



SYSTEM SPECIFICATIONS GUIDE



AD Lab

LARGE-SCALE INVESTIGATIONS & PROCESSING



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AccessData® Lab Overview

AccessData LAB is the world's first digital investigation platform designed for maximum evidence processing speed and collaboration. AD LAB is the next generation of our flagship product; Forensic Toolkit (FTK). AD LAB combines all our standard FTK analysis features with the ability to support unlimited concurrent analysts in a single case, Distributed Processing technology powered by the AD LAB Distributed Processing Manager (DPM), unlimited Distributed Processing Engines (DPE's), and a revolutionary Web-Based interface for reviewing evidence in a simple user-friendly interface that was designed for a variety of analysts such as: Legal or HR staff, Prosecutors, Detectives, or other Forensic Analysts. This allows for secure collaborative analysis amongst the various evidence reviewers both internal or external, real-time task and case management, and a massive increase in evidence processing speed by leveraging a processing farm of DPE's.

The AD Lab solution is comprised of a series of functional components that allow the solution to be scaled to meet the varying needs of even the most demanding organizations. These components can be installed on single server or distributed in various ways across multiple servers depending on the needs of the organization. The following section contains a brief explanation of each of the AccessData Lab components and its role within the solution:

- **Lab Client**—This is the 'Heavy-Client' software which is similar to FTK. It is used by forensic examiners and is typically installed on high-end workstation or server-class hardware. The Lab Client supports connecting directly to multiple databases.
- **Processing Engine**—The processing engine (or distributed processing engine) performs data processing tasks such as the expansion of archives (e.g., .PST, .NSF, and .ZIP files), indexing, de-duplication analysis, file identification, secondary culling and filtering, and the creation of production and export sets.
- **DPM—Distributed Processing Manager**—This is the controller for the distributed processing cluster of DPE's, this component orchestrates the work orders to the individual DPE's and manages all the evidence processing tasks.
- **SQL Database**—The AccessData Lab solution utilizes a Microsoft SQL Server instance to maintain databases containing file metadata, user data, and workflow information.
- **Case Data/Evidence Storage**—The AccessData Lab solution can leverage many types of local or external storage, including network attached storage (NAS), storage area network (SAN), and direct-attached storage (DAS), to host evidence and other case-related data.
- **Web Suite (optional)**—The Web Suite provides a web interface through which users can access the AccessData Lab solution.
- **Application Services (optional)**
 - **Windows Communication Foundation Services**—The Windows Communication Foundation Services ("WCF") manage the flow of data between the various AccessData Lab components.

- **Asynchronous Processing Services**—The Asynchronous Processing Services ("Async") are responsible for the execution of certain user actions such as bulk coding, searching, and load file import ingestion.
- **Work Manager**—The Work Manager governs the flow of work to the processing engine.

General Considerations

AccessData strongly encourages the use of physical hardware platforms in any implementation of the AccessData Lab solution. The support of any implementation which attempts to host one or more components on virtualized platforms is subject to the discretion of AccessData. AccessData reserves the right, during the troubleshooting of a support issue, to withdraw support on a specific issue if it is found to be induced by virtualization.

Note: Virtualization using Microsoft Hyper-V is not supported.

AccessData strongly encourages the SQL Server instance hosting the AccessData Lab solution exist on a dedicated hardware platform. The support of any implementation which attempts to host the SQL Database component on the same hardware platform as other enterprise applications is subject to the discretion of AccessData. Attempts to host the SQL database component in the same instance as other enterprise applications will not be supported.

AccessData forbids the installation of any of the AccessData Lab solution's components on any system that hosts a Microsoft Domain Controller.

Please contact your AccessData technical support representative for further information.

Service Account

The AccessData Lab solution requires the use of a single, preferably dedicated, service account to operate properly. In a multi-server installation environment, a domain-level service account is required. Workgroup authentication is only supported for single-server installation environments. In either case, the service account must be a local administrator with “Logon as Service” and “Interactive Logon” system permissions.

The service account must be added to the Logins of the SQL Instance being used to host the SQL Database component.

Additional Recommendations

AccessData strongly recommends that the Microsoft Indexing Service either be configured to exclude the directories or drives containing case files, database files, temp/log files or disabled entirely.

AccessData strongly recommends that any anti-virus or anti-malware software on any each server hosting components of the AccessData Lab solution are configured to disable on-access scanning of the directories or drives containing case files, database files, or temp/log files. Additionally, should any full scans be scheduled, they should be monitored to ensure they are not interfering with the overall performance of the solution.

AccessData recommends disabling the creation of 8.3 character length filenames and updates to the last access timestamp on NTFS formatted volumes to improve performance in disk input/output operation.

AccessData recommends setting both the minimum and maximum sizes of the system pagefile to double the amount of RAM on the system. For optimal performance, the pagefile can be moved to a dedicated, low-latency (e.g., RAID 0 or SSD) disk space that meets the calculated capacity requirements. For further information, please read <http://support.microsoft.com/kb/2860880> or contact your AccessData technical support representative for further information.

General Hardware Requirements

The overall performance of the AccessData Lab solution is dependent on the hardware employed to host its various components. Ideally, all implementations would employ the latest multi-threaded processors, large amounts of memory, and arrays of solid state disc drives. The componentized nature of the AccessData Lab solution allows the flexibility to create a cost-effective environment that conforms to the differing needs of a diverse client base.

Processors and Memory

The quality of the processors employed in the implementation environment will have a direct effect on the overall performance of the AccessData Lab solution. Sites such as cpubenchmark.net can be used to compare the relative performance of different processors. Additionally, some components use the number of logical processor cores on a system to calculate the total number of threads available to perform certain operations.

Minimum hardware recommendations for some of the components when deployed on their own servers in an enterprise environment can be found below in Table 1 and examples of some common configurations of the AccessData Lab solution are located in Appendix B. Please contact your AccessData technical support representative for further information and assistance.

Minimum Hardware Recommendations		
System Component	CPUs	Memory
Web Suite	4 logical cores	4GB RAM
Application Services	4 logical cores	16GB RAM
Processing Engine	8 logical cores	16GB RAM
SQL Database	8 logical cores	32GB RAM
Lab Client	8 logical cores	16GB RAM

Table 1—Minimum Hardware Recommendations

During certain operations, components in the AccessData Lab solution can leverage all available processor and memory resources available to the host system. Systems with insufficient memory resources can experience bottlenecks as certain operations may cause the system to start paging. The presence of any paging on a system will result in an associated reduction in the performance of the solution and severe paging—also known as “thrashing”—can lead to operational failure. It is strongly recommended that any system involved in the implementation environment possess at least 1GB of RAM for each logical processor core (e.g., an 8-core system should have at least 8GB of RAM) to reduce the likelihood of paging. Additionally, it is recommended that any system hosting a Processing Engine component possess at least 2GB of RAM for each logical processor core (e.g., an 8-core system should have at least 16GB of RAM).

Storage

The storage requirements of the AccessData Lab solution are dependent on a number of variables including the number of active projects, the volume of data involved in the projects and the workflow of the organization. Both the back-end storage hardware being employed and its configuration can greatly affect the overall performance of the AccessData Lab solution. Table 2 contains descriptions, characteristics, and recommendations of the various types of storage involved in the AccessData Lab solution.

Storage		
Description	Storage	Characteristics
Operating System and Applications	Local disk volume on any system hosting one or more components that provides storage for the operating system and application files.	The initial space requirements should include 40GB for the operating system and additional space sufficient to accommodate the components being hosted. Systems with more than 16GB of RAM will require additional space to accommodate the system pagefile. This storage should be fault-tolerant. Recommendation: RAID 1.
Staged Evidence	File share on either a local disk volume or network storage that provides storage for data that will be ingested as evidence or imported via loadfile (e.g., forensic images, native files, TIFF images, PDF images, OCR text files, and loadfiles).	The initial space requirements are dependent on the needs of organization, but can be significant. This storage should be fault-tolerant. Recommendation: RAID 10 or RAID 5.
Case Data	File share on either a local disk volume or network storage that provides storage for case-specific data, application-generated files, and internally- maintained copies of specific types of ingested data.	The initial space requirements for ingested evidence are roughly 33% of the space of the associated staged evidence and the initial space requirements for imported data are 100% of the space of the associated staged evidence. Additional space will be required to support ongoing workflow operations. This storage should be fault tolerant. Recommendation: RAID 10 or RAID 5.
Exported Data	File share on either a local disk volume or network storage that is used as a target for exported native files, TIFF images, PDF images, and loadfiles.	Exported data is separate from the associated records in a case and can be purged to reduce the requirements of this storage space. The space requirements and fault tolerance are entirely dependent on the organization's workflow. Recommendation: Any.
SQL Databases	Local disk volume on the system hosting the SQL Database component that provides storage for the system and application database files.	The initial space requirements are dependent on the size and number of databases and the frequency of database maintenance operations, but will be smaller than the space required for the SQL Databases. Additional space will be required to support ongoing workflow operations. This storage should be fault tolerant. Recommendation: RAID 1.
SQL Logs	Local disk volume on the system hosting the SQL Database component that provides storage for the system and application database log files.	The initial space requirements for ingested evidence are roughly 33% of the space of the associated staged evidence and the initial space requirements for imported data are 100% of the space of the associated staged evidence. Additional space will be required to support ongoing workflow operations. This storage should be fault tolerant. Recommendation: RAID 10 or RAID 5.
Temp DB	Local disk volume on the system hosting the SQL Database component that provides storage for the temporary database files.	The space requirements are dependent on the frequency of database maintenance operations. The speed of this space is important. This storage requires no fault tolerance. Recommendation: RAID 0 or SSD.
ADTEMP	Local disc volume on any system hosting the Processing Engine component that provides storage for ephemeral files generated by the Processing Engine component.	At least 50GB of space is required, but the minimum recommended size is 500GB. The most important characteristic of this space is its speed. This storage requires no fault tolerance. Recommendation: RAID 0 or SSD.

Table 2—Storage

For optimal performance, initial consideration should be given to the seek time, latency, and data transfer rates of the storage. High disk activity can be expected during certain operations and is not necessarily indicative of a problem. Sustained rates of disk activity above 85% or persistent disc queues over 2 per disk during operations will result in a bottleneck effect and a corresponding reduction in the overall performance of the solution.

Note: Sustained periods of high disk use and persistent disk queues can be a symptom of insufficient memory resources. Please see the Processors and Memory section of this document for additional information.

Ongoing attention should also be paid to the space utilization and fragmentation of the storage which can themselves lead to a decrease in performance. There are a number of different methods by which disc queuing and fragmentation issues can be addressed including the use of high-RPM drives, RAID technologies, or solid-state drives (SSD).

Network

The AccessData Lab solution is a componentized, web-based platform. Communication between the various components is performed over Transmission Control Protocol (TCP) ports as depicted in Figure 1. A more comprehensive list of the ports used for communication can be found in Table 3.

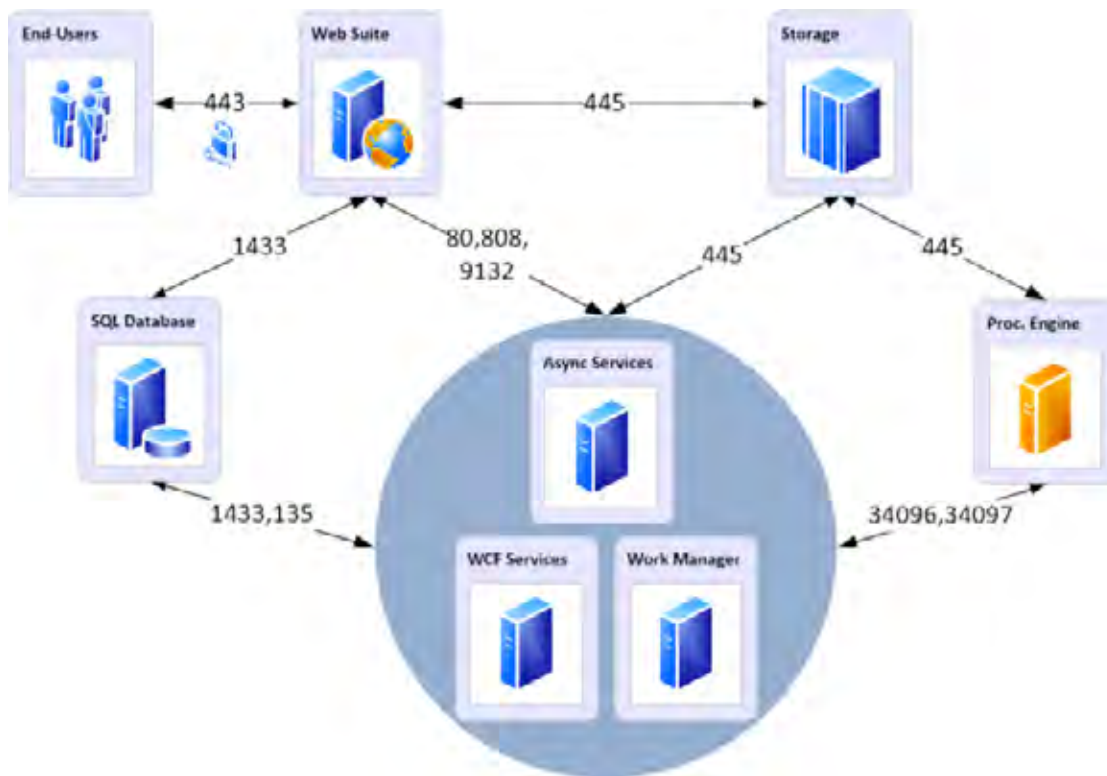


Figure 1—Simplified Summation Network Communication Diagram

It is important to note that some ports are only used to negotiate a connection between two components with the actual communication using ephemeral ports in the dynamic port ranges of the respective servers.

TCP Ports Employed By the Various Components		
Source Component	Destination Component	Port
Web Suite	Asynchronous Processing Services	80,808
	Case Data/Evidence Storage	445
	End-Users	443
	SQL Database	1433
	Windows Communication Foundation Services	9132
Lab Client	Work Manager	9132
	CaseData/Evidence Processing Manager	445
Windows Communication Foundation Services	Processing Engine	445
	SQL Database	1433
	Case Data/Evidence Storage	445
	Web Suite	1433
Asynchronous Processing Services	Work Manager	9132
	Case Data/Evidence Storage	445
	SQL Database	1433,135
	Web Suite	80,808
Processing Engine	Case Data/Evidence Storage	445
	Work Manager	445
	Processing Manager	445
	SQL Database	445
Work Manager	Case Data/Evidence Storage	445
	Processing Engine	34096,34097
	SQL Database	1433
	Web Suite	9132
	Windows Communication Foundation Services	9132
Processing Manager	CaseData/Evidence	445
	Work Manager	445
	Processing Engine	445
SQL Database	Asynchronous Processing Services	1433,135
	Web Suite	1433
	Windows Communication Foundation Services	1433
	Work Manager	1433
Case Data/Evidence Storage	Asynchronous Processing Services	445
	Processing Engine	445
	Web Suite	445
	Windows Communication Foundation Services	445
	Work Manager	445

Table 3—TCP Ports Employed By the Various Components

AccessData recommends the use of 1GbE or 10GbE network connections and strongly discourages the use of iSCSI network connectors or link aggregation (i.e., NIC teaming) in any form. The AccessData Lab solution does not use IPv6 for communication and AccessData recommends disabling IPv6 if it is not otherwise required.

Communications between the AccessData Lab solution and the web-based end-user interface are protected by Secure Socket Layer encryption (SSL), which requires the use of a public certificate signed by a trusted certificate authority. Some implementations may require the purchase of a properly-configured certificate from a commercial Certificate Authority.

Software Requirements

The AccessData Lab solution has been designed to leverage Microsoft server technologies. Licensing for Microsoft Windows and Microsoft SQL Server must be obtained through Microsoft or an authorized reseller.

Software Requirements	
Component	Software Requirements
Web Suite	Microsoft Windows Server 2008 R2 Microsoft Distributed Transaction Coordinator Microsoft .NET Framework 4.0 Microsoft SQL Server 2008 R2 Management Objects (x64) Microsoft SQL Server System CLR Types (x64) Microsoft Visual C++ 2010 x64 Redistributable Microsoft Visual C++ 2010 x86 Redistributable Microsoft Outlook 64-bit
Application Services	Microsoft Windows Server 2008 R2 or 2012 R2 Microsoft Internet Information Services 7.5 Microsoft Distributed Transaction Coordinator Microsoft .NET Framework 4.0 Microsoft Visual C++ 2010 x64 Redistributable
Processing Engine	Microsoft Windows Server 2008 R2 Microsoft Distributed Transaction Coordinator Microsoft .NET Framework 4.0 Microsoft Visual C++ 2008 Redistributable Microsoft Visual C++ 2010 x64 Redistributable
SQL Database	Microsoft Windows Server 2008 R2 Microsoft SQL Server 2008 R2
End-User Computers	Microsoft Internet Explorer 9 Microsoft Silverlight 5.1 Adobe Flash 11.7 AccessData NearNative Viewer AccessData Bulk Print Local

Table 4—Software Requirements

SQL Database

The SQL Database component is the heart of the AccessData Lab solution and its performance is crucial to the overall performance of the application. Microsoft SQL Server operates under the assumption that the server hosting it exists solely to host its databases. Understanding this behavior and the reasoning behind it is important to the performance of the AccessData Lab solution, especially in implementation environments in which the SQL Database component is sharing a server with additional components. AccessData recommends that a qualified Database Administrator assist in both the initial configuration and ongoing maintenance of the SQL Database component.

Note: If using Microsoft SQL Express as the underlying database, monitoring the sizes of the databases is crucial. Microsoft SQL Express caps the maximum size of databases to 10GB. Exceeding this limit may result in irrecoverable database corruption.

Microsoft SQL Server will cache the data it reads from storage in memory to improve its performance and will cache entire databases if it has the resources available to do so. The benefit of this behavior is that adding memory to the server hosting the SQL Database component can be expected to improve its performance. The drawback of this behavior is that Microsoft SQL Server's default settings allow it to claim up to 2 petabytes of memory. AccessData recommends that the Maximum Server Memory setting in Microsoft SQL Server be set to reduce the likelihood of the SQL component claiming all of the server's available memory.

The storage used by the SQL database component also plays an important role in the application's overall performance. AccessData recommends that the SQL data files, the SQL transaction log files, and the TempDB database are physically segregated from each other and

from the operating system. Ideally, SQL data files should be located on storage with high read-write performance and redundancy; SQL transaction log files should be located on storage with high write performance and redundancy; and the TempDB should be located on storage with the fastest possible read-write performance, but does not require any redundancy. For more information, please see <http://technet.microsoft.com/en-us/library/cc966534.aspx> or contact your AccessData technical support representative.

SQL Server Requirements

The support of any implementation which attempts to host the SQL Database component on the same hardware platform as other enterprise applications is subject to the discretion of AccessData. The use of a single SQL instance to host the SQL database component and any other enterprise applications is not supported.

AccessData requires that the SQL instance being used to host the SQL Database component is created using the Default US Collation, SQL_Latin1_General_CP1_CI_AS.

AccessData requires that the SQL Instance being used to host the SQL Database component must have Mixed Mode Authentication enabled and the Service Account must be added as an Administrator to the instance.

AccessData requires that the Network Configuration of the SQL Instance being used to host the SQL Database component must have the TCP/IP and Named Pipes Protocols enabled.

Database Maintenance

For database maintenance information and sample maintenance plans, please see the KB article linked here.

Appendix A: Pre-implementation Checklist

The following checklist should be used to document the prerequisites necessary to ensure the successful implementation of the AccessData Lab solution and should be completed prior to product implementation by an AccessData technician.

1. Hardware Information

- 1.1. The servers that have been designated for component configuration are available.
- 1.2. The servers' operating systems have been installed and are fully-patched.
- 1.3. The servers' storage volumes have been properly provisioned and formatted.

2. Network Configuration

- 2.1. The appropriate ports are open between the servers.

3. Service Account

- 3.1. A dedicated service account named _____ has been created.
- 3.2. The service account has been added to the local Administrators group on all servers in the environment.
- 3.3. The service account has been provided with the Interactive Logon permission.
- 3.4. The service account has been provided with the Logon As Service permission.
- 3.5. The service account's password options have been set to Password Never Expires and User Cannot Change Password.

4. SQL Server Configuration

- 4.1. Microsoft SQL Server has been installed and is fully patched.
- 4.2. The SQL instance name is _____ (default: "Default").
- 4.3. The SQL instance is configured to use port _____ (default: 1433).
- 4.4. The SQL instance is configured to use "SQL_Latin1_General_CP1_CI_AS" coalition.
- 4.5. The SQL instance has Mixed Mode authentication enabled.
- 4.6. The Service Account has been added to the SQL instance as a user and has been given sysadmin rights.

5. Software Licensing

- 5.1. The license dongle is accessible and has been properly stocked with the appropriate licenses.

6. Software Installation Media

- 6.1. The AccessData technician has provided the FTP credentials to retrieve the latest software ISO.
- 6.2. The latest software ISO has been downloaded and copied to the servers.
- 6.3. Software capable of mounting an ISO (e.g., WinCDEMU) or extracting from an ISO (e.g., 7-ZIP) has been installed on at least one of the servers.

7. Certificates

- 7.1. A certificate has been created for use with IIS with this common name:_____.
- 7.2. Authentication Configuration
- 7.3. Lab will be configured to use "Forms" / "Active Directory" for user authentication (pick one).

Appendix B: Sample Environments

The section below contains a series of hypothetical hardware configurations that illustrate some of the more common methods used to implement the AccessData Lab solution.

NOTE: These examples are for demonstrative purposes only and should not be solely relied upon as they may not be appropriate for your environment.

Example One: DeskTop Environment		
	Components	Hardware Specifications
Single Desktop	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Service • Processing Engine • SQL Database • Case Data/Evidence Storage 	Logical Cores: 8 RAM: 16GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB 10k RPM Drive • DB Files/Logs, Case Data/Evidence Storage – 1GB 10k Drive • TempDB, ADTemp – 500GB SSD

Example Two: Single Server Environment		
	Components	Hardware Specifications
Single Server	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Service • Processing Engine • SQL Database • Case Data/Evidence Storage 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files/Logs – 500GB RAID 5 SAS • TempDB, ADTemp – 500GB SSD • Case Data/Evidence Storage – 1TB RAID 5 SAS

Example Three: Two Server Environment

	Components	Hardware Specifications
Application Server	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Service • Processing Engine • Case Data/Evidence Storage 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD • Case Data/Evidence Storage – 1TB RAID 5/10 NAS/SAN/DAS
Database Server	SQL Database	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files – 1TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 100GB RAID 0 SAS or SSD

Example Four: Two Server Environment

	Components	Hardware Specifications
Application Server	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Service • Processing Manager • Case Data/Evidence Storage • SQL Database 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD • Case Data/Evidence Storage – 1TB RAID 5/10 NAS/SAN/DAS
Processing Server	Distributed Processing Engine	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files – 1TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 100GB RAID 0 SAS or SSD

Example Five: Three Server Environment

Server	Components	Hardware Specifications
Web/ Application Server	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Services • Processing Manager • Case Data/Evidence Storage 	Logical Cores: 8 RAM: 16GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD
Processing Server	<ul style="list-style-type: none"> • Distributed Processing Engine 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD • Case Data/Evidence Storage – 1TB RAID 5/10 NAS/SAN/DAS
DatabaseServer	<ul style="list-style-type: none"> • SQL Database 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files – 1TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 100GB RAID 0 SAS or SSD

Example Six: Four Server Environment

Server	Components	Hardware Specifications
Web/Application Server	<ul style="list-style-type: none"> • Lab Client • Web Suite • Windows Communication Foundation Service • Processing Manager • Case Data/Evidence Storage 	Logical Cores: 8 RAM: 16GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • Case Data/Evidence Storage – 1TB RAID 5/10 NAS/SAN/DAS
Processing Server	<ul style="list-style-type: none"> • Distributed Processing Engine 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD
Processing Server	<ul style="list-style-type: none"> • Distributed Processing Engine 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD
Database Server	<ul style="list-style-type: none"> • SQL Database 	Logical Cores: 32 RAM: 64GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files – 1TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 500GB RAID 0 SAS or SSD

Example Seven: Four Server Environment

Server	Components	Hardware Specifications
Web Server	<ul style="list-style-type: none"> • Web Suite 	Logical Cores: 8 RAM: 16GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS
Application Server	<ul style="list-style-type: none"> • Lab Client • Windows Communication Foundation Services • Processing Manager • Case Data/Evidence Storage 	Logical Cores: 8 RAM: 16GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • Case Data/Evidence Storage – 1TB RAID 5/10 NAS/SAN/DAS
Processing Server	<ul style="list-style-type: none"> • Distributed Processing Engine 	Logical Cores: 16 RAM: 32GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • ADTemp – 500GB RAID 0 SAS or SSD
Database Server	<ul style="list-style-type: none"> • SQL Database 	Logical Cores: 32 RAM: 64GB Network Connection: 1GbE NIC Drive Sets: <ul style="list-style-type: none"> • OS/Apps – 150GB RAID 1 SAS • DB Files – 1TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 500GB RAID 0 SAS or SSD

Example Eight: A Large Scale Deployment

Server	Components	Hardware Specifications
Web Server	WebSuite	Logical Cores: 8 RAM: 16GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS
Application Server	Lab Client Windows Communication Foundation Services Processing Manager Case Data / Evidence Storage	Logical Cores: 16 RAM: 32GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • Case Data/Evidence Storage – 10TB RAID 5/10 NAS/SAN/DAS
Processing Server 1	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 2	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 3	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 4	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 5	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 6	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD

Example Eight: A Large Scale Deployment

Server	Components	Hardware Specifications
Processing Server 7	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 8	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 9	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Processing Server 10	Distributed Processing Engine	Logical Cores: 32 RAM: 64GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • ADTemp – 800GB RAID 0 SSD
Database Server	SQL Database	Logical Cores: 128 RAM: 256GB Network Connection: 10GbE NIC Drive Sets: • OS/Apps – 150GB RAID 1 SAS • DB Files – 5TB RAID 5/10 DAS/NAS/SAN • DB Logs – 500GB RAID 1 SAS • TempDB – 500GB RAID 0 SAS or SSD



Whether it's for investigation, litigation or compliance, AccessData® offers industry-leading solutions that put the power of forensics in your hands. For 30 years, AccessData has worked with more than 130,000 clients in law enforcement, government agencies, corporations and law firms around the world to understand and focus on their unique collection-to-analysis needs. The result? Products that empower faster results, better insights, and more connectivity. For more information, visit www.accessdata.com

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