Open Source @Siennax

Michiel Steltman – CTO
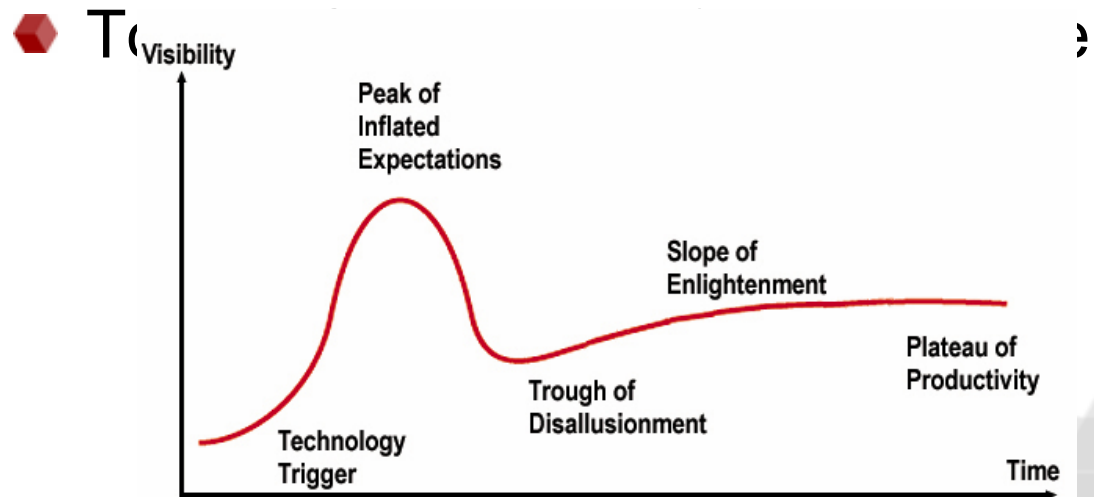
Opensource4you event 3 juni 2003
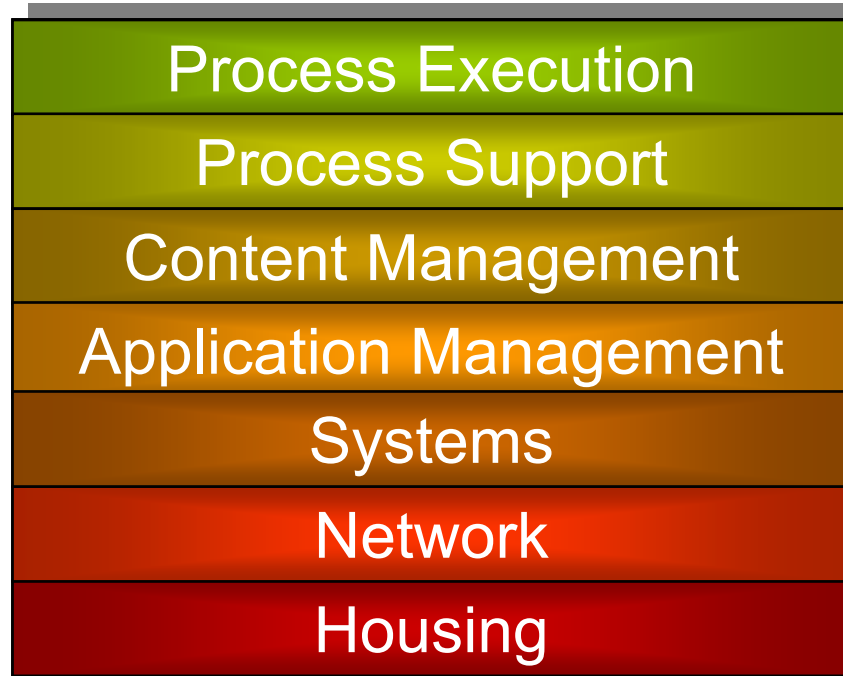
ASP – After the Hype
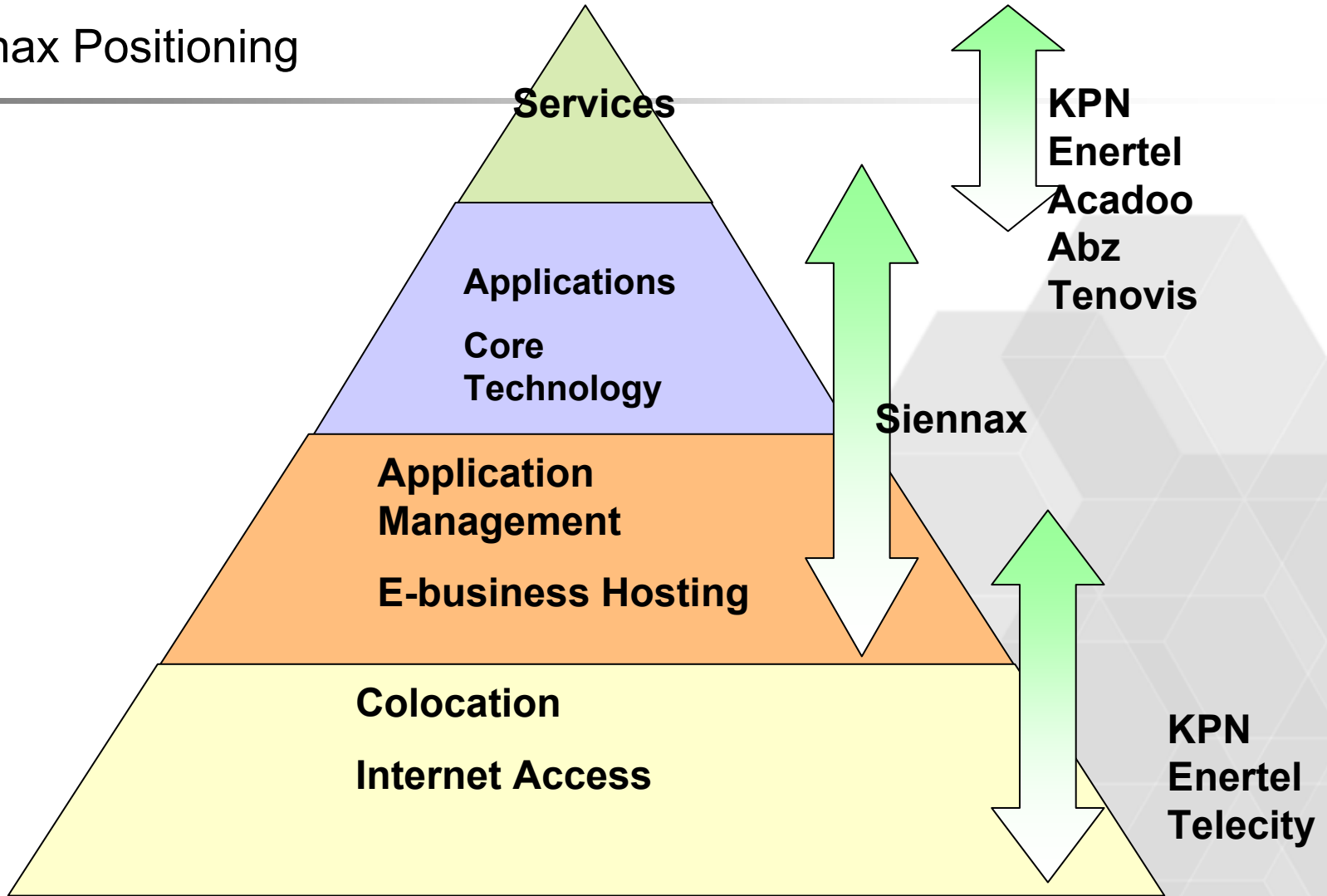
- ASP as "renting many small applications" not a viable model
- Most ASP's out of business
- T(...)el

Visibility

Peak of Inflated Expectations

Slope of Enlightenment

Plateau of Productivity

Trough of Disallusionment

Technology Trigger

Time

-Gartner Group

The E-Business Process model

Process Execution
Process Support
Content Management
Application Management
Systems
Network
Housing

Siennax Positioning

Services

Applications

Core Technology

Application Management

E-business Hosting

Colocation

Internet Access

Siennax

KPN
Enertel
Acadoo
Abz
Tenovis

KPN
Enertel
Telecity

<< prev.   next >>

Example customers & projects @ Siennax

- Aims
- New Matrix
- Meetingpoint
- ECH
- Notary intranet
- Freeler.nl
- Aspace.com
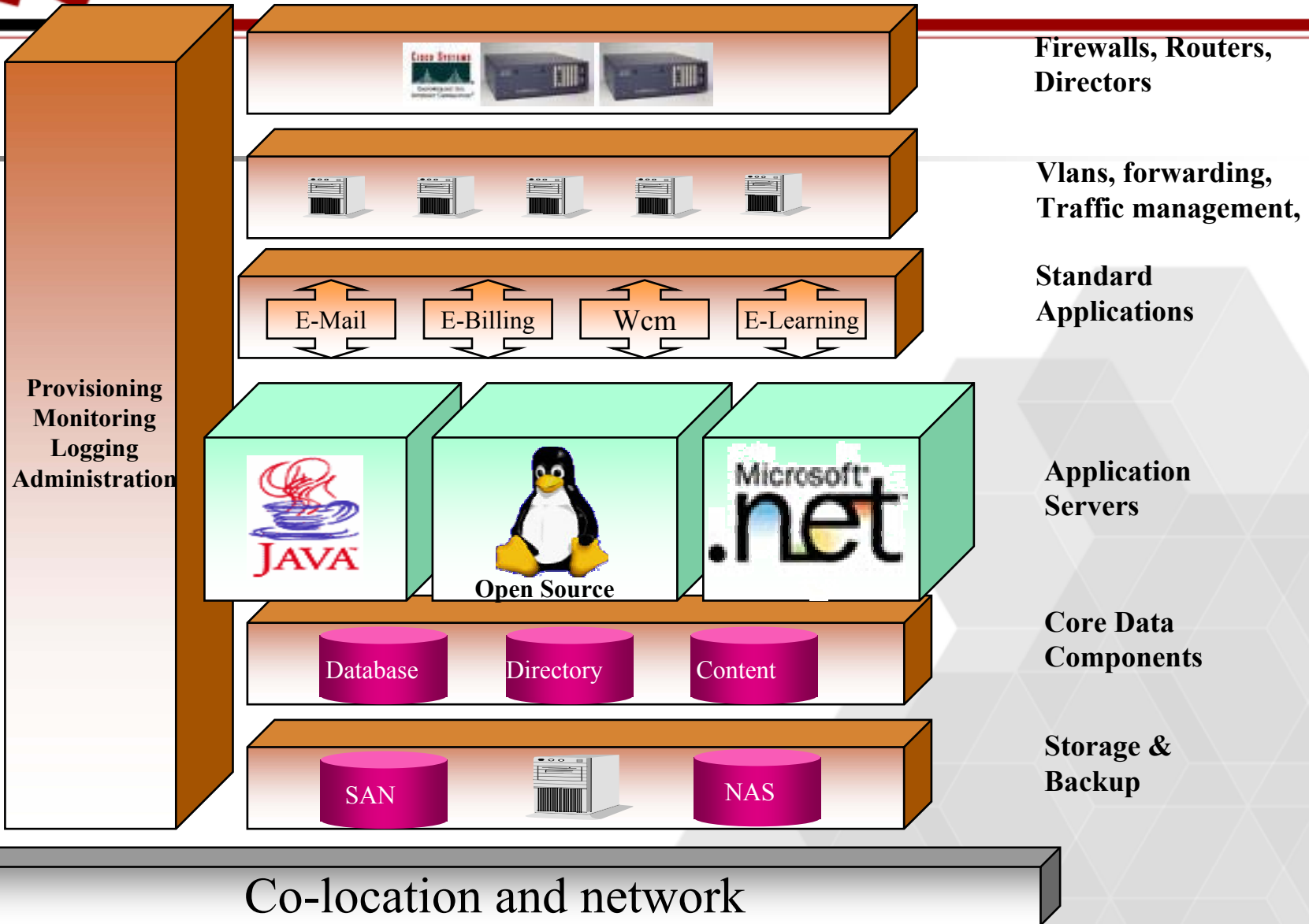- AbnAmro Academy web
- E-diets

Reasons to outsource E-whatever

- Cost & ROI
- Ability to execute SLA
- Complexity of ITIL Processes
- Providing Secure Internet Access
- Security, Privacy, Confidentiality processes
- Security technology
- Managing Capacity & performance
- Keeping Expertise up to date
- Keeping up with latest in open source
- Providing integration components
- Reduce time-to-market

So - Back to the old days?

- Centralized processing model
- Pay per use
- Economies-of-scale
- Standardization
- Consolidation: Capacity sharing & Mainframe thinking

ASP brings in addition:
- Standard technologies
- Standard service levels & processes
- Back-office for automated provisioning and service delivery

Firewalls, Routers, Directors

Vlans, forwarding, Traffic management,

Standard Applications

E-Mail   E-Billing   Wcm   E-Learning

Provisioning Monitoring Logging Administration

JAVA

Open Source

Microsoft .net

Application Servers

Core Data Components

Database   Directory   Content

Storage & Backup

SAN   NAS

Co-location and network

E-business Applications & Sites

Mail   Billing   LMS

Applications

JAVA   Microsoft .net   ORACLE

Application Servers & Middleware

Managed Servers

Colocation & Network

Add-ons
Storage
Traffic
SLA
Support
Work
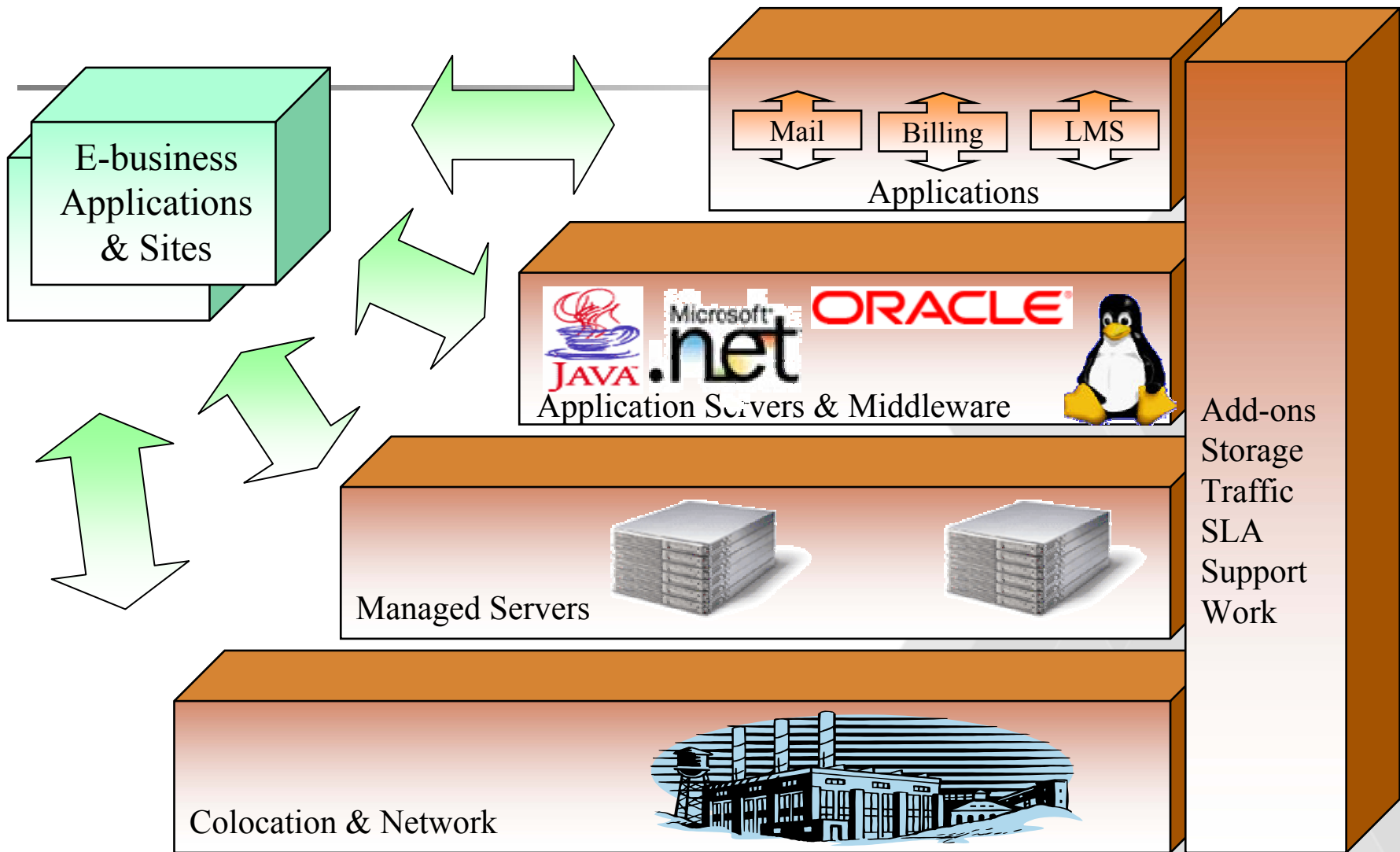
Siennax ASP Operations

- ITIL as guiding proces model
- Standardized SLA
- Capacity management for ASP products
- "Trusted Services" certification by Deloitte & Touche
- Change management & deployment model for customer applications
- Performance guarantees with measurement & tuning

Open Source & Siennax

- Substantial number of servers run Redhat Linux
- Linux virtual server
- Qmail is core mail server
  - Siennax extensions
  - Spamassassin, Fetchmail, Procmail
- OpenLDAP is core directory server
- Apache SSL / client certificate authentication module
- PHP, Python, Perl, Mysql widely utilized
- Big Brother, TKined, Keystone and others for ITIL

Advantages

- Cost
- Quality
- Stability
- Security
- Common Knowledge
- Reducing Time-to-market
- Reduce maintenance
- Rapid problem fixes when compared to commercial software
- Some products not even possible without OS

Case: Oracle 9i RAC on Linux

- 9i RAC is Oracle flagship product
- Strong commitment to horizontal scaling model
- Proven technology
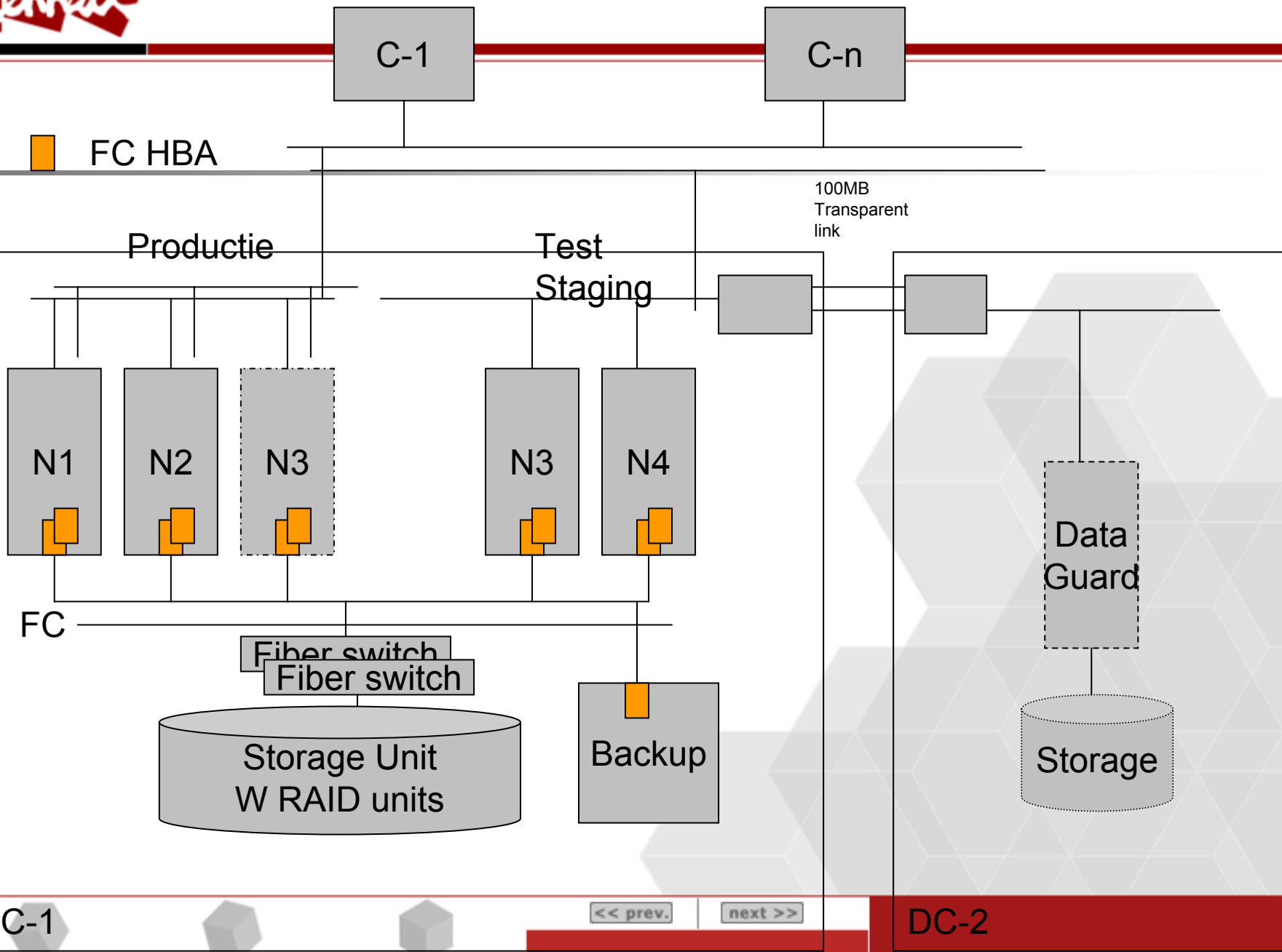- Support by leading hardware manufacturers
- Certified on several architectures
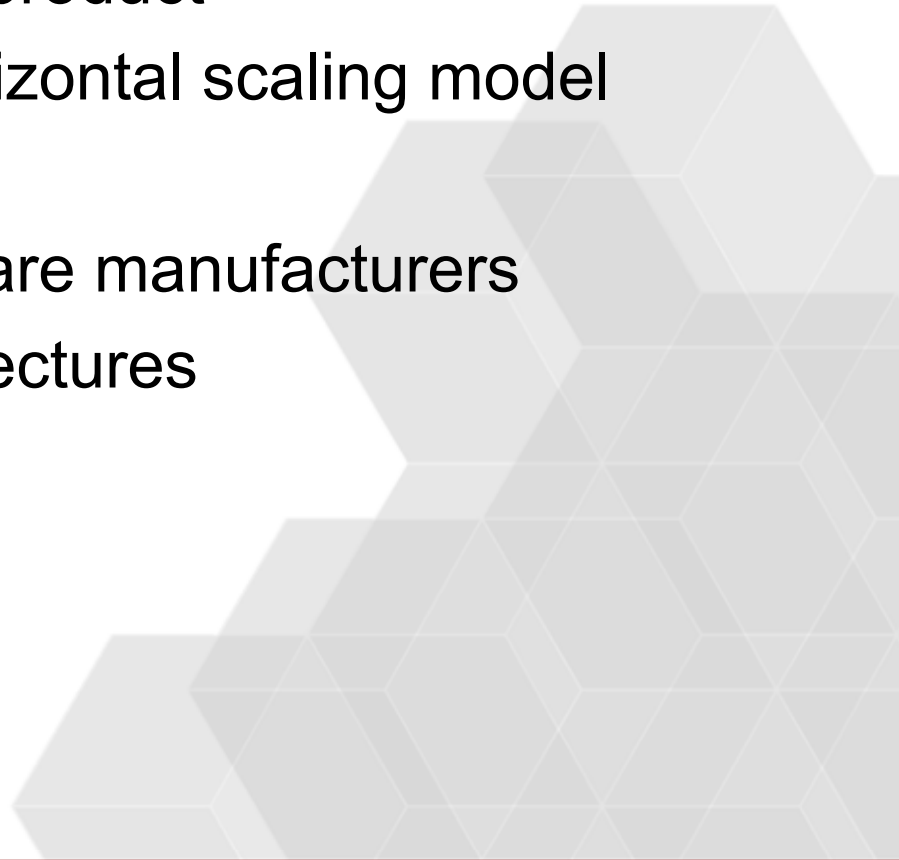
Siennax Oracle 9i requirements

- **Unpredictability of next capacity increase**
  - I/O is most often bottleneck - not CPU
- **Increasing SLA requirements by customers**
  - No single point of failure in entire chain
- **Possibility to both share & dedicate**
  - Have multiple environments on multiple servers
- **Usable for multiple services**
- **Incremental hardware & software investments need to be low**
  - No write-offs possible
  - Match with pay-per-use model
- **Run on (standard) Intel hardware**

Siennax implementation of 9i RAC

- Oracle 9i RAC on Redhat Linux advanced server
- 2 separate clusters for production and staging
- No single point of failure
- FC SAN in full mesh
- Fallback location with Data Guard

C-1

C-n

FC HBA

100MB
Transparent
link

Productie

Test
Staging

N1

N2

N3

N3

N4

Data
Guard

FC

Fiber switch
Fiber switch

Storage Unit
W RAID units

Backup

Storage

DC-1

DC-2

Advantages

- Extensible in relatively small steps
- Full support from Oracle, Red Hat and hardware vendor
- Initial investment approx 270K Vs 400K on comparable H/w
- Incremental capacity step approx 40K Vs at least 100K
- Highly standardized
- Easy to switch node & OS vendors

Trade-offs & Issues for Open Source

- People & dependency
- Moral obligation to give & take
- Intellectual property and solutions
- Getting your fixes into the world
- Uncertainty towards legal situation
- Sometimes difficult to sell and justify
- Explaining the bazaar to the cathedral people

Future

- OpenSource will continue to be a dominant factor in the IT business for the next 10 years
- There is a place for both OpenSource and commercial software
  - .NET, Java and OS leading platforms
- OS use will continue to grow, certainly at Siennax
  - Deployment, Grid and Virtualization technology
- Industry grip & usage by non-contributors will have negative impact
  - Purity of model motivation of contributors
- Legal issues may become real threats

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