



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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**You can reach us at:**

Arrow ECS, Woluwedal 30, 1932 Sint-Stevens-Woluwe

Email: [education.ecs.benelux@arrow.com](mailto:education.ecs.benelux@arrow.com)

Phone: +32 2 332 19 57



# CWS-322: Citrix Virtual Apps and Desktops 7 Advanced Configuration and WEM Administration

CODE:	LENGTH:	PRICE:
CTX_CWS-322	40 Hours (5 days)	€3,500.00

## Description

Designed for experienced IT professionals, this course builds on the foundational implementation and management skills introducing scalability, redundancy, and security configurations. You will learn to build to implement Workspace Environment Management to improve logon times, centralize user settings management, and optimize the performance of machines. In the advanced troubleshooting section, you will learn techniques to investigate many of the common issues that can affect environment health and how to solve issues more effectively. You will leave this course with a good understanding of how to manage more complex solutions such as multi-location environments with configurations around StoreFront, the Delivery Controllers, Cloud Connectors, and HDX.

Product Versions Covered: Citrix Virtual Apps and Desktops 7 2203 LTSR, WEM 2109

## Objectives

- How to implement advanced administration concepts such as backups, disaster recovery, scalability and redundancy for a Citrix Virtual Apps and Desktop 7 Site.
- Advanced troubleshooting techniques to troubleshoot Citrix Virtual Apps and Desktop 7.
- Security considerations and configurations for Citrix Apps and Desktop 7 site including multi-site management using zones.
- Install and initialize WEM and integrate into Citrix Virtual Apps and Desktops and Citrix DaaS.
- Configure WEM features to improve the end user environment and virtual resource consumption.
- Migrate an on-premises WEM deployment to WEM service.

## Audience

For administrators and engineers

## Prerequisites

Strong foundational knowledge of:  
Windows Server and Desktop operating systems.  
Active Directory, Policies, Profiles, Networking and Hypervisors.

## Programme

Module 1: Introduction to Citrix Virtual Apps and Desktops 7 Advanced Configuration

- Citrix Virtual Apps and Desktops Deployments - Advanced Configuration
- Module 2: Planning: Redundancy and Scalability
- Citrix Virtual Apps and Desktops Redundancy and Scalability
- StoreFront and Citrix Gateway Redundancy and Scalability
- Site Infrastructure Redundancy and Scalability
- Machines Running the Virtual Delivery Agent

Module 3: Planning: Virtual Apps and Desktops Environment with Multiple Locations

- Zones
- VDA Registration in a Multi-Zone Environment
- Zone Preference
- Optimal Gateway Routing and Zones
- StoreFront Resource Aggregation
- Managing StoreFront Store Subscriptions in a Multi-Location Environment

Module 4: Planning: Backups and Disaster Recovery

- Backups
- Disaster Recovery Considerations
- Disaster Recovery Process

Module 5: Planning: Advanced Authentication Methods

- Multi-factor Authentication - RADIUS and One Time Passwords (OTP)
- Multi-factor Authentication - Smart Card Authentication
- Federated Authentication

Module 6: Planning: App and Data Security

- Introduction to Application Security
- Preventing Jailbreak Attacks
- Minimizing the Impact of Attacks
- Module 7: Planning: Virtual Delivery Agent Security
- Transport Layer Security (TLS) Virtual Delivery Agent (VDA) Encryption
- Microsoft Group Policy Objects (GPOs) and Citrix Policies
- Image Management
- Module 8: Introduction to Troubleshooting
- Troubleshooting Methodology
- Resource Tools and Utilities
- Introduction to PowerShell
- Module 9: Troubleshoot Access Issues
- Troubleshooting StoreFront
- Citrix ADC and Citrix Gateway - Workflow and Troubleshooting Overview

- Citrix ADC and Citrix Gateway - Troubleshooting Access and Authentication
- Citrix ADC and Citrix Gateway - Troubleshooting App/Desktop Launch training.citrix.com Course Description Course Outline
- Module 10: Troubleshoot Delivery Controller Issues • Validating FlexCast Management Architecture (FMA) Services
- Module 11: Troubleshoot Virtual Delivery Agent (VDA) Registration Issues
- Troubleshooting Virtual Delivery Agent (VDA) Registration Module 12: Troubleshoot HDX Connection Issues
- Troubleshooting HDX Connections Module 13: Introduction to Workspace Environment Management (WEM)
- Module 14: Planning – WEM Architecture and Component Communications • WEM On-Premises Components and Deployments
- WEM Service Components and Deployments • WEM Component Communication Workflows
- Module 15: Planning - WEM On-Premises Deployment Installation
- On-Premises WEM: Leading Practice Installation Prerequisites and Steps • On-Premises WEM: ADMX Template Configuration
- Choosing a Security Principal to run the WEM Infrastructure Service • Creating the WEM Database
- Running the WEM Infrastructure Service Configuration Utility • On-Premises WEM: Agent Installation
- WEM System Optimization Overview • WEM CPU Management • WEM Memory Management
- Additional System Optimization Features • WEM Log On Optimization Overview • WEM Assigned Actions
- WEM Environmental Settings • Citrix Profile Management In WEM Module 16: Planning – WEM Service Deployment Installation
- WEM On-Premises vs WEM Service • WEM Service: Leading Practice Installation Prerequisites and Steps
- WEM Service: ADMX Template Configuration • WEM Service: Agent Installation
- Module 17: Planning – WEM Consoles and Initial Setup • On-Premises WEM and WEM Service Consoles • WEM Initial Setup
- Migrating GPO settings to WEM Module 18: Planning – WEM System and Log On Optimization • WEM Features and Benefits
- Module 19: Planning – WEM Security and Lockdown Features • WEM Security Management Features
- Privilege Elevation and Process Hierarchy Control • WEM Transformer Module 20: Planning - The WEM Agent
- WEM Settings Processing and WEM Agent Caches
- WEM Agent Integration with Citrix Virtual Apps and Desktops and Citrix DaaS training.citrix.com Course Description Course Outline
- Module 21: Planning – WEM Monitoring, Reporting, and Troubleshooting • WEM Monitoring and Reporting
- WEM Agent Troubleshooting • WEM Service Troubleshooting
- Module 22: Planning – Upgrading WEM and Migration to WEM Service • Upgrading Workspace Environment Management
- WEM On-Premises Migration to WEM Service Module 23: Rolling Out a WEM Deployment
- WEM Agent User Options on Windows Desktops Module 24: Managing a WEM Deployment • Measuring WEM Success

## Follow on courses

Recommended Next Training

CWS-316: Citrix Provisioning 7 Administration

CWS-415: Citrix Virtual Apps and Desktops 7

Assessment, Design, and Advanced Configuration

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)