

Data centre modernisation is key to innovation for the modern enterprise

By [Amith Thota](#)

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Companies are increasingly considering data centre modernisation as a means to implement digital transformation. The purpose is to move away from a traditional hardware environment to a software-defined one that is highly virtualised, highly automated and can scale up and down as required.



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Organisations that seek to meaningfully impact business transformation by pursuing agility must embrace data centre modernisation as it enables them to trade rigid architecture for highly dynamic, agile and programmatic compute capabilities.

Since agility is key to innovation within the modern enterprise, the attributes of the modern data centre enable IT to respond quickly to the dynamic needs of the business. This responsiveness is rooted in a modern infrastructure that absorbs traditional infrastructure silos into it, creating a virtualised and software-defined environment that supports both legacy and cloud-based applications.

Hence, staying current with new technology innovations will help boost an organisation's revenue, cut costs and right-size infrastructure for efficiency and reliability, making the modernisation of a data centre absolutely vital to business success.

However, data centre modernisation does require some upfront work, time, and expense, but it is well worth it in the end, especially when weighed against the cost and risks associated with outdated legacy infrastructure.

Consider these steps

There are several steps that organisations should consider to effectively implement data centre modernisation: A

programmatic approach to technology refresh, followed by workflow process automation management, and thereafter by the tight integration of the Data Centre Infrastructure Management (DCIM) software with IT Service Management (ITMS) process management.

The next – very vital – step is to develop a hybrid strategy that incorporates on-premise, co-location and public cloud, enabling applications and workloads to run where they make the most sense. The final step is the physical integration with the virtualisation/container layer to reduce workload risk.



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At the same time, organisations should be aware of security challenges that are posed by modern data centre environments. In traditional data centres, security controls can be applied to each physical system and systems with different levels of criticality can be physically separated.

This is no longer the case with next-generation data centres, where virtual resources cannot be compartmentalised in the same way and security controls can no longer be tied to physical resources. The modern data centre requires an integrated set of security controls that are applied consistently to physical and virtual systems, as well as those residing in the cloud.

The only way that this can be achieved is to build security into the design phase during key inflexion points as data centres are built out. So, whether virtualised or upgraded, security controls must be applied consistently across all systems in hybrid environments that span physical and virtual systems.

Risks of ageing infrastructure

On the other hand, organisations that are delaying or resisting data centre modernisation should be cognisant of the risks associated with ageing infrastructure. With ageing infrastructure, continuous monitoring and maintenance become a critical issue, as security vulnerability and regulatory non-compliance are increasingly likely. Furthermore, ageing infrastructure is likely to have poor reliability and escalating support costs.



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Then there is the issue of legacy applications and whether these should simply be discarded. Simply put, there is no point in discarding legacy applications at the initial stage of modernisation. At first, organisations should look whether it is possible to modernise legacy applications and only if this does not work, should they consider replacing or discarding them. Choosing to replace or discard an application is a hard decision, so it is advisable to have a modernisation strategy option in place.

Traditional data centre principles come with a host of issues that can effectively limit IT agility and stall digital transformation. For the modern enterprise, it is fast becoming a matter of when and not if to modernise their data centre.

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