



ATM, Frame Relay and IP Interworking Training Course



AGILE LEADERS
Training Center

ATM, Frame Relay and IP Interworking Training Course

Overview

ATM, Frame Relay and IP Interworking Training Course is a one-week advanced programme for engineers and architects who operate, troubleshoot or retire mixed legacy WAN environments. It develops a structured approach to ATM cells and adaptation, Frame Relay virtual circuits, IP carriage, service and network interworking, traffic contracts, congestion mapping, routing, evidence-led fault isolation and controlled migration. Participants leave with an Interworking and Migration Plan through practical work developed by Agile Leaders Training Center.

Who Should Attend

- Telecommunications engineers responsible for carrier or enterprise WAN services
- WAN architects designing interworking or migration arrangements
- Network operations specialists supporting ATM and Frame Relay infrastructure
- IP engineers integrating routed services with legacy transport
- Service assurance teams investigating end-to-end degradation
- Infrastructure managers planning legacy WAN retirement

Participants should understand IP addressing, routing, Layer 2 services and basic traffic analysis. The course is not tied to one vendor platform.

Departments and Industries

The course supports organisations that retain ATM or Frame Relay dependencies while operating routed IP networks.

- Telecommunications engineering, architecture and service design
- Network operations, service assurance and field support
- Banking, government, transport and utilities
- Carriers, managed service providers and large enterprises
- Technology risk, continuity and infrastructure transformation

Learning Objectives

By the end of this course, participants will be able to:



- Explain ATM, Frame Relay and routed IP forwarding models
- Map PVC, SVC, DLCI, VPI and VCI relationships
- Evaluate AAL5, LLC/SNAP and VC multiplexing encapsulation
- Relate ATM traffic contracts to Frame Relay and IP quality of service
- Diagnose signalling, congestion, fragmentation and routing faults
- Plan controlled migration from legacy WAN services to routed IP

Course Agenda

Day 1: ATM, Frame Relay and IP Foundations

- ATM cells, virtual paths, virtual channels and service categories
- Frame Relay frames, DLCIs, PVCs, LMI and committed information rate
- IP addressing, subnets, routing and interface dependencies
- Layer boundaries and end-to-end service maps
- Mixed WAN topology and dependency register

Day 2: Interworking Architecture and Encapsulation

- Network interworking and Frame Relay service interworking
- AAL5, LLC/SNAP, VC multiplexing and Frame Relay SSCS
- Classical IP over ATM, ATMARP and InATMARP
- PVC and SVC provisioning, signalling and address resolution
- Encapsulation decision matrix and packet-path walkthrough

Day 3: Traffic Management and Quality of Service

- ATM traffic management, policing, shaping and cell-loss priorities
- Frame Relay FECN, BECN, DE and congestion response
- CLP, DE and congestion mapping through an interworking function
- IP precedence, DSCP, queuing and service-class alignment
- Quality-of-service policy and traffic-contract validation

Day 4: Operations, Monitoring and Troubleshooting

- Interface, PVC and virtual-channel state verification
- Fragmentation, reassembly, MTU and encapsulation mismatches
- Routing adjacency, reachability and asymmetric-path diagnosis
- Counters, captures, alarms and fault domains
- Scenario lab: isolate an end-to-end interworking failure

Day 5: Migration to Routed IP

- Legacy inventory, application dependencies and risk classification
- Target-state routed IP architecture and coexistence patterns
- Pilot scope, rollback criteria and acceptance tests
- Phased cutover, coordination and service assurance
- Capstone: legacy WAN migration plan

Practical Exercises

Suggested activities use diagrams, configuration evidence and operational records.

- Suggested activity: trace DLCI, VPI and VCI relationships
- Suggested activity: select encapsulation for a Classical IP over ATM case
- Suggested activity: map congestion signals to an IP service class
- Suggested activity: build a phased legacy WAN migration plan

FAQs

What does ATM Frame Relay IP interworking mean?

It covers functions, encapsulations, addressing and operational rules that allow services or protocol data to cross ATM, Frame Relay and routed IP environments.

Does the course cover network and service interworking?

Yes. Participants compare service translation with network interworking in which ATM transports connectivity between Frame Relay endpoints.

How is Classical IP over ATM addressed?

The course examines logical IP subnets, AAL5, ATMARP, InATMARP, PVC and SVC operation and IP-to-ATM address resolution.

Is this a vendor configuration course?

No. It is standards-led and architecture-focused and does not promise vendor certification.

Why study legacy WAN technologies during migration?

Existing dependencies, traffic contracts and failure modes must be understood to support coexistence, testing, rollback and continuity.



Conclusion

Participants take back an Interworking and Migration Plan covering topology, virtual circuits, encapsulation, addressing, traffic treatment, monitoring evidence, target architecture, pilot controls and phased cutover. It helps technical and operational teams expose dependencies, test assumptions and coordinate migration without treating the current network as a black box.



Training Course Categories

Agile PM and Project Management Training Courses

Agribusiness & Food Security Training Courses

Aviation Management and Operations Training Courses

Certified Courses By International Bodies

Communication and Public Relations Training Courses

Crisis Management and Business Continuity Training Courses

Data Analytics Training and Data Science Courses

Digital Government & Public Service Training Courses

Education and Learning Development Training Courses

Environment & Sustainability Training Courses

Facilities and Real Estate Training Courses

Finance and Accounting Training Courses

Governance, Risk and Compliance Training Courses

Healthcare Management Training Courses

Heritage Conservation and Museum Management Training Courses

Hospitality and Tourism Training Courses

Human Resources Training and Development Courses

IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

Marketing, Customer Relations, and Sales Courses

NGO, Humanitarian and Development Management Training Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses



Training Course Categories

Quality and Operations Management Training Courses

Secretarial and Administration Training Courses

Shipping, Maritime and Ports Training Courses

Training Cities

Abu Dhabi UAE	Accra Ghana	Addis Ababa Ethiopia
Amman Jordan	Amsterdam Netherlands	Athens Greece
Baku Azerbaijan	Bali Indonesia	Bangkok Thailand
Barcelona Spain	Berlin Germany	Cairo Egypt
Cape town South Africa	Casablanca Morocco	Chicago USA
Doha Qatar	Dubai UAE	Frankfurt Germany
Geneva Switzerland	Istanbul Turkey	Jakarta Indonesia
Johannesburg South Africa	Kuala Lumpur Malaysia	Kuwait Kuwait
Lagos Nigeria	Langkawi Malaysia	Lisbon Portugal
London UK	Madrid Spain	Manama Bahrain
Marbella Spain	Milan Italy	Montreux Switzerland
Munich Germany	Muscat Oman	Nairobi Kenya



Training Cities

New York

USA

Nice

France

Paris

France

Phuket

Thailand

Port Louis

Mauritius

Porto

Portugal

Prague

Czech Republic

Rome

Italy

San Diego

USA

Seoul

South Korea

Sharm El-Sheikh

Egypt

Singapore

Singapore

Tashkent

Uzbekistan

Tbilisi

Georgia

Tokyo

Japan

Toronto

Canada

Trabzon

Turkey

Vienna

Austria

Zanzibar

Tanzania

Zoom

Online Training

Zurich

Switzerland