

Oracle Cloud

Использование вычислительных
ресурсов в облаке Oracle

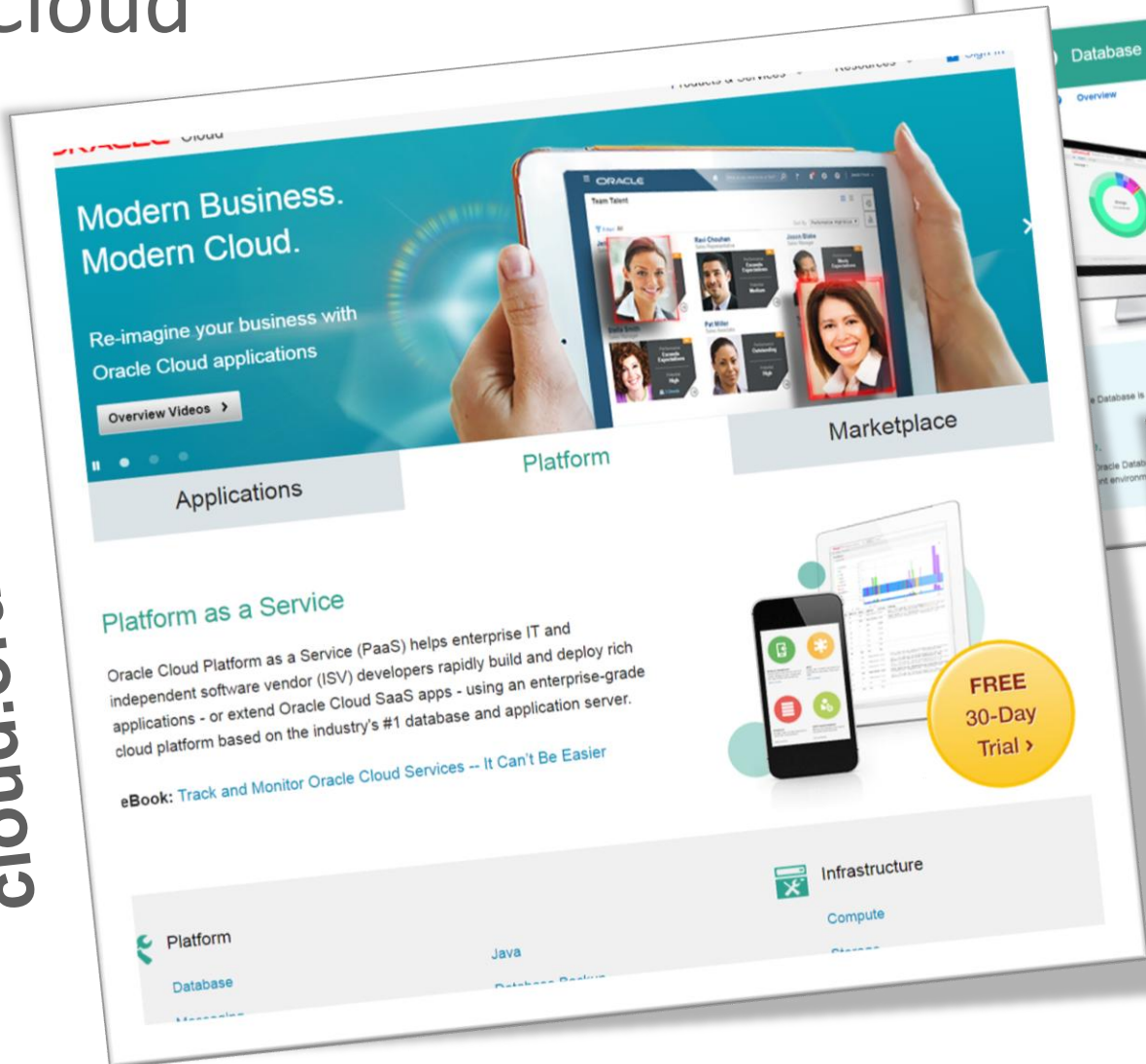
Сергей Стеценко
Oracle Ukraine

ORACLE®

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Oracle Cloud

cloud.oracle.com



Modern Business. Modern Cloud.

Re-imagine your business with Oracle Cloud applications

[Overview Videos >](#)

Applications | **Platform** | **Marketplace**

Platform as a Service

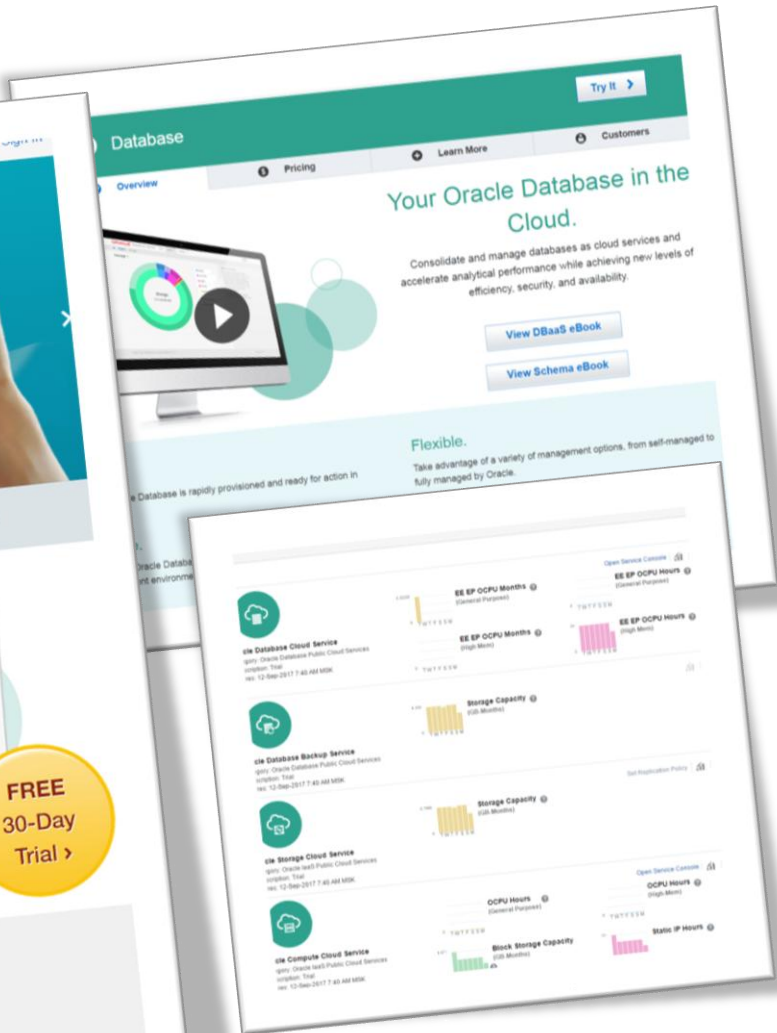
Oracle Cloud Platform as a Service (PaaS) helps enterprise IT and independent software vendor (ISV) developers rapidly build and deploy rich applications - or extend Oracle Cloud SaaS apps - using an enterprise-grade cloud platform based on the industry's #1 database and application server.

[eBook: Track and Monitor Oracle Cloud Services -- It Can't Be Easier](#)

FREE 30-Day Trial >

Infrastructure

- Platform
- Database
- Compute
- Storage



Database

[Overview](#) | [Pricing](#) | [Learn More](#) | [Customers](#)

Your Oracle Database in the Cloud.

Consolidate and manage databases as cloud services and accelerate analytical performance while achieving new levels of efficiency, security, and availability.

[View DBaaS eBook](#)

[View Schema eBook](#)

Flexible.

Take advantage of a variety of management options, from self-managed to fully managed by Oracle.

Database is rapidly provisioned and ready for action in

Oracle Database and environment

- Oracle Database Cloud Service
- Oracle Database Backup Service
- Oracle Storage Cloud Service
- Oracle Compute Cloud Service



Преимущества облачных технологий



Разработчики

Качество и
функциональность

- Современные технологии
- Быстрое развертывание
- Интегрированность



ИТ отделы

Производительность и
экономичность

- Сокращение затрат
- Качество обслуживания
- Быстрая реализация проектов
- Снижение рисков



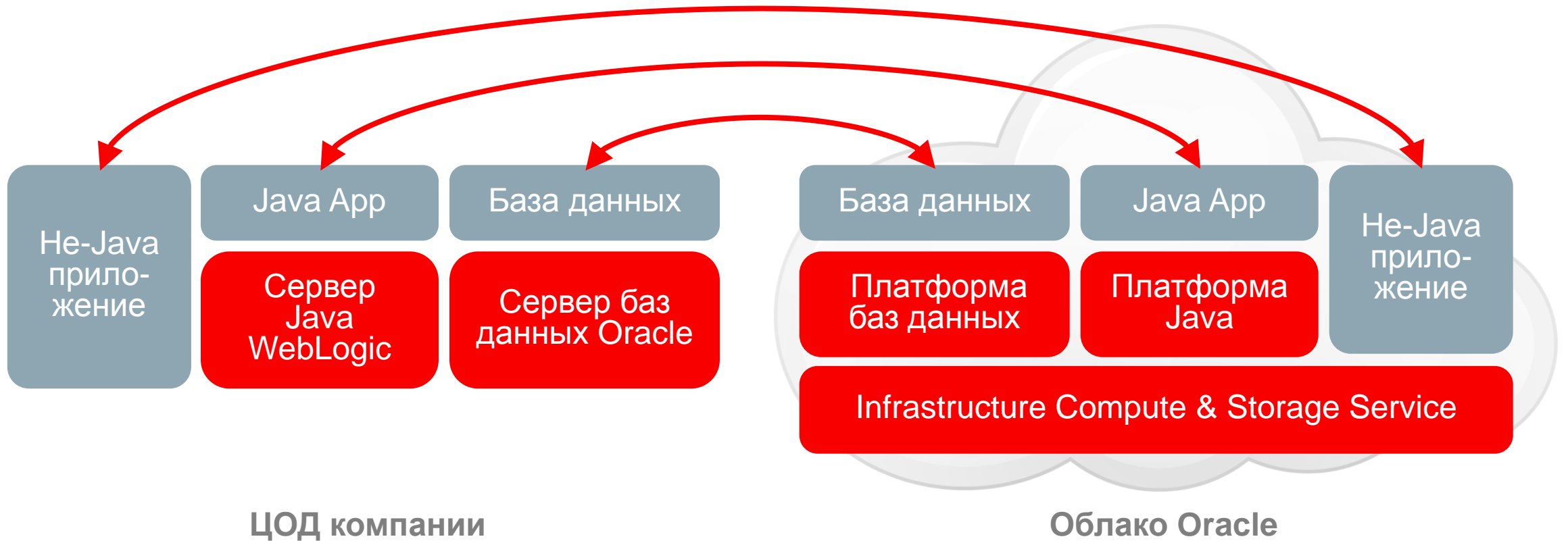
Бизнес-пользователи

Инновации и оперативность

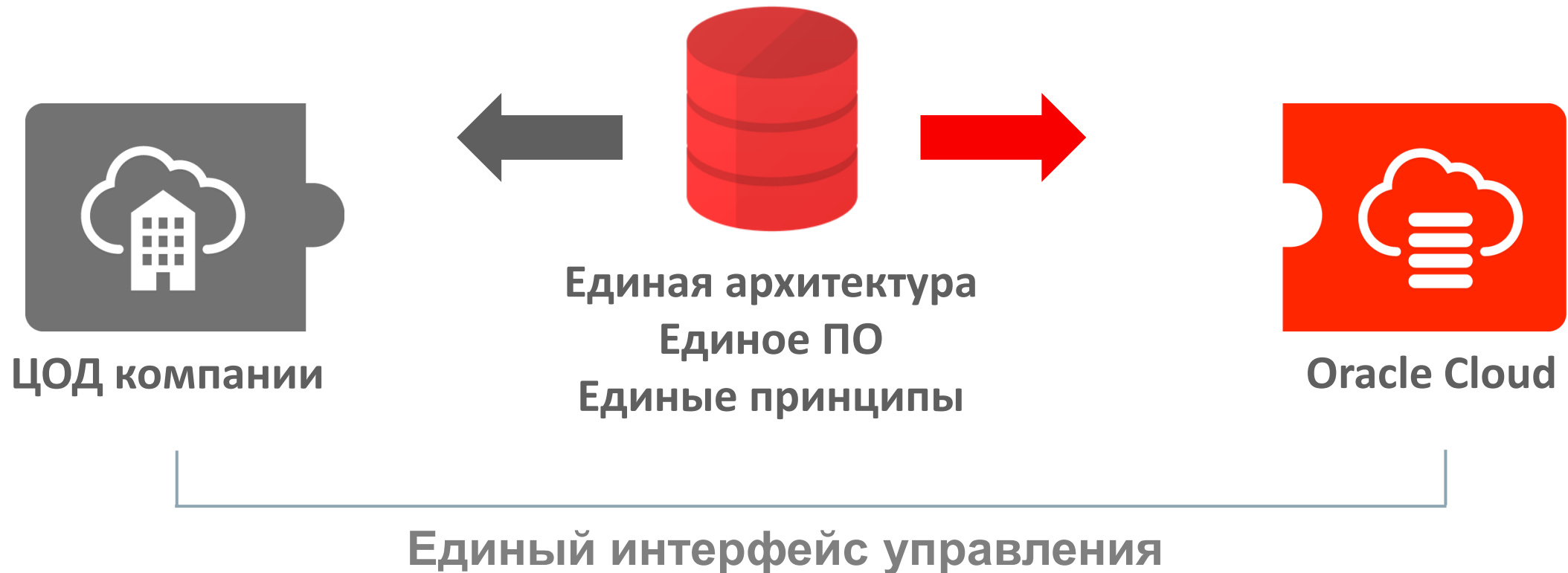
- Быстрый выход на рынок
- Новые услуги и продукты
- Непрерывность бизнеса
- Прогнозируемость затрат

Единая облачная стратегия

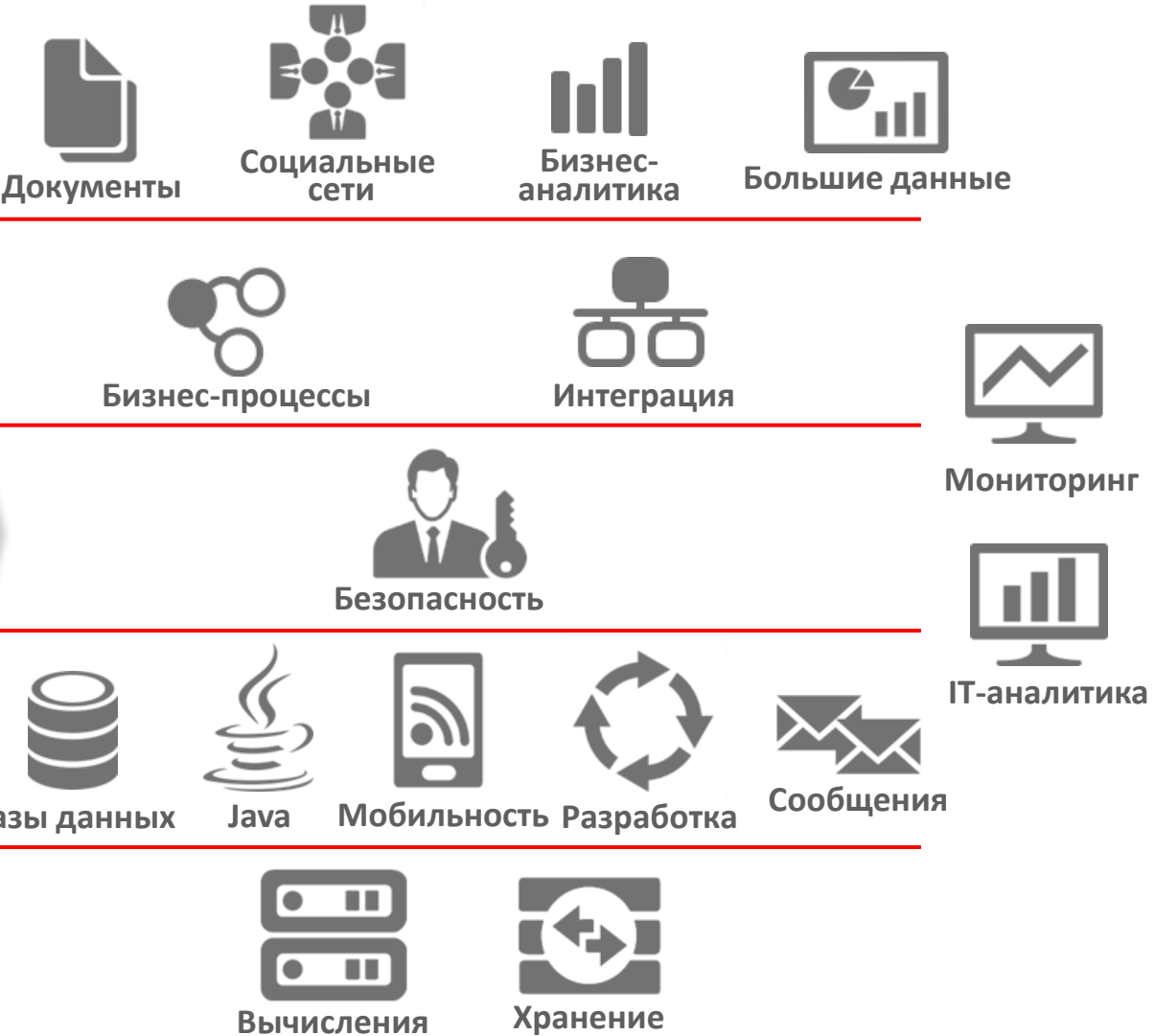
Перенос любой базы данных или приложения в облако Oracle



Гибридное облако Oracle



Облачные услуги



Oracle Cloud



Data as a Service

DaaS for
Marketing

DaaS for
Social

DaaS for
Sales

Software as a Service

Sales

Marketing

Service

Commerce

Configure, Price,
& Quote

Global Human
Resources

Talent
Management

Enterprise
Planning

Financials

Project Financial
Management

Project
Management

Transportation &
Global Trade
Mgmt

Inventory &
Costing

Product Value
Chain

Financial Perf
Reporting

Accounting Hub
Reporting

Revenue
Management

Procurement

Social Marketing

Social
Engagement &
Monitoring

Social Network

CRM Analytics

HCM Analytics

Platform as a Service

Database

Java

Java SE

Node.js

Integration

Process

Cloud
Marketplace

Database Backup

Developer

Mobile

Business
Intelligence

Big Data

Big Data
Discovery

Documents

Infrastructure as a Service

Storage

Compute

Messaging

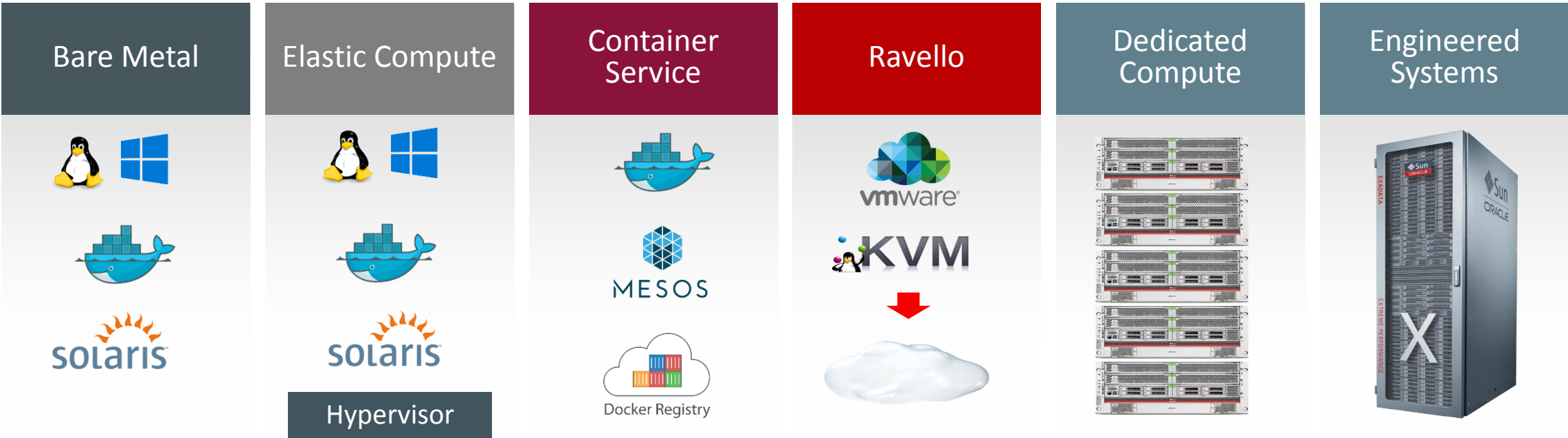
Identity

Oracle Cloud IaaS

Инфраструктурные сервисы
публичного облака Oracle



Вычислительные сервисы Oracle IaaS

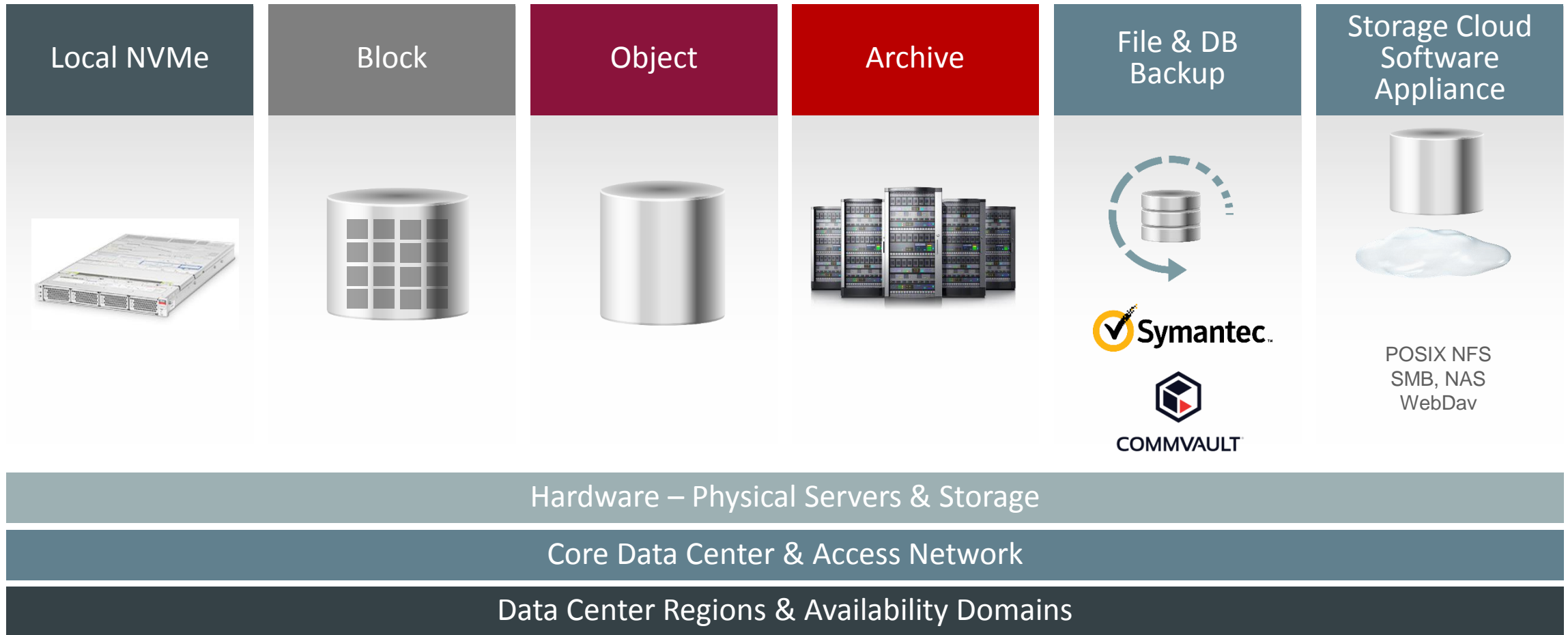


Hardware – Physical Servers & Storage

Core Data Center & Access Network

Data Center Regions & Availability Domains

Сервисы хранения данных в Oracle IaaS

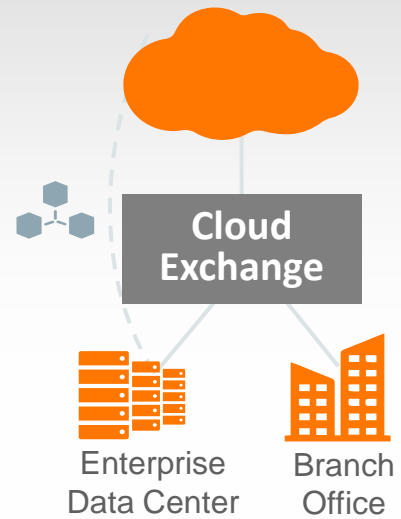


Сетевые сервисы Oracle IaaS

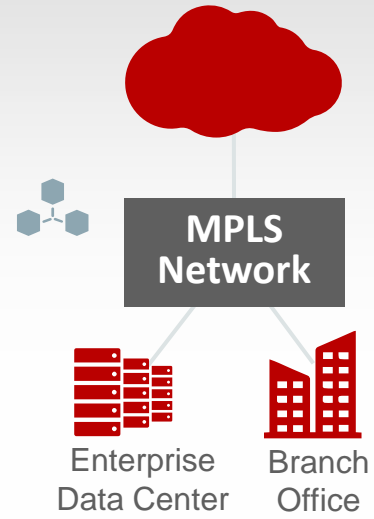
VPN



Oracle Cloud
FastConnect



Oracle Cloud
FastConnect EE



Network Bonding



Интерфейс пользователя IaaS

The screenshot displays the Oracle Compute Cloud Service user interface. At the top, the Oracle logo and 'Compute Cloud Service' are visible, along with navigation tabs for Overview, Network, Security, Users, and Consoles. The main content area is divided into two sections: INSTANCES and STORAGE.

INSTANCES

8 OCPUs	60 GB Memory
8 Running	0 Error

STORAGE

160 GB Storage	
11 Online	11 Attached

The main instance list shows the following details:

Instance Name	Status	OCPUs	Memory	Storage
app1	Running (Since 21 days ago.)	1	7.5 GB	10 GB
app2	Running (Since 21 days ago.)	1	7.5 GB	10 GB
db1	Running (Since 21 days ago.)	1	7.5 GB	70 GB
dbadmin1	Running (Since 21 days ago.)	1	7.5 GB	20 GB
sysadmin1	Running (Since 1 day ago.)	1	7.5 GB	20 GB
web1	Running (Since 21 days ago.)	1	7.5 GB	5 GB
web2	Running (Since 21 days ago.)	1	7.5 GB	5 GB

- Центральная консоль управления
 - Виртуальные машины
 - Диски
 - Сети
 - SSH-ключи

Виртуальные машины

The screenshot displays the Oracle Cloud Service console interface. At the top, the Oracle logo and 'Compute Cloud Service' are visible, along with navigation tabs for Overview, Network, Security, Users, and Consoles. The main content area shows the details for a virtual machine instance named 'app1'. The instance is in a 'Running' state, having been active for 7 days. It has 1 OCPU and 7.5 GB of memory. The image used is '/oracle/public/Oracle_Linux_6.4_60GB' and the shape is 'oc3'. Below the instance details, there are sections for Storage Volumes, Network Groups, and SSH Keys. The 'Storage Volumes' section shows a volume named 'app1_vol1' with a size of 10 GB and disk # 1. The 'Network Groups' section shows a group named 'wls_seclist'. The 'SSH Keys' section shows two keys: 'sysadmin-ssh-key1' and 'wlsadmin-ssh-key1', both with a status of 'Enabled' and a key value of 'ssh-rsa'.

app1

Name: /Compute- DNS Name: app1
Status: Running (Since 7 days ago.) OCPUs: 1
Tags: Memory: 7.5 GB
Image: /oracle/public/Oracle_Linux_6.4_60GB Public IP Address:
Shape: oc3 Private IP Address:

Storage Volumes Attach Storage Volume

app1_vol1 Size: 10 GB
Description: Disk #: 1
Status: attached

Network Groups Add to Network Group

wls_seclist Inbound Policy: null
Description: null Outbound Policy: null

SSH Keys

sysadmin-ssh-key1 Key Value: ssh-rsa
Status: Enabled

wlsadmin-ssh-key1 Key Value: ssh-rsa
Status: Enabled

- Oracle Virtual Machine
 - От 1 до 16 CPU,
память от 7.5 до 240 ГБ
- Серверы Oracle X4-2
- Oracle Enterprise Linux,
Oracle Solaris x86
- Полное управление

Виртуальные сети

The screenshot displays the Oracle Cloud Service Network configuration page. The top navigation bar includes 'Overview', 'Network', 'Security', 'Users', and 'Consoles'. The main content area is titled 'ACCESS RULES' and contains a list of rules. A sidebar on the left provides navigation for 'ACCESS RULES' (19 Rules Enabled), 'NETWORK GROUPS' (7 Network Groups), 'PROTOCOLS' (33 Protocols), 'IP LIST' (4 IP Lists), and 'PUBLIC IPs' (5 Public IPs Used).

Rule Name	Description	Protocol	Source Group	Destination Group	Status
dbadmin_dbconsole_to_db_rule	DB Admin Access to DB Console	db_console	dbadmin_seclist	db_seclist	Enabled
dbadmin_ssh_to_db_rule	DB Admin SSH access to DB Servers	ssh	dbadmin_seclist	db_seclist	Enabled
DefaultPublicSSHAccess	Default access rule for public SSH a...	ssh	public-internet	default	Enabled
public_http_to_web_rule	Allow HTTP access to Oracle web tier	http	public-internet	web_seclist	Enabled
public_https_to_web_rule	Allow HTTPS access to Oracle web t...	https	public-internet	web_seclist	Enabled
remote_admin_ssh_to_dbadmin_rule	Admin SSH access to DB Admin Ser...	ssh	remote_admin_ips_seclist	dbadmin_seclist	Enabled
remote_admin_ssh_to_sysadmin_rule	Admin SSH access to Sysadmin Ser...	ssh	remote_admin_ips_seclist	sysadmin_seclist	Enabled

- Гибкое конфигурирование
- Настраиваемый сетевой экран
- Политики безопасности
- Публичные IP адреса

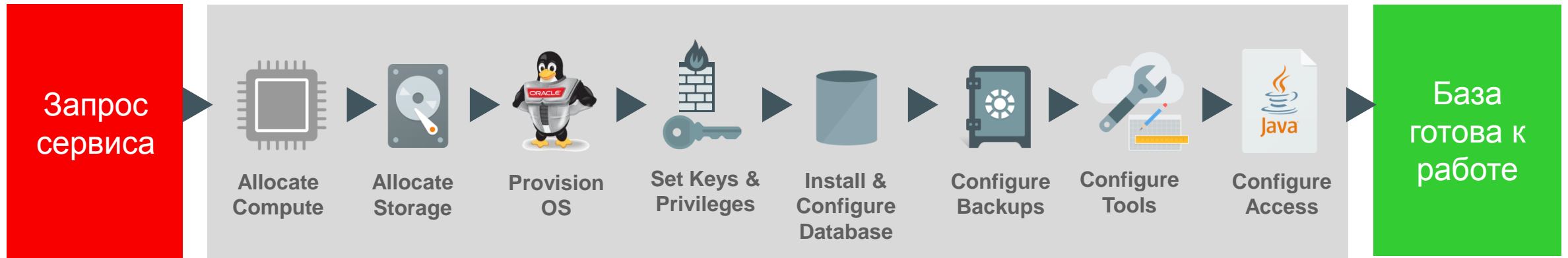
Oracle Cloud PaaS

Платформенные сервисы
на примере сервиса баз данных



База данных как услуга

Автоматическое создание и конфигурирование БД



Сокращение времени и сложности развертывания



Защищенность, отказоустойчивость и простота обслуживания



Сложные конфигурации (RAC, Active DG)

- Dashboard
- Users
- Consoles
- Java Cloud Service
View/Manage Java Cloud instances
- Database Cloud Service
View/Manage Database Cloud instances
- Oracle Compute Cloud Service
View/Manage Compute Cloud instances

Dashboard

Database Cloud Service
 Category: Oracle Database Public Cloud Services
 Subscription: Trial
 Expires 22-Mar-2015 8:21 PM PDT

SE1 VI OCPU Months
 (General Purpose)
 No data

EE OCPU Months
 (General Purpose)

EE HP VI OCPU Months
 (General Purpose)
 No data

EE OCPU Hours
 (General Purpose)

Oracle Database Backup Service
 Category: Oracle Database Public Cloud Services
 Subscription: Trial
 Expires 22-Mar-2015 8:21 PM PDT

Storage Capacity
 (GB-Months)
 No data

Oracle Storage Cloud Service
 Category: Oracle IaaS Public Cloud Services
 Subscription: Trial
 Expires 22-Mar-2015 8:21 PM PDT

Storage Capacity
 (GB-Months)
 No data

- Quick Links**
- Set Preferences
 - Add User
 - Create Service Request
 - Transfer Trial To Customer

https://dbaas.oraclecloud.com/dbaas/faces/dbRunner.jspx





Oracle Database Cloud Service

Identity Domain: ploracle59978

As of 23-Jan-2015 5:00:50 PM UTC

INSTANCES

OCPUs

MEMORY

STORAGE

PUBLIC IPs

INSTANCES

Search by instance name

Create Instance

No services created

Failed attempts to create or delete an instance in the last 7 days

Create Oracle Database Cloud Service Instance

Cancel



Next >

Subscription Type

Select the service level and billing frequency for this Oracle Database Cloud Service instance.

Service Level

- Oracle Database Cloud Service**
Oracle Database software pre-installed on Oracle Cloud Virtual Machine.
Database instances are created for you using configuration options provided in this wizard.
Additional cloud tooling is available for backup, recovery and patching.
- Oracle Database Cloud Service - Virtual Image**
Oracle Database software pre-installed on an Oracle Cloud Virtual Machine.
Database instances are created by you manually or using DBCA.
No additional cloud tooling is available.

Billing Frequency

- Hourly**
Pay for the number of hours used
- Monthly**
Pay one low price for the entire month irrespective of the number of hours used



Provision New Oracle Database Cloud Service

Create Oracle Database Cloud Service Instance[← Previous](#)[Cancel](#)[Next >](#)**Software Release**

Select the database release version for this Oracle Database Cloud Service instance.

Oracle Database 11g Release 2

- Oracle Database Version 11.2.0.4
Installed on Oracle Linux 6.6

Oracle Database 12c Release 1

- Oracle Database Version 12.1.0.2
Installed on Oracle Linux 6.6

Create Oracle Database Cloud Service Instance

[← Previous](#) [Cancel](#)



[Next >](#)

Software Edition

Select the database edition for this Oracle Database Cloud Service instance.

Standard Edition [\(Details\)](#)
 Oracle Database 12c Release 1
Installed on Oracle Linux 6.6

Enterprise Edition [\(Details\)](#)
 Oracle Database 12c Release 1
Installed on Oracle Linux 6.6

Enterprise Edition - High Performance [\(Details\)](#)
 Oracle Database 12c Release 1
Installed on Oracle Linux 6.6

Enterprise Edition - Extreme Performance [\(Details\)](#)
 Oracle Database 12c Release 1
Installed on Oracle Linux 6.6

Create Oracle Database Cloud Service Instance

[← Previous](#) [Cancel](#)



[Next →](#)

Service Details

Provide details for this Oracle Database Cloud Service instance.

Service Configuration

* Service Name ?

Description ?

* Shape ?

* Timezone ?

* SSH Public Key [Edit](#) ?

Backup and Recovery Configuration

* Backup Destination ?

* Cloud Storage Container ?

* Cloud Storage User Name

* Cloud Storage Password

Database Configuration

* Usable Database Storage (GB)

Total Data File Storage (GB)

* Administration Password ?

* Confirm Password ?

* DB Name (SID) ?

* PDB Name ?

* Character Set ?

Total Estimated Monthly Storage (GB) ?

Database Clustering with RAC ?

Standby Database with Data Guard ?

Enable Oracle GoldenGate ?

Include "Demos" PDB ?

Create Database Cloud Service Instance

[Previous](#) [Cancel](#)



[Create](#)

Confirmation

Confirm your responses and create this Oracle Database Cloud Service instance.



Service Level: Oracle Database Cloud Service
Billing Frequency: Monthly
Software Release: Oracle Database 12c Release 1
Software Edition: Enterprise Edition
Instance Name: DBtest-rs2
Description: DBtest-rs2
Compute Shape: OC3 - 1 OCPU, 7.5 GB RAM
Key: key pub rs1 pasted.key
Usable Database Storage: 49
Total Data File Storage: 89.9
DB Name (SID): ORCL
PDB Name: PDB1



Backup Destination: DISK

Live Chat | Contact Us



Oracle Database Cloud Service

Identity Domain: ploracle59978

As of 23-Jan-2015 4:45:17 PM UTC

INSTANCES	OCPUs	MEMORY	STORAGE	PUBLIC IPs
1	1	7.5 GB	90.0 GB	1

INSTANCES

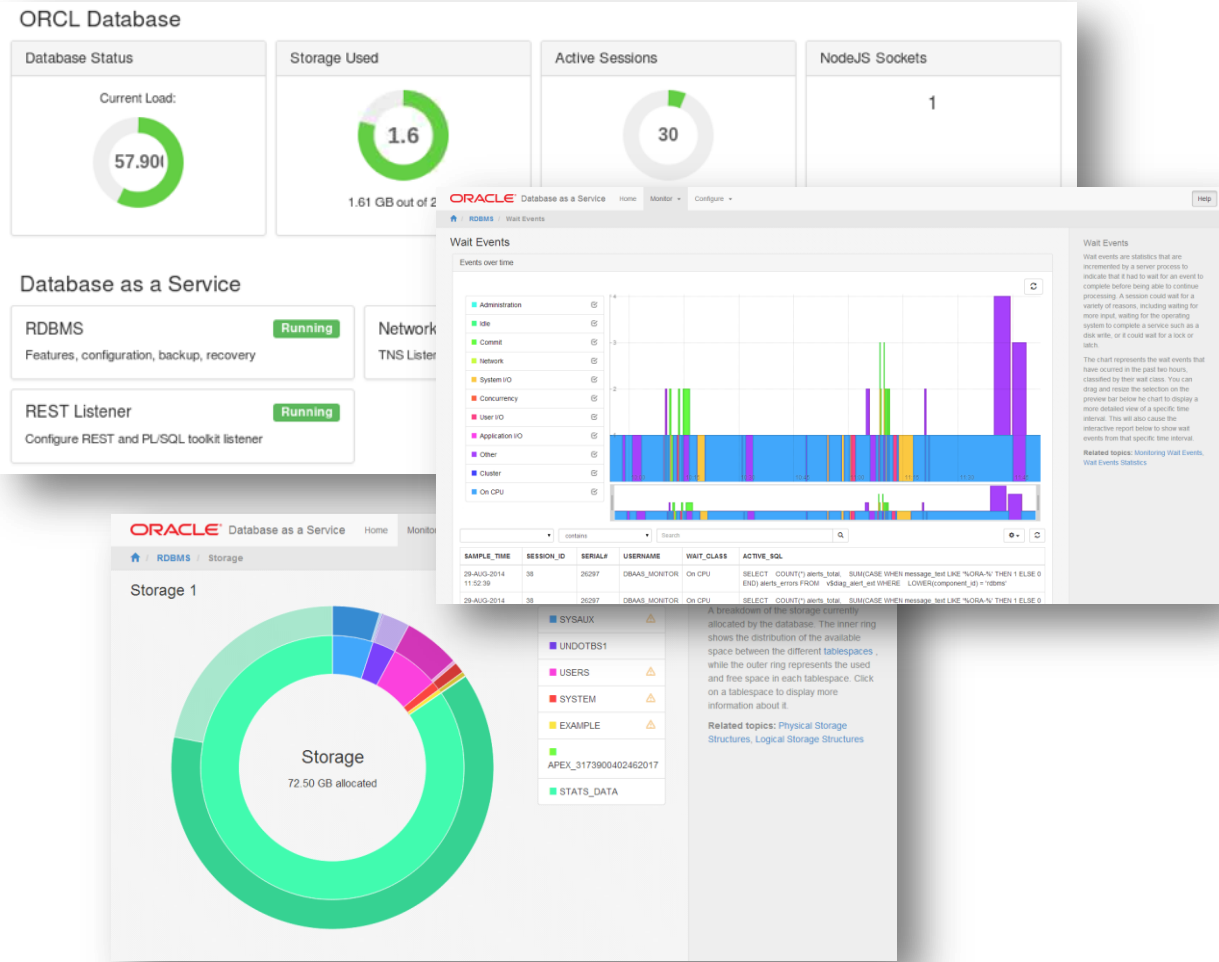
Search by instance name

Create Instance

	DBtest-rs2 Version: 12.1.0.2 Edition: Enterprise Edition	Created On: 23-Jan-2015 11:28 AM UTC	OCPUs: 1 Memory: 7.5 GB Storage: 90.0 GB	
--	---	--------------------------------------	--	--

Failed attempts to create or delete an instance in the last 7 days

Мониторинг облачной базы данных



Патчинг облачной базы данных

The screenshot displays the Oracle Database Cloud Service interface. At the top, the Oracle logo and "Database Cloud Service" are visible. The user's email address "sgoracle@oracle.com" is shown in the top right corner. Navigation buttons for "Instances", "Users", and "Consoles" are present. The breadcrumb "Instances > rp12c" is shown below the navigation bar.

The main content area features a large icon of a cloud with a database symbol and a yellow warning triangle. To the right of the icon, the instance name "rp12c (Oracle Database Cloud Service)" is displayed, along with "Oracle Database Version: 12.1.0.2" and "Description: rp12c".

On the left side, there are two panels: "OVERVIEW" showing "1 node" and "ADMINISTRATION" showing "Patching in progress from Mar 17, 2015 3:39:59 AM UTC".

The "Available Patches" section shows a patch for "DB 12.1.0.2.2 January 2015 PSU Enterprise Edition image" with a "Patching..." button. Below this, the "Details of Last Patching Activity" section is partially visible.

The timestamp "As of Mar 17, 2015 3:40:02 AM UTC" is located in the top right of the patching section.

Консоль OEM Express 12c

The screenshot displays the Oracle Enterprise Manager Database Express 12c console. The browser address bar shows the URL: `https://129.152.134.176:5500/em/shell#/dbhome/show_regions`. The page title is "ORACLE Enterprise Manager Database Express 12c". The user is logged in as "SYS".

The main content area is titled "Database Home" and includes the following sections:

- Status:** Up Time: 4 hours, 11 minutes, 57 seconds; Type: Single instance (ORCL); Version: 12.1.0.2.0 Enterprise Edition; Database Name: ORCL; Instance Name: ORCL; Platform Name: Linux x86 64-bit; Host Name: DBtest-rs2; Oracle Home: /u01/app/oracle/product/12.1.0/dbhome_1; Thread: 1; Archiver: Started.
- Resources:** Host CPU (Bar chart showing Instance(s) at ~0.8% and Other at ~0.4%); Active Sessions (Bar chart showing CPU at ~0.1, User I/O at ~0.1, and Wait at ~0.1); Memory (Stacked bar chart showing Buffer Cache, Shared Pool, Large Pool, Java Pool, Shared I/O Pool, Other SGA, and PGA).
- Performance:** Pack Restriction: Oracle Diagnostics Pack is required.
- Running Jobs:** Table with columns: Instance, Container Na..., Owner, Name, Elapsed, Started. The table is empty, indicating "No Running Jobs".
- SQL Monitor - Last Hour (20 max):** Pack Restriction: Oracle Tuning Pack is required.

Page Refreshed: 4:44:07 PM GMT. Auto Refresh: 1 Minute.

Консоль Application Express

The screenshot shows the Oracle Application Express Administration Console. The browser address bar displays the URL: `https://129.152.134.176/apex/pdb1/f?p=4050:3:2454150674996::NO::`. The page title is "ORACLE Application Express" and the user is logged in as "ADMIN".

The main navigation menu includes: Home, Manage Requests, Manage Instance, Manage Workspaces, and Monitor Activity. A search bar is located in the top right corner.

The "Instance Administration" section features four main icons: Manage Requests, Manage Instance, Manage Workspaces, and Monitor Activity. A "Create Workspace" button is also present.

A yellow message bar states: "No system message defined".

The "Pending Requests" section contains a message: "This instance is running in manual provisioning mode, so it will not be accepting service requests".

The "Jobs" section lists the following jobs:

Job Name	Last Run
ORACLE_APEX_DAILY_MAINTENANCE	4 hours ago
ORACLE_APEX_MAIL_QUEUE	4 minutes ago
ORACLE_APEX_PURGE_SESSIONS	39 minutes ago

The "Workspace Summary" table shows the following data:

Category	Count
Workspaces	1
Schemas	1
Applications	0
Users	2
Mail Queue Entries	0
Worksheets	5

The "Security Settings" table shows the following data:

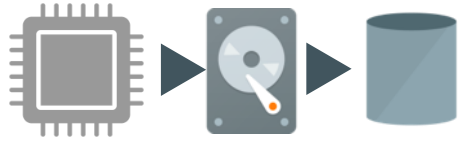
Setting	Value
Require HTTPS	No
Maximum Session Idle Seconds	3600
Expire User Accounts	No

The right-hand sidebar contains several sections:

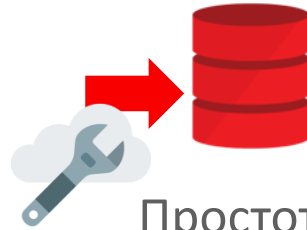
- Administration:** Use this page to access and perform administration tasks for an entire Oracle Application Express instance.
- Provisioning:** Manual
- Instance Tasks:** Feature Configuration, Security, Instance Settings, Workspace Purge Settings
- Workspace Tasks:** Create Workspace, Create Multiple Workspaces, Find a Workspace, Manage Workspaces, Create User, Find a User, Reset User Password
- Accessibility Mode:** Standard

База данных как услуга

Преимущества облачной базы данных



Простота
развертывания



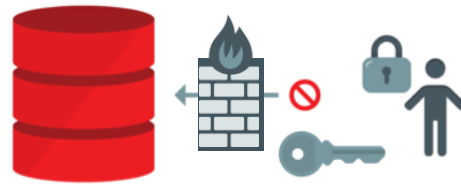
Простота
обслуживания



Высокая доступность
и отказоустойчивость



Современные средства
разработки



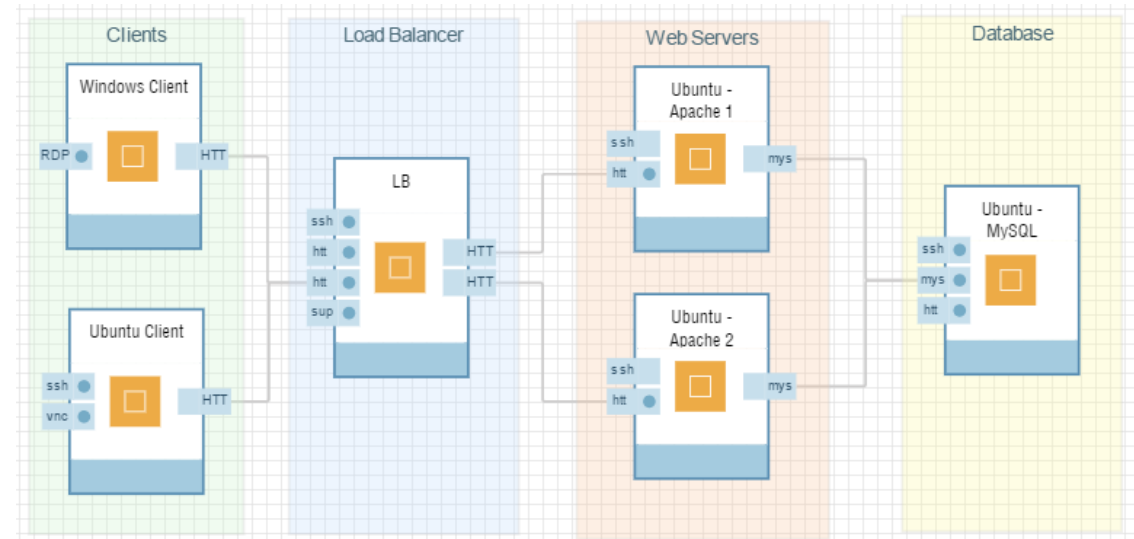
Обеспечение
безопасности



Распределенное
управление

Oracle Ravello

Мигрирование виртуальных машин
VMware/KVM в публичное облако

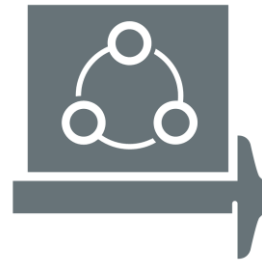


Oracle Ravello

Ravello - облачный сервис, позволяющий компаниям перемещать виртуальную инфраструктуру VMware/KVM из собственных ЦОД в облака лидирующих провайдеров, без каких-либо изменений



Гибкость. Возможность запуска существующих приложений на базе VMware/KVM в публичном облаке.

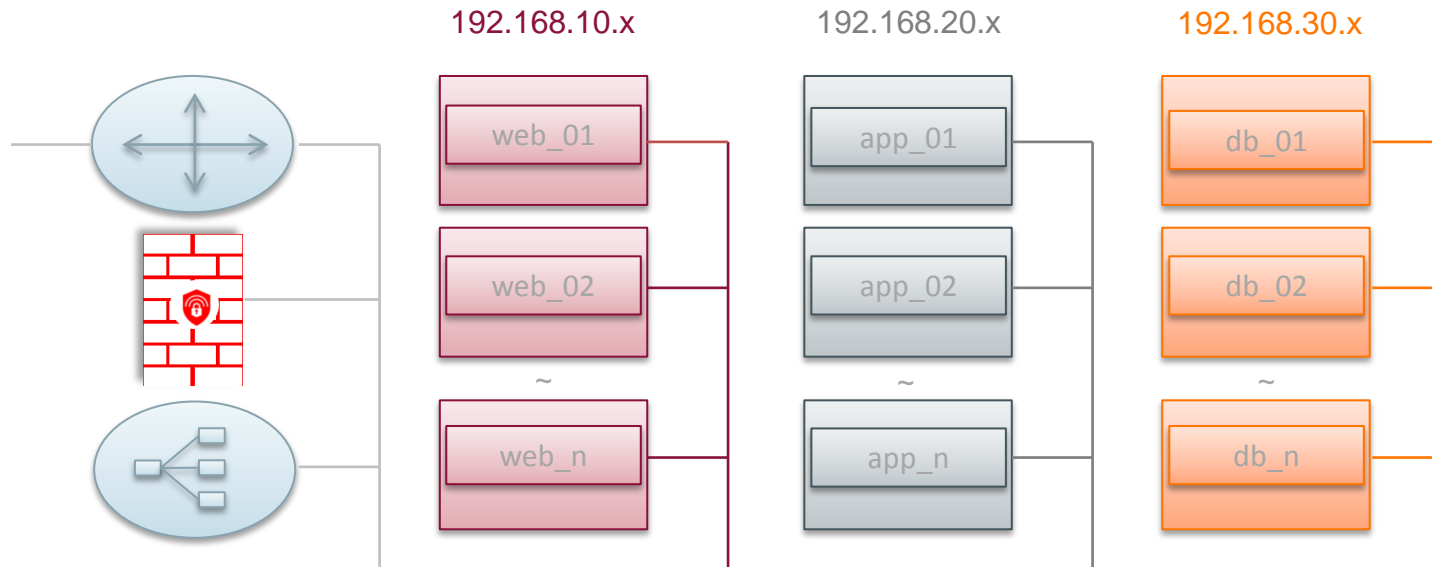


Подвижность. Планы развертывания позволяют быстро реализовать и тиражировать проект.



Снижение затрат до 60% в сравнении с использованием средств самой VMware.

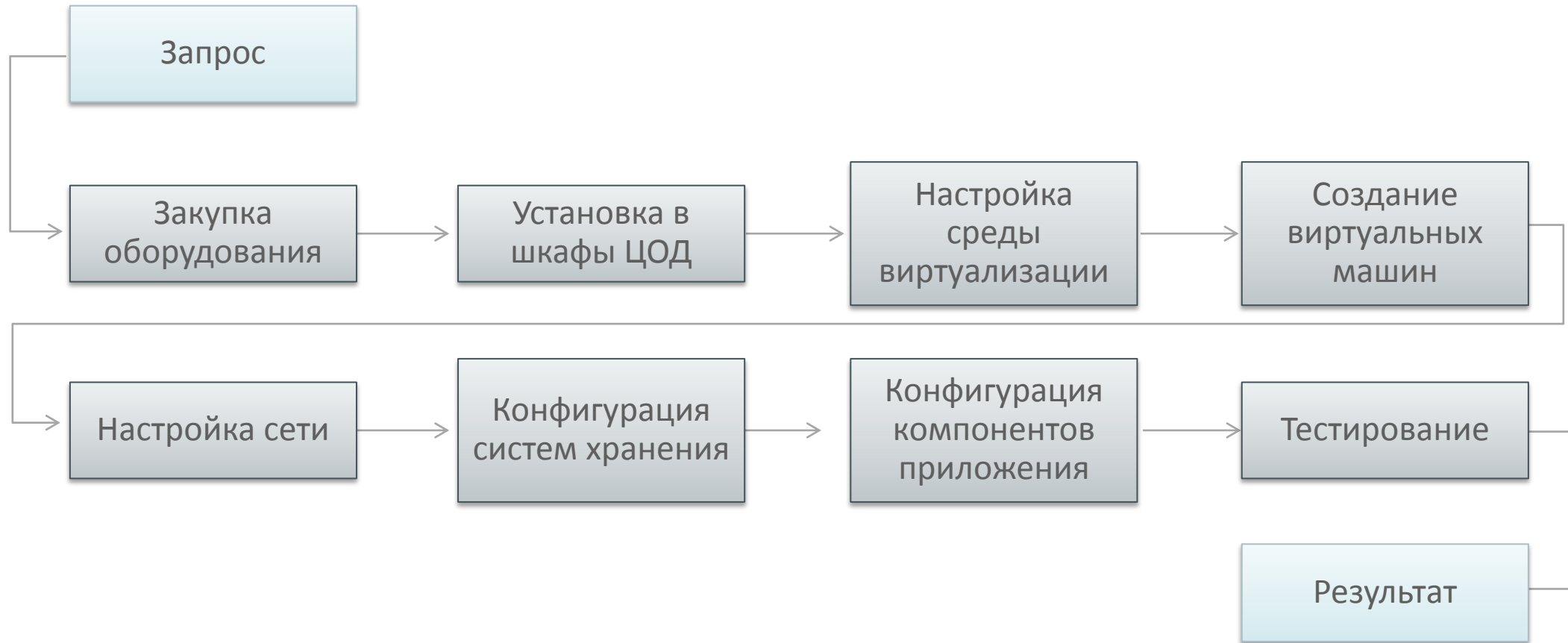
Сложные и многочисленные виртуальные среды



Постоянная необходимость в дополнительных виртуальных средах для разработки ПО, ручного и автоматического тестирования, интеграции систем, отладки подсистем защиты, обучения

Развертывание приложения в виртуальной среде

От дней до недель...

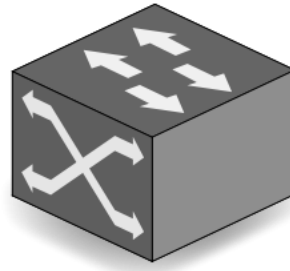


AWS, Azure и Google несовместимы с VMware



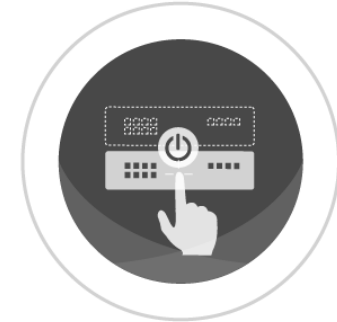
Более половины систем в ЦОД реализованы в VMware/KVM.

VMware и KVM не работают напрямую в облаке, в отличие от Ravello.



Для работы многих приложения необходимы сетевые настройки канального уровня (L2).

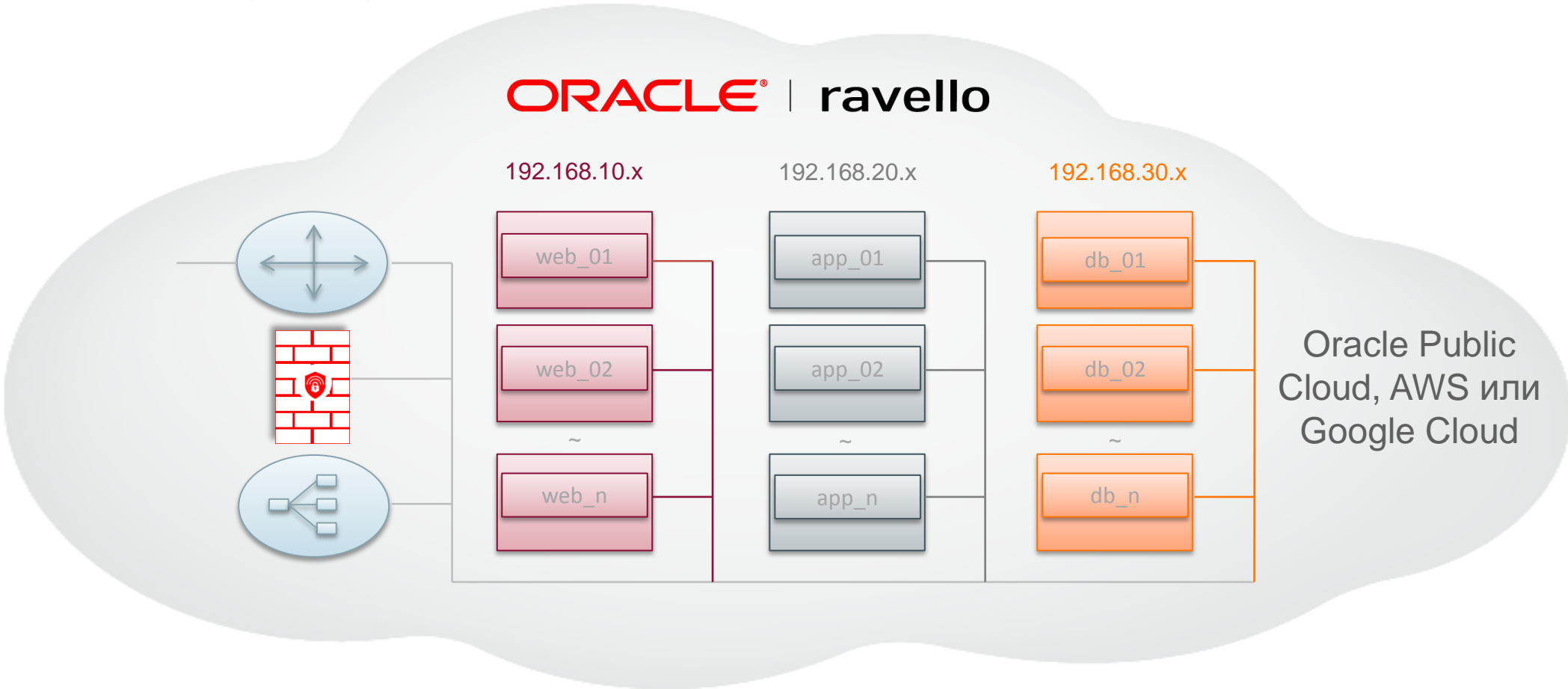
Сети L2 не поддерживаются облачными провайдерами, в отличие от Ravello.



Виртуальные устройства VMware отличаются от предложений облачных провайдеров и недоступны в облаке, в отличие от Ravello.

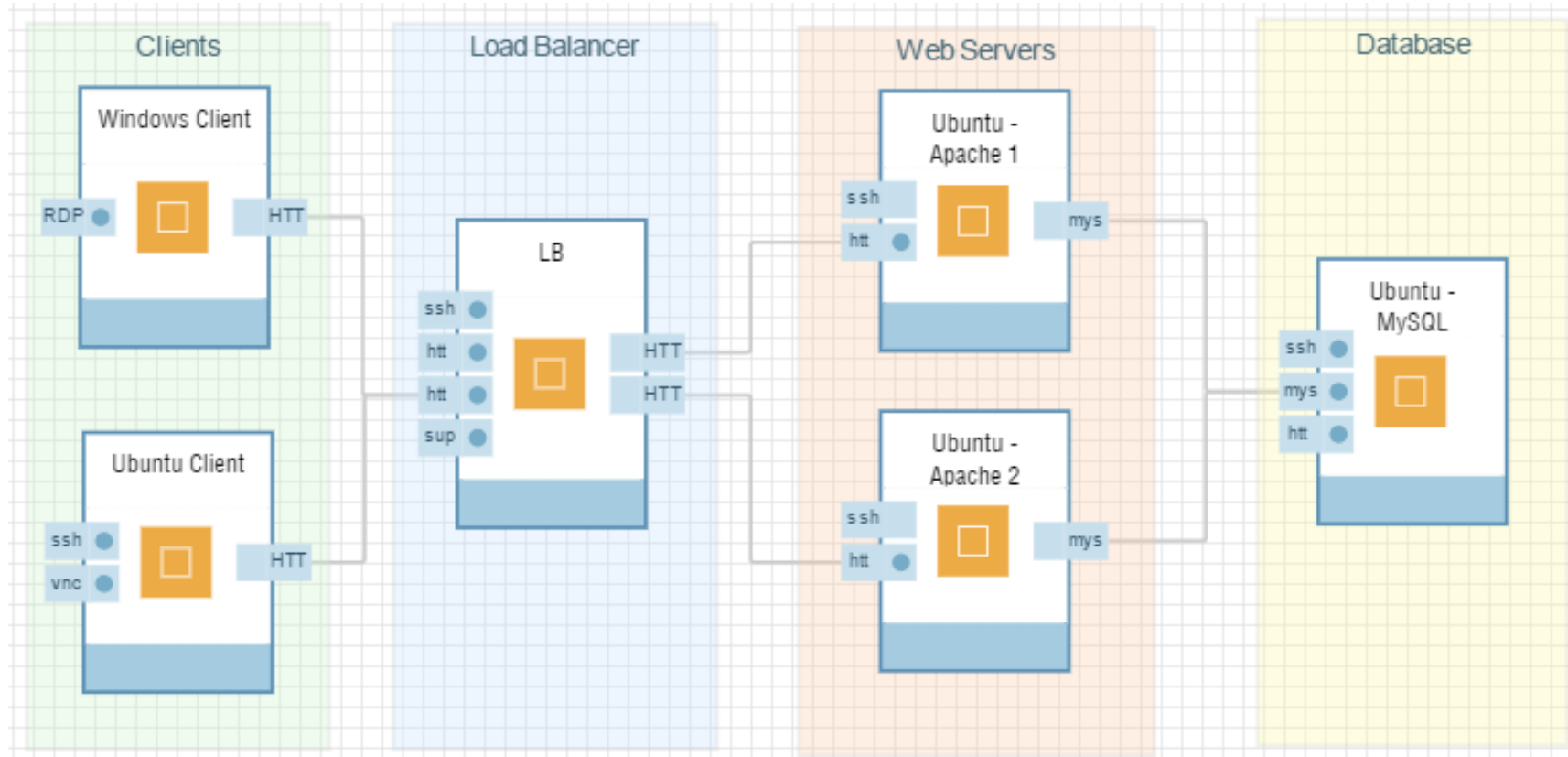
Адаптация приложений для развертывания в облаке требует времени, ресурсов и инвестиций. Ravello позволяет запускать существующие виртуальные среды без каких-либо изменений.

Ravello не требует каких-либо изменений



Те же виртуальные машины, та же сетевая конфигурация... но **изолированные** в публичном облаке

Приложение в терминах Ravello



Из ЦОДа в облако

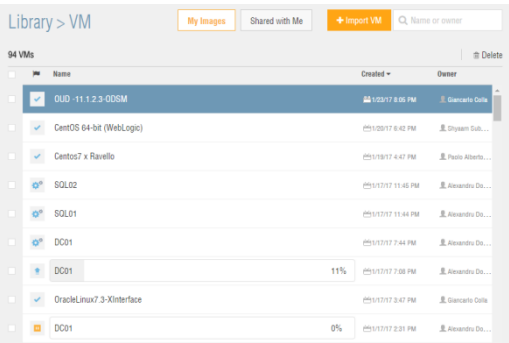
Всего четыре шага

Загрузка VM

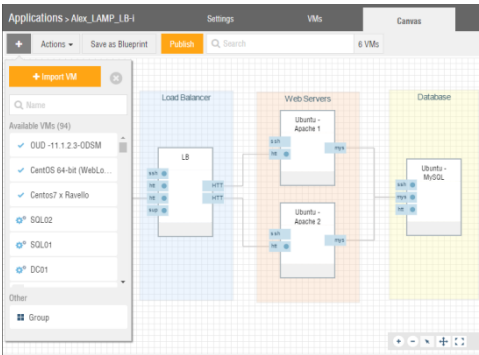
Создание приложения

Сетевое определение

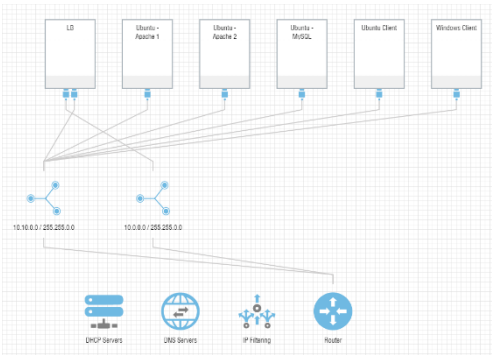
Публикация в облако



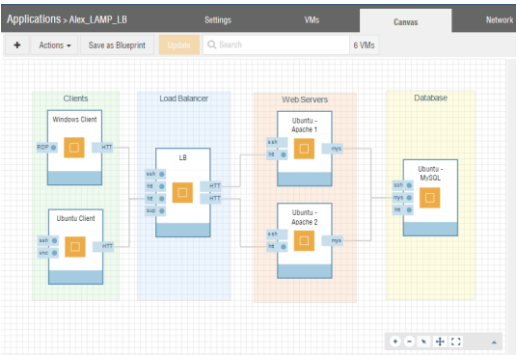
Без изменения виртуальных машин



Простой графический интерфейс



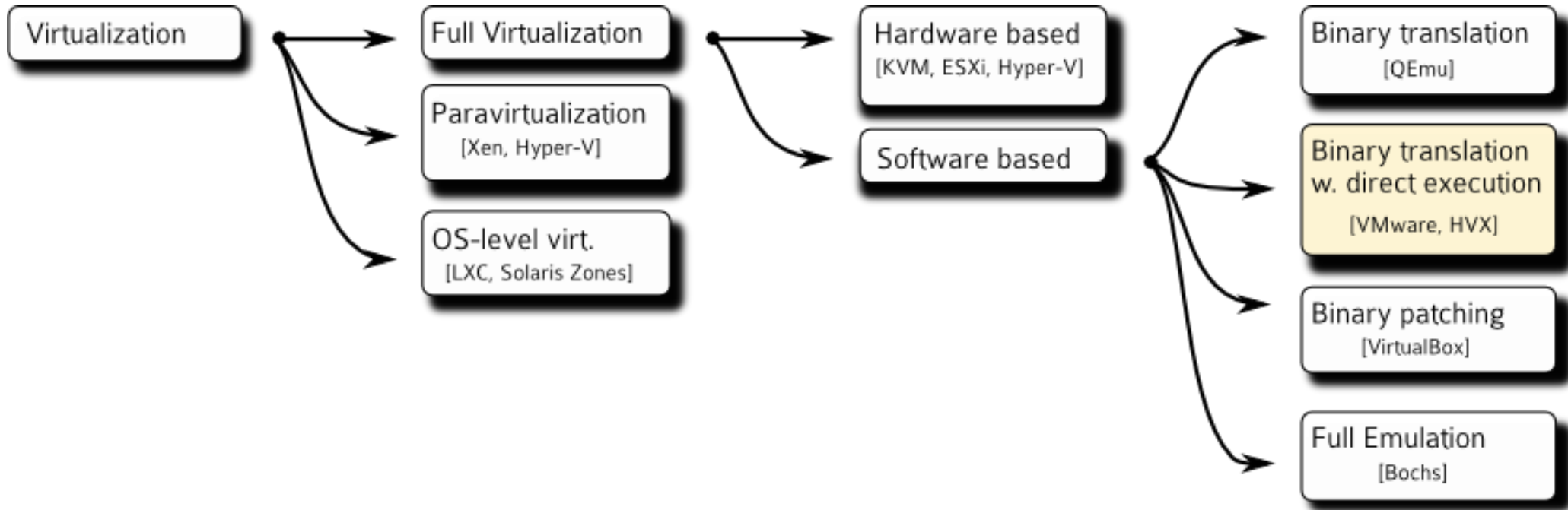
Настройка сетевой конфигурации, при необходимости



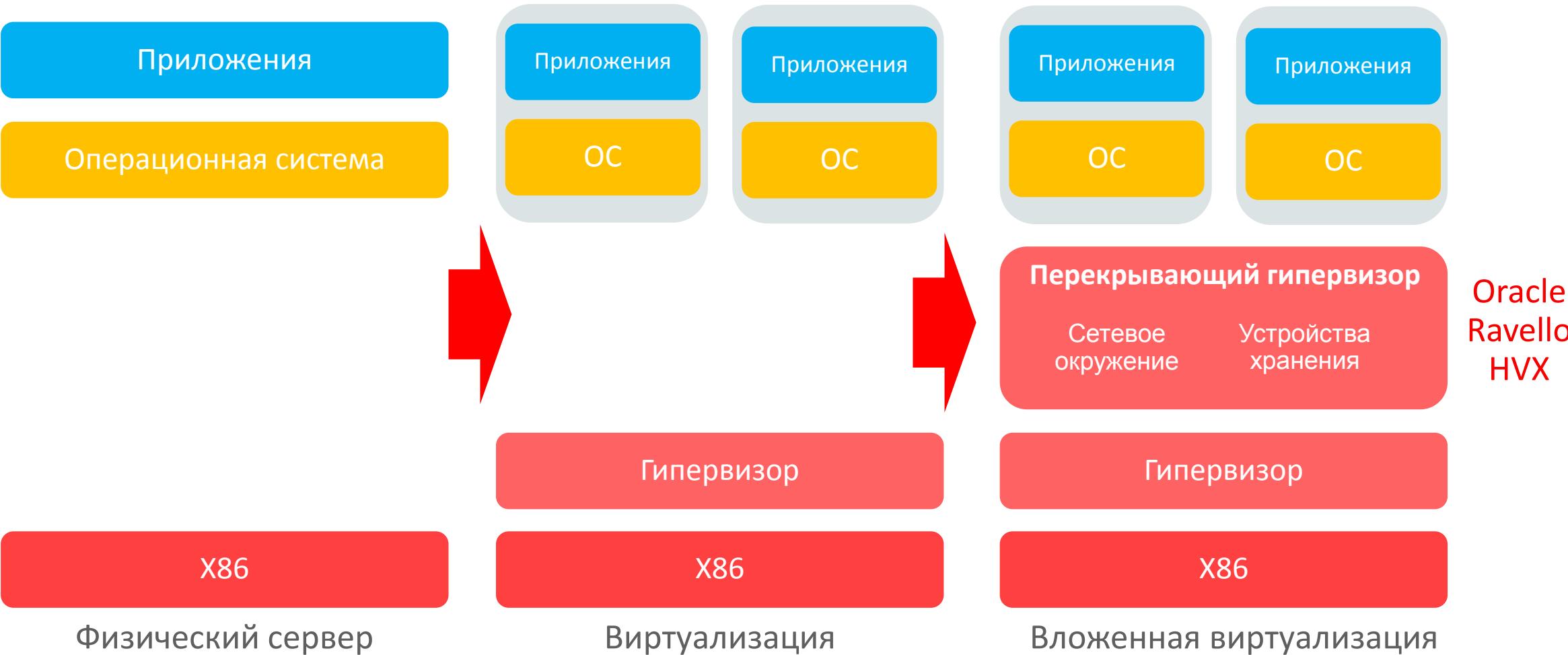
Через несколько минут приложение доступно в облаке



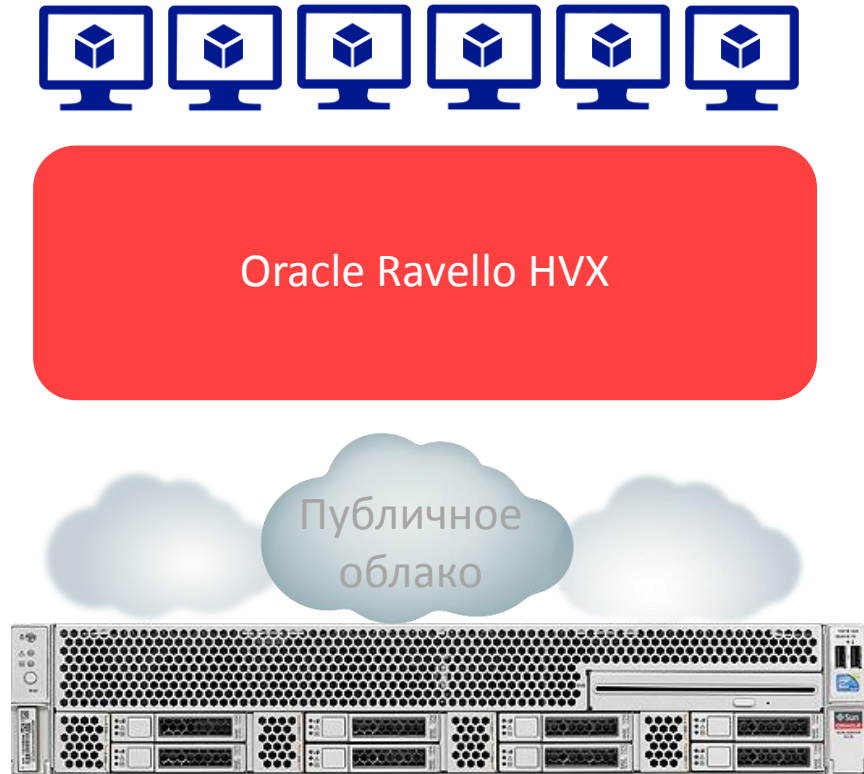
Классификация технологий виртуализации



Oracle Ravello HVX

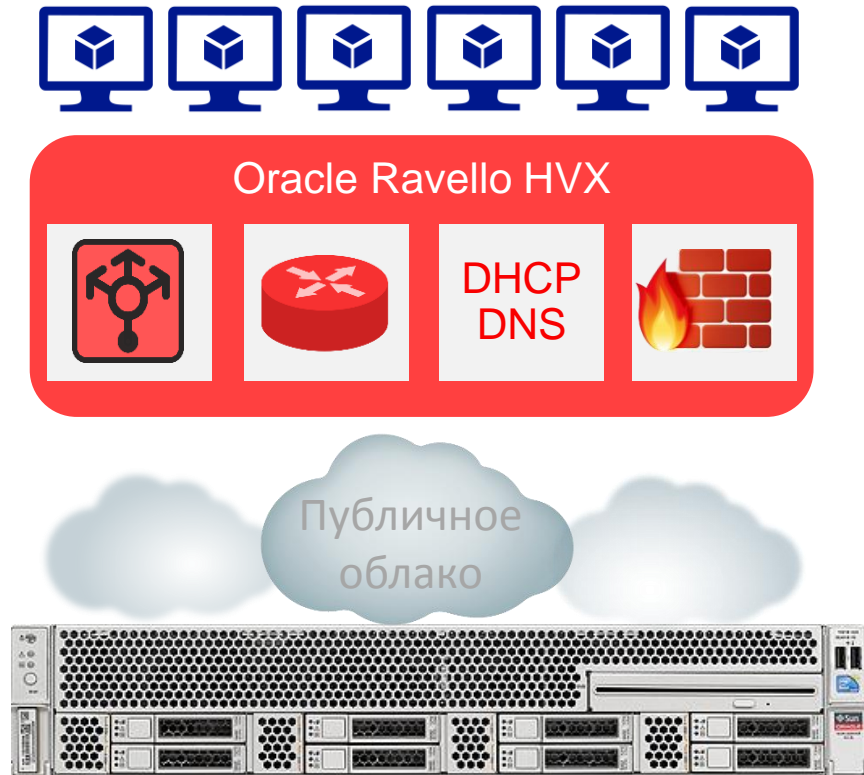


Ravello HVX: Виртуализация в облаке



- Технология, оптимизированная для облачной среды
 - Виртуализация уже виртуализованного оборудования
- Бинарный перевод с прямым выполнением
- Высокопроизводительная виртуальная сеть
- VMware, KVM, управление сетевыми сервисами
- Ведущие облачные провайдеры

Ravello HVX: Виртуальная сеть



- Распределенные коммутаторы и роутеры
- Службы DHCP, DNS
- Межсетевые экраны
- Сеть канального уровня (L2) для виртуальных машин
- Статические IP-адреса
- VLAN, VXLAN

Сеть уровня L2

Модель ISO/OSI

Ravello

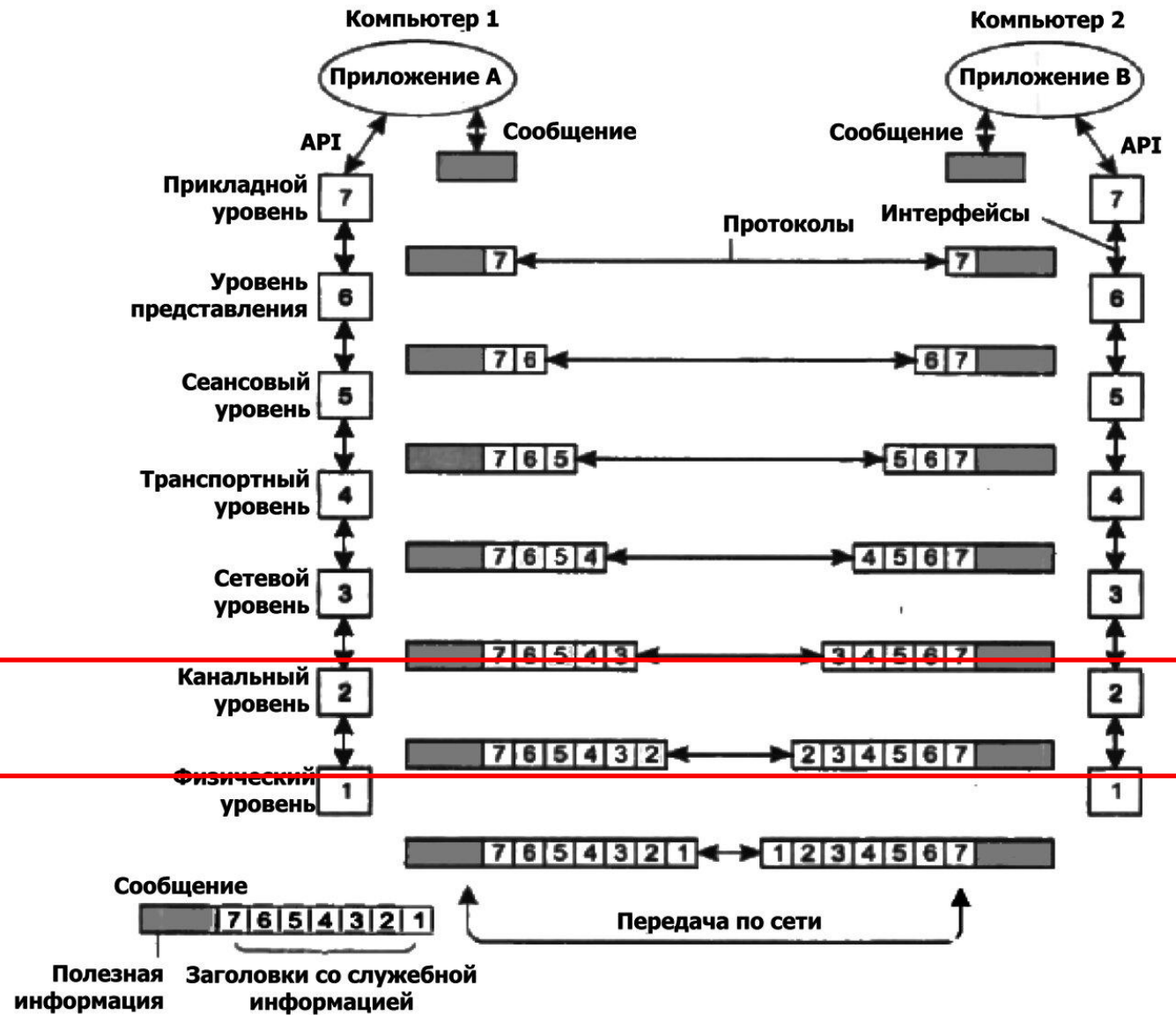
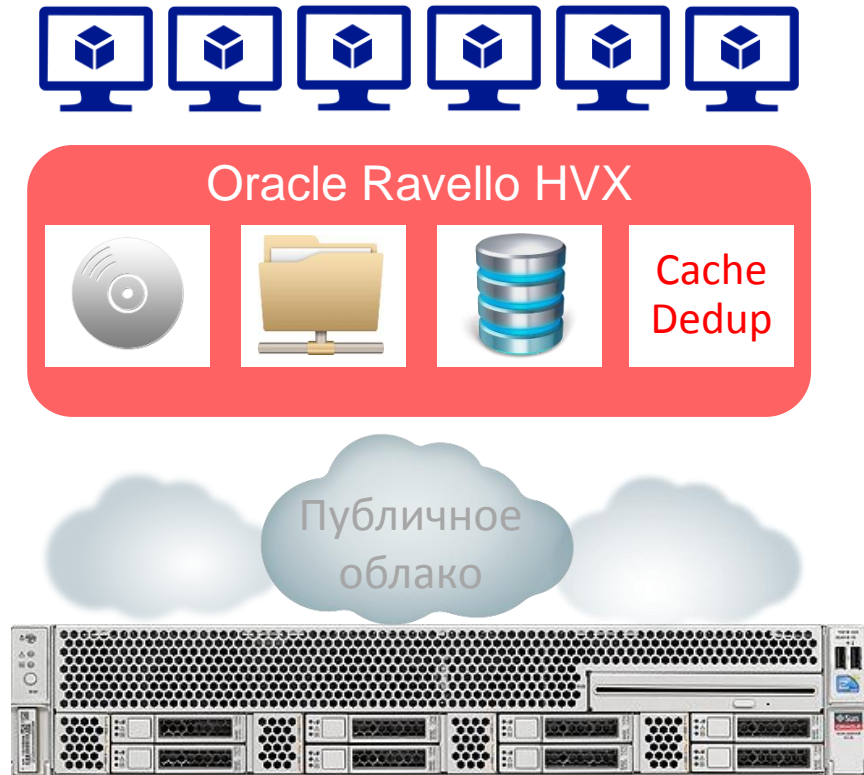


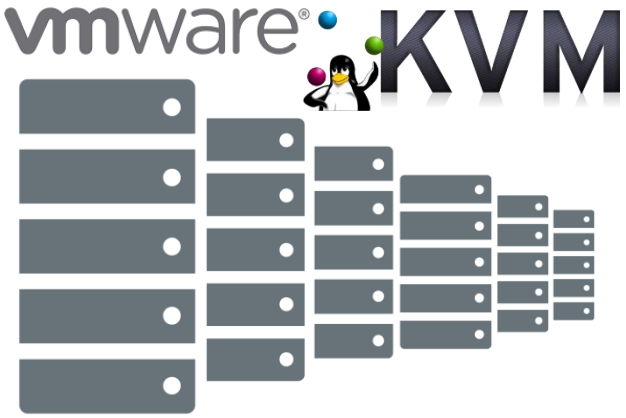
Рис. 4.6 Модель взаимодействия открытых систем ISO/OSI

Ravello HVX: Хранение данных



- Блочные устройства
- Кеширование образов
- Дедупликация данных
- Автоматический RAID0
- Виртуальный CD-ROM
- Различные протоколы доступа
 - iSCSI, NFS, CIFS, SMB

Импорт виртуальных машин в Ravello



+ Import VM

[Share](#) [Delete](#)

ravello systems

VM Import Tool

Username

Password

[Forgot your password?](#)

LOG IN

[Or switch to offline mode](#)

Use your Ravello credentials to log in or switch to offline mode. In offline mode, only actions not requiring connection to Ravello will be available.

ravello systems VM Import Tool

Upload Your VMs or Disks

SELECT THE SOURCE FOR YOUR VM OR FILE

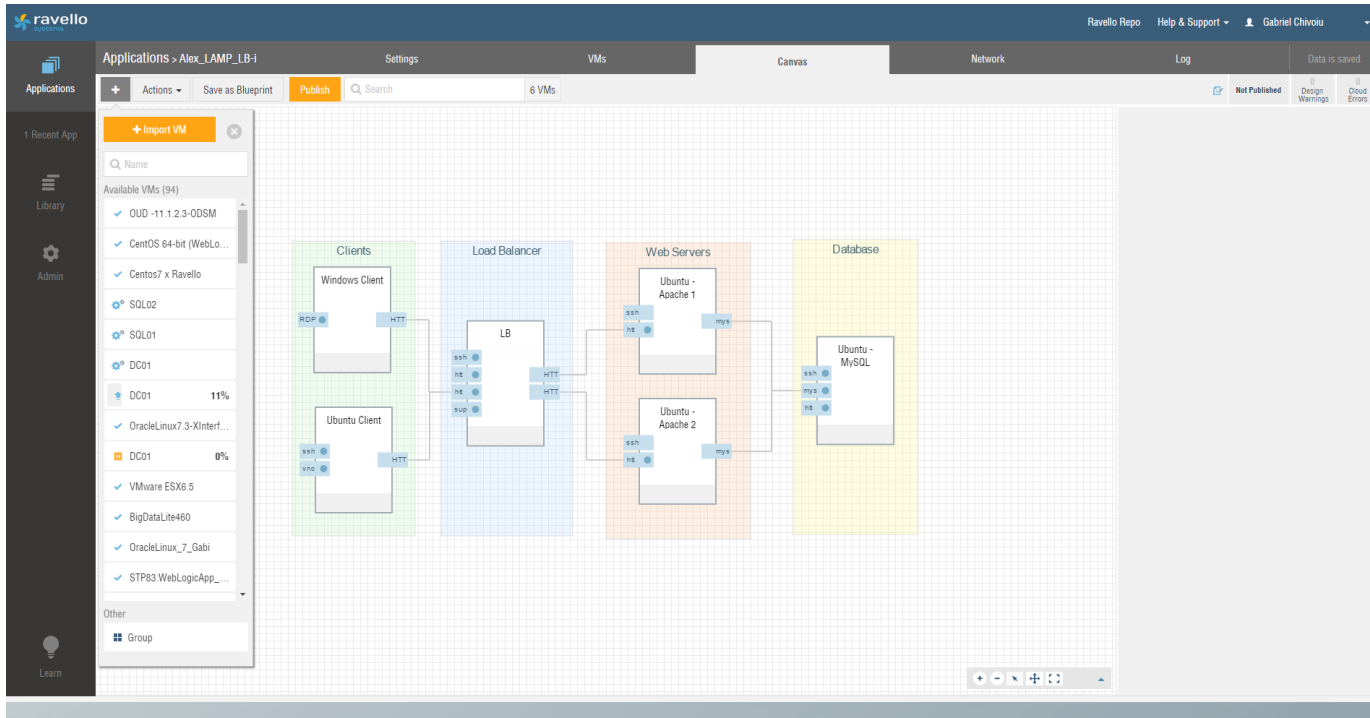
- Extract and upload VMs from vCenter, vSphere or ESX (recommended)**
Upload a VM from an OVF, OVA or Ravello Export file
Create a VM by uploading existing disk files (ISO, VMDK, QCOW)
Upload a disk image (ISO, VMDK, QCOW)
I have another type of file, what do I do?
- Extract and upload VMs from vCenter, vSphere or ESX (recommended)**
If the virtual machine is running on a vCenter, vSphere or ESX, we recommend that you extract it directly from vCenter or vSphere.
To do so, input the location of your vCenter or vSphere and your credentials, then select the VM to export. The process will export the VM and upload it into your account in Ravello. This process has no effect on the source VM.
Note: You can select the "Export only" option and upload the VM later by selecting "Upload a VM from OVF file or Ravello Export file".

START



Рабочий стол Ravello

Графический интерфейс пользователя



- Управление виртуальным оборудованием
- Управление доступом к ресурсам
- Сетевая конфигурация
- Правила запуска и останова виртуальных машин

Рабочий стол Ravello

Создание приложения

+ Create Application

Create Application

Name: Oracle Primavera on Ravello

Description:

From Blueprint: Ag Demo12232

Create Cancel

+ Import VM

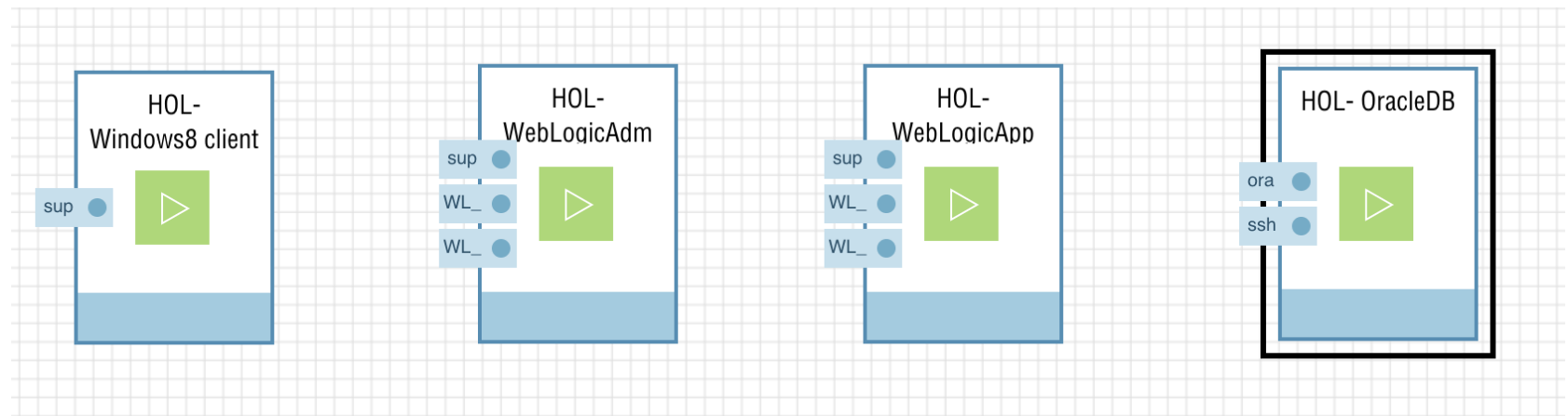
HOL

Available VMs (5)

- BigDataLite450 - HOL
- OracleDB - HOL
- WebLogicApp - HOL
- WebLogicAdm - HOL
- Windows8 client - HOL

Other

Group



Рабочий стол Ravello

Управление виртуальными машинами

System

System Properties

CPUs: 4

Mem Size: 8 GB

Platform: V2-ESX
Virtualized hardware for this VM

Display: Cirrus Logic (default)
Make sure your VM has the required driver for the selected device.

Allow nested virtualization

[Configure CPU IDs](#)

Disks + Add

Disks

1

↑ ↓ **Disk** Hard Disk 1

Disk Size: 32 GB

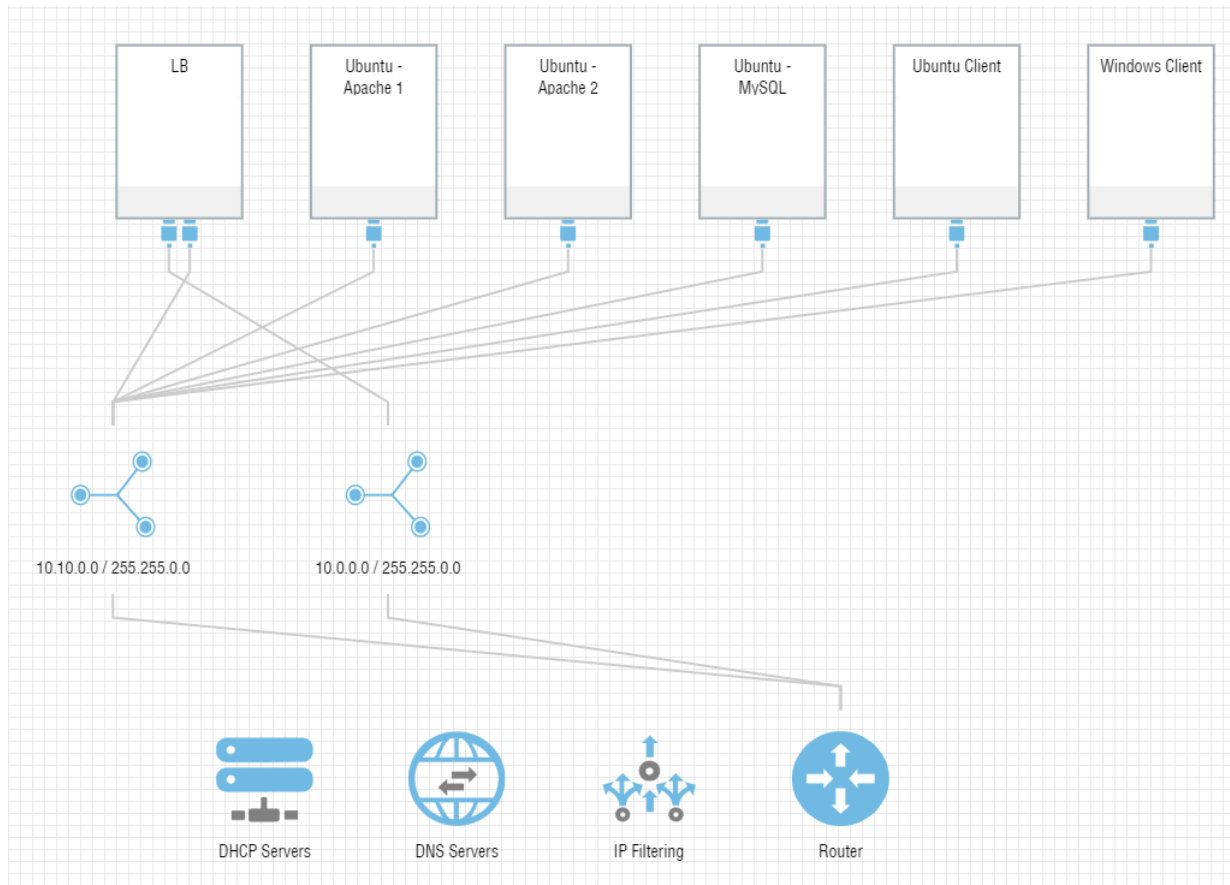
Controller: LSI Logic SAS

Boot: Bootable Skip CD boot

Save Disk to Library

- Виртуальные процессоры
- Оперативная память
- Дисковые контроллеры и диски

Конфигурирование сети



- Сетевые службы на сетевых интерфейсах
- DHCP, DNS
- Внешние, фиксированные и "эластичные" IP-адреса
- Фильтрация IP-адресов
- Переадресацией портов

Конфигурирование сети

Сетевые интерфейсы

Network Connections

1

Name

MAC Auto MAC

Device

IP Configuration DHCP Static

Reserved IP

External Access (Has external services)

Inbound: On (Using public IP address)

Outbound: On (Using public IP address)

Public IP Even without external services

Elastic IP

Port Forwarding

(Advanced)

Локальные DHCP

DHCP Server Properties

DHCP Server 1.

1

IP-Mask

Address Range

Assigned IPs:

Nic #0 in LB	10.0.0.10
--------------	-----------

DHCP Server 2.

2

IP-Mask

Address Range

Assigned IPs:

Nic nic in LB	10.10.0.1
Nic #0 in Ubuntu - Apache 1	10.10.0.2

IP-фильтры

IP Filter Properties

General

Is Active

Incoming IP Rules

1

Incoming IP *

Mask *

2

Incoming IP *

Mask *

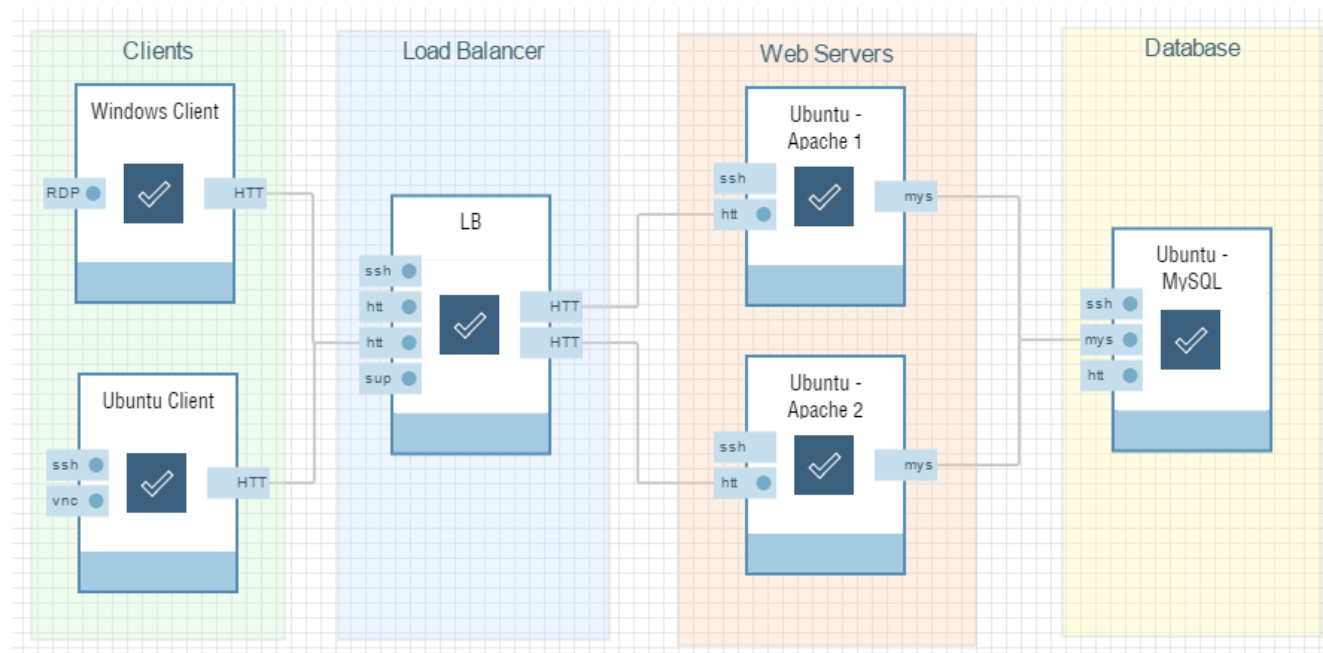
Ravello Blueprint

Save As Blueprint ✕

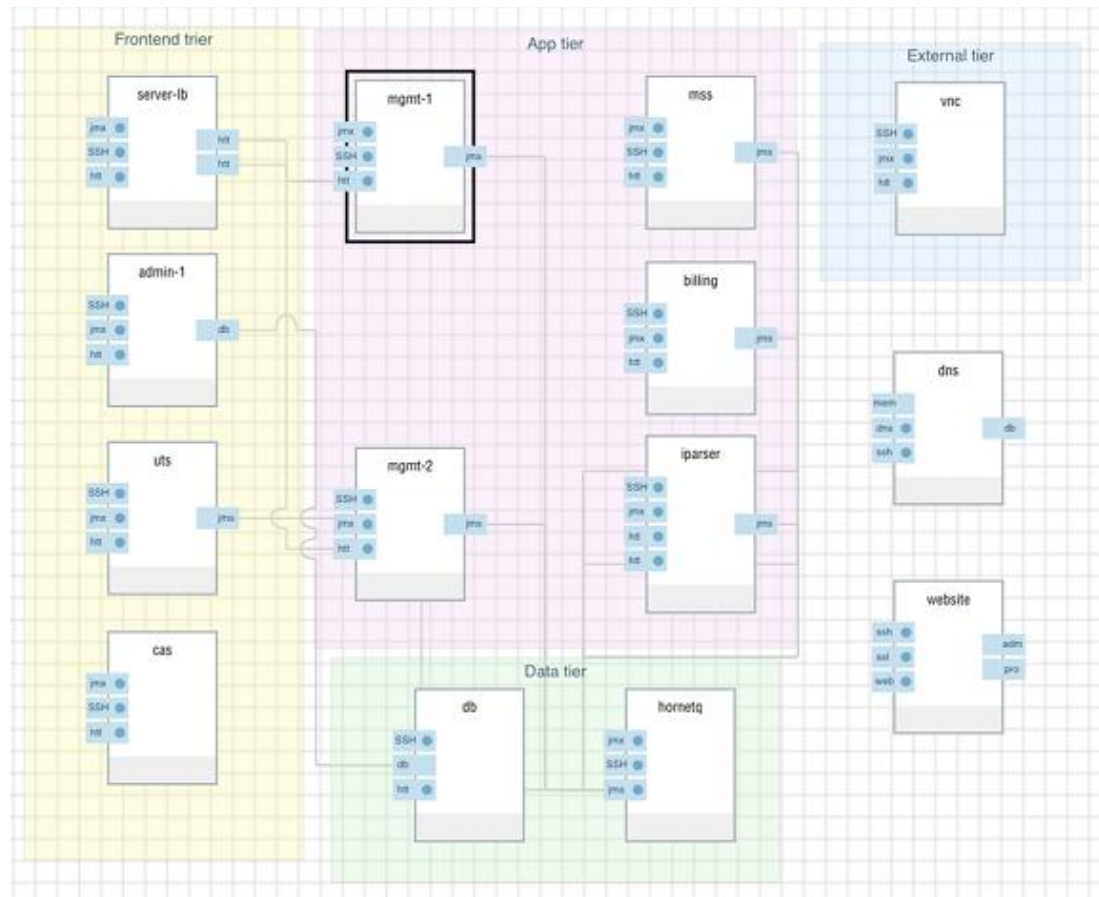
Name

Create Cancel

- План развертывания приложения хранит описание всех его компонент
 - Описательных, вычислительных и сетевых
- Используется для быстрого тиражирования приложения в облаке



Ravello Blueprint



- Планы развертывания могут быть доступны другим пользователям
 - Приглашенные пользователи
 - Все пользователи (Ravello Repo)
- К развернутому приложению может быть предоставлен доступ не-пользователям Ravello
 - "Эфемеральный" доступ

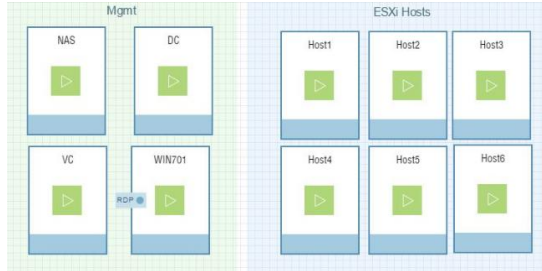
Развертывание приложения



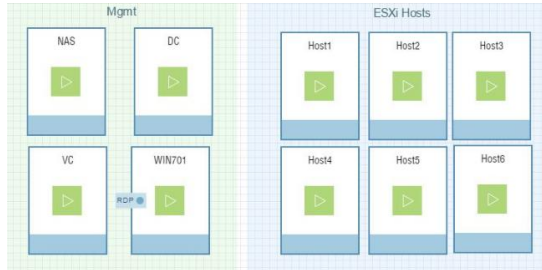
План многоуровневого приложения



Клон 1 – Oracle Public Cloud



Клон 2 – Amazon WS



Клон 3 – Google Public Cloud

Автоматический запуск приложения

Пуск и останов по расписанию

Create Application Task ✕

Action: Start Description:

Set Date & Time Advanced

Execute Once Repeat Europe/Moscow (GMT+03:00)

Weekly (weekdays) 9:00 AM

Mon Tue Wed Thu Fri Sat Sun

Enabled From: 1/30/2017 11:48 AM From Now

Until: (Unlimited)

Repeat at 9:00 AM on Mon,Tue,Wed,Thu,Fri of every week (from 1/30/2017 11:48 AM)

Create Cancel

Порядок запуска машин

VMs List 1

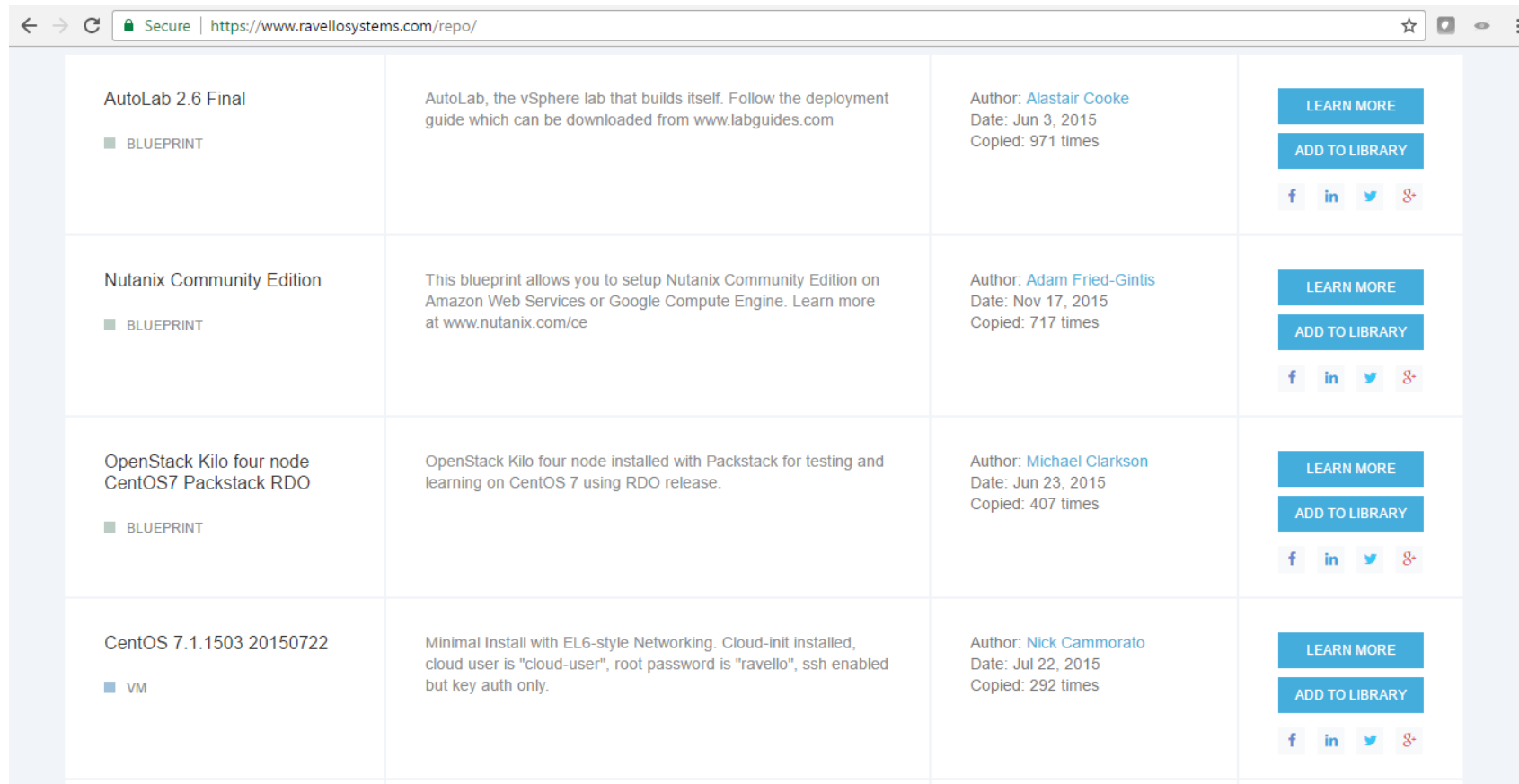
4 Stages + Create Stage Delete Stages

Start Load Balancer ✎ 1	1 minutes to next stage
Start Web Servers ✎ 2	2 minutes to next stage
Start Database ✎ 1	1 minutes to next stage
Start Clients ✎ 1	No wait time to next stage

+ Create Stage

Ravello Repo

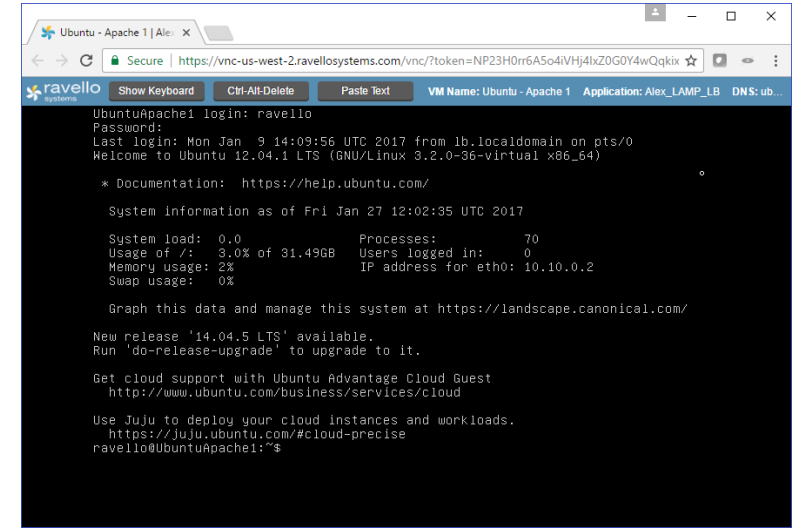
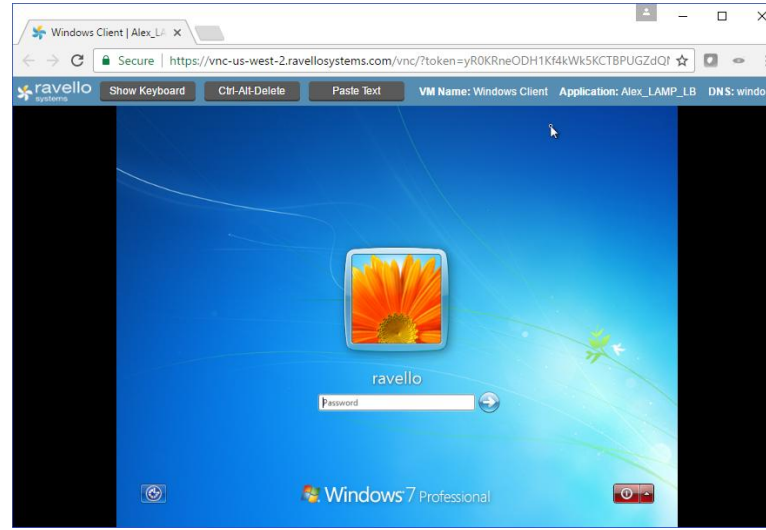
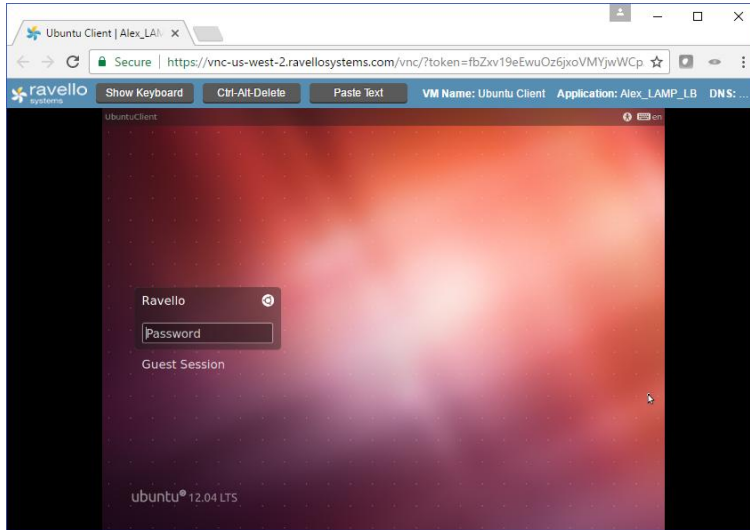
Репозиторий готовых решения



The screenshot shows a web browser window with the URL <https://www.ravell systems.com/repo/>. The page displays a list of four items, each with a title, a brief description, author information, date, and number of copies. Each item also has 'LEARN MORE' and 'ADD TO LIBRARY' buttons, along with social media sharing icons for Facebook, LinkedIn, Twitter, and Google+.

Title	Description	Author	Date	Copies	Category
AutoLab 2.6 Final	AutoLab, the vSphere lab that builds itself. Follow the deployment guide which can be downloaded from www.labguides.com	Alastair Cooke	Jun 3, 2015	971 times	BLUEPRINT
Nutanix Community Edition	This blueprint allows you to setup Nutanix Community Edition on Amazon Web Services or Google Compute Engine. Learn more at www.nutanix.com/ce	Adam Fried-Gintis	Nov 17, 2015	717 times	BLUEPRINT
OpenStack Kilo four node CentOS7 Packstack RDO	OpenStack Kilo four node installed with Packstack for testing and learning on CentOS 7 using RDO release.	Michael Clarkson	Jun 23, 2015	407 times	BLUEPRINT
CentOS 7.1.1503 20150722	Minimal Install with EL6-style Networking. Cloud-init installed, cloud user is "cloud-user", root password is "ravello", ssh enabled but key auth only.	Nick Cammorato	Jul 22, 2015	292 times	VM

Универсальный Интернет-доступ к машинам



▶ VM is Started

DNS: ubuntuclient-alexlamplb-gkhf6wga.srv.r... ▲

IP: 130.211.238.234

Ports: 22 (ssh)
5900 (vnc) ▼

▶ VM is Started

DNS: windowsclient-alexlamplb-e9uv2trm.srv.ra
vcloud.com ▲

IP: 130.211.230.236

Ports: 3389 (RDP) Open ▼

▶ VM is Started

DNS: ubuntu12041vanilla-alexlamp-rkzjfbtq.srv.... ▲

IP: 130.211.219.164

Ports: 80 (http) Open

Внешний доступ к приложению

New Ephemeral Access Token

Name

Description

Application Permissions READ CREATE UPDATE EXECUTE ⓘ

Activation Time

Expiration Time



New Ephemeral Access Token

The ephemeral access token has been created.

It can be accessed in one of the following ways:

End-user:

Ravello UI:

API Token: ⓘ

Автоматизация взаимодействия с Ravello

Rest API

REST API

General

Applications

Tasks

- Schedule New Application Task
- Update a Task
- Get All Application Tasks
- Get a Task
- Delete Existing Task
- Delete All Application Tasks

Blueprints

Images

Disk Images

Key Pairs

Elastic IPs

Organizations

Users

Shares

Communities

Ephemeral Access Tokens

Tasks

Schedule New Application Task

Schedule a new application task.

HTTP Request

POST applications/:appId/tasks

Parameters

Parameter	Required	Description
appId	yes	The ID of the application.
action	yes	STOP/START/BLUEPRINT
scheduleInfo→start	no	When to start the task (enable time). If not provided, the task will start immediately.
scheduleInfo→end	no	When to end the task (disable time). If not provided, the task will never end.
scheduleInfo→cron	no	Cron expression for

Example Request with request body:

```
POST https://cloud.ravell systems.com/api/v1/applications/3405/tasks
```

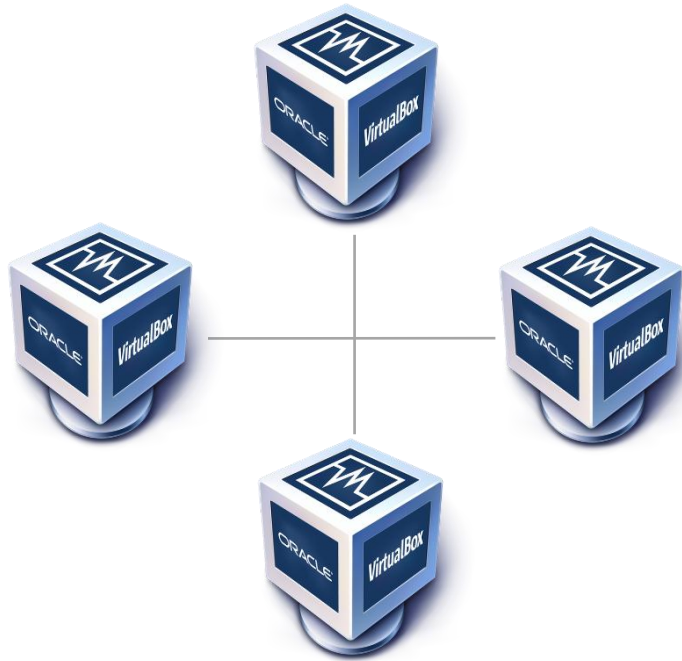
```
{  "action": "STOP",  "scheduleInfo": {    "start": null,    "end": null,    "cronExpression": "0 0 10 * * ?",    "timezone": "UTC"  },  "description": "stop application 6 at 10 AM daily"}
```

Show full example

Example Response:

```
{  "id": "131079",  "entityId": "6",  "entityType": "APPLICATION",
```

Стоимость сервиса Ravello



Каждая из машин имеет
2 vCPU и 4GB RAM

Pay-As-You-Go

Общая потребность в ресурсах
8 vCPU + 16GB RAM

\$0.56 - \$0.96

в час

в зависимости от требований
к производительности

Стоимость сервиса Ravello

Оптимизация по расходам

Publish Application ✕

Content of application: Alex_LAMP_LB-i

6 VMs 10 CPUs 20GB Memory 180GB Disk Space 7 Public IP Addresses

Optimize for **Cost** Performance

Cloud Best Fit Region Best Fit

Schedule application to stop in: 02:00hr

Advanced ▶

Detailed Pricing ▼ [View price list](#)

Application Tier	ENTERPRISE
Computing. This is the lowest price available	\$1.05/hr
Volume Storage	\$0.0621/hr
Public IP Addresses	\$0.07/hr
Network, based on usage	\$0.15/GB
Total Price	\$1.1821/hr
Free for the trial period	\$0

Publish **Cancel**

Оптимизация по производительности

Publish Application ✕

Content of application: Alex_LAMP_LB-i

6 VMs 10 CPUs 20GB Memory 180GB Disk Space 7 Public IP Addresses

Optimize for Cost **Performance**

Location

* For more locations: [contact support](#). See list of supported locations [here](#).

Schedule application to stop in: 02:00hr

Advanced ▶

Detailed Pricing ▼ [View price list](#)

Application Tier	ENTERPRISE
Computing. The lowest price we found is \$1.05/hr	\$1.20/hr
Volume Storage	\$0.0621/hr
Public IP Addresses	\$0.07/hr
Network, based on usage	\$0.15/GB
Total Price	\$1.3321/hr
Free for the trial period	\$0

Publish **Cancel**

Стоимость облачного сервиса Ravello

Онлайн-калькулятор

Enter the aggregated resources of all VMs in your application

or

Enter each VM in your application separately

Enter the total resources of your application

$(VM_1 + VM_2 + \dots + VM_n)$

8

vCPUs

and

16

RAM (GB)

and

100

Storage (GB)

Summary

Compute USD 0.560 per hour

Volume Storage USD 0.035 per hour

for advanced networking tier in cost optimization mode.

USD 0.595 per hour

RECALCULATE

USD - United States Dollar

Лицензирование ПО в Oracle Ravello

ПО Oracle

Лицензия на
1 процессор = 4 vCPU

ПО Microsoft

Лицензия на
1 ядро = 2 vCPU

Плюс частичный или полный отказ от
лицензий VMware

Почему Oracle Ravello

- **Существенная экономия средств**

- Почасовой биллинг, отказ от лицензий VMware, льготное лицензирование системного ПО
- Экономия затрат на приобретение и обслуживание дополнительного оборудования

- **Существенная экономия времени**

- Быстрое прототипирование, развертывание и тиражирование приложений, автоматизация процессов взаимодействия со средой Ravello
- Простота использования и быстрота освоения

- **Технологическая гибкость и прозрачность**

- Отсутствие подготовительных работ, низкоуровневые сетевые интерфейсы

Когда Ravello имеет очевидные преимущества

- При разработке и тестировании программного обеспечения
 - Быстрое создание тестовых сред, использование средства автоматизации (Rest API, включение Ravello в работу с версиями ПО)
- Для тестирования средств сетевой защиты и защиты данных
 - Изолированность виртуальной среды, сеть канального уровня, VPN
- Для быстрого прототипирования и демонстрации программных систем и разработок
- Для быстрого создания виртуальных учебных мест и лабораторий
- Для ненагруженных производственных систем

Пробный доступ

www.ravellosystems.com

2880 бесплатных CPU-часов
(14 дней)

ORACLE®