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Got Virtualization? Here's how it can help you migrate to 6.0

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In past columns, we've explored the overall benefits and considerations for Virtualization in your MEDITECH and enterprise infrastructure. So you already know how it helps with consolidation, high availability, and ease of management. In this column, we will focus specifically on how these features and functionality can help you migrate to 6.0 from MAGIC, or update to 6.0 from Client Server (C/S) 5.x.

Contemplating the move to 6.0 is likely to raise a number of questions, including several related to infrastructure: Will I have to purchase all new servers? How much downtime will I incur? Will I have to run my environments in parallel?

Because every infrastructure is unique, there isn't always one answer. The good news is that Virtualization can ease a lot of the burden of managing your server hardware while going through the migration process. It can also afford you much more flexibility than managing the transition in an entirely physical server infrastructure. Virtualization will help you make the most of what you already have and maximize your return on investment for what you need to purchase.

Q. Will I have to purchase all new servers to move to 6.0?
A. The first step in determining what you may be able to re-use in your existing environment is to identify what equipment you'd like to keep using, where it is in its lifespan, and its current configuration. If the hardware has useful life left, you may be able to incorporate it into your 6.0 infrastructure—although it may require upgrading to meet MEDITECH specifications.

If considering Virtualization, here's what to evaluate:

- What servers might you have to upgrade to use for 6.0 and/or Virtualization? Upgrading memory and NICs are the most common requirements.
- Does the server appear on the hardware compatibility list for the Virtualization platform you are considering?
- What is the current utilization of these servers? What percentage of resources do they use today? (Utilization can be determined by looking at Perfmon trending on a Windows machine, or by using more sophisticated assessment tools specifically designed for this purpose. We can discuss performing a comprehensive assessment at your site.)

If you have servers on-site that still have useful life and are on the compatibility lists, they can be considered for Virtualization. If a server is below 60-80% utilization, you've got some unused capacity that you can take advantage of through Virtualization, and potentially allocate to your 6.0 migration if you plan on virtualizing your existing servers as well.

You may have to purchase a number of new servers if the servers you have in your existing environment do not meet the specifications for MEDITECH 6.0 and/or Virtualization. However, given the benefits of consolidation with Virtualization, whichever way you go, you'll reduce the number of servers you will have to

purchase and maintain. It is important to note that a handful of servers in the MEDITECH environment are not candidates for Virtualization and will remain physical servers.

Q: How much downtime will I incur?
A: Again, the requirements of every infrastructure are unique. But by including Virtualization into the mix, you can greatly reduce your downtime.

After you've incorporated the new servers into your environment and configured them with the virtualization software, you can start migrating your existing environment onto them. The migration may necessitate some downtime, but it can be minimized by using processes like backup and restore to a virtual machine to get it up and running ahead of time in the virtual environment, making the switch from the existing physical server to the virtual machine much quicker. Each server will have different considerations on how quickly and easily it can be migrated. Once migrated to a virtual environment, future downtime will be reduced using functionality like VMware's Vmotion and HA.

Once your legacy server applications are migrated to virtual machines, those legacy physical servers can be taken offline and upgraded if necessary, then reconfigured to run the virtualization software. Once these servers are back up and running and added to the virtualized resource pool, the legacy applications that are now virtual machines can be moved back to the original hardware if desired using Vmotion, with no interruption to the user.

There may be some additional downtime as you make the switch from your existing MEDITECH platform to MEDITECH 6.0—something you'll want to scope with your MEDITECH and JJWild team. But with Virtualization, you will have much more flexibility to manage your infrastructure as you navigate through this process.

Q: Will I have to run my environments in parallel?
A: There is typically a span of time in which you will need to run your existing MEDITECH platform in parallel with the MEDITECH 6.0 configuration, another issue to discuss with your MEDITECH and JJWild team. This allows you to construct and test your MEDITECH 6.0 infrastructure without disruption to your users on the existing platform; and as you go live with your MEDITECH 6.0 applications your users have access to your previous platform if required for any reason.

Without Virtualization, you have to configure enough hardware to support both environments in parallel for the required time period. Once the transition is over, you can archive the server configurations and then reclaim the legacy servers for non-MEDITECH applications.

Virtualization gives you a much more flexible platform to optimize resources you already own or are purchasing. During the parallel time period, you can assume less resource utilization for the virtual machines that are not production. For example, during set-up and test, the 6.0 virtual machines will require less resources since they are not being actively used by the user community. By creating virtual machines as your servers rather than setting up physical servers that are solely tied to a specific function, you can manage the transition by dynamically assigning more resources to virtual machines that are in production and less to those that are still in test.

What it all means is that you can get much more done with much less hardware. When you have completed your full transition to 6.0, you can easily keep your legacy platform virtual machines up and running without taking up unnecessary resources, or archive these virtual machines by simply powering them off and quickly powering them on if needed in the future.

Summary
To wrap up, Virtualization enables you to be hardware-independent, and gives you a much more flexible infrastructure. You can minimize the need to buy new hardware and allocate your resources where they are needed most.

If you are considering Virtualization and have MEDITECH 6.0 on the horizon, we recommend that you begin the process of implementing Virtualization in preparation for the move. By incorporating Virtualization now, you can gain experience and a comfort level with it prior to taking on all of the MEDITECH 6.0 requirements. And even if 6.0 is a ways off, implementing Virtualization now can bring immediate management and operations cost benefits to your existing MEDITECH MAGIC or C/S applications, and also (in fact, especially) to your non-MEDITECH enterprise applications.

JJWild has made a significant investment in our Virtualization practice and can offer you unparalleled expertise in incorporating Virtualization into your MEDITECH and non-MEDITECH enterprise infrastructures. Please contact your JJWild representative or email us at editor@jjwild.com for more information on how we can help.

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