

# Microsoft AD As Built Report

Zen Pr Solutions

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# 1 Report for Active Directory Forest ZENPR.LOCAL

The following section provides a summary of the Active Directory Infrastructure configuration for ZENPR.LOCAL.

## 1.1 Forest Information.

The Active Directory framework that holds the objects can be viewed at a number of levels. The forest, tree, and domain are the logical divisions in an Active Directory network. At the top of the structure is the forest. A forest is a collection of trees that share a common global catalog, directory schema, logical structure, and directory configuration. The forest represents the security boundary within which users, computers, groups, and other objects are accessible.

Forest Name	zenpr.local
Forest Functional Level	Windows2016Forest
Schema Version	ObjectVersion 88, Correspond to Windows Server 2019
Tombstone Lifetime (days)	180
Domains	acad.zenpr.local; zenpr.local
Global Catalogs	Server-DC-01V.zenpr.local; acad-dc-01v.acad.zenpr.local
Application Partitions	DC=DomainDnsZones,DC=acad,DC=zenpr,DC=local DC=ForestDnsZones,DC=zenpr,DC=local DC=DomainDnsZones,DC=zenpr,DC=local
PartitionsContainer	CN=Partitions,CN=Configuration,DC=zenpr,DC=local
SPN Suffixes	-
UPN Suffixes	-

Table 1 - AD Forest Summary Information - ZENPR.LOCAL

### 1.1.1 Optional Features Summary

The following section provides a summary of the enabled Optional Features.

Name	Required Forest Mode	Forest
Recycle Bin Feature	Windows2008R2Forest	ZENPR.LOCAL
Privileged Access Management Feature	Windows2016Forest	ZENPR.LOCAL

Table 2 - Active Directory Enabled Optional Features Information - ZENPR.LOCAL

### 1.1.2 Domain Site Summary

The following section provides a summary of the Active Directory Sites.

Site Name	Description	Creation Date	Subnets
Zenpr-HQ	Site of San Juan, PR HQ	Mon, 11 Jun 2018 00:59:59 GMT	10.9.1.0/24 192.168.0.0/16
Cayey-Branch	Site of Cayey, PR Branch	Sat, 04 Sep 2021 00:35:15 GMT	10.10.0.0/16
ACAD	-	Sun, 05 Sep 2021 16:13:51 GMT	172.23.0.0/16

Table 3 - AD Domain Controller Summary Information - ZENPR.LOCAL

### 1.1.3 Site Links Summary

The following section provides a summary of the Active Directory Site Link information.

Site Link Name	Cost	Replication Frequency	Transport Protocol	Sites
Zenpr-to-All	100	15 min	IP	ACAD Cayey-Branch Zenpr-HQ
ZENPR-to-ACAD	100	15 min	IP	ACAD Zenpr-HQ

Table 4 - Site Links Information - ZENPR.LOCAL

## 1.2 Active Directory Domain summary for forest ZENPR.LOCAL

An Active Directory domain is a collection of objects within a Microsoft Active Directory network. An object can be a single user or a group or it can be a hardware component, such as a computer or printer. Each domain holds a database containing object identity information. Active Directory domains can be identified using a DNS name, which can be the same as an organization's public domain name, a sub-domain or an alternate version (which may end in .local).

### 1.2.1 Active Directory Information for domain ZENPR.LOCAL

The following section provides a summary of the AD Domain Information.

Domain Name	zenpr
NetBIOS Name	ZENPR
Domain SID	S-1-5-21-2867495315-1194516362-180967319
Domain Functional Level	Windows2016Domain
Domains	-
Forest	zenpr.local
Parent Domain	-
Replica Directory Servers	Server-DC-01V.zenpr.local cayey-dc-01v.zenpr.local
Child Domains	acad.zenpr.local
Domain Path	zenpr.local/
Computers Container	zenpr.local/Computers
Domain Controllers Container	zenpr.local/Domain Controllers
Systems Container	zenpr.local/System
Users Container	zenpr.local/Users
ReadOnly Replica Directory Servers	-

Table 5 - AD Domain Summary Information - ZENPR.LOCAL

#### 1.2.1.1 Flexible Single Master Operations (FSMO) Information

The following section provides a summary of the Active Directory FSMO for Domain ZENPR.LOCAL.

Infrastructure Master Server	Server-DC-01V.zenpr.local
RID Master Server	Server-DC-01V.zenpr.local

PDC Emulator Name	Server-DC-01V.zenpr.local
Domain Naming Master Server	Server-DC-01V.zenpr.local
Schema Master Server	Server-DC-01V.zenpr.local

Table 6 - FSMO Server Information - zenpr.local

### 1.2.1.2 Trust Summary

The following section provides a summary of Active Directory Trust information on ZENPR.LOCAL.

Name	acad.zenpr.local
Path	zenpr.local/System/acad.zenpr.local
Source	zenpr
Target	acad.zenpr.local
Direction	BiDirectional
IntraForest	Yes
Selective Authentication	No
SID Filtering Forest Aware	No
SID Filtering Quarantined	No
Trust Type	Uplevel
Uplevel Only	No

Table 7 - Active Directory Trusts Information - ZENPR.LOCAL

### 1.2.1.3 Domain Object Count Summary

The following section provides a summary of the Active Directory Object Count on ZENPR.LOCAL.

Computers	88
Servers	52
Domain Controller	2
Global Catalog	1
Users	20
Privileged Users	4
Groups	63

Table 8 - Active Directory Object Count Information - ZENPR.LOCAL

### 1.2.1.4 Default Domain Password Policy Summary

The following section provides a summary of the Default Domain Password Policy on ZENPR.LOCAL.

Domain Name	zenpr.local
Complexity Enabled	Yes
Path	zenpr.local/
Lockout Duration	00 days 00 hours 30 minutes 00 seconds
Lockout Threshold	0
Lockout Observation Window	00 days 00 hours 30 minutes 00 seconds
Max Password Age	42 days 00 hours 00 minutes 00 seconds



Min Password Age	01 days 00 hours 00 minutes 00 seconds
Min Password Length	7
Password History Count	24
Reversible Encryption Enabled	No

Table 9 - Default Domain Password Policy Information - ZENPR.LOCAL

### 1.2.1.5 Fined Grained Password Policies Summary

The following section provides a summary of the Fined Grained Password Policies on ZENPR.LOCAL.

Password Setting Name	Administrators
Domain Name	zenpr.local
Complexity Enabled	Yes
Path	zenpr.local/System/Password Settings Container/Administrators
Lockout Duration	00 days 00 hours 30 minutes 00 seconds
Lockout Threshold	0
Lockout Observation Window	00 days 00 hours 30 minutes 00 seconds
Max Password Age	42 days 00 hours 00 minutes 00 seconds
Min Password Age	05 days 00 hours 00 minutes 00 seconds
Min Password Length	12
Password History Count	90
Reversible Encryption Enabled	No
Precedence	1
Applies To	horizon-ic, dbuser, jocolon

Table 10 - Fined Grained Password Policies Information - ZENPR.LOCAL

### 1.2.1.6 Group Managed Service Accounts (GMSA) Summary

The following section provides a summary of the Group Managed Service Accounts on ZENPR.LOCAL.

Name	SQLServer
SamAccountName	SQLServer\$
Created	09/27/2020 14:14:22
Enabled	Yes
DNS Host Name	SQL-Cluster
Host Computers	SQL-CLUSTER-02V, SQL-CLUSTER-01V
Retrieve Managed Password	SQL-CLUSTER-01V, SQL-CLUSTER-02V
Primary Group	Domain Computers
Last Logon Date	09/27/2020 14:41:08
Locked Out	No
Logon Count	3
Password Expired	No
Password Last Set	09/27/2020 14:14:22

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Name	adfgmsa
SamAccountName	adfgmsa\$
Created	10/07/2020 18:36:16
Enabled	Yes
DNS Host Name	ADFS.zenpr.local
Host Computers	
Retrieve Managed Password	SERVER-ADFS-01V, SERVER-ADFS-02V
Primary Group	Domain Computers
Last Logon Date	10/07/2020 18:36:17
Locked Out	No
Logon Count	40
Password Expired	No
Password Last Set	10/07/2020 18:36:16

### 1.2.1.7 Domain Controller Information

A domain controller (DC) is a server computer that responds to security authentication requests within a computer network domain. It is a network server that is responsible for allowing host access to domain resources. It authenticates users, stores user account information and enforces security policy for a domain.

The following section provides a summary of the Active Directory Domain Controller.

DC Name	Domain Name	Site	Global Catalog	Read Only	IP Address
SERVER-DC-01V	zenpr.local	Zenpr-HQ	Yes	No	192.168.5.1
CAYEY-DC-01V	zenpr.local	Cayey-Branch	No	No	10.10.33.1

Table 11 - AD Domain Controller Summary Information - ZENPR.LOCAL

#### 1.2.1.7.1 Hardware Summary

The following section provides a summary of the Domain Controller Hardware for ZENPR.LOCAL.

Name	Server-DC-01V
Windows Product Name	Windows Server 2019 Standard Evaluation
Windows Current Version	6.3
Windows Build Number	10.0.17763
Windows Install Type	Server
AD Domain	zenpr.local
Windows Installation Date	09/08/2020 21:20:17
Time Zone	(UTC-04:00) Georgetown, La Paz, Manaus, San Juan
License Type	Retail:TB:Eval
Partial Product Key	Y7XRX
Manufacturer	VMware, Inc.
Model	VMware7,1
Serial Number	
Bios Type	Uefi

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BIOS Version	
Processor Manufacturer	GenuineIntel
Processor Model	Intel(R) Core(TM) i7-6700 CPU @ 3.40GHz
Number of Processors	1
Number of CPU Cores	2
Number of Logical Cores	2
Physical Memory (GB)	4.00 GB

Name	cayey-dc-01v
Windows Product Name	Windows Server 2019 Standard Evaluation
Windows Current Version	6.3
Windows Build Number	10.0.17763
Windows Install Type	Server
AD Domain	zenpr.local
Windows Installation Date	09/03/2021 20:36:55
Time Zone	(UTC-04:00) Georgetown, La Paz, Manaus, San Juan
License Type	Retail:TB:Eval
Partial Product Key	Y7XRX
Manufacturer	VMware, Inc.
Model	VMware7,1
Serial Number	
Bios Type	Uefi
BIOS Version	
Processor Manufacturer	GenuineIntel
Processor Model	Intel(R) Core(TM) i7-6700 CPU @ 3.40GHz
Number of Processors	1
Number of CPU Cores	2
Number of Logical Cores	2
Physical Memory (GB)	4.00 GB

### 1.2.1.7.2 NTDS Summary

The following section provides a summary of the Domain Controller NTDS file size on ZENPR.LOCAL.

DC Name	Database File	Database Size	Log Path	SysVol Path
SERVER-DC-01V	C:\Windows\NTDS\ntds.dit	54.00 MB	C:\Windows\NTDS	C:\Windows\SYSVOL\sysvol
CAYEY-DC-01V	C:\Windows\NTDS\ntds.dit	38.00 MB	C:\Windows\NTDS	C:\Windows\SYSVOL\sysvol

*Table 12 - Domain Controller NTDS Database File Usage Information - ZENPR.LOCAL*

### 1.2.1.7.3 Time Source Summary

The following section provides a summary of the Domain Controller Time Source configuration on ZENPR.LOCAL.

Name	Time Server	Type
SERVER-DC-01V	0.pool.ntp.org,1.pool.ntp.org,2.pool.ntp.org,3.pool.ntp.org,8	MANUAL (NTP)
CAYEY-DC-01V	Domain Hierarchy	DOMHIER

Table 13 - Domain Controller Time Source Configuration - ZENPR.LOCAL

#### 1.2.1.7.4 Role & Features on SERVER-DC-01V

The following section provides a summary of the Domain Controller Role & Features information.

Name	Parent	InstallState
Active Directory Certificate Services	Role	Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
Certification Authority	Role Service	Certification Authority (CA) is used to issue and manage certificates. Multiple CAs can be linked to form a public key infrastructure.
Active Directory Domain Services	Role	Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.
DHCP Server	Role	Dynamic Host Configuration Protocol (DHCP) Server enables you to centrally configure, manage, and provide temporary IP addresses and related information for client computers.
DNS Server	Role	Domain Name System (DNS) Server provides name resolution for TCP/IP networks. DNS Server is easier to manage when it is installed on the same server as Active Directory Domain Services. If you select the Active Directory Domain Services role, you can install and configure DNS Server and Active Directory Domain Services to work together.
File and Storage Services	Role	File and Storage Services includes services that are always installed, as well as functionality that you can install to help manage file servers and storage.
File and iSCSI Services	Role Service	File and iSCSI Services provides technologies that help you manage file servers and storage, reduce disk space utilization, replicate and cache files to branch offices, move or fail over a file share to another cluster node, and share files by using the NFS protocol.
File Server	Role Service	File Server manages shared folders and enables users to access files on this computer from the network.
Storage Services	Role Service	Storage Services provides storage management functionality that is always installed and cannot be removed.
Web Server (IIS)	Role	Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
Web Server	Role Service	Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.
Common HTTP Features	Role Service	Common HTTP Features supports basic HTTP functionality, such as delivering standard file formats and configuring custom server properties. Use Common HTTP Features to create custom error messages, to configure how the server responds to requests that do

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Name	Parent	InstallState
		not specify a document, or to automatically redirect some requests to a different location.
Default Document	Role Service	Default Document lets you configure a default file for the Web server to return when users do not specify a file in a request URL. Default documents make it easier and more convenient for users to reach your Web site.
Static Content	Role Service	Static Content allows the Web server to publish static Web file formats, such as HTML pages and image files. Use Static Content to publish files on your Web server that users can then view using a Web browser.
Performance	Role Service	Performance provides infrastructure for output caching by integrating the dynamic output-caching capabilities of ASP.NET with the static output-caching capabilities that were present in IIS 6.0. IIS also lets you use bandwidth more effectively and efficiently by using common compression mechanisms such as Gzip and Deflate.
Dynamic Content Compression	Role Service	Dynamic Content Compression provides infrastructure to configure HTTP compression of dynamic content. Enabling dynamic compression always gives you more efficient utilization of bandwidth, but if your server's processor utilization is already very high, the CPU load imposed by dynamic compression might make your site perform more slowly.
Security	Role Service	Security provides infrastructure for securing the Web server from users and requests. IIS supports multiple authentication methods. Pick an appropriate authentication scheme based upon the role of the server. Filter all incoming requests, rejecting without processing requests that match user defined values, or restrict requests based on originating address space.
Request Filtering	Role Service	Request Filtering screens all incoming requests to the server and filters these requests based on rules set by the administrator. Many malicious attacks share common characteristics, like extremely long requests, or requests for an unusual action. By filtering requests, you can attempt to mitigate the impact of these type attacks.
Windows Authentication	Role Service	Windows authentication is a low cost authentication solution for internal Web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authenticating users. Do not use Windows authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers.
Application Development	Role Service	Application Development provides infrastructure for developing and hosting Web applications. Use these features to create Web content or extend the functionality of IIS. These technologies typically provide a way to perform dynamic operations that result in the creation of HTML output, which IIS then sends to fulfill client requests.
.NET Extensibility 4.7	Role Service	.NET extensibility allows managed code developers to change, add and extend web server functionality in the entire request pipeline, the configuration, and the UI. Developers can use the familiar ASP.NET extensibility model and rich .NET APIs to build Web server features that are just as powerful as those written using the native C++ APIs.
ASP.NET 4.7	Role Service	ASP.NET provides a server side object oriented programming environment for building Web sites and Web applications using managed code. ASP.NET 4.7 is not simply a new version of ASP. Having been entirely re-architected to provide a highly productive

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Name	Parent	InstallState
		programming experience based on the .NET Framework, ASP.NET provides a robust infrastructure for building web applications.
ISAPI Extensions	Role Service	Internet Server Application Programming Interface (ISAPI) Extensions provides support for dynamic Web content developing using ISAPI extensions. An ISAPI extension runs when requested just like any other static HTML file or dynamic ASP file. Since ISAPI applications are compiled code, they are processed much faster than ASP files or files that call COM+ components.
ISAPI Filters	Role Service	Internet Server Application Programming Interface (ISAPI) Filters provides support for Web applications that use ISAPI filters. ISAPI filters are files that can extend or change the functionality provided by IIS. An ISAPI filter reviews every request made to the Web server, until the filter finds one that it needs to process.
Management Tools	Role Service	Management Tools provide infrastructure to manage a Web server that runs IIS 10. You can use the IIS user interface, command-line tools, and scripts to manage the Web server. You can also edit the configuration files directly.
IIS Management Console	Role Service	IIS Management Console provides infrastructure to manage IIS 10 by using a user interface. You can use the IIS management console to manage a local or remote Web server that runs IIS 10. To manage SMTP, you must install and use the IIS 6 Management Console.
IIS 6 Management Compatibility	Role Service	IIS 6 Management Compatibility provides forward compatibility for your applications and scripts that use the two IIS APIs, Admin Base Object (ABO) and Active Directory Service Interface (ADSI). You can use existing IIS 6 scripts to manage the IIS 10 Web server.
IIS 6 Metabase Compatibility	Role Service	IIS 6 Metabase Compatibility provides infrastructure to query and configure the metabase so that you can run applications and scripts migrated from earlier versions of IIS that use Admin Base Object (ABO) or Active Directory Service Interface (ADSI) APIs.
Windows Server Update Services	Role	Windows Server Update Services allows network administrators to specify the Microsoft updates that should be installed, create separate groups of computers for different sets of updates, and get reports on the compliance levels of the computers and the updates that must be installed.
WID Connectivity	Role Service	Installs the database used by WSUS into WID.
WSUS Services	Role Service	Installs the services used by Windows Server Update Services: Update Service, the Reporting Web Service, the API Remoting Web Service, the Client Web Service, the Simple Web Authentication Web Service, the Server Synchronization Service, and the DSS Authentication Web Service.
.NET Framework 3.5 Features	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 3.5 (includes .NET 2.0 and 3.0)	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 4.7 Features	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running

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Name	Parent	InstallState
		applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
.NET Framework 4.7	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
ASP.NET 4.7	Feature	ASP.NET 4.7 provides core support for running ASP.NET 4.7 stand-alone applications as well as applications that are integrated with IIS.
WCF Services	Feature	Windows Communication Foundation (WCF) Activation uses Windows Process Activation Service to invoke applications remotely over the network by using protocols such as HTTP, Message Queuing, TCP, and named pipes. Consequently, applications can start and stop dynamically in response to incoming work items, resulting in application hosting that is more robust, manageable, and efficient.
HTTP Activation	Feature	HTTP Activation supports process activation via HTTP. Applications that use HTTP Activation can start and stop dynamically in response to work items that arrive over the network via HTTP.
TCP Port Sharing	Feature	TCP Port Sharing allows multiple net.tcp applications to share a single TCP port. Consequently, these applications can coexist on the same physical computer in separate, isolated processes, while sharing the network infrastructure required to send and receive traffic over a TCP port, such as port 808.
Group Policy Management	Feature	Group Policy Management is a scriptable Microsoft Management Console (MMC) snap-in, providing a single administrative tool for managing Group Policy across the enterprise. Group Policy Management is the standard tool for managing Group Policy.
Remote Server Administration Tools	Feature	Remote Server Administration Tools includes snap-ins and command-line tools for remotely managing roles and features.
Role Administration Tools	Feature	Role Administration Tools includes snap-ins and command-line tools for remotely managing roles.
AD DS and AD LDS Tools	Feature	Active Directory Domain Services (AD DS) and Active Directory Lightweight Directory Services (AD LDS) Tools includes snap-ins and command-line tools for remotely managing AD DS and AD LDS.
Active Directory module for Windows PowerShell	Feature	The Active Directory module for Windows PowerShell and the tools it provides can be used by Active Directory administrators to manage Active Directory Domain Services (AD DS) at the command line.
AD DS Tools	Feature	Active Directory Domain Services (AD DS) Tools includes snap-ins and command-line tools for remotely managing AD DS.
Active Directory Administrative Center	Feature	Active Directory Administrative Center provides users and network administrators with an enhanced Active Directory data management experience and a rich graphical user interface (GUI) to perform common Active Directory object management tasks.
AD DS Snap-Ins and Command-Line Tools	Feature	Active Directory Domain Services Snap-Ins and Command-Line Tools includes Active Directory Users and Computers, Active Directory Domains and Trusts, Active Directory Sites and Services, and other snap-ins and command-line tools for remotely managing Active Directory domain controllers.

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Name	Parent	InstallState
Windows Server Update Services Tools	Feature	Windows Server Update Services Tools includes graphical and Powershell tools for managing WSUS.
API and PowerShell cmdlets	Feature	Installs the .NET API and PowerShell cmdlets for remote management, automated task creation, and managing WSUS from the command line.
User Interface Management Console	Feature	Installs the WSUS Management Console user interface (UI).
Active Directory Certificate Services Tools	Feature	Active Directory Certificate Services Tools includes the Certification Authority, Certificate Templates, Enterprise PKI, and Online Responder Management snap-ins.
Certification Authority Management Tools	Feature	Active Directory Certification Authority Management Tools includes the Certification Authority, Certificate Templates, and Enterprise PKI snap-ins.
DHCP Server Tools	Feature	DHCP Server Tools includes the DHCP MMC snap-in, DHCP server netsh context and Windows PowerShell module for DHCP Server.
DNS Server Tools	Feature	DNS Server Tools includes the DNS Manager snap-in, dnscmd.exe command-line tool and Windows PowerShell module for DNS Server.
Windows Defender Antivirus	Feature	Windows Defender Antivirus helps protect your machine from malware.
Windows Internal Database	Feature	Windows Internal Database is a relational data store that can be used only by Windows roles and features, such as Active Directory Rights Management Services, Windows Server Update Services, and Windows System Resource Manager.
Windows PowerShell	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 5.1	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 2.0 Engine	Feature	Windows PowerShell 2.0 Engine includes the core components from Windows PowerShell 2.0 for backward compatibility with existing Windows PowerShell host applications.
Windows PowerShell ISE	Feature	Windows PowerShell Integrated Scripting Environment (ISE) lets you compose, edit, and debug scripts and run multi-line interactive commands in a graphical environment. Features include IntelliSense, tab completion, snippets, color-coded syntax, line numbering, selective execution, graphical debugging, right-to-left language and Unicode support.
Windows Process Activation Service	Feature	Windows Process Activation Service generalizes the IIS process model, removing the dependency on HTTP. All the features of IIS that were previously available only to HTTP applications are now available to applications hosting Windows Communication Foundation (WCF) services, using non-HTTP protocols. IIS 10.0 also uses Windows Process Activation Service for message-based activation over HTTP.
Process Model	Feature	Process Model hosts Web and WCF services. Introduced with IIS 6.0, the process model is a new architecture that features rapid failure



Name	Parent	InstallState
		protection, health monitoring, and recycling. Windows Process Activation Service Process Model removes the dependency on HTTP.
Configuration APIs	Feature	Configuration APIs enable applications that are built using the .NET Framework to configure Windows Process Activation Model programmatically. This lets the application developer automatically configure Windows Process Activation Model settings when the application runs instead of requiring the administrator to manually configure these settings.
WoW64 Support	Feature	Includes all of WoW64 to support running 32-bit applications on Server Core installations. This feature is required for full Server installations. Uninstalling WoW64 Support will convert a full Server installation into a Server Core installation.
XPS Viewer	Feature	The XPS Viewer is used to read, set permissions for, and digitally sign XPS documents.

Table 14 - Domain Controller Role & Features Information.

#### 1.2.1.7.5 Role & Features on CAYEY-DC-01V

The following section provides a summary of the Domain Controller Role & Features information.

Name	Parent	InstallState
Active Directory Certificate Services	Role	Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
Certification Authority	Role Service	Certification Authority (CA) is used to issue and manage certificates. Multiple CAs can be linked to form a public key infrastructure.
Certificate Enrollment Policy Web Service	Role Service	The Certificate Enrollment Policy Web Service enables users and computers to obtain certificate enrollment policy information even when the computer is not a member of a domain or if a domain-joined computer is temporarily outside the security boundary of the corporate network. The Certificate Enrollment Policy Web Service works with the Certificate Enrollment Web Service to provide policy-based automatic certificate enrollment for these users and computers.
Certificate Enrollment Web Service	Role Service	The Certificate Enrollment Web Service enables users and computers to enroll for and renew certificates even when the computer is not a member of a domain or if a domain-joined computer is temporarily outside the security boundary of the computer network. The Certificate Enrollment Web Service works together with the Certificate Enrollment Policy Web Service to provide policy-based automatic certificate enrollment for these users and computers.
Certification Authority Web Enrollment	Role Service	Certification Authority Web Enrollment provides a simple Web interface that allows users to perform tasks such as request and renew certificates, retrieve certificate revocation lists (CRLs), and enroll for smart card certificates.
Network Device Enrollment Service	Role Service	Network Device Enrollment Service makes it possible to issue and manage certificates for routers and other network devices that do not have network accounts.
Online Responder	Role Service	Online Responder makes certificate revocation checking data accessible to clients in complex network environments.
Active Directory Domain Services	Role	Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users

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Name	Parent	InstallState
		and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.
DHCP Server	Role	Dynamic Host Configuration Protocol (DHCP) Server enables you to centrally configure, manage, and provide temporary IP addresses and related information for client computers.
DNS Server	Role	Domain Name System (DNS) Server provides name resolution for TCP/IP networks. DNS Server is easier to manage when it is installed on the same server as Active Directory Domain Services. If you select the Active Directory Domain Services role, you can install and configure DNS Server and Active Directory Domain Services to work together.
File and Storage Services	Role	File and Storage Services includes services that are always installed, as well as functionality that you can install to help manage file servers and storage.
File and iSCSI Services	Role Service	File and iSCSI Services provides technologies that help you manage file servers and storage, reduce disk space utilization, replicate and cache files to branch offices, move or fail over a file share to another cluster node, and share files by using the NFS protocol.
File Server	Role Service	File Server manages shared folders and enables users to access files on this computer from the network.
Storage Services	Role Service	Storage Services provides storage management functionality that is always installed and cannot be removed.
Web Server (IIS)	Role	Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
Web Server	Role Service	Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.
Common HTTP Features	Role Service	Common HTTP Features supports basic HTTP functionality, such as delivering standard file formats and configuring custom server properties. Use Common HTTP Features to create custom error messages, to configure how the server responds to requests that do not specify a document, or to automatically redirect some requests to a different location.
Default Document	Role Service	Default Document lets you configure a default file for the Web server to return when users do not specify a file in a request URL. Default documents make it easier and more convenient for users to reach your Web site.
Directory Browsing	Role Service	Directory Browsing lets users to see the contents of a directory on your Web server. Use Directory Browsing to enable an automatically generated list of all directories and files available in a directory when users do not specify a file in a request URL and default documents are either disabled or not configured.
HTTP Errors	Role Service	HTTP Errors allows you to customize the error messages returned to users' browsers when the Web server detects a fault condition. Use HTTP errors to provide users with a better user experience when they run up against an error message. Consider providing users with an e-mail address for staff who can help them resolve the error.
Static Content	Role Service	Static Content allows the Web server to publish static Web file formats, such as HTML pages and image files. Use Static Content to publish files on your Web server that users can then view using a Web browser.

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Name	Parent	InstallState
HTTP Redirection	Role Service	HTTP Redirection provides support to redirect user requests to a specific destination. Use HTTP redirection whenever you want customers who might use one URL to actually end up at another URL. This is helpful in many situations, from simply renaming your Web site, to overcoming a domain name that is difficult to spell, or forcing clients to use a secure channel.
Health and Diagnostics	Role Service	Health and Diagnostics provides infrastructure to monitor, manage, and troubleshoot the health of Web servers, sites, and applications.
HTTP Logging	Role Service	HTTP Logging provides logging of Web site activity for this server. When a loggable event, usually an HTTP transaction, occurs, IIS calls the selected logging module, which then writes to one of the logs stored in the file system of the Web server. These logs are in addition to those provided by the operating system.
Logging Tools	Role Service	Logging Tools provides infrastructure to manage Web server logs and automate common logging tasks.
Request Monitor	Role Service	Request Monitor provides infrastructure to monitor Web application health by capturing information about HTTP requests in an IIS worker process. Administrators and developers can use Request Monitor to understand which HTTP requests are executing in a worker process when the worker process has become unresponsive or very slow.
Tracing	Role Service	Tracing provides infrastructure to diagnose and troubleshoot Web applications. With failed request tracing, you can troubleshoot difficult to capture events like poor performance, or authentication related failures. This feature buffers trace events for a request and only flushes them to disk if the request falls into a user-configured error condition.
Performance	Role Service	Performance provides infrastructure for output caching by integrating the dynamic output-caching capabilities of ASP.NET with the static output-caching capabilities that were present in IIS 6.0. IIS also lets you use bandwidth more effectively and efficiently by using common compression mechanisms such as Gzip and Deflate.
Static Content Compression	Role Service	Static Content Compression provides infrastructure to configure HTTP compression of static content. This allows more efficient use of bandwidth. Unlike dynamic responses, compressed static responses can be cached without degrading CPU resources.
Security	Role Service	Security provides infrastructure for securing the Web server from users and requests. IIS supports multiple authentication methods. Pick an appropriate authentication scheme based upon the role of the server. Filter all incoming requests, rejecting without processing requests that match user defined values, or restrict requests based on originating address space.
Request Filtering	Role Service	Request Filtering screens all incoming requests to the server and filters these requests based on rules set by the administrator. Many malicious attacks share common characteristics, like extremely long requests, or requests for an unusual action. By filtering requests, you can attempt to mitigate the impact of these type attacks.
Client Certificate Mapping Authentication	Role Service	Client Certificate Mapping Authentication uses client certificates to authenticate users. A client certificate is a digital ID from a trusted source. IIS offers two types of authentication using client certificate mapping. This type uses Active Directory to offer one-to-one certificate mappings across multiple Web servers.

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Name	Parent	InstallState
IIS Client Certificate Mapping Authentication	Role Service	IIS Client Certificate Mapping Authentication uses client certificates to authenticate users. A client certificate is a digital ID from a trusted source. IIS offers two types of authentication using client certificate mapping. This type uses IIS to offer one-to-one or many-to-one certificate mapping. Native IIS mapping of certificates offers better performance.
Windows Authentication	Role Service	Windows authentication is a low cost authentication solution for internal Web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authenticating users. Do not use Windows authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers.
Application Development	Role Service	Application Development provides infrastructure for developing and hosting Web applications. Use these features to create Web content or extend the functionality of IIS. These technologies typically provide a way to perform dynamic operations that result in the creation of HTML output, which IIS then sends to fulfill client requests.
.NET Extensibility 4.7	Role Service	.NET extensibility allows managed code developers to change, add and extend web server functionality in the entire request pipeline, the configuration, and the UI. Developers can use the familiar ASP.NET extensibility model and rich .NET APIs to build Web server features that are just as powerful as those written using the native C++ APIs.
ASP	Role Service	Active Server Pages (ASP) provides a server side scripting environment for building Web sites and Web applications. Offering improved performance over CGI scripts, ASP provides IIS with native support for both VBScript and JScript. Use ASP if you have existing applications that require ASP support. For new development, consider using ASP.NET.
ASP.NET 4.7	Role Service	ASP.NET provides a server side object oriented programming environment for building Web sites and Web applications using managed code. ASP.NET 4.7 is not simply a new version of ASP. Having been entirely re-architected to provide a highly productive programming experience based on the .NET Framework, ASP.NET provides a robust infrastructure for building web applications.
ISAPI Extensions	Role Service	Internet Server Application Programming Interface (ISAPI) Extensions provides support for dynamic Web content developing using ISAPI extensions. An ISAPI extension runs when requested just like any other static HTML file or dynamic ASP file. Since ISAPI applications are compiled code, they are processed much faster than ASP files or files that call COM+ components.
ISAPI Filters	Role Service	Internet Server Application Programming Interface (ISAPI) Filters provides support for Web applications that use ISAPI filters. ISAPI filters are files that can extend or change the functionality provided by IIS. An ISAPI filter reviews every request made to the Web server, until the filter finds one that it needs to process.
Management Tools	Role Service	Management Tools provide infrastructure to manage a Web server that runs IIS 10. You can use the IIS user interface, command-line tools, and scripts to manage the Web server. You can also edit the configuration files directly.
IIS Management Console	Role Service	IIS Management Console provides infrastructure to manage IIS 10 by using a user interface. You can use the IIS management console to manage a local or remote Web server that runs IIS 10. To manage SMTP, you must install and use the IIS 6 Management Console.

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Name	Parent	InstallState
IIS 6 Management Compatibility	Role Service	IIS 6 Management Compatibility provides forward compatibility for your applications and scripts that use the two IIS APIs, Admin Base Object (ABO) and Active Directory Service Interface (ADSI). You can use existing IIS 6 scripts to manage the IIS 10 Web server.
IIS 6 Metabase Compatibility	Role Service	IIS 6 Metabase Compatibility provides infrastructure to query and configure the metabase so that you can run applications and scripts migrated from earlier versions of IIS that use Admin Base Object (ABO) or Active Directory Service Interface (ADSI) APIs.
IIS Management Scripts and Tools	Role Service	IIS Management Scripts and Tools provide infrastructure to programmatically manage an IIS 10 Web server by using commands in a command window or by running scripts. You can use these tools when you want to automate commands in batch files or when you do not want to incur the overhead of managing IIS by using the user interface.
.NET Framework 3.5 Features	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 3.5 (includes .NET 2.0 and 3.0)	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 4.7 Features	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
.NET Framework 4.7	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
ASP.NET 4.7	Feature	ASP.NET 4.7 provides core support for running ASP.NET 4.7 stand-alone applications as well as applications that are integrated with IIS.
WCF Services	Feature	Windows Communication Foundation (WCF) Activation uses Windows Process Activation Service to invoke applications remotely over the network by using protocols such as HTTP, Message Queuing, TCP, and named pipes. Consequently, applications can start and stop dynamically in response to incoming work items, resulting in application hosting that is more robust, manageable, and efficient.
HTTP Activation	Feature	HTTP Activation supports process activation via HTTP. Applications that use HTTP Activation can start and stop dynamically in response to work items that arrive over the network via HTTP.
TCP Port Sharing	Feature	TCP Port Sharing allows multiple net.tcp applications to share a single TCP port. Consequently, these applications can coexist on the same physical computer in separate, isolated processes, while sharing the network infrastructure required to send and receive traffic over a TCP port, such as port 808.
Group Policy Management	Feature	Group Policy Management is a scriptable Microsoft Management Console (MMC) snap-in, providing a single administrative tool for managing Group Policy across the enterprise. Group Policy Management is the standard tool for managing Group Policy.

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Name	Parent	InstallState
Remote Server Administration Tools	Feature	Remote Server Administration Tools includes snap-ins and command-line tools for remotely managing roles and features.
Role Administration Tools	Feature	Role Administration Tools includes snap-ins and command-line tools for remotely managing roles.
AD DS and AD LDS Tools	Feature	Active Directory Domain Services (AD DS) and Active Directory Lightweight Directory Services (AD LDS) Tools includes snap-ins and command-line tools for remotely managing AD DS and AD LDS.
Active Directory module for Windows PowerShell	Feature	The Active Directory module for Windows PowerShell and the tools it provides can be used by Active Directory administrators to manage Active Directory Domain Services (AD DS) at the command line.
AD DS Tools	Feature	Active Directory Domain Services (AD DS) Tools includes snap-ins and command-line tools for remotely managing AD DS.
Active Directory Administrative Center	Feature	Active Directory Administrative Center provides users and network administrators with an enhanced Active Directory data management experience and a rich graphical user interface (GUI) to perform common Active Directory object management tasks.
AD DS Snap-Ins and Command-Line Tools	Feature	Active Directory Domain Services Snap-Ins and Command-Line Tools includes Active Directory Users and Computers, Active Directory Domains and Trusts, Active Directory Sites and Services, and other snap-ins and command-line tools for remotely managing Active Directory domain controllers.
Active Directory Certificate Services Tools	Feature	Active Directory Certificate Services Tools includes the Certification Authority, Certificate Templates, Enterprise PKI, and Online Responder Management snap-ins.
Certification Authority Management Tools	Feature	Active Directory Certification Authority Management Tools includes the Certification Authority, Certificate Templates, and Enterprise PKI snap-ins.
Online Responder Tools	Feature	Online Responder Tools includes the Online Responder Management snap-in.
DHCP Server Tools	Feature	DHCP Server Tools includes the DHCP MMC snap-in, DHCP server netsh context and Windows PowerShell module for DHCP Server.
DNS Server Tools	Feature	DNS Server Tools includes the DNS Manager snap-in, dnscmd.exe command-line tool and Windows PowerShell module for DNS Server.
Windows Defender Antivirus	Feature	Windows Defender Antivirus helps protect your machine from malware.
Windows PowerShell	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 5.1	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 2.0 Engine	Feature	Windows PowerShell 2.0 Engine includes the core components from Windows PowerShell 2.0 for backward compatibility with existing Windows PowerShell host applications.

Name	Parent	InstallState
Windows PowerShell ISE	Feature	Windows PowerShell Integrated Scripting Environment (ISE) lets you compose, edit, and debug scripts and run multi-line interactive commands in a graphical environment. Features include IntelliSense, tab completion, snippets, color-coded syntax, line numbering, selective execution, graphical debugging, right-to-left language and Unicode support.
Windows Process Activation Service	Feature	Windows Process Activation Service generalizes the IIS process model, removing the dependency on HTTP. All the features of IIS that were previously available only to HTTP applications are now available to applications hosting Windows Communication Foundation (WCF) services, using non-HTTP protocols. IIS 10.0 also uses Windows Process Activation Service for message-based activation over HTTP.
Process Model	Feature	Process Model hosts Web and WCF services. Introduced with IIS 6.0, the process model is a new architecture that features rapid failure protection, health monitoring, and recycling. Windows Process Activation Service Process Model removes the dependency on HTTP.
Configuration APIs	Feature	Configuration APIs enable applications that are built using the .NET Framework to configure Windows Process Activation Model programmatically. This lets the application developer automatically configure Windows Process Activation Model settings when the application runs instead of requiring the administrator to manually configure these settings.
WoW64 Support	Feature	Includes all of WoW64 to support running 32-bit applications on Server Core installations. This feature is required for full Server installations. Uninstalling WoW64 Support will convert a full Server installation into a Server Core installation.
XPS Viewer	Feature	The XPS Viewer is used to read, set permissions for, and digitally sign XPS documents.

Table 15 - Domain Controller Role &amp; Features Information.

### 1.2.1.7.6 DCDiag Information

The following section provides a summary of the Active Directory DC Diagnostic.

DC Name	Test Name	Result
Server-DC-01V.zenpr.local	Connectivity	passed
Server-DC-01V.zenpr.local	Advertising	passed
Server-DC-01V.zenpr.local	FrsEvent	passed
Server-DC-01V.zenpr.local	DFSREvent	failed
Server-DC-01V.zenpr.local	SysVolCheck	passed
Server-DC-01V.zenpr.local	KccEvent	passed
Server-DC-01V.zenpr.local	KnowsOfRoleHolders	passed
Server-DC-01V.zenpr.local	MachineAccount	passed
Server-DC-01V.zenpr.local	NCSecDesc	passed
Server-DC-01V.zenpr.local	NetLogons	passed
Server-DC-01V.zenpr.local	ObjectsReplicated	passed
Server-DC-01V.zenpr.local	Replications	passed
Server-DC-01V.zenpr.local	RidManager	passed
Server-DC-01V.zenpr.local	Services	passed

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DC Name	Test Name	Result
Server-DC-01V.zenpr.local	SystemLog	passed
Server-DC-01V.zenpr.local	VerifyReferences	passed
Server-DC-01V.zenpr.local	CheckSDRefDom	passed
Server-DC-01V.zenpr.local	CheckSDRefDom	passed
Server-DC-01V.zenpr.local	CheckSDRefDom	passed
Server-DC-01V.zenpr.local	CrossRefValidation	passed
Server-DC-01V.zenpr.local	CheckSDRefDom	passed
Server-DC-01V.zenpr.local	CrossRefValidation	passed
Server-DC-01V.zenpr.local	CheckSDRefDom	passed
Server-DC-01V.zenpr.local	CrossRefValidation	passed
Server-DC-01V.zenpr.local	LocatorCheck	passed
Server-DC-01V.zenpr.local	Intersite	passed

Table 16 - AD Domain Controller DCdiag Information - ZENPR.LOCAL

DC Name	Test Name	Result
cayey-dc-01v.zenpr.local	Connectivity	passed
cayey-dc-01v.zenpr.local	Advertising	passed
cayey-dc-01v.zenpr.local	FrsEvent	passed
cayey-dc-01v.zenpr.local	DFSREvent	failed
cayey-dc-01v.zenpr.local	SysVolCheck	passed
cayey-dc-01v.zenpr.local	KccEvent	passed
cayey-dc-01v.zenpr.local	KnowsOfRoleHolders	passed
cayey-dc-01v.zenpr.local	MachineAccount	passed
cayey-dc-01v.zenpr.local	NCSecDesc	passed
cayey-dc-01v.zenpr.local	NetLogons	passed
cayey-dc-01v.zenpr.local	ObjectsReplicated	passed
cayey-dc-01v.zenpr.local	Replications	passed
cayey-dc-01v.zenpr.local	RidManager	passed
cayey-dc-01v.zenpr.local	Services	passed
cayey-dc-01v.zenpr.local	SystemLog	passed
cayey-dc-01v.zenpr.local	VerifyReferences	passed
cayey-dc-01v.zenpr.local	CheckSDRefDom	passed
cayey-dc-01v.zenpr.local	CheckSDRefDom	passed
cayey-dc-01v.zenpr.local	CheckSDRefDom	passed
cayey-dc-01v.zenpr.local	CrossRefValidation	passed
cayey-dc-01v.zenpr.local	CheckSDRefDom	passed
cayey-dc-01v.zenpr.local	CrossRefValidation	passed
cayey-dc-01v.zenpr.local	CheckSDRefDom	passed
cayey-dc-01v.zenpr.local	CrossRefValidation	passed
cayey-dc-01v.zenpr.local	LocatorCheck	passed
cayey-dc-01v.zenpr.local	Intersite	passed

Table 17 - AD Domain Controller DCdiag Information - ZENPR.LOCAL

### 1.2.1.7.7 Infrastructure Services Status of SERVER-DC-01V

The following section provides a summary of the Domain Controller Infrastructure services status.



Display Name	Short Name	Status
DNS Server	DNS	Running
DFS Replication	DFSR	Running
Intersite Messaging	IsmServ	Running
Kerberos Key Distribution Center	Kdc	Running
NetLogon	Netlogon	Running
Active Directory Domain Services	NTDS	Running
Windows Time	W32Time	Running

Table 18 - Domain Controller Infrastructure Services Status Information.

### 1.2.1.7.8 Infrastructure Services Status of CAYEY-DC-01V

The following section provides a summary of the Domain Controller Infrastructure services status.

Display Name	Short Name	Status
DNS Server	DNS	Running
DFS Replication	DFSR	Running
Intersite Messaging	IsmServ	Running
Kerberos Key Distribution Center	Kdc	Running
NetLogon	Netlogon	Running
Active Directory Domain Services	NTDS	Running
Windows Time	W32Time	Running

Table 19 - Domain Controller Infrastructure Services Status Information.

### 1.2.1.7.9 Site Replication Summary

The following section provides a summary of the Active Directory Site Replication information.

DC Name	SERVER-DC-01V
GUID	d5a28ae4-ee92-47a4-872e-e4115bc8d1a5
Description	-
Replicate From Directory Server	ACADE-DC-01V
Replicate To Directory Server	SERVER-DC-01V
Replicated Naming Contexts	DC=DomainDnsZones,DC=zenpr,DC=local DC=ForestDnsZones,DC=zenpr,DC=local CN=Schema,CN=Configuration,DC=zenpr,DC=local CN=Configuration,DC=zenpr,DC=local DC=zenpr,DC=local
Transport Protocol	IP
AutoGenerated	Yes
Enabled	Yes
Created	Sun, 05 Sep 2021 16:24:39 GMT

DC Name	CAYEY-DC-01V
GUID	9b7cbbe0-7c6f-4add-af4a-7b581a7bf5ca
Description	-
Replicate From Directory Server	SERVER-DC-01V

Replicate To Directory Server	CAYEY-DC-01V
Replicated Naming Contexts	DC=DomainDnsZones,DC=zenpr,DC=local DC=ForestDnsZones,DC=zenpr,DC=local CN=Schema,CN=Configuration,DC=zenpr,DC=local CN=Configuration,DC=zenpr,DC=local DC=zenpr,DC=local
Transport Protocol	IP
AutoGenerated	Yes
Enabled	Yes
Created	Sat, 04 Sep 2021 01:35:40 GMT

### 1.2.1.7.10 Site Replication Failure Summary

The following section provides a summary of the Active Directory Site Replication Failure information.

Server Name	Server-DC-01V
Partner	ACADE-DC-01V
Last Error	1256
Failure Type	<a href="#">Link</a>
Failure Count	0
First Failure Time	Thu, 14 Oct 2021 01:22:18 GMT

Server Name	Server-DC-01V
Partner	CAYEY-DC-01V
Last Error	1256
Failure Type	<a href="#">Link</a>
Failure Count	0
First Failure Time	Thu, 14 Oct 2021 01:22:18 GMT

### 1.2.1.7.11 Group Policy Objects Summary

The following section provides a summary of the Group Policy Objects for domain ZENPR.LOCAL.

GPO Name	GPO Status	Created	Modified
Assign-Applications	All Settings Enabled	03/10/2021	03/10/2021
Certificate AutoEnrollment	User Settings Disabled	01/25/2020	06/30/2021
Default Domain Policy	All Settings Enabled	06/10/2018	09/15/2020
VEEAM_Disable_Firewall	All Settings Enabled	12/13/2019	09/08/2020
Default Domain Controllers Policy	All Settings Enabled	06/10/2018	11/01/2020
ProfileUnity	All Settings Enabled	06/08/2020	10/05/2021
VEEAM_Local_Administrators	All Settings Enabled	12/13/2019	09/08/2020
WSUS - Domain Policy	User Settings Disabled	02/23/2020	03/10/2021
SCEP Configuration	All Settings Enabled	09/14/2020	10/04/2020
Dead Policy	All Settings Disabled	10/05/2021	10/05/2021
Horizon-DEM	All Settings Enabled	03/01/2020	09/08/2020
Linux-Settings-GPO	Computer Settings Disabled	05/22/2021	10/05/2021

GPO Name	GPO Status	Created	Modified
SCCM - Restricted Group and General Settings	All Settings Enabled	09/12/2020	09/12/2020
LAPS Configuration	All Settings Enabled	11/01/2020	11/01/2020

Table 20 - Group Policy Objects Information - ZENPR.LOCAL

### 1.2.1.7.11.1 Group Policy Objects with User Logon/Logoff Script Summary

The following section provides a summary of Group Policy Objects with Logon/Logoff Script.

GPO Name	GPO Status	Type	Script
ProfileUnity	All Settings Enabled	Logoff	%systemdrive%\Program Files\ProfileUnity\Client.NET\LwL.ProfileUnity.Client.Logoff.exe
Dead Policy	All Settings Disabled	Logoff	%systemdrive%\Program Files\ProfileUnity\Client.NET\LwL.ProfileUnity.Client.Logoff.exe
Horizon-DEM	All Settings Enabled	Logoff	C:\Program Files\Immidio\Flex Profiles\FlexEngine.exe

Table 21 - Group Policy Objects with Logon/Logoff Script Information - ZENPR.LOCAL

### 1.2.1.7.11.2 Group Policy Objects with Computer Startup/Shutdown Script Summary

The following section provides a summary of Group Policy Objects with Startup/Shutdown Script.

GPO Name	GPO Status	Type	Script
ProfileUnity	All Settings Enabled	Startup	\\zenpr.local\netlogon\profileunity\LwL.ProfileUnity.Client.Startup.exe
Dead Policy	All Settings Disabled	Startup	\\zenpr.local\netlogon\profileunity\LwL.ProfileUnity.Client.Startup.exe

Table 22 - Group Policy Objects with Startup/Shutdown Script Information - ZENPR.LOCAL

### 1.2.1.7.11.3 Health Check - All Unlinked Group Policy Objects Summary

The following section provides a summary of the Unlinked Group Policy Objects. Corrective Action: Remove Unused GPO.

GPO Name	Created	Modified	Computer Enabled	User Enabled
Dead Policy	2021-10-05	2021-10-05	No	No

Table 23 - Unlinked Group Policy Objects Information - ZENPR.LOCAL

### 1.2.1.7.11.4 Health Check - All Empty Group Policy Objects Summary

The following section provides a summary of the Empty Group Policy Objects. Corrective Action: No User and Computer parameters are set : Remove Unused GPO.

GPO Name	Created	Modified	Description
Linux-Settings-GPO	2021-05-23	2021-10-05	-

Table 24 - Empty Group Policy Objects Information - ZENPR.LOCAL

### 1.2.1.7.11.5 Health Check - Enforced Group Policy Objects Summary

The following section provides a summary of the Enforced Group Policy Objects.

GPO Name	Enforced	Order	Target
Linux-Settings-GPO	Yes	1	zenpr.local/LinuxMachines

Table 25 - Enforced Group Policy Objects Information - ZENPR.LOCAL

### 1.2.1.7.12 Organizational Unit Summary

The following section provides a summary of Active Directory Organizational Unit information.

Name	Path	Linked GPO
Domain Controllers	zenpr.local/Domain Controllers	Default Domain Controllers Policy
Member Servers	zenpr.local/Member Servers	-
EMC NAS servers	zenpr.local/EMC NAS servers	-
Computers	zenpr.local/EMC NAS servers/Computers	-
VEEAM Servers	zenpr.local/VEEAM Servers	VEEAM_Disable_Firewall, VEEAM_Local_Administrators
VEEAM WorkStations	zenpr.local/VEEAM WorkStations	VEEAM_Local_Administrators, VEEAM_Disable_Firewall
VDI-Computers	zenpr.local/VDI-Computers	Horizon-DEM
Admins PC	zenpr.local/Admins PC	-
Fortinet EMS	zenpr.local/Fortinet EMS	-
ProfileUnity VDI	zenpr.local/ProfileUnity VDI	VEEAM_Local_Administrators, VEEAM_Disable_Firewall
Servers	zenpr.local/ProfileUnity VDI/Servers	-
Computers	zenpr.local/ProfileUnity VDI/Computers	ProfileUnity
Configuration Manager	zenpr.local/Configuration Manager	SCEP Configuration, SCCM - Restricted Group and General Settings
Marketing	zenpr.local/VDI-Computers/Marketing	-
Sales	zenpr.local/VDI-Computers/Sales	-
HR	zenpr.local/VDI-Computers/HR	-
Finances	zenpr.local/VDI-Computers/Finances	-
Configuration Manager Computers	zenpr.local/Configuration Manager Computers	LAPS Configuration, SCEP Configuration
-	zenpr.local/-	-
LinuxMachines	zenpr.local/LinuxMachines	Linux-Settings-GPO

Table 26 - Active Directory Organizational Unit Information - ZENPR.LOCAL

### 1.2.1.7.12.1 Health Check - Organizational Unit with Group Policy Objects Blocked Inheritance Summary

The following section provides a summary of the Blocked Inheritance Group Policy Objects.

OU Name	Container Type	Inheritance Blocked	Path
linuxmachines	OU	Yes	zenpr.local/LinuxMachines

Table 27 - Blocked Inheritance Group Policy Objects Information - ZENPR.LOCAL

### 1.2.2 Active Directory Information for domain ACAD.ZENPR.LOCAL

The following section provides a summary of the AD Domain Information.

Domain Name	acad
NetBIOS Name	ACAD
Domain SID	S-1-5-21-370360276-377477351-3184454278
Domain Functional Level	Windows2016Domain
Domains	-
Forest	zenpr.local
Parent Domain	zenpr.local
Replica Directory Servers	acade-dc-01v.acad.zenpr.local
Child Domains	-
Domain Path	acad.zenpr.local/
Computers Container	acad.zenpr.local/Computers
Domain Controllers Container	acad.zenpr.local/Domain Controllers
Systems Container	acad.zenpr.local/System
Users Container	acad.zenpr.local/Users
ReadOnly Replica Directory Servers	-

Table 28 - AD Domain Summary Information - ACAD.ZENPR.LOCAL

#### 1.2.2.1 Flexible Single Master Operations (FSMO) Information

The following section provides a summary of the Active Directory FSMO for Domain ACAD.ZENPR.LOCAL.

Infrastructure Master Server	acade-dc-01v.acad.zenpr.local
RID Master Server	acade-dc-01v.acad.zenpr.local
PDC Emulator Name	acade-dc-01v.acad.zenpr.local
Domain Naming Master Server	Server-DC-01V.zenpr.local
Schema Master Server	Server-DC-01V.zenpr.local

Table 29 - FSMO Server Information - acad.zenpr.local

### 1.2.2.2 Trust Summary

The following section provides a summary of Active Directory Trust information on ACAD.ZENPR.LOCAL.

Name	zenpr.local
Path	acad.zenpr.local/System/zenpr.local
Source	acad
Target	zenpr.local
Direction	BiDirectional
IntraForest	Yes
Selective Authentication	No
SID Filtering Forest Aware	No
SID Filtering Quarantined	No
Trust Type	Uplevel
Uplevel Only	No

Table 30 - Active Directory Trusts Information - ACAD.ZENPR.LOCAL

### 1.2.2.3 Domain Object Count Summary

The following section provides a summary of the Active Directory Object Count on ACAD.ZENPR.LOCAL.

Computers	1
Servers	1
Domain Controller	1
Global Catalog	1
Users	4
Privileged Users	2
Groups	46

Table 31 - Active Directory Object Count Information - ACAD.ZENPR.LOCAL

### 1.2.2.4 Default Domain Password Policy Summary

The following section provides a summary of the Default Domain Password Policy on ACAD.ZENPR.LOCAL.

Domain Name	acad.zenpr.local
Complexity Enabled	Yes
Path	acad.zenpr.local/
Lockout Duration	00 days 00 hours 30 minutes 00 seconds
Lockout Threshold	0
Lockout Observation Window	00 days 00 hours 30 minutes 00 seconds
Max Password Age	42 days 00 hours 00 minutes 00 seconds
Min Password Age	01 days 00 hours 00 minutes 00 seconds
Min Password Length	7
Password History Count	24

Reversible Encryption Enabled	No
-------------------------------	----

Table 32 - Default Domain Password Policy Information - ACAD.ZENPR.LOCAL

### 1.2.2.5 Fined Grained Password Policies Summary

The following section provides a summary of the Fined Grained Password Policies on ACAD.ZENPR.LOCAL.

Password Setting Name	ACADTest
Domain Name	acad.zenpr.local
Complexity Enabled	Yes
Path	acad.zenpr.local/System/Password Settings Container/ACADTest
Lockout Duration	00 days 00 hours 30 minutes 00 seconds
Lockout Threshold	5
Lockout Observation Window	00 days 00 hours 30 minutes 00 seconds
Max Password Age	42 days 00 hours 00 minutes 00 seconds
Min Password Age	01 days 00 hours 00 minutes 00 seconds
Min Password Length	14
Password History Count	24
Reversible Encryption Enabled	No
Precedence	1
Applies To	SCCM-GMSA

Table 33 - Fined Grained Password Policies Information - ACAD.ZENPR.LOCAL

### 1.2.2.6 Group Managed Service Accounts (GMSA) Summary

The following section provides a summary of the Group Managed Service Accounts on ACAD.ZENPR.LOCAL.

Name	SCCMMSA
SamAccountName	SCCMMSA\$
Created	09/11/2021 21:01:33
Enabled	Yes
DNS Host Name	acad.zenpr.local
Host Computers	
Retrieve Managed Password	SCCM-GMSA
Primary Group	Domain Computers
Last Logon Date	
Locked Out	No
Logon Count	0
Password Expired	No
Password Last Set	09/11/2021 21:01:33

Table 34 - Group Managed Service Accounts Information - ACAD.ZENPR.LOCAL

### 1.2.2.7 Domain Controller Information

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A domain controller (DC) is a server computer that responds to security authentication requests within a computer network domain. It is a network server that is responsible for allowing host access to domain resources. It authenticates users, stores user account information and enforces security policy for a domain.

The following section provides a summary of the Active Directory Domain Controller.

DC Name	Domain Name	Site	Global Catalog	Read Only	IP Address
ACADE-DC-01V	acad.zenpr.local	ACAD	Yes	No	172.23.4.1

*Table 35 - AD Domain Controller Summary Information - ACAD.ZENPR.LOCAL*

### 1.2.2.7.1 Hardware Summary

The following section provides a summary of the Domain Controller Hardware for ACAD.ZENPR.LOCAL.

Name	acade-dc-01v
Windows Product Name	Windows Server 2019 Standard Evaluation
Windows Current Version	6.3
Windows Build Number	10.0.17763
Windows Install Type	Server
AD Domain	acad.zenpr.local
Windows Installation Date	09/05/2021 10:35:50
Time Zone	(UTC-04:00) Georgetown, La Paz, Manaus, San Juan
License Type	Retail:TB:Eval
Partial Product Key	Y7XRX
Manufacturer	VMware, Inc.
Model	VMware7,1
Serial Number	
Bios Type	Uefi
BIOS Version	
Processor Manufacturer	GenuineIntel
Processor Model	Intel(R) Core(TM) i7-6700 CPU @ 3.40GHz
Number of Processors	1
Number of CPU Cores	2
Number of Logical Cores	2
Physical Memory (GB)	4.00 GB

*Table 36 - AD Domain Controller Hardware Information - ACAD.ZENPR.LOCAL*

### 1.2.2.7.2 NTDS Summary

The following section provides a summary of the Domain Controller NTDS file size on ACAD.ZENPR.LOCAL.



DC Name	Database File	Database Size	Log Path	SysVol Path
ACADE-DC-01V	C:\Windows\NTDS\ntds.dit	36.00 MB	C:\Windows\NTDS	C:\Windows\SYSVOL\sysvol

Table 37 - Domain Controller NTDS Database File Usage Information - ACAD.ZENPR.LOCAL

### 1.2.2.7.3 Time Source Summary

The following section provides a summary of the Domain Controller Time Source configuration on ACAD.ZENPR.LOCAL.

Name	Time Server	Type
ACADE-DC-01V	Domain Hierarchy	DOMHIER

Table 38 - Domain Controller Time Source Configuration - ACAD.ZENPR.LOCAL

### 1.2.2.7.4 Role & Features on ACADE-DC-01V

The following section provides a summary of the Domain Controller Role & Features information.

Name	Parent	InstallState
Active Directory Certificate Services	Role	Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
Certification Authority	Role Service	Certification Authority (CA) is used to issue and manage certificates. Multiple CAs can be linked to form a public key infrastructure.
Certificate Enrollment Policy Web Service	Role Service	The Certificate Enrollment Policy Web Service enables users and computers to obtain certificate enrollment policy information even when the computer is not a member of a domain or if a domain-joined computer is temporarily outside the security boundary of the corporate network. The Certificate Enrollment Policy Web Service works with the Certificate Enrollment Web Service to provide policy-based automatic certificate enrollment for these users and computers.
Certificate Enrollment Web Service	Role Service	The Certificate Enrollment Web Service enables users and computers to enroll for and renew certificates even when the computer is not a member of a domain or if a domain-joined computer is temporarily outside the security boundary of the computer network. The Certificate Enrollment Web Service works together with the Certificate Enrollment Policy Web Service to provide policy-based automatic certificate enrollment for these users and computers.
Certification Authority Web Enrollment	Role Service	Certification Authority Web Enrollment provides a simple Web interface that allows users to perform tasks such as request and renew certificates, retrieve certificate revocation lists (CRLs), and enroll for smart card certificates.
Online Responder	Role Service	Online Responder makes certificate revocation checking data accessible to clients in complex network environments.
Active Directory Domain Services	Role	Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.

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Name	Parent	InstallState
DHCP Server	Role	Dynamic Host Configuration Protocol (DHCP) Server enables you to centrally configure, manage, and provide temporary IP addresses and related information for client computers.
DNS Server	Role	Domain Name System (DNS) Server provides name resolution for TCP/IP networks. DNS Server is easier to manage when it is installed on the same server as Active Directory Domain Services. If you select the Active Directory Domain Services role, you can install and configure DNS Server and Active Directory Domain Services to work together.
File and Storage Services	Role	File and Storage Services includes services that are always installed, as well as functionality that you can install to help manage file servers and storage.
File and iSCSI Services	Role Service	File and iSCSI Services provides technologies that help you manage file servers and storage, reduce disk space utilization, replicate and cache files to branch offices, move or fail over a file share to another cluster node, and share files by using the NFS protocol.
File Server	Role Service	File Server manages shared folders and enables users to access files on this computer from the network.
Storage Services	Role Service	Storage Services provides storage management functionality that is always installed and cannot be removed.
Web Server (IIS)	Role	Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
Web Server	Role Service	Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.
Common HTTP Features	Role Service	Common HTTP Features supports basic HTTP functionality, such as delivering standard file formats and configuring custom server properties. Use Common HTTP Features to create custom error messages, to configure how the server responds to requests that do not specify a document, or to automatically redirect some requests to a different location.
Default Document	Role Service	Default Document lets you configure a default file for the Web server to return when users do not specify a file in a request URL. Default documents make it easier and more convenient for users to reach your Web site.
Directory Browsing	Role Service	Directory Browsing lets users to see the contents of a directory on your Web server. Use Directory Browsing to enable an automatically generated list of all directories and files available in a directory when users do not specify a file in a request URL and default documents are either disabled or not configured.
HTTP Errors	Role Service	HTTP Errors allows you to customize the error messages returned to users' browsers when the Web server detects a fault condition. Use HTTP errors to provide users with a better user experience when they run up against an error message. Consider providing users with an e-mail address for staff who can help them resolve the error.
Static Content	Role Service	Static Content allows the Web server to publish static Web file formats, such as HTML pages and image files. Use Static Content to publish files on your Web server that users can then view using a Web browser.
HTTP Redirection	Role Service	HTTP Redirection provides support to redirect user requests to a specific destination. Use HTTP redirection whenever you want customers who might use one URL to actually end up at another URL.

Name	Parent	InstallState
		This is helpful in many situations, from simply renaming your Web site, to overcoming a domain name that is difficult to spell, or forcing clients to use a secure channel.
Health and Diagnostics	Role Service	Health and Diagnostics provides infrastructure to monitor, manage, and troubleshoot the health of Web servers, sites, and applications.
HTTP Logging	Role Service	HTTP Logging provides logging of Web site activity for this server. When a loggable event, usually an HTTP transaction, occurs, IIS calls the selected logging module, which then writes to one of the logs stored in the file system of the Web server. These logs are in addition to those provided by the operating system.
Logging Tools	Role Service	Logging Tools provides infrastructure to manage Web server logs and automate common logging tasks.
Request Monitor	Role Service	Request Monitor provides infrastructure to monitor Web application health by capturing information about HTTP requests in an IIS worker process. Administrators and developers can use Request Monitor to understand which HTTP requests are executing in a worker process when the worker process has become unresponsive or very slow.
Tracing	Role Service	Tracing provides infrastructure to diagnose and troubleshoot Web applications. With failed request tracing, you can troubleshoot difficult to capture events like poor performance, or authentication related failures. This feature buffers trace events for a request and only flushes them to disk if the request falls into a user-configured error condition.
Performance	Role Service	Performance provides infrastructure for output caching by integrating the dynamic output-caching capabilities of ASP.NET with the static output-caching capabilities that were present in IIS 6.0. IIS also lets you use bandwidth more effectively and efficiently by using common compression mechanisms such as Gzip and Deflate.
Static Content Compression	Role Service	Static Content Compression provides infrastructure to configure HTTP compression of static content. This allows more efficient use of bandwidth. Unlike dynamic responses, compressed static responses can be cached without degrading CPU resources.
Security	Role Service	Security provides infrastructure for securing the Web server from users and requests. IIS supports multiple authentication methods. Pick an appropriate authentication scheme based upon the role of the server. Filter all incoming requests, rejecting without processing requests that match user defined values, or restrict requests based on originating address space.
Request Filtering	Role Service	Request Filtering screens all incoming requests to the server and filters these requests based on rules set by the administrator. Many malicious attacks share common characteristics, like extremely long requests, or requests for an unusual action. By filtering requests, you can attempt to mitigate the impact of these type attacks.
Client Certificate Mapping Authentication	Role Service	Client Certificate Mapping Authentication uses client certificates to authenticate users. A client certificate is a digital ID from a trusted source. IIS offers two types of authentication using client certificate mapping. This type uses Active Directory to offer one-to-one certificate mappings across multiple Web servers.
IIS Client Certificate Mapping Authentication	Role Service	IIS Client Certificate Mapping Authentication uses client certificates to authenticate users. A client certificate is a digital ID from a trusted source. IIS offers two types of authentication using client certificate mapping. This type uses IIS to offer one-to-one or many-to-one

Name	Parent	InstallState
		certificate mapping. Native IIS mapping of certificates offers better performance.
Windows Authentication	Role Service	Windows authentication is a low cost authentication solution for internal Web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authenticating users. Do not use Windows authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers.
Application Development	Role Service	Application Development provides infrastructure for developing and hosting Web applications. Use these features to create Web content or extend the functionality of IIS. These technologies typically provide a way to perform dynamic operations that result in the creation of HTML output, which IIS then sends to fulfill client requests.
.NET Extensibility 4.7	Role Service	.NET extensibility allows managed code developers to change, add and extend web server functionality in the entire request pipeline, the configuration, and the UI. Developers can use the familiar ASP.NET extensibility model and rich .NET APIs to build Web server features that are just as powerful as those written using the native C++ APIs.
ASP	Role Service	Active Server Pages (ASP) provides a server side scripting environment for building Web sites and Web applications. Offering improved performance over CGI scripts, ASP provides IIS with native support for both VBScript and JScript. Use ASP if you have existing applications that require ASP support. For new development, consider using ASP.NET.
ASP.NET 4.7	Role Service	ASP.NET provides a server side object oriented programming environment for building Web sites and Web applications using managed code. ASP.NET 4.7 is not simply a new version of ASP. Having been entirely re-architected to provide a highly productive programming experience based on the .NET Framework, ASP.NET provides a robust infrastructure for building web applications.
ISAPI Extensions	Role Service	Internet Server Application Programming Interface (ISAPI) Extensions provides support for dynamic Web content developing using ISAPI extensions. An ISAPI extension runs when requested just like any other static HTML file or dynamic ASP file. Since ISAPI applications are compiled code, they are processed much faster than ASP files or files that call COM+ components.
ISAPI Filters	Role Service	Internet Server Application Programming Interface (ISAPI) Filters provides support for Web applications that use ISAPI filters. ISAPI filters are files that can extend or change the functionality provided by IIS. An ISAPI filter reviews every request made to the Web server, until the filter finds one that it needs to process.
Management Tools	Role Service	Management Tools provide infrastructure to manage a Web server that runs IIS 10. You can use the IIS user interface, command-line tools, and scripts to manage the Web server. You can also edit the configuration files directly.
IIS Management Console	Role Service	IIS Management Console provides infrastructure to manage IIS 10 by using a user interface. You can use the IIS management console to manage a local or remote Web server that runs IIS 10. To manage SMTP, you must install and use the IIS 6 Management Console.
IIS 6 Management Compatibility	Role Service	IIS 6 Management Compatibility provides forward compatibility for your applications and scripts that use the two IIS APIs, Admin Base Object (ABO) and Active Directory Service Interface (ADSI). You can use existing IIS 6 scripts to manage the IIS 10 Web server.

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Name	Parent	InstallState
IIS 6 Metabase Compatibility	Role Service	IIS 6 Metabase Compatibility provides infrastructure to query and configure the metabase so that you can run applications and scripts migrated from earlier versions of IIS that use Admin Base Object (ABO) or Active Directory Service Interface (ADSI) APIs.
IIS Management Scripts and Tools	Role Service	IIS Management Scripts and Tools provide infrastructure to programmatically manage an IIS 10 Web server by using commands in a command window or by running scripts. You can use these tools when you want to automate commands in batch files or when you do not want to incur the overhead of managing IIS by using the user interface.
.NET Framework 3.5 Features	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 3.5 (includes .NET 2.0 and 3.0)	Feature	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
.NET Framework 4.7 Features	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
.NET Framework 4.7	Feature	.NET Framework 4.7 provides a comprehensive and consistent programming model for quickly and easily building and running applications that are built for various platforms including desktop PCs, Servers, smart phones and the public and private cloud.
ASP.NET 4.7	Feature	ASP.NET 4.7 provides core support for running ASP.NET 4.7 stand-alone applications as well as applications that are integrated with IIS.
WCF Services	Feature	Windows Communication Foundation (WCF) Activation uses Windows Process Activation Service to invoke applications remotely over the network by using protocols such as HTTP, Message Queuing, TCP, and named pipes. Consequently, applications can start and stop dynamically in response to incoming work items, resulting in application hosting that is more robust, manageable, and efficient.
HTTP Activation	Feature	HTTP Activation supports process activation via HTTP. Applications that use HTTP Activation can start and stop dynamically in response to work items that arrive over the network via HTTP.
TCP Port Sharing	Feature	TCP Port Sharing allows multiple net.tcp applications to share a single TCP port. Consequently, these applications can coexist on the same physical computer in separate, isolated processes, while sharing the network infrastructure required to send and receive traffic over a TCP port, such as port 808.
Group Policy Management	Feature	Group Policy Management is a scriptable Microsoft Management Console (MMC) snap-in, providing a single administrative tool for managing Group Policy across the enterprise. Group Policy Management is the standard tool for managing Group Policy.
Remote Server Administration Tools	Feature	Remote Server Administration Tools includes snap-ins and command-line tools for remotely managing roles and features.

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Name	Parent	InstallState
Role Administration Tools	Feature	Role Administration Tools includes snap-ins and command-line tools for remotely managing roles.
AD DS and AD LDS Tools	Feature	Active Directory Domain Services (AD DS) and Active Directory Lightweight Directory Services (AD LDS) Tools includes snap-ins and command-line tools for remotely managing AD DS and AD LDS.
Active Directory module for Windows PowerShell	Feature	The Active Directory module for Windows PowerShell and the tools it provides can be used by Active Directory administrators to manage Active Directory Domain Services (AD DS) at the command line.
AD DS Tools	Feature	Active Directory Domain Services (AD DS) Tools includes snap-ins and command-line tools for remotely managing AD DS.
Active Directory Administrative Center	Feature	Active Directory Administrative Center provides users and network administrators with an enhanced Active Directory data management experience and a rich graphical user interface (GUI) to perform common Active Directory object management tasks.
AD DS Snap-Ins and Command-Line Tools	Feature	Active Directory Domain Services Snap-Ins and Command-Line Tools includes Active Directory Users and Computers, Active Directory Domains and Trusts, Active Directory Sites and Services, and other snap-ins and command-line tools for remotely managing Active Directory domain controllers.
Active Directory Certificate Services Tools	Feature	Active Directory Certificate Services Tools includes the Certification Authority, Certificate Templates, Enterprise PKI, and Online Responder Management snap-ins.
Certification Authority Management Tools	Feature	Active Directory Certification Authority Management Tools includes the Certification Authority, Certificate Templates, and Enterprise PKI snap-ins.
Online Responder Tools	Feature	Online Responder Tools includes the Online Responder Management snap-in.
DHCP Server Tools	Feature	DHCP Server Tools includes the DHCP MMC snap-in, DHCP server netsh context and Windows PowerShell module for DHCP Server.
DNS Server Tools	Feature	DNS Server Tools includes the DNS Manager snap-in, dnscmd.exe command-line tool and Windows PowerShell module for DNS Server.
Windows Defender Antivirus	Feature	Windows Defender Antivirus helps protect your machine from malware.
Windows PowerShell	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 5.1	Feature	Windows PowerShell enables you to automate local and remote Windows administration. This task-based command-line shell and scripting language is built on the Microsoft .NET Framework. It includes hundreds of built-in commands and lets you write and distribute your own commands and scripts.
Windows PowerShell 2.0 Engine	Feature	Windows PowerShell 2.0 Engine includes the core components from Windows PowerShell 2.0 for backward compatibility with existing Windows PowerShell host applications.
Windows PowerShell ISE	Feature	Windows PowerShell Integrated Scripting Environment (ISE) lets you compose, edit, and debug scripts and run multi-line interactive commands in a graphical environment. Features include IntelliSense, tab completion, snippets, color-coded syntax, line numbering, selective

Name	Parent	InstallState
		execution, graphical debugging, right-to-left language and Unicode support.
Windows Process Activation Service	Feature	Windows Process Activation Service generalizes the IIS process model, removing the dependency on HTTP. All the features of IIS that were previously available only to HTTP applications are now available to applications hosting Windows Communication Foundation (WCF) services, using non-HTTP protocols. IIS 10.0 also uses Windows Process Activation Service for message-based activation over HTTP.
Process Model	Feature	Process Model hosts Web and WCF services. Introduced with IIS 6.0, the process model is a new architecture that features rapid failure protection, health monitoring, and recycling. Windows Process Activation Service Process Model removes the dependency on HTTP.
Configuration APIs	Feature	Configuration APIs enable applications that are built using the .NET Framework to configure Windows Process Activation Model programmatically. This lets the application developer automatically configure Windows Process Activation Model settings when the application runs instead of requiring the administrator to manually configure these settings.
WoW64 Support	Feature	Includes all of WoW64 to support running 32-bit applications on Server Core installations. This feature is required for full Server installations. Uninstalling WoW64 Support will convert a full Server installation into a Server Core installation.
XPS Viewer	Feature	The XPS Viewer is used to read, set permissions for, and digitally sign XPS documents.

Table 39 - Domain Controller Role & Features Information.

### 1.2.2.7.5 DCdiag Information

The following section provides a summary of the Active Directory DC Diagnostic.

DC Name	Test Name	Result
acade-dc-01v.acad.zenpr.local	Connectivity	passed
acade-dc-01v.acad.zenpr.local	Advertising	failed
acade-dc-01v.acad.zenpr.local	FrsEvent	passed
acade-dc-01v.acad.zenpr.local	DFSREvent	failed
acade-dc-01v.acad.zenpr.local	SysVolCheck	failed
acade-dc-01v.acad.zenpr.local	KccEvent	passed
acade-dc-01v.acad.zenpr.local	KnowsOfRoleHolders	passed
acade-dc-01v.acad.zenpr.local	MachineAccount	passed
acade-dc-01v.acad.zenpr.local	NCSecDesc	failed
acade-dc-01v.acad.zenpr.local	NetLogons	failed
acade-dc-01v.acad.zenpr.local	ObjectsReplicated	passed
acade-dc-01v.acad.zenpr.local	Replications	passed
acade-dc-01v.acad.zenpr.local	RidManager	passed
acade-dc-01v.acad.zenpr.local	Services	passed
acade-dc-01v.acad.zenpr.local	SystemLog	failed
acade-dc-01v.acad.zenpr.local	VerifyReferences	passed
acade-dc-01v.acad.zenpr.local	CheckSDRefDom	passed
acade-dc-01v.acad.zenpr.local	CheckSDRefDom	passed

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DC Name	Test Name	Result
acade-dc-01v.acad.zenpr.local	CrossRefValidation	passed
acade-dc-01v.acad.zenpr.local	CheckSDRefDom	passed
acade-dc-01v.acad.zenpr.local	CheckSDRefDom	passed
acade-dc-01v.acad.zenpr.local	CrossRefValidation	passed
acade-dc-01v.acad.zenpr.local	CheckSDRefDom	passed
acade-dc-01v.acad.zenpr.local	CrossRefValidation	passed
acade-dc-01v.acad.zenpr.local	LocatorCheck	failed
acade-dc-01v.acad.zenpr.local	Intersite	passed

Table 40 - AD Domain Controller DCdiag Information - ACAD.ZENPR.LOCAL

### 1.2.2.7.6 Infrastructure Services Status of ACADE-DC-01V

The following section provides a summary of the Domain Controller Infrastructure services status.

Display Name	Short Name	Status
DNS Server	DNS	Running
DFS Replication	DFSR	Running
Intersite Messaging	IsmServ	Running
Kerberos Key Distribution Center	Kdc	Running
NetLogon	Netlogon	Running
Active Directory Domain Services	NTDS	Running
Windows Time	W32Time	Running

Table 41 - Domain Controller Infrastructure Services Status Information.

### 1.2.2.7.7 Site Replication Summary

The following section provides a summary of the Active Directory Site Replication information.

DC Name	ACADE-DC-01V
GUID	739a49db-275b-4d09-81c8-ab9e5f393977
Description	-
Replicate From Directory Server	SERVER-DC-01V
Replicate To Directory Server	ACADE-DC-01V
Replicated Naming Contexts	DC=DomainDnsZones,DC=acad,DC=zenpr,DC=local DC=acad,DC=zenpr,DC=local DC=ForestDnsZones,DC=zenpr,DC=local CN=Schema,CN=Configuration,DC=zenpr,DC=local CN=Configuration,DC=zenpr,DC=local
Transport Protocol	IP
AutoGenerated	Yes
Enabled	Yes
Created	Sun, 05 Sep 2021 16:26:31 GMT

Table 42 - Site Replication Information - ACAD.ZENPR.LOCAL

### 1.2.2.7.8 Group Policy Objects Summary



The following section provides a summary of the Group Policy Objects for domain ACAD.ZENPR.LOCAL.

GPO Name	GPO Status	Created	Modified
Empty Policy ACAD	All Settings Enabled	10/05/2021	10/05/2021
Default Domain Policy	All Settings Enabled	09/05/2021	09/05/2021
Unlinked Policy ACAD	All Settings Disabled	10/05/2021	10/05/2021
Default Domain Controllers Policy	All Settings Enabled	09/05/2021	09/22/2021
ACAD Certificate AutoEnrollment	All Settings Enabled	09/22/2021	09/22/2021
Logon Script	All Settings Enabled	10/07/2021	10/07/2021

Table 43 - Group Policy Objects Information - ACAD.ZENPR.LOCAL

#### 1.2.2.7.8.1 Group Policy Objects with User Logon/Logoff Script Summary

The following section provides a summary of Group Policy Objects with Logon/Logoff Script.

GPO Name	GPO Status	Type	Script
Logon Script	All Settings Enabled	Logon	\\acad.zenpr.local\NETLOGON\enroll.exe

Table 44 - Group Policy Objects with Logon/Logoff Script Information - ACAD.ZENPR.LOCAL

#### 1.2.2.7.8.2 Health Check - All Unlinked Group Policy Objects Summary

The following section provides a summary of the Unlinked Group Policy Objects. Corrective Action: Remove Unused GPO.

GPO Name	Created	Modified	Computer Enabled	User Enabled
Unlinked Policy ACAD	2021-10-06	2021-10-06	No	No
Logon Script	2021-10-07	2021-10-07	Yes	Yes

Table 45 - Unlinked Group Policy Objects Information - ACAD.ZENPR.LOCAL

#### 1.2.2.7.8.3 Health Check - All Empty Group Policy Objects Summary

The following section provides a summary of the Empty Group Policy Objects. Corrective Action: No User and Computer parameters are set : Remove Unused GPO.

GPO Name	Created	Modified	Description
Empty Policy ACAD	2021-10-06	2021-10-06	-

Table 46 - Empty Group Policy Objects Information - ACAD.ZENPR.LOCAL

#### 1.2.2.7.8.4 Health Check - Enforced Group Policy Objects Summary

The following section provides a summary of the Enforced Group Policy Objects.

GPO Name	Enforced	Order	Target
Empty Policy ACAD	Yes	1	acad.zenpr.local/Acad Computers/SCCM Computers

Table 47 - Enforced Group Policy Objects Information - ACAD.ZENPR.LOCAL

### 1.2.2.7.9 Organizational Unit Summary

The following section provides a summary of Active Directory Organizational Unit information.

Name	Path	Linked GPO
Domain Controllers	acad.zenpr.local/Domain Controllers	Default Domain Controllers Policy
Member Servers	acad.zenpr.local/Member Servers	-
Acad Computers	acad.zenpr.local/Acad Computers	-
SCCM Computers	acad.zenpr.local/Acad Computers/SCCM Computers	Empty Policy ACAD

Table 48 - Active Directory Organizational Unit Information - ACAD.ZENPR.LOCAL

#### 1.2.2.7.9.1 Health Check - Organizational Unit with Group Policy Objects Blocked Inheritance Summary

The following section provides a summary of the Blocked Inheritance Group Policy Objects.

OU Name	Container Type	Inheritance Blocked	Path
sccm computers	OU	Yes	acad.zenpr.local/Acad Computers/SCCM Computers

Table 49 - Blocked Inheritance Group Policy Objects Information - ACAD.ZENPR.LOCAL

## 1.3 Domain Name System summary for forest ZENPR.LOCAL

The Domain Name System (DNS) is a hierarchical and decentralized naming system for computers, services, or other resources connected to the Internet or a private network. It associates various information with domain names assigned to each of the participating entities. Most prominently, it translates more readily memorized domain names to the numerical IP addresses needed for locating and identifying computer services and devices with the underlying network protocols.

### 1.3.1 Domain Name System Information for domain ZENPR.LOCAL

The following section provides a configuration summary of the Domain Name System.

#### 1.3.1.1 Infrastructure Summary

The following section provides a summary of the Domain Name System Infrastructure configuration.

DC Name	Build Number	IPv6	DnsSec	ReadOnly DC	Listening IP
SERVER-DC-01V	17763	Yes	No	No	192.168.5.1
CAYEY-DC-01V	17763	Yes	No	No	fe80::b5fd:f35b:d81d:dfcd 10.10.33.1

Table 50 - Domain Name System Infrastructure Setting Information.

### 1.3.1.1.1 Response Rate Limiting (RRL) Summary

The following section provides a summary of the Domain Name System Response Rate Limiting configuration.

DC Name	Status	Responses Per Sec	Errors Per Sec	Window In Sec	Leak Rate	Truncate Rate
SERVER-DC-01V	Disable	5	5	5	3	2
CAYEY-DC-01V	Disable	5	5	5	3	2

Table 51 - Domain Name System Response Rate Limiting configuration.

### 1.3.1.1.2 Scavenging Summary

The following section provides a summary of the Domain Name System Scavenging configuration.

DC Name	NoRefresh Interval	Refresh Interval	Scavenging Interval	Last Scavenge Time	Scavenging State
SERVER-DC-01V	7.00:00:00	7.00:00:00	7.00:00:00	-	Enabled
CAYEY-DC-01V	7.00:00:00	7.00:00:00	00:00:00	-	Disabled

Table 52 - Domain Name System Scavenging configuration.

### 1.3.1.1.3 Forwarder Summary

The following section provides a summary of the Domain Name System Forwarder configuration.

DC Name	IP Address	Timeout	Use Root Hint	Use Recursion
SERVER-DC-01V	192.168.1.2 192.168.1.1	3/s	Yes	Yes
CAYEY-DC-01V	192.168.5.1 192.168.1.1	3/s	Yes	Yes

Table 53 - Domain Name System Infrastructure Forwarder configuration.

### 1.3.1.1.4 Zone Scope Recursion Summary

The following section provides a summary of the Domain Name System Zone Scope Recursion configuration.

DC Name	Zone Name	Forwarder	Use Recursion
SERVER-DC-01V	Root	192.168.1.2 192.168.1.1	Yes
CAYEY-DC-01V	Root	192.168.5.1 192.168.1.1	Yes

Table 54 - Domain Name System Zone Scope Recursion configuration.

### 1.3.1.2 Domain Name System Zone Configuration of SERVER-DC-01V

The following section provides a summary of the Domain Name System Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
_msdcs.zenpr.local	Primary	Forest	Secure	Yes	No	No
zenpr.local	Primary	Domain	Secure	Yes	No	No
TrustAnchors	Primary	Forest	None	Yes	No	No

Table 55 - Domain Name System Zone Information.

#### 1.3.1.2.1 Zone Delegation of SERVER-DC-01V

The following section provides a summary of the Domain Name System Zone Delegation information.

Zone Name	Child Zone	Name Server	IP Address
zenpr.local	_msdcs.zenpr.local.	server-dc-01v.zenpr.local.	192.168.5.1
zenpr.local	acad.zenpr.local.	ACADE-DC-01V.acad.zenpr.local.	172.23.4.1

Table 56 - Domain Name System Zone Delegation Information.

#### 1.3.1.2.2 Reverse Lookup Zone Configuration of SERVER-DC-01V

The following section provides a summary of the Domain Name System Reverse Lookup Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
0.in-addr.arpa	Primary	None	None	No	No	No
10.10.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
127.in-addr.arpa	Primary	None	None	No	No	No
168.192.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
23.172.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
255.in-addr.arpa	Primary	None	None	No	No	No

Table 57 - Domain Name System Zone Information.

#### 1.3.1.2.3 Conditional Forwarder information on SERVER-DC-01V

The following section provides a summary of the Domain Name System Conditional Forwarder information.

Zone Name	Zone Type	Replication Scope	Master Servers	DS Integrated
zenprsolutions.net	Forwarder	Forest	8.8.8.8	Yes

Table 58 - Domain Name System Conditional Forwarder Information.

#### 1.3.1.2.4 Zone Scope Aging properties of SERVER-DC-01V

The following section provides a summary of the Domain Name System Zone Aging properties information.

Zone Name	Aging Enabled	Refresh Interval	NoRefresh Interval	Available For Scavenge
_msdcs.zenpr.local	Yes	7.00:00:00	7.00:00:00	Wed, 20 Oct 2021 22:00:00 GMT
zenpr.local	Yes	7.00:00:00	7.00:00:00	Wed, 20 Oct 2021 22:00:00 GMT
TrustAnchors	Yes	7.00:00:00	7.00:00:00	Wed, 20 Oct 2021 22:00:00 GMT

Table 59 - Domain Name System Zone Aging properties Information.

#### 1.3.1.3 Domain Name System Zone Configuration of CAYEY-DC-01V

The following section provides a summary of the Domain Name System Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
_msdcs.zenpr.local	Primary	Forest	Secure	Yes	No	No
zenpr.local	Primary	Domain	Secure	Yes	No	No
TrustAnchors	Primary	Forest	None	Yes	No	No

Table 60 - Domain Name System Zone Information.

##### 1.3.1.3.1 Zone Delegation of CAYEY-DC-01V

The following section provides a summary of the Domain Name System Zone Delegation information.

Zone Name	Child Zone	Name Server	IP Address
zenpr.local	_msdcs.zenpr.local.	server-dc-01v.zenpr.local.	192.168.5.1
zenpr.local	acad.zenpr.local.	ACADE-DC-01V.acad.zenpr.local.	172.23.4.1

Table 61 - Domain Name System Zone Delegation Information.

##### 1.3.1.3.2 Reverse Lookup Zone Configuration of CAYEY-DC-01V

The following section provides a summary of the Domain Name System Reverse Lookup Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
0.in-addr.arpa	Primary	None	None	No	No	No
10.10.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
127.in-addr.arpa	Primary	None	None	No	No	No
168.192.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
23.172.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
255.in-addr.arpa	Primary	None	None	No	No	No

Table 62 - Domain Name System Zone Information.

### 1.3.1.3.3 Conditional Forwarder information on CAYEY-DC-01V

The following section provides a summary of the Domain Name System Conditional Forwarder information.

Zone Name	Zone Type	Replication Scope	Master Servers	DS Integrated
zenprsolutions.net	Forwarder	Forest	8.8.8.8	Yes

Table 63 - Domain Name System Conditional Forwarder Information.

### 1.3.1.3.4 Zone Scope Aging properties of CAYEY-DC-01V

The following section provides a summary of the Domain Name System Zone Aging properties information.

Zone Name	Aging Enabled	Refresh Interval	NoRefresh Interval	Available For Scavenge
_msdcs.zenpr.local	Yes	7.00:00:00	7.00:00:00	Sun, 12 Sep 2021 23:00:00 GMT
zenpr.local	Yes	7.00:00:00	7.00:00:00	Fri, 24 Sep 2021 23:00:00 GMT
TrustAnchors	Yes	7.00:00:00	7.00:00:00	Thu, 07 Jan 2021 16:00:00 GMT

Table 64 - Domain Name System Zone Aging properties Information.

## 1.3.2 Domain Name System Information for domain ACAD.ZENPR.LOCAL

The following section provides a configuration summary of the Domain Name System.

### 1.3.2.1 Infrastructure Summary

The following section provides a summary of the Domain Name System Infrastructure configuration.

DC Name	Build Number	IPv6	DnsSec	ReadOnly DC	Listening IP
ACADE-DC-01V	17763	Yes	No	No	fd99:9971::1 fd99:9971::cb7:65e6:4475:2e ba fe80::9896:1b46:502:8b34 172.23.4.1

Table 65 - Domain Name System Infrastructure Setting Information.

### 1.3.2.1.1 Response Rate Limiting (RRL) Summary

The following section provides a summary of the Domain Name System Response Rate Limiting configuration.

DC Name	Status	Responses Per Sec	Errors Per Sec	Window In Sec	Leak Rate	Truncate Rate
ACADE-DC-01V	Disable	5	5	5	3	2

*Table 66 - Domain Name System Response Rate Limiting configuration.*

### 1.3.2.1.2 Scavenging Summary

The following section provides a summary of the Domain Name System Scavenging configuration.

DC Name	NoRefresh Interval	Refresh Interval	Scavenging Interval	Last Scavenge Time	Scavenging State
ACADE-DC-01V	7.00:00:00	7.00:00:00	00:00:00	-	Disabled

*Table 67 - Domain Name System Scavenging configuration.*

### 1.3.2.1.3 Forwarder Summary

The following section provides a summary of the Domain Name System Forwarder configuration.

DC Name	IP Address	Timeout	Use Root Hint	Use Recursion
ACADE-DC-01V	192.168.5.1	3/s	Yes	Yes

*Table 68 - Domain Name System Infrastructure Forwarder configuration.*

### 1.3.2.1.4 Zone Scope Recursion Summary

The following section provides a summary of the Domain Name System Zone Scope Recursion configuration.

DC Name	Zone Name	Forwarder	Use Recursion
ACADE-DC-01V	Root	192.168.5.1	Yes

*Table 69 - Domain Name System Zone Scope Recursion configuration.*

### 1.3.2.2 Domain Name System Zone Configuration of ACADE-DC-01V

The following section provides a summary of the Domain Name System Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
_msdcs.zenpr.local	Primary	Forest	Secure	Yes	No	No
acad.zenpr.local	Primary	Domain	Secure	Yes	No	No

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
TrustAnchors	Primary	Forest	None	Yes	No	No

Table 70 - Domain Name System Zone Information.

### 1.3.2.2.1 Reverse Lookup Zone Configuration of ACADE-DC-01V

The following section provides a summary of the Domain Name System Reverse Lookup Zone Configuration information.

Zone Name	Zone Type	Replication Scope	Dynamic Update	DS Integrated	Read Only	Signed
0.23.172.in-addr.arpa	Primary	Domain	Secure	Yes	No	No
0.in-addr.arpa	Primary	None	None	No	No	No
127.in-addr.arpa	Primary	None	None	No	No	No
255.in-addr.arpa	Primary	None	None	No	No	No

Table 71 - Domain Name System Zone Information.

### 1.3.2.2.2 Conditional Forwarder information on ACADE-DC-01V

The following section provides a summary of the Domain Name System Conditional Forwarder information.

Zone Name	Zone Type	Replication Scope	Master Servers	DS Integrated
zenprsolutions.local	Forwarder	None	8.8.8.8	No
zenprsolutions.net	Forwarder	Forest	8.8.8.8	Yes

Table 72 - Domain Name System Conditional Forwarder Information.

### 1.3.2.2.3 Zone Scope Aging properties of ACADE-DC-01V

The following section provides a summary of the Domain Name System Zone Aging properties information.

Zone Name	Aging Enabled	Refresh Interval	NoRefresh Interval	Available For Scavenge
_msdcs.zenpr.local	Yes	7.00:00:00	7.00:00:00	Sun, 12 Sep 2021 23:00:00 GMT
acad.zenpr.local	No	7.00:00:00	7.00:00:00	-
TrustAnchors	Yes	7.00:00:00	7.00:00:00	Thu, 07 Jan 2021 16:00:00 GMT

Table 73 - Domain Name System Zone Aging properties Information.

## 1.4 Dynamic Host Configuration Protocol summary for forest ZENPR.LOCAL

The Dynamic Host Configuration Protocol (DHCP) is a network management protocol used on Internet Protocol (IP) networks for automatically assigning IP addresses and other communication parameters to devices connected to the network using a client/server architecture.



## 1.4.1 Dynamic Host Configuration Protocol information for domain ZENPR.LOCAL

The following section provides a summary of the Dynamic Host Configuration Protocol.

### 1.4.1.1 DHCP Servers In Active Directory Summary

The following section provides a summary of the DHCP servers information on ZENPR.LOCAL.

DC Name	IP Address	Domain Name	Domain Joined	Authorized	Conflict Detection Attempts
cayey-dc-01v	10.10.33.1	zenpr.local	Yes	Yes	0
server-dc-01v-0	192.168.5.1	zenpr.local	-	-	
server-dc-01v	192.168.5.1	zenpr.local	Yes	Yes	1

Table 74 - DHCP Servers In Active Directory Information - ZENPR.LOCAL

#### 1.4.1.1.1 Service Database Summary

The following section provides a summary of the DHCP servers service database information on ZENPR.LOCAL.

DC Name	File Path	Backup Path	Backup Interval	Logging Enabled
cayey-dc-01v	C:\Windows\system32\dhcp\dhcp.mdb	C:\Windows\system32\dhcp\backup	60 min	Yes
server-dc-01v-0	-	-	-	-
server-dc-01v	C:\Windows\system32\dhcp\dhcp.mdb	C:\Windows\system32\dhcp\backup	60 min	Yes

Table 75 - DHCP Servers Database Information - ZENPR.LOCAL

#### 1.4.1.1.2 Dynamic DNS credentials Summary

The following section provides a summary of the DHCP Servers Dynamic DNS registration credentials information on ZENPR.LOCAL.

DC Name	User Name	Domain Name
cayey-dc-01v	-	-
server-dc-01v-0	-	-
server-dc-01v	administrator	ZENPR.LOCAL

Table 76 - DHCP Servers Dynamic DNS Credentials Information - ZENPR.LOCAL

#### 1.4.1.2 IPv4 Scope Information for Domain ZENPR.LOCAL

The following section provides a IPv4 configuration summary of the Dynamic Host Configuration Protocol.

#### 1.4.1.2.1 IPv4 Service Statistics Summary

The following section provides a summary of the DHCP servers IPv4 Statistics information on ZENPR.LOCAL.

DC Name	Total Scopes	Total Addresses	Addresses In Use	Addresses Available	Percentage In Use	Percentage Available
cayey-dc-01v	2	458	3	455	1	99
server-dc-01v-0	-	-	-	-	0	0
server-dc-01v	9	1874	150	1724	8	92

Table 77 - DHCP Server IPv4 Statistics Information - ZENPR.LOCAL

#### 1.4.1.2.2 IPv4 Scope Summary on CAYEY-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope information.

Scope Id	Scope Name	Scope Range	Lease Duration	State
10.10.33.0/24	ESX-VM-NETWORK-DR	10.10.33.40 - 10.10.33.253	100.00:00:00	Active
10.10.34.0/24	ESXi-ISCSI-BLOCK-A-DR	10.10.34.10 - 10.10.34.253	8.00:00:00	Active

Table 78 - IPv4 Scopes Information - CAYEY-DC-01V

#### 1.4.1.2.2.1 IPv4 Scope Statistics Summary on CAYEY-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Statistics information.

Scope Id	Free IP	In Use IP	Percentage In Use	Reserved IP
10.10.33.0	211	3	1	3
10.10.34.0	244	0	0	0

Table 79 - IPv4 Scope Statistics Information - CAYEY-DC-01V

#### 1.4.1.2.2.2 IPv4 Scope Failover Summary on CAYEY-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Failover information.

DHCP Server	cayey-dc-01v.zenpr.local
Partner DHCP Server	server-dc-01v.zenpr.local
Mode	LoadBalance
LoadBalance Percent	20
Server Role	-

## Microsoft AD As Built Report - v1.0

Reserve Percent	0
Max Client Lead Time	01:00:00
State Switch Interval	-
Scope Ids	10.10.33.0
State	Normal
Auto State Transition	No
Authetication Enable	Yes

DHCP Server	cayey-dc-01v.zenpr.local
Partner DHCP Server	server-dc-01v.zenpr.local
Mode	HotStandby
LoadBalance Percent	0
Server Role	Active
Reserve Percent	5
Max Client Lead Time	01:00:00
State Switch Interval	01:00:00
Scope Ids	10.10.34.0
State	Normal
Auto State Transition	Yes
Authetication Enable	No

### 1.4.1.2.2.3 IPv4 Network Interface binding Summary on CAYEY-DC-01V

The following section provides a summary of the IPv4 Network Interface binding.

Interface Alias	IP Address	Subnet Mask	State
Ethernet0	10.10.33.1	255.255.255.0	Enabled

Table 80 - IPv4 Network Interface binding Information - CAYEY-DC-01V

### 1.4.1.2.3 IPv4 Scope Server Options Summary on CAYEY-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Time Offset	2	0	-
Time Server	4	10.10.33.1	-
Name Servers	5	10.10.33.1	-
DNS Servers	6	10.10.33.1 192.168.5.1	-

Table 81 - IPv4 Scopes Server Options Information - CAYEY-DC-01V

#### 1.4.1.2.3.1 Scope DNS Setting information

The following section provides a summary of the DHCP servers IPv4 Scope DNS Setting information.

Dynamic Updates	OnClientRequest
Dns Suffix	-
Name Protection	No
Update Dns RR For Older Clients	No
Disable Dns Ptr RR Update	No
Delete Dns RR On Lease Expiry	Yes

Table 82 - IPv4 Scopes DNS Setting Information - cayey-dc-01v

#### 1.4.1.2.3.2 Scope Options information for scope 10.10.33.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	10.10.33.254	-
Lease	51	8640000	-
	81	23	-
Boot Server Host Name	66	192.168.5.2	-
Bootfile Name	67	snponly64.efi.vmw-hardwired	-

Table 83 - IPv4 Scopes Options Information - 10.10.33.0

#### 1.4.1.2.3.3 Scope Options information for scope 10.10.34.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Lease	51	691200	-
Router	3	10.10.34.254	-
DNS Domain Name	15	zenpr.local	-
DNS Servers	6	192.168.5.1 192.168.5.1	-

Table 84 - IPv4 Scopes Options Information - 10.10.34.0

#### 1.4.1.2.4 IPv4 Scope Summary on SERVER-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope information.

Scope Id	Scope Name	Scope Range	Lease Duration	State
10.10.32.0/24	ESXi-vMotion-DR	10.10.32.10 - 10.10.32.250	8.00:00:00	Active
10.10.33.0/24	ESX-VM-NETWORK-DR	10.10.33.40 - 10.10.33.253	100.00:00:00	Active

Scope Id	Scope Name	Scope Range	Lease Duration	State
10.10.34.0/24	ESXi-ISCSI-BLOCK-A-DR	10.10.34.10 - 10.10.34.253	8.00:00:00	Active
10.10.35.0/24	ESXi-ISCSI-BLOCK-B-DR	10.10.35.10 - 10.10.35.253	8.00:00:00	Active
192.168.2.0/24	ESXi-vMotion	192.168.2.10 - 192.168.2.253	8.00:00:00	Active
192.168.4.0/24	ESXi-NFS-File	192.168.4.10 - 192.168.4.20	8.00:00:00	Active
192.168.6.0/24	ESXi-ISCSI-BLOCK-A	192.168.6.10 - 192.168.6.240	8.00:00:00	Active
192.168.7.0/24	ESX-VM-NETWORK	192.168.7.40 - 192.168.7.253	Unlimited	Active
192.168.12.0/24	ESXi-ISCSI-BLOCK-B	192.168.12.10 - 192.168.12.240	8.00:00:00	Active

Table 85 - IPv4 Scopes Information - SERVER-DC-01V

#### 1.4.1.2.4.1 IPv4 Scope Statistics Summary on SERVER-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Statistics information.

Scope Id	Free IP	In Use IP	Percentage In Use	Reserved IP
10.10.32.0	241	0	0	0
10.10.33.0	211	3	1	3
10.10.34.0	244	0	0	0
10.10.35.0	244	0	0	0
192.168.2.0	243	1	0	0
192.168.4.0	11	0	0	0
192.168.6.0	226	5	2	2
192.168.7.0	77	137	64	17
192.168.12.0	227	4	2	2

Table 86 - IPv4 Scope Statistics Information - SERVER-DC-01V

#### 1.4.1.2.4.2 IPv4 Scope Failover Summary on SERVER-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Failover information.

DHCP Server	server-dc-01v.zenpr.local
Partner DHCP Server	cayey-dc-01v.zenpr.local
Mode	LoadBalance
LoadBalance Percent	80
Server Role	-
Reserve Percent	0
Max Client Lead Time	01:00:00
State Switch Interval	-
Scope Ids	10.10.33.0
State	Normal
Auto State Transition	No

Authetication Enable	Yes
DHCP Server	server-dc-01v.zenpr.local
Partner DHCP Server	cayey-dc-01v.zenpr.local
Mode	HotStandby
LoadBalance Percent	0
Server Role	Standby
Reserve Percent	5
Max Client Lead Time	01:00:00
State Switch Interval	01:00:00
Scope Ids	10.10.34.0
State	Normal
Auto State Transition	Yes
Authetication Enable	No

#### 1.4.1.2.4.3 IPv4 Network Interface binding Summary on SERVER-DC-01V

The following section provides a summary of the IPv4 Network Interface binding.

Interface Alias	IP Address	Subnet Mask	State
Ethernet0	192.168.5.1	255.255.255.0	Enabled

Table 87 - IPv4 Network Interface binding Information - SERVER-DC-01V

#### 1.4.1.2.5 IPv4 Scope Server Options Summary on SERVER-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Time Server	4	192.168.5.1	-
Name Servers	5	192.168.5.1	-
DNS Servers	6	192.168.5.1	-
NTP Servers	42	192.168.5.1	-
Simple Mail Transport Protocol (SMTP) Servers	69	192.168.7.21	-
Post Office Protocol (POP3) Servers	70	192.168.7.21	-
	81	55	-

Table 88 - IPv4 Scopes Server Options Information - SERVER-DC-01V

##### 1.4.1.2.5.1 Scope DNS Setting information

The following section provides a summary of the DHCP servers IPv4 Scope DNS Setting information.

Dynamic Updates	Always
Dns Suffix	-

Name Protection	Yes
Update Dns RR For Older Clients	Yes
Disable Dns Ptr RR Update	No
Delete Dns RR On Lease Expiry	Yes

Table 89 - IPv4 Scopes DNS Setting Information - server-dc-01v

#### 1.4.1.2.5.2 Scope Options information for scope 10.10.32.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	10.10.32.254	-
DNS Domain Name	15	zenpr.local	-
Lease	51	691200	-

Table 90 - IPv4 Scopes Options Information - 10.10.32.0

#### 1.4.1.2.5.3 Scope Options information for scope 10.10.33.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	10.10.33.254	-
Lease	51	8640000	-
	81	23	-
Boot Server Host Name	66	192.168.5.2	-
Bootfile Name	67	snponly64.efi.vmw-hardwired	-

Table 91 - IPv4 Scopes Options Information - 10.10.33.0

#### 1.4.1.2.5.4 Scope Options information for scope 10.10.34.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Lease	51	691200	-
Router	3	10.10.34.254	-
DNS Domain Name	15	zenpr.local	-
DNS Servers	6	192.168.5.1 192.168.5.1	-

Table 92 - IPv4 Scopes Options Information - 10.10.34.0

#### 1.4.1.2.5.5 Scope Options information for scope 10.10.35.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Lease	51	691200	-
Router	3	10.10.35.254	-
DNS Domain Name	15	zenpr.local	-
DNS Servers	6	192.168.5.1 192.168.5.1	-

*Table 93 - IPv4 Scopes Options Information - 10.10.35.0*

#### 1.4.1.2.5.6 Scope Options information for scope 192.168.2.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	192.168.2.254	-
DNS Domain Name	15	zenpr.local	-
Lease	51	691200	-

*Table 94 - IPv4 Scopes Options Information - 192.168.2.0*

#### 1.4.1.2.5.7 Scope Options information for scope 192.168.4.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
DNS Domain Name	15	zenpr.local	-
Router	3	192.168.4.254	-
Lease	51	691200	-

*Table 95 - IPv4 Scopes Options Information - 192.168.4.0*

#### 1.4.1.2.5.8 Scope Options information for scope 192.168.6.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	192.168.6.254	-
DNS Domain Name	15	zenpr.local	-
Lease	51	691200	-

*Table 96 - IPv4 Scopes Options Information - 192.168.6.0*



#### 1.4.1.2.5.9 Scope Options information for scope 192.168.7.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	192.168.7.254	-
DNS Domain Name	15	zenpr.local	-
Lease	51	4294967295	-
Boot Server Host Name	66	192.168.5.2	-
Bootfile Name	67	snponly64.efi.vmw-hardwired	-
	81	23	-

Table 97 - IPv4 Scopes Options Information - 192.168.7.0

#### 1.4.1.2.5.10 Scope Options information for scope 192.168.12.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Router	3	192.168.12.254	-
DNS Domain Name	15	zenpr.local	-
Lease	51	691200	-

Table 98 - IPv4 Scopes Options Information - 192.168.12.0

### 1.4.1.3 IPv6 Scope Information for Domain ZENPR.LOCAL

The following section provides a IPv6 configuration summary of the Dynamic Host Configuration Protocol.

#### 1.4.1.3.1 IPv6 Service Statistics Summary

The following section provides a summary of the DHCP servers IPv6 Statistics information on ZENPR.LOCAL.

DC Name	Total Scopes	Total Addresses	Addresses In Use	Addresses Available	Percentage In Use	Percentage Available
cayey-dc-01v	0	0	0	0	0	0
server-dc-01v-0	-	-	-	-	0	0
server-dc-01v	0	0	0	0	0	0

Table 99 - DHCP Server IPv6 Statistics Information - ZENPR.LOCAL

## 1.4.2 Dynamic Host Configuration Protocol information for domain ACAD.ZENPR.LOCAL

The following section provides a summary of the Dynamic Host Configuration Protocol.

### 1.4.2.1 DHCP Servers In Active Directory Summary

The following section provides a summary of the DHCP servers information on ACAD.ZENPR.LOCAL.

DC Name	IP Address	Domain Name	Domain Joined	Authorized	Conflict Detection Attempts
acade-dc-01v	172.23.4.1	acad.zenpr.local	Yes	Yes	0

Table 100 - DHCP Servers In Active Directory Information - ACAD.ZENPR.LOCAL

#### 1.4.2.1.1 Service Database Summary

The following section provides a summary of the DHCP servers service database information on ACAD.ZENPR.LOCAL.

DC Name	File Path	Backup Path	Backup Interval	Logging Enabled
acade-dc-01v	C:\Windows\system32\dhcp\dhcp.mdb	C:\Windows\system32\dhcp\backup	60 min	Yes

Table 101 - DHCP Servers Database Information - ACAD.ZENPR.LOCAL

#### 1.4.2.1.2 Dynamic DNS credentials Summary

The following section provides a summary of the DHCP Servers Dynamic DNS registration credentials information on ACAD.ZENPR.LOCAL.

DC Name	User Name	Domain Name
acade-dc-01v	-	-

Table 102 - DHCP Servers Dynamic DNS Credentials Information - ACAD.ZENPR.LOCAL

### 1.4.2.2 IPv4 Scope Information for Domain ACAD.ZENPR.LOCAL

The following section provides a IPv4 configuration summary of the Dynamic Host Configuration Protocol.

#### 1.4.2.2.1 IPv4 Service Statistics Summary

The following section provides a summary of the DHCP servers IPv4 Statistics information on ACAD.ZENPR.LOCAL.

DC Name	Total Scopes	Total Addresses	Addresses In Use	Addresses Available	Percentage In Use	Percentage Available
acade-dc-01v	1	233	0	233	0	100

Table 103 - DHCP Server IPv4 Statistics Information - ACAD.ZENPR.LOCAL

#### 1.4.2.2.2 IPv4 Scope Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope information.

Scope Id	Scope Name	Scope Range	Lease Duration	State
172.23.5.0/24	Dept-B Clients	172.23.5.10 - 172.23.5.253	1.00:00:00	Active

Table 104 - IPv4 Scopes Information - ACADE-DC-01V

#### 1.4.2.2.2.1 IPv4 Scope Statistics Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Statistics information.

Scope Id	Free IP	In Use IP	Percentage In Use	Reserved IP
172.23.5.0	233	0	0	0

Table 105 - IPv4 Scope Statistics Information - ACADE-DC-01V

#### 1.4.2.2.2.2 IPv4 Network Interface binding Summary on ACADE-DC-01V

The following section provides a summary of the IPv4 Network Interface binding.

Interface Alias	IP Address	Subnet Mask	State
Ethernet0	172.23.4.1	255.255.255.0	Enabled

Table 106 - IPv4 Network Interface binding Information - ACADE-DC-01V

#### 1.4.2.2.3 IPv4 Scope Server Options Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
DNS Servers	6	172.23.4.1 192.168.5.1 10.10.33.1	-
DNS Domain Name	15	acad.zenpr.local	-

Table 107 - IPv4 Scopes Server Options Information - ACADE-DC-01V

### 1.4.2.2.3.1 Scope DNS Setting information

The following section provides a summary of the DHCP servers IPv4 Scope DNS Setting information.

Dynamic Updates	OnClientRequest
Dns Suffix	-
Name Protection	No
Update Dns RR For Older Clients	No
Disable Dns Ptr RR Update	No
Delete Dns RR On Lease Expiry	Yes

Table 108 - IPv4 Scopes DNS Setting Information - acadc-dc-01v

### 1.4.2.2.3.2 Scope Options information for scope 172.23.5.0

The following section provides a summary of the DHCP servers IPv4 Scope Server Options information.

Name	Option Id	Value	Policy Name
Lease	51	86400	-
Router	3	172.23.5.254	-

Table 109 - IPv4 Scopes Options Information - 172.23.5.0

### 1.4.2.3 IPv6 Scope Information for Domain ACAD.ZENPR.LOCAL

The following section provides a IPv6 configuration summary of the Dynamic Host Configuration Protocol.

#### 1.4.2.3.1 IPv6 Service Statistics Summary

The following section provides a summary of the DHCP servers IPv6 Statistics information on ACAD.ZENPR.LOCAL.

DC Name	Total Scopes	Total Addresses	Addresses In Use	Addresses Available	Percentage In Use	Percentage Available
acadc-dc-01v	1	184467440 737095516 14	1	1844674407 3709551613	0	100

Table 110 - DHCP Server IPv6 Statistics Information - ACAD.ZENPR.LOCAL

#### 1.4.2.3.2 IPv6 Scope Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv6 Scope information.

Scope Id	Scope Name	Lease Duration	State
fd99:9971::/64	Dept-C Clients	8.00:00:00	Active

Table 111 - IPv6 Scopes Information - ACADE-DC-01V

#### 1.4.2.3.2.1 IPv6 Scope Statistics Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv6 Scope Statistics information.

Scope Id	Free IP	In Use IP	Percentage In Use	Reserved IP
fd99:9971::	184467440737095 51613	1	0	0

Table 112 - IPv6 Scope Statistics Information - ACADE-DC-01V

#### 1.4.2.3.2.2 IPv6 Network Interface binding Summary on ACADE-DC-01V

The following section provides a summary of the IPv6 Network Interface binding.

Interface Alias	IP Address	State
Ethernet0	fd99:9971::1	Enabled

Table 113 - IPv6 Network Interface binding Information - ACADE-DC-01V

#### 1.4.2.3.3 IPv6 Scope Server Options Summary on ACADE-DC-01V

The following section provides a summary of the DHCP servers IPv6 Scope Server Options information.

Name	Option Id	Type	Value
Domain Search List	24	String	fd99:9971::1

Table 114 - IPv6 Scopes Server Options Information - ACADE-DC-01V

#### 1.4.2.3.3.1 Scope DNS Setting information

The following section provides a summary of the DHCP servers IPv6 Scope DNS Setting information.

Dynamic Updates	OnClientRequest
Name Protection	No
Delete Dns RR On Lease Expiry	Yes

Table 115 - IPv6 Scopes DNS Setting Information - acadc-dc-01v

### 1.4.2.3.3.2 Scope Options information for scope fd99:9971::

The following section provides a summary of the DHCP servers IPv6 Scope Server Options information.

Name	Option Id	Type	Value
DNS Recursive Name Server IPv6 Address List	23	IPv6Address	fd99:9971::1

Table 116 - IPv6 Scopes Options Information - fd99:9971::

## 1.5 Certificate Authority Summary for forest ZENPR.LOCAL

In cryptography, a certificate authority or certification authority (CA) is an entity that issues digital certificates. A digital certificate certifies the ownership of a public key by the named subject of the certificate. This allows others (relying parties) to rely upon signatures or on assertions made about the private key that corresponds to the certified public key. A CA acts as a trusted third party—trusted both by the subject (owner) of the certificate and by the party relying upon the certificate. The format of these certificates is specified by the X.509 or EMV standard.

CA Name	Server Name	Type	Status
zenpr-SERVER-DC-01V-CA	SERVER-DC-01V	Enterprise Root CA	Running
acad-ACADE-DC-01V-CA	ACADE-DC-01V	Enterprise Subordinate CA	Running
zenpr-CAYEY-DC-01V-CA	CAYEY-DC-01V	Enterprise Subordinate CA	Running

Table 117 - Certification Authority Summary Information - ZENPR.LOCAL