



MINERVA 10

Eric Freund

VP, Product Marketing



- Key Features & Architecture
- Initial Ecosystem & Deployment Requirements
- Schedule & Roadmap
- UI Demo
- Beta Program

Minerva | Minerva 10 Key Design Goals

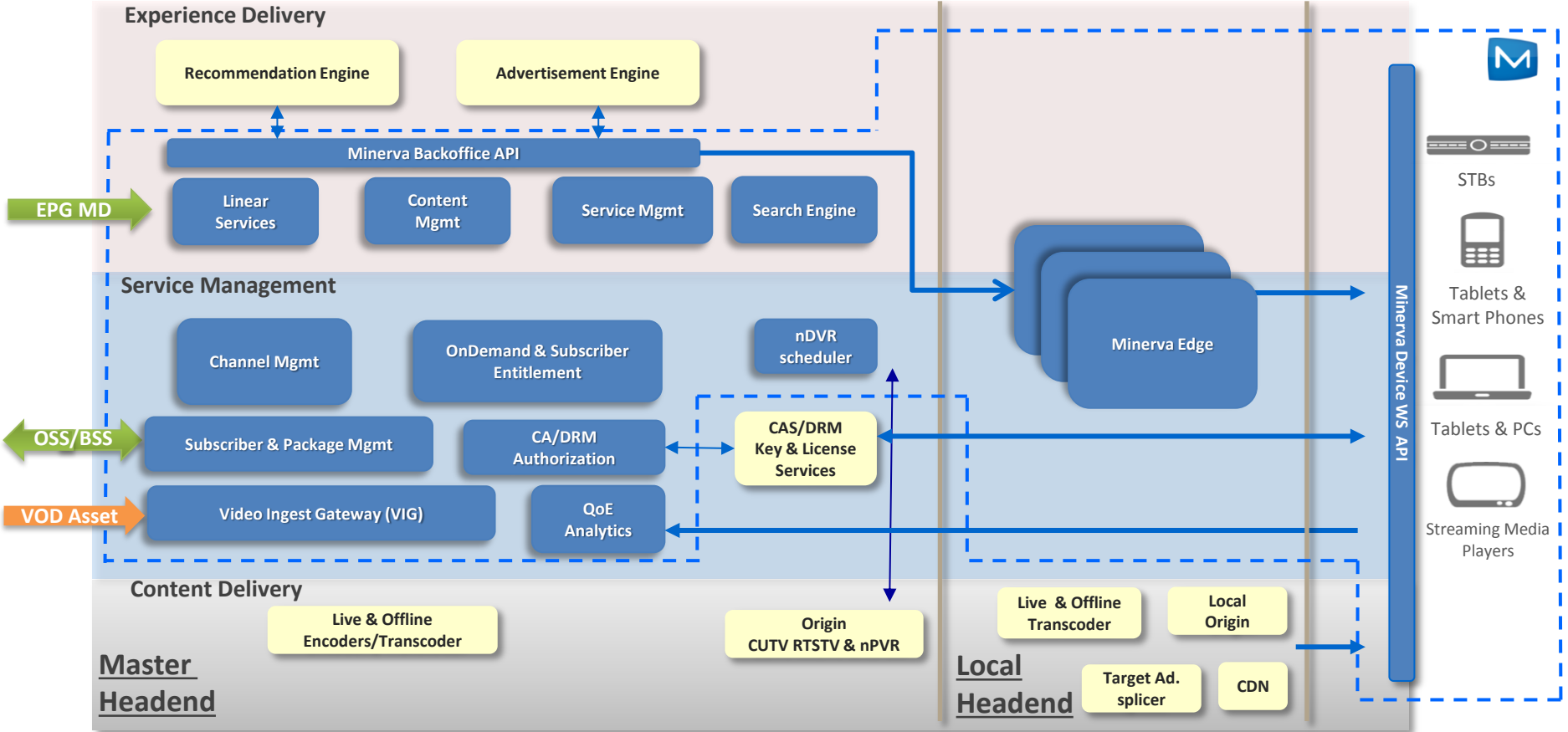
1. Introduce a new UI that provides a personalized user experience to improve content discovery
2. Improve scalability and responsiveness of client performance across range of devices and network conditions
3. Support ingestion and management of rich metadata
4. Improve analytics and reporting capabilities



Minerva | Entertainment Delivery Architecture



Minerva 3rd Party

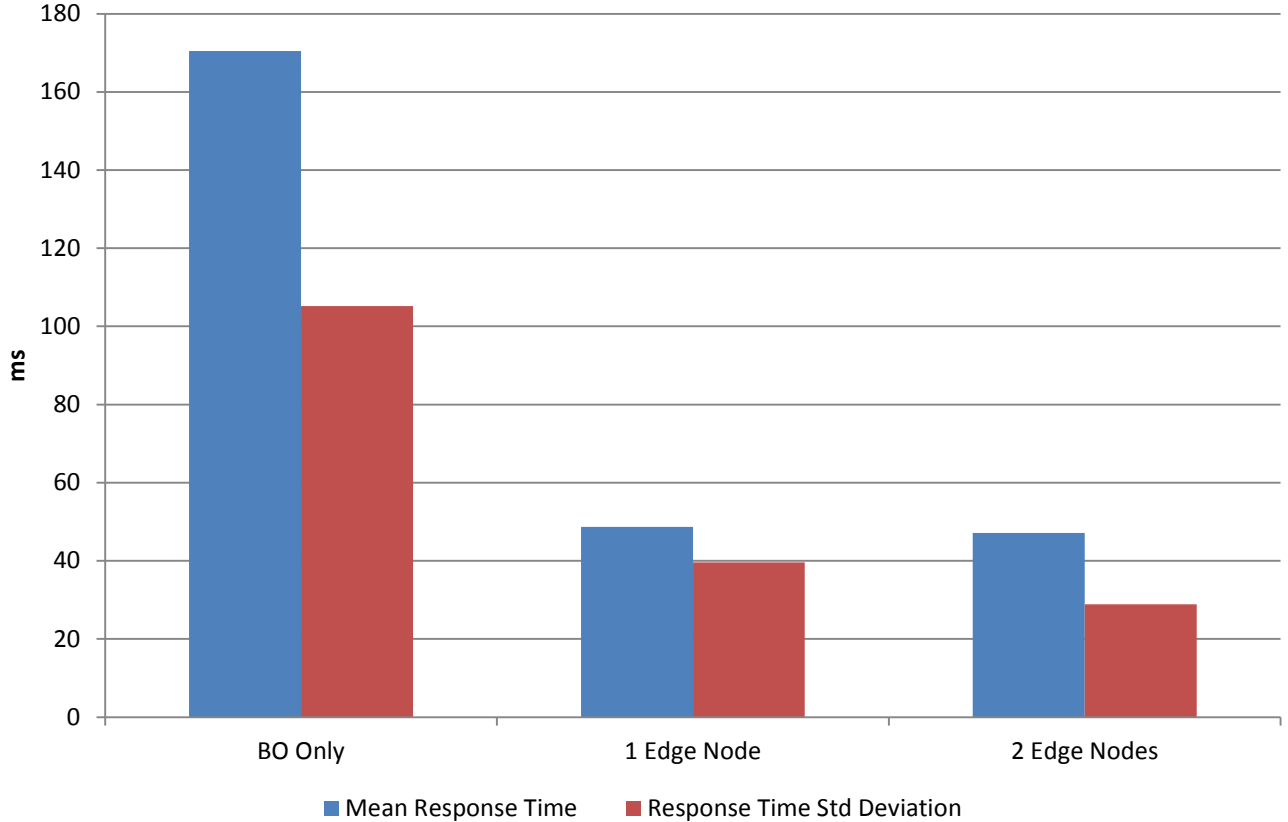




- Package Level Device Management
 - Define and assign multiple content packages per account based on device type
 - Auto-provision count can limit number of devices per device type
- Unified Web Services API's
 - All clients communicate via common set of API's
 - Insures consistency in user experience
 - Supports integration of 3rd party clients and applications
- Distributed architecture (Minerva Edge)
 - Minerva Edge caches metadata and other frequently requested data from the Back Office required by clients
 - Enables scalability and greater support for geographically diverse deployments
 - Designed to support additional offload of application processing from the client in the future

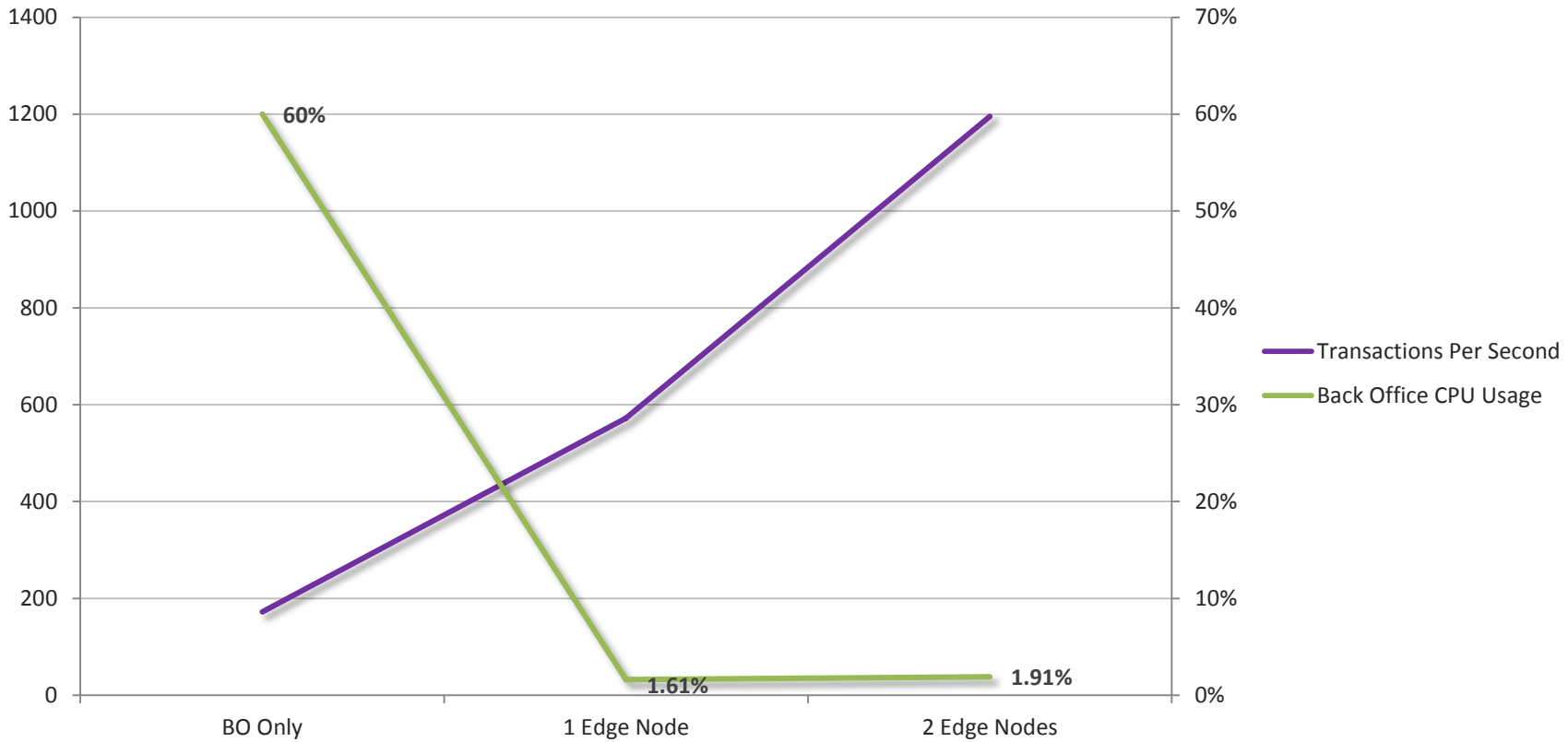


- Goals of Minerva Edge
 - Significantly improve **scalability** of platform – both in terms of # subscribers and # devices
 - Improve **responsiveness** of client performance in when performing server queries
 - Improve **consistency** of client performance under varying network conditions
 - Enable **flexible** deployment of Back Office in virtualized and cloud-based environments
- Services accelerated through Minerva Edge
 - STB booting
 - EPG metadata
 - VOD metadata
 - Federated Search
 - Content Filters
- Management & Monitoring
 - Performance monitoring and notifications
 - Remote management and upgrades



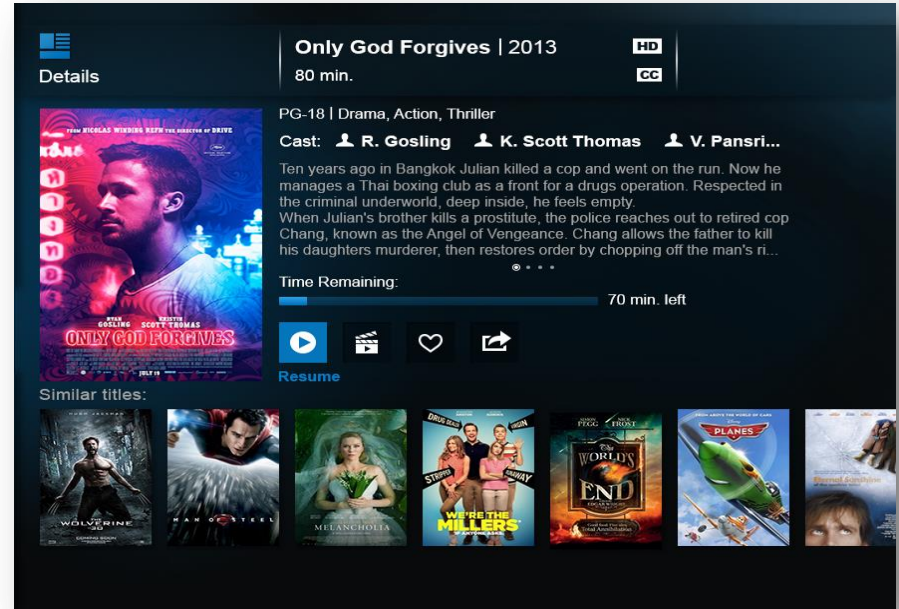
✓ Increased Responsiveness

✓ Improved consistency



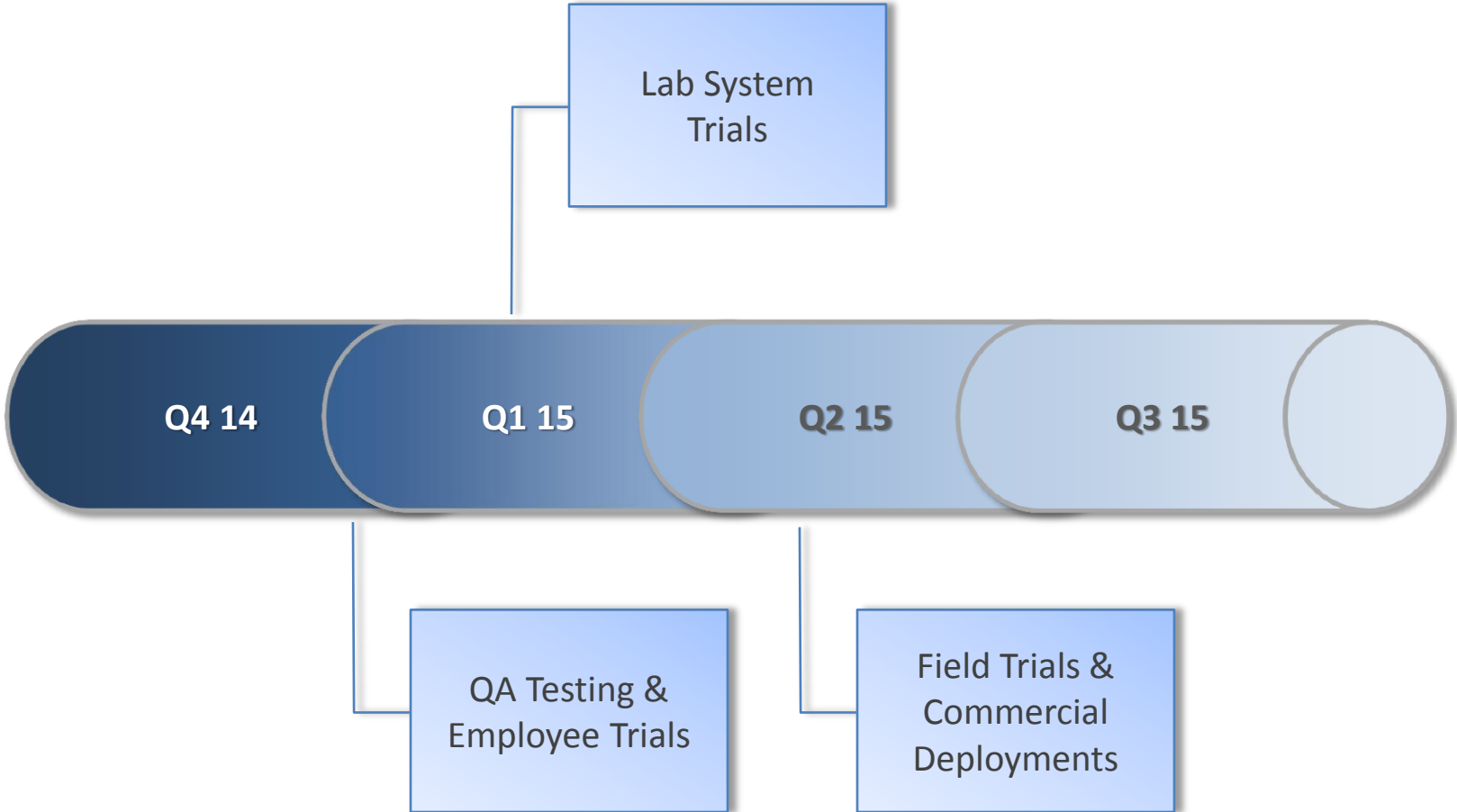


- Linear Metadata Ingestion
 - Bound to schedule (EPG) data
 - Unbound to schedule (Inform and Discover)
 - Ingest poster artwork, cast, genre, and other information to enhance content presentation
 - Initially implementation utilizing Rovi 2.0 data
 - Operator-defined Favorites
- VOD Metadata Ingestion
 - Content provider specific
 - Operator-defined Filters





Component	Partner
Rich Metadata (Linear TV)	ROVI
Recommendation Engine	ContentWise
CAS/DRM	Verimatrix
VOD/nDVR	Anevia, Edgware, Harmonic, Fabrix
Set-top Boxes	Amino: Live. X5x Entone: Kamai 5xx, Amulet 5xx, Agora 555





PRODUCT ROADMAP



MINERVA 10

- Rich Metadata Support (Rovi 2.0)
- Recommendations for Live and VOD
- Cloud-based Analytics
- Distributed architecture for scalability
- nDVR Single-Copy and Shared Copy support
- Federated Search
- Catch-Up and Restart TV
- Region & device-based Package Management
- SVOD and TVOD Support

SERVER

McKINLEY

- Download & Play multiscreen support
- Content Management & Metadata Editing
- UI based advertising
- Application Development Tools
- Asset-based device & location restrictions
- Latens Titanium / PlayReady Support
- Recommendations for Catchup TV
- 5.x client compatibility

2015

2016

YOURTV 1.4

- UI Refinements
- Subscriber Announcements
- Branding simplification
- Gateway transcoding support

CLIENTS

YOURTV 2.0

- Full support for Rich Metadata
- Versions for Android touch, iOS, and Browser
- Recommendations for live, VOD & Catch-up TV
- Individual user profiles



SERVER

EIGER

- 4k package management
- Cloud-based Remote User Interface (RUI)
- IPv6 Support
- UI Customization Toolkit
- Enhanced OTT Federated Search
- Voice control
- Enhanced Management & Workflow

2016

2017

CLIENTS

MULTISCREEN SDK

- Support development of integrated applications utilizing Minerva Web Services API's
- Player support for multiple DRM platforms

ENHANCED DEVICE SUPPORT

- Game consoles
- SmartTV
- Streaming Media Platforms



THANK YOU!