

## Accelerated SAN Essentials

**خلاصه دوره :** در این دوره دانش و مهارت‌های مورد نیاز برای انجام تنظیمات و نگهداری انواع دستگاه‌های ذخیره‌سازی SAN-DAS-NAS آموخته می‌شود.

**مدت دوره :** ۴۰ ساعت

**پیش نیاز :** آشنایی با مباحث دوره‌های HPE و NETWORK+

**اهداف دوره :** آشنایی و تسلط بر موارد زیر:

- SAN و مزیت‌های استفاده از آن
- مجموعه کامپوننت های SAN
- تشخیص تفاوت میان DAS ، NAS و SAN
- مفاهیم FC
- پیاده‌سازی Zoning
- آشنایی با امکانات مدیریتی SAN
- معرفی iSCSI
- پیکربندی SAN HP storage و RBAC



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سرفصل دوره :

### Module 1: Introduction

- SAN definition, benefits, and goals
- High-speed backup and high availability
- Server and storage consolidation
- DAS, NAS, and SAN concepts and comparisons
- SAN considerations
- Tier storage
- SAN components
- Host, target, and interconnect device characteristics
- Power-on sequence

### Module 2: Fibre Channel (FC) Basics

- Switch configuration parameters
- Switches interoperability and TR technology
- Principal switch selection and up/downstream links
- Frame routing within a fabric
- Trunking and port channels
- ILs
- Virtualization within the fabric
- Basic switch management

### Module 3: SAN hosts

- Host role within SAN and virtualization
- Converged network adapters
- Host installation checklist and bus connections



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- Dynamic fabric provisioning
- HBA management
- Boot from SAN and load balancing
- Multi-path SAN connections and software
- Multi-path I/O (MPIO) components within OS

#### Module 4: Disk targets

- Disk drives and associated technologies
- How disks are connected to controllers
- LUN masking and array management

#### Module 5: Fibre Channel advanced

- Fibre Channel addressing and reserved addresses
- Frames and transmission building blocks
- Ordered sets
- Primitive signals and sequences
- Flow control and different types of zoning
- Link and fabric services
- Fabric login and segmentation

#### Module 6: SAN management

- SAN management choices and considerations
- Technologies driving SAN management
- HPE SAN management today
- SMI-S