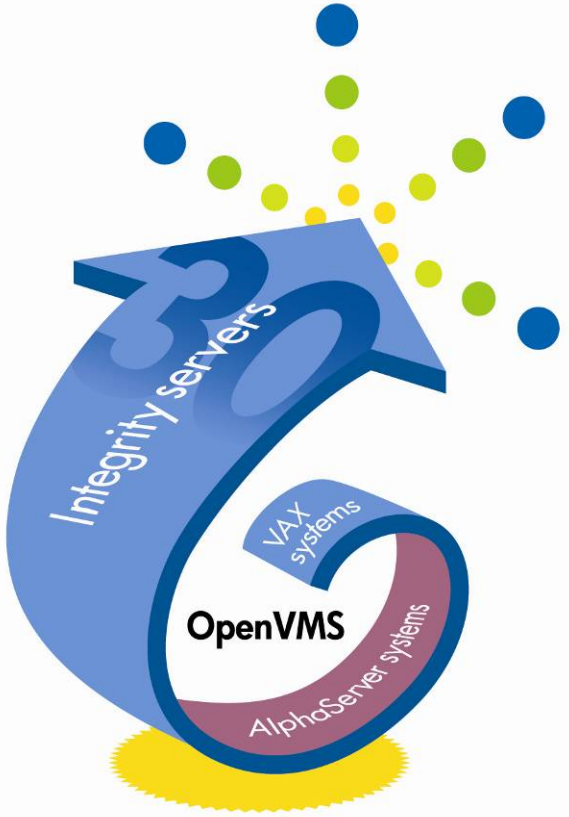
OpenVMS @30
The Ride of a Lifetime



30TH ANNIVERSARY

LOOKING TOWARD THE FUTURE

OpenVMS: moving strongly into its 4th decade with full HP commitment

Respect our heritage

The future

Respect our heritage

A vision is not a vision unless it says yes to some ideas and no to others, inspires people and is a reason to get out of bed in the morning and come to work.

-- Gifford Pinchot

It all began in a galaxy far far away

It all began in a galaxy far far away

(actually in Maynard, Massachusetts)

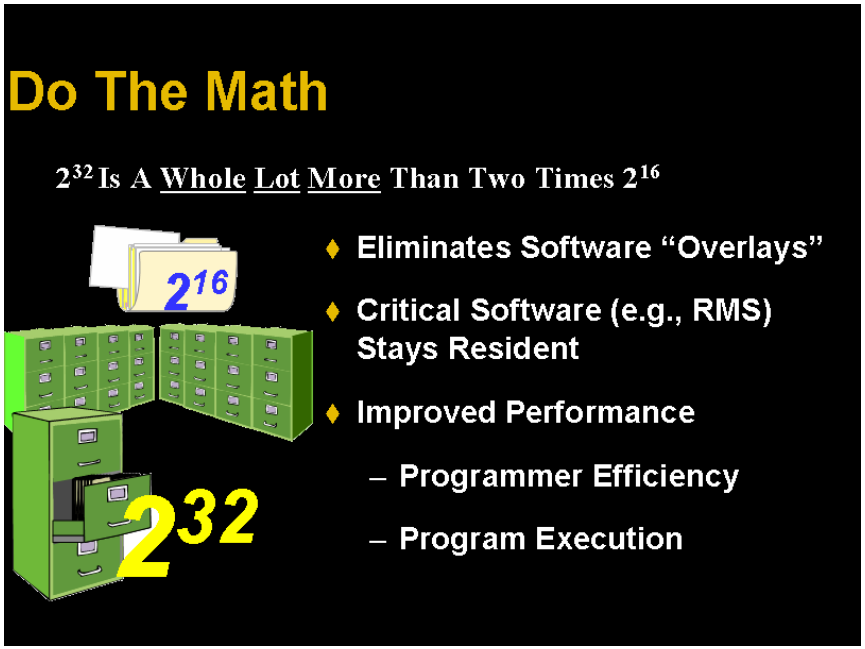
It all began in a galaxy far far away

In the Beginning

Confining Software Environment, Limited Scaleability, Incompatible Systems

- PDP-11 Popularity
- 16-bit Architecture
- Architecture Limitations
- 1974: Should we build a 32-bit PDP-11?

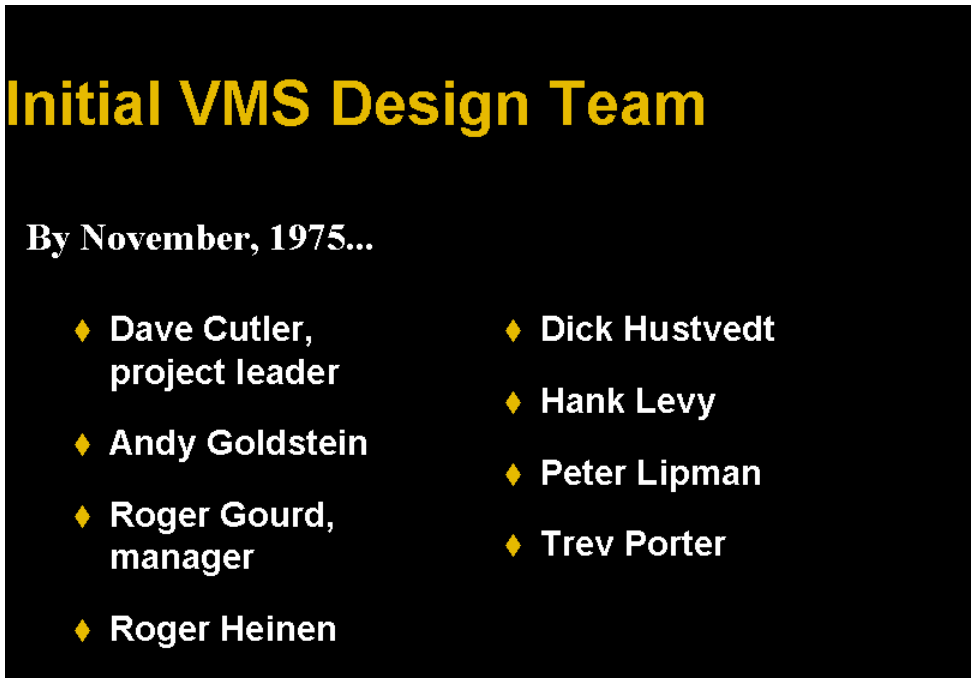
It all began in a galaxy far far away



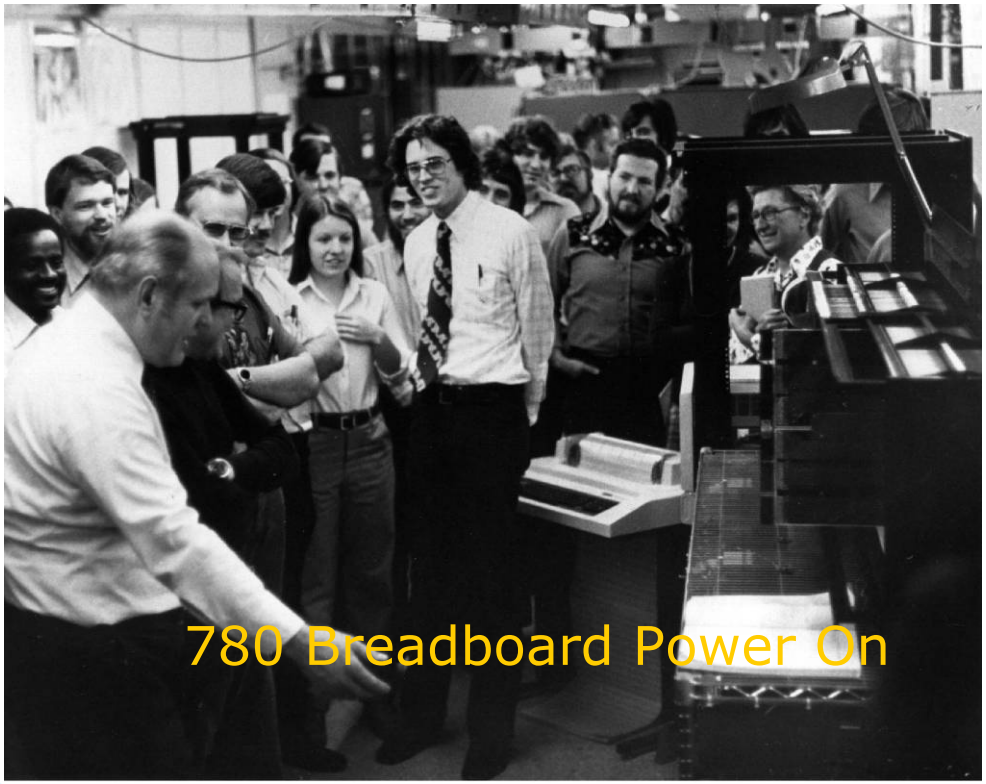
It all began in a galaxy far far away

April 1975 - Gordon Bell says YES!

It all began in a galaxy far far away



It all began in a galaxy far far away



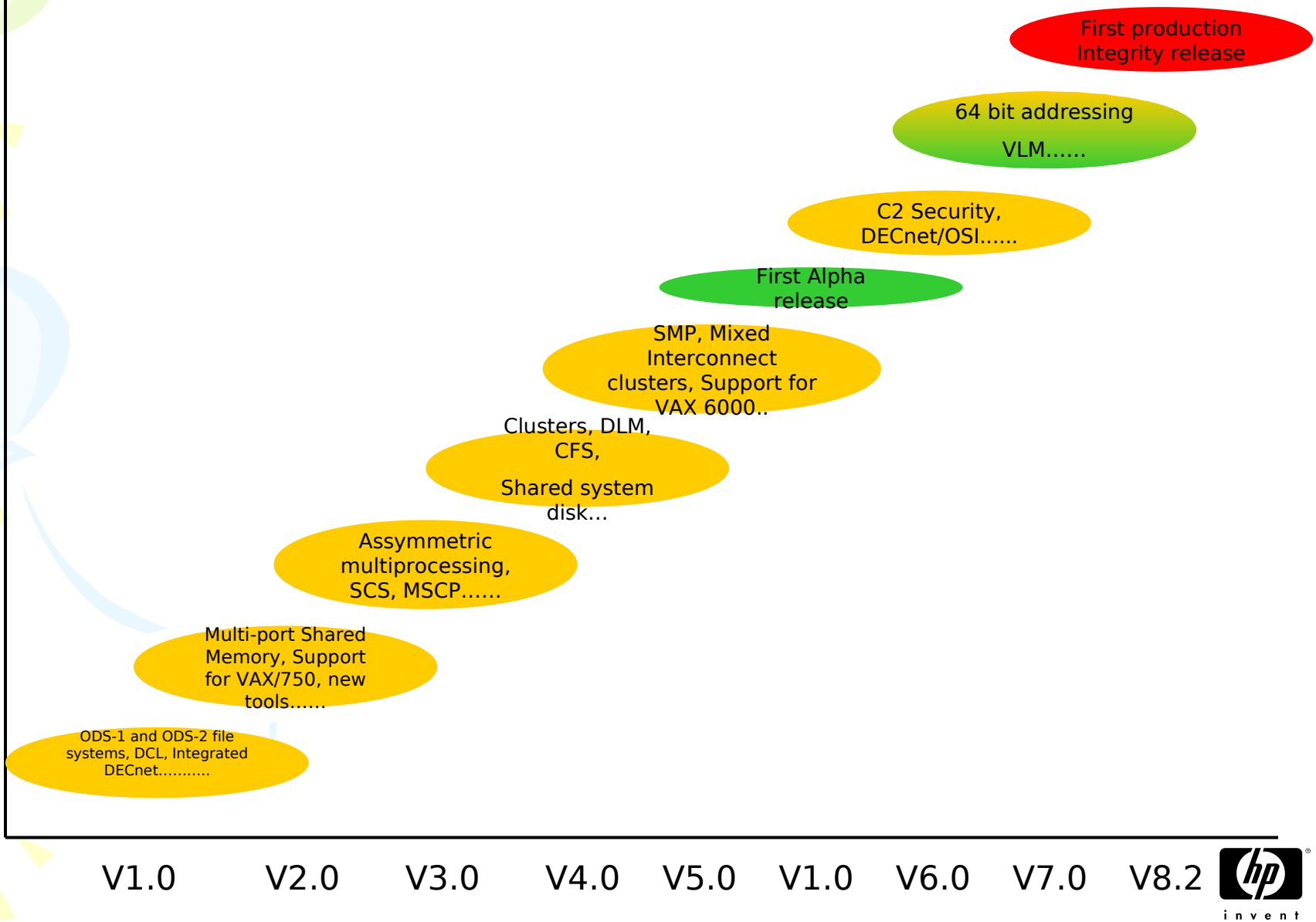
1977 - The first version

- The collusion of the Star and Starlet projects culminated in the VAX 11/780 computer and the VAX-11/VMS operating system, announced on October 25, 1977.

  (BTW The Starlet name still survives in OpenVMS as a name of several of the main system libraries)

October 1977 Announcement

History of Major releases



And now for some fun!

invent

Anecdotes

In 1986 DIGITAL created the first Internet firewall and establishes http://gatekeeper.dec.com as a major FTP site on the Internet

The first spam in computer history was sent in 1979 by a Digital employee. Over 400 people received his promotional message via the Arpanet network.

The first VMS Internals manual came out in 1982 and covered V2.2, it cost approximately $250

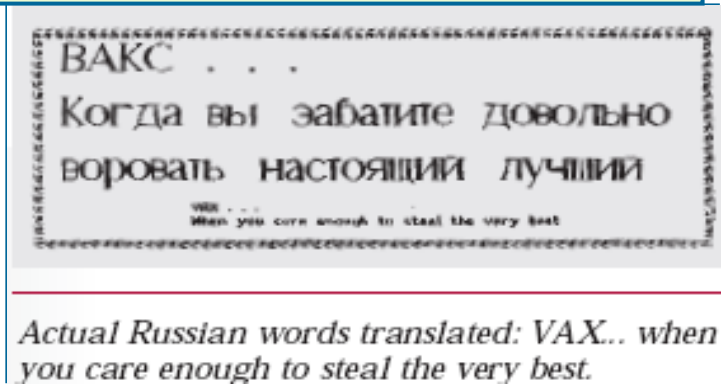
Sun Microsystems was sending its field service reps and solutions architects out for [Open]VMS training so that they could learn the internals of ... Windows! Compare the Internals an Data Structures Manual and "Inside Windows XXX"

Jim Hibbits started the Leper Colony, it was a group of old time DECUS folks, some of whom smoked and in California you had to go outside, and since they were all friends even the non smokers went outside and that's how they ended up with the name.

CERTS This web site which reports security vulnerabilities, to-date19 have been recorded for OpenVMS as against 1745 found for a softer OS or 346 for a brighter OS and 1790 for the newest OS on the block.

See www.CERT.ORG

WNT (Windows NT) is VMS +1 letter, Dave Cutler never officially confirmed if this was deliberate



Actual Russian words translated: VAX... when you care enough to steal the very best.

Its rumoured that a famous Irish dark beer uses OpenVMS for its Brewery production system, but nobody has ever returned sober enough to verify

Anecdotes

A Customer conversation

"So, you use OpenVMS to control the traffic of the half of city", I said.

"Oh, yes and many of the most important cities in the country", the customer answered.

"How many traffic lights do you control?"

"800 traffic lights in this city and 2000 vehicle detectors"

"And how many OpenVMS systems do you use?"

"Oh, just one!"

"Just one! What would happen if there is a problem with it?"

"Well, traffic lights have pre-programmed sequences just in case, but it is very rare we need them"

"Ok, by the way, the other half of the city is controlled by another company. Do you know which platform they use?"

"They use OpenVMS too...!"

This one needs a slide all of it's own

Since the late 1970s the Minor Planet Center, and Central Bureau for Astronomical Telegrams, which both operate at the Smithsonian Astrophysical Observatory in Cambridge MA, have been using OpenVMS.

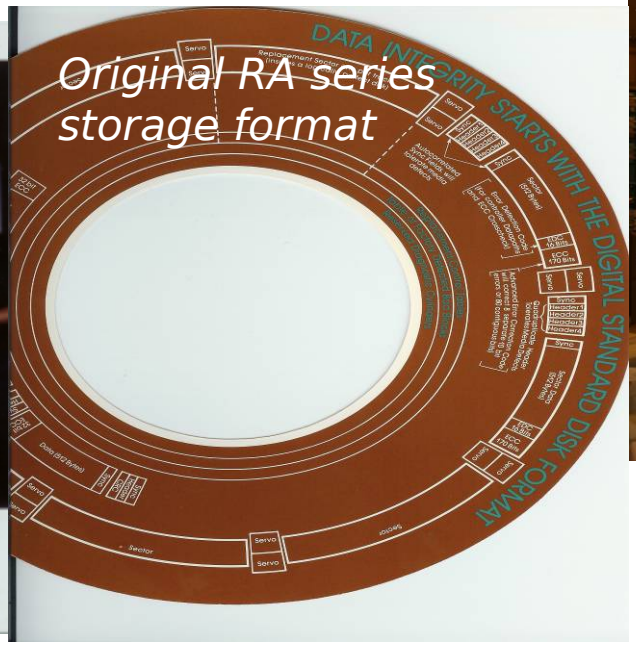
The Minor Planet Center is the worldwide clearing house for astronomers who observe minor planets (asteroids) and comets, particularly those that can come close to, or possibly hit, the earth! The Central Bureau is the worldwide clearing house for reports of transient celestial phenomena (.e.g. novae, supernovae, high-energy bursters) . As such, we run a 24x365 operation and downtime could have dire consequences for the planet.

This need for near-continual availability of internal and on-line services had required us to run an OS that is rock solid, well documented (both in printed form and at the command line), well designed (e.g., consistent use of command qualifier names), easy to learn yet powerful, resistant to viruses, with excellent Fortran compilers and built-in-from-the-ground-up security. We could not shutdown operations in order to install patches to fix gaping security holes every few days or weeks, like users of other OSes around here have to do. Taking all this into consideration, this has meant OpenVMS is the only option for us.

We started with an early V4 version on a pair of MicroVAX: we currently run V8.2 on a dozen Alpha-powered workstations and servers.

Unbelievable photos & graphics

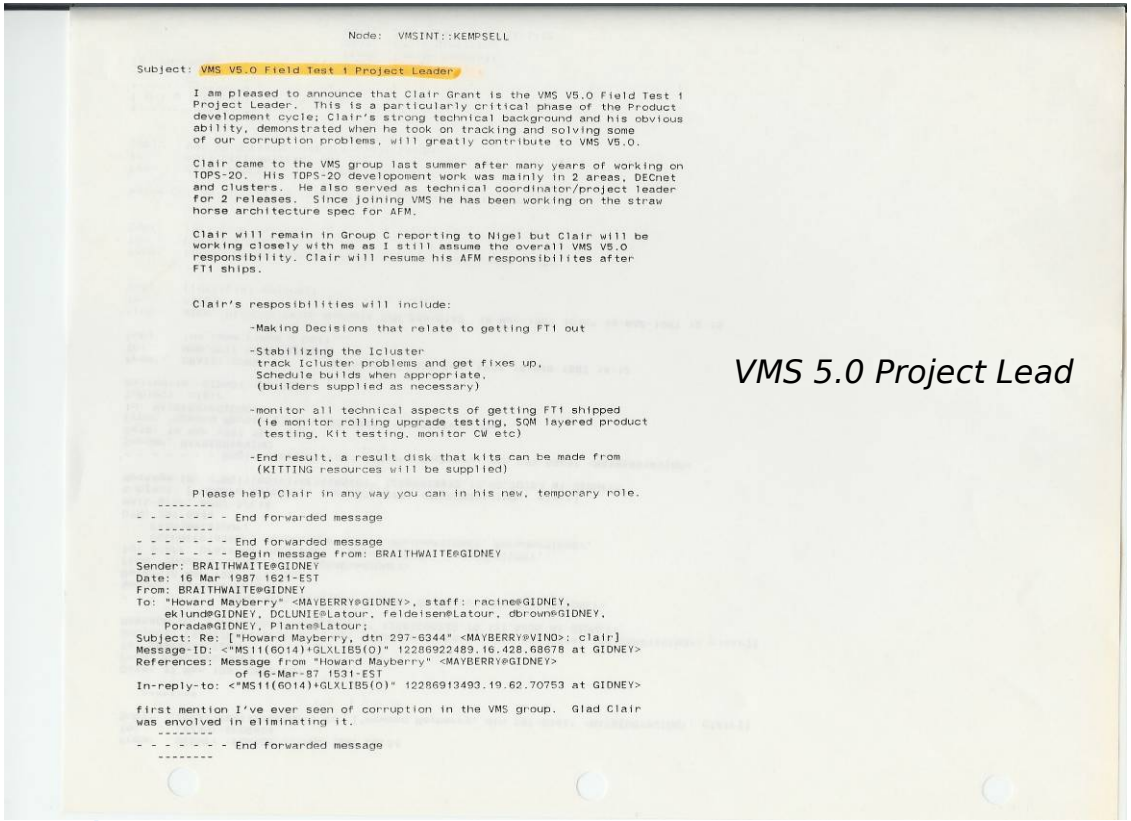
VAX 11/780 or wet bar?



Original RA series storage format

Found in a shop in Bangalore

Unbelievable photos & graphics



Node: VMSINT::KEMPSELL

Subject: VMS V5.0 Field Test 1 Project Leader

I am pleased to announce that Clair Grant is the VMS V5.0 Field Test 1 Project Leader. This is a particularly critical phase of the Product development cycle; Clair's strong technical background and his obvious ability, demonstrated when he took on tracking and solving some of our corruption problems, will greatly contribute to VMS V5.0.

Clair came to the VMS group last summer after many years of working on TOPS-20. His TOPS-20 development work was mainly in 2 areas, DECnet and clusters. He also served as technical coordinator/project leader for 2 releases. Since joining VMS he has been working on the straw horse architecture spec for AFM.

Clair will remain in Group C reporting to Nigel but Clair will be working closely with me as I still assume the overall VMS V5.0 responsibility. Clair will resume his AFM responsibilites after FT1 ships.

Clair's resposibilities will include:

-Making Decisions that relate to getting FT1 out

-Stabilizing the Icluster
track Icluster problems and get fixes up,
Schedule builds when appropriate,
(builders supplied as necessary)

-monitor all technical aspects of getting FT1 shipped
(ie monitor rolling upgrade testing, SQM layered product testing, Kit testing, monitor CW etc)

-End result, a result disk that kits can be made from
(KITTING resources will be supplied)

Please help Clair in any way you can in his new, temporary role.

-------- - - - - - - End forwarded message

-------- - - - - - - End forwarded message

- - - - - - - Begin message from: BRAITHWAITE@GIDNEY

Sender: BRAITHWAITE@GIDNEY
Date: 16 Mar 1987 1621-EST
From: BRAITHWAITE@GIDNEY
To: "Howard Mayberry" <MAYBERRY@GIDNEY>, staff: racine@GIDNEY, eklund@GIDNEY, DCLUNIE@Latour, feldeisen@Latour, dbrown@GIDNEY, Porada@GIDNEY, Plante@Latour;
Subject: Re: ["Howard Mayberry, dtn 297-6344" <MAYBERRY@VINO>: clair]
Message-ID: <"MS11(6014)+GLXLIB5(0)" 12286922489.16.428.68678 at GIDNEY>
References: Message from "Howard Mayberry" <MAYBERRY@GIDNEY> of 16-Mar-87 1531-EST
In-reply-to: <"MS11(6014)+GLXLIB5(0)" 12286913493.19.62.70753 at GIDNEY>

first mention I've ever seen of corruption in the VMS group. Glad Clair was envolved in eliminating it.

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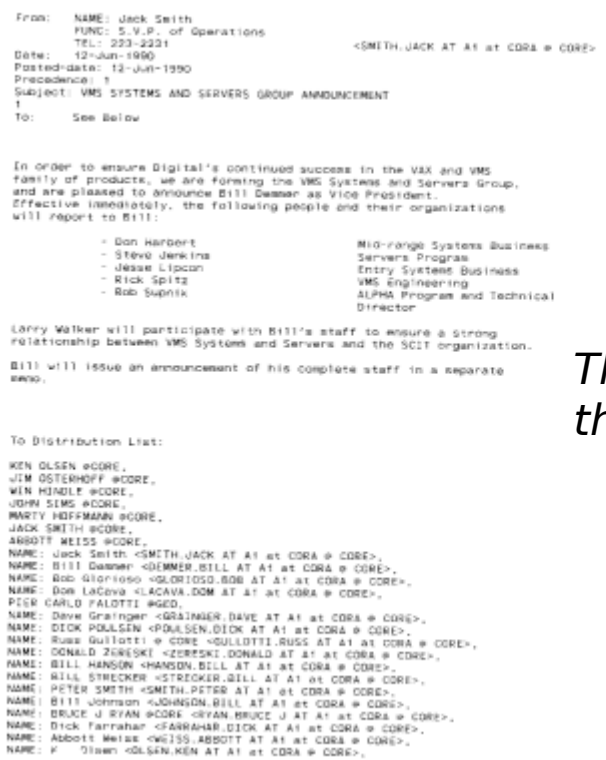
VMS 5.0 Project Lead

Unbelievable photos & graphics

Some of the smartest guys around

Unbelievable photos & graphics



From: NAME: Jack Smith
FUNC: S.V.P. of Operations
TEL: 223-2231 <SMITH.JACK AT A1 at CORA @ CORE>
Date: 12-Jun-1990
Posted-date: 12-Jun-1990
Precedence: 1
Subject: VMS SYSTEMS AND SERVERS GROUP ANNOUNCEMENT
To: See Below

In order to ensure Digital's continued success in the VAX and VMS family of products, we are forming the VMS Systems and Servers Group, and are pleased to announce Bill Demmer as Vice President. Effective immediately, the following people and their organizations will report to Bill:

- Don Harbert — Mid-range Systems Business
- Steve Jenkins — Servers Program
- Jesse Lipcon — Entry Systems Business
- Rick Spitz — VMS Engineering
- Rob Supnik — ALPHA Program and Technical Director

Larry Walker will participate with Bill's staff to ensure a strong relationship between VMS Systems and Servers and the SCIT organization.

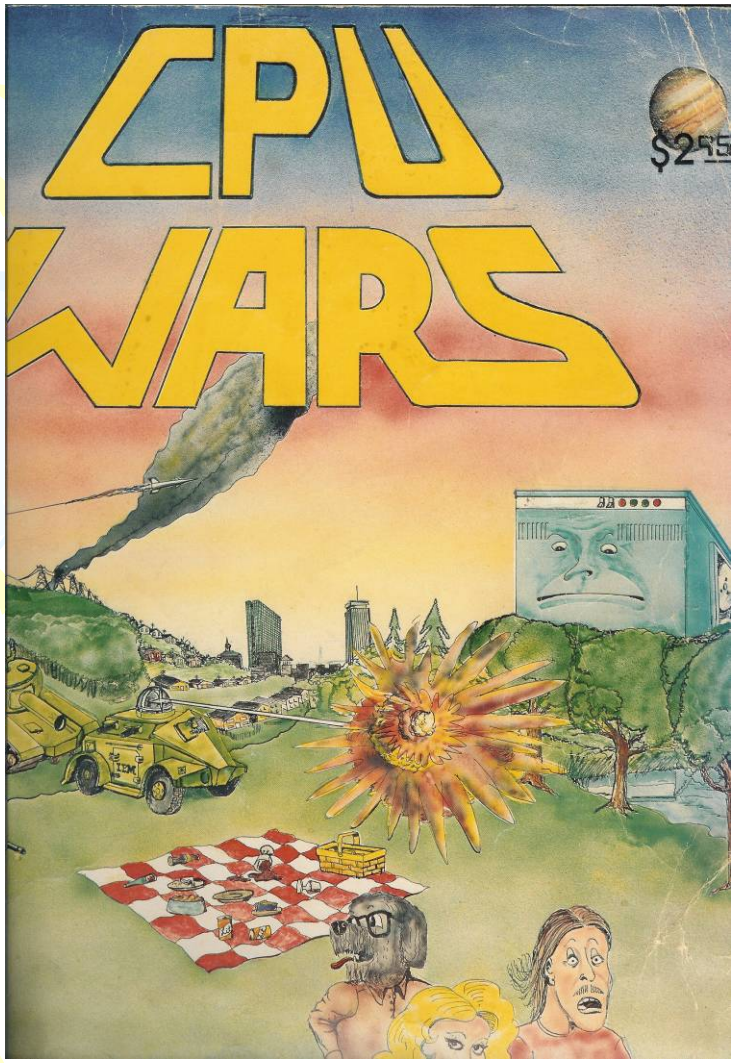
Bill will issue an announcement of his complete staff in a separate memo.

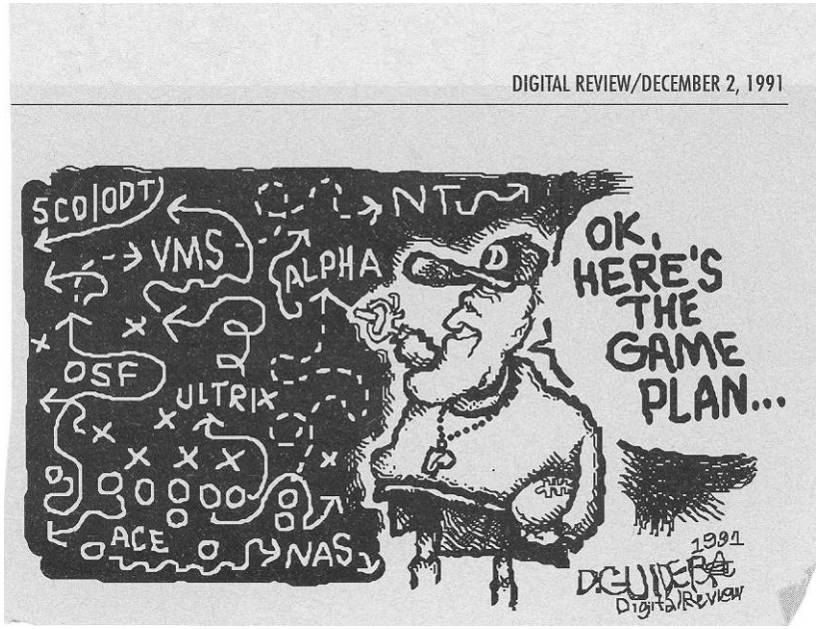
To Distribution List:

KEN OLSEN @CORE,
JIM OSTERHOFF @CORE,
WIN HINDLE @CORE,
JOHN SIMS @CORE,
MARTY HOFFMANN @CORE,
JACK SMITH @CORE,
ABBOTT WEISS @CORE,
NAME: Jack Smith <SMITH.JACK AT A1 at CORA @ CORE>,
NAME: Bill Demmer <DEMMER.BILL AT A1 at CORA @ CORE>,
NAME: Rob Glorioso <GLORIOSO.BOB AT A1 at CORA @ CORE>,
NAME: Don LaCava <LACAVA.DON AT A1 at CORA @ CORE>,
PIER CARLO FALOTTI @GEO,
NAME: Dave Grainger <GRAINGER.DAVE AT A1 at CORA @ CORE>,
NAME: DICK POULSEN <POULSEN.DICK AT A1 at CORA @ CORE>,
NAME: Russ Gullotti @ CORE <GULLOTTI.RUSS AT A1 at CORA @ CORE>,
NAME: DONALD ZERESKI <ZERESKI.DONALD AT A1 at CORA @ CORE>,
NAME: BILL HANSON <HANSON.BILL AT A1 at CORA @ CORE>,
NAME: BILL STRECKER <STRECKER.BILL AT A1 at CORA @ CORE>,
NAME: PETER SMITH <SMITH.PETER AT A1 at CORA @ CORE>,
NAME: Bill Johnson <JOHNSON.BILL AT A1 at CORA @ CORE>,
NAME: BRUCE J RYAN @CORE <RYAN.BRUCE J AT A1 at CORA @ CORE>,
NAME: Dick Farrahar <FARRAHAR.DICK AT A1 at CORA @ CORE>,
NAME: Abbott Weiss <WEISS.ABBOTT AT A1 at CORA @ CORE>,
NAME: K Olsen <OLSEN.KEN AT A1 at CORA @ CORE>,

The beginning of the VMS Group

Unbelievable photos & graphics





Top Ten reasons to Run OpenVMS

1. SCO can't sue you
2. You want to run the only OS Kevin Mitnick admits he couldn't get into without being given the password
3. 9 out of 10 hackers prefer another OS
4. You want a system that won't trash the disk structure if you get a power failure
5. Your preferred unit of measurement for system uptime is years, not hours
6. You can count to more than five. Five nines that is (99.999% availability)
7. You know that "Reboot and if that doesn't work, Reinstall" is NOT the answer to every problem
8. You don't want to be a member of the Virus-of-the-Week Club
9. To you, "downtime" is a four-letter word
10. You want to run more than one thing on a system at a time

With thanks to Keith Parris

The Purple bag competition

The Future!

"My interest is in the future because I am going to spend the rest of my life there"

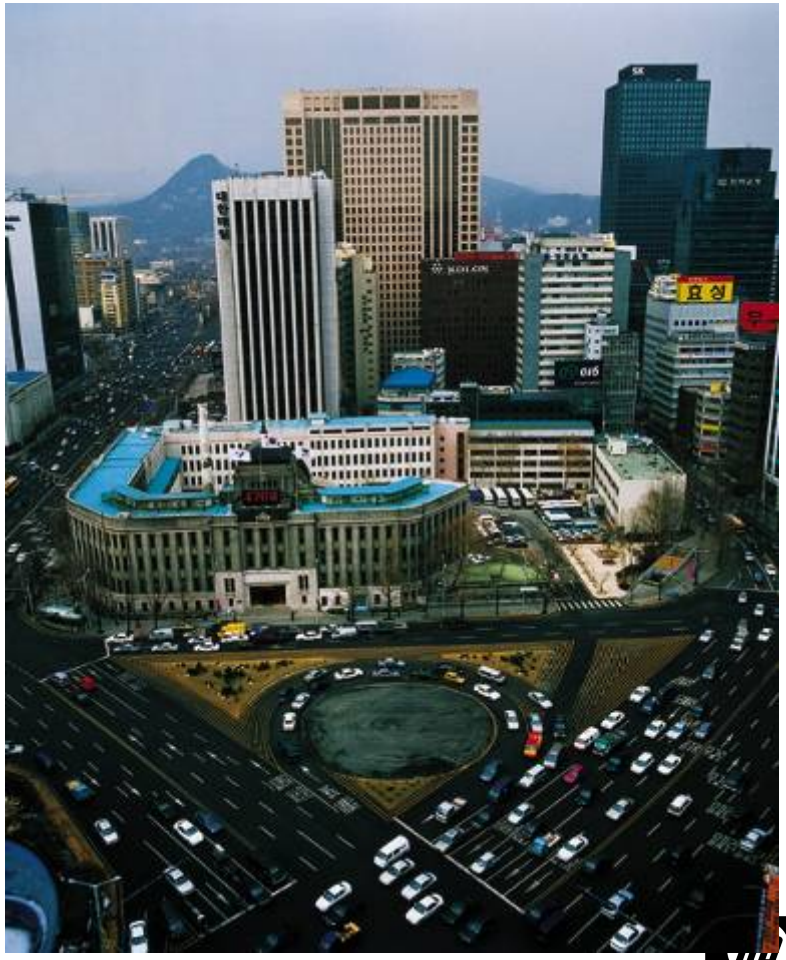
-- Charles F Kettering

HP OpenVMS
Mission Critical & Secure Computing

Hundreds of thousands systems installed with millions of users

OpenVMS provides the core IT infrastructure for:

- 1000's of major hospitals
- The world's largest CPU chip manufacturing
- Mobile phone billing systems scaling to millions of users
- Major futures and derivative exchanges worldwide
- Dominant in automated lottery systems
- Many of the world's most demanding Government environments requiring security and availability



FUTURE FORWARD

invent

The OpenVMS investment

Performance Enhancements

Security

Virtualization

System & Server Management

Application Development, Migration & ISV Support

Hardware & Storage

OpenSource

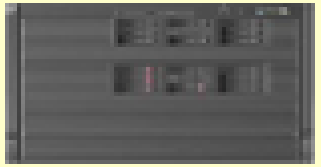
invent

The OpenVMS Integrity server family

Entry class

HP Integrity rx2660 (up to 4 cores)

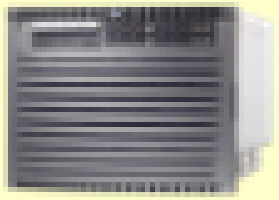
HP Integrity rx3600 (up to 4 cores)



HP Integrity rx6600 (up to 8 cores)

Midrange

HP Integrity rx8640 (up to 32 cores)



HP Integrity rx7640 (up to 16 cores)

HP Integrity BL860c Blade (up to 4 cores)

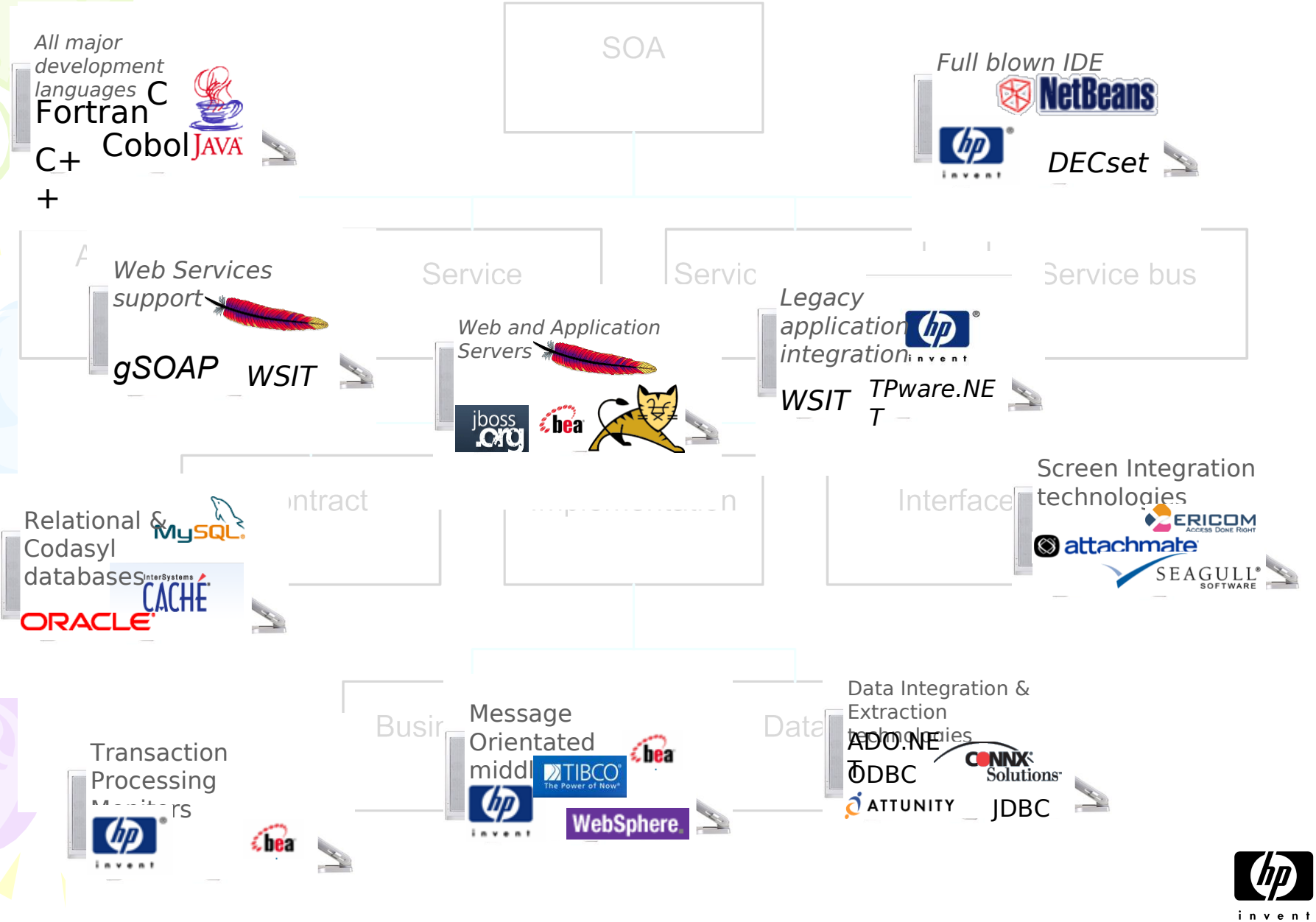
Modular

HP Integrity Superdome (up to 64 cores)

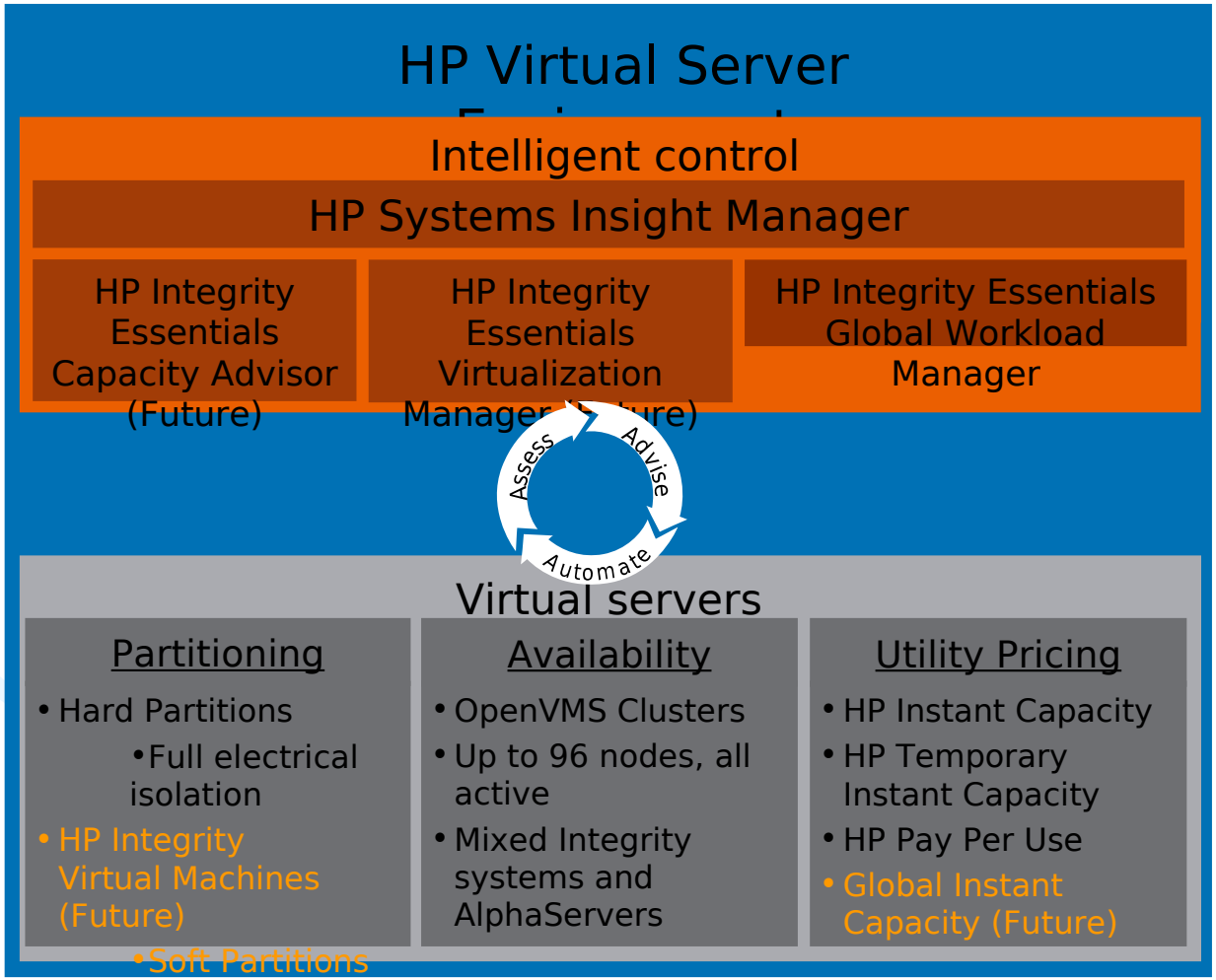
High-end

invent

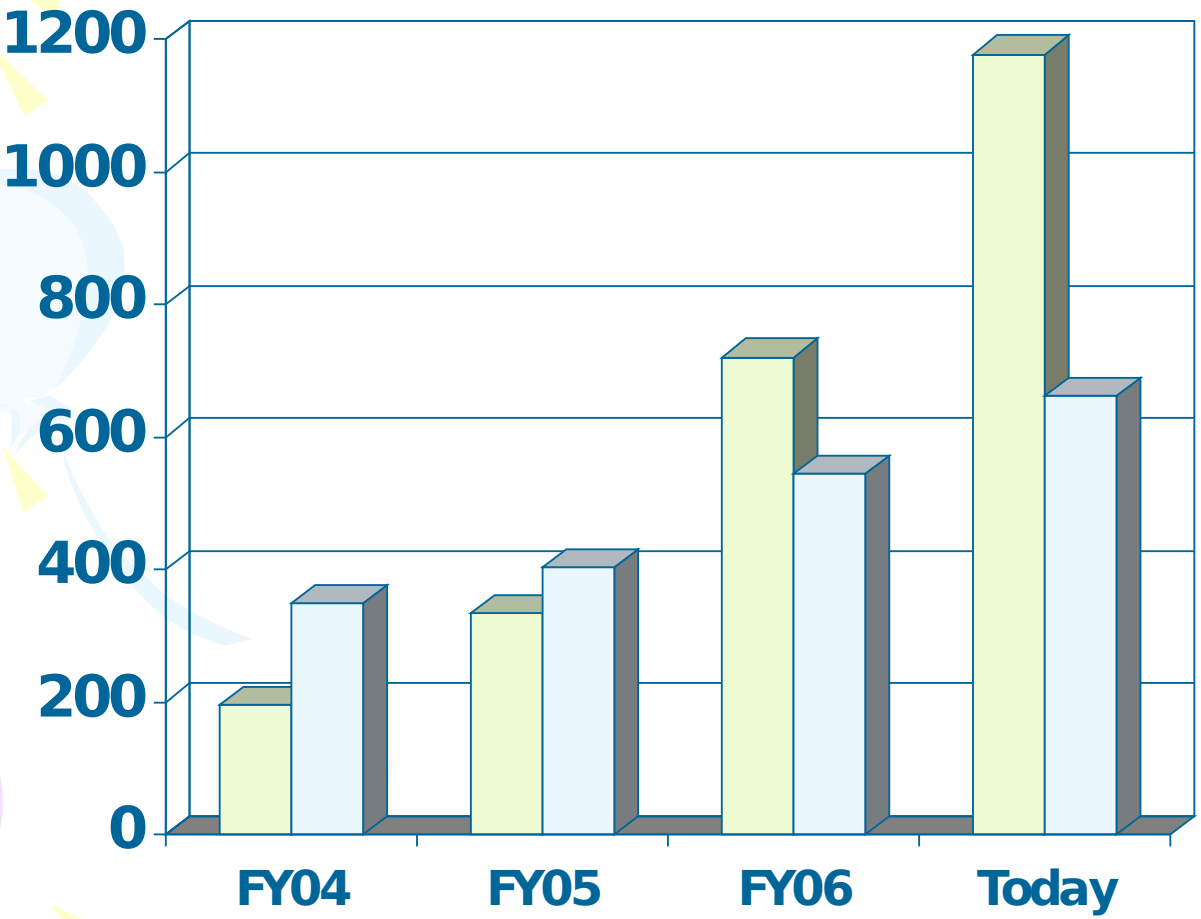
The OpenVMS application ecosystem



HP Virtual Server Environment for HP OpenVMS Integrity systems



More than 90% critical apps now available on OpenVMS*



30TH ANNIVERSARY
LOOKING TOWARD THE FUTURE

http://h71000.www7.hp.com/solutions/matrix/i64partner_A.html

* September/2007

invent

HP Integrity servers with OpenVMS provide a smooth transition with easier administration and rock solid security

YARTOO SOFTWARE PTY LTD	Compiled approximately 500K lines of code, and had the core applications running in around 6 hours
Flinders Medical Center	Porting our 1.5 million lines of code to OpenVMS on Integrity required no code changes at all.
ASX AUSTRALIAN SECURITIES EXCHANGE	500,000 lines of Pascal code, only changing 5 lines of code
SOUTHEASTERN FREIGHT LINES	OpenVMS provides us with an operating system that requires minimal system administration.
Los Angeles Community College District	Data loss and identity theft in particular are huge concerns in the sector

The OpenVMS Value Proposition

- Significant technology innovation
  - Integrity Servers – Industry standard, multi OS, Blades
  - Availability – Disaster Tolerant
  - Clustering – Scalable to 96 nodes up to 800 kms or more apart, multi-architecture
  - Security – System and Cluster, Fewest CERT advisories, Never hit by a virus to our knowledge
  - Integration – Premier technologies
- TCO and TCU
  - Best in class
- Customers
  - Some of the largest and most successful organizations in the world
- Commitment
  - Intel and HP's continued commitment to the Itanium roadmap and Integrity servers
  - HP's commitment to the OpenVMS roadmap
  - Continued investment from ISVs

And finally!

OpenVMS, the  of