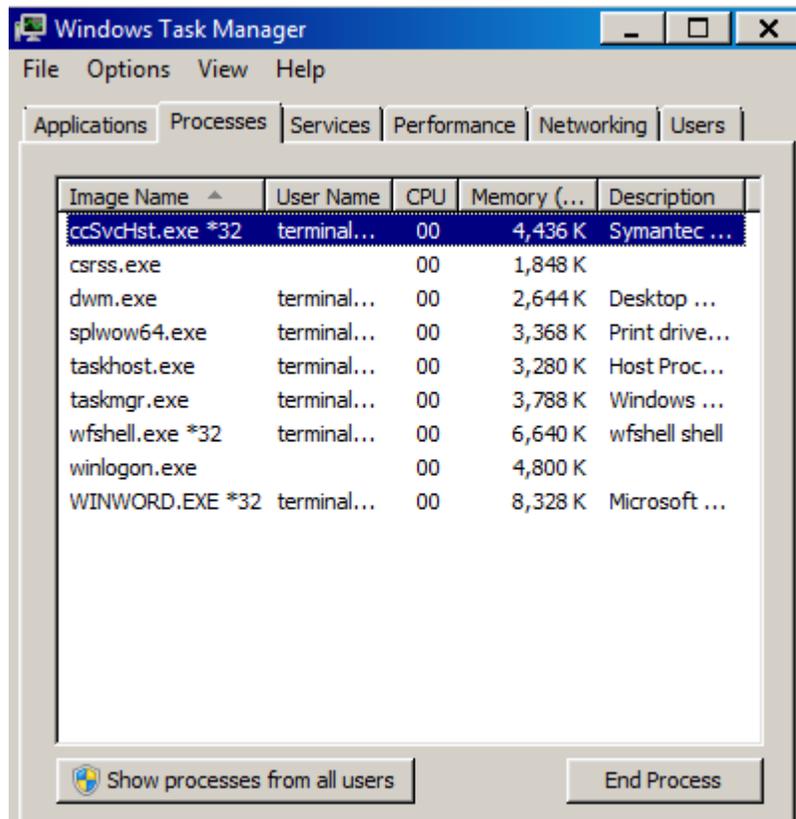
If users see a blank CC, it could mean a few different things (I am going to highlight the most common ones below).

1. The user just followed the Reconnect/Disconnect topic in this document and CC has not closed on its own yet. This is normal, using the Reconnect/Disconnect option; Citrix will close CC on its own after a set number of seconds.
2. The Citrix Plug-In on the user's local machine is having issues. This is the biggest offender of blank CC screens.

3. CC could be blank and not close itself due to a combination of both 1 and 2.

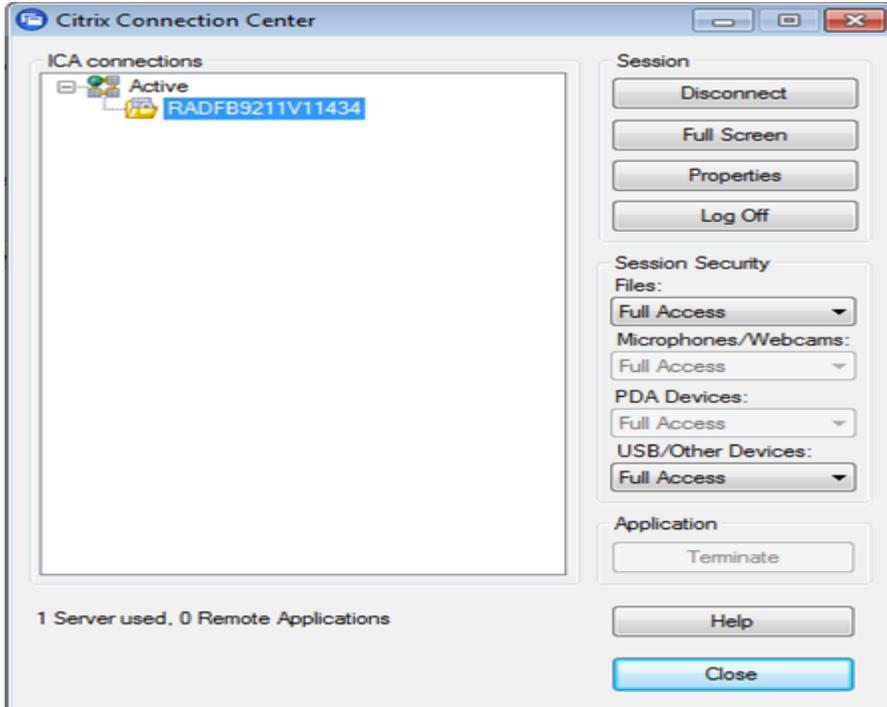
So what is a user to do if CC doesn't close due to option 2 or 3? I am going to go over some steps of what users can do, if they see a blank CC window.

1. Close out of ALL Internet Explorer Windows. I know this is a pain for users, as I have seen many sites work in multiple websites. Closing out of Internet Explorer does two things. It will stop Citrix from running a part of the plug-in that runs whenever the user is on the Citrix website (even if it says they have to close all browsers), and it makes sure that CAC users don't get the Authentication Issue.
2. Once all Internet Explorer Windows are closed, open Task Manager on the user's local machine. To do this, right click on the users Task Bar and click on Task Manager.
3. When the Task Manager opens, go to the Processes Tab (screenshot below).



4. Locate and terminate these processes: wfcrun32.exe, and wfica32.exe.
5. Once the user has terminated these processes they can open the SPS website again and log back into Citrix.

Let's talk about a CC window that only shows the server name, but there is no application showing under that server (screenshot below).



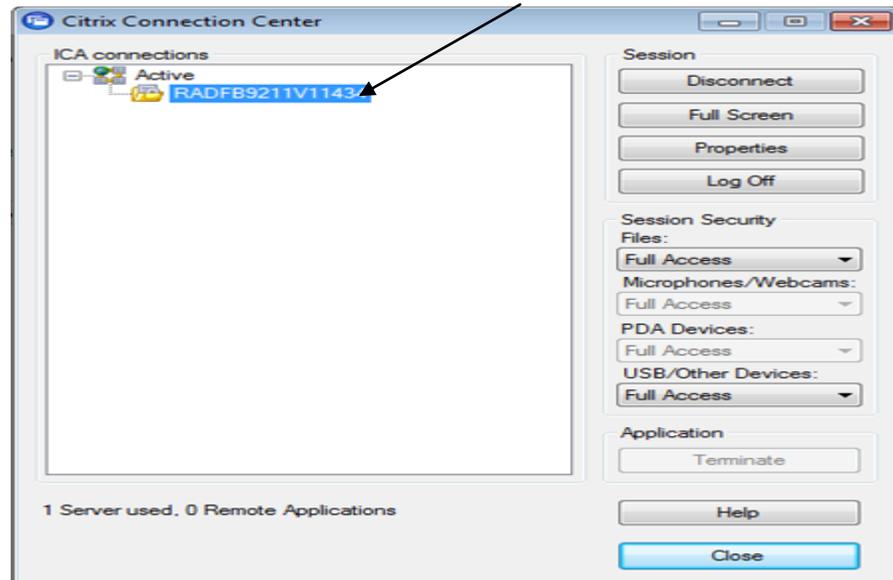
If users open CC and see a server name but no application under said server name (doesn't have to be the same server name), it means a few things could be happening.

1. The user closed out of PD² or Word correctly (following the [Closing Word/ PD² Correctly](#) guide earlier in this document), and Citrix just hasn't terminated the users connection to the server yet. After closing an application correctly, it could take Citrix at most 1 minute to terminate the user's entire session on the server. The good thing about this particular issue is that it might not be an issue at all. This option though can turn into one of the below options.
2. The user closed out of PD² or Word incorrectly, and Citrix was able to terminate the application, but for some reason could not terminate the actual session on the server. Due to the incorrect closure of the application, Citrix was able to terminate the application, which is why it is not showing; however, when Citrix sent its clean up command to Microsoft, Microsoft could not complete the log off correctly.
3. The user closed out of PD² or Word correctly, but Microsoft cannot log the user off the server cleanly. This happens due to congestion on the server, security features kicking off while logging out (correctly), and a myriad of other things.
4. The user was working in PD² and/or Word and the application just disappeared. As we

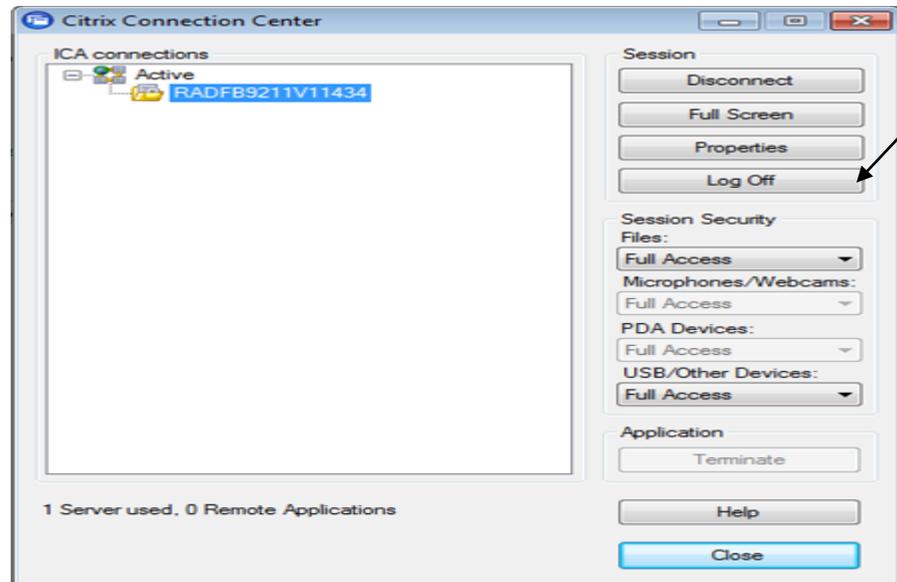
talked about in the [Session Reliability](#) topic of this document, this could be normal as well.

So what is a user to do if they have a server name and nothing else listed in CC, and it matches one of the above options? Use CC to terminate the session, so they can continue to work. I am going to walk the user through how to do this with CC below.

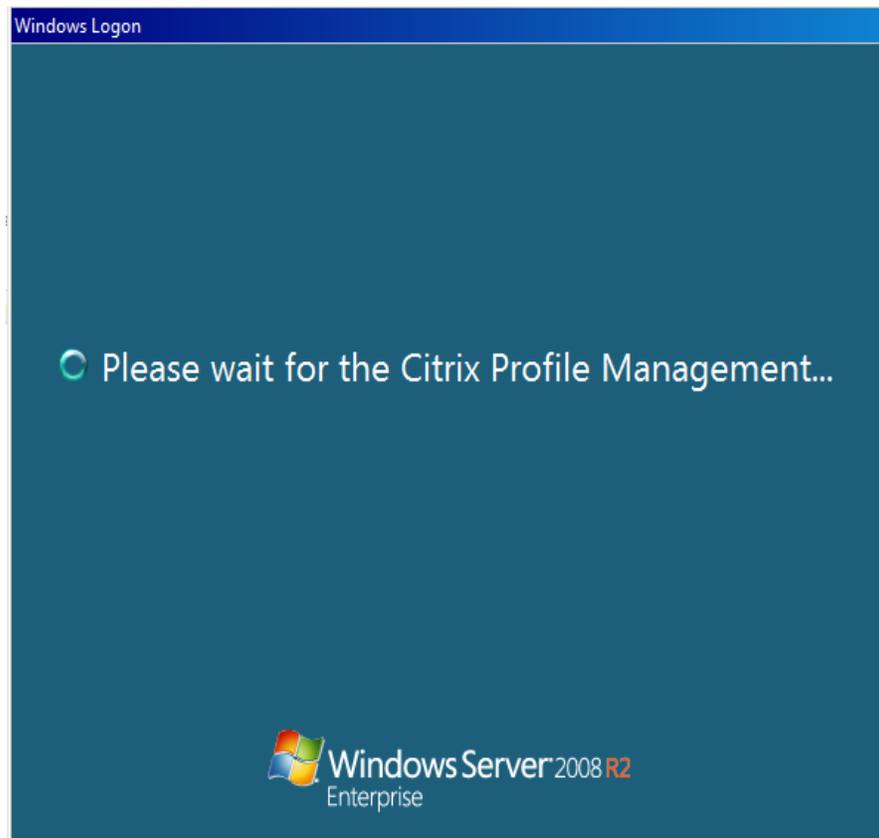
1. Open CC. Follow the [Reconnecting to Disconnected Applications](#) topic if the user does not know how to open the CC.
2. Highlight the server name in CC (screenshot below).



3. Click on the Log Off option on the right side of CC (screenshot below).



4. Citrix will then do some things in the background. Users should see a blue window that pops up (screenshot below).



Once the window above disappears and CC either closes itself or shows nothing listed,

the user is 100% logged out.

What does the user do if PD² freezes up and SR isn't working? The user will follow the above steps but instead of only seeing the server name in CC, the user will see the server name and the application they have open.

How Citrix Works and Why It Has Issues Sometimes

Now that we have gone over CC, let's talk about Citrix, how it works and why it has issue sometimes.

Citrix, in a nutshell, is server software that allows users to access their applications from anywhere in the world at any time. Using Citrix allows users to open those applications without taking up local machine resources (CPU, RAM, disk space). The only requirement for Citrix is that the plug-in be installed and running properly. Now as everyone knows, there is security on an ARMY network that can prevent Citrix from running at its full potential.

So how exactly does Citrix work? Think about a photographer taking pictures of everything a user does and sending those pictures back and forth between the user and the server. Let's step through the process. A user logs onto the Citrix website and clicks on their PD² application. Citrix sends the command to the server and opens the application on the server. The photographer then steps in and takes a picture of PD² and sends it back to the users Citrix Plug-in, the plug-in then displays the "picture" on the user's monitor. Everything the user does requires Citrix, the internet, the server, and PD² to function a specific way. If that way is broken or slowed down, users can see issues.

How do all those pieces to the puzzle fit together? This following is what happens EVERY TIME a user does anything in Citrix, whether it is moving a window, typing, or opening a document:

User Interacts with PD² in Citrix <-> the local Citrix plug-in sends that information to the server <-> Citrix on the server translates those into commands on the server <-> Microsoft translates those commands on the server <-> the commands are done on the server in PD² <-> the photographer then takes a picture of the change that the commands created <-> the photographer sends those pictures to Citrix service on the server <-> the Citrix service on the server sends the pictures to the Citrix plug-in on the users local machine <-> the plug-in on the local machine takes those pictures and uncompresses them <-> Citrix plug-in shows the changes to the user on their monitor.

WOW. That is a lot of steps (I also paraphrased A LOT as there is more to it), and all of that usually happens in milliseconds. Now think about this; this happens EVERY TIME the user does anything in PD² or Word. Every letter the user types, every extra window they open, even every time they move their mouse from one side of PD² to the other, Citrix follows those steps. Seeing how Citrix communicates with everything, one can see where there can be issues (and most of them aren't even Citrix's fault). Let's take a look at an issue (using the chain of events above) that a lot of users see - slowness while typing.

A user is typing away in Citrix on their keyboard and for some reason the words on the screen aren't keeping up with the speed at which the user is typing, then BAM everything they have been typing appears. What happened? Usually when this happens, there is slowness on the internet between the user's site and the servers. User Interacts with PD² in Citrix <-> the local Citrix plug-in sends that information to the server, but the internet link is slow, so the Citrix plug-in caches the typing until the internet is running better and sends everything the user typed to the server once the link is running better. The internet link between each site and the datacenter is the most important piece to the puzzle because it doesn't matter what the user does on their computer or what the server does on its side. If one or the other can't send the information fast enough to each other, users can tell something is going on. Users will understand a little more why sometimes Citrix hiccups if they take into account that chain above for Citrix to work and add on top of that all the security and distance some of this information has to travel. Users will be happy to know that we are implementing a hardware solution to help alleviate the internet being such a large factor. But remember, if 50 people around you are watching YouTube, or the internet from your site to Hampton Roads is running super slow due to a firewall update, then the hardware update will only work as good as it possibly can under those circumstances.

I am hoping that showing users how Citrix works, what is required, and everything that is in between them and the servers, will help them understand why some of these issues happen.

Difference between PD² and Citrix:

A user has gone through this entire document and still can't login to, open Citrix, or get into PD². He/she will need to open a ticket, but what does the user tell the ALTESS Service Desk or the SPS Service Desk so they can assist the user as quickly as possible? This section of the document is going to go over the differences between PD² and Citrix, so that users can correctly inform the service desks what exactly is happening. This will allow the service desks to better/faster assist them without having to ask the user exactly what is going on. Now technically, everything the users do/interact with PD² is Citrix, but I am going to make it easier for the user to give accurate information by gaining an understanding the difference between PD² and Citrix.

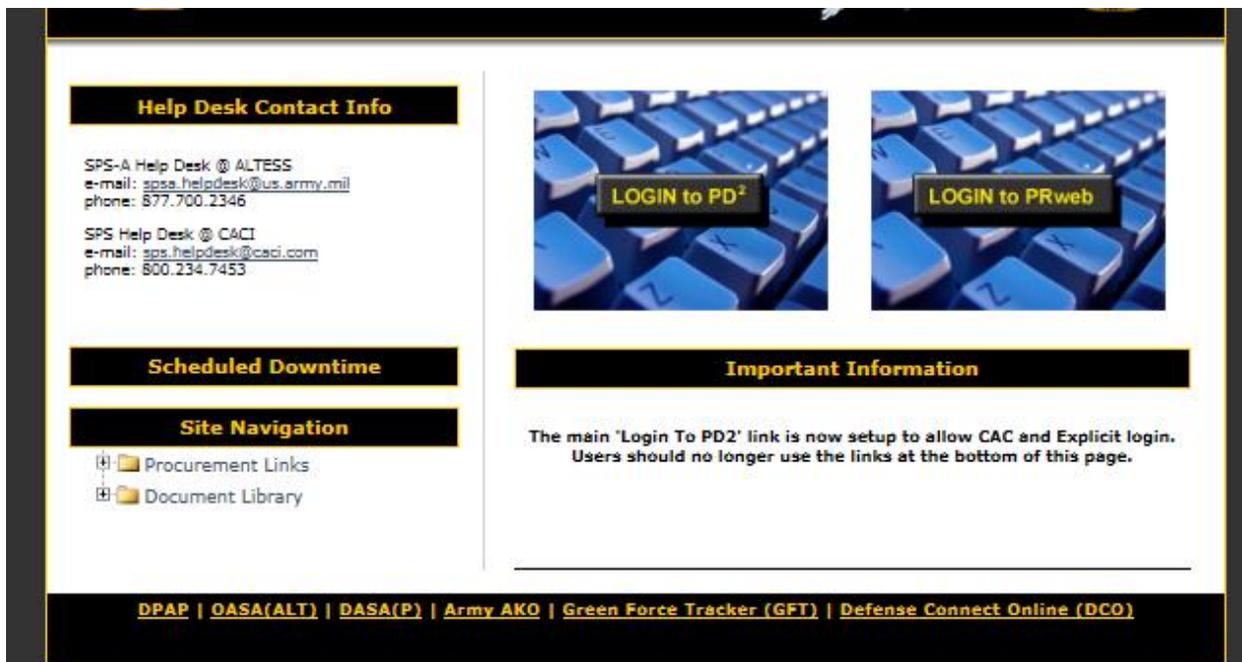
Let's start with Citrix. How can a user tell if they are in Citrix or not? There is only one instance that a user should put in a ticket that says "I can't login to Citrix". That instance is shown in the screenshot below.



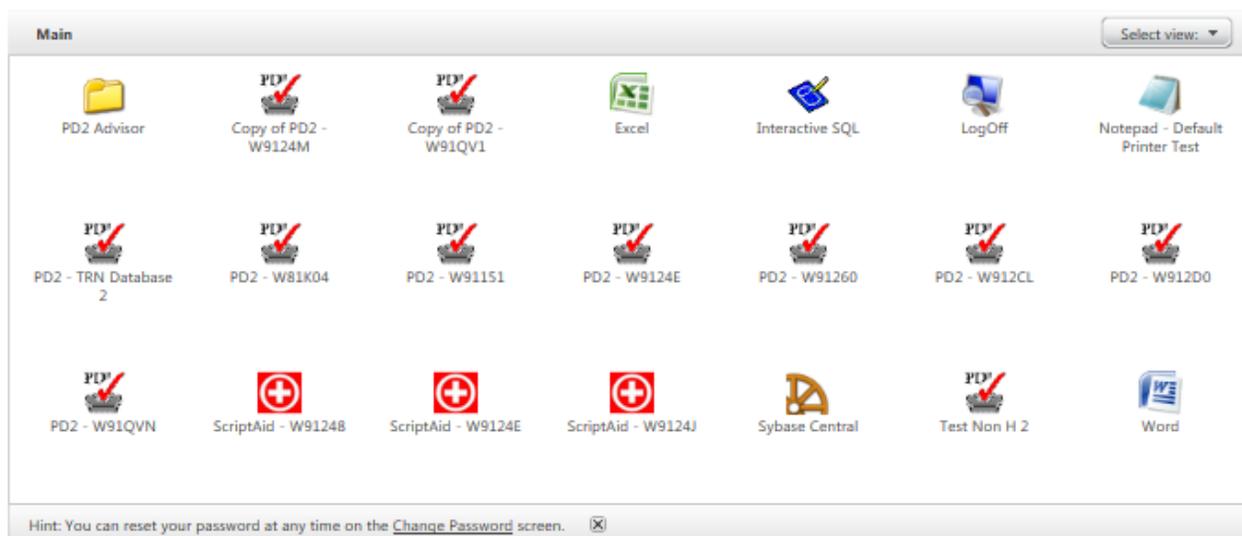
If a user sees the above screen and can't get past this screen, they "Can't login to Citrix".

What if a user can't get to the above screenshot at all?

What if they click on the "Login to PD²" link on the SPS website in the below screenshot and get nowhere? If they can't get past the screenshot below, they can't get into the Citrix website.



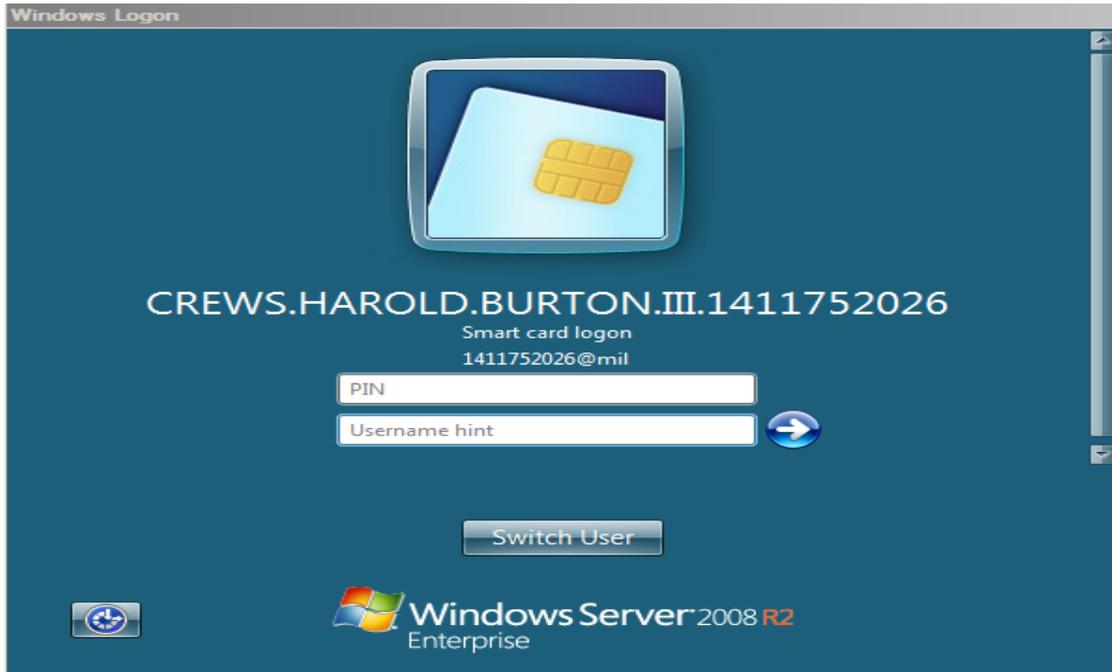
So users are able to make it past the two above screenshots and make it to the next page (screenshot below).



So users click on an application and nothing happens, what should their ticket say? If they are on the application website and can't get anything to open, have the user follow the [Connections in Citrix](#) topic to make sure they do not have an orphaned or already open session. If they still click on an application and nothing happens, they will put in a ticket that says "Application Not Launching."

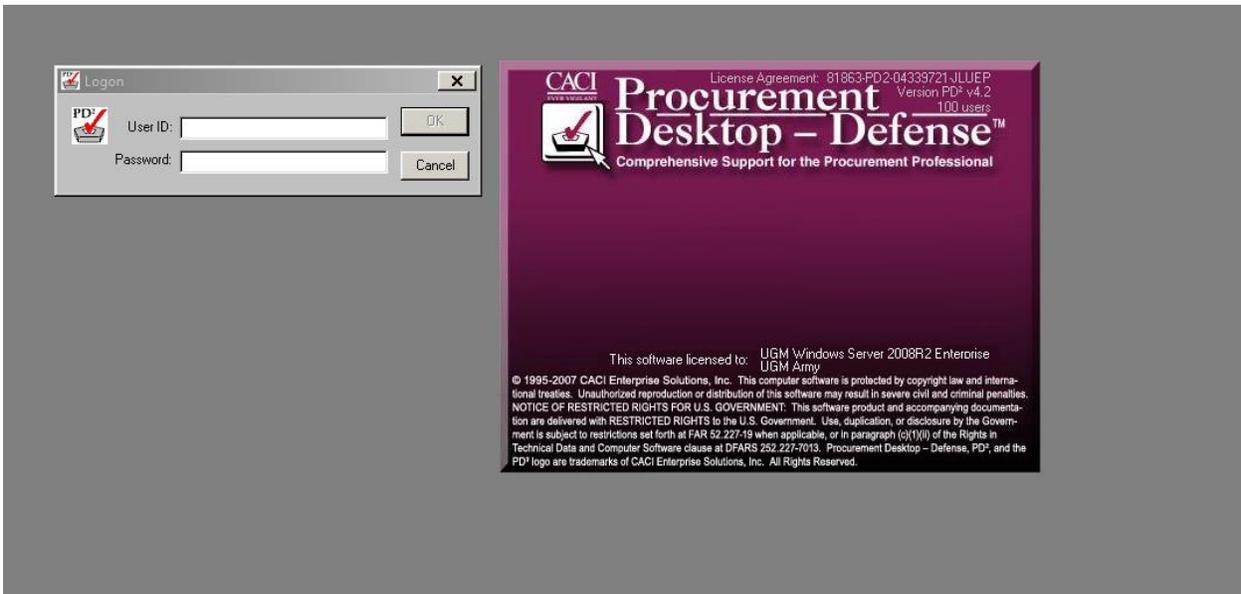
We are in the final stretch. A user clicks on the "Login to PD2" link on the SPS website, puts their login

information in Citrix to get to the Application Website, clicks on PD², but gets hung here:



If a user's CAC is never read or he/she gets to the above screen and can't type, the user needs to follow the [Connections in Citrix](#) topic. If the CAC screen still messes up, the user will put in a ticket that says "Server not taking CAC card."

So a user has made it to the finish line. Everything has been working right, PD² is opened, but they can't get passed this screen:



If a user can't get past this screen, this is the **ONLY** time the user should open a ticket that says "Can't login to PD²."

I hope that this topic will help users put in tickets that will assist the service desk in expediting their issues. If this topic is followed when putting in a ticket, it will help everyone.