Key element of modern internet-based content delivery systems (Data, Voice, Video) is interaction with a subscriber. Time when classic TV broadcasting of identical contents to every viewer, without their ability to select desired contents and/or device on which they are consumed, is gone.

Interactive TV (iTV) systems enable subscribers to select the programs they want to watch at any time, any place and on any media device (TV set, PC, Smartphone, iPad, etc.). Internet-based content delivery systems of today are based on Next Generation Networking (NGN) principles, where the transmission of different video contents via IP represents one of its key features.

IP technology fully enables implementation of iTV, regardless of whether the service is offered by managed (Local Autonomy IPTV) or unmanaged networks (OTT).

Network Manager has always kept pace with most advanced technology solutions, and we can proudly say we are one of the first system integrators in the region that developed our own iTV system – Plum iTV software for realization of iTV service.

Plum iTV is made of Middleware, Media Engine and Transcoder. Plum iTV Middleware consists of Frontend (Android/iOS mobile applications for SmartPhones and Tablets, Android STB applications and Web applications) and Backend (Administrative panel - CMS and Monitoring&Statistics).

Plum iTV Media Engine consists of Streamer, Load-balancer and Storage.
PLUM iTV

Plum iTV is a solution prepared for Provider based on Project assignment delivered by the Provider.

It includes servers for Streamers, Load-balancer, Storage servers for Media files and servers for Middleware Backend and the amount of necessary hardware depends on the Project assignment itself. System is scalable and can easily be upgraded.

Plum iTV’s most significant functionalities are LiveTV, Catch-upTV, Time-shiftTV, BuffetTV (Plum iTV’s innovation that enables categorization based on program and not channel which enables better user-experience), nPVR, VoD as well as additional functionalities such as Parental control, Mosaic, Reminders, Multi-language, Multi-user, Promotions...
PLUM iTV
MIDDLEWARE BACKEND

Plum iTV Middleware Backend part consists of Monitoring&Statistics and Administrative panel – CMS.

Monitoring&Statistics are very important for Administrating the system. Basically, without these two features in an Interactive TV system, Provider is blind.

CMS (Centralized Management System) is Plum iTV Administrative panel in which complete system setup is done after installation. It is very intuitive and easy to use. Transcoding, Streaming, Administration of subscribers, packets and channels is done here.
Plum iTV Middleware Frontend part consists of different applications: Android/iOS mobile applications for SmartPhones and Tablets, Android STB applications and Web applications. Plum iTV also has an extension on Mobile applications that can cast stream on TV using ChromeCast.

Mobile applications for Android and iOS are native and have ChromeCast extension. Web application is supported on all popular browsers.

STB application for Android is also native with Plum iTV player.

Plum iTV is integrated with several STB vendors, but can be integrated with new ones too.
Plum iTV Transcoder is an integral part of Plum iTV solution but it can be replaced with a 3rd party Transcoder on Provider’s request.

Plum iTV Transcoder has support for all important bitrates, resolutions, aspect-ratios, codecs, and streaming protocols.

It is very flexible, quality of transcoding can be set, and it will determine consumption of hardware resources. Limitation for capacity is CPU load, which means that Provider can choose capacity/quality ratio by himself. If better quality of channels is needed, capacity will decrease and vice versa.
PLUM iTV MEDIA ENGINE

Plum iTV Media Engine consists of several parts: Streaming servers, Load-balancer and NAS storage servers.

Plum iTV Streamers deliver content to subscribers, they can be redundant, they provide evenly loaded and stable system in combination with Plum iTV Load-balancer.

Plum iTV Streamer has support for all streaming protocols, but most frequently used are certainly HLS and lately MPEG-DASH.

NAS Storage can be configured with 3 levels of redundancy, all content is recorded on these servers, and subscribers can access it from any device which improves user experience significantly.
www.networkmanager.rs

HUNGARY
Kalvaria Sgt. 26, 6722 Szeged
+36 62 950 616
office@networkmanager.hu

SERBIA
Svetog Save 64, 26 000 Pančevo, Serbia
+381 (0) 13 33 52 34
office@networkmanager.rs

BOSNIA&HERZEGOVINA
Srpskih Pilota 30, 78 000 Banja Luka,
Bosnia and Herzegovina
+387 (0) 70 31 06 71
office@networkmanager.ba

www.plumitv.com
office@plumitv.com