QBR *Knowledge base*

Troubleshooting Screenshot/Virtualization Failures

Screenshots

The QBR-S uses an automatic 'screenshot' process to verify the disaster recovery readiness of a backup recovery point. In this process, the backup is restored from a given recovery point and booted as a Virtual Machine. The QBR-S watches for codes signalling an active Windows OS from the VM, and then takes a screenshot of the booted system. Typically, this shows the "Press Ctrl + Alt + Delete to Log in" screen.

Screenshot verifications sometimes return an unknown state, or captures an error message. This is rarely indicative of the integrity of backup data, and may be caused either by setting the screenshot timeout period too low, a transient load on system resources complicating the virtualization, or misconfigured Virtual Machine settings.there are certain steps that can improve the virtual machine's boot sequence.

Troubleshooting

While some errors need to be corrected by QBR Technical Support, certain troubleshooting steps can be performed in the meantime.

- Try starting a Virtual Machine from the Local Virtualization tab, then use the 'connect to VM via RDP' link as soon as it is available. This will display the boot sequence to give a better idea of how long the VM needs to boot for a screenshot, or demonstrate that a backup can virtualize under normal conditions.
- Check the Storage Controller set for the Virtual Machine in the Advanced Options for that agent.
    - Most common for Windows 2008 machines is the SATA or SCSI controller.
    - Windows 2003 machines may boot off of any one of the controllers that are present.
    - Windows 2000 machines typically need an IDE controller.
    - More information is available here: Advanced Options - Virtualization Storage Controllers
    - Even if the current controller is listed as the most compatible, it may be helpful to switch to another controller, take a backup, switch back and take another backup. The change may force the hardware independent restore configuration to resolve properly.
    - After the controller has been changed, run another backup of the agent and then try to virtualize it again.

        You can make changes to resources under the Local Virtualization tab. The screenshots usually run with lower resource settings, for instance 2 CPU's and 4GB RAM.
        For various reasons this should almost always be sufficient to load a Windows login screen.
        Please note that giving the machine more than 2 CPU's is rarely helpful - adjusting memory is more helpful, but watch out for giving it more memory than the QBR can spare.
        Make sure the correct disk is set to virtualize as the OS volume.

Implications for the Protected System

If changes to Virtual Machine configuration do not resolve the virtualization issue, it is most important to verify the health of the protected system's.

- Check to see if there are any Windows Updates waiting to be installed on the target machine. If so, run updates and reboot to be sure the updates are complete and no more are available.
- If the error that appears looks to be a missing bootup file, try to mount the backup for file restore and make sure files are accessible.
- If file restore is successful but virtualization errors persist, try forcing a differential merge from the agent's Advanced Options.

- If file restore is also problematic, run a chkdsk /r on the target machine, reboot it and force a differential merge afterwards.
- A blanket fix would involve a chkdsk /r, sfc /scannow and forcing a differential merge.

Further Steps

Please note that because a Virtual Machine booted from the Web Console Local Virtualization tab is always booted from an isolated ZFS clone of the original backup data, these processes will not have any impact on original backup data.