HET CEO-PROJECT
EEN EERSTE POGING TOT
WWW BEHEER

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CTIT WORKSHOP
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BAD BOEKELO
BACKGROUND

JOINT RESEARCH CENTRE (JRC)
• EUROPEAN COMMISSION
• ISPRA - ITALY

CENTRE FOR EARTH OBSERVATION (CEO)

PROVIDERS OF EARTH OBSERVATION DATA

USERS OF EARTH OBSERVATION DATA
BACKGROUND

INTERNET

PROVIDERS

USERS
BACKGROUND

PROVIDERS

INTERNET

WWW SERVER

WWW CLIENT

WWW SERVER

WWW CLIENT

WWW SERVER

WWW CLIENT

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WWW SERVER

WWW CLIENT
BACKGROUND
PROOF OF CONCEPT

WWW MANAGEMENT:
• DESIGN AND DEMONSTRATION
• FIRST PROJECT OF A SERIE

PARTNERS:
• ESYS LTD. - GUILDFORD, UK
  • CTIT - UT, NL
• 9 MONTHS - 120.000 ECU

WORK DIVISION:
• ARCHITECTURE: ESYS & CTIT
  • MANAGER: ESYS
  • AGENT: CTIT
ARCHITECTURE

IS = INFORMATION STORE MIB
NS = NETWORK SERVICE MIB
MIB = MANAGEMENT INFORMATION BASE
MIBS

IS-MIB:
• GENERAL INFORMATION ABOUT THE SERVER
  • ACCESS INFORMATION
  • DOCUMENT INFORMATION
  • ERROR INFORMATION

NS-MIB:
• USER INFORMATION
• TRAFFIC PATTERNS
• QUALITY OF SERVICE (QoS)
IS-MIB

ACCESS INFORMATION

- NUMBER OF ACCESSES
- NUMBER OF BYTES IN
- NUMBER OF BYTES OUT
- DOMAINS
- PREVIOUS DAYS
- MOST FREQUENT USERS
- MOST RECENT USERS
NS = NETWORK SERVICE MIB
RS = RETRIEVAL SERVICE MIB
RS-MIB

TRAFFIC PATTERN:
- # REQUESTS
- # INDICATIONS
- # RESPONSES
- # CONFIRMS

QUALITY OF SERVICE:
- DELAY PER DESTINATION
- THROUGHPUT PER DESTINATION
- # TIME-OUTS
- # ERRORS
OTHER-MIBS

WWW-SERVER SYSTEM

HTTP

TCP

IP

LINK

RS

IS

HTTP

MIB-II

LINK
AGENT IMPLEMENTATION

WWW-SERVER SYSTEM

SERVER PROCES
- HTML FILES
- HTTP

UNIX KERNEL
- TCP
- IP
- LINK

LOG FILES

SUBAGENT
- IS
- RS
- HTTP

SYSTEM CALLS

SUBAGENT
- MIB-II
- LINK

MASTER AGENT

MANAGER SYSTEM

SNMP
SUBAGENT IMPLEMENTATION

ACCESS LOGFILE

TAIL

SCAN ACCESS LINE

IS

ERROR LOGFILE

TAIL

SCAN ERROR LINE

RS

HTTP

COMPUTATION

LOG INFO

LOG INFO

LOG INFO

BY LINES

BY LINES

BY ELEMENTS

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RESULTS

• AGENT HAS BEEN DEMONSTRATED SUCCESSFULLY

• FIRST WWW-MANAGEMENT SYSTEM IN THE WORLD

  • STANDARDIZATION WITHIN IETF

  • RELATION WITH APPLICATION MIB

  • FOLLOW-UP CONTRACT?

  • NWO - SION?