



On-Demand computing with REXX

Rexx Symposium 2004

Michael Beer

mbeer@m-dc.com



Agenda

- on-demand overview
- personal experience
- CRM
- ASP

Michael Beer



CEO of m-dc market development consulting



current focus:

- Business development
 - Product innovation management
 - Sales & Marketing
- ASP

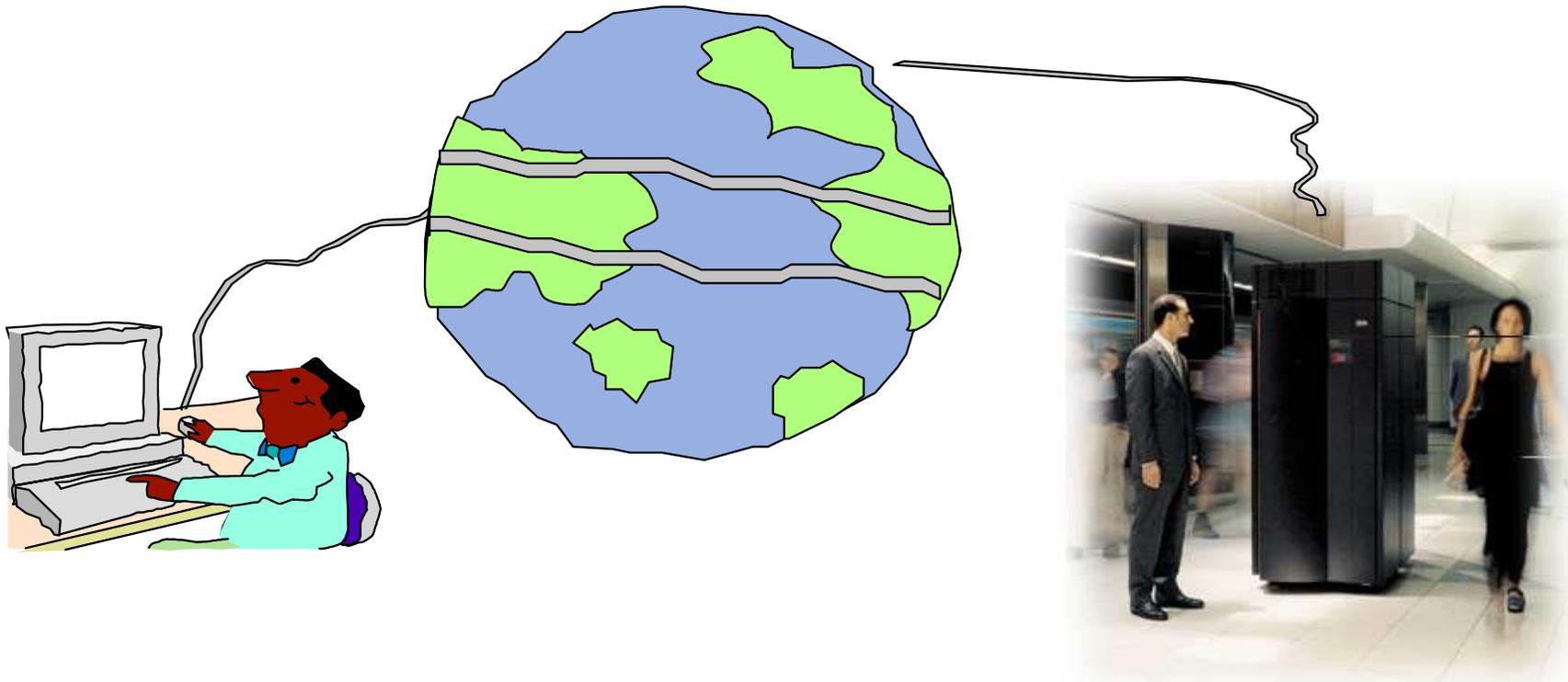
previous roles:

- IBM marketing manager
 - application development
 - (e.g. Launch of VisualAge for Java)
 - eServer (e.g. CRM on S/390)
- programming, consulting, sales..



market
development
consulting

What is e-business?



e-business = WEB + IT

(early IBM definition)

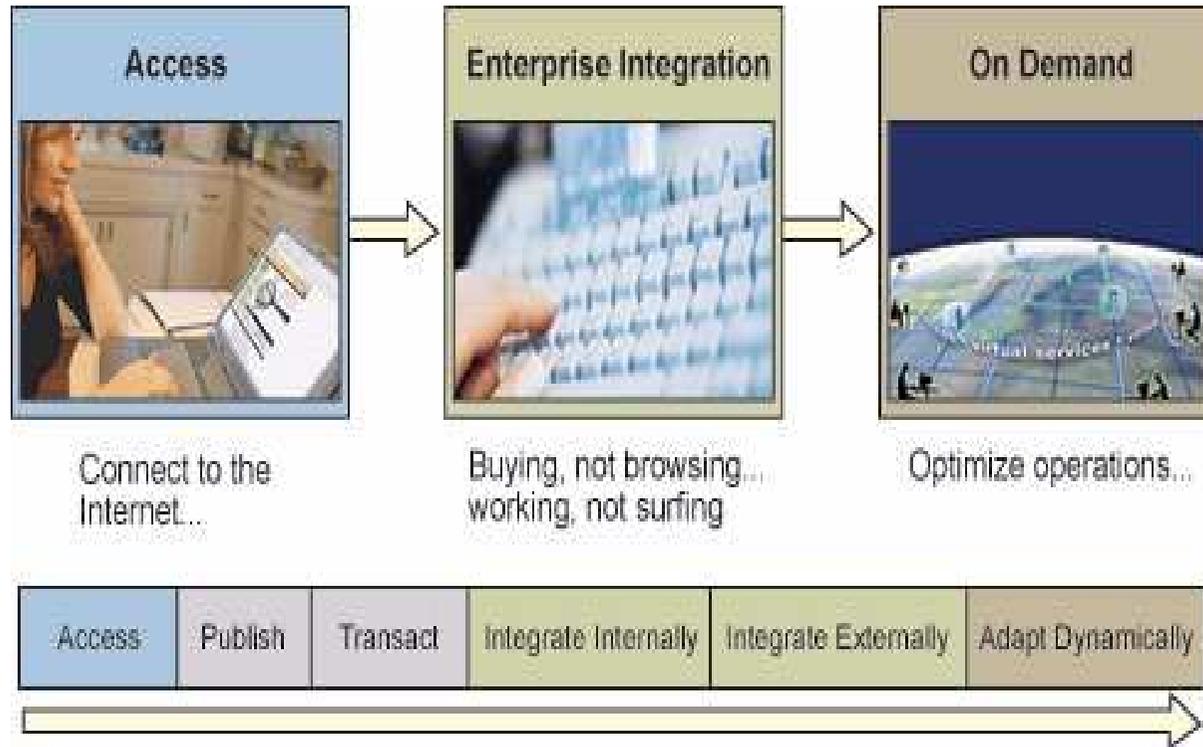
Business Drivers for "on-demand"



- reduce costs (e.g. server utilization)
- better customer service
- reduction of risk
- improve speed



on-demand stages



static pages
queries

buy, book
eLearning

automated business
processes

on-demand business

- Responsive:
 - Able to sense changes in the environment
 - and to respond dynamically to unpredictable situations
- Variable:
 - Able to adapt cost structures
 - and business processes flexibly
 - to reduce risk
- Focused:
 - Committed to concentrating on core competencies
 - and differentiating tasks and assets
 - able to use tightly integrated strategic partners (Outsourcing)
- Resilient:
 - Prepared for changes and threats like computer viruses, earthquakes, or sudden spikes in demand.

translates into

- flexible infrastructure
 - workload
 - connectivity
- faster application development
 - frameworks
 - rapid prototyping
 - productivity tools

Why REXX ?

```
&TRACE OFF  
&TYPE HELLO  
&EXIT 0
```





market
development
consulting

Why REXX ?

```
&TRACE OFF  
&TYPE HELLO  
&EXIT 0
```

EXEC2 - IBM, late 70s.

SC24-5219 Virtual Machine/System Product EXEC 2 Reference.
Superseded by REXX.

<http://oop.rosweb.ru/Other/650.html>



Further reasons

- use it for
 - batch
 - scripting
 - prototyping
 - applications
- platforms
 - PC -> mainframe
 - many different operating systems

Mission critical applications



Which one would you choose ?

A)

..has been designed with just one objective. It has been designed to make programming easier than it was before

B)

developed as a platform-independent language aimed at allowing entertainment appliances such as video game consoles and VCRs to communicate

Mission critical applications



Which is which

A: REXX

..has been designed with just one objective. It has been designed to make programming easier than it was before

B: OAK

developed as a platform-independent language aimed at allowing entertainment appliances such as video game consoles and VCRs to communicate



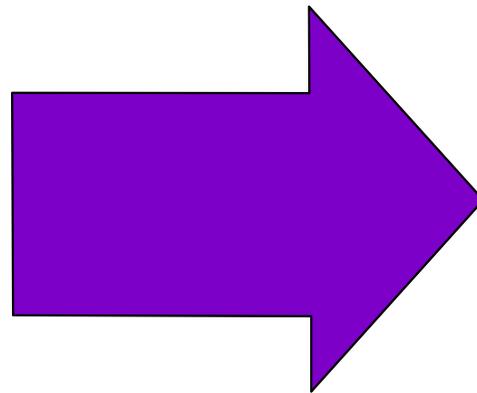
market
development
consulting

Influences

APL

ALGOL

PL/I



Mike Cowlshaw: The REXX Language, New Jersey 1985

on-demand evolution



Server: Mainframe

Client: 3270 Terminal



on-demand evolution



1981

Server: Mainframe

N/A

Client: 3270 Terminal

PC



on-demand evolution



1981

Server: Mainframe

N/A

PC Server

Client: 3270 Terminal

PC

PC



on-demand evolution



1981

Server: Mainframe

Client: 3270 Terminal

N/A

PC

PC Server

PC

many/large Servers

Web browser



market
development
consulting

on-demand evolution



1981

2004

Server: Mainframe
Client: 3270 Terminal

N/A
PC

PC Se
PC



many/large Servers
Web browser



Personal experience

TOOLS ADMINISTRATION (IBM Austria)

internal IBM Host-Systems (Menus, printing, quality forms...)

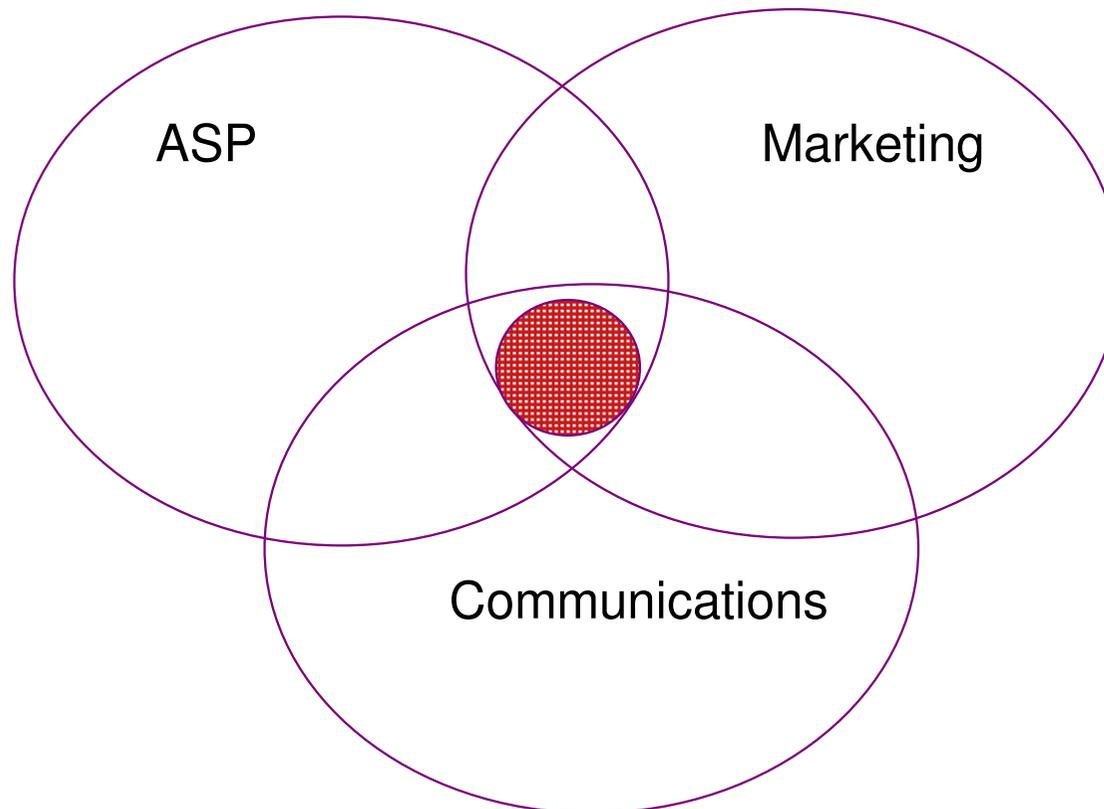
VM/CMS fax server (PROFS)

ATLAS (Austrian Airlines/Swissair/IBM)

CRM - Software

HTTP-Server

Current focus & REXX



Goals scientific work

- The structure of electronic newsletters
- criteria for successful/unsuccessful newsletters and websites
 - "successful"
 - measurement
 - relevant variables
- Hypothesis:
 - there are measurable success factors
- What is the difference between successful and unsuccessful organizations ?

ASP



-
- Application Service Providing (ASP)
 - Software As A Service (SAAS)
 - key for on-demand success

on-demand software

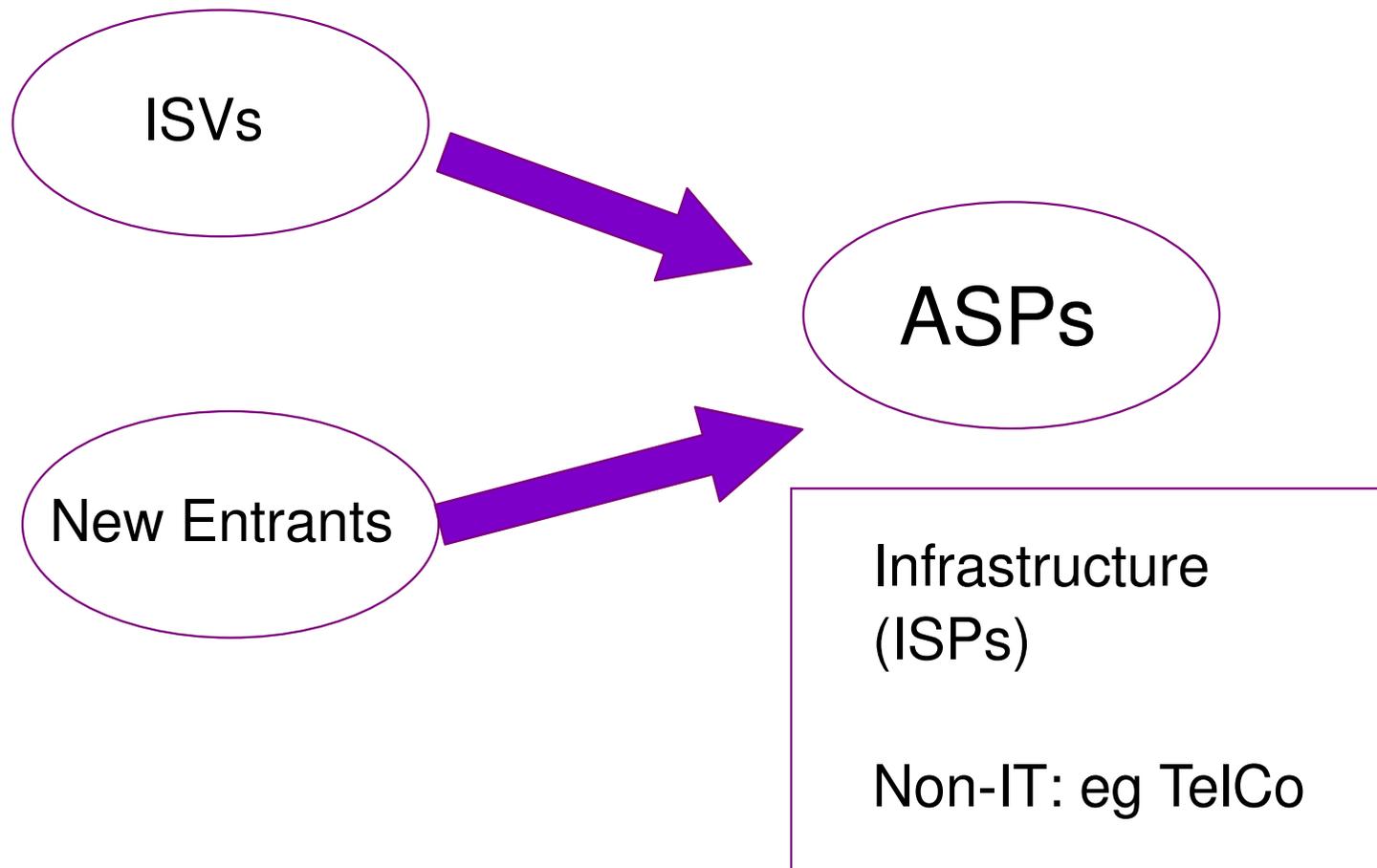


Key Player

AppshopEnterprise	ASP
AtomzEnterprise	ASP
BlueStar SolutionsEnterprise	ASP
ConcurWeb service vendor, enterprise	ISV
CorioEnterprise	ASP
CrownPeakWeb service vendor, enterprise	ASP
EmployeaseWeb	service vendorbusiness service provider
IntacctWeb	service vendor
LivePersonWeb	service vendor
NetLedgerWeb	service vendor
OuttaskEnterprise	ASP
RightNow	Web service vendor, enterprise ISV
Salesforce.com	Web service vendor
Salesnet	Web service vendor
SurebridgeEnterprise	ASP
UpShot	Web service vendor
USiEnterprise	ASP, application infrastructure provider
Vocus	Web service vendor
WebEx	Web service provider
WebSideStory	Web service provider

(http://www.aspnews.com/top20/article/0,,10341_753371_2,00.html, 2003-10-28)

ASP Solutions





Consequences

- Unknown Suppliers
- New companies
- Alliances with
 - Software
 - Hardware
 - Infrastructure

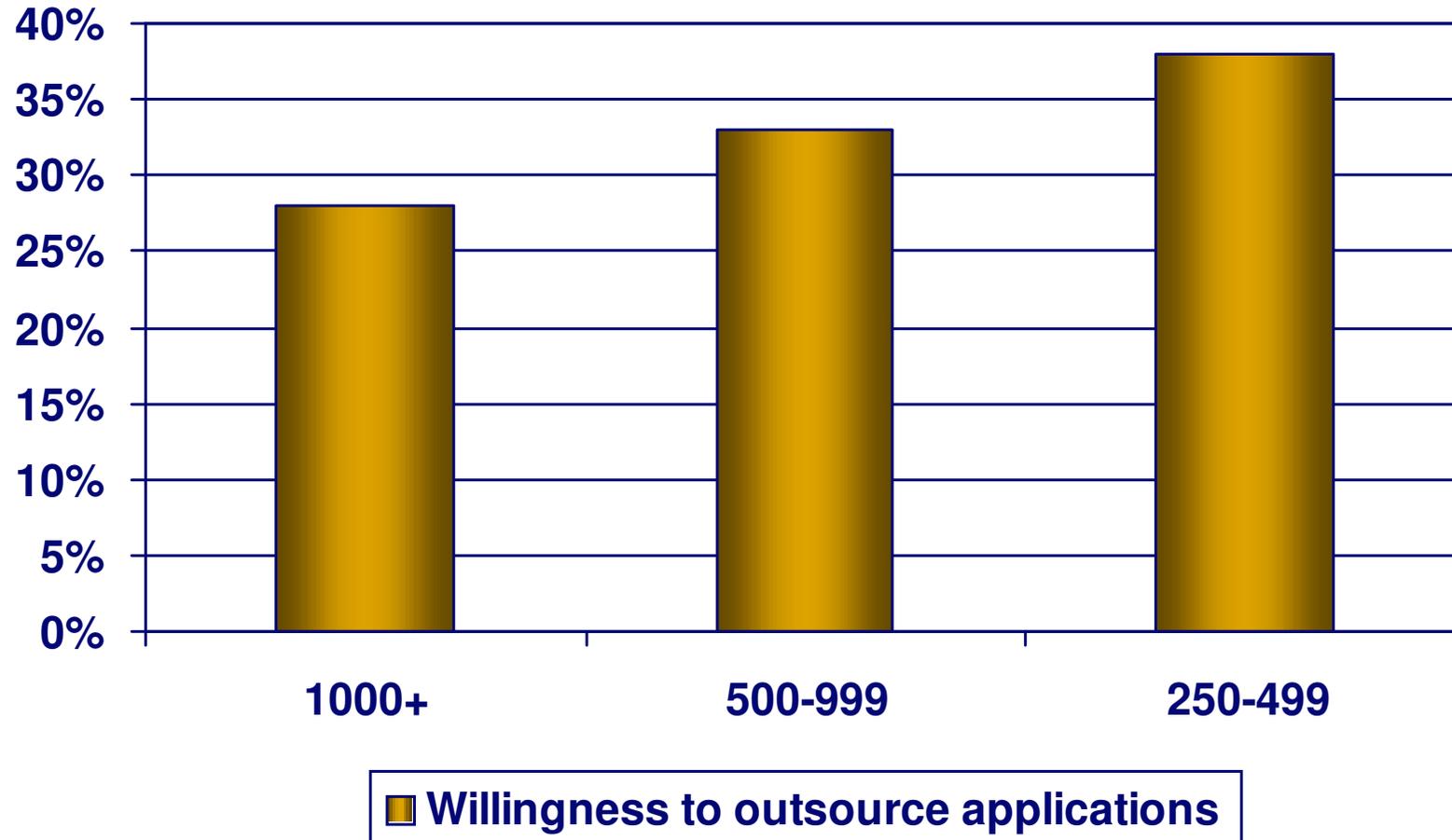


Inhibitors

- End of Internet-Hype
 - nearly no Venture Capital in Europe
- Basel II
 - nearly no support from Banks
- "ASP"
 - unknown
 - ASP -> SAAS
- low penetration
- BUT:
- e-business & on-Demand well known
- wide usage of ASP-applications



Who uses ASP ?





Web Usage SMB

Web	63 %
E-Mail	77 %
Homepage	54 %
E-Commerce	20 %



SMB decision criteria

- quick to deploy
- easy to use
- low cost

VS

Large Accounts

- TCO
- LONG TERM STRATEGY
- INTEGRATION / MIGRATION



ASP Phase II

Phase I

Phase II



**Technology
Trigger**

**Peak of
inflated
expectations**

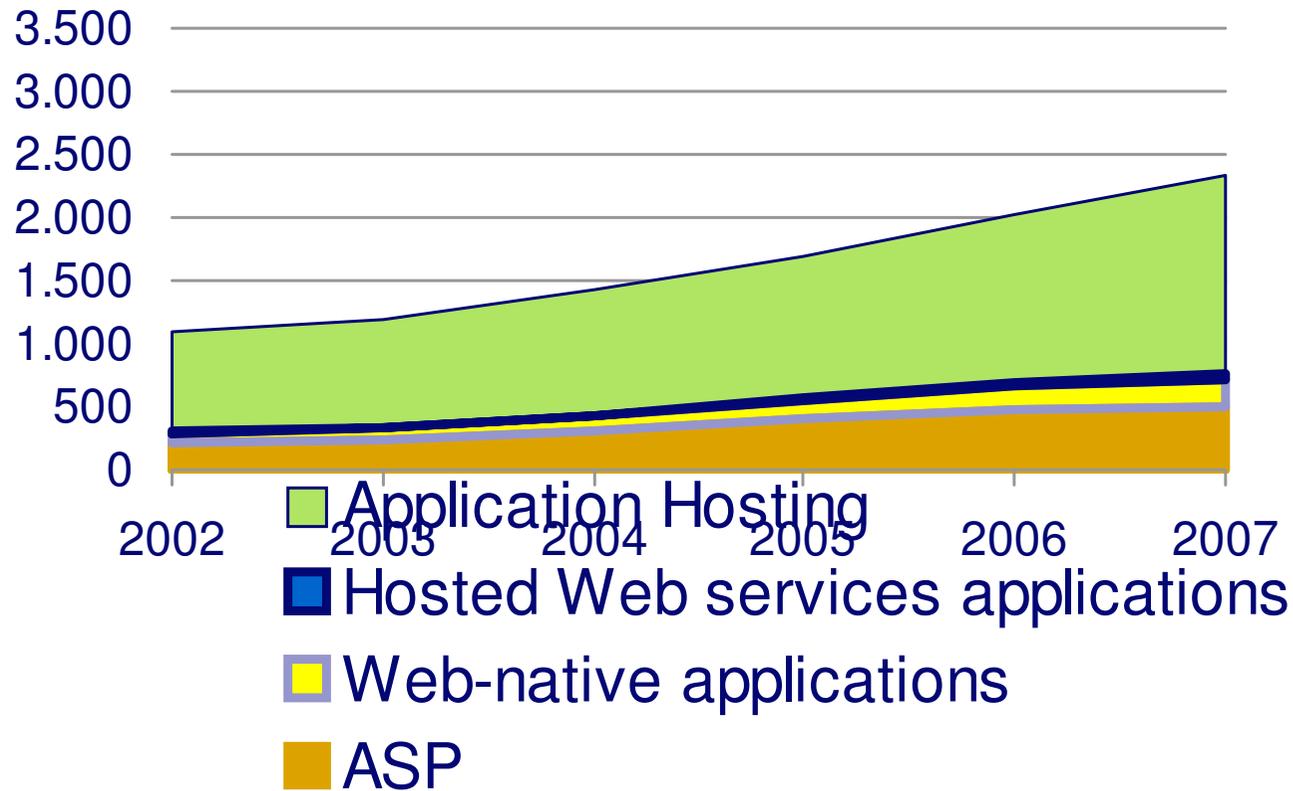
**Through
of
disillusionment**

**Slope
of
enlightenment**

**Plateau
of
productivity**

(adopted from Gartner)

Growth



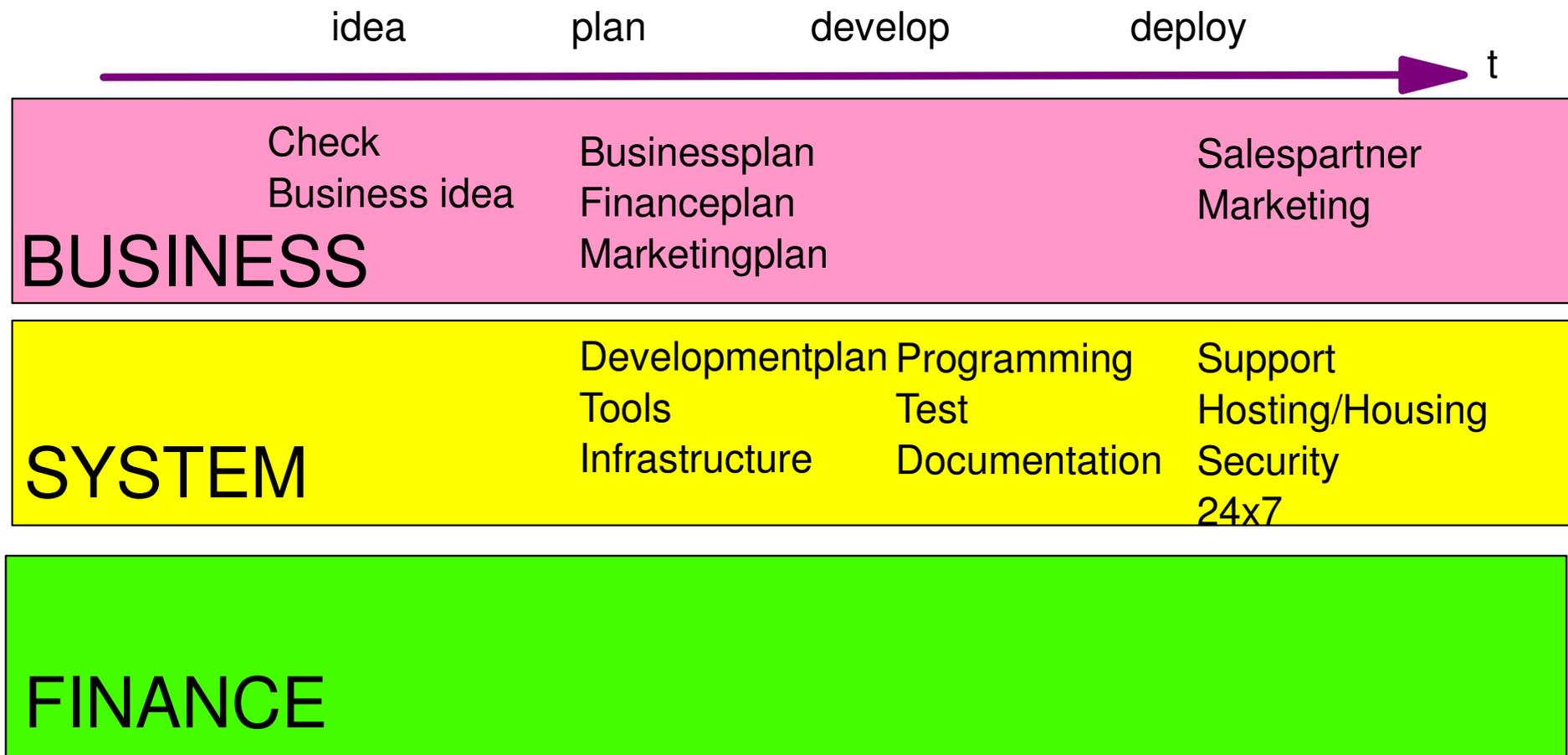
16.5 %
CAGR

Software
as a
Service

(c) IDC, 2003



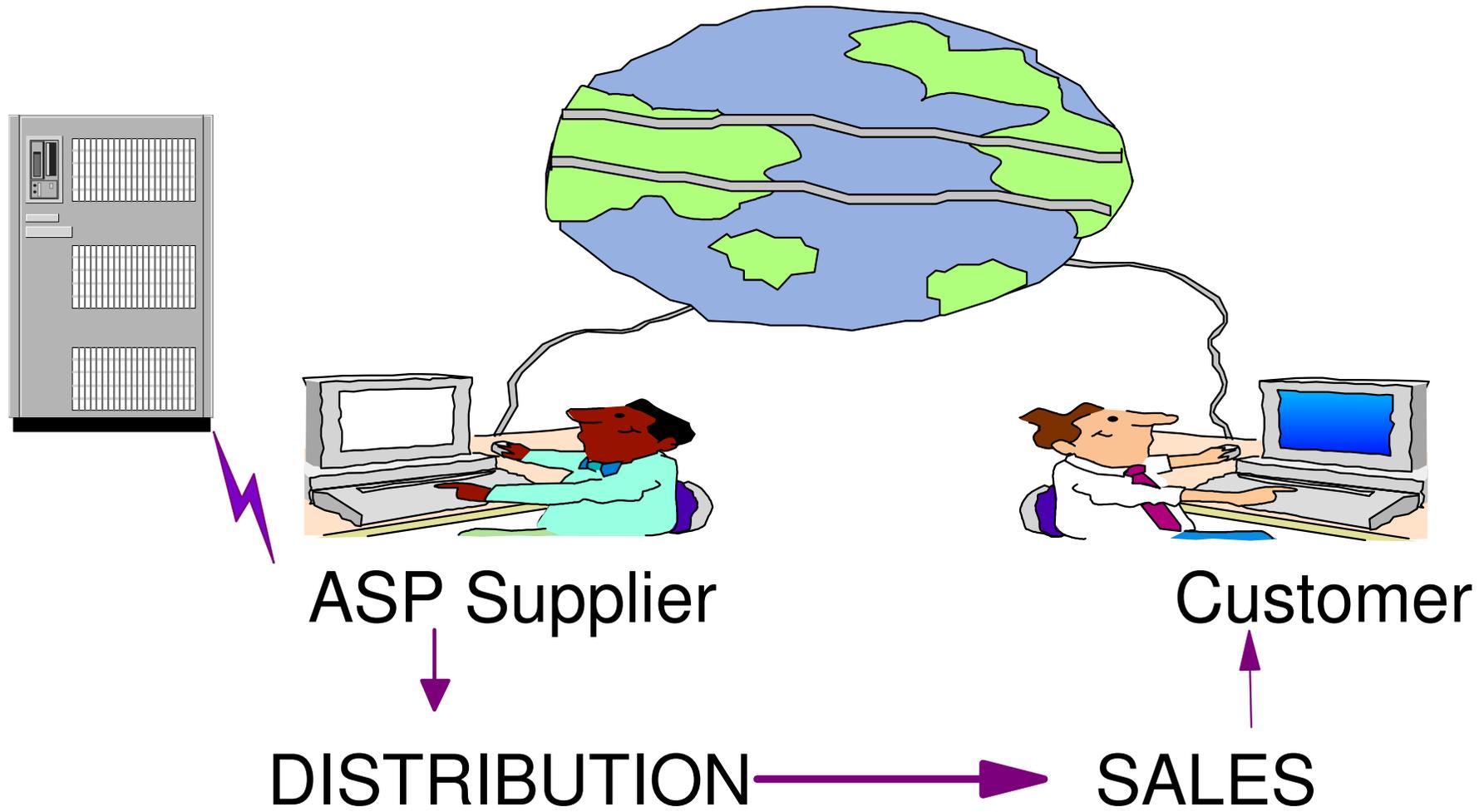
Development Phases



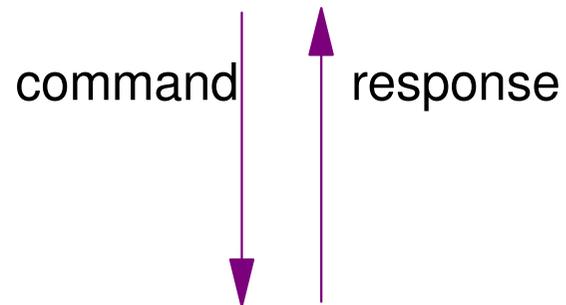


market
development
consulting

ASP Distribution

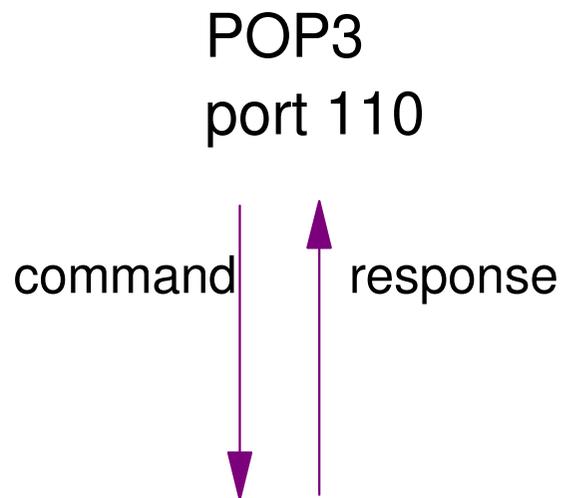


Systems Design



Mail List
Manager

Systems Design



Mail List
Manager

RDR

SPOOL

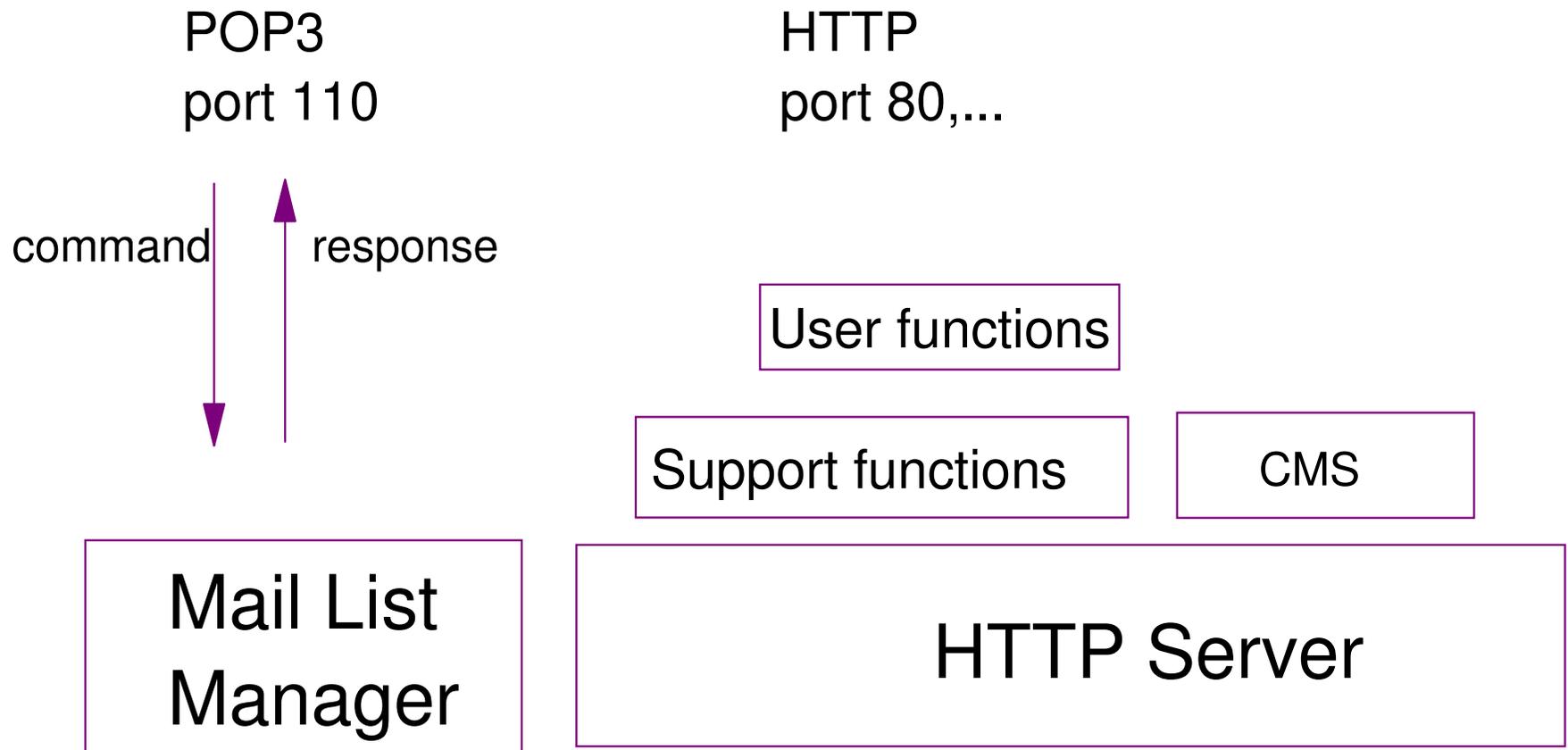
VM/CMS

POP3

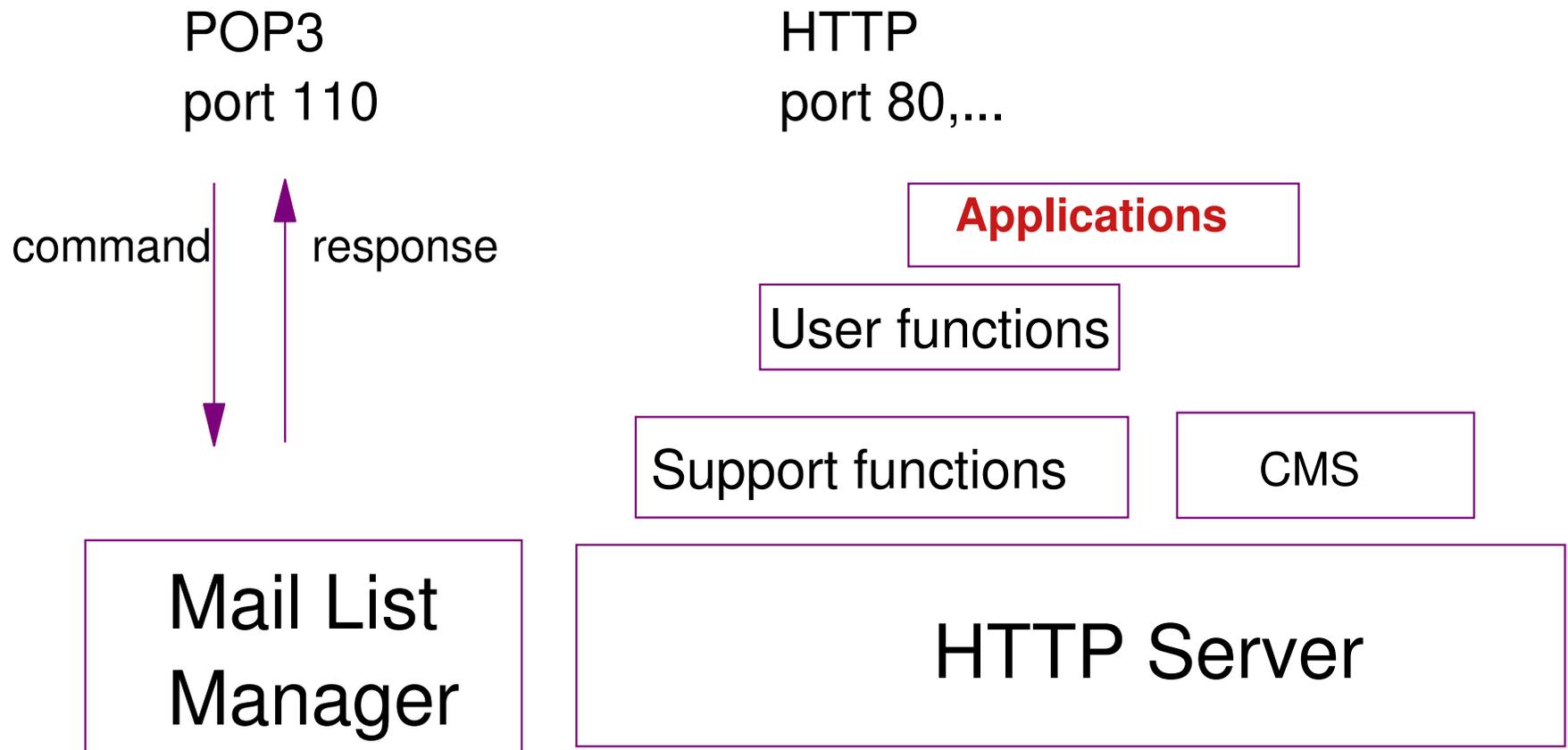
- Query
- Read
- Purge

LIST
RETR
DELE

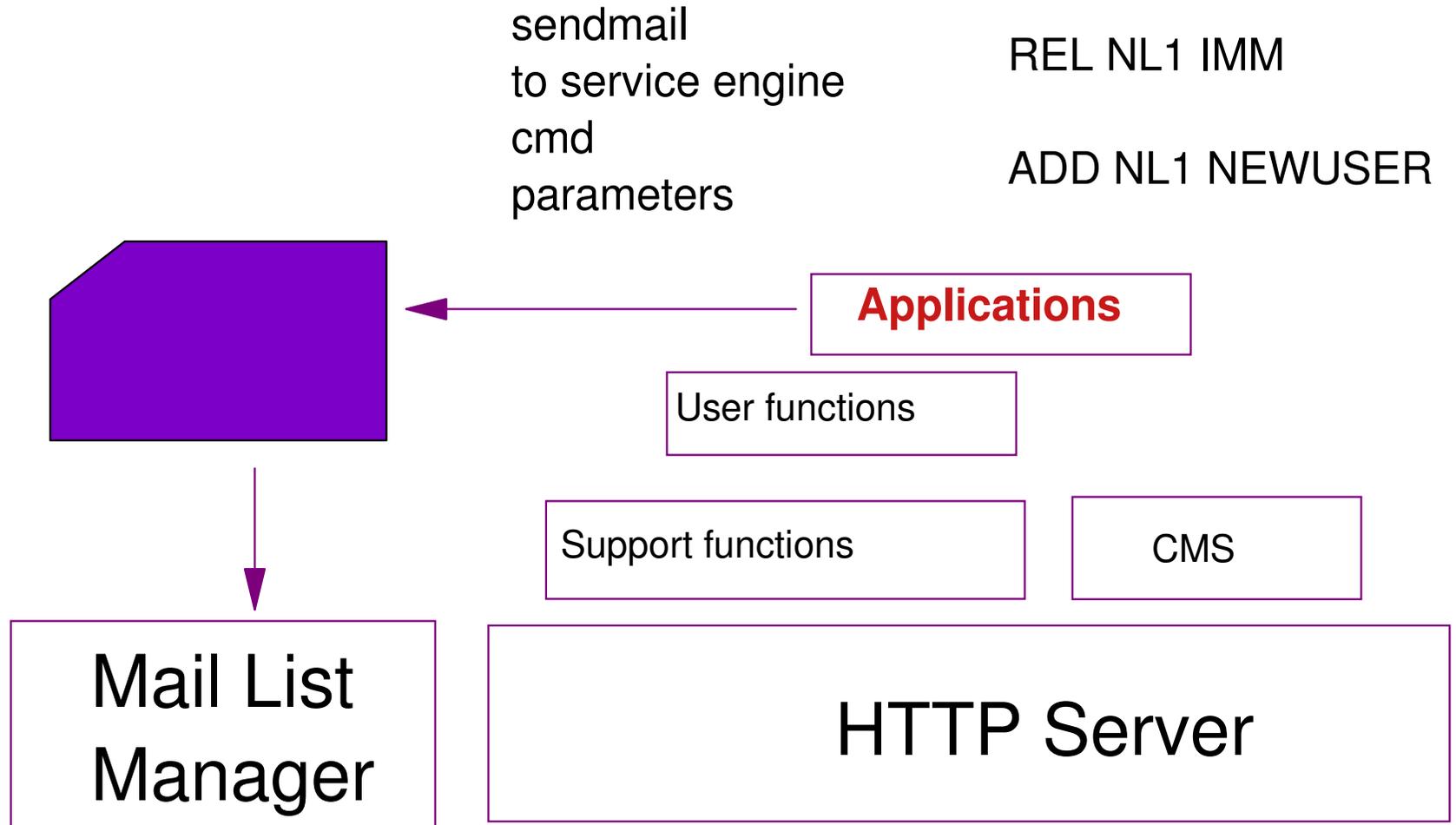
Systems Design



Systems Design

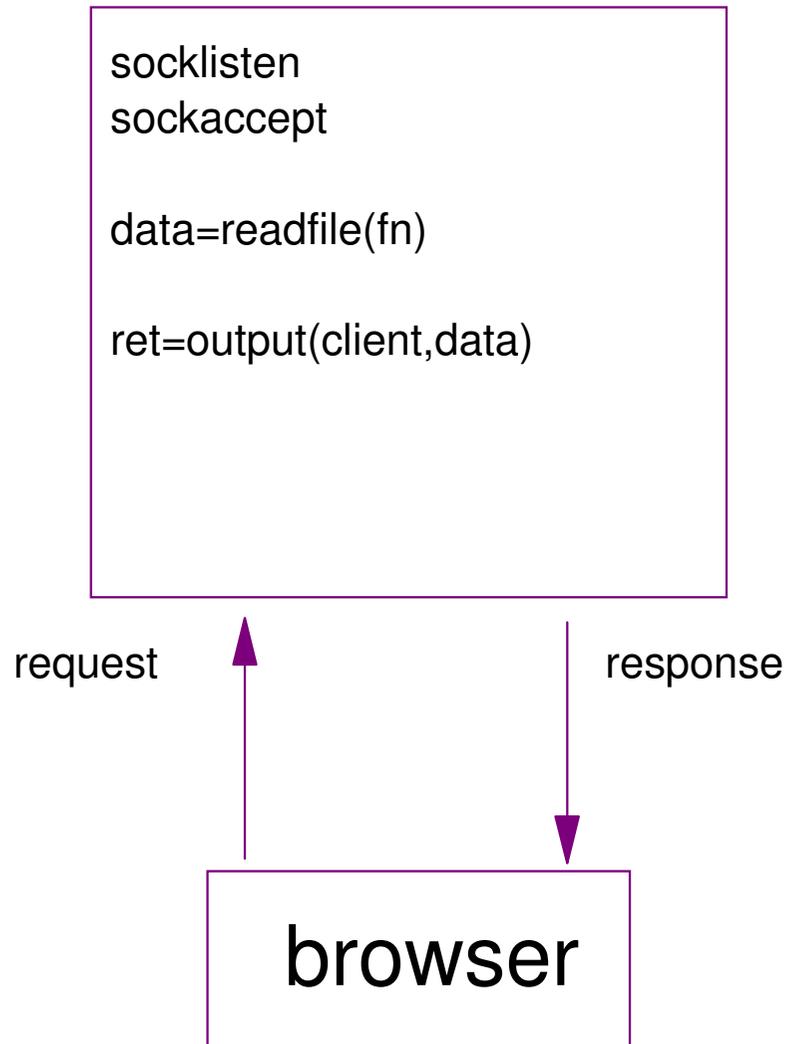


Communications



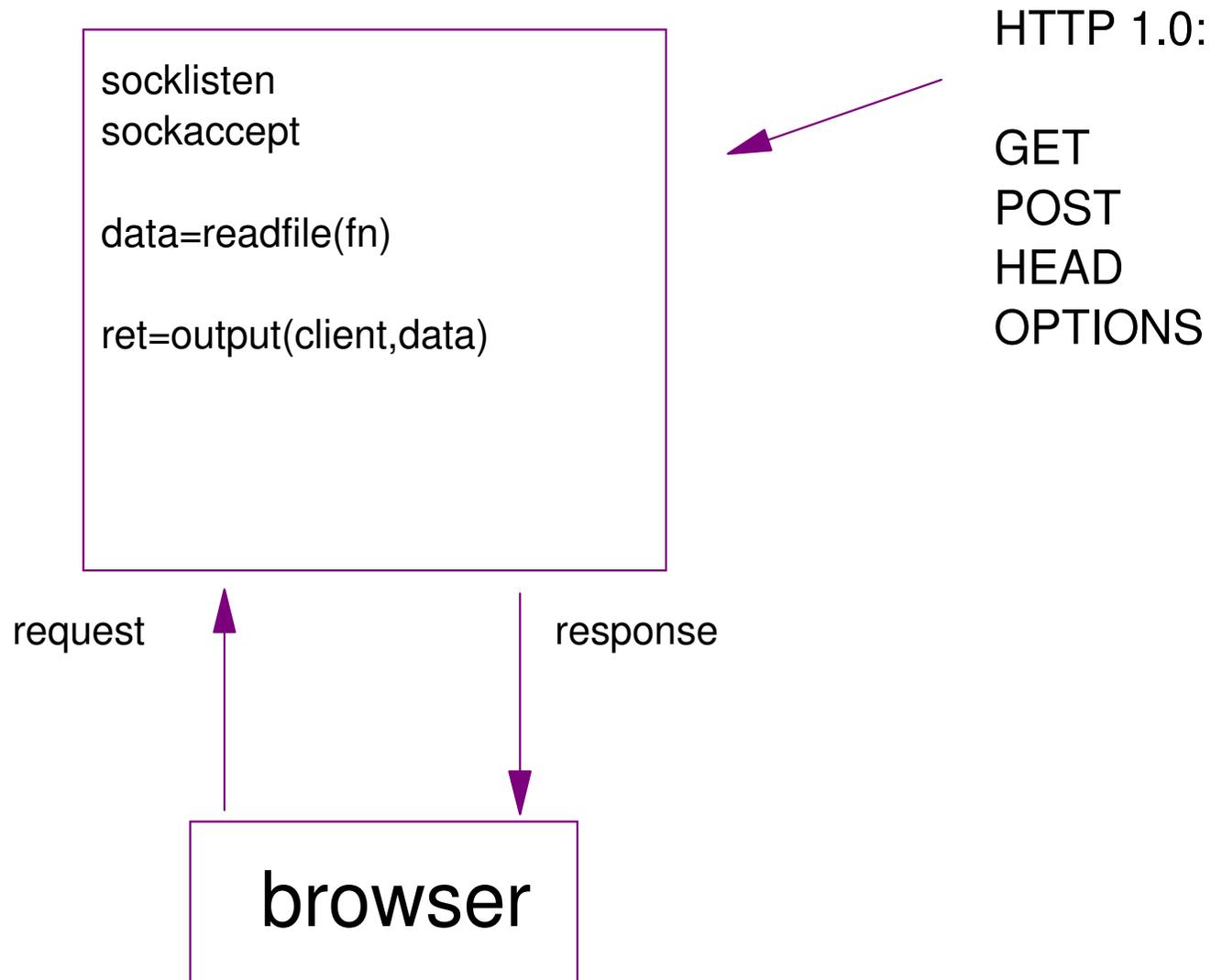
HTTP Functions

.htm .html



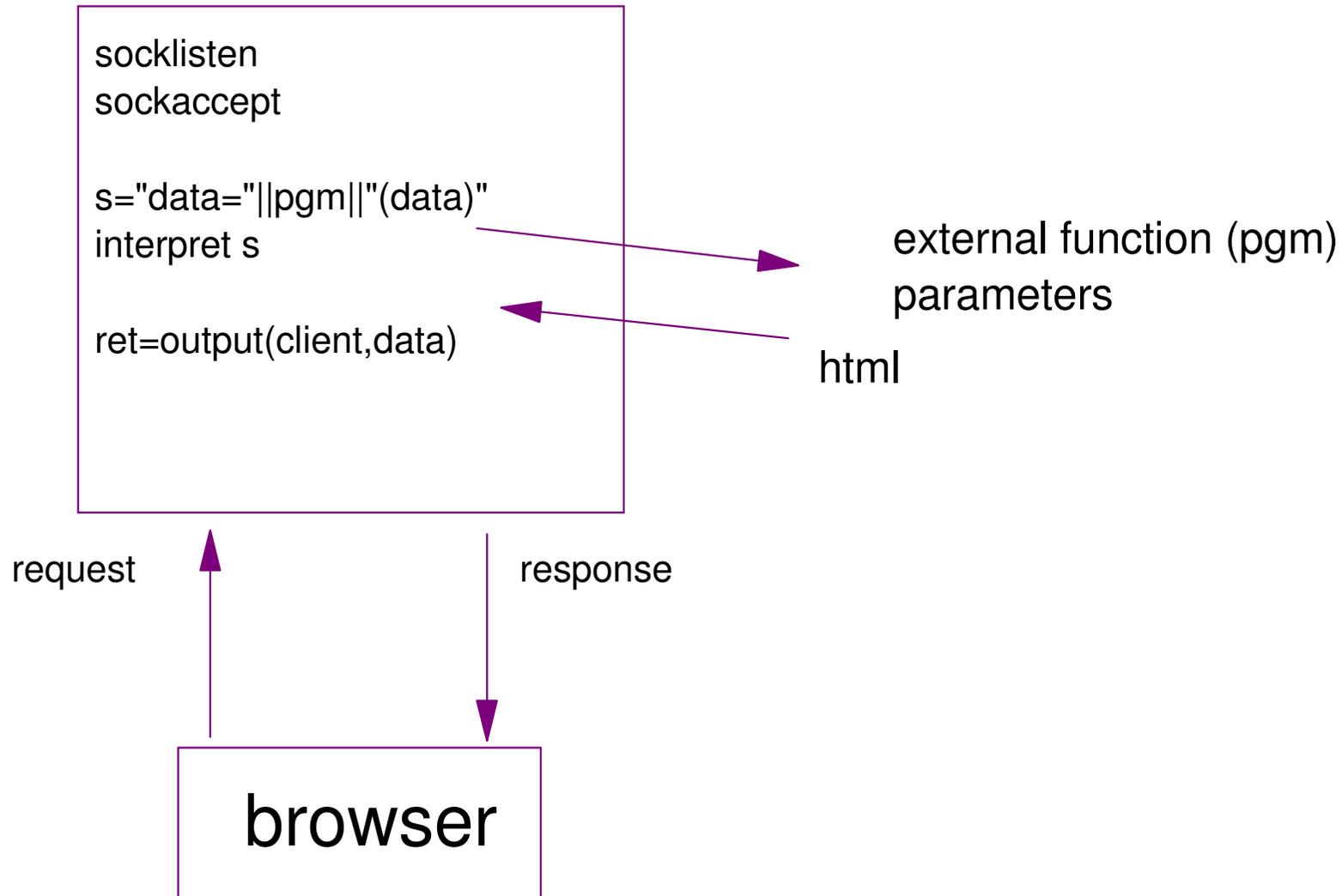
HTTP Functions

HTTP requests



HTTP Functions

.rex .rexx





External Function

```
/* fun1 */  
parse arg buf  
  
email=getvar(buf,"EMAIL")  
s="<html><head></head><body>"  
s=s||"<h1>....."  
  
return s
```



External Function

```
/* fun2 */
```

```
parse arg buf
```

```
sid =dsnew()
```

```
/* new session id */
```

```
data=dsget(sid,"EMAIL")
```

```
/* get data from user datastore */
```

```
data=dsput(sid,"EMAIL","a@b.com")
```

```
ret=dskill(sid)
```

```
/* kill sessionid & datastore */
```

```
s="<html><head></head><body>"
```

```
s=s||"<h1>....."
```

```
return s
```



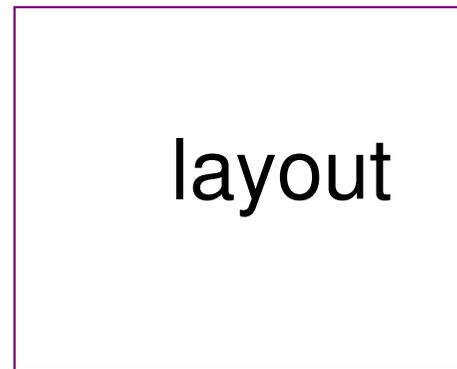
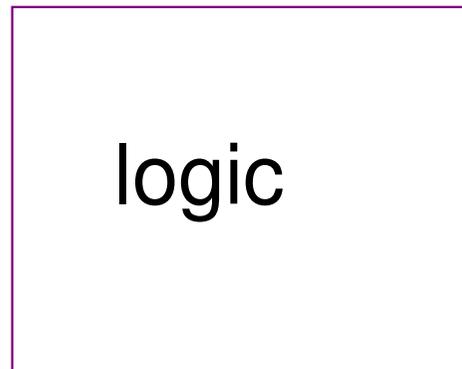
market
development
consulting

Rexx Server Page

```
<html>  
<head>  
</head>  
<body>  
<h1>test</h1>
```

REXX:

- statement
- external function



RSP

lead role

REX lead role

logic

layout

config

RSP

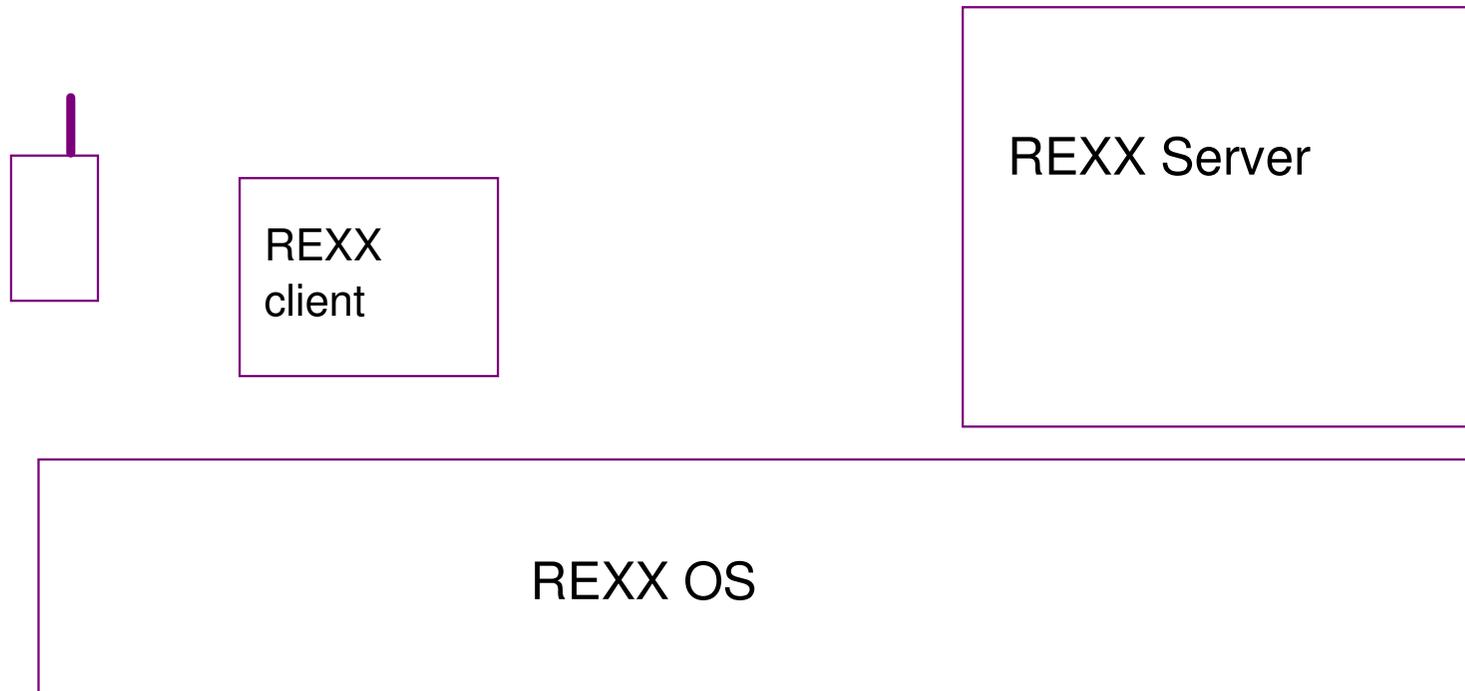
lead role

REX lead role

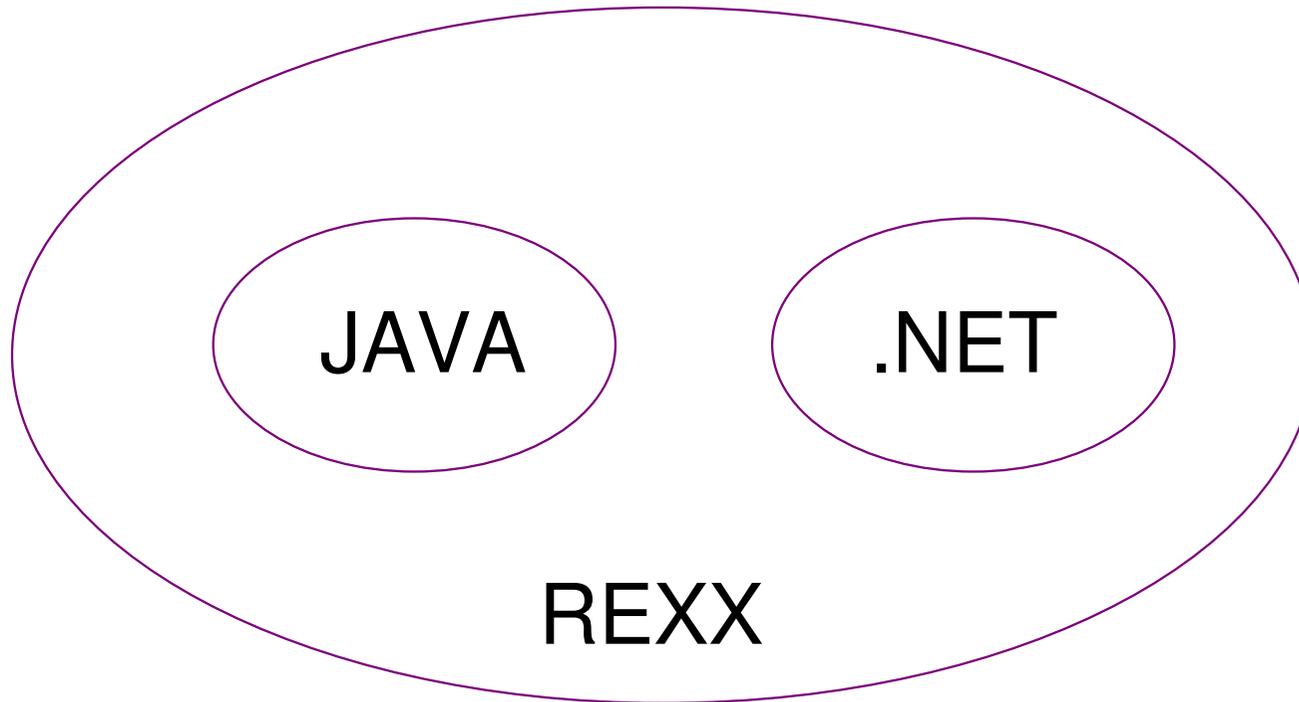
CMS

lead role

REXX VISION 1



REXX VISION 2



Summary

- REXX/REGINA ideal for web applications
- fast execution
- wishlist
 - preload of external functions
 - instorage files ("RAM disk")
 - constants (eg CRLF or EOF)
 - RSP standard



market
development
consulting

Thank you

for listening
&

Mike Cowlshaw
- REXX
- TOOLS



Mansfield Software Group

REGINA-Team