

# **Linux Is Ready For Mission Critical Infrastructures**

**Brad Day, Simon Yates**  
Forrester Research

# Theme

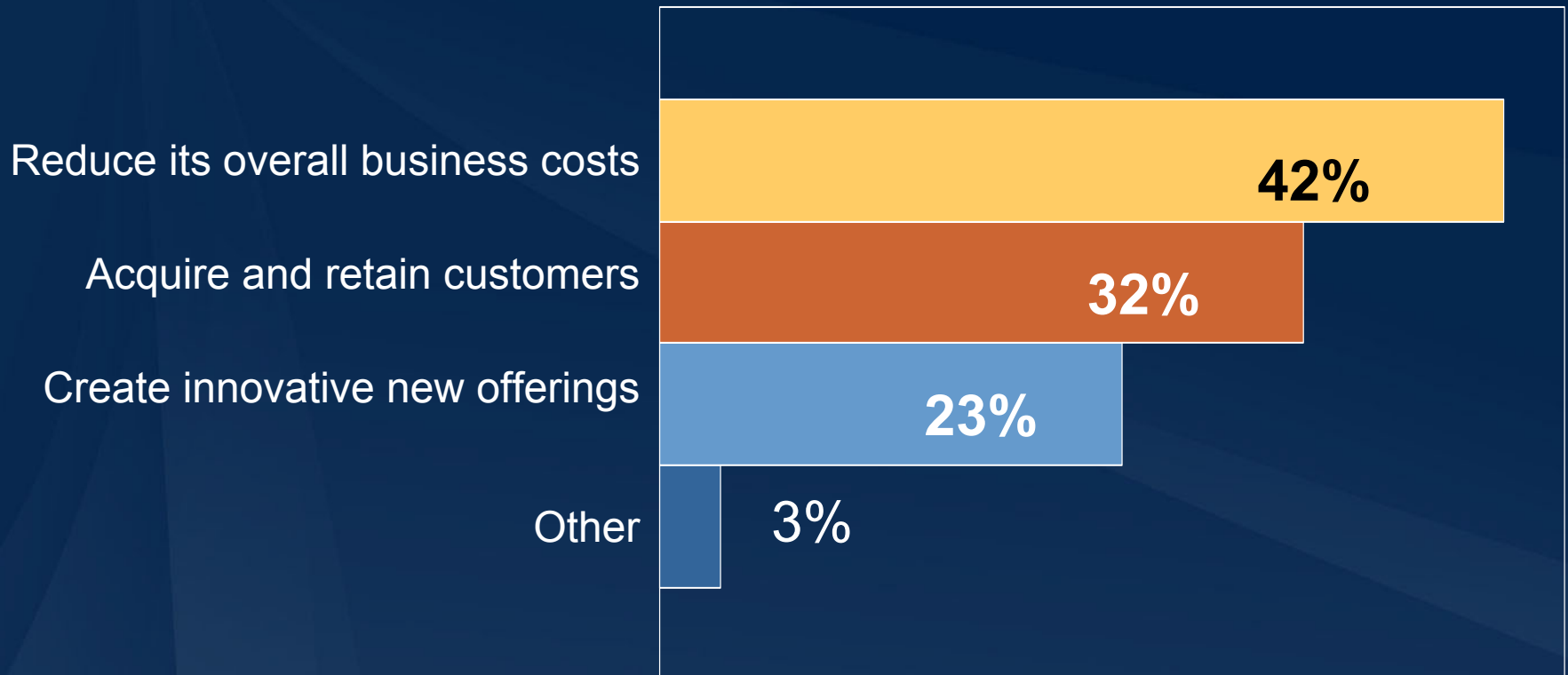
**Put Linux on your  
short-list for mission  
critical infrastructures**

# Agenda

- The CIO's Compromise
- How Linux changes the game
- Critical selection criteria
- IBM's Linux scorecard

# The CIO's Compromise: Reducing costs...

“In 2005, which one of the following business needs will be most important for your IT organization to support? To help the company...”



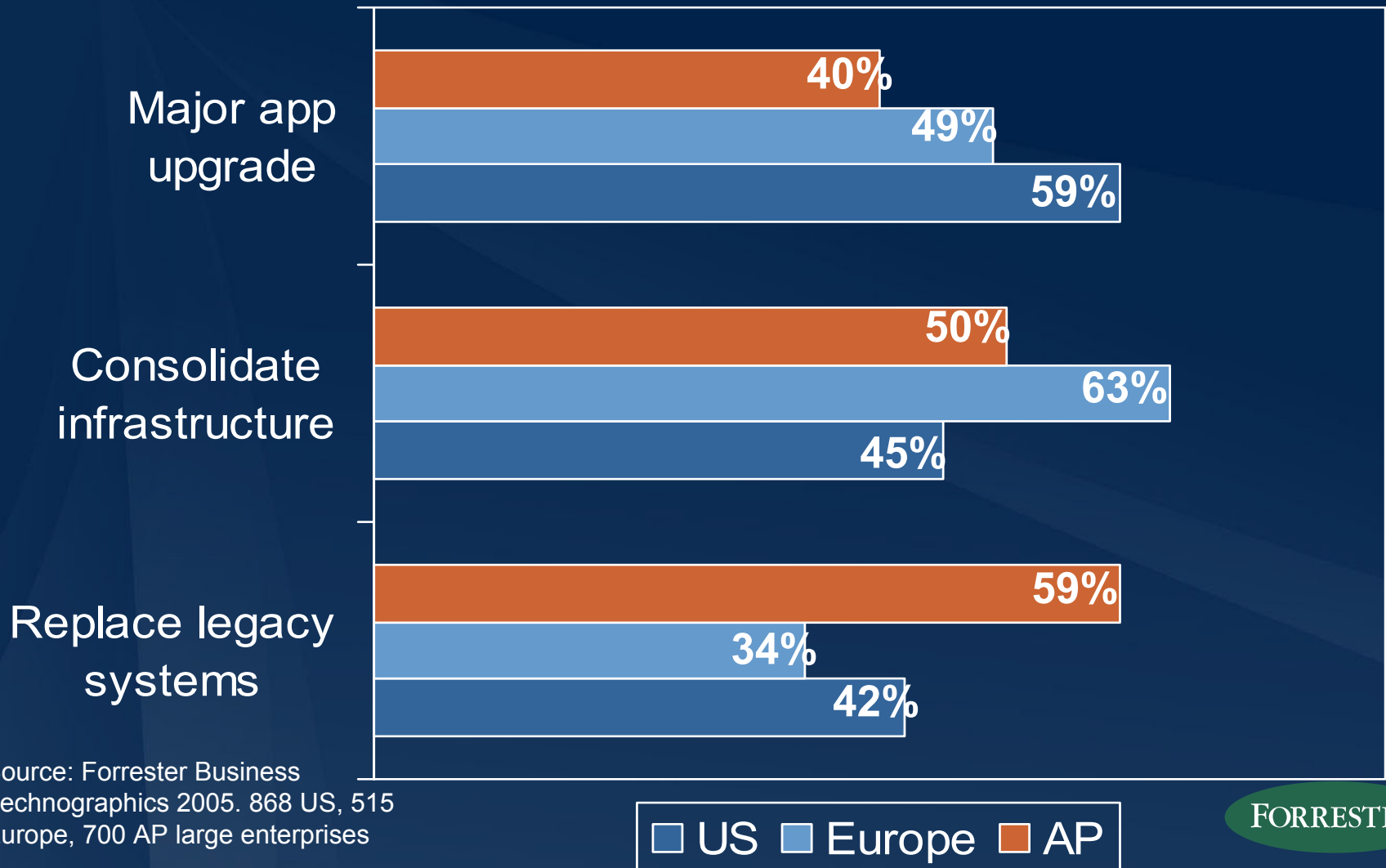
164 NA and European CIOs

From CIO Confidence Poll: Q4 2004, November 2004

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# ...While improving performance

“ Which initiatives are “top priority” themes in 2005?”



# Why is consolidation such a high priority?

- What are the business needs?
  - » Lower total cost of life cycle ownership
  - » Respond quickly to new or changing business goals
- What are the technical drivers?
  - » Poor utilization of server capacity across the board
  - » Multiple, overlapping application and OS instances
  - » upgradeability of the existing platform

# ...But, server platform migration fears are real

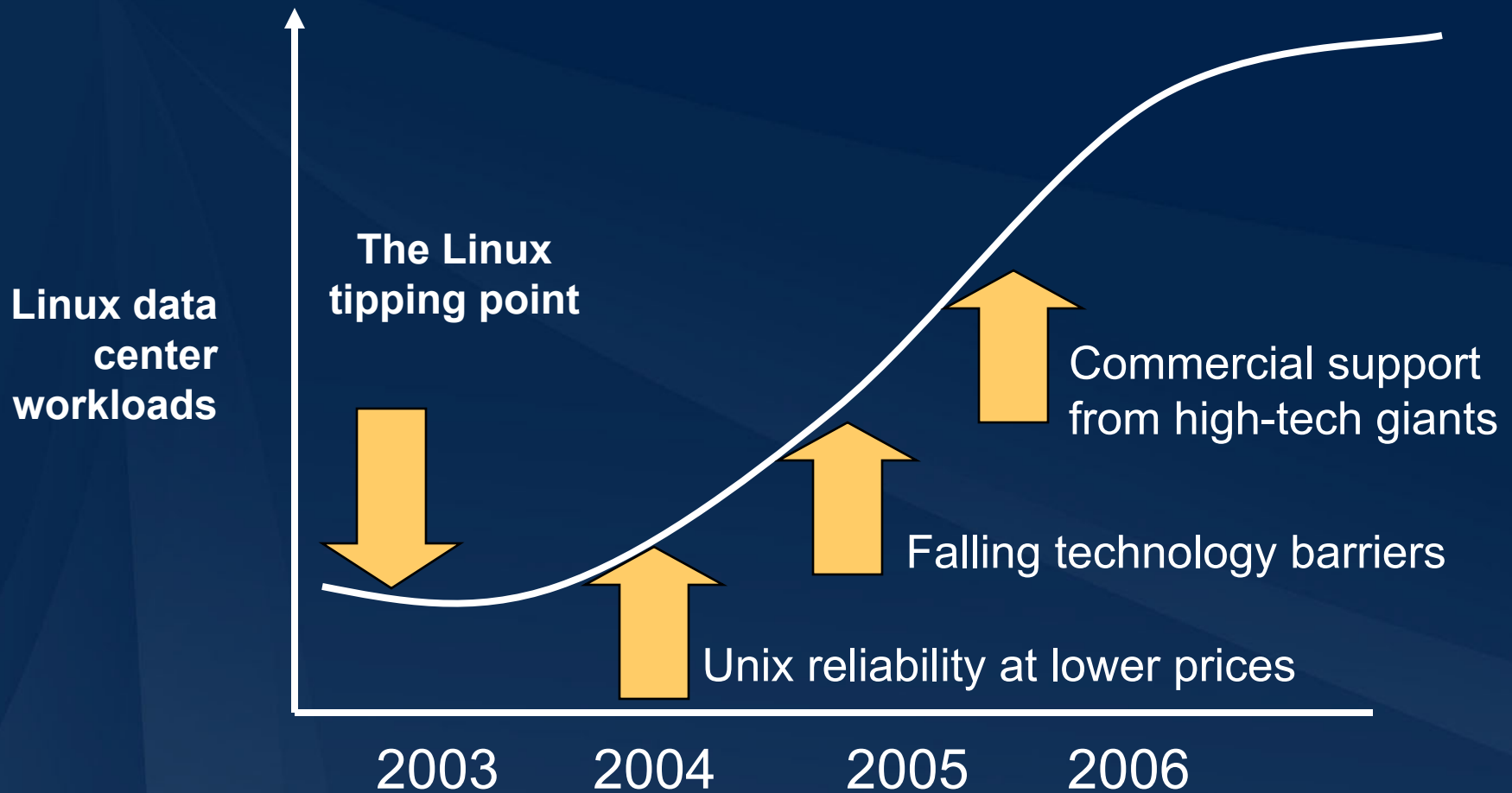
- “Will we get the same **Reliability, Availability and Servicability** on our mission-critical systems?”
- “How much **disruption** to people, processes and systems will a migration cause?”
- “How much will we really **save** by migrating and what **new costs** will we incur?”
- “Are we taking more **risk** than we can gain in longer term cost-of-life cycle benefit?”
- “Are we confident we **know** the real long term benefits?”

# Agenda

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- How Linux changes the game
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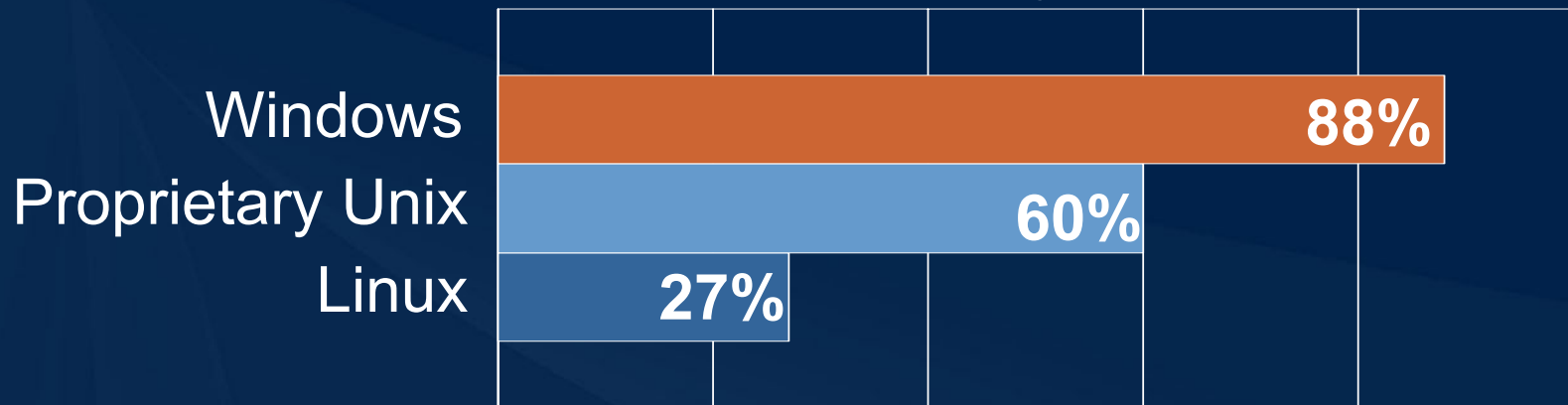


# Linux Traction – The Four Year Timeline

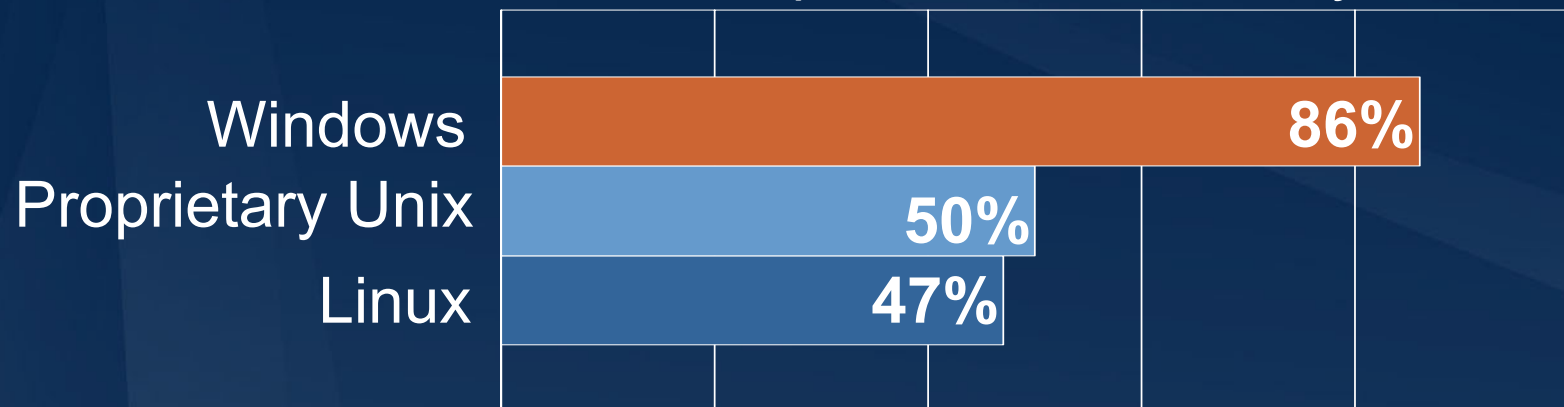


# Linux 2004 – 2007: Adoption plans accelerate

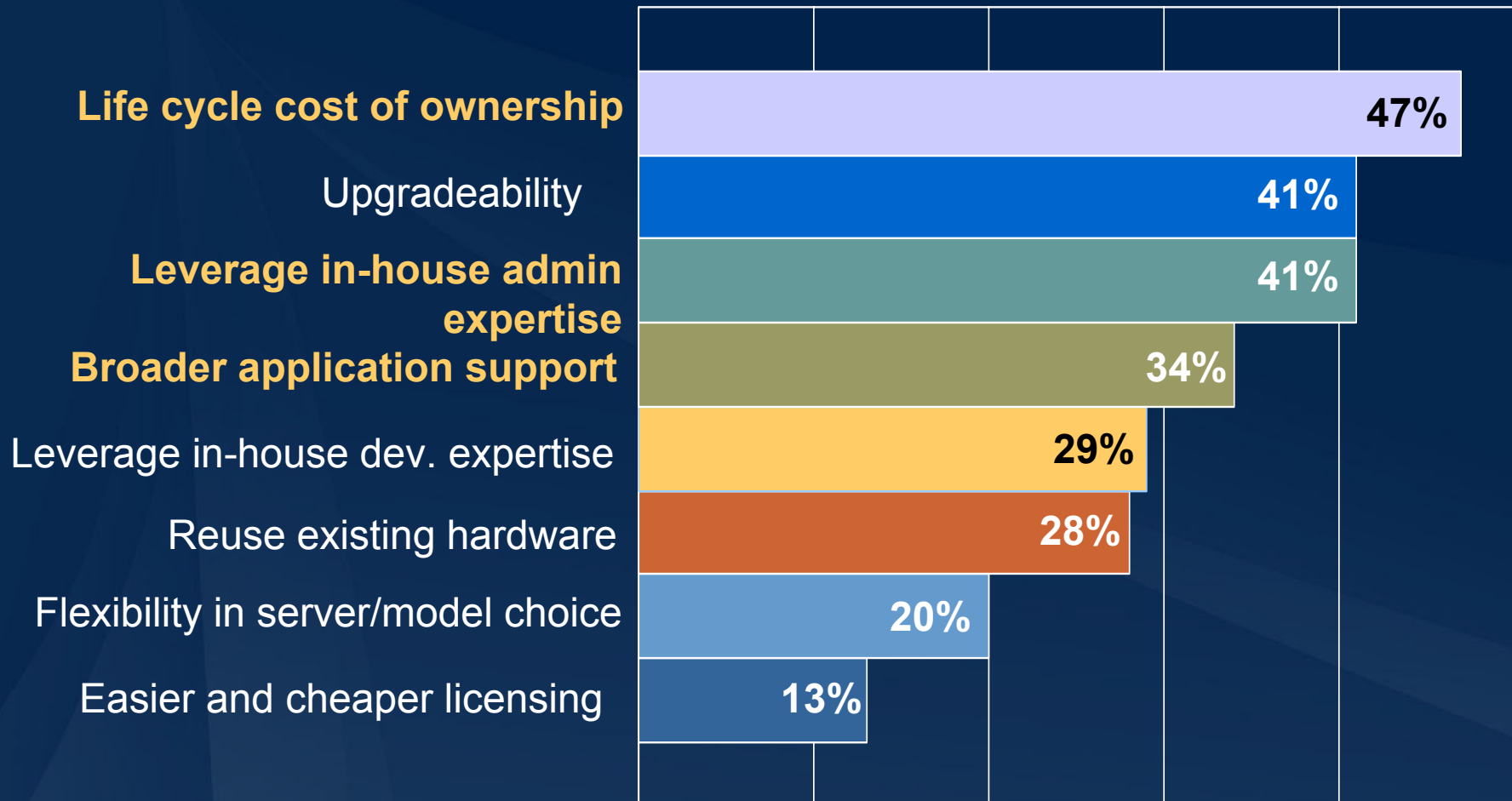
In use today (2004)



Planned purchases over the next three years



# Where do CIOs expect to see the benefits?



# Agenda

- The CIO's dilemma:
- The Case for Linux
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# Selection criteria: CIOs perspective

## Goal

## Best practice

Lower total cost of life cycle ownership



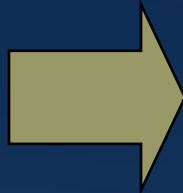
Improve server utilization and consolidate OS/apps on fewer machines

Supporting current & future requirements



Longevity of product roadmap, Vendor investment in people, Technology and ISV capture

Leverage admin and development skills

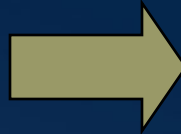


Productivity, training, skills, Technology transfer

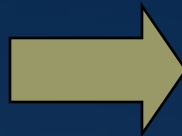
# Selection criteria: Server ops perspective

## Goal

Reliability, availability  
And serviceability  
(RAS)



Scale up, scale out,  
Scale within



## Criteria

Maintain a systems  
architecture that can support  
more highly available mission  
critical apps

Maintain a balanced  
Architecture that can adapt  
to multiple app requirements  
quickly

# Recommendations: Questions to consider

- How will this solution lower total lifecycle cost of ownership over the long term?
- How does this solution compare in terms of RAS features against other x86 or x64 Linux systems alternatives?
- How effective is this supplier at building an ecosystem of ISVs to broaden application choices on the platform?
- Is the server well-balanced to equally support scale up, scale out, and/or scale within architectures?

# IBM's Linux scorecard

- Linux/86 perceived as market leader, but IBM will push Linux/POWER as performance leader
- Earlier investments in the POWER ecosystem are paying off with 1500 production class apps by 2006
- OpenPower will gain share at the expense of AMD Opteron and Intel Itanium in low-midrange segments
- IBM OpenPower roadmap must maintain the higher performance scalability advantages vs. x86 and x64 alternatives at the same or lower configuration prices ranges



# Summary

- Linux adoption is growing at the expense of proprietary flavors of Unix alternatives
- IBM's Linux/POWER solution **currently** offers the highest performance scalability, at the lowest possible price/performance
- IBM **Linux/POWER systems architecture** offers strong incentives for ISV considerations
- CIOs must balance reducing business costs without sacrificing performance **scalability** and **architecture** flexibility
- Evaluate solutions against the full **“cost-of-life-cycle ownership”** metrics and long term data center architecture goals

# Forrester's Research: POWER and Linux

- “IBM’s OpenPower: Linux Power, x86 Economics”
- “Linux on OpenPower: Ready for Short-listing”
- “IBM Unveils Chiphopper: Linux ISVs Take Notice”
- “IBM Throws Down The p5 Gauntlet”
- “IBM’s p5 Answers Selection Criteria of the Mission-Critical Enterprise”
- “Triggers For Refreshing Servers”
- “Using Virtualization for Server Consolidation”
- “Where The Costs Occur In Server Consolidation”
- “Firms Plan To Maintain Windows, Add Linux”

# Thank you!

**For a copy of the slides and our latest  
Linux and POWER research  
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**[www.forrester.com/IBMLinux](http://www.forrester.com/IBMLinux)**

**Simon Yates**

**[syates@forrester.com](mailto:syates@forrester.com)**

**[www.forrester.com](http://www.forrester.com)**

**Brad Day**

**[bday@forrester.com](mailto:bday@forrester.com)**