

Enabling True Network Intelligence Everywhere



Qosmos ixEngine 5.0 - What's New?

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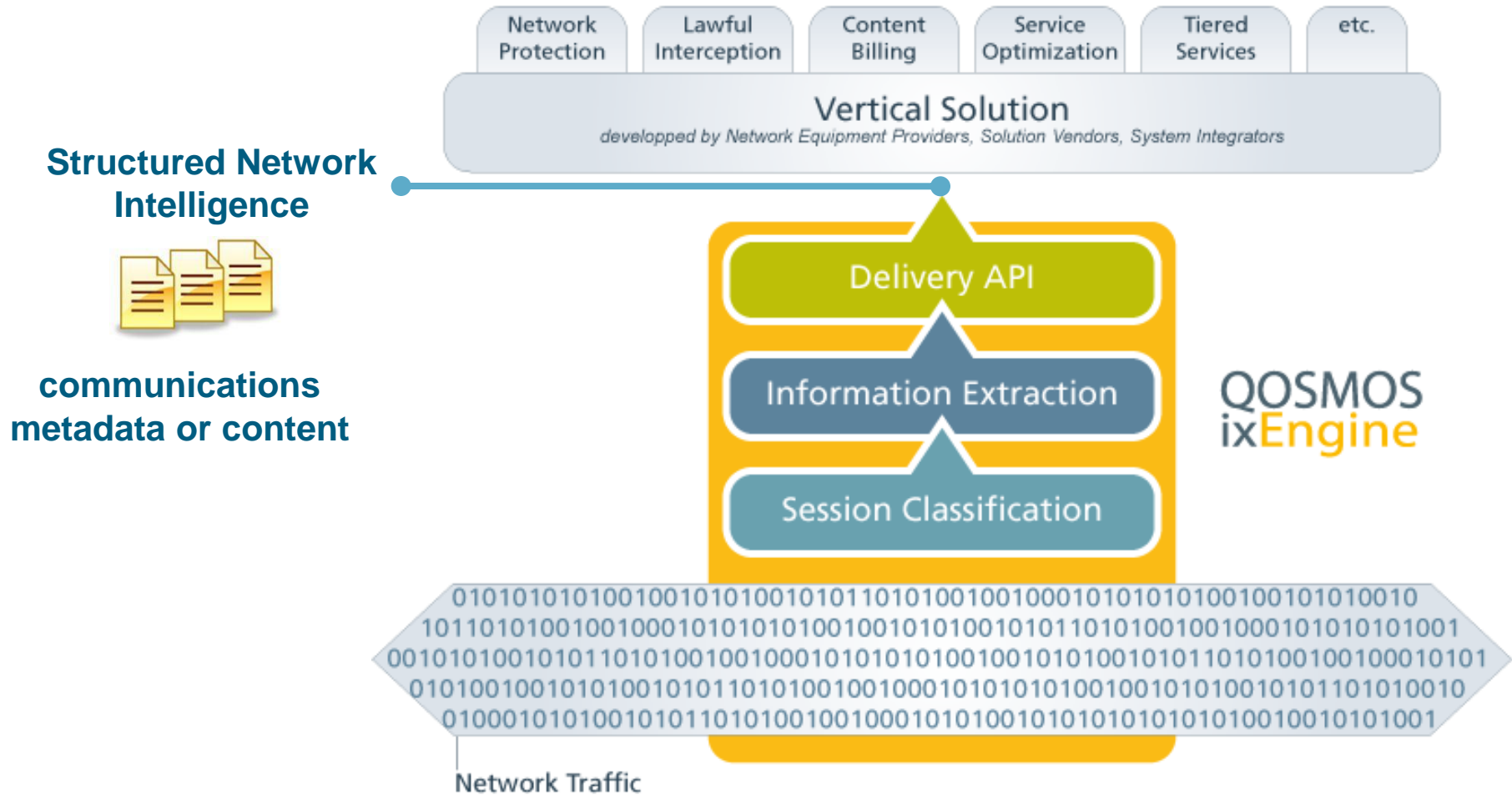
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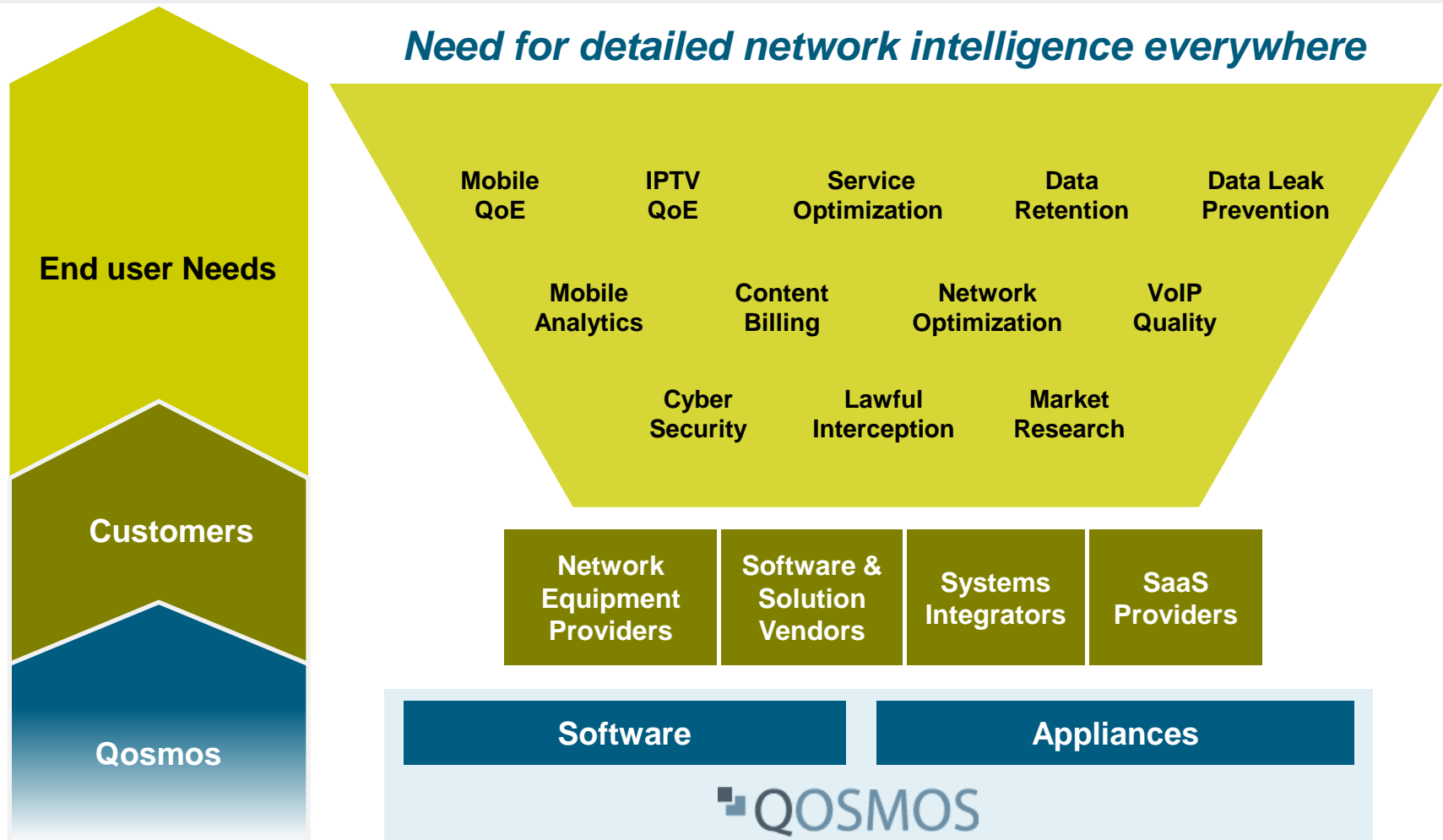
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Network Intelligence: Making Sense out of Network Traffic



Business Model



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Qosmos ixEngine 5.0 – Overview

- **Builds on award-winning ixEngine Software Development Kit (SDK)**
 - Pre-developed, customizable, reusable Network Intelligence gathering toolkit, easily integrated into new or existing solutions
 - Used by developers to ensure optimal performance and enhance security of government, telecom and enterprise applications
 - Already adopted by developers at NEPs and ISVs in Europe, Asia and NA
- **Core technology enhancements in ixEngine 5.0**
 - **Performance:** Qosmos Sessionizer™, broader protocol support, HTTP Plugin, speeds up to 80 Gbps (64 bit processors, SMP support up to 96 cores)
 - **Usability:** advanced filtering and analysis, customization with Protocol Plugin API
- **Market focus**
 - Government cyber security: confidentiality, protocol plugin API
 - Mobile applications: enhanced support for GTP and mobile applications
- **Commercial availability**
 - ixEngine 5.0 will be available from September 2009

Qosmos ixEngine 5.0: Government Focus

■ Key applications areas

- Lawful interception (LI)
- Cyber security of government networks

■ Specific government requirements

- Confidentiality and complete control over solutions
- Own custom solutions based on specific government security expertise & requirements
- Ability to adapt solutions quickly and accurately to new situations
- Generate efficiencies: development time, resources, costs

■ Features of special interest for governments in ixEngine 5.0

- Protocol Plugin API: enhanced control, fast reaction time, increased confidentiality
- Advanced traffic filtering: reduced requirements for processing and storage (e.g. LI)
- Building-block approach:

Ability to create unique solution based on own expertise

Fast time to market and reduced costs by avoiding internal development of Network Intelligence technology

Efficiencies by using the same technology for several applications (Security, LI)

Qosmos ixEngine 5.0: Mobile Application Focus

■ Key applications areas

- Mobile analytics
- Content billing
- Mobile quality of experience

■ Specific mobile application requirements

- Support for IP protocols and applications in mobile networks
- Scalability of solutions to multi-Gbps line rates
- Detailed visibility at all levels: device, application, action, user

■ Features of special interest for mobile applications in ixEngine 5.0

- Support for the latest mobile Webmail and IM: Microsoft Live Hotmail, mobile Gmail, msn mobile, etc.
- Enhanced GPRS Tunneling Protocol (GTP) support
- Deep Network Intelligence gathering at core network speeds up to 80 Gbps
- Detailed visibility at all levels: device (PC, type of phone), application (Web, P2P, email etc.), action (URLs, requests, forms), and user (who)
- Building-block approach: focus on core competence, fast time to market, cost avoidance, by sourcing best-of-breed network intelligence technology

Qosmos ixEngine 5.0: Improved Performance

Category	New Capabilities	Benefits
Core technology innovation	Qosmos Sessionizer™ correlates flows into sessions, and sessions into applications	<ul style="list-style-type: none"> - Provides clear application view of the traffic - Enables developers to create differentiation in their products
	Qosmos dynamic state machine supervises in real-time any changes in the session state	
Broader protocol support	Instant support for any new Web application	<ul style="list-style-type: none"> - Qosmos can generate any HTTP plugin automatically (e.g. for specific Website or Web application), thus dramatically increasing coverage of HTTP-based applications - Extended ability to handle encrypted traffic - Future-proofing - Support for all the latest mobile Webmail and IM - Full visibility into mobile traffic encapsulated in GTP
	Generic Web form parsing mechanism to extract metadata from any HTTP form	
	20 new specific application protocols supported, including hundreds of metadata	
	Support for the latest version of Mobile MS Live Hotmail, with 51 metadata extracted	
	Enhanced GPRS Tunneling Protocol support	
	Support for IP v6 and transition mechanisms	
	SSL decryption using certificates and keys	
Higher speeds	Support for 64 bit processors (x86, Cavium Octeon, RMI XLR, Tileria)	<ul style="list-style-type: none"> - Deep Network Intelligence gathering at core network speeds up to 80 Gbps - Ensures that applications built with ixEngine can scale as network speed increases
	Advanced symmetric multiprocessing (SMP) support for increased scalability, up to 96 cores	
	ixEngine V5 now available on Tileria environment, one of the world's highest performance processors for embedded applications under Linux	

Qosmos ixEngine 5.0: Enhanced Usability

Category	New Capabilities	Benefits
Extended development environment	Support for Linux Standard Base (LSB) 3.x	<ul style="list-style-type: none"> - Easier to develop Linux-based applications - Fast time to market and lower costs
Advanced filtering and analysis	New filtering mechanism enables selection of information based on layer 7 criteria	<ul style="list-style-type: none"> - Ability to manage large quantity of information extracted (granular info + high throughputs = huge amount of data) - Reduced requirements for processing and storage by a factor 10 - Easy navigation, drill down into information, and multi-dimension analysis - More value from extracted info and more intelligent security mechanisms, thanks to multi-dimensional analysis
	Traffic attributes organized into a hierarchical structure (instead of flat structure)	
	Qosmos Sessionizer™ allows multi-dimensional information analysis (user, session, context, application)	
Unique customization	Protocol Plugin API enables developers to create their own plugins to extract relevant data from a protocol or an application and generating custom Network Intelligence	<ul style="list-style-type: none"> - Enhanced control over own solution for Qosmos customers - Ability to support proprietary protocols - Increased confidentiality for sensitive cyber security solutions - Ability to create unique differentiators based on own expertise

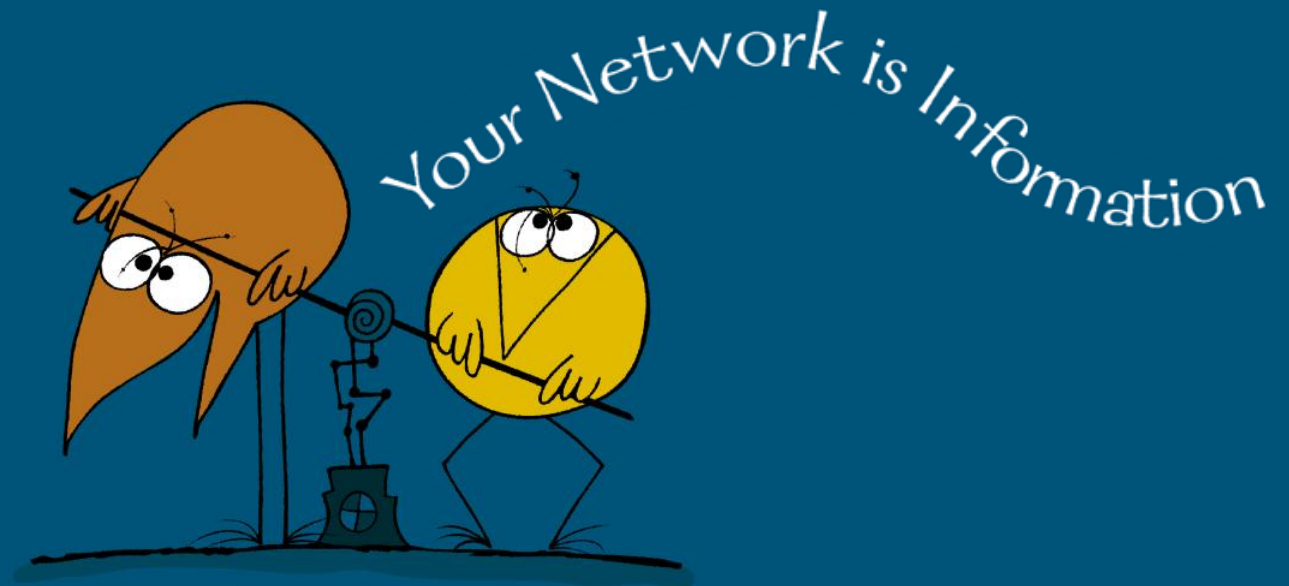
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Summary

- **Qosmos provides unique capabilities to extract detailed metadata and content from IP networks**
 - Building block approach: ixEngine SDK or ixMachine appliances
 - Flexibility across a wide range of applications
 - Portability onto various hardware platforms
- **Enhancements in Qosmos ixEngine 5.0**
 - Performance: core technology innovation, broader protocol support, higher speeds
 - Usability: advanced filtering and analysis, Protocol Plugin API
 - Well-suited for applications in government and mobile environments

Go to www.qosmos.com to request a free evaluation of Qosmos ixEngine!



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Product Portfolio



Information eXtraction Engine *(Software Libraries)*

ixEngine

- ❑ Software suite that enables developers to implement powerful Network Intelligence features in their products

ixEngine Protocol Plugin Creator

- ❑ Specially designed for the creation of new/custom protocol plugins

Product Range

- ❑ x86/32bits
- ❑ x86/64bits
- ❑ RMI XLR
- ❑ Cavium Octeon
- ❑ Freescale PowerQUICC
- ❑ Tiler



Information eXtraction Machines *(Appliances)*

ixMachine

- ❑ Hardware appliances that extract extremely fine-grained information from the network to feed third-party systems

Product Range

- ❑ ixM 10 Series: CPE (~ 10s Mbps)
- ❑ ixM 100 Series: Access (~ 100s Mbps)
- ❑ ixM 1 000 Series: Edge (~ Gbps)
- ❑ ixM 10 000 Series: Core (~ tens of Gbps)

- ❑ ixMOS 10 / 100 / 1 000 / 10 000

Qosmos ixEngine Customer References (Sample)

Use case	Customer	Solution	Benefits
Content Billing	Volubill: European vendor of charging and policy solutions	ixEngine feeds charging and policy functions with IPDRs	Time to market, cost avoidance, reuse technology for other applications
Network Optimization	Ipanema Technologies: European vendor of traffic management and WAN optimization	ixEngine generates information on application and bandwidth usage	Focus on core competence, time to market, cost avoidance
Lawful Intercept	European systems integrator and solution developer	ixEngine is used to reconstruct traffic content (emails, VoIP, Web pages)	Time to market, cost avoidance, reuse technology for cyber security
Mobile Analytics	North-American vendor of mobile analytics solutions	ixEngine SDK for detailed monitoring of mobile data service usage	Focus on core competence, time to market, cost avoidance
Web Security & Filtering	European supplier of Web security gateways	ixEngine feeds gateway with detailed information on Web traffic	Focus on core competence, time to market, cost avoidance