WHICH MANAGEMENT TECHNOLOGY?

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SNMP

- THE “ASSEMBLY” LANGUAGE OF MANAGEMENT
- OBJECT-BASED STRUCTURE OF MANAGEMENT INFORMATION (SMI), RUDIMENTARY BULK TRANSFER, NOT ADEQUATE EVENT MODEL, V3 ADDRESSES SECURITY
- SIMPLE, UBIQUITOUS, COMPROMISE BETWEEN WHAT IS POSSIBLE AND WHAT PRAGMATIC
  - REFLECTS THINKING OF THE IETF COMMUNITY
- SURVIVES WELL IN AN ERA OF DISTRIBUTED OBJECT-ORIENTED SYSTEMS
OSI-SM AND CMIS/P

- OBJECT-ORIENTED SMI, POWERFUL RETRIEVAL AND EVENT MANAGEMENT FACILITIES, SCALABILITY
- GDMO DIFFERENT TO GENERAL PURPOSE OBJECT SPECIFICATION LANGUAGES, COMPLEX, BULKY INTERFACE SPECIFICATIONS WITH LOTS OF OPTIONS
- OSI UPPER LAYER PROTOCOLS REQUIRED, NO SOFTWARE PORTABILITY YET DESPITE THE TMF TMN/C++
- USED IN TMN ELEMENT & NETWORK MANAGEMENT
- HAS ITS NICHE BUT IT IS FAR FROM BEING THE UBIQUITOUS TELECOMS MANAGEMENT SOLUTION
OMG CORBA

- GENERAL PURPOSE DISTRIBUTED OBJECT TECHNOLOGY, MULTI-LANGUAGE MAPPINGS, USER-FRIENDLY APIs
- COULD BE USED FOR NETWORK MANAGEMENT, EVENT MODEL?, BULK TRANSFER?, SCALABILITY?
- JIDM DEFINED SNMP AND CMIS/P TO CORBA MAPPINGS, GATEWAYS NOT YET USED
- BEST FOR SERVICE CONTROL AND SERVICE MANAGEMENT
- X.703 OPEN DISTRIBUTED MANAGEMENT ARCHITECTURE (ODMA) INCLUDES CORBA PROFILE, WILL BE A LEGITIMATE SOLUTION FOR TMN INTERFACES
JAVA AND WEB-BASED MANAGEMENT

- JAVA RMI: ANOTHER TECHNOLOGY FOR DISTRIBUTED JAVA OBJECTS - ALSO JMAPI
  - PERFORMANCE?, THE DISTRIBUTED WORLD IS HETEROGENEOUS I.E. NOT ALL OBJECTS ARE IN JAVA

- IS WEB-BASED MANAGEMENT ANYTHING OTHER THAN A WEB-BASED USER INTERFACE?
  - USEFUL, MOSTLY IN CONJUNCTION WITH OTHER TECHNOLOGIES, HTTP NOT A MANAGEMENT PROTOCOL
DMTF, DEN

- DMTF ADDRESSED INITIALLY DESKTOP MANAGEMENT, NOW TRIES TO BE A GENERAL DISTRIBUTED MANAGEMENT SOLUTION
  - YAMF - YET ANOTHER MANAGEMENT FRAMEWORK
- DIRECTORY ENABLED NETWORKS (DEN) - CISCO AND MICROSOFT DISCOVER THE OSI DIRECTORY & SERVICE MANAGEMENT!
  - AN APPROACH TO SERVICE MANAGEMENT POLICIES THROUGH ACTIVE DIRECTORY OBJECTS
MOBILE AGENTS

- PROMISING NEW TECHNOLOGY, MOVE LOGIC AROUND THE NETWORK TO PERFORM LOCAL INVOCATIONS
- POTENTIAL NON-FUNCTIONAL ADVANTAGES OF PERFORMANCE, REDUCED TRAFFIC ETC.
- CAN THEY SUPPORT NOVEL MANAGEMENT SERVICES THAT COULD NOT BE SUPPORTED OTHERWISE?
- THEY WILL BE MOSTLY USED TOGETHER WITH OTHER DISTRIBUTED MANAGEMENT TECHNOLOGIES, NOT A PANACEA
THE FUTURE

- TRADITIONAL MANAGEMENT SOLUTIONS WILL CO-EXIST WITH NEW ONES
- EMPHASIS WILL MOVE TOWARDS “OPEN” MANAGED ELEMENTS WITH APIs THAT CAN SUPPORT CUSTOM MANAGEMENT AND CONTROL ARCHITECTURES
- DISTRIBUTED MANAGEMENT SYSTEMS WILL BE CONSTRUCTED FROM REUSABLE COMPONENTS
- IMPORTANCE OF TECHNOLOGY-INDEPENDENT O-O META MODEL FOR INFORMATION REPRESENTATION