Install Domain Controllers

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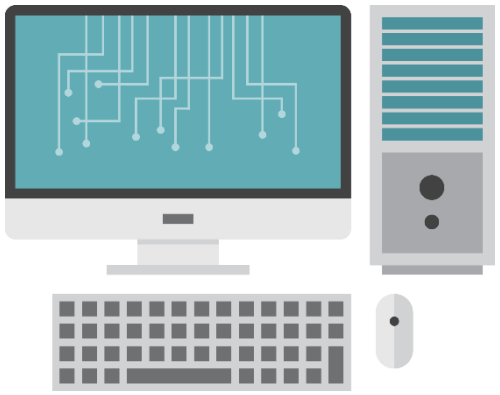
What This Module Covers



- Add or Remove a Domain Controller from a Domain
- Install a Domain Controller from Install from Media (IFM)
- Install Active Directory Domain Services (AD DS) on Server Core
- Upgrade a Domain Controller
- Resolve DNS SRV Record Registration Issues
- Configure a Global Catalog Server
- Deploy Active Directory IaaS in Microsoft Azure

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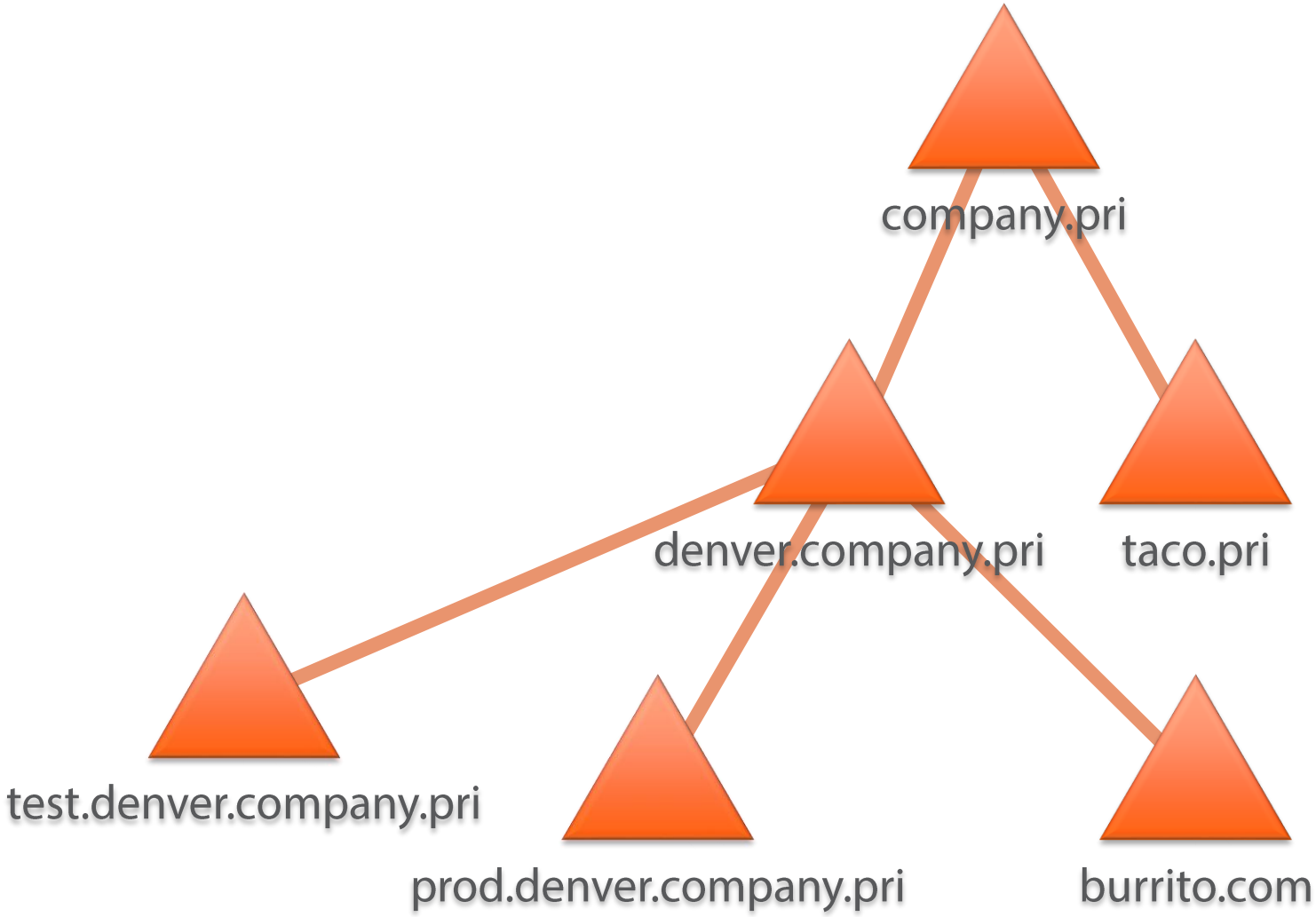
Active Directory Domains



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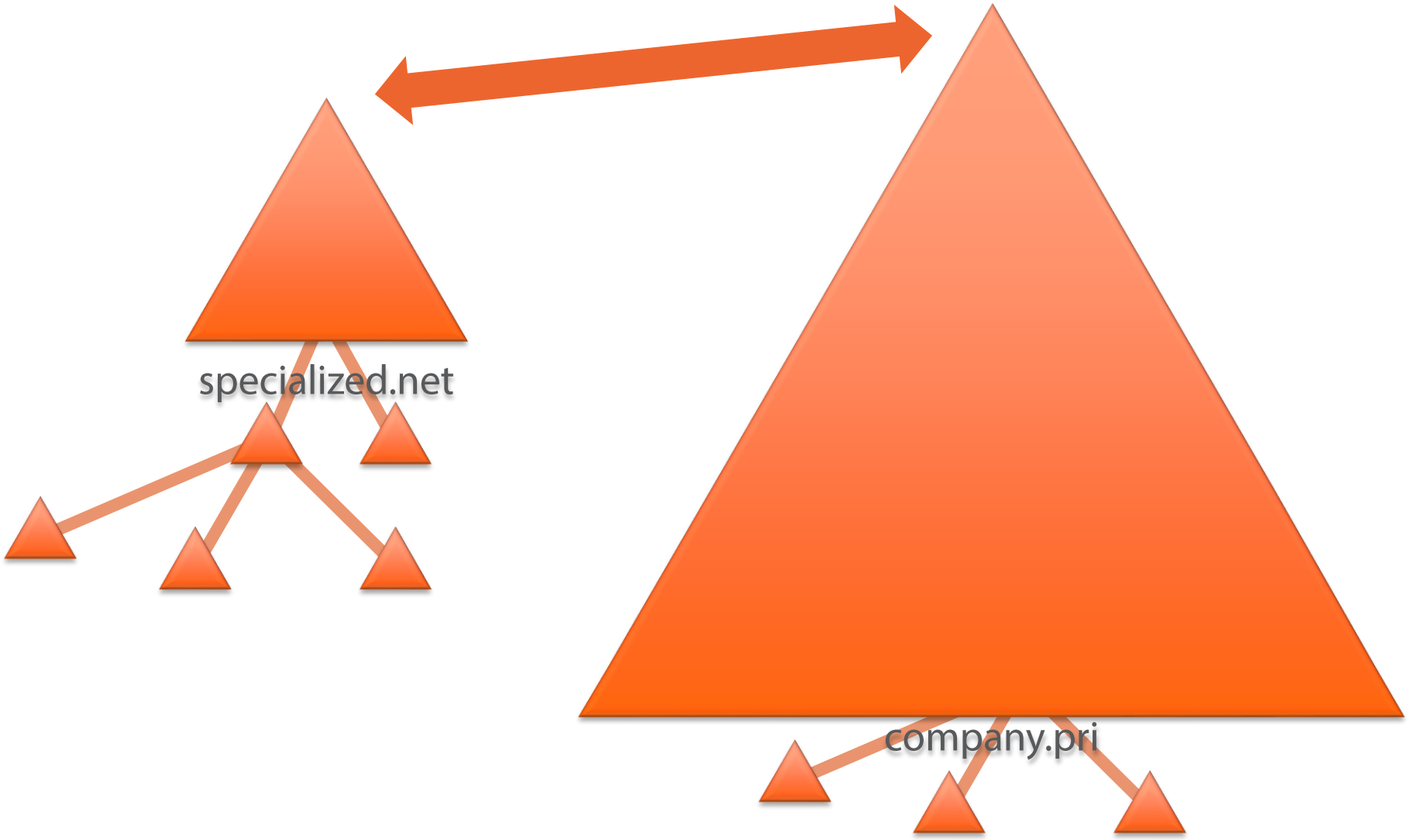
Active Directory Forests



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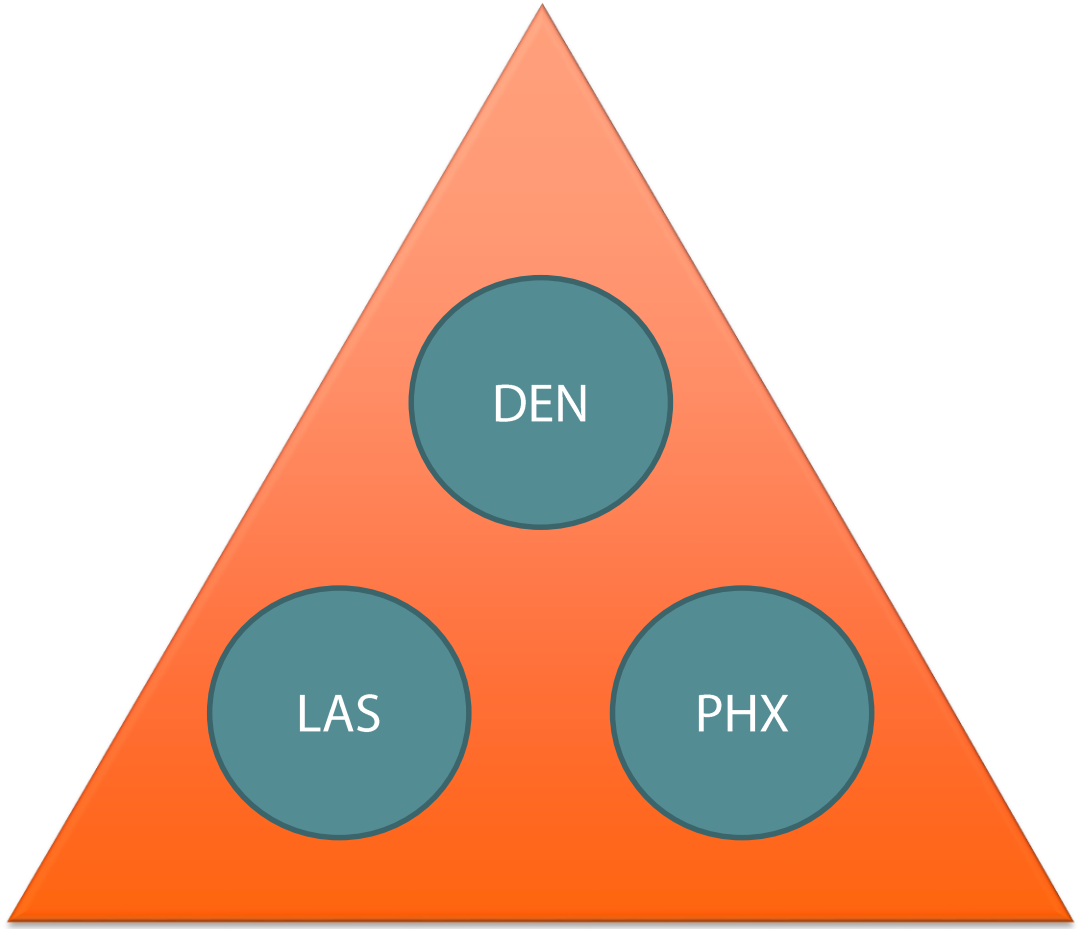
Active Directory Sites



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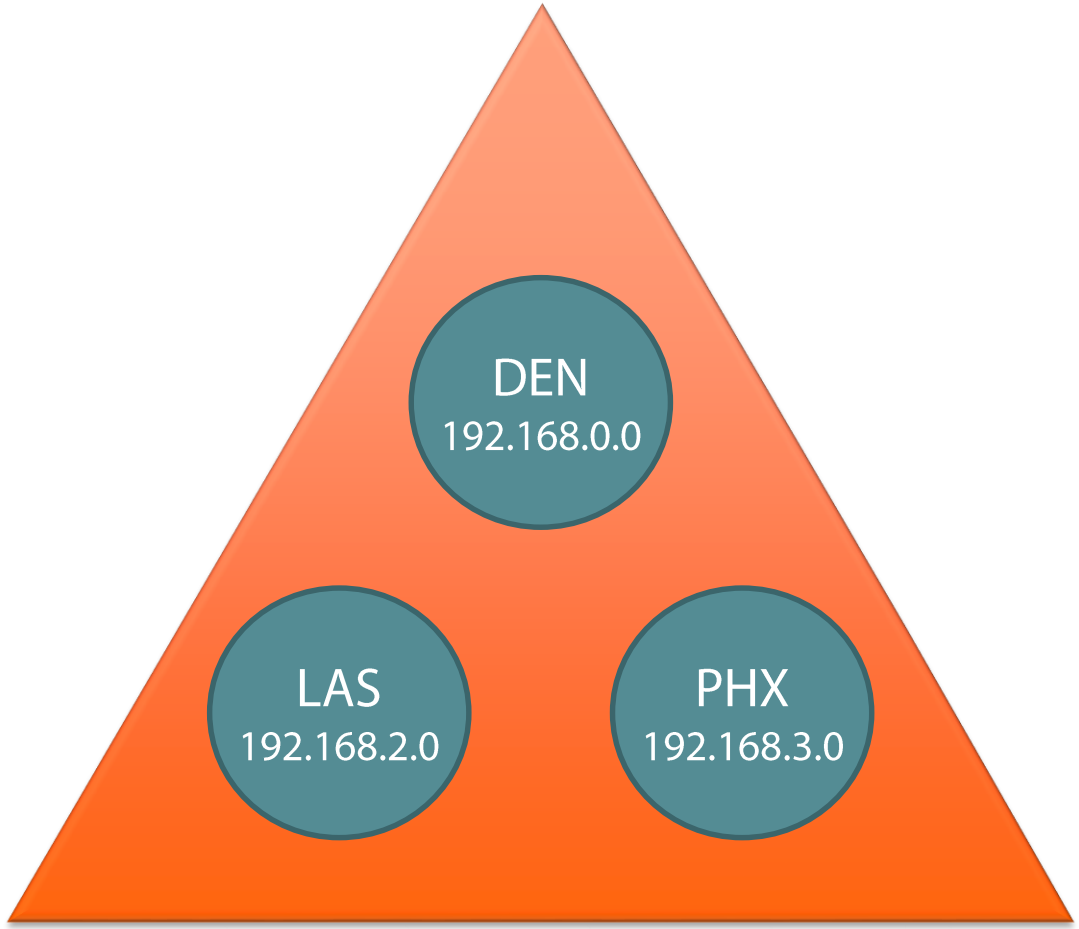
Active Directory Sites



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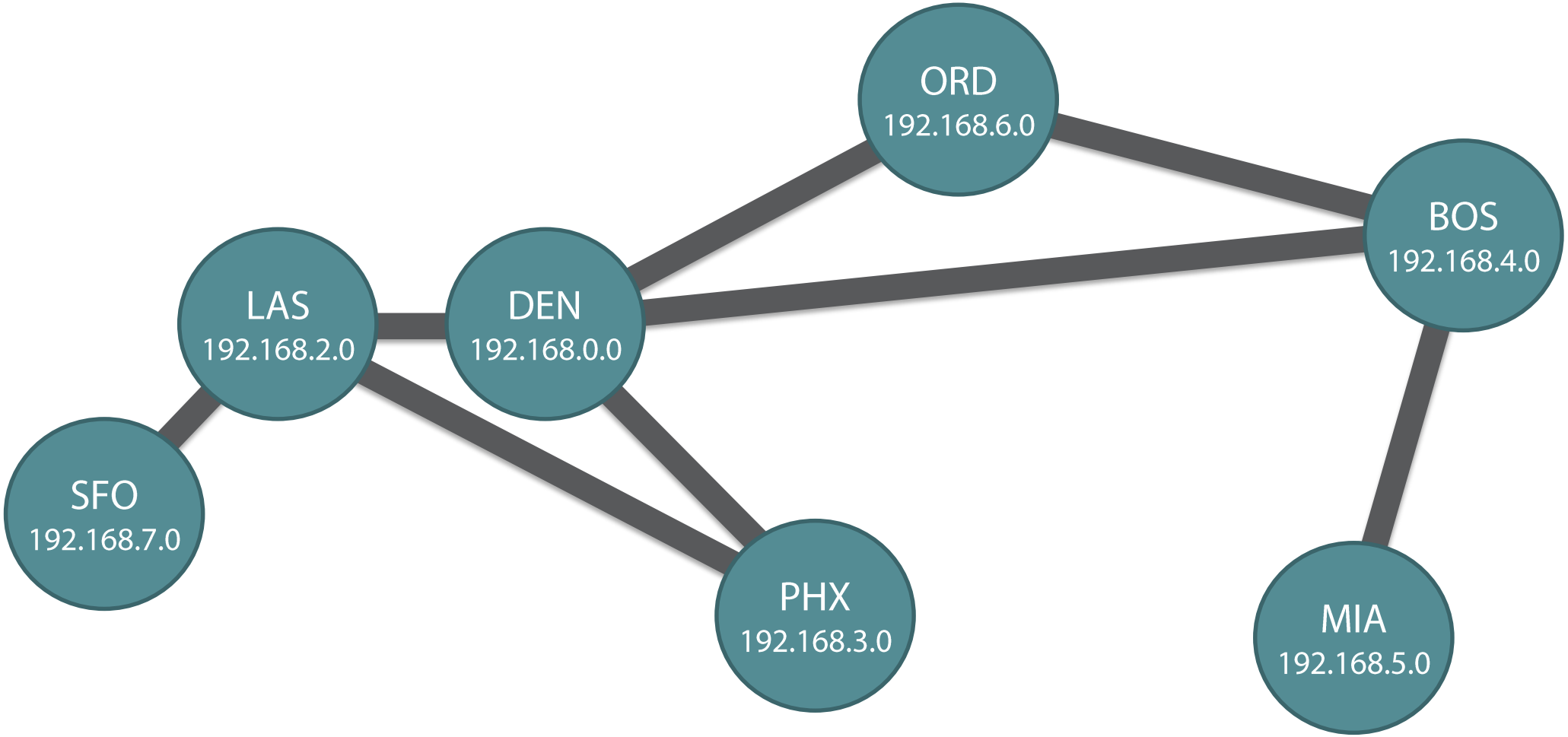
Active Directory Sites



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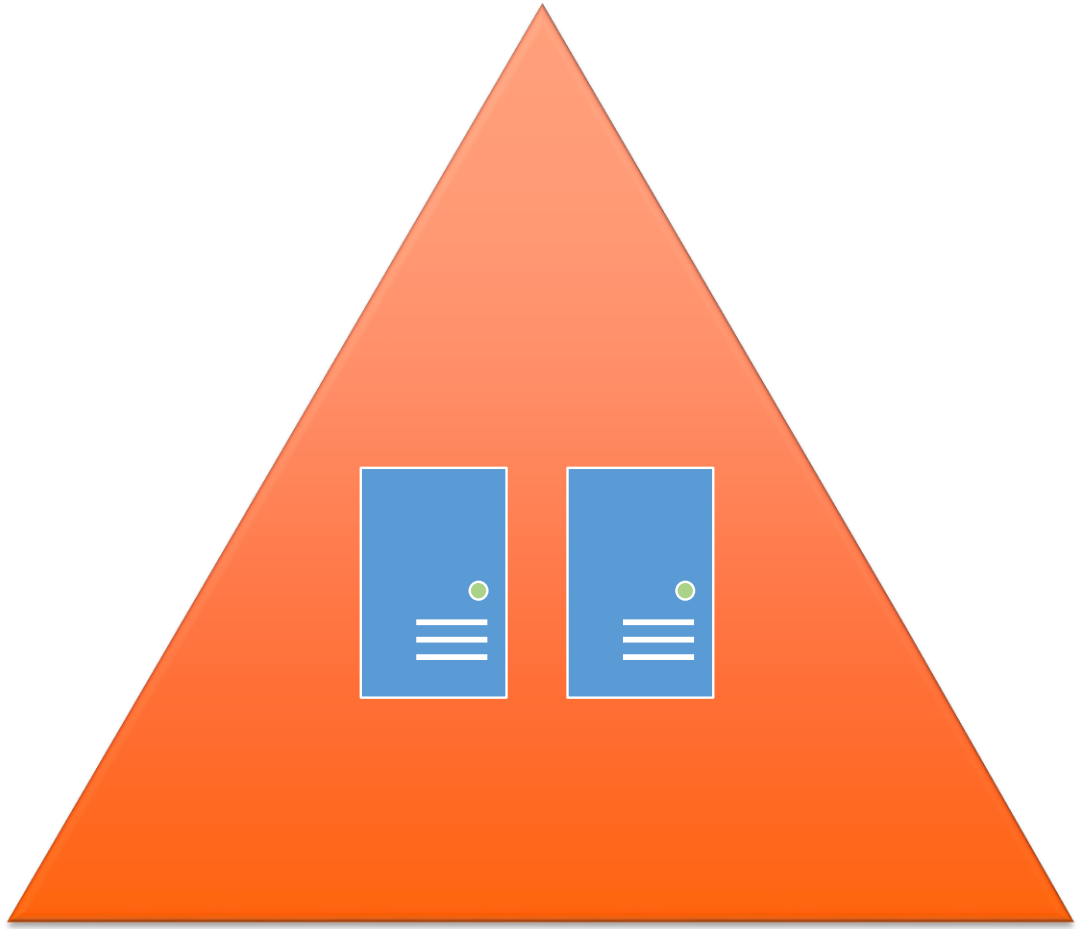
Active Directory Domain Controllers



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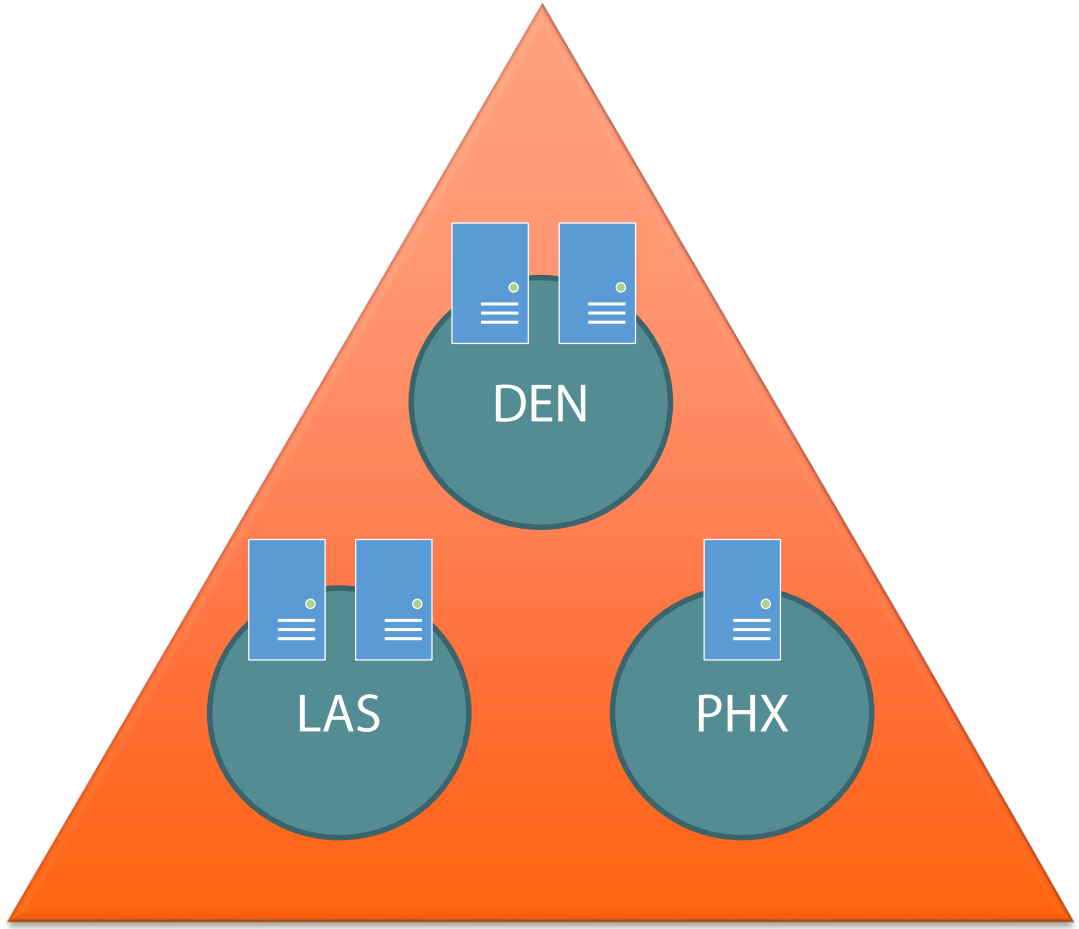
Active Directory Domain Controllers



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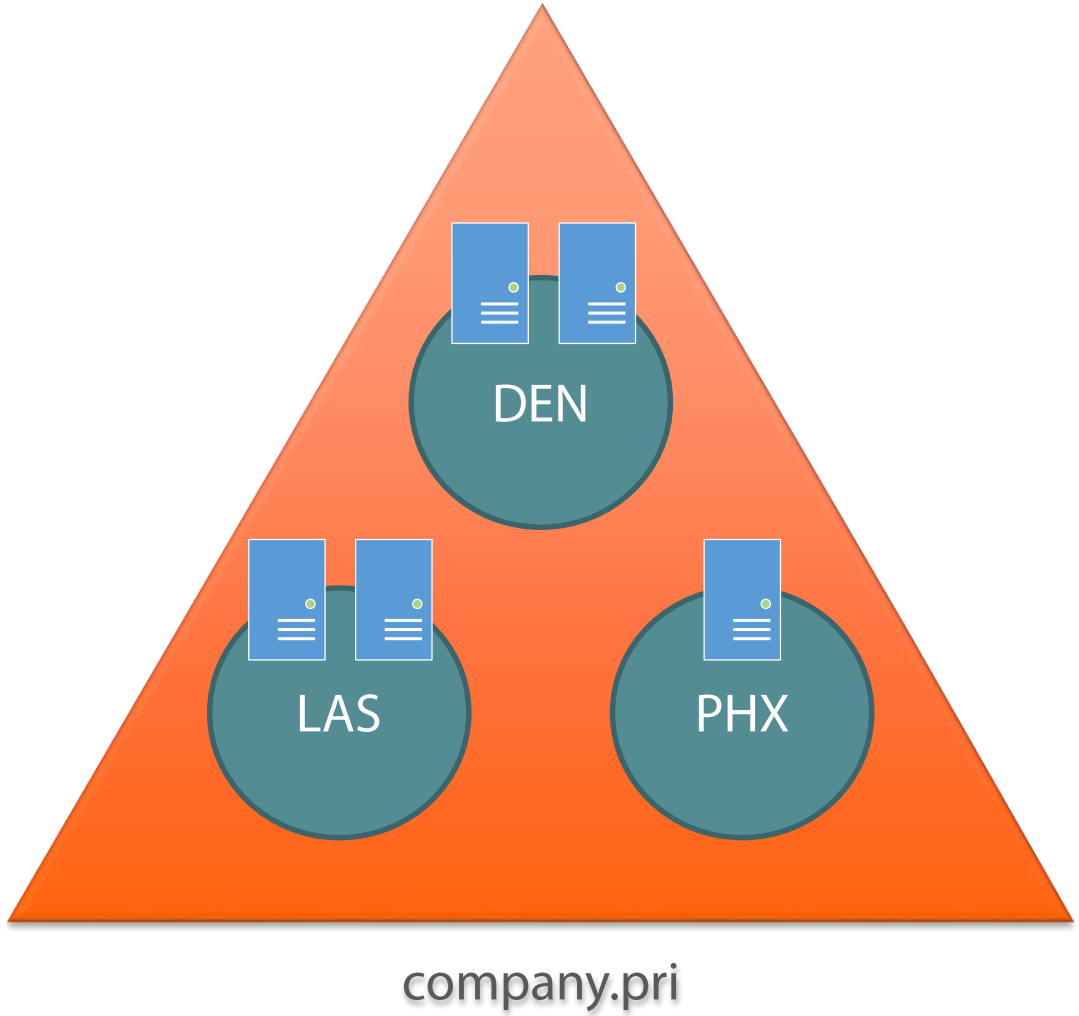
Active Directory Global Catalog Servers



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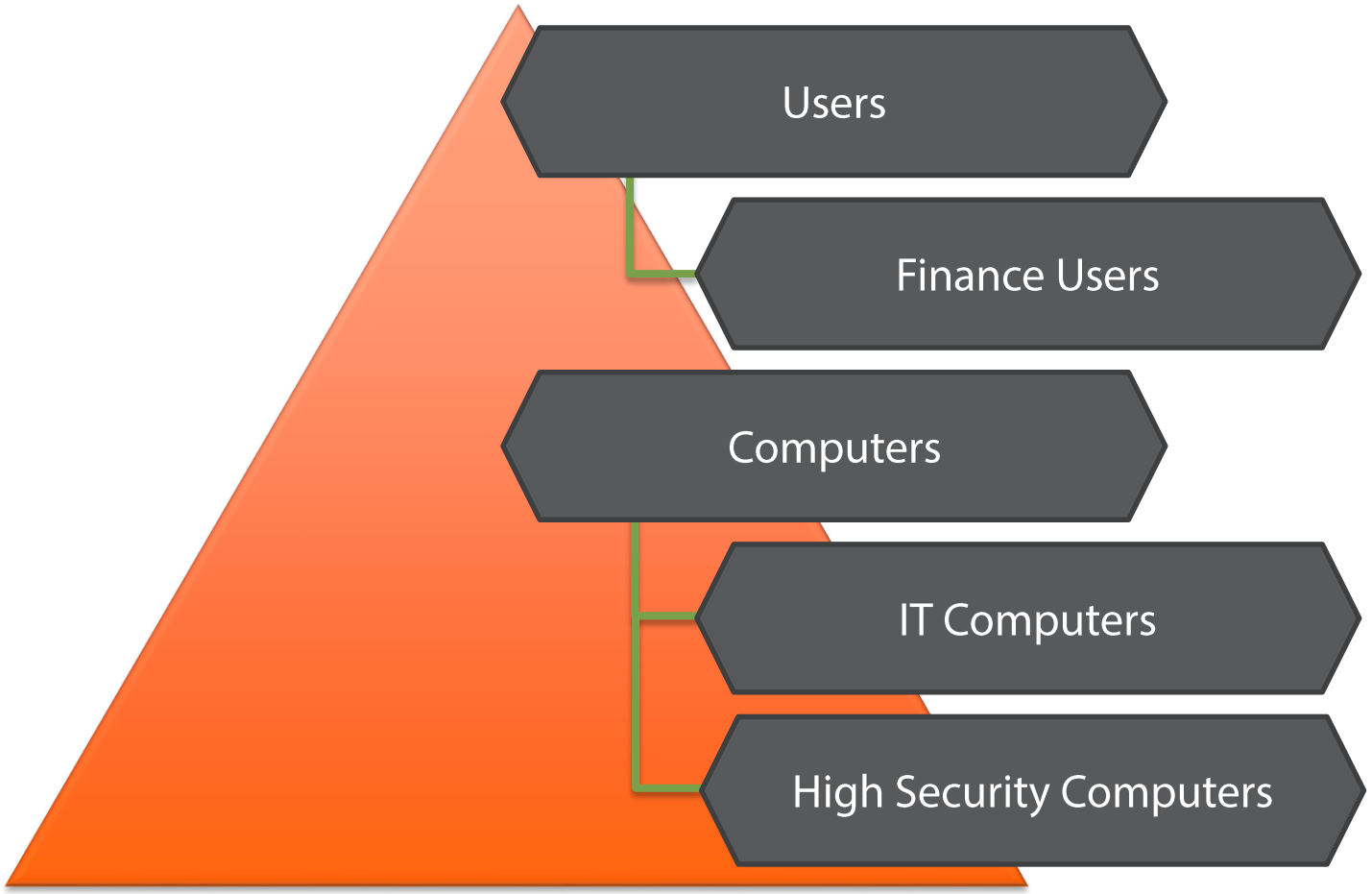
Active Directory Organizational Units



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Active Directory FSMO Roles

Role	Function
Schema Master	
Domain Naming Master	
PDC Emulator	
RID Master	
Infrastructure Master	

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Active Directory FSMO Roles

Role	Function
Schema Master	Performs updates to the AD schema.
Domain Naming Master	These updates include ADPREP /FORESTPREP, Microsoft Exchange, and other applications that must modify the AD schema.
PDC Emulator	Must be online when schema updates are performed.
RID Master	Generally placed on the forest root PDC.
Infrastructure Master	

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Active Directory FSMO Roles

Role	Function
Schema Master	Add and removes domains and application partitions to and from the AD forest.
Domain Naming Master	Must be online when domains and application partitions in a forest are added or removed.
PDC Emulator	Generally placed on the forest root PDC.
RID Master	
Infrastructure Master	

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Active Directory FSMO Roles

Role	Function
Schema Master	Manages password changes for computer and user accounts on replica domain controllers.
Domain Naming Master	Consulted by replica domain controllers where service authentication requests have mismatched passwords.
PDC Emulator	Target DC for Group Policy updates.
RID Master	Target DC for legacy applications that perform writable operations and for some admin tools.
Infrastructure Master	Must be online and accessible at all times.
	Generally placed on higher-performance hardware in a reliable hub site alongside other DCs.

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Active Directory FSMO Roles

Role	Function
Schema Master	Allocates active and standby RID pools to replica DCs in the same domain.
Domain Naming Master	Must be online for newly-promoted DCs to obtain a local RID pool or when existing DCs must update their current or standby RID pool allocation.
PDC Emulator	Generally placed on the forest root PDC.
RID Master	
Infrastructure Master	

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Active Directory FSMO Roles

Role	Function
Schema Master	Updates cross-domain references and phantoms/ tombstones from the Global Catalog.
Domain Naming Master	
PDC Emulator	
RID Master	
Infrastructure Master	A separate infrastructure master is created for each application partition including the default forest-wide and domain-wide application partitions.

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Active Directory FSMO Roles

Role	Function
Schema Master	In a single-domain forest, the infrastructure master can be placed on any DC.
Domain Naming Master	In a multi-domain forest, the infrastructure master is generally placed on a DC that is not a Global Catalog…
PDC Emulator	…except in the case where all DCs in the forest are Global Catalogs. In this case, the infrastructure master can be placed on any DC.
RID Master	
Infrastructure Master	

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Upgrade a Domain Controller

Get Healthy

Extend the Schema

Upgrade DCs to New OS

Relocate FSMO Roles if Necessary

Raise Domain/Forest Functional Level

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