

Ch03 Key Terms

asynchronous processing	Method of processing multiple scripts at the same time without waiting for the outcome of a previously launched script to occur.
bridgehead server	Server at each site that acts as a gatekeeper in managing site-to-site replication. This allows intersite replication to update only one domain controller within a site. After a bridgehead server is updated, it updates the remainder of its domain controller partners with the newly replicated information.
change notification	Method used by domain controllers to inform one another of when changes need to be replicated. Each domain controller will hold a change for 45 seconds before forwarding it, after which it will transmit the change to each of its replication partners in 3-second intervals.
CIDR	Classless Inter-Domain Routing; Form of notation that shows the number of bits being used for the subnet mask. For example, for an IP address of 192.168.64.0 with a mask of 255.255.255.0, the CIDR representation would be 192.168.64.0/24.
compressed	To reduce the size of transmitted data to decrease the use of network bandwidth.
connection objects	Link created by the Knowledge Consistency Checker between domain controllers that replicate with one another in a site.
convergence	Amount of time required for replication so that all domain controllers in the environment contain the most up-to-date information.
cost	Value assigned to a site link object to define the path that replication will take. If more than one path can be used to replicate information, cost assignments will determine which path is chosen first. A lower-numbered cost value will be chosen over a higher-numbered cost value.
dcdiag	Command-line tool used for monitoring Active Directory.
dual counter-rotating ring	Created by the Knowledge Consistency Checker for the replication path. If one domain controller in the ring fails, traffic is routed in the opposite direction to allow replication to continue.
frequency	Value assigned to a site link that determines how often information will be replicated over the site link.
intersite replication	Process of replicating Active Directory information from one site to another.
ISTG	Intersite Topology Generator; Process that selects a bridgehead server and maps the topology to be used for intersite replication.
intrasite replication	Process of replicating Active Directory information between domain controllers within a site.
LVR	linked-value replication; Improvement to replication that is available for use after the forest functional level has been raised to Windows Server 2003 or higher, enabling a single membership change to a group to trigger the replication of only this change to each member in the list rather than the entire membership list.
preferred bridgehead servers	Administrator's list of servers to be used as bridgehead servers. A bridgehead server is the server at each site that acts as a gatekeeper in managing site-to-site replication.

RPC over IP	Remote Procedure Calls over Internet Protocol; Default protocol used for all replication traffic.
repadmin	Command-line tool that can check replication consistency between replication partners, monitor replication status, display replication metadata, and force replication events and Knowledge Consistency Checker (KCC) recalculation.
replication partners	Servers that inform each other when updates are necessary. The Knowledge Consistency Checker (KCC) selects one or more replication partners for each domain controller in the site.
replication topology	Defines the path used by replication traffic.
schedule	Determines the time when a site link object is available to replicate information.
SMTP	Simple Mail Transport Protocol; Transport protocol used for intersite replication when a direct or reliable IP connection is unavailable.
site link bridge	Defines a chain of site links by which domain controllers from different sites can communicate.
site links	Connection between two or more sites that enables intersite replication.
timestamp	Attribute set on an object to indicate when it was last updated. Timestamps are used to assist in the resolution of conflicts during replication. If a change was made to an attribute of the same object, the timestamp can help determine which object is the most up to date.
transitive	Default characteristic of site links that use the same transport protocol. A domain controller in any site can connect to a domain controller in any other site by navigating a chain of site links.
USN	update sequence number; Local value, maintained by each domain controller, that tracks the changes made at each DC, thus tracking which updates should be replicated to other domain controllers.
urgent replication	Changes will be placed at the “beginning of the line” and will be applied before any other changes that are waiting to be replicated.
version ID	Value associated with each Active Directory attribute that keeps track of how many times that attribute has been changed.
well-connected	Network infrastructure between sites defined by fast and reliable IP subnets.