ADMINISTRATIVE MANAGEMENT SYSTEMS MODELS

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Abstract

Administrative management systems (MBT). ITU-T, IETF (Internet), IEEE recommendation did Administrative management principles. Current during the construction of MBT technology and principles a lot cases different international of organizations many standards is based on In this TTT (technical provide systems) of MBT main structural department as will be seen.

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Networks administrative management standard and appearances Create to work helper organizations:
ISO - International Organization for Standardization international organization)
ETSI – European Telecommunications Standards Institute (European Telecommunications Standards Institute)
NIST - National Institute of Standards and Technology (Standart and technologies national institute)
NMF – Network Management Forum (mainly provider firms organize found network management on Forum)
OSF – Open Software Foundation (Open programming fund fund).

Current at the time telecommunications administrative manage principles according to managerial of materials two family available:
a) international standards ISO/ITU-T;
b) international in the community management in the field his own simplicity and much before application done account to the SNMP protocol received based on and de-factor which are internet standards.
in OSI/ISO standards open systems mutually reference model of dependency shown.
Network management according to ISO standards above shown documents the reason for its development will be

Current at the time administrative management and management effect for data system composition, manager to objects informative models present reach and them work on the way out from leadership to specific monitoring of cases and until testing has been a lot issues cover takes _

It or to ISO standards this X series in the field international electrical connection union-electricity contact standardization sector (MSE-T, English in the language in the literature - according to ITU-T). will come
Electrical communication networks manage different point of view views in M series ITU - Recommendations, including M. ZOYu recommendations the most noted as important done. It has TMN (Telecommunication Management NETWORK) model defined. M series recommendations own based on electrical connection in the field of objects to himself special features clarifies and X series to recommendations, that is of Jesus network according to management complete is based on Here _ network management simple protocol based internet management record its content (Simple network management protocol, SNMP) reach necessary _ SNMP request / response, request/ response, client / server similar are protocols. SNMP (REG1157) TCP/ IP networks in the 80s manage and monitoring _ for application done _ to SNMP based on own simplicity and cheapness with " agents " network management elements has been of supplier companies in most of them application were done. Therefore for this protocol international standard if not, internet networks manage de facto on standard being left. Two family between ratio as follows explain can:

- OSI management is a complex application in reaching expensive, good quality management provides.
- SNMP protocol, its versions Simple application _ in reaching cheap, management quality less ( actually monitoring only).

**Management in the system information exchange principles.** General without telecommunications management planning, organizing production, monitoring, services for calculation and network resources and their work to manage own into takes _ OSI and internet management architecture last three task performs, that is network planning and organize reach their to the scheme not included. Before each one network equipment with providers administrative network management according to own available packages developed and those who sold Some one of cases except " firma ". products " to himself special hardware and software supply mutually together performance for network equipment products different supply equipment with performance more difficult or possible it's not was _ This condition known level present until then is being saved.

Management standard architectures main task:

- Various suppliers network equipment single network for management package create, a key area in the OSI architecture and each one in the field five management stage separated. Management fields - as follows (ISO 7498-4, X.700):
  - Faults (Fault);
  - Form (Configuration);
  - Calculations (Accounting);
  - Worker characteristics ( performance ) (Performance);
  - Information security (Security);

Management stage as follows (TMN-model ITU, ETSI):

- Network elements ;
- Network elements management ;
- Network management ;
- Services management ;
- Business management. Har field and stage, issues fee and management effect scope own into takes, that is management on 25 certain in the fields issues appear will be on the Internet phased imagination does not apply.
Network management informative architecture the following to concepts based on:

- **Agent (Agent process)** - manager in the object program supply piece is the manager to the system manager of the object of reports to be shipped answer will give and in the object executable to actions concerned instructions takes.

- **Manager (administrator) (Managing process)** - to the agent directly affect doer practical process.

- **Management information base (managing information base, MIB) or object library (Object library)** - clear content and content management information. Agent and by the manager (administrator) is used. It’s conceptual model information to keep physical and logical methods with connection no, in the MIB stored information syntax and information exchange the meaning determines.

MT as hardware supply (switches, workers stations, port boards, and others) output can _ DT (direction algorithms, buffers queue manage and others) and of the network another resources.

N -phase in OSI concept included. If MT is at the individual stage described If so, then it is called the N - stage of MT. If it is suddenly more than to stage have if so, it is a systematic stage is called of MT another considerate to the sides the following includes:

- in MT use possible has been management operations his from the signs one part to be need.
- Definition of MT in MT management operation under the influence of on the network observation possible has been the effect own into takes.
- of MT status or feature In MT seen operations type with can be determined.

MT defined in OSI has the following characteristics:

- **Attributes (Attributes)** known in the interface, they are used in the characterization of the current status and operating conditions (conditions) of the MT. Each attribute corresponds to a separate type and one or more meanings (Figure 3.4). The attribute type can be used as an identifier (equalizer). (Attribute id). For example, the integral type can be called the network resource "working state". The meanings of this type are "blocked", "unblocked", "active- current", "busy" and others.

- **Operations in MT**. Eight operations are defined in OSI management:
  - **Greate (create)**: create new MT;
  - **Delete (out throw)** MTni loss;
  - **Action (effect do)** to MT effect to do operation;
  - **GET Value (meaning reading)** MT is known the meaning get;
  - **Add Value (meaning increase)** MT is known the meaning increase;
  - **Remove Value (meaning delete)** in MT attributes a lot numerous from the meanings one delete;
  - **Replace Value (meaning change)** in MT attributes one or a lot meanings replacement;
  - **Set Value (multi meaning)** MT attributes for a lot meanings default;
  - **To use MT permission done notice, report (Reports)**;
  - **Treatment MT is a response to its impact**;

MT Internet has the following characteristics:

- Suntax (type) object model imagination shape;
- Access is an object permission done level.
Status (status) - the object done increase conditions (requirements)

Name is the unique name of the object on the Internet syntax model data type determines from OSI special type of model on the internet complete limited. They are Abstract Syntax Notation 1 (ASN.1) INTEGER, OCTET STRING and another types with is determined. From MT higher level permission done and provider information permission determines _

MT allows the following on the Internet:
- Read only - (for reading only) the object stage can be read, but not constructed.
- Read write (read-write) MT stage can be read and built.
- Write only - (write only) The MT phase can have an instruction but not a read;
- Not accessible - MT stage is not readable, there is no instruction.
- The state of the object is determined in the same way as "mandatory" (mandatory) - in the MT, every managing resource must be implemented "optionally"; in the MT, optional resources are implemented; in the "obsolete" (obsolete) MT, the resource does not require implementation.
- Name determination object identifier according to ASN.I (ASN.I object identifier). did it.

Internet model attribute and objects does not separate. So, another In MTs attributes again to use permission not done. For example: "system" in the OSI model close "issue completion", in action and others such as common attributes each how to MT apply possible will be the Internet model has this not _

Main literature: 