



RPC Components

Component	Description
Client or server process	Program or service that initiates or responds to an RPC request.
RPC stubs	Program subsystems used by a client or server to initiate an RPC request.
Marshalling engine (NDR20 or NDR64)	Provides a common RPC interface between RPC clients and servers. NDR20 is used in a 32-bit architecture and NDR64 is optimized for a 64-bit architecture. The client and the server negotiate which marshalling engine is used for the communication.
Runtime application programming interface (API)	Provides a direct interface for RPC to clients or servers. RPC clients and servers typically call the runtime API to initialize RPC and prepare the data structure that is used to make RPC calls. This runtime API layer also determines if an RPC request coming from a marshalling engine or directly from a client or server is going to a local server or a remote server. The runtime API layer then routes the RPC to the Connection RPC, Datagram RPC, or Local RPC layers.
Connection RPC protocol engine	Used when the RPC requires a connection-oriented protocol. This layer designates the connection-oriented protocol to use if the RPC is outgoing or receives an incoming connection-oriented RPC.

Datagram RPC protocol engine	Used when the RPC requires a connectionless protocol. This layer designates the connectionless protocol to use if the RPC is outgoing or receives an incoming connectionless RPC.
Local RPC protocol engine	Used when the server and client are located on the same host.
Registry	Accessed when the RPC service first loads. Registry keys may specify IP port ranges and the device names of network cards that RPC should bind to. Unless APIs force its use, the registry is not used in normal RPC operations.
Win32 APIs	Kernel32.dll is a Windows NT base API client dynamic-link library (DLL) file that provides system services for managing threads, memory, and resources.
(kernel32.dll, advapi32.dll, ntdll.dll)	Advapi32.dll is an advanced Windows 32 base API DLL file; it is an API services library that supports security and registry calls.
SSPI	Ntdll.dll is an NT layer DLL file that controls Windows NT system functions.
(secur32.dll)	Provides a security interface for RPC. Negotiates the use of Kerberos, NTLM, or Secure Sockets Layer (SSL) for authentication and encryption.
Endpoint Mapper (EPM)	Rpcss.dll primarily provides the infrastructure for COM, but a portion of rpcss.dll is used for the EPM. An RPC server contacts the EPM to receive dynamic endpoints and register those endpoints in the EPM database. RPC clients contact the EPM from the protocol-engine level to resolve endpoints when establishing a connection with an unknown RPC server endpoint.
(rpcss.dll)	
Active Directory	Used in the RPC client process only when the security interface specifies Kerberos or Negotiate as the security provider or when the server uses NTLM as the security provider.
Network stack	Used to pass RPC requests and replies between a client and a remote server.
Kernel	Used to pass RPC requests and replies between a client and a local server.

Services That Depend on RPCSS

Service	Description
Background Intelligent Transfer Service	Transfers data between clients and servers in the background.
COM+ Event System	Supports System Event Notification Service (SENS), which provides automatic distribution of events to subscribing Component Object Model (COM) components.
COM+ System Application	Manages the configuration and tracking of COM+-based components.
Cryptographic Services	Provides three management services: Catalog Database Service, which confirms the signatures of Windows files; Protected Root Service, which adds and removes Trusted Root Certification Authority certificates from this computer; and Key Service, which helps enroll this computer for certificates.
DHCP Server	Performs TCP/IP configuration for DHCP clients, including dynamic assignments of IP addresses, specification of the WINS and DNS servers, and connection-specific Domain Name System (DNS) names.
Distributed Link Tracking Client	Enables client programs to track linked files that are moved within an NTFS volume to another NTFS volume on the same computer or to an NTFS volume on

	another computer.
Distributed Link Tracking Server	Enables the Distributed Link Tracking Client service within the same domain to provide more reliable and efficient maintenance of links within the domain.
Distributed Link Transaction Coordinator	Coordinates transactions that span multiple resource managers, such as databases, message queues, and file systems.
DNS Server	Enables DNS clients to resolve DNS names by answering DNS queries and dynamic update requests.
Error Reporting Service	Collects, stores, and reports unexpected application failures to Microsoft.
File Replication Service	Allows files to be automatically copied and maintained simultaneously on multiple servers.
Help and Support	Enables Help and Support Center to run on the computer.
Human Interface Device Access	Enables generic input access to Human Interface Devices (HID), which activates and maintains the use of predefined hot buttons on keyboards, remote controls, and other multimedia devices.
Indexing Service	Indexes contents and properties of files on local and remote computers; provides rapid access to files through flexible querying language.
IPSec Services	Provides end-to-end security between clients and servers on TCP/IP networks.
Kerberos Key Distribution Center	On domain controllers, enables users to log on to the network using the Kerberos authentication protocol.
Logical Disk Manager	Detects and monitors new hard disk drives and sends disk volume information to Logical Disk Manager Administrative Service for configuration.
Logical Disk Manager Administrative Service	Configures hard disk drives and volumes.
Messenger	Transmits net send and Alerter service messages between clients and servers. This service is not related to Windows Messenger.
Microsoft Software Shadow Copy Provider	Manages software-based volume shadow copies taken by the Volume Shadow Copy service.
Network Connections	Manages objects in the Network and Dial-Up Connections folder in which you can view local area network (LAN) and remote connections.
Print Spooler	Manages all local and network print queues and controls all printing jobs.
Protected Storage	Protects storage of sensitive information, such as private keys and prevents access by unauthorized services, processes, or users.
Remote Desktop Help Session Manager	Manages and controls Remote Assistance.
Remote Registry	Enables remote users to modify registry settings on a computer.
Removable Storage	Manages and catalogs removable media and operates automated removable media devices.
Resultant Set of Policy Provider	Enables a user to connect to a remote computer, access the Windows Management Instrumentation (WMI) database for that computer, and either verify the current Group Policy settings made for the computer or check settings before they are applied.
Routing and Remote Access	Enables multi-protocol LAN-to-LAN, LAN-to-wide area network (WAN), virtual private network (VPN), and network address translation (NAT) routing services for clients and servers on the network.
Security Accounts Manager	Upon startup, signals other services that the Security Accounts Manager (SAM) is ready to accept requests.
Shell Hardware Detection	Provides notifications for AutoPlay hardware events.
Task Scheduler	Enables a user to configure and schedule automated tasks on the computer.
Telephony	Provides Telephony API (TAPI) support for clients using programs that control

	telephony devices and IP-based voice connections.
Telnet	Enables a remote user to log on to a computer and run programs; supports various TCP/IP Telnet clients, including UNIX-based and Windows-based computers.
Terminal Services	Allows users to connect interactively to a remote computer. Remote Desktop, Fast User Switching, Remote Assistance, and Terminal Server depend on this service.
Terminal Services Session Directory	Enables a user connection request to be routed to the appropriate terminal server in a cluster.
Upload Manager	Manages the synchronous and asynchronous file transfers between clients and servers on the network.
Virtual Disk Service	Provides software volume and hardware volume management service.
Volume Shadow Copy	Manages and implements Volume Shadow Copies used for backup and other purposes.
Windows Audio	Manages audio devices for Windows-based programs.
Windows Image Acquisition (WIA)	Provides image acquisition services for scanners and cameras.
Windows Installer	Installs, repairs, and removes software according to instructions contained in .MSI files.
Windows Internet Name Service (WINS)	Resolves NetBIOS names for TCP/IP clients by locating network services that use NetBIOS names.
Windows Management Instrumentation	Provides a common interface and object model to access management information about operating system, devices, applications, and services. If this service is stopped, most Windows-based software will not function properly.
Wireless Configuration	Enables automatic configuration for IEEE 802.11 adapters.
WMI Performance Adapter	Provides performance library information from WMI providers to clients on the network.