



Minerva 10

2019

Online Training Schedule and Syllabus

Minerva 10

2019 Online Training Schedule

January 2019	February 2019	March 2019	April 2019																																																																																																																																																																															
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Course Modules - Days/ Times (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 module is only 1 to 6 hours long and is delivered online by trained Minerva Networks experts.

Module Times	Day 1 Tuesday	Day 2 Wednesday	Day 3 Thursday	Day 4 Friday
8:00AM to 9:00AM	1. M10 System Foundations & Overview	3. Customer Accounts	5. Administration/ Troubleshooting	5. Administration/ Troubleshooting (Continued)
9:00AM to 10:00AM	2. Channels, Lineups, Regions & Packages			
10:00AM to 11:00AM	Break	Break	Break	Break
11:00AM to 12:00PM	2. Channels, Lineups, Regions & Packages (Continued)	4. STB Operation & Client Devices	5. Administration/ Troubleshooting (Continued)	6. ACTools
12:00PM to 1:00PM				7. Billing and Data Extraction
NOTE: All Times are in USA Pacific Time				

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.

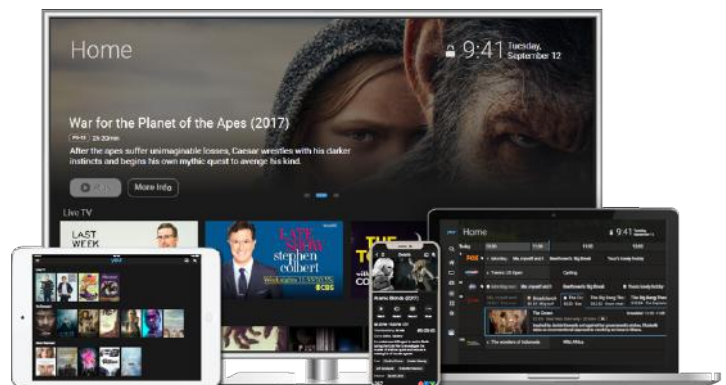
Course: Minerva M10 Platform Foundations

Course Module 1

Module Duration - 1 Hour

Intended audience:

- Anyone who wants to get a foundational overview understanding of the M10 System
- Server System administrators, Headend, IPTV and IT Engineers
- Tier 1, 2 and 3
- Engineering operators
- Tech Support personnel
- Headend Technician
- CSRs, Marketing, Sales, Management, Provisioning, Help Desk, Marketing, etc.



What you will learn in this module:

- Minerva Networks M10 Platform and System overview.
- M10 system architecture, components and functions.
- What operations does the Minerva M10 server system control?
- The essentials of the Minerva BackOffice server system.
- Features and Functionalities available at the Set Top Boxes and mobile devices.
- The essentials of the Minerva Edge server system.

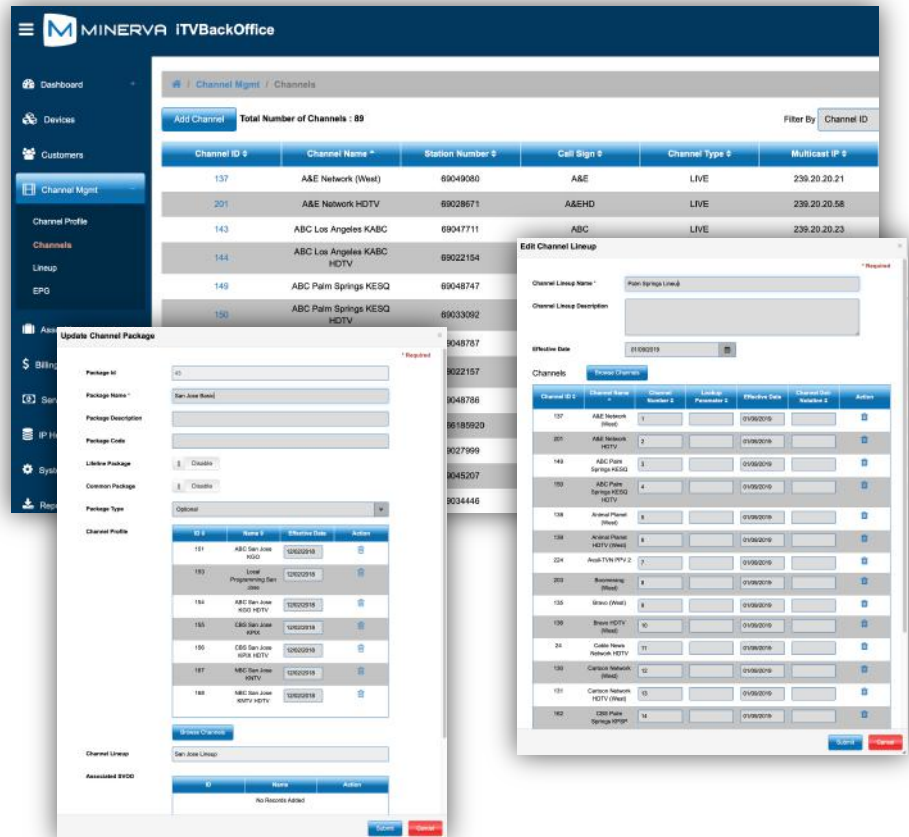
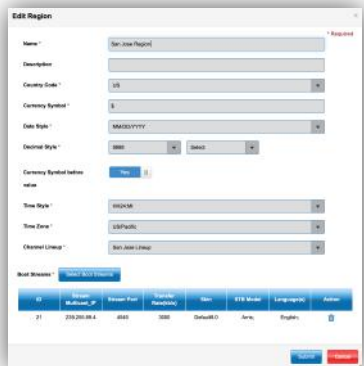
Course: Channels, Lineups, Regions & Packages

Course Module 2

Module Duration - 3 Hours

Intended audience:

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



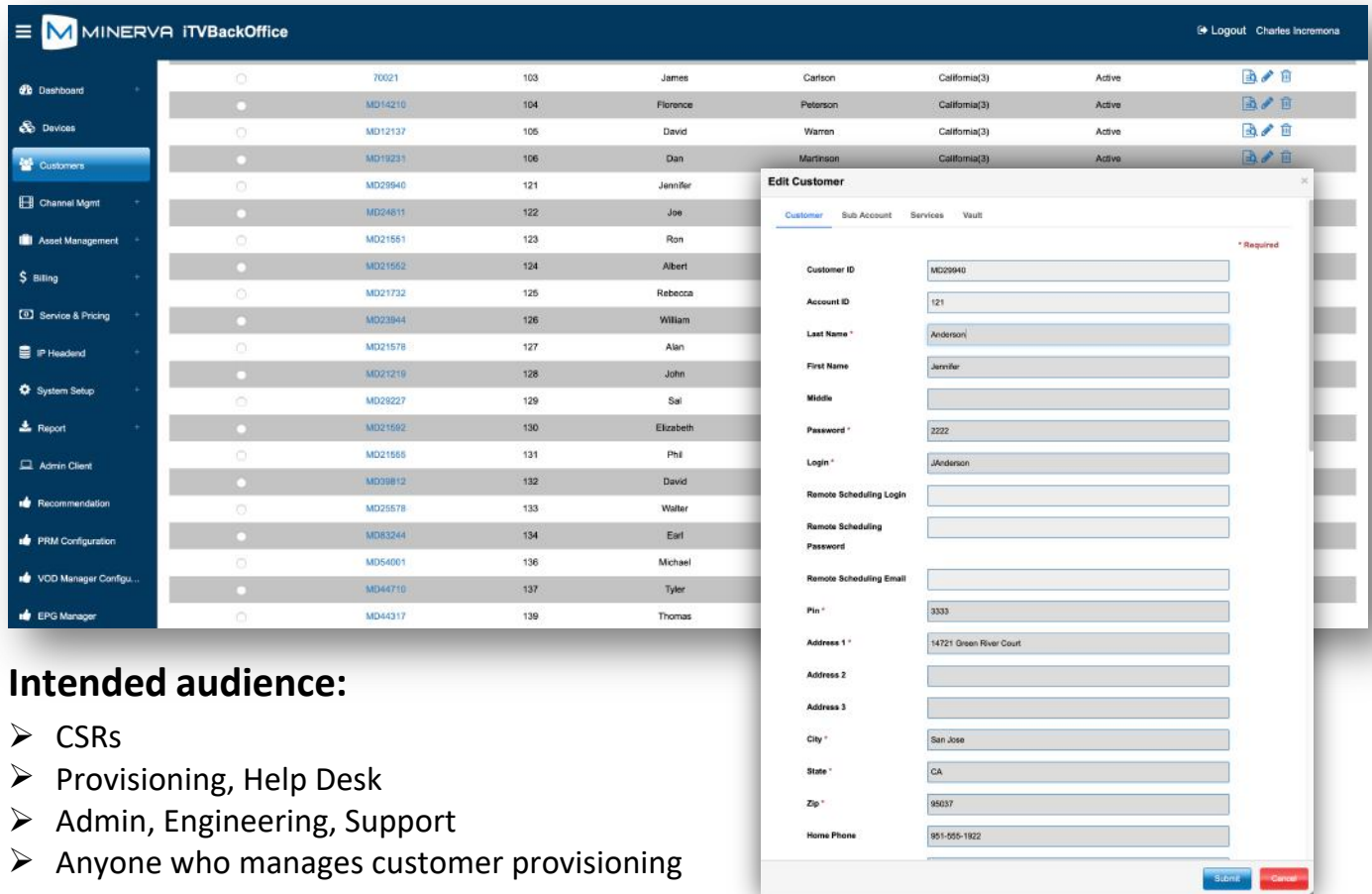
What you will learn in this module:

- Channels – students learn how to create channels as well as associate these channels with the TV Listing data service, the multicast IP addresses and port numbers, the HLS URL values or the DASH 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: Customer Account Creation/ Management

Course Module 3

Module Duration - 2 Hours



The screenshot displays the MINERVA ITVBackOffice interface. On the left is a navigation menu with options like Dashboard, Devices, Customers, Channel Mgmt, Asset Management, Billing, Service & Pricing, IP Headend, System Setup, Report, Admin Client, Recommendation, PIM Configuration, VOD Manager Configu..., and EPG Manager. The main area shows a table of customer accounts. An 'Edit Customer' modal window is open, showing fields for Customer ID, Account ID, Last Name, First Name, Middle, Password, Login, Remote Scheduling Login, Remote Scheduling Password, Remote Scheduling Email, Pin, Address 1, Address 2, Address 3, City, State, Zip, and Home Phone. The form is pre-filled with data for customer MD22940.

Customer ID	Account ID	Last Name	First Name	Middle	Password	Login	Remote Scheduling Login	Remote Scheduling Password	Remote Scheduling Email	Pin	Address 1	Address 2	Address 3	City	State	Zip	Home Phone
70021	103	James	Carlson														
MD14210	104	Florence	Peterson														
MD12137	105	David	Warren														
MD19231	106	Dan	Marinon														
MD28940	121	Jennifer															
MD24811	122	Joe															
MD21551	123	Ron															
MD21552	124	Albert															
MD21732	125	Rebecca															
MD23844	126	William															
MD21578	127	Alan															
MD21219	128	John															
MD26227	129	Sai															
MD21592	130	Elizabeth															
MD21566	131	Phil															
MD39812	132	David															
MD25578	133	Walter															
MD63244	134	Earl															
MD54061	136	Michael															
MD44710	137	Tyler															
MD44317	139	Thomas															

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 & optional.
- Activating Devices using Account ID, phone number or the 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: STB, Client Devices/ End User Experience

Course Module 4

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 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 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.
- Customer initiated account changes using the TV remote control (blocking channels from the home, changing the account password/PIN, changing Parental control levels, etc.).

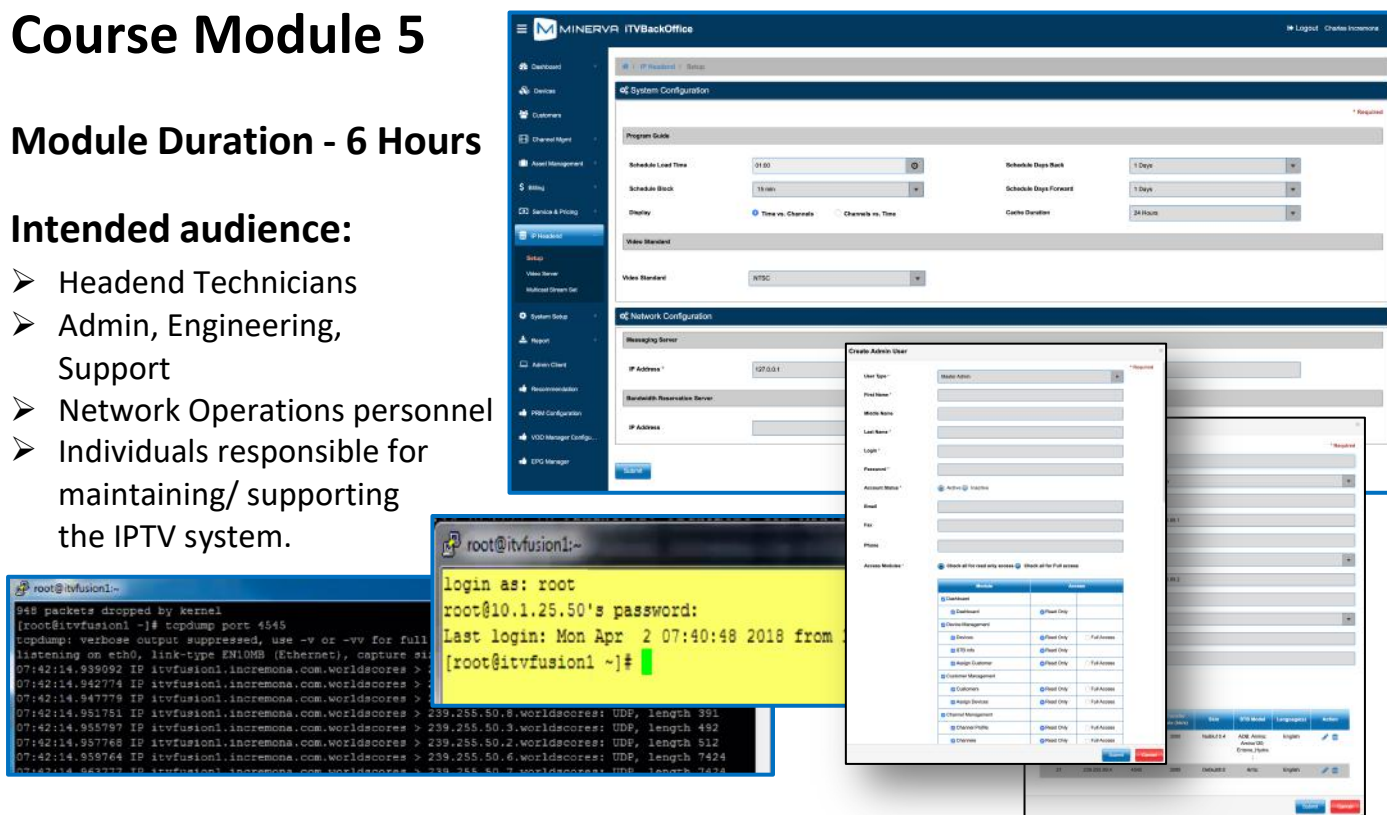
Course: Administration & Troubleshooting

Course Module 5

Module Duration - 6 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 BackOffice and Edge system core architecture and components fully explained.
- The Edge Panel screens, alarms, events, and the Kibana dashboard.
- Advanced M10 BackOffice administration screens and configurations.
- Both methods of operation (HLS Unicast and multicast) operation will be explained.
- The Dispatcher functionality will be explained and demonstrated.
- Configuration of the multicast control (Runtime and Message) streams as it relates to system requirements as well as the boot streams within the M10 BackOffice.
- Using the tcpdump command to troubleshoot the M10 BackOffice & Edge servers.
- Using the tail command to watch logs & troubleshoot problems within the BackOffice & Edge systems. Finding root causes of failures.
- Checking, starting and stopping WebLogic, appropriate Linux commands and directories, troubleshooting.
- Linux login, cron jobs, log files, process management (DB Backup Loading EPG data)
- Adding new admin users.
- Complete explanation of the methods to keep the BackOffice and Edge in sync as well as the associated log files.

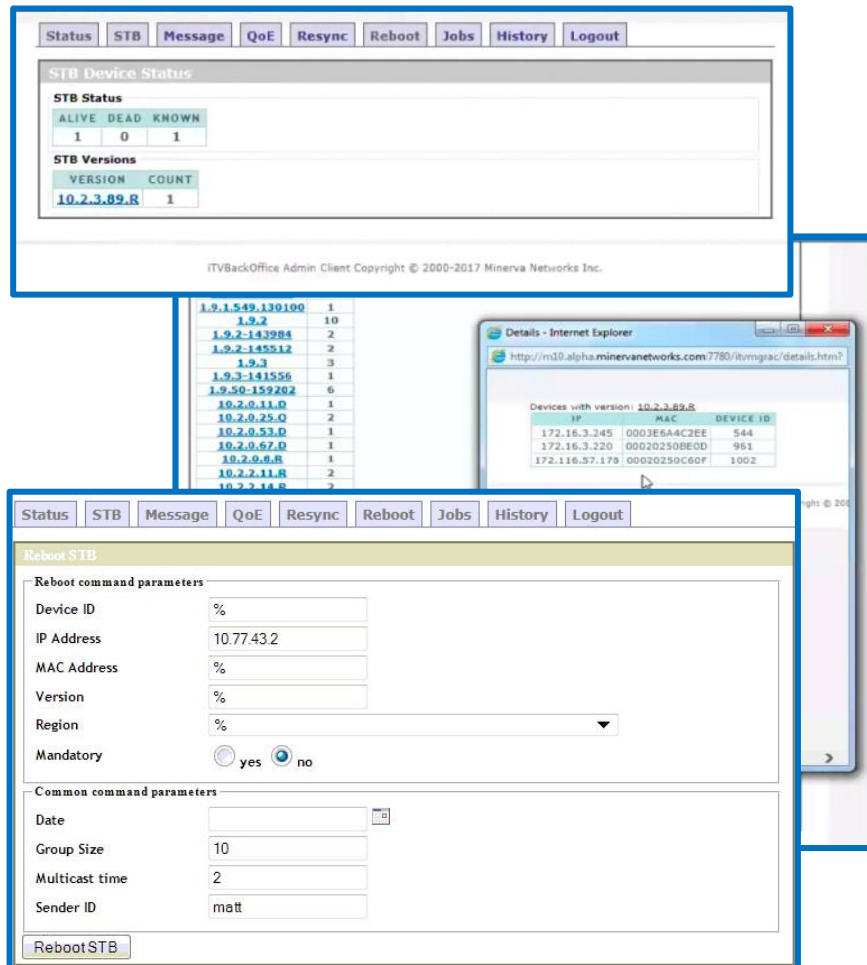
Course: ACTools

Course Module 6

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 illustrate the ACTools Admin Client interface. The top screenshot shows the 'STB Device Status' page with the following data:

ALIVE	DEAD	KNOWN
1	0	1

Below this, the 'STB Versions' table is shown:

VERSION	COUNT
10.2.3.89.R	1

The middle screenshot shows a list of STB versions and counts:

1.9.1.549.130100	1
1.9.2	10
1.9.2-143984	2
1.9.2-145512	2
1.9.3	3
1.9.3-141556	1
1.9.30-159202	6
10.2.0.11.0	1
10.2.0.25.0	2
10.2.0.53.D	1
10.2.0.67.D	1
10.2.0.6.R	1
10.2.2.11.R	2
10.2.2.14.R	2

The bottom screenshot shows the 'Reboot STB' form with the following fields:

- Device ID: %
- IP Address: 10.77.43.2
- MAC Address: %
- Version: %
- Region: %
- Mandatory: yes no
- Date: %
- Group Size: 10
- Multicast time: 2
- Sender ID: matt

A browser window in the background shows 'Details - Internet Explorer' with the URL <http://m10.alpha.minervanetworks.com:7780/itvmgac/details.htm?> and a table of devices with version 10.2.3.89.R:

IP	MAC	DEVICE ID
172.16.3.245	0003E6A4C2EE	544
172.16.3.220	00020250B0DD	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 BackOffice 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 Data Extraction

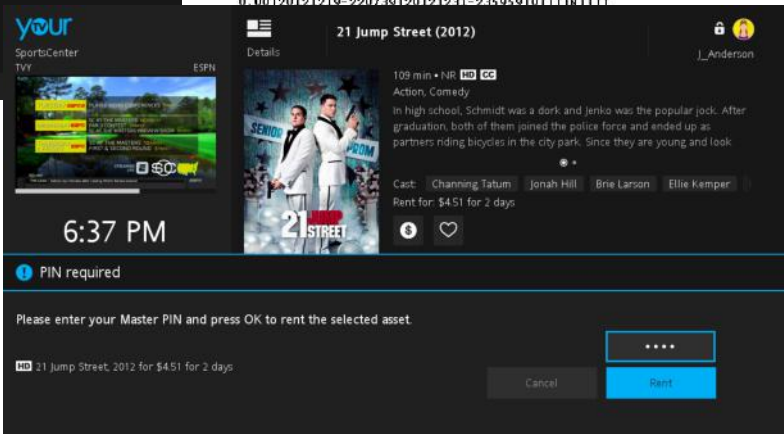
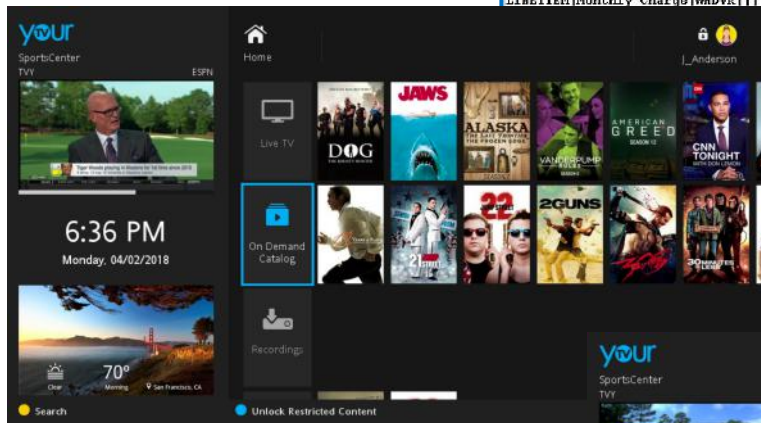
Course Module 7

Module Duration - 1 Hour

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CUSTOMER|MD13112|Jason|Anderson|20120910-000000|20120910-000000|1427 Chestnut Street||Lake Elsinore|CA|92532|195
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|TVY|N|N|10|191|
SIBSINFO||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 Widg|||||0.00|20121201-000000|20121211-032330|0||||N|||||
LINEITEM|Monthly Charge|HD|||||5.95|20121201-000000|20121211-032330|2||||N|||||
LINEITEM|Monthly Charge|WMDVR|||||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|20121219-220601|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|||||
|||||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|||||
County Basic|||||0.00|20121219-220739|20121231-235959|0||||N|||||
0.00|20121219-220739|20121231-235959|0||||N|||||

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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:

- Comparison of recurring and non-recurring charges as they relate to the M10 BackOffice and a Service Provider's billing system. What do the M10 BackOffice system's billing-related screens, pricing configurations, charge reversals and billing periods control? How do these relate to the external 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.