

# LDAP: The Language of Active Directory

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Pre-requisites for this presentation:

- 1) Some Windows administration experience

Level: Beginner

# Agenda

- What is LDAP?
- Directory Service Basics
- LDAP Queries
- LDAP Tools and Tips

# What is LDAP?

- Lightweight Directory Access Protocol
  - An improvement of X.500 DAP and OSI
- Query and modify a directory service over TCP/IP
- LDAP v3 is an IETF Standard (RFC 4510)

# Directory Service Basics

- What is a directory service?
- A networked based service used to organize directory information
- Active Directory, iPlanet, Lotus Notes, eDirectory are LDAP solutions

# Directory Service Terminology

- Namespace
- Container
- OrganizationalUnit
- Domain Component
- Canonical Name
- Schema

# Object Names

## DistinguishedName

CN=Roy G. Biv,OU=Sales,OU=Employees,  
DC=West,DC=MyCompany,DC=Local

## Relative DistinguishedName

CN=Roy G. Biv

# Objects

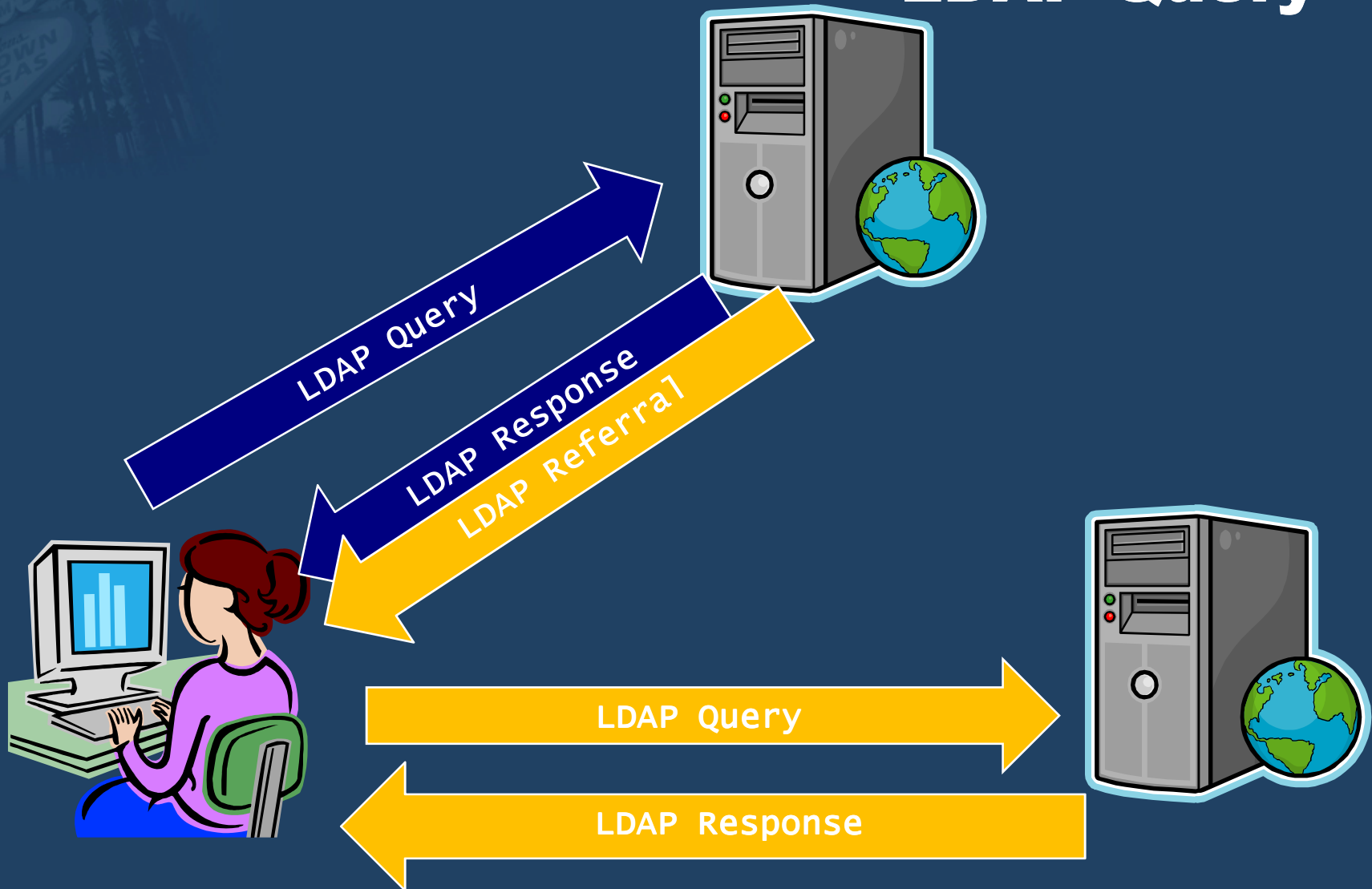
- ObjectClass
  - defined in the schema
  - Inherits properties from parent classes
- ObjectCategory
  - Like ObjectClass
  - Indexed

# LDAP Operations

- Start TLS
- Bind to a directory
- Search/Modify
- Unbind



# LDAP Query



# Query Elements

- Search Base
- Search Scope
- Search Filter
- Attributes



# Search Scope

- Base
- OneLevel
- Subtree

# Search Base

- <LDAP://dc=MyCompany,dc=com>
- <LDAP://ou=Sales,dc=MyCompany,dc=com>
- <LDAP://cn=Users,dc=MyCompany,dc=com>

# RootDSE

- Returns the default root directory service entry
- Use to discover and use domain root without hard coding

# Search Filter

- (objectCategory=person)
- (&(objectCategory=person)(objectClass=user))
- (objectCategory=computer)
- (&(objectCategory=person)(department='Sales'))

# Attributes

- Usually a comma separated of attributes to return
- Class specific
- "samaccountname,cn,title,department,distinguishedname"

# LDAP Tools and Tips

- LDP
- ADSIEdit
- SoftTerra LDAP Administrator



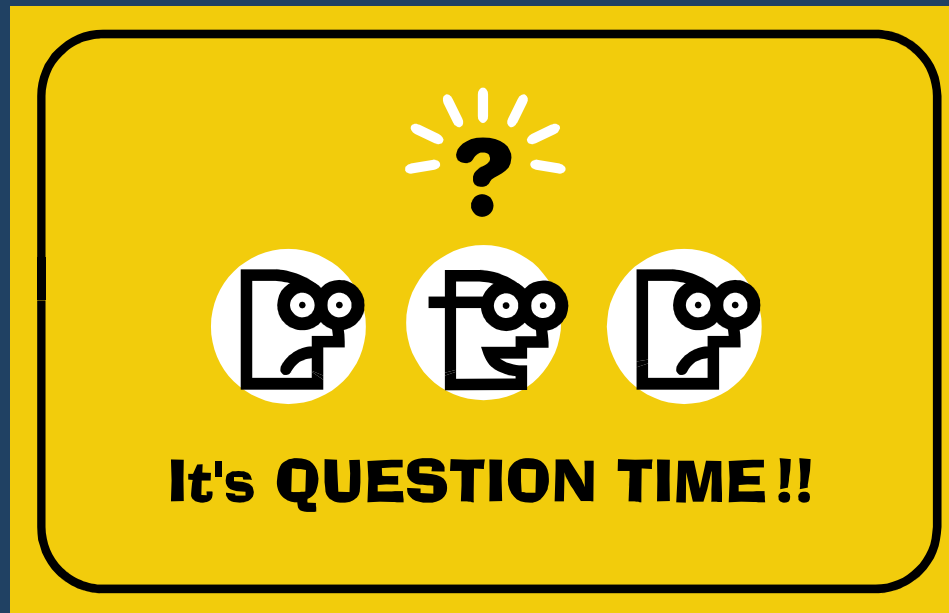
# Practicum

- Using VBScript
- Using PowerShell

# Resources

- [Blog.sapien.com](http://Blog.sapien.com)
- [www.scriptinganswers.com](http://www.scriptinganswers.com)
- [www.rlmueeller.net](http://www.rlmueeller.net)
- *VBScript, ADSI and WMI Unleashed* (Don Jones)
- *Advanced VBScript for Windows Administrators* (Jones & Hicks)
- *The Active Directory Cookbook* (Robbie Allen)
- *Inside Active Directory* (Kouti & Seitsonen)

# Questions



# Thank you

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