



Minerva 10

2019

Online Training Schedule and Syllabus

Minerva 10

2019 Online Training Schedule

January 2019							February 2019							March 2019							April 2019							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
		1	2	3	4	5							1	2						1	2		1	2	3	4	5	6
6	7	8	9	10	11	12	3	4	5	6	7	8	9	3	4	5	6	7	8	9	7	8	9	10	11	12	13	
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16	14	15	16	17	18	19	20	
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23	21	22	23	24	25	26	27	
27	28	29	30	31			24	25	26	27	28			24	25	26	27	28	29	30	28	29	30					
														31														

May 2019							June 2019							July 2019							August 2019						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1		1	2	3	4	5	6					1	2	3
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31
							30																				

September 2019							October 2019							November 2019							December 2019						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5						1	2	1	2	3	4	5	6	7
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
29	30						27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				

Course Modules - Days/ Times (USA PT)

DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
MODULE	1. End User Client Operations - STB & Mobile	3. Channels, Lineups, Regions & Packages	4. ACTools	8. Administration & Troubleshooting
TIME	8:00 AM to 10:00 AM	8:00 AM to 10:00 AM	8:00 AM to 9:00 AM	8:00 AM to 10:00 AM
MODULE	↓ ↓ ↓	↓ ↓ ↓	5. Billing & Extraction	↓ ↓ ↓
TIME	↓	↓	9:00 AM to 10:00 AM	↓
BREAK	10:00 AM to 11:00 AM	10:00 AM to 11:00 AM	10:00 AM to 11:00 AM	10:00 AM to 11:00 AM
MODULE	2. Customer Account Creation/ Management	3. Channels, Lineups, Regions & Packages ...continued	6. Minerva Support	8. Administration & Troubleshooting ... continued
TIME	11:00 AM to 1:00 PM	11:00 AM to 1:00 PM	11:00 AM to 12:00 PM	11:00 AM to 1:00 PM
MODULE	↓ ↓ ↓	↓ ↓ ↓	7. Admin System Architecture	↓ ↓ ↓
TIME	↓	↓	12:00 PM to 1:00 PM	↓
NOTE: ALL TIMES ARE USA Pacific Time				

Minerva 10 Online Training:

Minerva Networks training courses are designed to provide your team with the knowledge they need to deploy and use the Minerva 10 system on a daily basis. Each course is only 1 to 4 hours long and is delivered online by trained Minerva Networks experts.

Convenient online delivery : The training courses cover all of the key areas required to implement the Minerva 10 system.

Comprehensive set of modules: The training courses cover all of the key areas required to implement the Minerva 10 system.

Experienced training staff: Each of the Minerva's trainers has had at least 4 years hands-on field experience with Minerva Networks.

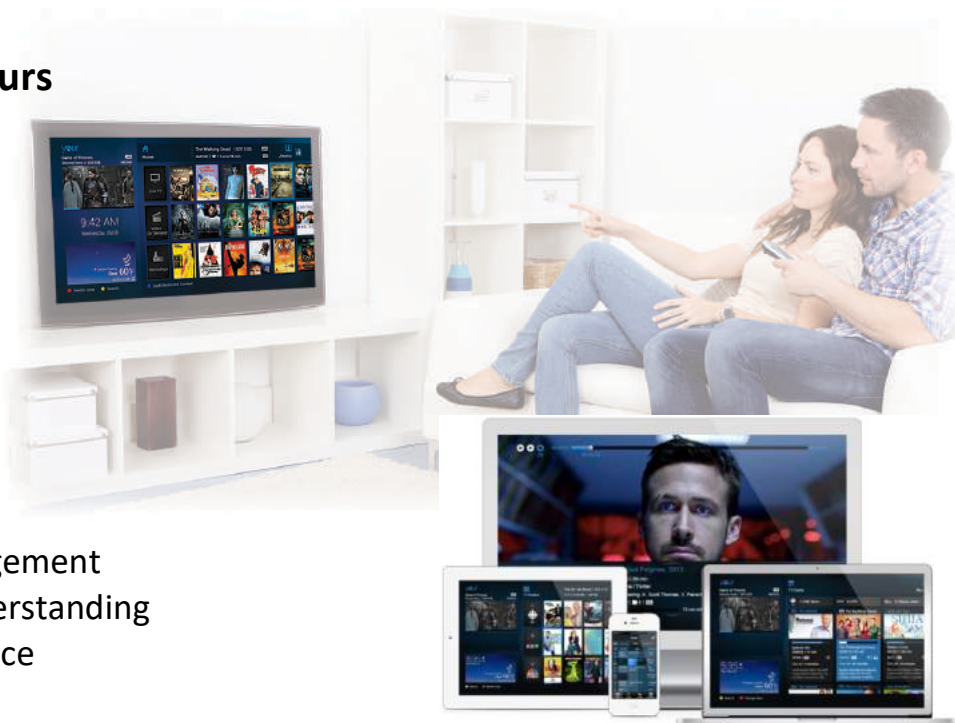
Course: End User Experience

Course Module 1

Module Duration - 2 Hours

Intended audience:

- Installers, Technicians
- CSRs
- Help desk
- Administration
- Headend Engineers
- Marketing, Sales, Management
- Anyone wanting an understanding of the end user experience



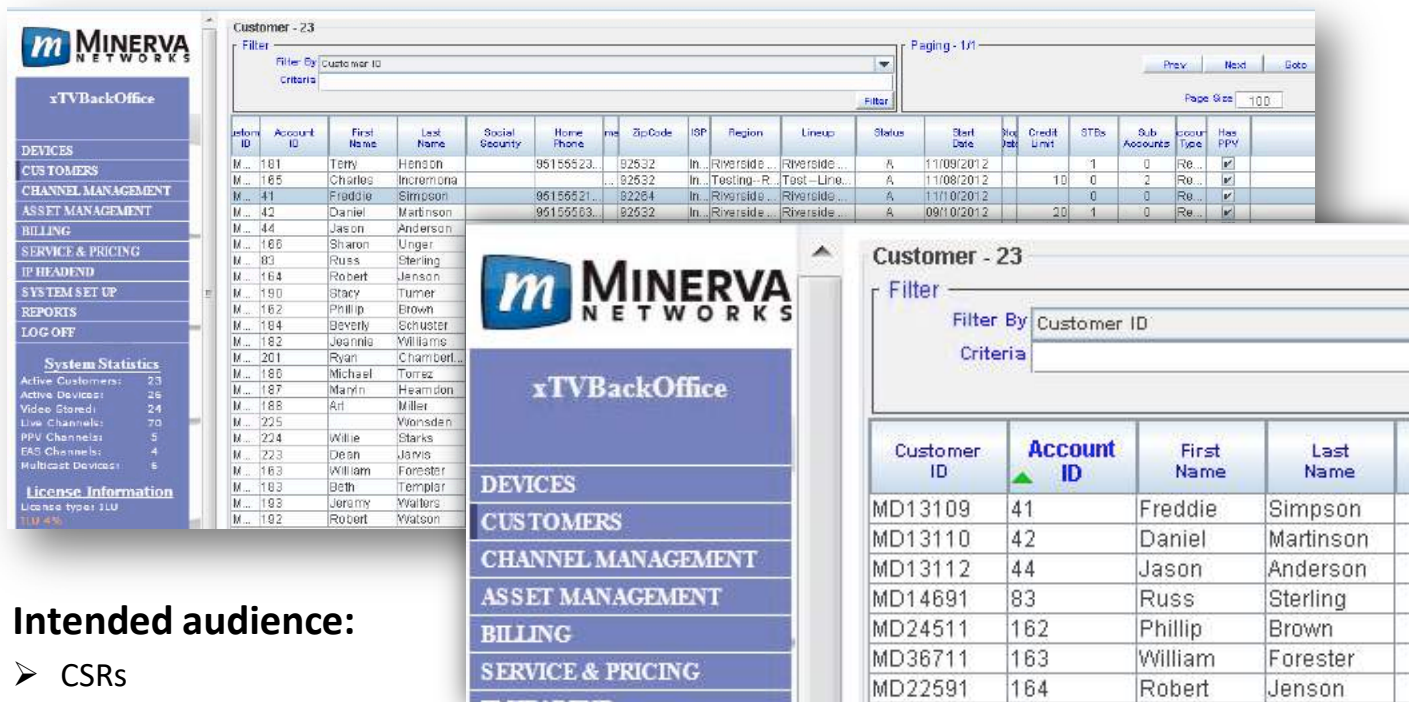
What you will learn in this module:

- Overview of the Minerva 10 screens and operations across multiple devices (Set Top Boxes, mobile phones, tablets, PC/Mac, ROKU box and Amazon Fire TV).
- Activation process for STBs and other client devices, booting, etc.
- Explanation of the Home Screen and the stripes at the Set Top Boxes.
- The TV Grid and various Guide views explained and demonstrated.
- User initiated TV remote control commands explained & demonstrated (guide, menu, info, red, green, yellow, blue, arrow keys, etc.
- The Info bar explained.
- Searching through the guide demonstrated.
- Parental Controls, overriding from the menu, unlock, etc.
- Adding programs and series to customer Favorites as well as creating Favorites lists, editing and using multiple Favorites list.
- Sub-Accounts and Set Top Box Logins.
- DVR operation, Restart TV, Catchup TV, VOD operation, ordering, etc.

Course: Customer Account Creation/ Management

Course Module 2

Module Duration - 2 Hours



The screenshot displays the Minerva Networks xTVBackOffice interface. On the left is a navigation menu with options: DEVICES, CUSTOMERS, CHANNEL MANAGEMENT, ASSET MANAGEMENT, BILLING, SERVICE & PRICING, IP HEADEND, SYSTEM SET UP, REPORTS, and LOG OFF. Below the menu are system statistics and license information. The main area shows a table of customer accounts with columns: Customer ID, Account ID, First Name, Last Name, Social Security, Home Phone, Fax, Zip Code, ISP, Region, Lineup, Status, Start Date, End Date, Credit Limit, STBs, Sub-Accounts, Account Type, and Has PPV. A filter bar at the top allows filtering by Customer ID. A detailed view of Customer - 23 is shown on the right, displaying the same data for a specific customer.

Customer ID	Account ID	First Name	Last Name	Social Security	Home Phone	Fax	Zip Code	ISP	Region	Lineup	Status	Start Date	End Date	Credit Limit	STBs	Sub-Accounts	Account Type	Has PPV
M... 161		Terry	Hanson		95155523...		92532	In...	Riverside...	Riverside...	A	11/09/2012			1	0	Re...	✓
M... 165		Charles	Incromona				92532	In...	Testing-R...	Test-Lin...	A	11/08/2012		10	0	2	Re...	✓
M... 41		Freddie	Simpson		95155521...		92284	In...	Riverside...	Riverside...	A	11/10/2012			0	0	Re...	✓
M... 42		Daniel	Martinson		95155503...		92532	In...	Riverside...	Riverside...	A	09/10/2012		20	1	0	Re...	✓
M... 44		Jason	Anderson															
M... 166		Sharon	Unger															
M... 83		Russ	Sterling															
M... 164		Robert	Jenson															
M... 190		Stacy	Turner															
M... 162		Phillip	Brown															
M... 164		Beverly	Schuster															
M... 162		Jeanine	Williams															
M... 201		Ryan	Chamberl...															
M... 160		Michael	Torrez															
M... 187		Marlin	Hammond															
M... 188		Art	Miller															
M... 225		Wonsden																
M... 224		Willie	Starks															
M... 223		Dean	Janis															
M... 163		William	Forester															
M... 163		Beth	Templar															
M... 193		Jeremy	Walters															
M... 192		Robert	Watson															

Intended audience:

- CSRs
- Provisioning, Help Desk
- Admin, Engineering, Support
- Anyone who manages customer provisioning

What you will learn in this module:

- Customer Accounts - how to add new customer accounts & edit existing ones.
- Complete explanation of customer account fields, required & unrequired.
- Activating Devices using account numbers, phone number or Customer ID.
- Explanation of the M10 Customer ID and Account ID and which matches a Service Provider's Billing System
- How to set up and change Parental Controls on behalf of the customer, retrieve forgotten PINs and customer password changes, block channels, set credit limits, enable or disable services, require PIN usage, logins, limit the number of STB devices and mobile devices etc.
- Assigning Services – Service Packages, Channel Packages, User services & Mobile
- Activating, deactivating & deleting customer accounts.
- How to locate/track Device IDs within the M10 system and delete devices so they can be activated to another customer account.

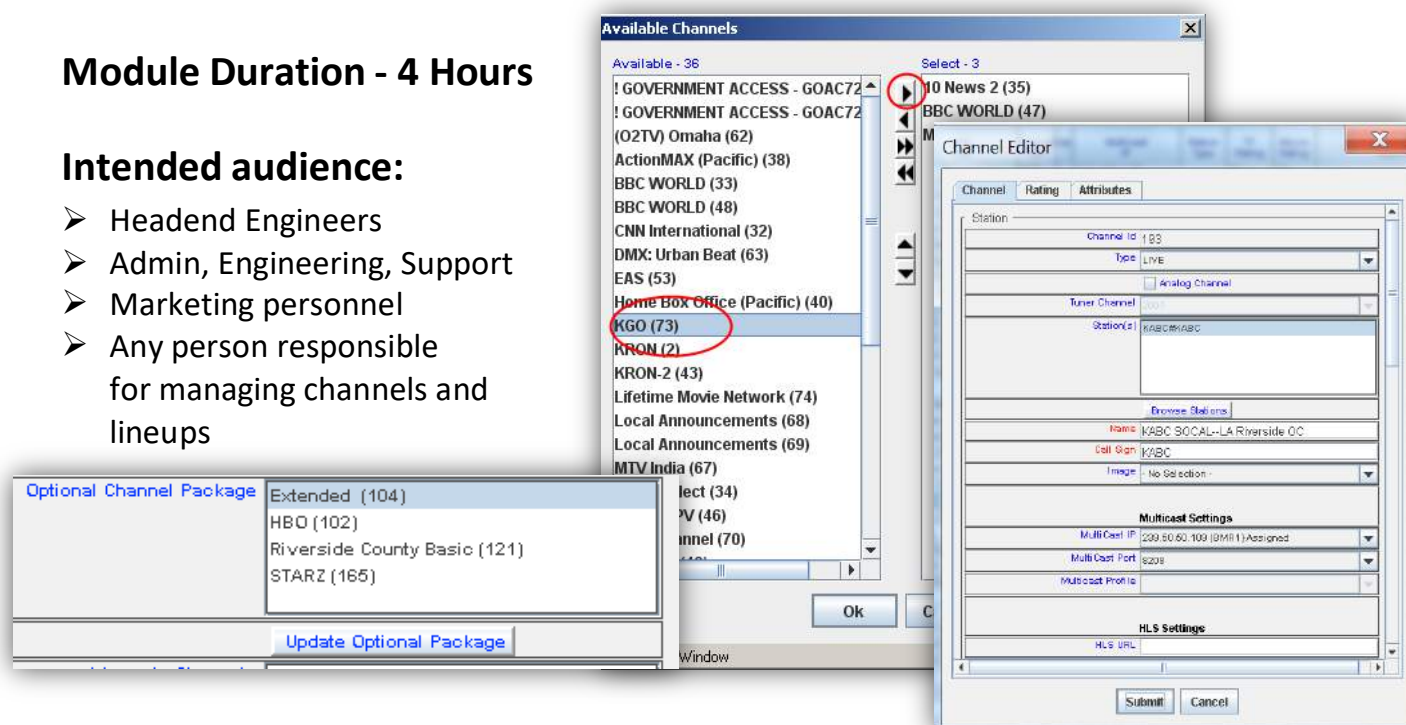
Course: Channels, Lineups, Regions & Packages

Course Module 3

Module Duration - 4 Hours

Intended audience:

- Headend Engineers
- Admin, Engineering, Support
- Marketing personnel
- Any person responsible for managing channels and lineups



What you will learn in this module:

- Channels – students learn how to create channels and associate channels with the TV Listing data service, the multicast IP addresses and port numbers or the HLS URL values.
- Pay Per View Channels are created.
- Channel Lineups – students learn how to create channel lineups with independent channel numbering for different Service Areas. Also, you will learn how different channel lineups may be useful for particular communities, campuses, etc.
- Regions – you will learn how to create regions, and associate themes, channel lineups, languages, time zones and other properties.
- Channel Packages – students learn how to create channel packages, how to make channel packages which cross multiple regions or which are specific to a given region.
- Service Packages – Students learn how Service Packages are combinations of channel packages and other features available to the customer.
- Final review – Channels, Lineups, Regions and Packages

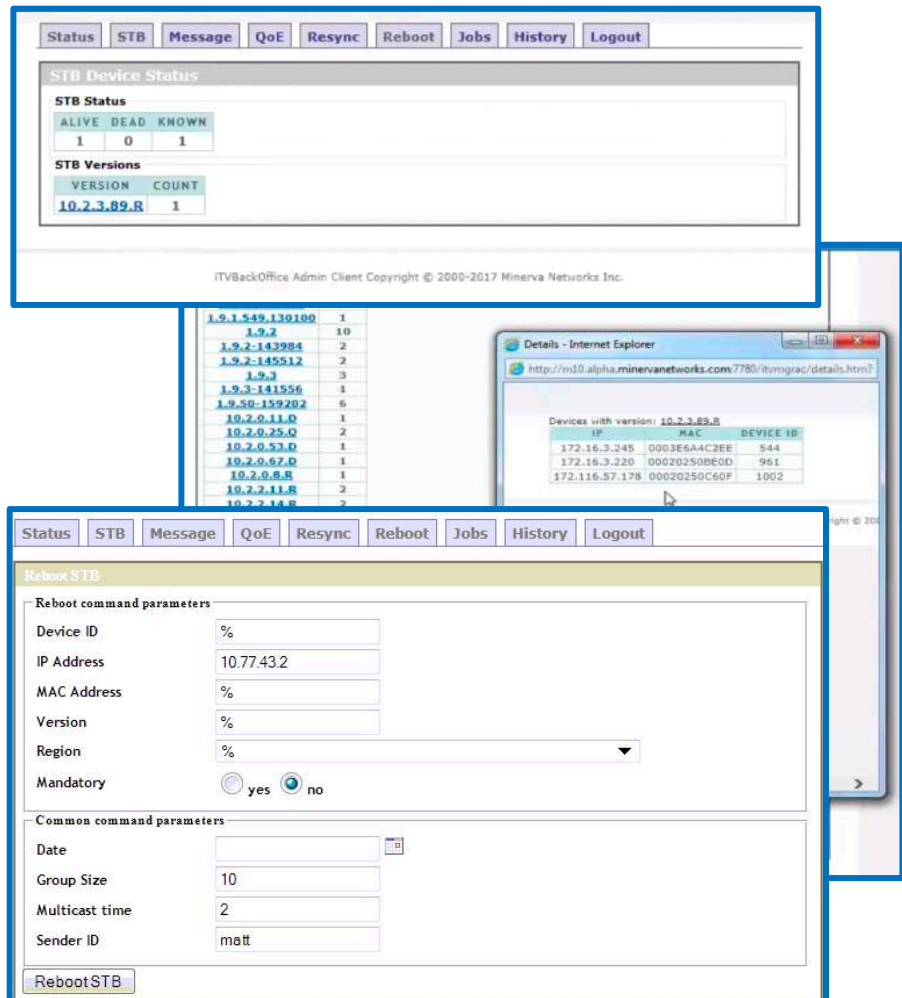
Course: ACTools

Course Module 4

Module Duration - 1.0 Hour

Intended audience:

- Headend Engineers
 - Admin, Engineering, Support
 - Network Operations personnel
- Individuals responsible for maintaining/ supporting the IPTV system.



The screenshots show the ACTools Admin Client interface. The top screenshot displays the 'STB Device Status' tab with a table showing STB Status (ALIVE, DEAD, KNOWN) and STB Versions (VERSION, COUNT). The bottom screenshot shows the 'Reboot STB' form with fields for Device ID, IP Address, MAC Address, Version, Region, and Mandatory (yes/no). A third screenshot shows a list of devices with version 10.2.3.89.R, including IP, MAC, and Device ID.

STB Status	ALIVE	DEAD	KNOWN
	1	0	1

STB Versions	VERSION	COUNT
	10.2.3.89.R	1

Version	Count
1.9.1.549.139100	1
1.9.2	10
1.9.2-143984	2
1.9.2-145512	2
1.9.3	3
1.9.3-141556	1
1.9.50-159202	6
10.2.0.11.0	1
10.2.0.25.0	2
10.2.0.53.0	1
10.2.0.67.0	1
10.2.0.6.8	1
10.2.2.11.R	2
10.2.2.14.R	2

Devices with version: 10.2.3.89.R	IP	MAC	DEVICE ID
	172.16.3.245	0003E8A4C3E8	544
	172.16.3.220	00020250BE0D	961
	172.116.57.178	00020250C60F	1002

What you will learn in this module:

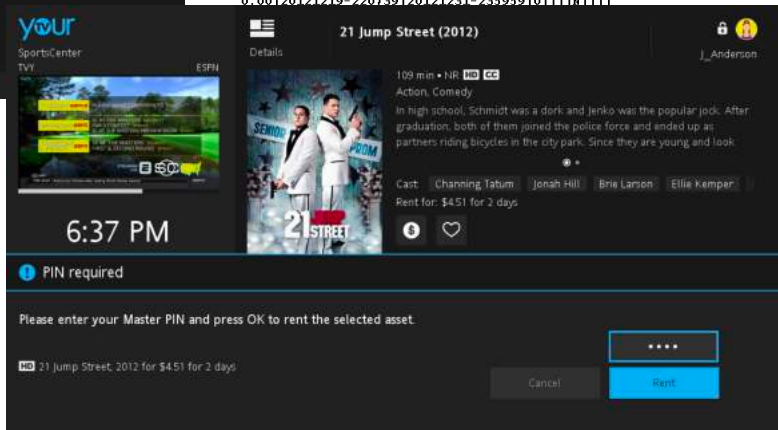
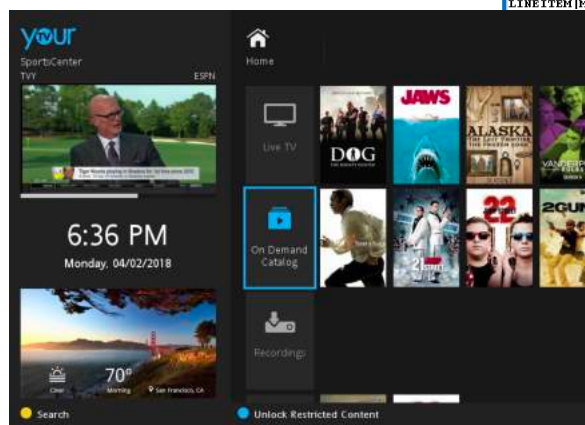
- How to enable user access to the ACTools functionality.
- Logging into the ACTools functionality.
- The Admin Client/ ACTools Interface
- Overview of the ACTools Tabs
- STB Status, “alive” versus “dead” nomenclature, the meaning of the version parameters listed in the various screens.
- Tracking devices/ device IDs within the ACTools tab as well as within the Devices tab of the admin screens
- Troubleshooting scenarios
- Running and stopping jobs
- Resyncing & Rebooting STBs
- Filtering by region, wildcard, Device ID, Mac Address, etc.
- The History Tab

Course: Billing and Extraction

Course Module 5

Module Duration - 1 Hour

```
CUSTOMER|MD13112|Jason|Anderson|20120910-000000|20120910-000000|1427 Chestnut Street||Lake Elsinore|CA|92532||95
15554777||N||
PAYMENTS|A|J Anderson|0|0|20120910-000000|20120910-000000|20130101-000000|||Credit Card|||106|1|||
LOGININF|PETER|PG|TVPG|N|N|20|185|
LOGININF|RACHEL|G|TVN|N|N|10|191|
STBSINFO|c8600036lead|10.1.25.238|
LINEITEM|Monthly Charge|Email|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|Network Pause Live TV|||5.95|20121201-000000|20121211-032330|2|||N|||
LINEITEM|Monthly Charge|Internet|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|Email|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|Internet|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|Extended|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|All Wdg|||0.00|20121201-000000|20121211-032330|0|||N|||
LINEITEM|Monthly Charge|HD|||5.95|20121201-000000|20121211-032330|2|||N|||
LINEITEM|Monthly Charge|HMDVR|||5.95|20121201-000000|20121211-032330|2|||N|||
Basic|||0.00|20121201-000000|20121211-032330|0|||N|||
|||0.00|20121201-000000|20121211-032330|0|||N|||
|||0.00|20121201-000000|20121211-032330|0|||N|||
|||5.95|20121201-000000|20121211-032330|2|||N|||
|||5.95|20121201-000000|20121211-032330|2|||N|||
|||0.00|20121211-032631|20121219-220600|0|||N|||
|||5.95|20121211-032631|20121219-220601|2|||N|||
|||5.95|20121211-032631|20121219-220601|2|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||5.95|20121211-032631|20121219-220601|2|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||5.95|20121211-032631|20121219-220601|2|||N|||
|||0.00|20121211-032631|20121219-220601|0|||N|||
|||0.00|20121219-220739|20121231-235959|0|||N|||
|||0.00|20121219-220739|20121231-235959|0|||N|||
```



Intended audience:

- IT Engineers or computer system administrators in charge of servers
- Marketing
- Accounting
- Admin, Engineering
- Tech Support

What you will learn in this module:

- Recurring and non-recurring charges as they relate to M10 and a Service Provider's billing system.
- Billing files – Extraction, delivery and usage
- Minerva 10 billing reports within the scheduled cron jobs of M10
- Technical differences between the TAB format and the ARB format
- Using the TAB format for inventory and verification matching to your billing system.
- Using the M10 system to create invoices and access incurred customer charges.
- How to identify charge reversals within the M10 system.

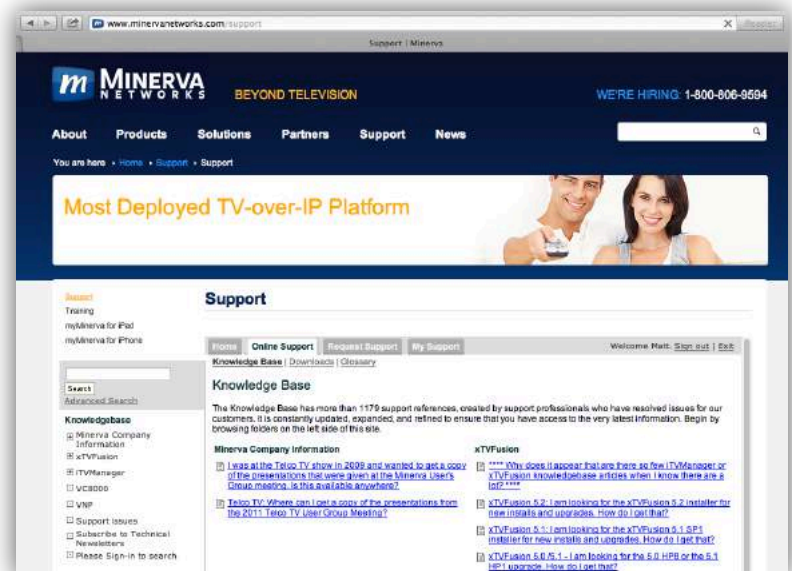
Course: Minerva Technical Support

Course Module 6

Module Duration - 1 Hour

Intended audience:

- IPTV, IT Engineers or computer system administrators in charge of servers
- Admin, Engineering
- Tech Support
- Headend Technicians



What you will learn in this module:

- How to sign-up for a support account to access the Web support portal.
- How to generate and manage support tickets.
- Setting priority levels for support tickets.
- How to access the Knowledge Base, searching methods, links to useful information.
- How to download product documentation, software service packs and hot patches from the eSupport site.
- When and how to escalate your issues.
- Understand the best ways to interoperate with Minerva support staff and expedite problem resolution.

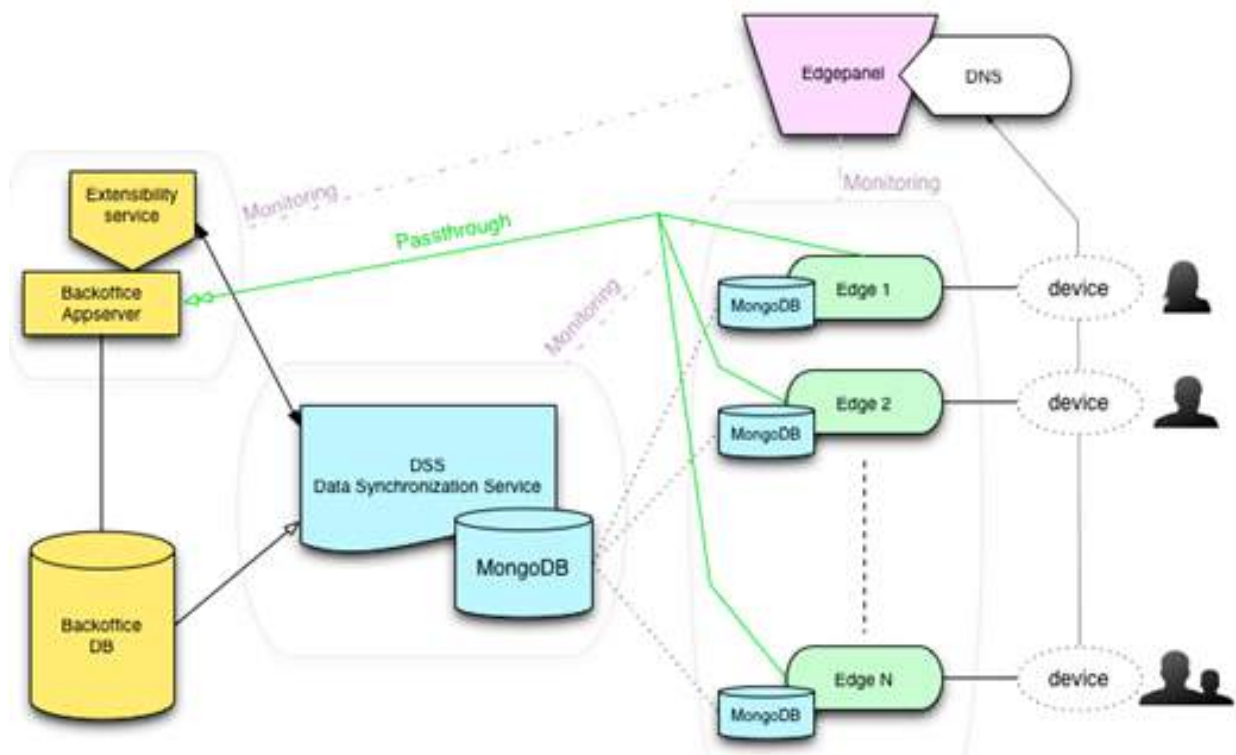
Course: M10 Architecture Overview

Course Module 7

Module Duration - 1 Hour

Intended audience:

- Headend, IPTV and IT Engineers, Server System administrators
- Engineering operators
- Tech Support personnel
- Headend Technician



What you will learn in this module:

- System architecture overview.
- System operation overview.
- Back Office to Edge system synchronization.
- General client server communication overview.

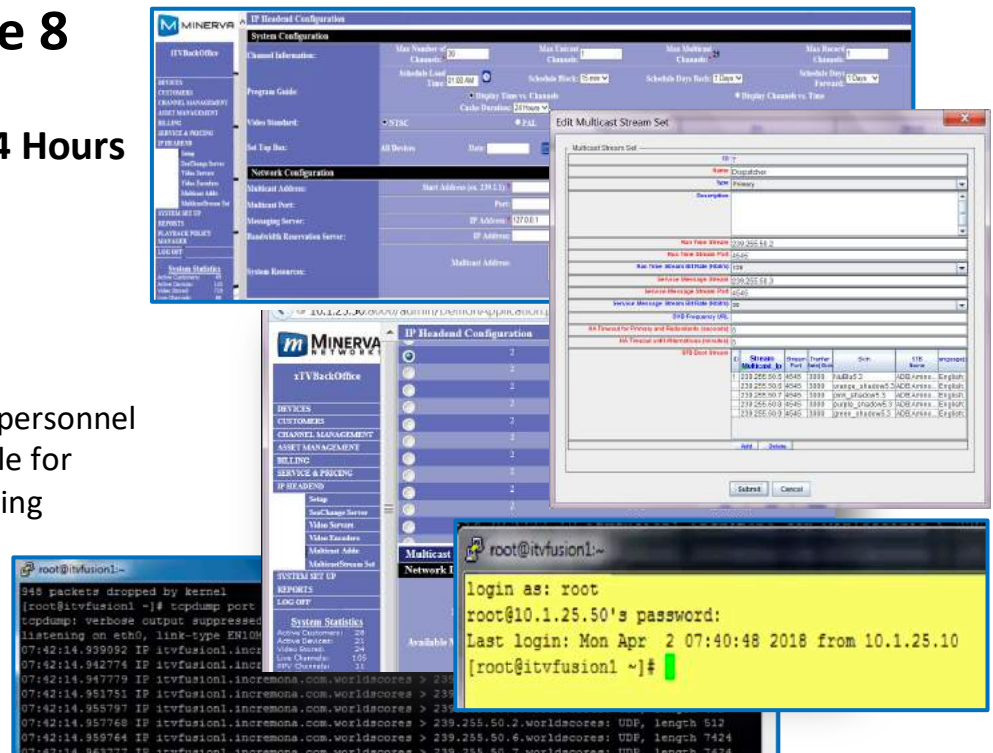
Course: Administration & Troubleshooting

Course Module 8

Module Duration - 4 Hours

Intended audience:

- Headend Technicians
- Admin, Engineering, Support
- Network Operations personnel
- Individuals responsible for maintaining/ supporting the IPTV system.



What you will learn in this module:

- M10 general operations, maintenance, setup/configuration screens and menus.
- Both methods of operation (HLS Unicast and multicast) operation will be explained.
- Multicast addressing setup: You will learn how the M10 system regulates the use of these multicast addresses.
- The Dispatcher functionality will be explained and demonstrated.
- Configuration of the multicast control (Runtime and Message) streams as it relates to setup needs as well as the various boot streams within the M10 Back Office configurations.
- Using the tcpdump command to troubleshoot the M10 system
- Using the tail command to watch logs and troubleshoot problems.
- Checking, starting and stopping WebLogic, appropriate Linux commands and directories, troubleshooting.
- Linux login, cron jobs, log files, process management
 - DB Backup
 - Loading EPG data
 - Daily, weekly and monthly maintenance checks
- Adding new admin users.
- Basic troubleshooting techniques:
 - Checking logs.
 - Finding root causes of basic failures.