

## 2. Sistemul de operare UNIX

### 2.1. Caracteristici generale

#### 2.1.1. Evolutie

#### 2. 1.2. Caracterisitici

#### 2. 1.3. Arhitectura generala

#### 2. 1.4. Implementari

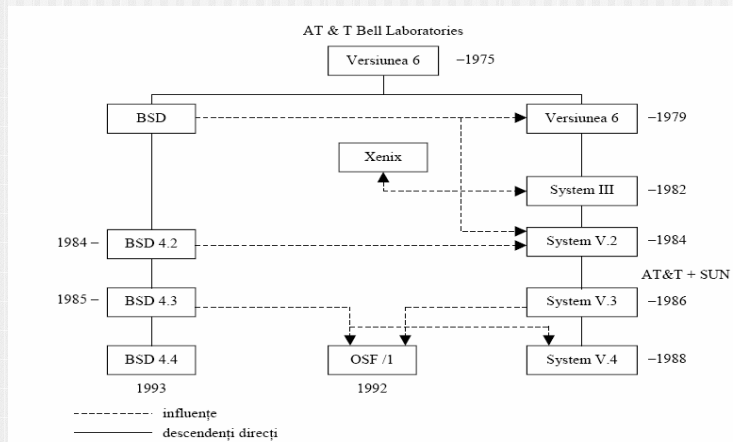
#### 2. 1.5. Documentare

### 2.1.1. Evolutie

- proiect de cercetare Bell Laboratories USA: MULTICS
- 1969 – I vers. –lb.asamblare; PDP-11-DEC;
  - UNICS (Uniplexed Information and Computing Service)=> UNIX
- 1972 – I compilator in C=> restrierea SO=>portabilitate
- 1978 – IS/1 (Interactive System One)- prima implementare comerciala, apoi XENIX –Microsoft
- 1980 –devine prima solutie de standardizare in dom. SO si a sistemelor deschise pt. toate categ. de SC.
- 1981 – AT&T =>UNIX System III, V
- Univ. Berkeley => **BSD** (Berkeley Software Distribution)=>BSD 1,2,3, 4.2, 4.3, 4.4 (1993)
- 1988 - AT&T si Sun Microsystems =>**System V.4**
- IBM, DEC, HP formeaza => **OSF** (Open Software Foundation)

Toate imbunatatire aduse urmaresc arhitectura si functionalitatea originala UNIX

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## 2. 1.2. Caracteristici

- Portabilitate (10% din kernel scris in lb. asamblare, restul in C)
- modularitate
- Multiuser
- Time-sharing
- Multitasking preemtiv
- Procesare distribuita- multiprocesare
- Multi-threaded
- Securitate -nivel inalt

## 2. 1.3. Arhitectura generala

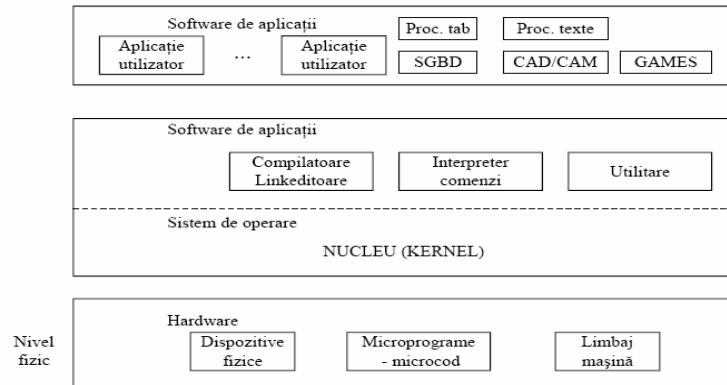


Fig. 6.2. Arhitectura sistemelor ce lucrează sub Unix

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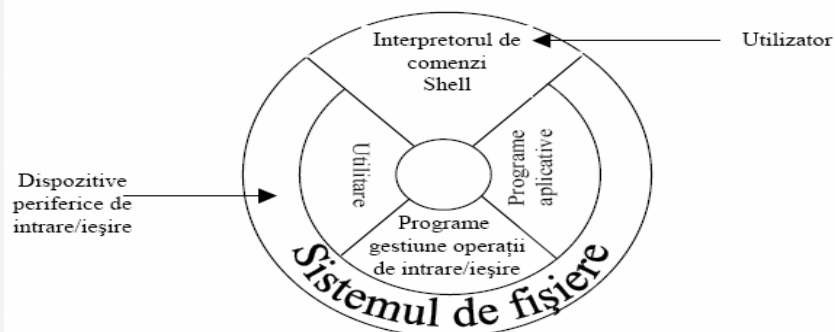


Fig. 6.4. Componentele majore ale sistemului de operare UNIX

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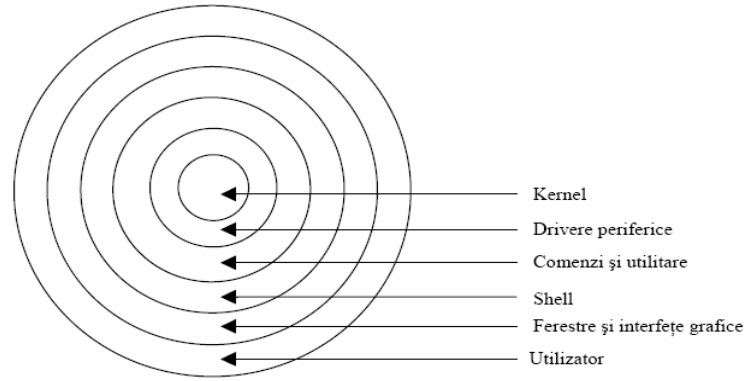


Fig. 6.5. Straturile interpuse între utilizator și nucleul sistemului de operare UNIX

## 2. 1.4. Implementari

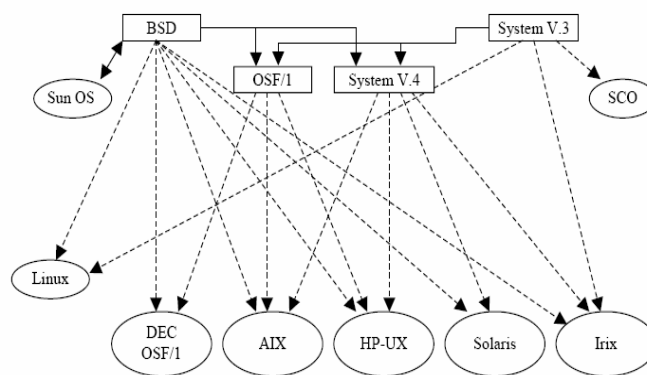


Fig. 6.6. Principalele variante de sisteme de operare UNIX

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<b>Implementare UNIX</b>	<b>Platforma hardware</b>	<b>Vanzator</b>
A/UX	Macintosh	Apple Computer
AiX	Statii, mainframe IBM RS/6000	IBM
HP-UX	Statii HP RISC	Hewlett-Packard Corporation
Linux	Intel x86	Shareware
NextStep	Intel 486, Pentium, Next	Next Computer
OSF/1, ULTRIX	Statii DEC VAX si Alpha	Digital Equipment Corporation
SCO OpenServer	Intel 486, Pentium	Santa Cruz Operation
Solaris	Statii Sun Sparc, Intel x86	SunMicrosystems- SunSoft
UNIXWare	Intel 486, Pentium	Novell

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- Interfete grafice
  - X/Windows –MIT
  - ODT (Open DeskTop)
  - Open Look –AT&T si SUN
  - DEC Windows -DEC
  - CDE (Common Desktop Environment)
  - GNOME (GNU Network Object Model Environment)

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## 2. 1.5. Documentare

- Formatul comenzii:  
\$comanda [optiune(optiuni)] [argument(e)]
  - Prompter
  - Comanda – program executabil
  - Optiuni – fisiere, director, cale
  - Argumente
- Maxim 256 caractere, litere mici
  
- man: man nume  
    man -s nr\_sect nume  
    man -k cuvant\_cheie ⇔apropos cuvant\_cheie
- whatis comanda