



Mobile Software

– Building Balanced Business Systems

Year End Strategy Update, December 3, 2002

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One Year Ago....


1
Press Release

Industry leaders announce commitment to open mobile architecture enabling a non-fragmented global mobile services market
(November 13, 2001)

Comdex: Wireless Open Standard Initiative Revealed
Tuesday November 13 4:26 AM ET

Wireless Carriers, Phone Makers Back Open Standards

Nokia's Olli unveils 3G mobile initiative
20 November 2001, 12:00:00 PM
Published November 17, 2001 07:18 CEST (updated November 13, 2001 10:18)



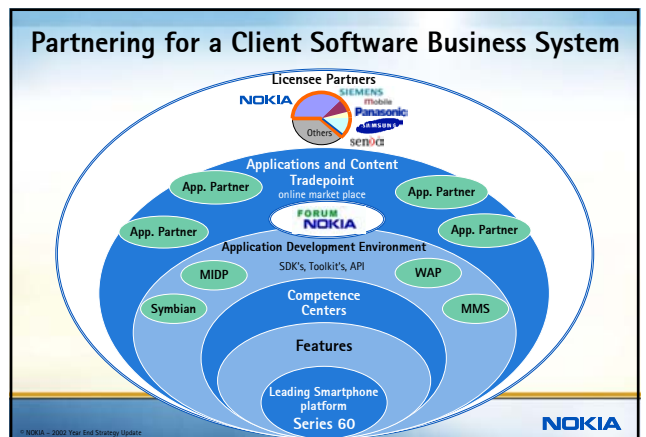
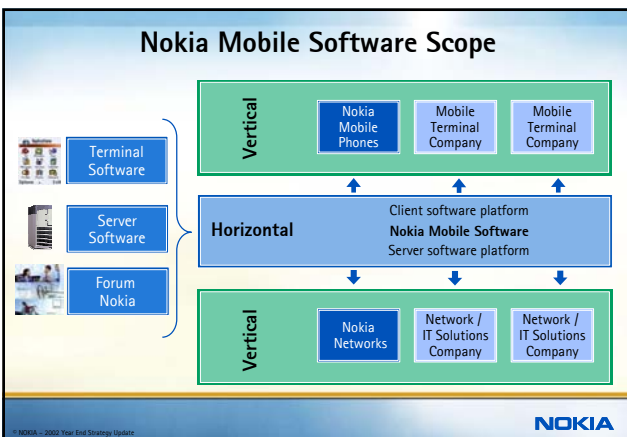
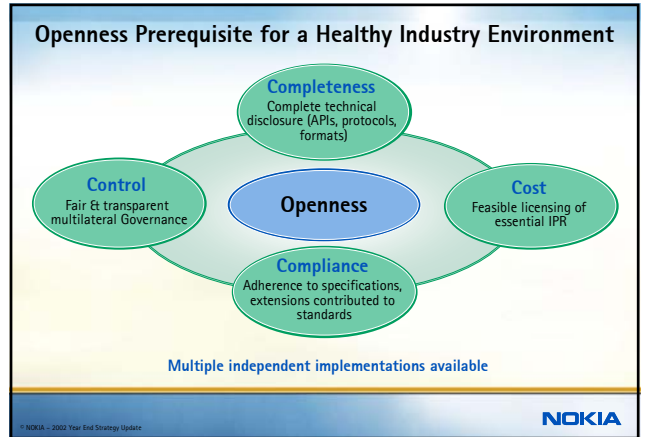
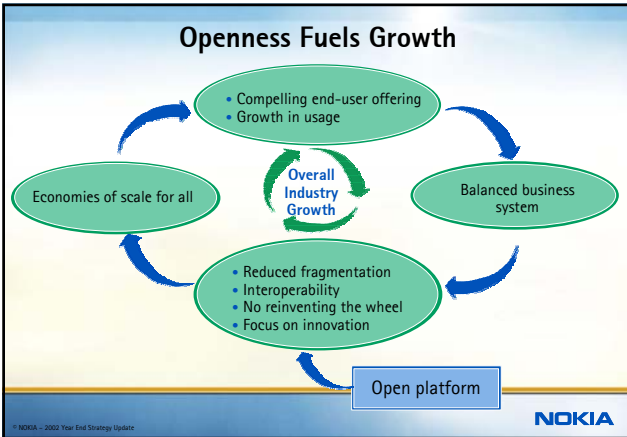
2
Press Release

Nokia to license a mobile terminal software platform and client components to handset vendors
(November 13, 2001)

Nokia to License Components
WSJE(11/14)Nokia Expands Availability of User-Interface Tech

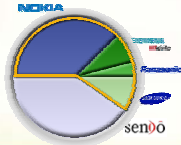
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Nokia Series 60 Software Platform

- Operators
 - Reduced platforms complexity
 - Enables differentiation while maintaining applications and services interoperability
- Developers
 - A real business opportunity
 - Economies of scale
 - Development complexity reduced
- Manufacturers
 - Common software platform
 - Differentiation and value added with UI customization
- End-users
 - Content can be easily accessed by and shared between compatible Series 60 devices

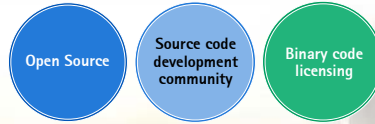


Product leadership in smartphone platforms

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Source Code Development Community



Best of both worlds

- Product differentiation through complementary sw development
- Multi-party innovation to source code
- Investment protection
- Interoperability

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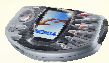
Series 60 Devices From Nokia



Nokia 7650 – Nokia's first Imaging phone
 • Create, send and receive multimedia messages



Nokia 3650 – The first Nokia Imaging phone in North America
 • Camcorder and video player – Complete tool for capturing and sharing images
 • Operates in six continents



Nokia N-Gage™
 • Mobile game deck device
 • Launch in February 2003

Series 60 platform

- Over 2 million shipped in 2002
- 10 million in 2003*

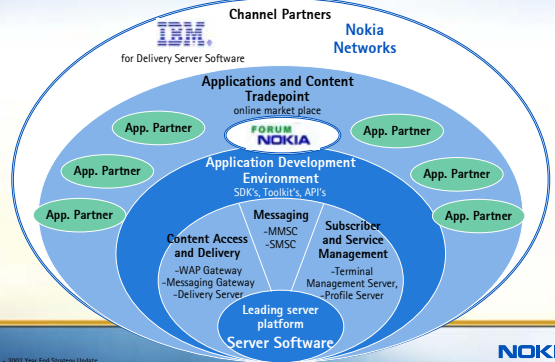


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* Estimated shipments of Nokia Series 60-based devices; source: Nokia

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Partnering for a Server Software Business System



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Platform Leadership in Server Platforms

Client-only applications



- Stand-alone games
- Java applications

Delivery of new applications

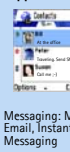
Browsing model



- Web browsing
- Content search and preview

XHTML browsing with WAP2.0

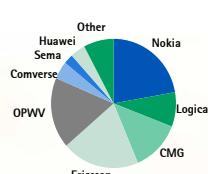
Client-server applications



- Messaging: MMS, Email, Instant Messaging
- Online games
- Presence enabled applications

Servers for end-to-end applications

Mobile Server Middleware Market*

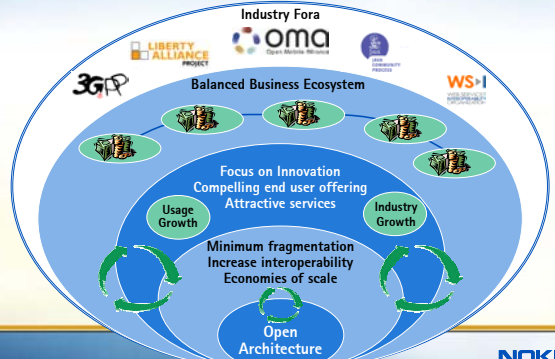


* Average market shares for SMS, MMS, WAPGW

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Winning Architecture Through Collaboration



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Open Mobile Alliance Delivers

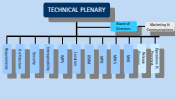
Approx. 300 member companies across industries



First comprehensive set of OMA specifications released

- Browsing v. 2.1
- Delivery/Content Download v. 1.0
- Digital Rights Management v. 1.0
- Domain Name Server v. 1.0
- Email Push Notification v. 1.0
- Instant Messaging and Presence Services v. 1.1
- Multimedia Messaging v. 1.1
- User Agent/Device Profile v. 1.1

Industry forum consolidation completed, organization and processes in place

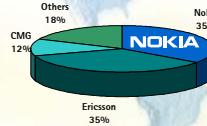


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Rapid Industrywide Adoption of MMS

- More than 70 commercial MMS launches since March 2002
- Multivendor and GSM-CDMA interoperability demonstrated at COMDEX® Fall 2002
- Global service footprint through operators' interconnection and roaming agreements



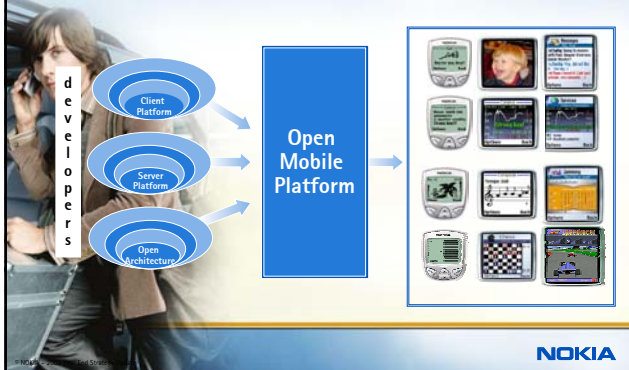
Nokia - the leading terminal vendor with 16 MMS terminal launches to date

Nokia - a leading MMSC vendor with more than 40 commercial deals

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Additional Ingredient - Developers



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Forum Nokia: Developer Community

- Well over 800,000 registered members - A leading wireless online community bringing together application developers around the world

Nokia Software Market

Consumer Application Market (B2C)

- A complete, easy-to-use offering with electronic software delivery

Nokia Tradepoint

Business Application market (B2B)

- Global marketplace for operators, corporate customers, ASPs, ISPs, SIs
- Mobile operators

Tradepoint - B2B marketplace Carrier / operator sales channel



"Learn-Build-Test-Sell"

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Video

Summary



- Series 60. Industry leading software platform for smart phones
- Five licensees (approx. 60 percent of global handset manufacturers)
- Over 2 million units shipped in 2002

- MMS industry adoption: over 70 live implementations
- Demonstrated MMS IOP
- Nokia: The market leader in mobile middleware servers
- Nokia: 35 % market share in MMS servers

- The first OMA specifications out
- Industry fora consolidation done

- Forum Nokia: well over 800,000 active, mobile focused developers
- On-line B2B marketplace: Nokia Tradepoint
- A direct channel to consumers: Software Market

Building balanced business system

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CONNECTING PEOPLE

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