Network performance boosters at a glance

TECHNOLOGY	HOW THEY WORK	PROS	CONS
Bandwidth-optimization appliances	Such appliances watch traffic as it moves across wide-area networks to determine how best to send data packets and thus improve network performance. They compress, cache and reduce data, and prioritize traffic as needed.	Bandwidth optimization is particularly attractive for organizations with remote offices that access a central site. Many products now include wide-area file services and other capabilities.	If an organization has numerous road warriors or home users connecting via the Internet, such appliances won't improve their network performance.
Load-balancing tools	Such tools intercept inbound application requests and distribute them to the nearest and best-performing server or disperse them to a group of servers that share the workload.	In addition to making better use of server resources, load-balancing systems can function as a backup if a data center goes down.	The systems don't do much to solve WAN problems caused by the chatty or bandwidth-hungry protocols used by many common office applications.
Content delivery network services	Such services rely on a system of networked computers that work together to optimize content delivery on the Web by directing information requests to the nearest content server.	The hosted services allow organizations to turn management and maintenance over to a third party with a geographically dispersed, robust network infrastructure.	Content delivery network services do not make office-to-office data transfers via a WAN — for example, between a field and central office — faster or more efficient.
Wide-area file services	Deployed in pairs at each end of a WAN link, such products typically use proprietary techniques to put files in a location closest to users and move traffic more efficiently.	Such services are particularly useful in reducing WAN latency with file-sharing applications. They allow information technology shops to consolidate remote office files at a single, centrally managed location.	Not all products lower bandwidth usage, so the technology is not the best choice if the goal is reducing WAN service fees.