



# Виртуализация

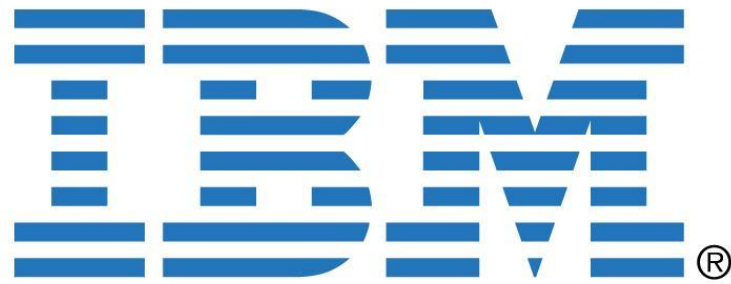
Подготовил: Олег Кузнецов



# Что такое виртуализация?



# История

The image features the classic IBM logo, which consists of the letters 'IBM' in a bold, blue, sans-serif font. The letters are composed of horizontal stripes, with the 'I' having three stripes, the 'B' having eight stripes, and the 'M' having six stripes. A registered trademark symbol (®) is located to the right of the 'M'. The logo is centered on a white background that is framed by a blue border with wavy, organic shapes at the top and bottom.

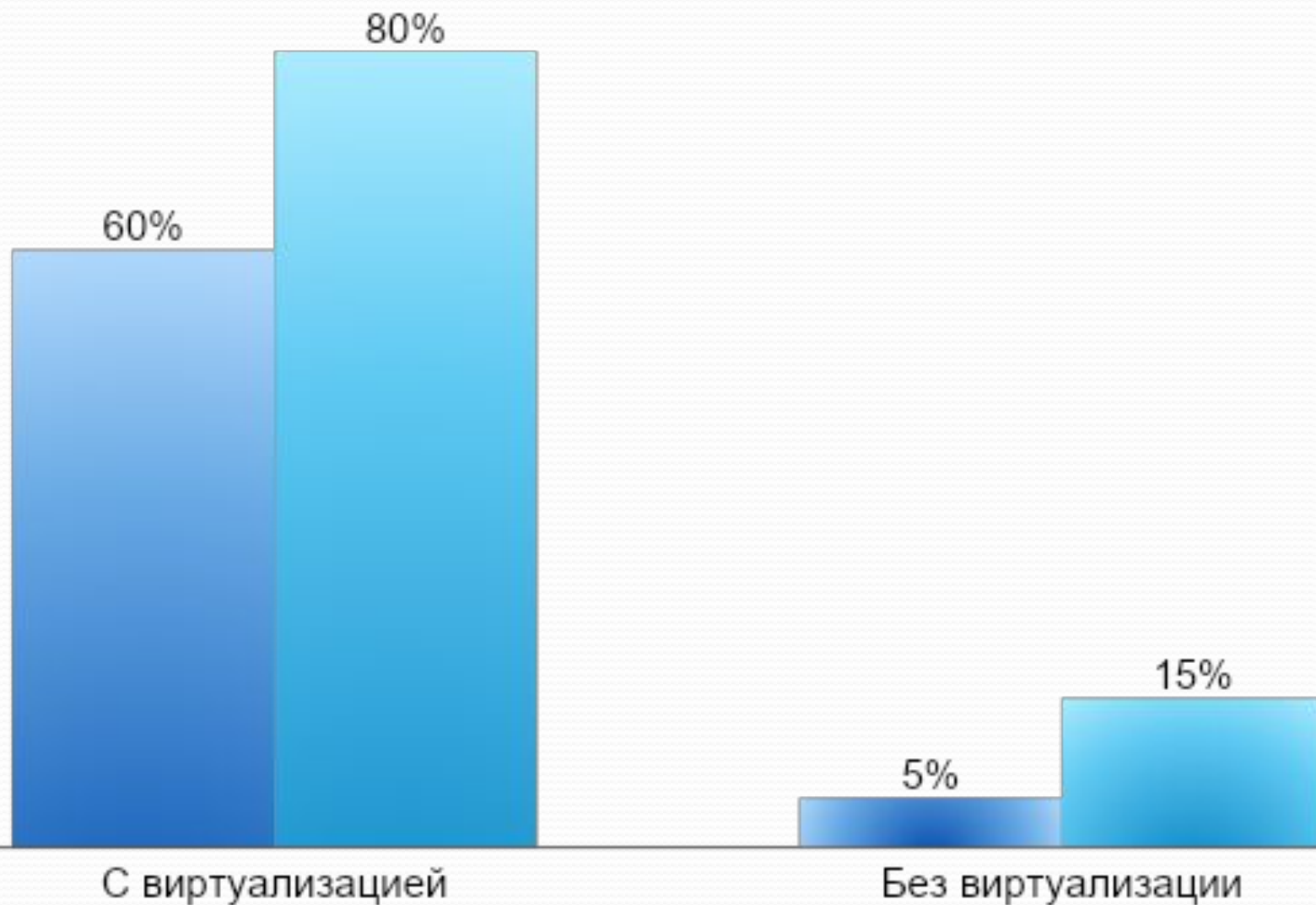


# Где применяется виртуализация



# Консолидация серверов

## Коэффициент использования аппаратуры





# Использование в бизнесе





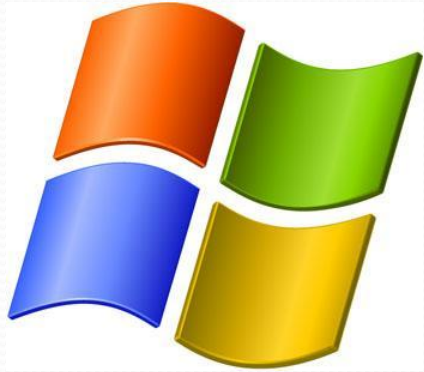
# Разработка и тестирование приложений



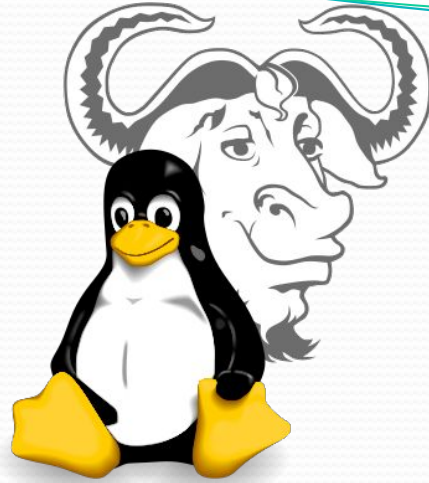
# Свободное программное обеспечение и виртуализация

# VirtualBox (Oracle VM VirtualBox)





**Microsoft Windows**



**GNU/Linux**



**FreeBSD<sup>®</sup>**



**Mac OS X**



**OpenSolaris**



**ReactOS**

**DOS**



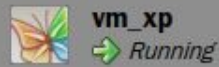
**Innotec**

**Qemu**





**ORACLE**



**General**

Name: vm\_xp  
OS Type: Windows XP

**System**

Base Memory: 512 MB  
Processor(s): 1  
Boot Order: Floppy, CD/DVD-ROM, Hard Disk  
VT-x/AMD-V: Enabled  
Nested Paging: Disabled

**Display**

Video Memory: 128 MB  
3D Acceleration: Enabled  
Remote Display Server: Disabled

**Hard Disks**

IDE Primary Master: vm\_xp.vmdk (Normal, 10.00 GB)  
IDE Primary Slave: vm\_xp.vdi (Normal, 30.56 GB)

**CD/DVD-ROM**

Host Drive: SONY DVD RW AW-Q170A (/dev/sr0)

**Floppy**

*Not mounted*

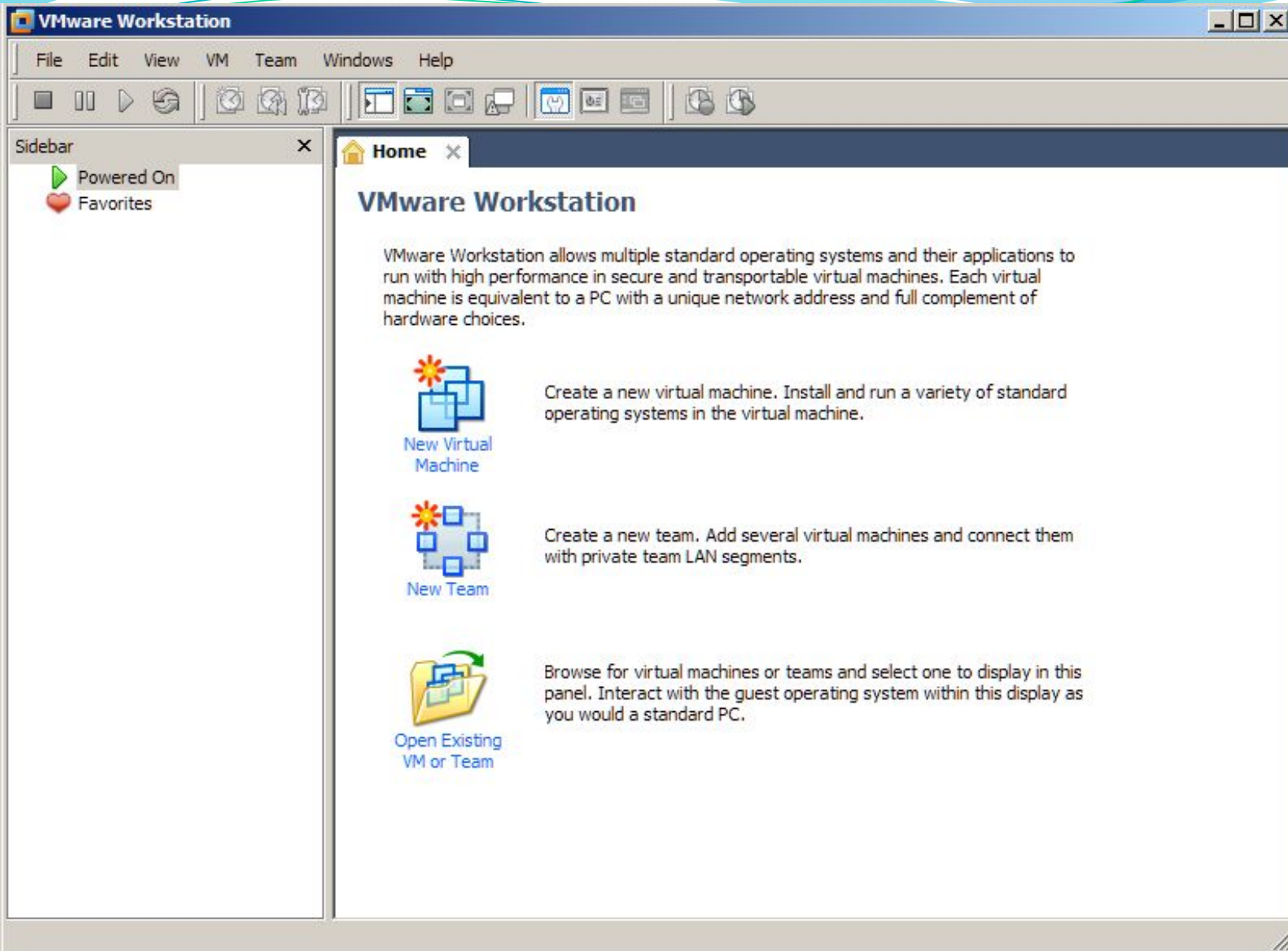
**Audio**

Host Driver: PulseAudio  
Controller: ICH AC97

**Network**

Adapter 1: PCnet-FAST III (NAT)





VMware Workstation

File Edit View VM Team Windows Help

Sidebar

Powered On  
Favorites

Home

## VMware Workstation

VMware Workstation allows multiple standard operating systems and their applications to run with high performance in secure and transportable virtual machines. Each virtual machine is equivalent to a PC with a unique network address and full complement of hardware choices.



New Virtual Machine

Create a new virtual machine. Install and run a variety of standard operating systems in the virtual machine.



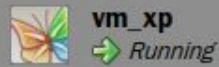
New Team

Create a new team. Add several virtual machines and connect them with private team LAN segments.



Open Existing VM or Team

Browse for virtual machines or teams and select one to display in this panel. Interact with the guest operating system within this display as you would a standard PC.



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**Floppy**

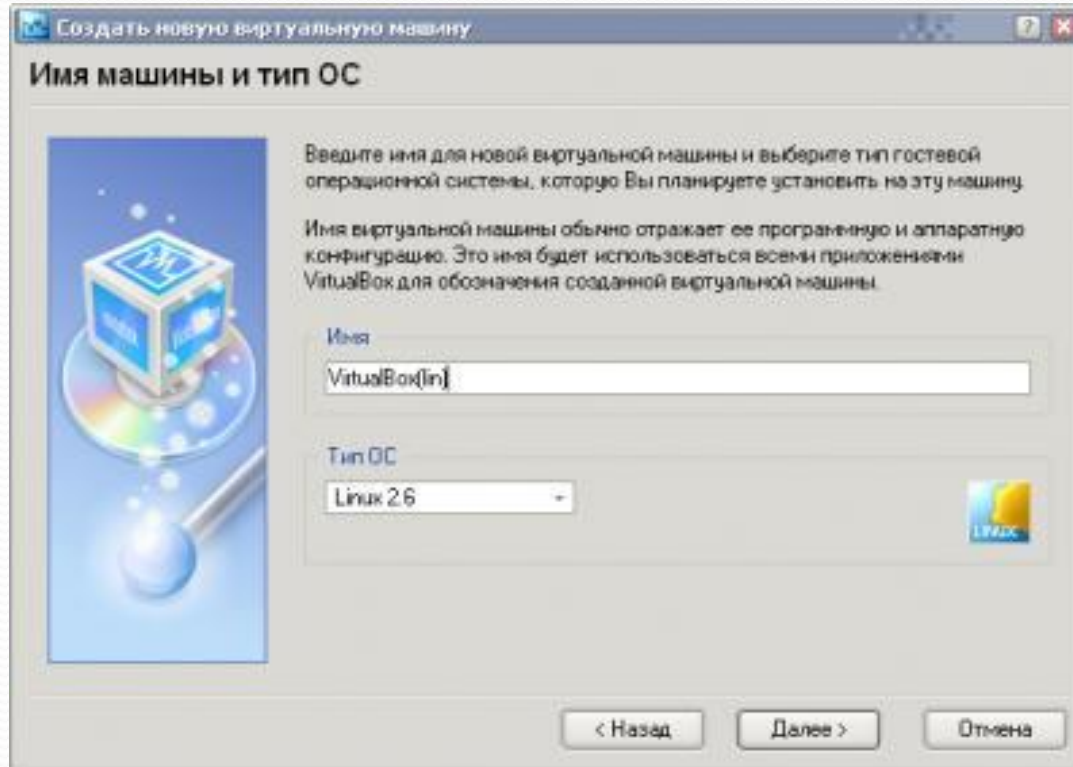
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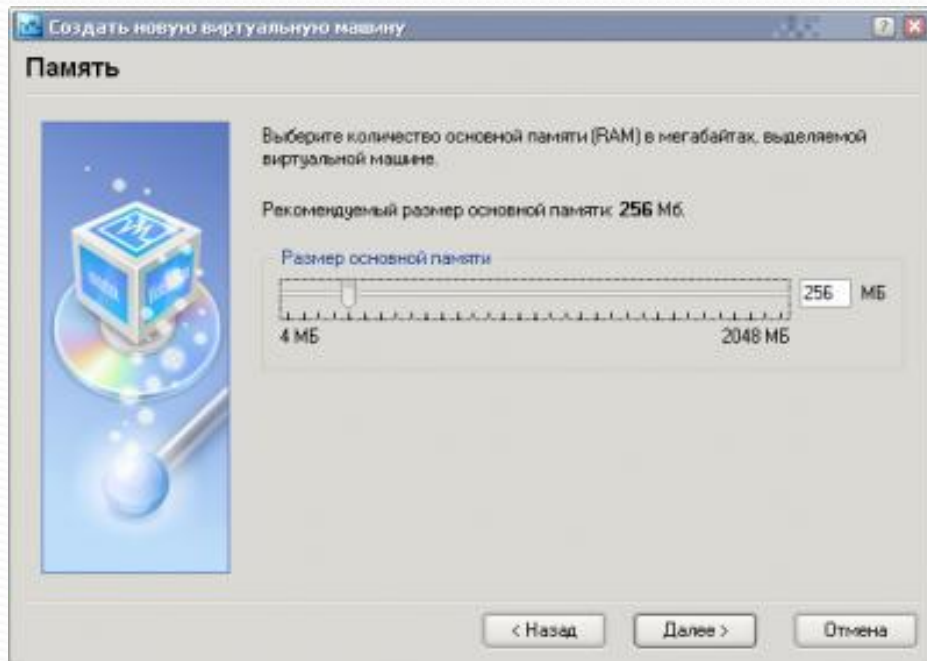
**Audio**

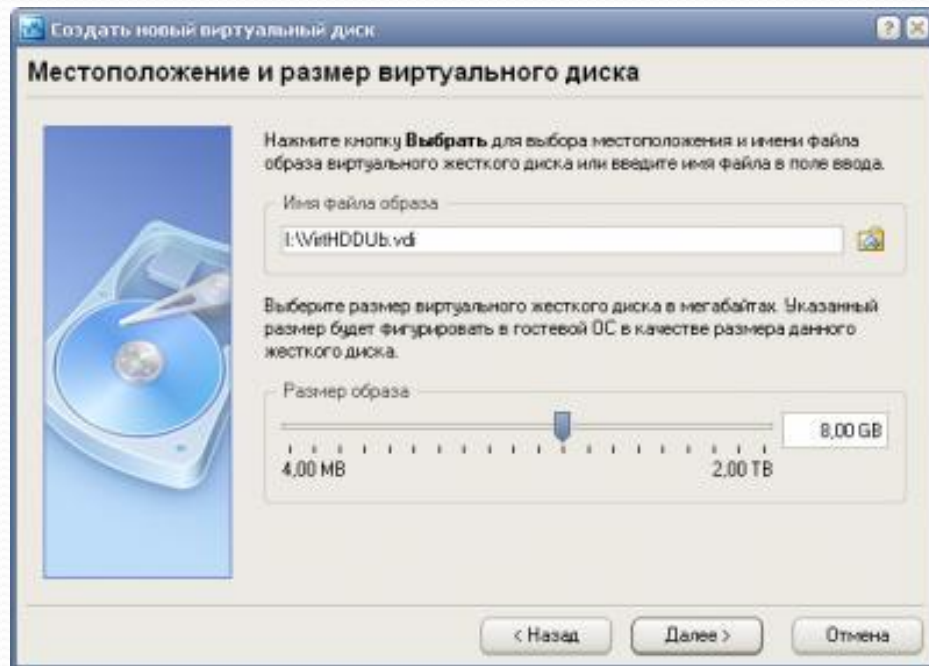
Host Driver: PulseAudio  
Controller: ICH AC97

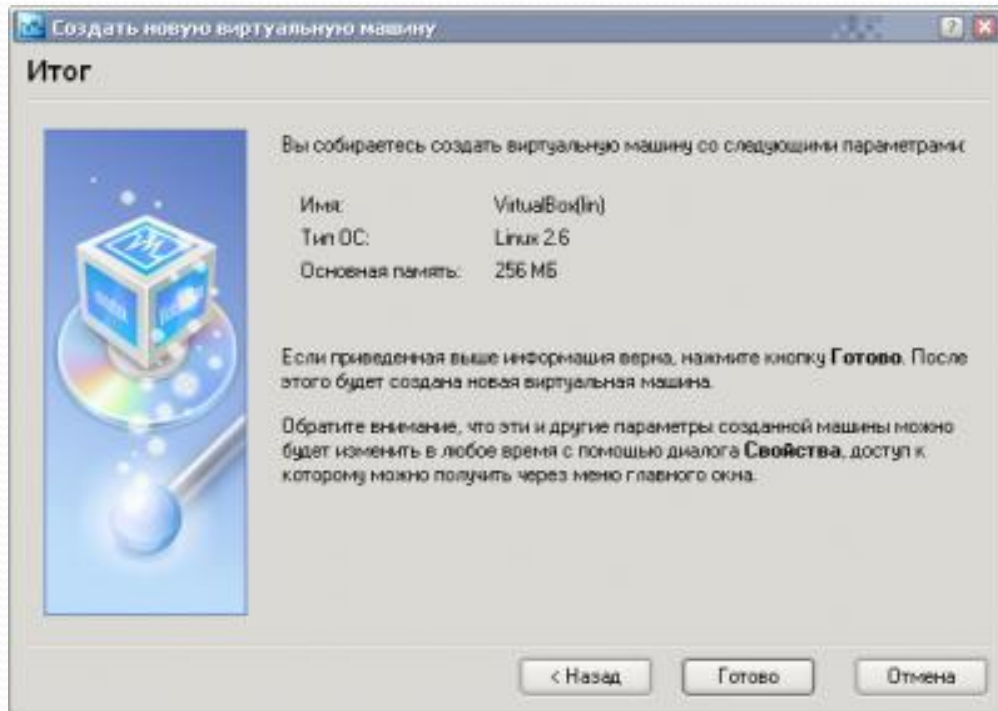
**Network**

Adapter 1: PCnet-FAST III (NAT)











**Это очень удобно**



# Использование виртуальных рабочих станций






# Virtual Appliances





# Заключение

- 
- Использование 60–80% ресурсов серверов на базе x86 (ресурсы не виртуализированных ПК используются на 5–15%)
  - Ежегодная экономия более 3,000 долларов США на каждую виртуализированную рабочую нагрузку
  - Введение в работу новых приложений занимает всего несколько минут (а не дней или недель)
  - Времени восстановления системы после незапланированного простоя сокращается на 85%



**Спасибо за внимание**