



Training | Consulting | Development | Outsourcing



## Splunk Admin, Development & SIEM

 9032803832

 9032803832

 [contact@techyedz.com](mailto:contact@techyedz.com)

 [www.techyedz.com](http://www.techyedz.com)

# Splunk Admin, Development & SIEM Certification Training

## Course Overview:

This course is designed for system administrators who are responsible for managing the Splunk Enterprise environment. The Splunk Enterprise System Administration course focuses on administrators who manage a Splunk Enterprise environment. Topics include Splunk license manager, indexers and search heads, configuration, management, and monitoring. The Splunk Enterprise Data Administration course targets administrators who are responsible for getting data into Splunk.

## Course Outline:

### Splunk Admin

#### Splunk Admin Basics

- Identify Splunk components

#### License Management

- Identify license types
- Understand license violations

#### Splunk Configuration Files

- Describe Splunk configuration directory structure
- Understand configuration layering
- Understand configuration precedence
- Use btool to examine configuration settings

#### Splunk Indexes

- Describe index structure
- List types of index buckets
- Check index data integrity
- Describe indexes.conf options
- Describe the fishbucket
- Apply a data retention policy

## **Splunk User Management**

- Describe user roles in Splunk
- Create a custom role
- Add Splunk users

## **Splunk Authentication Management**

- Integrate Splunk with LDAP
- List other user authentication options
- Describe the steps to enable Multifactor Authentication in Splunk

## **Getting Data In**

- Describe the basic settings for an input
- List Splunk forwarder types
- Configure the forwarder
- Add an input to UF using CLI

## **Distributed Search**

- Describe how distributed search works
- Explain the roles of the search head and search peers
- Configure a distributed search group
- List search head scaling options

## **Getting Data In – Staging**

- List the three phases of the Splunk Indexing process
- List Splunk input options

## **Configuring Forwarders**

- Configure Forwarders
- Identify additional Forwarder options

## **Forwarder Management**

- Explain the use of Deployment Management
- Describe Splunk Deployment Server

- Manage forwarders using deployment apps
- Configure deployment clients
- Configure client groups
- Monitor forwarder management activities

### **Monitor Inputs**

- Create file and directory monitor inputs
- Use optional settings for monitor inputs
- Deploy a remote monitor input

### **Network and Scripted Inputs**

- Create network (TCP and UDP) inputs
- Describe optional settings for network inputs
- Create a basic scripted input

### **Agentless Inputs**

- Identify Windows input types and uses
- Describe HTTP Event Collector

### **Fine Tuning Inputs**

- Understand the default processing that occurs during input phase
- Configure input phase options, such as sourcetype fine-tuning and character set encoding

### **Parsing Phase and Data**

- Understand the default processing that occurs during parsing
- Optimize and configure event line breaking
- Explain how timestamps and time zones are extracted or assigned to events
- Use Data Preview to validate event creation during the parsing phase

### **Manipulating Raw Data**

- Explain how data transformations are defined and invoked
- Use transformations with props.conf and transforms.conf to:
  - a. Mask or delete raw data as it is being indexed

- b. Override sourcetype or host based upon event values
- c. Route events to specific indexes based on event content
- d. Prevent unwanted events from being indexed
- Use SEDCMD to modify raw data

## Splunk Development

### Use Forms

- Explain how tokens work
- Define types of token filters

### Improve Performance

- Use the tstats command
- Use global searches

### Customize Dashboards

- Customize panel link buttons
- Set panel refresh and delay times

### Use Event Handlers

- Identify types of event handlers
- Describe event actions

### Add Drilldowns

- Define types of drilldowns
- Identify predefined tokens

### Add Advanced Visualizations & Behaviors

- Describe simple XML extensions
- Describe Splunk Custom Visualizations

### Planning App Development

- Describe ways to monitor app performance

- Identify useful Splunk log files
- Describe security best practices

### **Creating Apps**

- Define the app directory structure
- Describe app permissions

### **Adding Data**

- List types of data inputs
- Describe add-ons

### **Creating a KV Store**

- Define what is a KV Store
- Describe KV Store lookup
- Create a KV Store collection
- Search a KV Store collection
- Update content in a KV Store collection
- Delete a KV Store collection

### **Packaging Apps**

- Describe the difference between local and default directories

### **Introduction to the Splunk REST API**

- Describe the REST URI format
- Identify which Splunk server to connect to (e.g., search head, indexer, forwarder)
- Identify where REST logging occurs
- Describe authentication methods

### **Namespaces and Object Management**

- Describe namespaces and why they matter
- Describe how the servicesNS is used with namespaces and REST endpoints
- Describe access control lists
- Update access control lists

## **Parsing REST Output**

- Describe how the Splunk REST API uses Atom Syndication
- Describe the entry element
- Describe the content element
- Describe how to control the output format

## **Searching**

- Describe the importance of specifying fields in a search
- Describe options for specifying a search time range
- Describe blocking, oneshot, normal, and export searches
- Describe search jobs
- Create and manage search jobs
- Describe ways to improve search performance

## **Writing Data to Splunk**

- Identify some options that are available when creating an index
- Create and manage indexes
- Describe the Splunk HTTP Event Collector (HEC)
- Describe HEC tokens and how they are used
- Describe indexer acknowledgement
- Create and use HEC tokens to get data into Splunk

# **Splunk SIEM (Security Information and Event Management)**

## **Introduction to Splunk Security**

- Splunk security Fundamentals
- Traditional security threats
- Concept of Security Data model
- Describing correlation searches

## **Investigation and Monitoring**

- Monitor the dashboard
- Investigating of notable events using incident review dashboards
- Workflow investigation and relative actions on identified flow

## **Investigation**

- Enterprise Security Model
- Managing, Visualizing and Coordinating incident investigations using Deployment of
- ES investigation timelines
- Using journals and timelines for documenting breach analysis
- Efforts required to mitigate the issues
- Security Posture
- Incident Review

## **Risk Analysis and Network Analysis**

- Risk analysis and identification
- Risk dashboard utilization
- How to manage the risk scores for objects and users
- Network Analysis

## **Web Intelligence**

- HTTP category analysis
- HTTP user agent analysis
- Analyzing traffic size for spotting new threats

## **About the Splunk Enterprise Security Framework**

- Spam Assassin Architecture
- Email Filter Architecture
- ES Solution Architecture
- Various Templates

## **Threat Intelligence**

- Inspecting threat intelligence content with threat artefact dashboard
- Monitoring malicious websites with threat activity dashboard

## **User Intelligence**

- Anomaly dashboards for user role and access logs



- Identity and asset concepts

## **Creating and tuning correlation searches**

- Implementing the add-ons with Splunk

## **Using the Various Features of SIEM**

### **Deploying Splunk Security Framework on AWS**

#### **Prerequisites:**

- Splunk Fundamentals 1
- Splunk Fundamentals 2
- Before taking this course, students should have experience and knowledge of basic web development fundamentals (HTML, CSS, Javascript).
- Basic knowledge in SQL queries and command line interface.
- Knowledge of Data Analytics concepts is beneficial but not essential.
- Must have good knowledge of system administration.

#### **Who Can attend:**

- Splunk classes are designed for specific roles such as Splunk Administrator, Developer, User, Knowledge Manager, or Architect.
- The “Splunk Developer” course is targeted for Splunk users that want to create custom apps and visualizations in Splunk.
- Individual Contributors/Architects willing to implement Splunk in their organizations

#### **Number of Hours: 50hrs**

#### **Certification:**

- Splunk Enterprise Certified Admin
- Splunk Certified Developer

#### **Key Features:**

- One to One Training
- Online Training
- Fastrack & Normal Track

- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification

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