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Management System Phased Model

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ABSTRACT

The concept of the control system level model. International standards on the control system, OSI and Internet standards. The OSI network management model - OSI management Framework - ISO/IEC 7498-4: Basic Reference Model, Part 4, Management Framework is reflected in the documents. This is the development of the general seven-step model in cooperation with open systems in the case where one system controls another.

The ISO/IEC 7498-4 document consists of the following main sections:

- ✓ Terms and common concepts ;
- ✓ Systems management model ;
- ✓ Information model ;
- ✓ Systems management functional composition.

Various _ management system for common important have has been networks management functional areas 7.1. in the department seeing developed was _ Management ISO standards in the field used terminologies SNMP management systems to the terminology partially suitable comes , partially while from him varies.7.9 . in the picture as shown management information management using the protocol (Management Protocol). exchange systems management (Systems Management Application Entities, SMAE). Subjects app between being passes . SAME subjects OSI seven phased of the model practical stage is located and management of service elements is considered OSI in the model in collaboration as a subject participating desired stage of the protocol the same at the time active element is understood .

In the SMAE examples management agent of the system and managers is considered

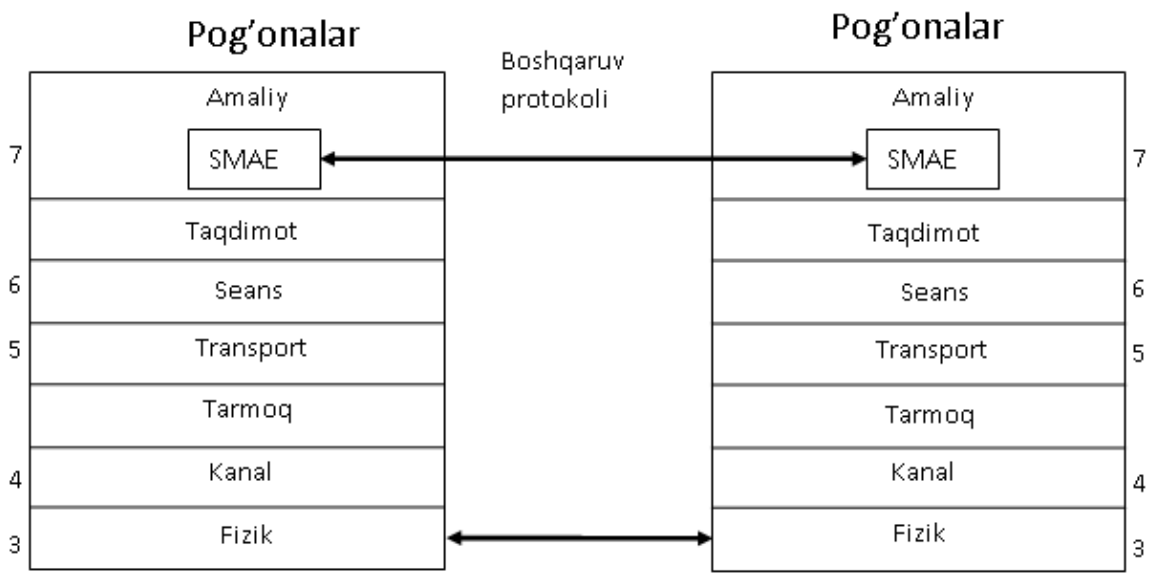

Figure 9.1. The concept of SMAE.

In OSI standards, agent and managers function in terms some exception except SNMP systems definitions with well coordinate. Agent initiative with to the manager to send messages message paper is called -notifications.

For example; any X network element If it breaks, the manager network in the configuration own information base update a must X element management in the system manager being an object (managed object). for to the agent message paper sending It is possible. X element agent is standing to the system or another in the system location can _ Own X element to the agent manager in turn that it was about message paper sends _ This message to the paper according to manager of configuration information base updates .

Internet standards managed as an object resource model Some of the calculated MIBs attribute based on ISO standards and object _ manager of the resource all model is understood .

Manager not only from the agent removable information collects and compares perhaps this data based on distant agents operations managing, administrative also performs functions.

In OSI standards manager and between the agent border so much sure not _ SAME subject one in cooperation manager role if he does, it's different the role of an agent in cooperation perform possible and on the contrary OSI standards the agent managed objects with in cooperation work the way does not define . Also OSI standard the agent managed from the system outside is located managed objects ie network through in cooperation performance need has been objects with in cooperation how performance about does not speak Such cases one agent is another from the agent some object about data it is required to ask . Such cooperation procedure is also in OSI standards cannot be determined. Each _ manager and the agent is cooperative performance for each other about known to knowledge have to be condition. This OSI model of knowledge app context (Application Context,AC) is called . AC agent and manager of the OSI line you are using practical stage elements describes.

OSI management standards a lot level OSI protocol to the lines adapted (line OSI model not) just like SNMP management systems TCP/IP line to work adapted such as will be Most of the time managed actions automation of the OSI line for practical stage practical protocols and users applications (this with together management applications) to use common to tasks called one

how many addition services own into takes _ This is to ftp, telnet or NCP protocols similar practical stage protocols using network of the user some kind of useful action _ possible , unfinished system functions while practical the protocol or application work to the issuer program compact and fruitful to write help gives _

OSI line practical stage the following addition services have:

- ACSE (Association Control Service Element). Handles connections between different system applications. A connection (session) is called an association in the implementation phase of OSI. Associations are individual and will be shared.
- RTSE (Reliable Transfer Service Element). Association within below communicative services from interruption come came out dialogues to restore help with is engaged in.
- ROSE (Remote Operation Service Element). Far away in cars program of functions fulfillment organize is enough (RPS away executable the work order call to the service similar).
- OSI standard the SMIP protocol used manager and agents partner performance for , and manager and agents program done in raising helper service from the information , especially far away executable the work order to call from ROSE service for wide they use

Management functional fields. OSI network management phased architecture. of OSI management main model : systematic management , N- stage management and N - stage operations own into takes _ In management appear to be possible has been differently circumstances mean that's it three to the field divided _

Systems management managed objects with practical stage account received without OSI in management seven stage the work take goes _ He is the manager information connections installation with final systems between reliable to transfer based on That's it to emphasize should be OSI management model to connect without installing from services to use permission ca n't

N- stage management managed objects seven phased of the model which one known stage limited.Management protocol in this communicative of the protocol lower from the stages uses.N-stage management OSI all seven N- stages to use conditions in his absence uses. This in this case stage for strictly intended management from the N -stage of the protocol to use permission will be done. Management phased to the protocol examples 1.2 steps as an example with limited, at the Institute of IEEE (SMT Technologies of FDDI) . work developed local networks for management protocols show can _

Finally, N- stage operations only this stage communicative in the protocols keeping manager information based on monitoring and management is summed up . For example , SDH technologies are in STM-n frame stored network monitoring data , i.e physical staged N- stage operations applies.N-stage management standards and N - stage OSI operations management standards to the collection does not enter OSI standards only systems management seven phased line using will be seen .

Systems management main model one different level systems between management operations and message papers transmission execution it is understood manager and managed in systems of roles strictly division mandatory that it is not means _

This model of management distribution aspects done increase relieves. Another from the side manager and managed one different level systems done to increase permission gives _

Management information model. _

Managed object is this manages purpose resource about the OSI vision. Resource the same managed defined as an object possible. This managed sure object - some managed objects is a copy of the class (instance). OSI management model object direction approach wide uses _

Managed objects class this is mandatory or conditional has been features is a collection . Managed of objects one class describe (eg switches) using the VLAN technique application , switches feature have has been managed of objects another class (e.g switches) again new attributes adding standing up Create can _

Management of resources _ _ for manager and the agent is this resources parts about information have to be need _

Management function (details) required to be performed managed objects imagination detailing to us in a specific Management Information Base (MIB) repository stored. OSI MIB bases not only managed objects classes definitions , perhaps network characteristic and his elements keeps _ MIB bases managed device and of resources each one part characteristics own into takes _ Also collected MIB data based on or external team with to be called actions description own into takes _

MIB bases external to systems ask, change, create and to delete possibility gives (in this network resources of course to work continue) _ Management CMIP protocol and local interfaces this to opportunity access providers.

MIB is conceptual model and in the resource information physical or logical storage method with never how connection no. Standards in fact data storage aspect does not define.

OSI protocols in MIB stored information syntax and information exchange defines its meaning (semantics).

Manager knowledge and knowledge tree _

Big management system usually a lot numerical agent and from managers organize found will be. Manager and agents between cooperation automation organize to do for some kind of the way agent with and managers characteristic about information to know need.Manager management in the system which agents works , their names , network addresses , they by being used managed objects classes and etc to know need _ The agent is also a manager similar about _ information because it is necessary _ initiative with message letters sends and manager to your requests answer gives _

the OSI model this data manager and between the agent manager knowledge is called distribution (shared management knowledge) in the SNMP system this data organization not standardized and each one sure management in the system this data in individual form is stored . Distributable management knowledge agent and manager between associations to be installed until known to be need _ Usually they are which one file or distributed information in the base is stored and association every time in its installation is asked . Association installation during distributed management knowledge exchange being passes.

in OSI manager knowledge different aspect organize to do and to them permission is standardized . The object is direction to the way compliance to do this knowledge special system objects for use conditional.

10164-16.2 ISO standard such objects objects manager knowledge model and class determines _ From this except manager knowledge with work functions determined.

This knowledge descriptive manager knowledge three type and accordingly _ three object type available:

- Repertoire Knowledge (Repertoire Knowledge) is managed objects the name of the class and management functions puter classes the list own into received managed systems opportunity describes. Repertoire knowledge to the manager managed systems opportunity their without your permission to equalize help gives _

- Describe knowledge (Definition Knowledge) is managed system who understands managed objects class official definition , tests category , mutual in connection classes and manager information concept own into takes _
- About the copy _ _ Knowledge (Instance Knowledge) is managed in the system is located managed objects sure copies about information with provide.

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