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Smooth Operator

SAs and TDAs ensure installations go according to plan

April 2010 | by Jaqui Lynch

If you've been buying Power Systems servers from IBM or a business partner, then at some point you've heard the terms solutions assurance (SA) and technical and delivery assessment (TDA). These processes are required in many cases to ensure the purchase and install of certain servers go smoothly and mistakes and risk are both minimized. In many cases, these meetings are viewed as a nuisance and as something that means the process takes even longer. I want to stress the purpose of these assessments isn't to tie everyone up in yet another meeting; it's to ensure the solution is technically viable and the installation will be go smoothly.

Solutions Assurance

As we all become more familiar with frameworks like IT Infrastructure Library, quality becomes a more critical component of our day-to-day work life. SA is a technical quality process where an inspection is done of the solutions design before the solution is placed on order or installed. The intent of SAs is to ensure there are no issues around interoperability and compatibility and that the solution is technically viable. It also looks at technical issues around data-center requirements for the equipment, as well as issues around delivery such as whether any elevators involved can handle the load or whether the doors are wide enough. These seem like minor issues but they can delay an installation significantly if they aren't discovered until the last minute.

Technical Delivery Assessments

About a year ago, the solutions assurance reviews (SARs) got renamed to technical and delivery assessments (TDAs). The TDA is used to review the technical aspects of the solution to ensure it meets customer requirements, is technically viable and there are no issues around delivery and installation. It also identifies and assesses risks associated with the solution being implemented.

There are different levels of TDAs depending on the solution and its complexity. The levels consist of:

- a. Self The person who designed the solution reviews the specifications again.
- b. Peer For more complex solutions, the solutions designer will have a technical peer reviewer go over the solution.
- c. Expert A technical subject matter expert (SME) reviews the solution.

The expert-level TDA is broken down into two components. The first is the pre-sale TDA, which is done after the solution is completed but before the final proposal and order. The second is the pre-install TDA, which is performed before shipment and installation. This second TDA is frequently performed after the solution is ordered, although I prefer to perform it just before the order is placed in case something needs to change in the order. I have seen these pre-install TDAs catch many issues—as simple as the wrong power (IEC309 60 amp needed rather than L6-30) and as critical as the sub-floor not being able to handle the weight of the rack. This isn't something you want to discover as the floor collapses.

For POWER6 processor-based servers, IBM required reviews of all server configurations that were "first-in-enterprise" and for the Power 570 and above. The Power 575 and above required a special online solutions architect sign-off. For POWER7 processor-based servers, a TDA is required for the Power 770 and above. I highly recommend a mini-TDA for the Power 750 and 755 as well. The Power 780 also requires the online solutions architect sign-off. For the servers that require it, IBM will not ship the box until the online TDA sign-off is complete.

The Value of TDAs

The value of the TDA cannot be underestimated. It requires an investment in time up front (about a one- to two-hour customer meeting), but it helps avoid a wide range of problems as it evaluates everything from required OS levels to ensuring correct power and cooling to making sure the server can even be delivered at the location. This significantly decreases time on the back-end for solutions that go wrong. It also ensures there were no misunderstandings between the provider and the customer. As an example, it's very frustrating when a server turns up with copper Ethernet cards and the client really needs Fibre Ethernet. The same applies if the power connector isn't correct. The TDA should ensure these kinds of things are caught early in the process.

One of the reasons behind this article is to make sure people understand that, although the TDA requires some up-front work, it's in everyone's best interests to perform one. Probably 90 percent of the problems I've seen during installations (from when I was a customer as well as today) have been with things that could've been caught had a TDA been performed. I try to do mini-TDAs on servers that don't require TDAs, just to ensure the solution is correct: from the OS levels, the hardware management console and virtual I/O servers, to the firmware, to power rules, and to the physical rack.

We are all short of time today and I want to stress that a couple of hours time up front to take care of the TDA will pay for itself in the short-term as the installation goes through smoothly with few, if any, last-minute emergencies. Even for servers that don't require a TDA, it's still well worth working with IBM or your business partner on a mini version to ensure a smooth install process.

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