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EQUIPMENT TRAINING CATALOGUE 2017

Training Modules

Sl.No	Vendor	Training Modules	Latest Version (SW/HW)
1	Huawei	Router training, AR, NE series - product architecture, configuration, O&M, Troubleshoot (hands on using simulator)	AR3200 Series Enterprise Routers; NE9000 Converged Backbone Router
		PCRF, IN Charging	UPCC Gateway 2
		Core, Circuit Core, Packet Core	R11, V5, Fusion Engine
		2G BSS (Product architecture, configuration, O&M)	GBSS17.1, Bsc6900 V009R017, BSC 6910 v10R017, BSC6900/6910
		3G BSS (Product architecture, configuration, O&M)	RAN17, RAN18, Bsc6900 wcdma V009R017, BSC 6910 v10R017 wcdma, RNC6900/6910
		LTE BSS (Product architecture, configuration, O&M)	eRAN 11, eRAN 12, BTS 3900 LTE V10R12
		Transmission Training, SDH	U2000, R15
		Transmission Training, DWDM	U2000, R15
		CEN & MSAN	5600T
		2G Planning & Optimization, KPI Monitoring	GBSS17.1
		3G Planning & Optimization, KPI Monitoring	RAN17, RAN18
		4G Planning & Optimization, KPI Monitoring	eRAN 11, eRAN 12
		VoLTE Audit	Yes
		VoLTE Design	Yes
		VoLTE Tuning	Yes
		VoLTE Optimization	Yes
		Radio Network Design	Yes
		WiFi Radio Network Dimensioning and Design	Yes
		Support for RAN Modernization/Swap	Yes
		Microwave Network Design	Yes
WRAN Radio Network Tuning	Yes		
LRAN Radio Network Tuning	Yes		
WRAN Optimization	Yes		

		WRAN Automated RF and NL Optimization	Yes
		WRAN Automated Parameter Optimization	Yes
		WRAN Automated NL Optimization	Yes
		LRAN Optimization	Yes
		LRAN Automated RF and NL Optimization	Yes
		LRAN Automated Parameter Optimization	Yes
		LRAN Automated NL Optimization	Yes
		GSM Spectrum Refarming	Yes
		App Experience Optimization	Yes
2	ZTE	2G BSS (Product architecture, configuration, O&M)	ZXG10 BS30, V4 ZXUR900
		3G BSS (Product architecture, configuration, O&M)	ZXG10 BS30, V4 ZXUR900
		LTE BSS (Product architecture, configuration, O&M)	ZXG10 BS30
		Transmission Training, SDH	New Features on new BTS
		ZTE Core	ZXC10
		Transmission Training, DWDM	New Features on new BTS
		2G Planning & Optimization, KPI Monitoring	New Features on new BTS
		3G Planning & Optimization, KPI Monitoring	New Features on new BTS
		4G Planning & Optimization, KPI Monitoring	New Features on new BTS
3	ALU	9400 LTE RAN (Radio Access Network) LR14.3.L Technical Overview TMO18213	LR14.3
		5620 SAM (Service Aware Manager) R12.0 Fundamentals TOS36033W	LR14.3
		9400 eNode B LR14.3.L Maintenance TMO18311	LR14.3
		9400 eNodeB LR14.3.L Supervision via 5620 SAM R12.0 TMO18235	LR14.3
		9400 eNodeB LR14.3.L Integration and Configuration via 5620 SAM R12.0 TMO18448	LR14.3
		9952 WPS (Wireless Provisioning System) LR14.3.L Configuration TMO18313	LR14.3
		9400 LTE RAN Radio Principles Description TMO18214	LR14.3
		LTE-Advanced Technical Overview TMO21059	
		9400 LTE LR14.3.L FDD Radio Algorithms and Parameters Description TMO18315	LR14.3
		9400 LTE LR14.3.L Introduction to Radio QoS and Traffic Monitoring Description TMO18416	LR14.3
		9400 LTE LR14.3.L RF Optimization TMO18507	LR14.3

LTE LR14.3.L eUTRAN System Capacity TMO18525	LR14.3
Alcatel-Lucent 9958 Wireless Trace Analyzer R9.1 Overview TMO21040W	R9
LTE/IMS/VoLTE Integration and Basic Troubleshooting TMO21075	
9400 LTE LR14.3.L VoLTE RF Algorithms and Parameters Description TMO18545	LR14
9300 NodeB LR14.W Hardware Description & Functional TMO63004 & TMO18251	LR14
9370 RNC LR14.W Hardware & Functional Description TMO18249 & TMO18250	LR14
UTRAN LR14.W Wireless Cloud Element (WCE) Description ,Configuration andOperations TMO18547 TMO18548	LR14
9370 RNC LR14.W Maintenance TMO18257	LR14
9300 NodeB LR14.W Hardware MaintenanceTMO63005	LR14
9353 WMS LR14.W DescriptionTMO18254	LR14
9353 WMS LR14.W UTRAN Supervision Configuration TMO18261 & TMO18262	LR14
9353 WMS LR14.W UTRAN Operation &IntegrationTMO18263	LR14
UTRAN LR14.W HSxPA Radio Principles TMO18247	LR14
UTRAN LR14.W R99 Radio Principles & Algorithms Description TMO18255 TMO18246	LR14
UTRAN LR14.W HSxPA Algorithms DescriptionTMO18256	LR14
UTRAN LR14.W R99 & HSxPA QoS Analysis and Traffic Load MonitoringTMO18268 & TMO18269	LR14
UTRAN LR14.W Radio Fine TuningTMO18351	LR14
9959 NPO M6.3 Standard OperationTMO18048/5.1	
9959 NPO M6.3 Advanced OperationTMO18523/2.1	
TR5951 –SDH Overview, DWDM Overview, OTN Overview	
1850 Photonic Switching, PSS-1830, TSS-320,TSS-1,TSS-60	
GMPLS INTELLIGENCE	
Automated operations, fewer manual interventions, rapid provisioning, cross-layer operations Maximized network monetization with optimal tailoring of transport resources	
Enhanced SLA assurance and resilience with restoration	
INTEGRATED ARCHITECTURE	
OTN/WDM modular integration • GMPLS cross-layer control and automation	

		Multilayer network planning tool for optimized network design	
		OTN NETWORKING	
		Scalable sub-wavelength and wavelength layers from 1 Gb/s to 100 Gb/s • ODU switching/grooming for intelligent combination of ROADMs and electrical cross-connection	
4	NSN	LTE Advanced E-UTRAN	FL/TL16, FL/TL16A
		LTE Counters and KPI	FL/TL16, FL/TL16A
		LTE iOMS 15.5 Installation, Commissioning, Integration, OAM, Upgrade and Troubleshooting RA4118-15A-LTE	FL/TL16, FL/TL16A
		LTE Optimisation Principles	FL/TL16, FL/TL16A
		LTE Optimisation Principles, ext.	FL/TL16, FL/TL16A
		LTE Parameters 1	FL/TL16, FL/TL16A
		LTE Parameters 2	FL/TL16, FL/TL16A
		LTE Remote Fault Management for FDD-LTE	FL/TL16, FL/TL16A
		LTE transmission planning	FL/TL16, FL/TL16A
		Flexi Lite BTS Overview	FL/TL16, FL/TL16A
		Flexi Multiradio BTS LTE and Module Overview FDD-LTE	FL/TL16, FL/TL16A
		Flexi Multiradio BTS LTE Operation, Administration and Maintenance Release FDD-LTE	FL/TL16, FL/TL16A
		Flexi Multiradio BTS LTE Troubleshooting Workshop Release FDD-LTE 16 and TD-LTE	FL/TL16, FL/TL16A
		RNC OMS & Standalone OMS Troubleshooting	WCDMA 16, RU50
		Flexi Multiradio BTS WCDMA Operation, Administration and Maintenance	WCDMA 16, RU50
		Flexi EDGE BTS Commissioning RG20 (BSS) RA2267-04A-GSM	GSM16, RG40
		Flexi EDGE BTS Troubleshooting RG20 (BSS) RA2269-04A-GSM	GSM16, RG40
		Flexi BSC and TCSM3i Commissioning BSS (GSM16) RN2327-01A-GSM	GSM16, RG40
		NSN :- Core	M16, ATCA MSS, MGW (U5i)
		NT-HLR/HSS	SW-16.5
		Flexi Multiradio BTS GSM/EDGE Troubleshooting for RG40 (GSM 15) RA2276-04A-GSM	GSM16, RG40
Flexi Multiradio GSM BTS Troubleshooting [EX4.1] RA2276-02A-GSM	GSM16, RG40		
Flexi NS 15 Operation and Maintenance (ATCA) CN3164-15A-COR	GSM16, RG40		

		Flexi Zone BTS LTE All-In-One Installation, Commissioning, Integration, Operation, Administration, Maintenance and TroubleshootingRA4191-02A-LTE	FL/TL16, FL/TL16A
		VoLTE Audit	Yes
		VoLTE Design	Yes
		VoLTE Tuning	Yes
		VoLTE Optimization	Yes
		Radio Network Design	Yes
		WiFi Radio Network Dimensioning and Design	Yes
		Support for RAN Modernization/Swap	Yes
		Microwave Network Design	Yes
		WRAN Radio Network Tuning	Yes
		LRAN Radio Network Tuning	Yes
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		WRAN Automated RF and NL Optimization	Yes
		WRAN Automated Parameter Optimization	Yes
		WRAN Automated NL Optimization	Yes
		LRAN Optimization	Yes
		LRAN Automated RF and NL Optimization	Yes
		LRAN Automated Parameter Optimization	Yes
		LRAN Automated NL Optimization	Yes
		GSM Spectrum Refarming	Yes
		App Experience Optimization	Yes
5	Samsung	Samsung LTE LSMR ,Enode B Groth,CLI and Secure CRT commands	Release 6.0.0.0
		Samsung LTE E Node B,Installation,Integration,commissioning,Operation and Maintenace	UMA,LMA,RDU
		Samsung SMBS ,Installation ,Commissioning and Integration,Operation and Maintenacne	
		Samsung Enode Software Releases and Features till 6.0.0.0 and Software Upgradation	Release 6.0.0.0
		Samsung MME, SGW and HSW Hardware and Configuration	

		Samsung LTE KPI and Conters till Release 6.0.0.0, SCFT, Clsuter Optimization, Samsung LTE Parameters	Release 6.0.0.0
		Packet Core, Volte IMS, SRVCC	
6	Miscellaneous	Technical Training	
		Nortel :- Router training, product architecture, configuration, O&M	
		Tejas	TJ100-MC, TJ1000-MC
		AWS:- Amazone Web Services/Cloud	Yes
		SIAE	ALCPLUS2, ALCPLUS2E, ALFOPLUS
		HP Procurve	Yes
		Ceragon :- IP Microwave	IP10-R, IP10-G, IP20C, IP20N, IP20G
		NEC :- Product architecture, O&M training on Microwave, SDH products	iPAsolink, Neo, +, J2350 Service Routers
		NERA :- Microwave	XPAND IP and IP +
		Juniper :- Router training, product architecture, configuration, O&M (hands on using simulator)	Router with GbE capacity
		Huawei CX 600, ATN	(CX600 V800R008C10SPC300)
		Huawe Microwave	RTN 910, 950, 980
		Cisco Routers	CISCO2921/K9 FGL1802102V
		ECI	XDM, BG
		CCIE	Yes
		CCNA Routing and Switching	Yes
		CCNP Routing Switching and Troubleshooting	yes
		Nokia PDH, Flexihopper	Yes
JCNA	Yes		
7	CISCO	Prime Central	
		Packet Core (ASR 5500)	
		SDN/ Virtualization	Yes
		Data center storage	Yes
		cloud training	Yes

		Router training (ASR) product architecture, configuration, O&M (hands on using simulator)	
		Switch training (Nexus) product architecture, configuration, O&M	----- SM-ES3G-24-P 12.2(52)EX1
		Router training, product architecture, configuration, O&M (hands on using simulator)	CISCO2921/K9 FGL1802102V
8	Generic Technology	IP Networking	yes
		IP QoS & MPLS	yes
		IPv6 Networking	yes
		IPv6 Routing	yes
		IPv6 QoS	yes
		IPv4 Security	yes
		IPv6 Security	yes
		5G technology :5G use case and technology option	
		5G technology :IoT in Wireless Networks	
		5G Technology : C-RAN	
		5G Technology : Wi-Fi Offload, LTE-U, and LAA	
		5G Technology : SON: Self-Organizing Networks	
		5G Technology : Voice over Wi-Fi (VoWiFi)	
		5G Technology : Proximity Services, LTE Direct, D2D Communications	
		5G Technology : LTE Broadcast: eMBMS in LTE Networks	
		5G Technology : CoMP	
		5G Technology : Carrier Aggregation	
		Technology : Cloud and Virtualization	
		Technology : NFV	
IOT			