

Technology Review: Blade Technology

How can businesses maximize space in data centers, reduce the amount of power consumed, and an increase agility with regard to technology changes? The use of blade servers and/or desktop blades can help achieve these and other benefits.

Blade servers differ from traditional servers in that they are thinner and could contain up to four CPUs. The blade servers are placed in a blade enclosure, which allows the servers to share resources such as power, storage, and cooling fans. The blade enclosures are then placed in a traditional server rack. Ideally, you can get more blade servers in a traditional server rack, thus increasing the number of CPUs that can be stored in the rack. Even though there could be up to four CPUs in a blade server, performance is not compromised and is comparable to traditional servers.

Although similar to blade servers in that they are stored in a data center, the function of a desktop blade is closely associated with a traditional PC. With the use of desktop blades, a user's workstation is set up virtually the same as a traditional workstation, with peripherals (monitor, keyboard, printer, etc.) except there is no PC. Instead, the use of a thin client at the workstation enables the user to access a desktop blade residing in the data center, and serves as the communication link between the blade and the workstation peripherals.

Typically, in a traditional setup, a user is allocated to a specific PC. If desktop blades are deployed, users are no longer tied to a specific PC. This means a user can log in from any workstation and will be allocated to the next available desktop blade. The allocation process itself is seamless, however, the way a desktop blade solution is deployed will determine if the user's experience is altered. By using roaming profiles, a user's settings and preferences are saved to the profile allowing the settings and preferences to "travel" with the user. In other words, a user can log in to any workstation and all of the personalizations saved in their profile will be applied. If roaming profiles are not used, the user will be presented with a default setup each time they log in.

Is blade technology for your business? It depends on the goals of your organization. Reviewing the benefits list in the table below will help you decide whether you should pursue the deployment of blade servers and/or desktop blades.

SIDEBAR – Benefits Table

Blade Server	Desktop Blade
<ul style="list-style-type: none">• The server size and the CPU capacity can maximize data center space.• Adding and removing servers can be done with relative ease by non-technical personnel.• The servers share resources, which allows for a reduction in power consumption and complex cabling solutions.• Enhanced agility allows for a quick response to technology changes, thus reducing maintenance time and expense.	<ul style="list-style-type: none">• Since the desktop blades are stored in the data center, thus increasing data and physical security.• Organization not requiring a one-to-one ratio of PCs to personnel can realize a reduction in costs for equipment and software licenses.• PC upgrades and new software can be deployed quickly and controlled.• If a desktop blade is allocated to a user and fails, the user can be reallocated to another desktop blade within seconds.