**Upgrade VetView 2.X (and beyond) with New War Files on Windows Server**

First obtain copies of the new VetView Main and VetView Portal war files from VetView along with any supporting VetView Update Package and Update Script files. Next, on the VetView application server on which the VetView application is to be upgraded, follow the steps below. Some steps below involve the VetView database server.

**Note: Important information starting in VetView version 3.1:**

Starting in VetView 3.1, the Portal war file was split into a Portal Labs war file and a Portal Hospital war file. Contained in these new Portal war files is a new PortalConfig.yml file; one for each lab portal and one for a hospital portal. These new config files may be acquired from VetView or copied from the new deployed war files in each of their \WEB-INF\classes directories after the war files have been deployed in the Tomcat webapps directory. A typical deployment for VetView 3.1 and beyond, will be the VetView war file plus any combination of zero or one hospital portal war file and zero or one or multiple lab portal war files. When deploying multiple lab portals, create copies of the lab portal war file, which is downloaded from VetView, and give each lab portal war file a unique name. For example; portalDLab.war, portalIDL.war, and so on. In addition to the upgrade instructions below, please refer to the “VetView 3.1 Hospital and Labs PortalConfig.yml File Locations” document in the Technical Documentation, Installation and Upgrade Guides section in the VetView Wiki for additional guidance.

1. **Disconnect Tomcat sessions.**   
   Gracefully disconnect Tomcat connections/sessions on this VetView application server. You may view the current Vetview session count by opening a browser and going to the Tomcat Web Application Manager UI, if it is enabled. The Tomcat Web App Mgr UI login is usually located at: https://<web-app-ip-addr>/manager/html
2. **Stop Apache Tomcat.**   
   This may be done via the Windows Services window or by selecting the Windows Start button, then the Apache Tomcat 9.0 drop down and finally the Configure Tomcat option.
3. **Backup the VetView database**.
4. **VetViewConfig.yml and PortalConfig.yml files in Tomcat 9.0 Directory or Sub-directories.**   
   If the VetViewConfig.yml and PortalConfig.yml files are currently saved in the Tomcat 9.0 directory (C:\Program Files\Apache Software Foundation\Tomcat 9.0), or in Tomcat 9.0 sub-directories, then these config files will not be deleted during the upgrade.
5. **VetViewConfig.yml and PortalConfig.yml files in WEB-INF\classes Directory.**   
   If the \*Config.yml files are currently saved in the war file’s classes directory (i.e. C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\<VetView\_Main\_or\_Portal\_war\_filename>\WEB-INF\classes), then, the config files for the application war files being upgraded, will be deleted during the upgrade. Backup copies of these VetViewConfig.yml and PortalConfig.yml files from each VetView Main and Portal application being upgraded should be copied to a safe storage area for reuse after the war file upgrade. These WEB-INF\classes directories will be deleted during the upgrade.
6. **Pre-Upgrade War file names.**   
   Record the naming convention used for the existing war files. You may want to reuse the same naming convention for the new war files if you plan to use the same URL names to connect to VetView Main and Portal(s) following this upgrade. Also, starting in VetView 3.1, if custom defined Portal Lab directories have been created under the Tomcat 9.0 directory for the storage of each Portal Lab’s PortalConfig.yml file, then the Portal Labs war file name(s) must match the custom defined Portal Lab directory name(s) in which their PortalConfig.yml files have been saved.   
   For example:   
   C:\Program Files\Apache Software Foundation\Tomcat 9.0\PortalDLab  
   is the directory containing the PortalConfig.yml file for the PortalDLab.war file.
7. **Delete the existing VetView war files, directories and log files.**   
   For the VetView applications being upgraded, delete their existing VetView directories and files from the following directories:   
   C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps   
   C:\Program Files\Apache Software Foundation\Tomcat 9.0\work\Catalina\localhost   
   Also delete older log files from the following logs directory:   
   C:\Program Files\Apache Software Foundation\Tomcat 9.0\logs
8. **Update the VetView database.**   
   Download the update package and update scripts that VetView requires in order to update the database from the current version to the new version. Run only the specified VetView Update Package.sql (or psql) and Update Script X.X.X.sql (or psql) scripts in the order described against the database to bring the database up to the version that matches the new VetView war files.
9. **Check for Windows Updates.**   
   On each server being upgraded, check for new Windows Updates. Download and Install any new updates. This will probably require a server reboot, which may be performed following the renaming of the war files step below.
10. **Clean up unnecessary files/directories on the server(s) to free up resources**.
11. **Download the new VetView war file(s).**   
    Download the new VetView war files onto the VetView Application Server(s). Suggest turning off Real-time protection in Windows Security during file download. Starting in VetView 3.1, if planning to operate with multiple lab portals, then create copies of the lab portal war file, which is downloaded from VetView, and give each lab portal war file a unique name.
12. **Copy the new VetView war file(s) to the webapps directory.**   
    Make sure Tomcat is still stopped, then copy the new war files to the following directory on the appropriate VetView application server(s):   
    C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps
13. **Rename the new VetView war file(s).**   
    To maintain the same URL connection names across the upgrade, change the war file names to the same names as previously used. Also, starting in VetView 3.1, if custom defined Portal Lab directories need to be created under the Tomcat 9.0 directory for the storage of each Portal Lab’s PortalConfig.yml file, then each of their custom directory names must match each of the Portal Labs war file names as discussed above. Also, you may refer to the “VetView 3.1 Hospital and Labs PortalConfig.yml File Locations” document in the Technical Documentation, Installation and Upgrade Guides section in the VetView Wiki for additional guidance.
14. **Reboot the VetView Application server.**   
    Reboot the VetView application servers that were involved in this upgrade. If configured to start automatically, Tomcat should start after the computer reboots; otherwise, manually start the Tomcat process.
15. **Monitor the startup progress of the VetView applications.**   
    Monitor startup via the Tomcat logs in the following directory:   
    C:\Program Files\Apache Software Foundation\Tomcat 9.0\logs.   
    The tomcat9-stdout and stderr log files are useful for monitoring the deployment and startup of the VetView applications. Resolve any errors that are logged during startup.   
    **Note 1:** If the \*Config.yml files are saved in the WEB-INF\classes directory, then the initial startup of the upgraded VetView apps will fail. Proceed to the next step for this resolution.   
    **Note 2:** Starting in VetView 3.1, if new Portal Hospital and/or Portal Lab war files have been installed, and their new PortalConfig.yml files have not been placed in their appropriate directory, then the initial startup of these VetView apps will fail. Skip to the “Extract the new PortalConfig.yml Files” section below for this resolution.   
    **Note 3:** If all the \*Config.yml files were saved in the Tomcat 9.0 directory and the custom defined Portal Lab directory(s) prior to the reboot, then the initial startup of the upgraded VetView apps should succeed without error. Skip to the “Post Upgrade Checks” section below if no errors were observed.
16. **Restore the backed up VetViewConfig.yml and PortalConfig.yml files.**   
    If the WEB-INF\classes directory is the intended directory location for the \*Config.yml files, then copy each backed up \*Config.yml file back into it’s appropriate VetView directory (i.e. C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\<VetView\_Main\_or\_Portal\_war\_filename>\WEB-INF\classes) for each of the upgraded VetView application war files.
17. **Extract the new PortalConfig.yml Files.**   
    If new Portal Hospital and/or Portal Lab war files have been installed, and their new PortalConfig.yml files have not been placed in their appropriate directory, then extract copies of the new PortalConfig.yml files from each new deployed portal application in their WEB-INF\classes directory. The new config files will have the following name: PortalConfig.yml.example. Copy this example file, rename it to PortalConfig.yml and define the parameters in the file to support operations of the portal application it was copied from. Place this new PortalConfig.yml file in the appropriate directory as described in the “VetView 3.1 Hospital and Labs PortalConfig.yml File Locations” document in the Technical Documentation, Installation and Upgrade Guides section in the VetView Wiki.
18. **Stop/Start Tomcat to read the restored or new \*Config.yml files.**   
    If the \*Config.yml files mentioned in the previous steps were restored to their specific WEB-INF\classes directory or if new PortalConfig.yml files were defined, then stop and start the Apache Tomcat process utilizing the methods discussed previously. Monitor the startup progress of the VetView applications via the Tomcat log file. The VetView apps should deploy and startup without errors.
19. **Post Upgrade Checks.**   
    Monitor Tomcat logs to verify all VetView application(s) successfully deploy and start up.   
    Monitor Task Manager performance after the VetView application(s) successfully startup; specifically CPU and Memory.   
    Log in to the VetView application(s) UI to verify login and basic UI navigation is supported.