



01 Linux简介

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一、UNIX与Linux发展史



UNIX 发展历史

(1) 1965年，美国麻省理工学院（MIT）、通用电气公司（GE）及AT&T的贝尔实验室联合开发Multics工程计划，其目标是开发一种交互式的具有多道程序处理能力的分时操作系统，但因Multics追求的目标过于庞大复杂，项目进度远远落后于计划，最后贝尔实验室宣布退出。

(2) 1969年，美国贝尔实验室的肯·汤普森在DEC PDP-7机器上开发出了UNIX系统。



UNIX 发展历史

(3) 1971年，肯·汤普森的同事丹尼斯·里奇发明了C语言；1973年，UNIX系统的绝大部分源代码用C语言重写，这为提高UNIX系统的可移植性打下基础。





UNIX 主要发行版本

操作系统	公司	硬件平台
AIX	IBM	PowerPC
UX	HP	PA-RISC
Solaris	SUN	SPARC
Linux、 BSD	Red Hat Linux 、 Ubuntu 、 FreeBSD	IA (Intel、 AMD、 Cyrix、 RISE...)



Linux 发展历史

Linux系统诞生于1991年，由芬兰大学生李纳斯（Linus Torvalds）和后来陆续加入的众多爱好者共同开发完成。

Linux是自由软件，源代码开放的UNIX。





Linux版本分类

• 版本分类：

- 内核版 www.kernel.org
 - ✓ RHEL6.x 2.6.x
 - ✓ REHL7.x 3.10.x
- 发行版
 - ✓ RedHat系列
 - 个人版：Fedora
 - 服务器版：RHEL (RedHat Enterprise Linux)
 - ✓ Debian系列



Linux 主要发行版本





二、开源软件简介



开源软件



NGINX™





开源软件

- Apache : web服务器
- Nginx : web服务器
- MySQL : 数据库 (SQLserver , Oracle)
- PHP : 脚本语言
- Samba : Linux和windows之间的内网文件服务器
- MongoDB : NoSQL数据库 redis
- Python : 脚本语言
- Ruby : 脚本语言
- Sphinx : 中文分词



开源软件



使用的自由

绝大多数开源软件免费



研究的自由

可以获得软件源代码

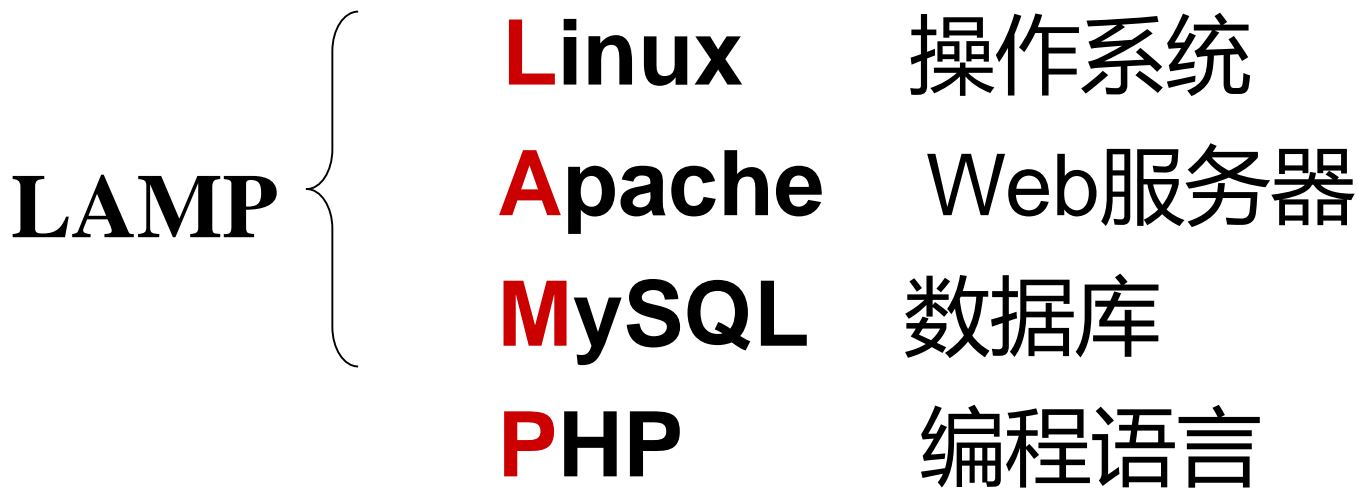


散布及改良的自由

可以自由传播、改良甚至销售



支撑互联网的开源技术





三 Linux应用领域



1、基于Linux的服务器



1) www.netcraft.com

The screenshot shows the Netcraft website interface. The browser's address bar displays "www.netcraft.com". The website's navigation menu includes links for Home, News, Anti-Phishing, Security Testing, Internet Data Mining, Performance, and About Netcraft. A search bar is located in the top right corner.

The main content area features a security analysis for "www.examplebank.com". The analysis includes a risk rating of 0, a site rank of 164,608, and a first seen date of September 2000. A table of details is shown below:

Country:	UK	Site rank:	164,608
First seen:	September 2000	Host:	Netcraft

The analysis also includes a "Report push" button and a "Protect your customers" section. The "Solutions For..." section lists various services such as Banks, Certificate Authorities, Domain Registrars, Domain Registries, and Hosting Companies. The "Get in Touch" section provides contact information: +44 (0) 1225 447500 and info@netcraft.com. The "What's that site running?" section includes a search bar for technologies. The "Audited by Netcraft" section shows a security audit for the website, dated 2013-10-15.



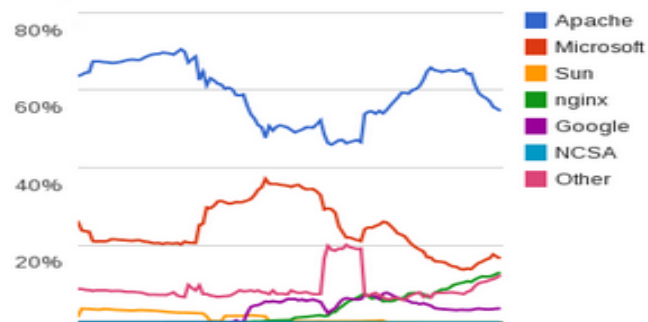
Anti-Phishing

Security Testing

Internet Data
Mining

Performance

Market Share for Top Servers Across All Domains



Understand your Competitors

- ▶ Worldwide analysis of hosting companies, identifying trends and customer movements
- ▶ Track technology adoption across the internet including the market share of web servers, operating systems, hosting providers and SSL certificate authorities
- ▶ See a list of all websites that match requested criteria (for example sites running a certain technology hosted in a particular country)
- ▶ [Find out more](#)

Explore the internet's growth



2) www.qq.com

Network

Site	http://www.qq.com	Netblock Owner	Akamai Technologies
Domain	qq.com	Nameserver	ns1.qq.com
IP address	92.122.126.40	DNS admin	webmaster@qq.com
IPv6 address	Not Present	Reverse DNS	a92-122-126-40.deploy.akamaitechnologies.com
Domain registrar	hichina.com	Nameserver organisation	grs-whois.hichina.com
Organisation	Shenzhen Tencent Computer Systems Company Limited, 35 F, Tencent Building, kejinanyi Avenue, Southern District, Shenzhen, 518057, China	Hosting company	unknown
Top Level Domain	Commercial entities (.com)	DNS Security Extensions	unknown
Hosting country	EU	Latest Performance	Performance Graph

Hosting History

Netblock owner	IP address	OS	Web server	Last seen	Refresh
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.83	Linux	squid/3.1.18	13-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.51	Linux	squid/3.1.18	11-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.83	Linux	squid/3.1.18	10-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.51	Linux	squid/3.1.18	7-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.83	Linux	squid/3.1.18	6-Dec-2013	
Akamai Technologies	92.122.123.57	Linux	squid/3.1.18	4-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.51	Linux	squid/3.1.18	2-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.83	Linux	squid/3.1.18	1-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.51	Linux	squid/3.1.18	30-Nov-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.53.83	Linux	squid/3.1.18	27-Nov-2013	



3) www.taobao.com

Network

Site	http://www.taobao.com	Netblock Owner	Alibaba
Domain	taobao.com	Nameserver	ns1.taobao.com
IP address	195.59.70.251	DNS admin	tiexin@taobao.com
IPv6 address	Not Present	Reverse DNS	unknown
Domain registrar	unknown	Nameserver organisation	unknown
Organisation	unknown	Hosting company	Cable & Wireless
Top Level Domain	Commercial entities (.com)	DNS Security Extensions	unknown
Hosting country	UK	Latest Performance	Performance Graph

Hosting History

Netblock owner	IP address	OS	Web server	Last seen	Refresh
Alibaba	195.59.70.241	Linux	Tengine	13-Dec-2013	
Alibaba	195.59.70.251	Linux	Tengine	12-Dec-2013	
Alibaba	195.59.70.241	Linux	Tengine	8-Dec-2013	
Alibaba	195.59.70.251	Linux	Tengine	6-Dec-2013	
Alibaba	195.59.70.241	Linux	Tengine	6-Dec-2013	
Alibaba	195.59.70.251	Linux	Tengine	2-Dec-2013	
Alibaba	195.59.70.241	Linux	Tengine	23-Nov-2013	
Alibaba	195.59.70.251	Linux	Tengine	23-Nov-2013	
Alibaba	195.59.70.241	Linux	Tengine	20-Nov-2013	
Alibaba	195.59.70.251	Linux	Tengine	18-Nov-2013	



4) download.microsoft.com

Network

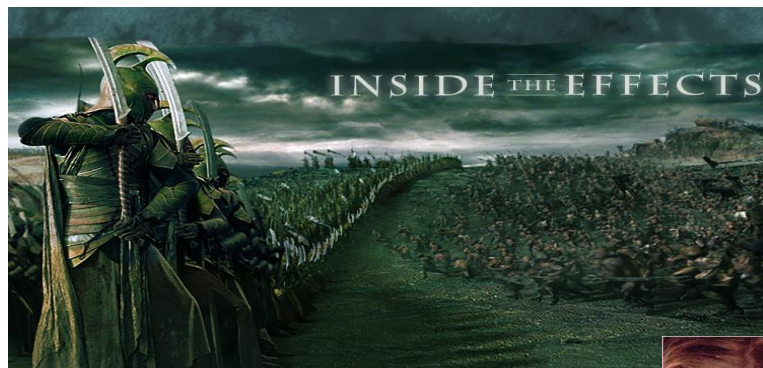
Site	http://download.microsoft.com	Netblock Owner	Akamai Technologies
Domain	microsoft.com	Nameserver	ns1.msft.net
IP address	92.122.126.168	DNS admin	msnhst@microsoft.com
IPv6 address	2a02:26f0:27:0:0:c3f5:7d8a	Reverse DNS	a92-122-126-168.deploy.akamaitechnologies.com
Domain registrar	unknown	Nameserver organisation	unknown
Organisation	unknown	Hosting company	unknown
Top Level Domain	Commercial entities (.com)	DNS Security Extensions	unknown
Hosting country	EU	Latest Performance	Performance Graph

Hosting History

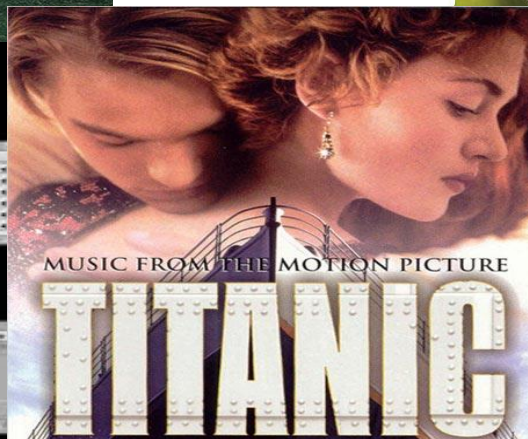
Netblock owner	IP address	OS	Web server	Last seen	Refresh
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.2.27	Linux	Microsoft-IIS/8.0	13-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.2.33	Linux	Microsoft-IIS/8.0	6-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.2.27	Linux	Microsoft-IIS/8.0	4-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.232	Linux	Microsoft-IIS/8.0	2-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.209	Linux	Microsoft-IIS/8.0	1-Dec-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.232	Linux	Microsoft-IIS/8.0	29-Nov-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.209	Linux	Microsoft-IIS/8.0	27-Nov-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.232	Linux	Microsoft-IIS/8.0	25-Nov-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.209	Linux	Microsoft-IIS/8.0	24-Nov-2013	
Akamai International, BV Prins Bernhardplein 200 Amsterdam NL 1097 JB	23.62.0.232	Linux	Microsoft-IIS/8.0	23-Nov-2013	



2、Linux在电影娱乐业



SHREK THE THIRD



让天下没有难学的技术



3、Linux在嵌入式领域



1) 手机、平板电脑

```
192.168.0.126 - SecureCRT
File Edit View Options Transfer Script Tools Window Help
Enter host <Alt+R>
192.168.0.126 x
QuickSSHd for Android
Single-user mode (Any username works).
Root your device to allow users.
u0_a58@android:/data/data/com.teslacoilsw.quicksshd/home $
```



2) 其他嵌入式应用

- ◆ 智能家电：机顶盒、游戏机、数码相机等
- ◆ 智能卡系统
- ◆ 航空系统
- ◆ 银行系统
- ◆ 卡拉OK点歌系统
- ◆