Transition to IPv6 for Internet Growth

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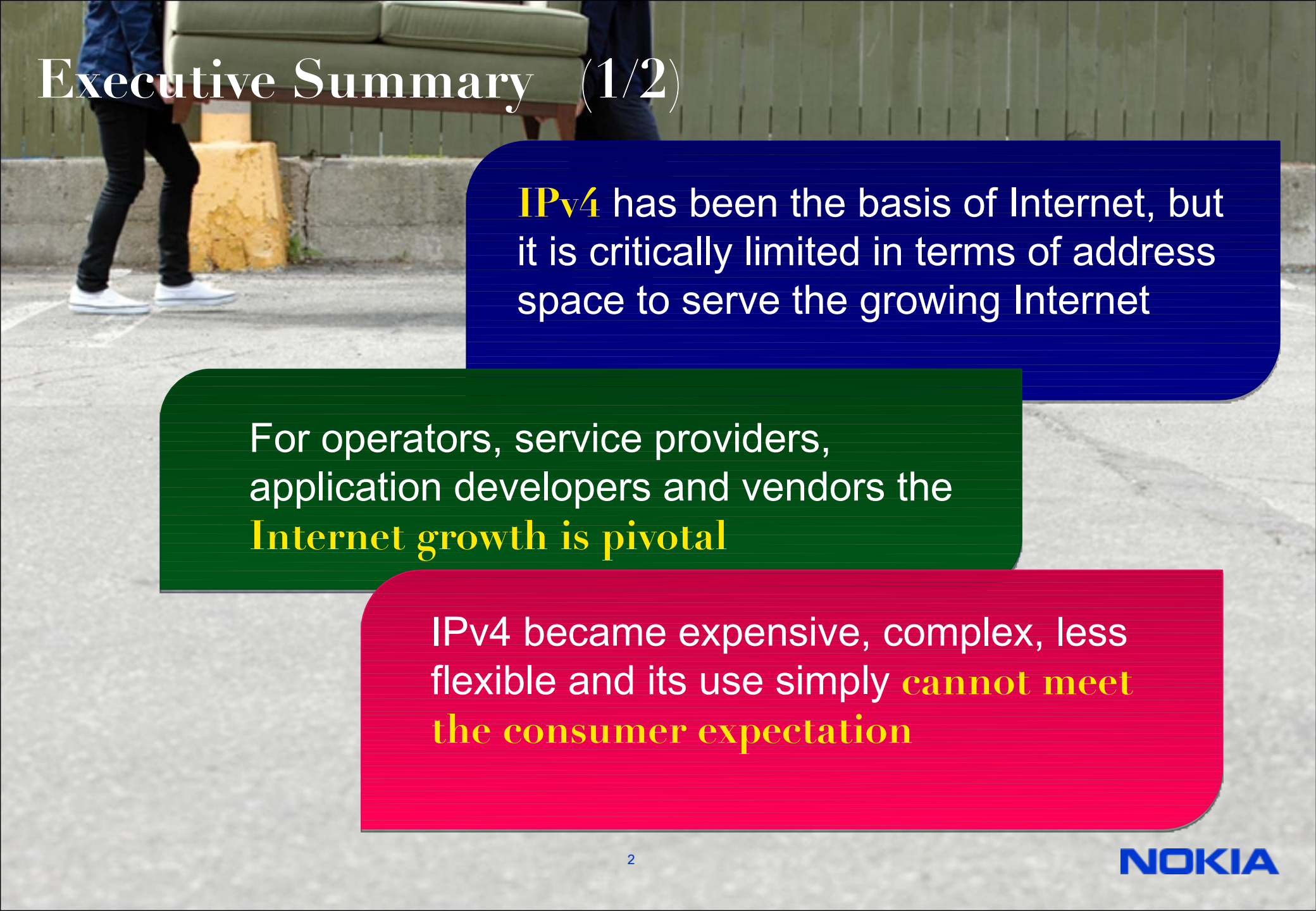
Executive Summary (1/2)



IPv4 has been the basis of Internet, but it is critically limited in terms of address space to serve the growing Internet

For operators, service providers, application developers and vendors the **Internet growth is pivotal**

IPv4 became expensive, complex, less flexible and its use simply **cannot meet the consumer expectation**

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Executive Summary (2/2)

IPv6 simplifies the scenario with increased address space, and it ensures Internet access for the ever growing Internet-enabled machines

It is a welcome solution for all, but **transition** is a major task

Nokia has had IPv6 for a long time in many devices, and new improvements and devices are constantly added to **meet demands** and **ensure smooth transition**

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IPv6 in Nokia Devices

Available Symbian Smartphones & modified N900 computer can be used for IPv6 trials & tests

Nokia 5140

Nokia 9500 Communicator

Nokia 6630

Nokia N95

Nokia 5230

Nokia E72

Nokia N8

Nokia E7

Windows Phone

SYMBIAN

series 40

2004 — 2011 — 2012

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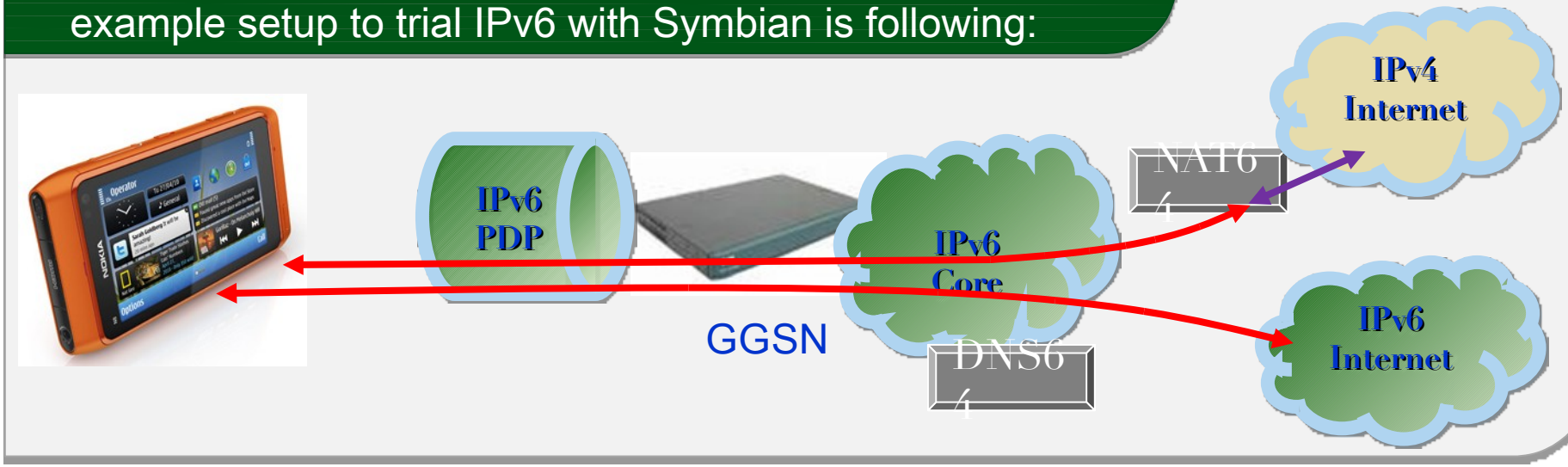
Current Symbian devices for IPv6 trials

Symbian supports IPv4/IPv6 hybrid stack

One application can use IPv4 or IPv6 cellular access but not both simultaneously

Many applications are already IPv6 enabled and the remaining are being moved to support IPv6

Symbian devices are used for IPv6 trials, and an example setup to trial IPv6 with Symbian is following:



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Nokia prefers dual-stack solution for transition

Nokia sees the **dual-stack** approach as the most customer-friendly solution for **transitioning to IPv6**

Dual-stack is also the standard approach (3GPP)

IPv6-only transition solution based on **protocol translation** can cause **service discontinuity**, and is only an option for specific cases due to discrete reasons

Challenges of IPv6 transition

The transition from IPv4 to IPv6 will include a long period of coexistence

Transition to IPv6 must be smooth and transparent for the consumer

Transition is a major task for operators, vendors, application developers and service providers

Nokia Recommendations

Asses the available IP address pool against the anticipated growth, and plan your IPv6 transition timetable accordingly

All the applications and services must be IPv6-friendly

Find the right transition solution for your case

Discuss and agree with your network vendors and ISPs to ensure coordinated effort

Maintain IPv4-only access for the legacy devices, applications and services

Conclusions

IPv6 is introduced **now** to **ensure Internet growth**, and Nokia prefers **dual-stack** approach

Nokia is the **leading IPv6 company**

- Available devices are used for IPv6 trials
- Number of IPv6 devices/enhancements to increase significantly from 2012 onwards
- Nokia is actively researching, standardizing and implementing IPv6 improvements

Coordinated effort is required for **smooth** and **effective** IPv6 transition to enable Internet growth

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Nokia plans

Involvement in both closed and open trials using existing devices' IPv6 capabilities

Increasing numbers of IPv6 enabled devices

Introduction of dual-stack IPv4 & IPv6 cellular connectivity in 2012

Active research and standardization for the technology and device improvements

Thank you

Díky za pozornost

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