

Advance Your Career with Fibre Channel Knowledge

Live Webcast April 13, 2022 10:00 AM PT/1:00 PM ET

Today's Speakers



Mike Klempa Electrical Engineer Amphenol

Mark Jones Director Technical Marketing, Broadcom FCIA Board of Directors



About the FCIA

"The Fibre Channel Industry Association (FCIA) is a mutual benefit, non-profit, international organization of manufacturers, system integrators, developers, vendors, industry professionals, and end users."





About the Fibre Channel Industry Association (FCIA)







Industry Leading

Member Companies

150M+ FC Ports

Shipped Since 2001



Agenda

- Fibre Channel Opportunities
 - Career path
 - Fibre Channel's role in newer technologies
 - Ex: NVMe-oF[™], Kubernetes
- Plethora of training resources
 - Vendor training and certification programs
 - Educational resources from the industry
- Getting started with standards
 - Professional development
 - Personal perspective





Opportunities

- Fibre Channel innovation continues to grow
- Fibre Channel experts retiring means door are opening for the next generation
- Multitude of training resources outside of academia covering:
 - FC basics
 - Zoning
 - Fabric notifications
 - Standards development
 - And more





FC's Role in Newer Technologies

- FC 25+ years as the leader Still learning new tricks!
 - Fibre Channel's leadership often make it the basis of new technologies
 - High Performance / Low latency
 - Vast extensibility / management at scale
 - Security
 - Unquestionable reliability
 - NVMe over Fabrics Multi Transport
 - FC is the first and most widely deployed transport for NVMe-oF in production
 - Bare-Metal, Virtualization, Containers
 - Native FC support for Kubernetes
 - Air-Gap security
 - FC-SP-2, Multi-layers of data security



Where to Find Training Resources

- Vendors
 - Broadcom
 - Cisco
 - Teledyne LeCroy Austin Labs
 - Product specific training
- Industry Associations
 - FCIA: fibrechannel.org
 - SNIA Storage Networking Industry Association: <u>snia.org</u>
 - <u>SNIA YouTube Fibre Channel Playlist</u>

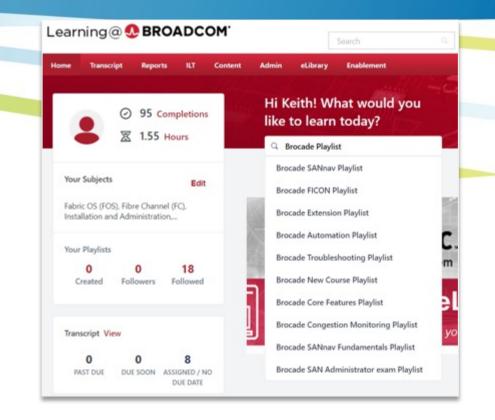




Broadcom SAN Training

Over 80 free online training courses – Available 24/7

- Fibre Channel SAN basics
- Gen 6 & 7 switches and directors
- Installation and configuration
- SANnav Management Portal
- Protocol training (FC / NVMe / FICON)
- Advanced features
- Troubleshooting
- Available in the Broadcom Learning Portal
 - · Courses are grouped into topical playlists for easy searching
- To how to register and access training
 - Brocade Education
 <u>www.Broadcom.com/brocade-education</u>
 - YouTube
 <u>Search for "Brocade Education"</u>







Broadcom – Brocade SAN Certifications

Brocade SAN

Professional exam

Brocade

SAN

Professiona

Brocade SAN Administrator exam



- Validates knowledge of Fibre Channel, Brocade products and Fabric OS features
 - Foundational exam

What do you get:

- Validates knowledge of advanced Brocade SAN features and technologies
 - Next-level exam to the Brocade SAN Administrator exam

Brocade Gen 7 SAN Specialist exam



- Validates knowledge of Brocade Gen 7 hardware products and latest Fabric OS v9 features
 - Shorter Targeted Exam
- ✓ Recognition and knowledge from the process of becoming a Brocade SAN Administrator, SAN Professional and Gen 7 SAN Specialist
- Permanent transcript on Learning Portal
- ✓ Downloadable certificate
 - The same high-quality test questions in industry certification exams without the requirement of a proctored environment
 - Available in the Broadcom Learning Portal after completing the prerequisite classes

Cisco Training

- Many training courses can be taken stand-alone or followed by certification exams for additional benefit
- Training is available at: <u>https://learningnetworkstore.cisco.com</u>
- Product training highlights
 - Cisco MDS 9000 Series Switches Overview (DCMDSO): Now contains SAN Analytics presentation
 - <u>https://learningnetworkstore.cisco.com/on-demand-e-learning/cisco-mds-9000-series-switches-overview-dcmdso-v1-5-elt-dcmdso-v1-024785</u>
 - Estimated Duration: 7-8 hours
 - Configuring Cisco MDS 9000 Series Switches (DCMDS): Now contains SAN Analytics lab
 - <u>https://learningnetworkstore.cisco.com/on-demand-e-learning/configuring-cisco-mds-9000-series-switches-dcmds-v3-5-elt-dcmds-v3-025345</u>
 - Associated Certification: <u>CCNP Data Center</u>
 - Associated Exam: <u>300-625 DCSAN</u>
 - Estimated Duration: 4-days





......

CISCO

Cisco Training Cont'd

- Cisco Certified Technician Supporting Cisco Data Center System Devices (DCTECH): Focused more on UCS (with MDS options)
 - <u>https://learningnetworkstore.cisco.com/cisco-certified-technician/supporting-data-center-system-devices-dctech-v3-0-elt-dctech-v3-023565</u>
 - Associated Certification: <u>CCT Data Center</u>
 - Associated Exam: 010-151 DCTECH
 - Estimated Duration: 7-8 hours
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR): contains ACI + UCS + Nexus + MDS + HX
 - <u>https://learningnetworkstore.cisco.com/on-demand-e-learning/implementing-and-operating-cisco-data-center-core-technologies-dccor-v1-0-elt-dcco</u>
 - Associated Certification: <u>CCNP Data Center</u>, <u>CCIE Data Center</u>
 - Associated Exam: <u>350-601 DCCOR</u>
 - Estimated Duration: 5-days



Teledyne LeCroy-Austin Labs Training

- Austin Labs is Teledyne LeCroy's dedicated training and testing division. Our engineers and trainers are experts in networking, fabric and storage protocols. Classes are offered both virtually and on-site.
- Austin Labs Fibre Channel Training Classes (4 Days Each)
 - Fundamentals of Fibre Channel <u>Here</u>
 - NVMe over Fibre Channel <u>Here</u>
 - Fibre Channel over Ethernet <u>Here</u>
 - Training Class FAQ <u>Here</u>
- General Austin Training & Testing Services Information <u>Here</u>
- Teledyne Fibre Channel Resources <u>Here</u>







FCIA Training Resources

CIA

FCIA Education Committee

- Focused on delivering FC education
- Built a webcast library over the last 5 years
- Over 30 highly-rated on-demand webcasts
 - FC Basics
 - FC Zoning
 - 64GFC
 - FC Performance
 - And more
- FCIA Educational Resources
 - Comprehensive list of vendor training
 - White papers
- Available at: https://bit.ly/FCIATraining



Explore These Fibre Channel Training Courses





UNH-IOL

- Training future engineers
 - Testing
 - Plugfests
 - Tech talks
- Published test plans
 - Debug tools
 - Aids in learning fundamentals of any technology of interest





University of New Hampshire InterOperability Laboratory

> FIBRE CHANNEL TUTORIAL





Other Training Resources

- Product Specific
 - Vendor provided product documentation as related to it's Fibre Channel connectivity
- Operating Systems
 - Specific storage connectivity, Storage network, Multipath
 - Storage performance tuning guides



Getting Started with Standards

- Don't be intimidated
- Organizations like T11 are open to new members
- Much to be gleaned from the combined knowledge base
- Collaborative community
- Mentorship, relationships, networking





Summary and Q&A

- Next generation of IT professionals and engineers have a need for Fibre Channel specific education
- Fibre Channel knowledge and experience can boost your employment value
- Numerous Fibre Channel vendor companies offer educational resources both virtual and hands-on
- Stay abreast of the latest FC developments with the FCIA education resources



After this Webcast

- Please rate this event we value your feedback
- We will post a Q&A blog at http://fibrechannel.org/ with answers to today's questions
- Follow us on Twitter @FCIAnews for updates on future FCIA webcasts
- Our library of FCIA on-demand webcasts http://fibrechannel.org/webcasts/ includes:
 - Fibre Channel Fundamentals
 - FC-NVMe
 - Long Distance Fibre Channel
 - Fibre Channel Speedmap
 - FCIP (Extension): Data Protection and Business Continuity
 - Fibre Channel Performance
 - FICON
 - Fibre Channel Cabling
 - 64GFC
 - FC Zoning Basics



Thank You