

A large, faint background image of a pair of scales of justice, symbolizing balance and equilibrium. The scales are positioned on the left side of the page, with the pans hanging from a central beam.

MOBIXELL SEAMLESS ACCESS

Strikes the perfect balance between cost reduction,
user experience, network simplification, and premium
service revenue generation



MOBILE DATA TRAFFIC IS EXPLODING, WHILE OPERATORS' REVENUES ARE FLAT LINING. INTERNET TRAFFIC AND VIDEO ARE CHALLENGING NETWORK ECONOMICS.

Analysts expect a data growth rate in the hundreds and thousands of percent over the next 3 to 5 years. Operator data networks are under extreme strain. Mobile network operators now need to face the challenges posed by this explosion in mobile data service usage. The challenges are many, and often – when solving one – conflicts arise with another, requiring mobile operators to choose the right balance for their network, their competitive environment, and their goals.

In many cases, the most immediate need is to increase the network's data capacity in a cost efficient manner. Many solutions are either very costly or adversely impact user experience. Neither situation is optimum. In addition, operators need to better control and manage their data traffic and networks, as well as to add new value added services that drive premium revenues and that create differentiation.

MOBIXELL SEAMLESS ACCESS

Seamless Access is a converged mobile data traffic management solution designed to support existing and next generation mobile Internet and mobile broadband services. Mobixell Seamless Access empowers operators to achieve the perfect balance between cost reduction, user experience, network simplicity, and premium service revenue generation.

NETWORK SIMPLIFICATION

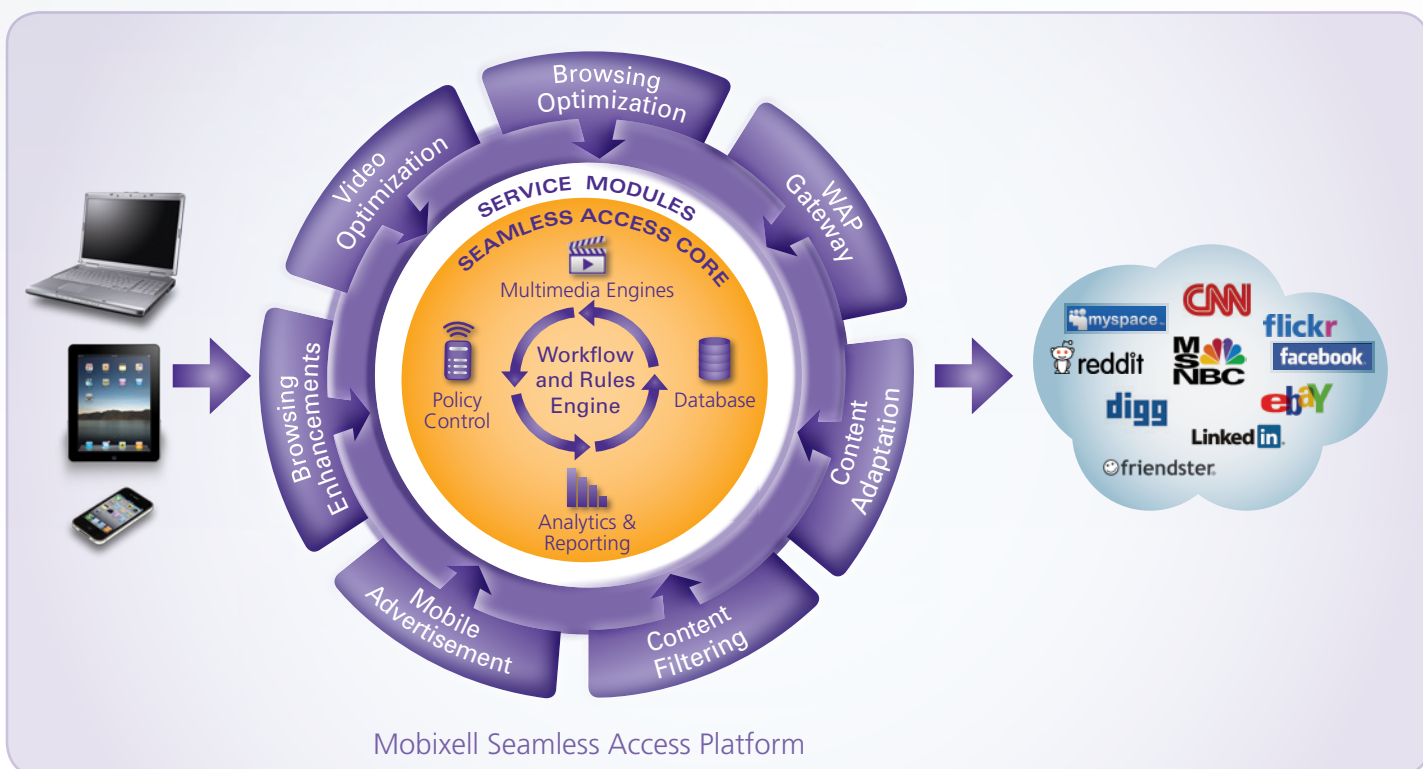
Mobixell Seamless Access is a single network component that integrates all data service functions, thereby reducing the data network complexity and avoiding the proxy chain trap that stems from deploying disparate solutions in proxy architectures. At its core, Seamless Access contains a state-of-the-art rule engine for facilitating an operator's managed policy configuration. By consolidating

the control of all data traffic services into one box, operators gain facile management and cost efficiency.

COST REDUCTION

Seamless Access breaks down the cost reduction element into 3 categories:

- **Traffic and Video Optimization** - Mobixell Seamless Access makes use of the multi-dimensional factors of the operator's own eco-system to provide superior data optimization capabilities. Seamless Access uses Network-aware, Device-aware, Behavioral-aware, and Content-aware capabilities to provide best Quality of Experience (QoE), combined with lowest Total Cost of Ownership (TCO).
Network-aware optimization techniques include dynamic bit rate adaptation and cell congestion detection;
Device-aware optimization assures that generated content will leverage



the specific device's capabilities and take into consideration its limitations, for the best user experience and highest compression; **Behavioral-aware** optimization provides real-time analysis of the viewing patterns to minimize resources investment per user using just-in-time delivery, statistical transcoding and caching; **Content-aware** optimization analyzes video scene complexity and quality, to determine the best algorithm to adjust it for best user experience.

- **Load Balancing** - CAPEX savings through load management based on off-the-shelf HW, provides an alternative to dedicated costly load balancing equipment in large networks with high traffic volume.
- **Traffic Orchestration** - CAPEX savings through load management provides an alternative to standard costly LBAs in large networks with high traffic volume.

USER EXPERIENCE

User experience is the key to service usage and revenue generation. When user experience is poor, at best, subscribers stop using the service, and at worst, they churn to competitor networks.

Mobixell Seamless Access employs in-house developed technologies that provide superior video experience, initiate faster video playing, continuous no-buffering video play back, and superb audio quality. Mobixell has developed optimization techniques that are very sensitive to the network status, source content, and target mobile device. Seamless

Access can also act as a video enabler for mobile devices that do not support source protocols, format, or codecs. For Web optimization, Seamless Access provides an accelerated WEB/WAP page loading, and a full content adaptation solution (including mark-up language and multimedia transcoding that is sensitive to target handsets).

PREMIUM SERVICE REVENUE GENERATION

As mobile data traffic grows, mobile operator revenues from these services grow at a slower pace, due to flat-rate data plans and commoditization of such services. Consequently, the marginal revenue per data bit is shrinking. In order to overcome this trend, mobile operators seek methods to monetize the data traffic better, and want to know what innovative revenue generated premium services can be offered.

- **Advanced Tiered Pricing**
Allows operators to offer subscribers service-oriented bundles which are easy to understand.
- **Real-time User Configured Class of Service (CoS)**
Empowers subscribers to temporarily upgrade their CoS in real-time and boost their service experience.
- **Application and Data Coupling**
Allows operators to partner with content providers in order to offer subscription services such as VOD.

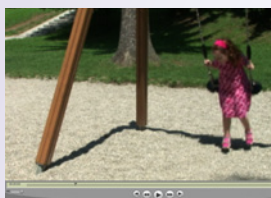
Mobixell Seamless Access offers the following revenue generating premium services:

- **Next Generation Content Filtering** – A child safety service for parents who want to protect their children, while providing them maximum freedom and minimal parental intervention. In this day and age, simply blocking a service is insufficient. An innovative service enabling monitoring messages and personal content is required to keep parents in the know.
- **Mobile Advertising** – An advertising solution for mobile handsets and PCs/laptops with mobile Internet access in the form of inserted banners, special toolbars, and interstitials while browsing Internet pages, and in the form of pre-/post-roll, text tickers, and banners on video.

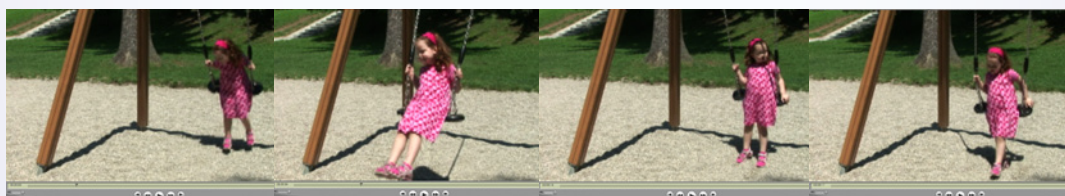


Smart Toolbar on PC and Mobile

- **Enriching Over-the-Top Services with Operator's Assets** – A service that allows operators to cooperate with content providers in order to offer new personalized services.



Non-Optimized Video: Frequent Buffering Leads to Degraded Experience



Optimized Video: Continuous Enhanced Play Experience with **Mobixell Seamless Access Solution**

STRIKE THE RIGHT BALANCE WITH SEAMLESS ACCESS

MOBIXELL SEAMLESS ACCESS BENEFITS:



REDUCE CAPEX/OPEX

- Simplify networking architecture
- Selectively apply optimization only when needed
- Unrivaled cost-effective platform for converged triple/quad players

SIMPLIFY NETWORK COMPLEXITY

- Centralized control from a single platform
- Flexible rule-based service control
- Monitoring tools to reflect network status and user behavior

MAXIMIZE USER EXPERIENCE

- Optimize rich media content to device's capabilities and limitations
- Accelerate browsing experience
- Enable personalization of over-the-top enriched services

GENERATE PREMIUM VALUE ADDED DATA SERVICE REVENUES

- Fast and cost-effective introduction of premium services
- Enrich headers and URLs to enable content providers to run personalized applications
- Enable flexible differentiated services

Mobixell Offices

Mobixell Networks Inc. (Americas Headquarters)

1735 Technology Drive, Suite 550, San Jose, CA 95110, USA

Tel: +1 650-353-3032 • Fax: +1 408-973-9657

Mobixell Networks Europe Ltd. (EMEA Headquarters)

Thames Court, 1 Victoria Street, Windsor, Berks, SL4 1YB,

United Kingdom

Tel: +44 1753 626 682

info@mobixell.com

www.mobixell.com

