

**CENTRIFY UNIVERSITY INSTRUCTOR-LED SERIES**

# Centrify Infrastructure Services – Enterprise Edition

## Overview

The process of installing, configuring, and troubleshooting the Centrify software is easy once you understand the fundamentals. This training will aid your staff in becoming proficient at these tasks, leading to a successful Centrify project. This technical training will lead your team through an example deployment using instructor led training, lab demonstrations, and training guides. This 5-day course has been expanded to include the Standard Edition material and our DirectAudit capabilities.

## Course Logistics

Training will be delivered through an online meeting program or you may attend in-person at one of our facilities. Registration and connection information will be emailed to you upon successful processing of your order. Each session will have time allocated for live questions and answers. If you are unable to attend instructor led training during the scheduled sessions, recordings of each session will be available to watch for 180 days after completion of the scheduled session. Please see the Terms and Conditions for exact details on course registration and attendance.

Students will attend training for five (5) consecutive days. Training schedule can be found here: <http://www.centrify.com/training>. Each student participating in the lab environment will also need to verify their computer can access the lab using the following link: <https://virtual.mclabs.com/training/syscheck>

For each student, the following requirements need to be met:

- One of the following: Windows 7 or higher – Mac OS X 10.9 or higher – iOS 8 or Higher – Android 4.0 or higher
- An internet connection capable of 1Mbps or better for computers – 3G or better for mobile
- A JavaScript enabled web browser

## Pricing and Ordering

Contact your Centrify Sales Representative to order.

## Training Course Details

Items	Details
<b>Duration</b>	5 days, 9AM (-6:00 GMT) – 5PM (-6:00 GMT) Training schedule is available here: <a href="http://www.centrify.com/training">http://www.centrify.com/training</a>
<b>Prerequisites</b>	Student must have a basic understanding of UNIX, Active Directory, and SQL Server
<b>Format</b>	Instructor led online training, lab demonstrations, and example lab guides (student lab environment is provided)

## Centrify Infrastructure Services – Enterprise Edition Course Materials

Modules and Descriptions	
<b>0</b>	<p><b>Course Introduction</b> – An overview of Centrify Infrastructure Services Course.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Course Objectives</li> <li><input type="checkbox"/> Prerequisites</li> <li><input type="checkbox"/> Agenda</li> </ul>
<b>1</b>	<p><b>Centrify Platform Architecture</b> – An overview of the Centrify Platform Architecture.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The Centrify Platform</li> <li><input type="checkbox"/> The Centrify Network Requirements</li> <li><input type="checkbox"/> Suggested Deployment Architectures</li> </ul>
<b>2</b>	<p><b>Prepare to Install</b> – Preparation for the Centrify deployment requires planning. We will start with a baseline for all teams to understand how the software works, and what elements will make you successful.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Following best practices</li> <li><input type="checkbox"/> Creating organizational units</li> <li><input type="checkbox"/> Overview of the Centrify Software</li> </ul>
<b>3</b>	<p><b>Centrify License Service</b> – An overview of the Centrify License Service.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the Centrify License Service</li> <li><input type="checkbox"/> Explain how licensing works</li> <li><input type="checkbox"/> Explain when licenses are checked</li> </ul>
<b>4</b>	<p><b>Agent Deployment Process</b> – There are many ways to deploy the Centrify software but, during training, the Deployment Manager is the fastest method. This sets a foundation for working with UNIX machines in a Windows environment.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Finding UNIX machines</li> <li><input type="checkbox"/> Downloading Centrify agents</li> <li><input type="checkbox"/> Analyzing UNIX machines</li> </ul>
<b>5</b>	<p><b>Access Manager and Zone Design</b> – Creating a hierarchical zone structure is crucial to a successful deployment. Understanding the reasons for zones, and how to work with hierarchical inheritance will allow you to design an easy to maintain environment.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Hierarchical user profiles</li> <li><input type="checkbox"/> Global and Child zones</li> <li><input type="checkbox"/> Delegation of control</li> </ul>

Modules and Descriptions	
6	<p><b>Pre-Create Computers</b> – Being able to visualize your environment before deployment is valuable to ensure access is granted properly. This is one of the first steps to ensuring accuracy is maintained.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prepare UNIX Computers</li> <li><input type="checkbox"/> Join computers to zones</li> <li><input type="checkbox"/> Preview structure</li> </ul>
7	<p><b>Managing UNIX Users</b> – Traditionally, UID management has been difficult and disparate. We will navigate you through the steps necessary to maintain current UID space, while also preparing for cleanup and simple maintenance.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> User profiles</li> <li><input type="checkbox"/> Levels of profile over-rides</li> <li><input type="checkbox"/> Importing users from current machines</li> </ul>
8	<p><b>Deploying the Agent</b> – Using Deployment Manager, the software can be pushed to many UNIX machines at one time. After deployment, we will verify users have appropriate access and learn about the tools Centrify provides.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Using Deployment Manager to push UNIX software</li> <li><input type="checkbox"/> Testing access and roles</li> <li><input type="checkbox"/> Access joined systems with Single Sign-On and KERBEROS</li> </ul>
9	<p><b>Roles and Rights</b> – The heart of proper management ensures least privilege is adhered to in your organization. We will discuss the fundamentals for roles, rights, and access in this module.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Levels of access</li> <li><input type="checkbox"/> Assigning rights</li> <li><input type="checkbox"/> Assigning roles</li> </ul>
10	<p><b>Zone Provisioning Agent</b> – A difficult and time-consuming task is the maintenance of UIDs. Using the Centrify ZPA can reduce or eliminate this process.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Configuring the ZPA service</li> <li><input type="checkbox"/> Understanding source groups</li> <li><input type="checkbox"/> Review automated and semi-automated capabilities</li> </ul>
11	<p><b>Using Computer Roles</b> – Managing single machines can be tedious. Computer roles will allow management, privileges, and rights to be applied to groups of machines.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Defining a computer role</li> <li><input type="checkbox"/> Creating AD groups for granting rights</li> <li><input type="checkbox"/> Rapid deployment and expansion</li> </ul>
12	<p><b>Active Directory Group Policy</b> – Applying a wide range of security policies has never been easier. AD Group Policies will allow for rapid deployment of these policies.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Explanation of Group Policy</li> <li><input type="checkbox"/> Identifying policies for application</li> <li><input type="checkbox"/> Verify policy compliance</li> </ul>

**Modules and Descriptions**

<b>13</b>	<p><b>Scripting with ADEDIT and PowerShell</b> – For those preferring scripts and terminal interface, Centrify provides a command line interface using SDKs running on UNIX machines.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Using the CLI</li> <li><input type="checkbox"/> Creating adedit queries</li> <li><input type="checkbox"/> Review script sample</li> </ul>
<b>14</b>	<p><b>Direct Authorize for Windows</b> – Centrify is not limited to UNIX machines. The concepts we covered in this course apply to Windows machines as well.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Installing the Direct Authorize for Windows agent</li> <li><input type="checkbox"/> Creating roles, rights, and elevated desktops</li> <li><input type="checkbox"/> Granting permissions based on match criteria</li> </ul>
<b>15</b>	<p><b>Centrify Report Services</b> – Centrify Report Services is an Enterprise class service that leverages SQL Server and SQL Server Reporting Services (SSRS)</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Installing and Configuring Centrify Report Services</li> <li><input type="checkbox"/> Running Reports</li> <li><input type="checkbox"/> Scheduling Reports</li> <li><input type="checkbox"/> Creating Custom Reports</li> </ul>
<b>16</b>	<p><b>Troubleshooting Tips</b> – An overview of basic troubleshooting for Centrify Infrastructure Services.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Basic Diagnostic Tools</li> <li><input type="checkbox"/> Where to get support</li> <li><input type="checkbox"/> How to open a support ticket</li> <li><input type="checkbox"/> Common issues and how to resolve them</li> <li><input type="checkbox"/> Configure logging</li> <li><input type="checkbox"/> Analyze Active Directory</li> <li><input type="checkbox"/> Collect Diagnostic Information</li> </ul>
<b>17</b>	<p><b>Overview of Centrify Infrastructure Service (formerly Centrify Privilege Service)</b> – An overview of the Centrify Infrastructure Service (formerly known as CPS).</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the Centrify Infrastructure Service (formerly CPS)</li> </ul>
<b>18</b>	<p><b>Introduction to the Admin Portal</b> – An introduction to the Admin Portal.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Configure Access to the Admin Portal</li> <li><input type="checkbox"/> Describe and Assign Global Account Permissions</li> <li><input type="checkbox"/> Describe and Assign Global System Permissions</li> <li><input type="checkbox"/> Describe and Assign Global Security Settings</li> <li><input type="checkbox"/> Dedicate a Centrify Connector using Subnet Mappings</li> </ul>

Modules and Descriptions	
<b>19</b>	<p><b>Centrify Connector Installation</b> – An overview of installing the Centrify Connector.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prerequisites</li> <li><input type="checkbox"/> Install the Centrify Connector</li> <li><input type="checkbox"/> Check the Status of the Centrify Connector</li> <li><input type="checkbox"/> Scaling the Centrify Connector</li> <li><input type="checkbox"/> Configure Access Roles</li> </ul>
<b>20</b>	<p><b>Adding Systems and Accounts</b> – An overview of adding systems and accounts in the Admin Portal.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Perform a Discovery</li> <li><input type="checkbox"/> Configure System Settings</li> <li><input type="checkbox"/> Configure System Permissions</li> <li><input type="checkbox"/> Configure System Policies</li> <li><input type="checkbox"/> Add Accounts</li> <li><input type="checkbox"/> Dedicate a Centrify Connector per System</li> </ul>
<b>21</b>	<p><b>Managing Accounts</b> – Manage accounts and account permissions, password policies and remote login.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe Local, Domain, and Multiplexed Accounts</li> <li><input type="checkbox"/> Configure Account Permissions</li> <li><input type="checkbox"/> Checkout, Check-in and Rotate Passwords</li> <li><input type="checkbox"/> Configure Password Policies</li> <li><input type="checkbox"/> Configure Remote Login</li> <li><input type="checkbox"/> Manage Service/Application Password</li> <li><input type="checkbox"/> Describe Workflow</li> </ul>
<b>22</b>	<p><b>Session Monitoring</b> – An overview of Session Monitoring.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Requirement for Session Monitoring</li> <li><input type="checkbox"/> Monitor Sessions</li> </ul>
<b>23</b>	<p><b>Advanced Configurations</b> – An overview of Mobile Device Access and Multifactor Authentication for Servers.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mobile Device Access</li> <li><input type="checkbox"/> Multifactor Authentication for Servers</li> </ul>
<b>24</b>	<p><b>Introduction to Auditing and Monitoring</b> – An overview of Centrify Auditing and Monitoring.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe Auditing and Monitoring</li> <li><input type="checkbox"/> Discuss the Importance of Auditing</li> <li><input type="checkbox"/> Auditing and Monitoring</li> </ul>

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25	<p><b>Installation Planning and Guidelines</b> – An overview of planning and guidelines for installing Centrify Auditing and Monitoring.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the Enterprise Architecture with DirectAudit</li> <li><input type="checkbox"/> Define the Hardware and Software Requirements for DirectAudit</li> <li><input type="checkbox"/> Plan for Optimizing the Enterprise Installation</li> </ul>
26	<p><b>Audit Manager Configuration</b> – This module focuses on configuring Audit Manager, adding an Audit Store and setting up an Active Audit Database</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Configure Audit Manager</li> <li><input type="checkbox"/> Add an Audit Store</li> <li><input type="checkbox"/> Setup an Active Audit Database</li> <li><input type="checkbox"/> Configure the Audit Manager Control Panel</li> </ul>
27	<p><b>Collectors and Agents</b> – This module focuses on installing and configuring collectors and agents.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the Collectors</li> <li><input type="checkbox"/> Describe the Windows Agent</li> <li><input type="checkbox"/> Describe the UNIX Agent</li> </ul>
28	<p><b>Auditing</b> – This module focuses on auditing sessions.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Navigate Audit Analyzer</li> <li><input type="checkbox"/> Define and Create Audit Roles</li> <li><input type="checkbox"/> Review Audit Sessions</li> </ul>
29	<p><b>Advanced Monitoring</b> – An overview of the Advanced Monitoring capabilities of DirectAudit.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe Advanced Monitoring</li> <li><input type="checkbox"/> Configure Advanced Monitoring</li> <li><input type="checkbox"/> Enable Advanced Monitoring</li> </ul>
30	<p><b>Using DZCheck</b> – DZCheck is a sample script that can be used to create an audit event whenever an audited user requests elevated rights.</p> <p>Key topics:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Audit Change Control Tickets</li> <li><input type="checkbox"/> Perform Scripting with DZCheck</li> <li><input type="checkbox"/> Verify the Script</li> </ul>

## Terms and Conditions

All virtual classrooms are delivered live on a bi-monthly schedule. The virtual classroom schedule will be posted to <http://www.centrify.com/training>. Upon purchase of training you will have up to 180 days to register for an upcoming class. All training must be completed within 180 days of purchase.

Attendance in the instructor led virtual classroom is not required, but is strongly suggested. If you are unable to attend the virtual classroom, the session recordings will be available for 180 days from the completion date of the registered instructor led training. These recordings will be removed and unavailable after 180 days. This cannot be extended under any circumstances.

### Contact Centrify

Centrify redefines security from a legacy static perimeter-based approach to protecting millions of scattered connections in a boundaryless hybrid enterprise. As the only industry recognized leader in both Privileged Identity Management and Identity-as-a-Service, Centrify provides a single platform to secure every user's access to apps and infrastructure in today's boundaryless hybrid enterprise through the power of identity services.

This is the Next Dimension of Security in the Age of Access. The Breach Stops Here.

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