

Tytuł szkolenia: GlusterFS Storage Administration (GL636)

Kod szkolenia: H2UW3S

Wprowadzenie

This course is an advanced Linux storage course that covers the administration of the popular GlusterFS distributed filesystem. Storage administrators and advanced Linux administrators will learn GlusterFS for a highly available, reliable software-defined storage system on commodity hardware. This course covers installation, brick management, volume management, Geo-Replication, advanced administration, snapshotting and troubleshooting.

Adresaci szkolenia

Prerequisites

This course requires an advanced knowledge of Linux system administration. These skills are taught in the H7091S "Enterprise Linux Systems Administration" and U8583S "Linux Fundamentals".

Cel szkolenia

Czas i forma szkolenia

- 21 godzin (3 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

Plan szkolenia

Module 1: Introduction

- GlusterFS Overview
- GlusterFS Internals
- Elastic Hash Algorithm
- GlusterFS History
- Example Use Case: Virtualization Servers
- Terminology
- Architectural Overview
- Features
- Comparison to Other Clustered Filesystems
- Scaling
- Using screen
- Running Commands on Multiple Systems
- Lab Tasks
 - Screen Basics
 - Running Commands on Multiple Hosts

Module 2: Installation

- Gluster Package Installation
- Identifying Initial Bricks
- Creating Bricks
- Formatting and Mount Bricks
- Setting up the GlusterFS Volume

- Lab Tasks

- GlusterFS QuickStart

Module 3: Volume Types

- Brick Layouts and Standards
- Volume Types
- Distributed Volume
- Replicated Volume
- Striped Volume
- Sharded Volume
- Dispersed Volume
- Distributed Replicate Volume
- Distributed Striped Replicate Volume
- Distributed Striped Volume
- Striped Replicated Volume
- Distributed Dispersed Volume

- Lab Tasks

- Creating Volumes

Module 4: Geo-Replication

- Geo-replication Overview
- Geo-replication Deployment Scenarios
- Environment Requirements
- Master/slave Architecture
- Setting up Geo-replication
- Cascading Geo-replication
- Distributed Geo-replication
- Administration

- Lab Tasks

- Setting up GlusterFS Geo-replication

Module 5: Managing Volumes

- Transports
- Resizing Volumes
- Migrating Data
- Removing Volumes
- Self-Healing
- Bitrot Detection
- Lab Tasks

- Managing GlusterFS Volumes

Module 6: GlusterFS Clients

- GlusterFS Client Support
- FUSE client
- FUSE mounting volumes
- NFS client
- The Network Lock Manager
- CIFS/SMB Client
- Lab Tasks

- Setting up GlusterFS Clients

Module 7: ACLs and Quotas

- POSIX ACLs
- Listing and Setting ACLs
- Removing ACLs
- GlusterFS Quota Support
- Setting and Displaying Disk Limits

- Memory Cache Size and Alert Time
- Lab Tasks
 - Setting up ACLs and Quotas

Module 8: IP Failover

- CTDB
- CTDB Prerequisites
- Configuring CTDB
- Verifying CTDB Setup with Samba
- Lab Tasks
 - Setting up and configuring CTDB

Module 9: Snapshots

- Prerequisites
- Snapshot Features
- Managing Snapshots
- Managing Snapshots
- Managing Snapshots
- Lab Tasks
 - Using and managing GlusterFS snapshots

Module 10: Troubleshooting

- Volume Status
- Statedump
- GlusterFS logs
- Geo-replication Logs
- Troubleshooting Geo-replication
- Troubleshooting NFS
- Lab Tasks
 - Troubleshooting GlusterFS