

TRAINING OVERVIEW

This course is designed to help system and network administrators, as well as IT professionals, successfully administer an NVIDIA DGX A100 System or DGX Station A100.

This course provides an overview the DGX A100 System and DGX Station A100, tools for in-band and out-of-band management, the basics of running workloads, and specific management tools and CLI commands. The related instruction and guidance are based on NVIDIA's best practices and cover the critical knowledge and skills to administer and manage DGX A100 System.

TRAINING DELIVERY METHOD

Instructor-led remote training sessions.

TARGET AUDIENCE

The target audience for this course is system and network administrators, as well as IT professionals that need to configure and verify the configuration and performance of a DGX A100 System/DGX Station A100.

TRAINING DURATION

Remote: 4 sessions of 3.5 hours

TRAINING OUTLINE

Introduction to GPU-Computing

- Introduction to GPUs
- GPU-Computing Uses Cases - Graphics, AI/ML/DL, HPC
- NVIDIA A100 GPU Overview
- Networking Requirements for GPU-Computing
- NVIDIA Networking Technologies - NVLink, NVSwitch, InfiniBand

DGX A100 System Overview

- DGX A100 System/DGX Station A100 Hardware Overview
 - Back Panel & Connections
- DGX Operating System & Software
- Configuring Initial Settings
 - First Boot

- Baseboard Management Controller
- Configuring a User Account
- Configuring Network Settings
- DGX OS Update
- Firmware Update

Multi-Instance GPU (MIG)

- MIG Overview
- MIG Setup and Usage
 - Enabling MIG
 - Creating and Destroying GPU and Compute Instances
 - Verifying MIG Setup

DGX A100 Storage

- Storage Requirements for Computing Environments
- DGX A100 System/DGX Station A100 Storage
- Storage Fabrics
- NVIDIA GPUDirect Storage

Monitoring and Debugging Tools

- NVIDIA System Management (NVSM)
 - NVSM Architecture and APIs
 - NVSM CLI - Commands and Use Cases
 - System Health-Check with NVSM
- NVIDIA Data Center GPU Manager (DCGM)
 - DCGM CLI Usage and Examples

DGX A100 System Usage and Performance

- NVIDIA GPU Containers
 - Container Overview
 - NVIDIA GPU Cloud (NGC) Container Registry
 - Docker and Container Management
 - Validating Docker Functionality
- Performance Validation and Running Workloads
 - Performance Testing Overview
 - NVSM Stress-Test
 - GPU Bandwidth Test

DGX A100 System Administration Training

Public Instructor Led Remote Training



ACADEMY

- TensorFlow CNN Training
- Running a Job with Jupyter Notebook
- System Management & Troubleshooting
 - NVIDIA System Management Interface
 - Baseboard Management Controller
 - Physical System Maintenance
 - Resources & Documentation