ROCS

TRANSPORT AND CONTROL MODULE

ROCS-R SW 3802/1

RCNET

General

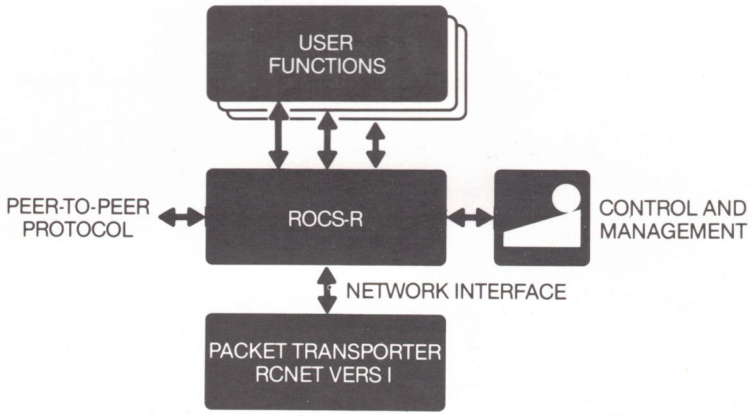
The ROCS-R program module offers session and transport facilities on a private network based on RCNET Vers. 1. ROCS-R is specially designed for transaction processing in network and Front-End environments and supplies the user with a safe datagram service, extended addressing and operator control primitives. The session control functions allow for centralized address allocation as well as distributed table updating based on log-on/log-off procedures for each user.

Functional description

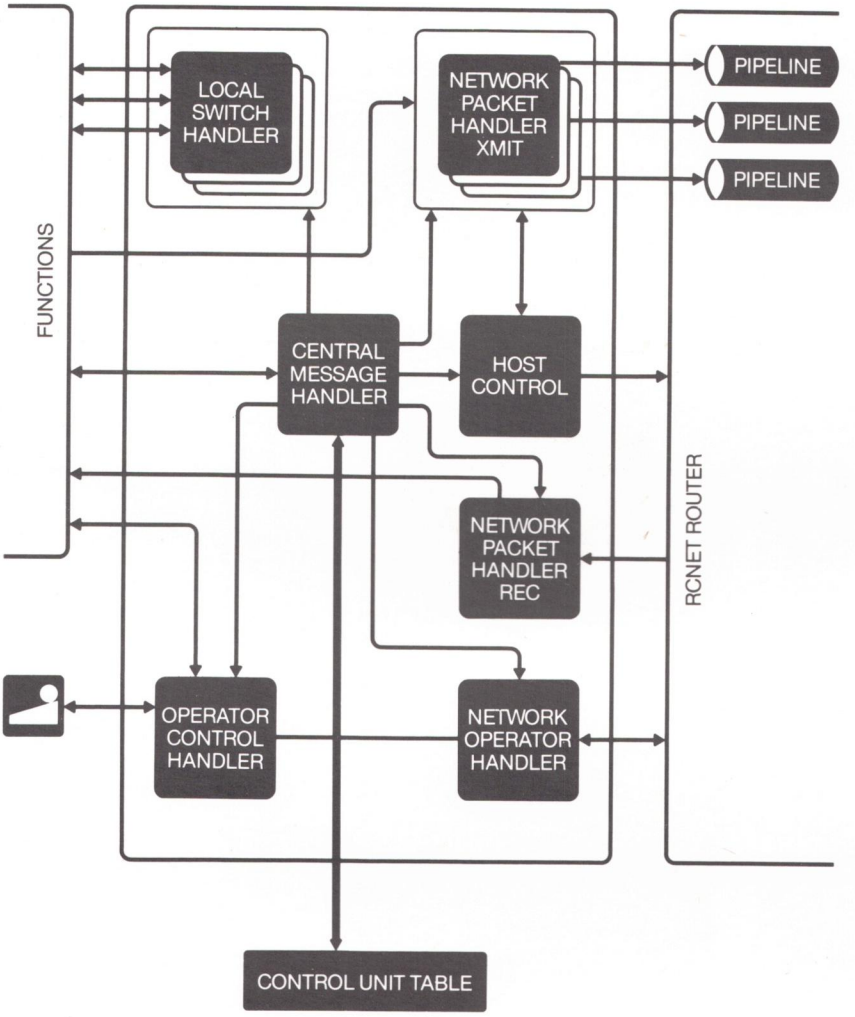
As the ROCS-R module constitutes the layer 4 and 5 in the ISO model for Open System Interconnection, the functions of the module can be separated in the following 4 groups: Peer to peer protocol, user interface, control and management services, and interface requirements to the network level.

Network Interface:
The ROCS-R module interfaces to the RCNET Router Module with the packet transporter option. The Router Module offers an internal MUS I/O interface based on RCNET packet formats. When communicating with other ROCS-R modules the RCNET Packet Transporter is used in order to establish end-to-end control and flow control. The ROCS-R module is connected with an external Host address within RCNET.

Peer to Peer Control.
Only control information for session initiation/termination is exchanged on a peer-to-peer level. The ROCS session-administration service binds the terminals to the Host computers either by means of simple log-on procedures or by already existing paths. Terminals can at any time exclude itself as user by means of log-off or connect itself to any of the Host computers in the system.
To ensure multiplexing of the terminal datastreams the different transactions are identified by means of their position in the system, i.e. node, line, cu, device.
The current contents of the Control Unit table defines the terminal/Host address space.



Internal structure



User Interface:
User programs are called Functions. The interface to ROCS-R is based on internal MUS I/O Interface and only transput messages are used. The messages from a certain Function are identified by its program-id. The program-id is given by ROCS-R when the Function is reserved. Operator messages to a Function are always issued via ROCS-R.

Control and Management Facilities:
The ROCS-R module offers operator message exchange between all stations. Different types of statistic information are available (number of transactions, network overhead etc.). All vital management facilities such as open/close of Control Units, address allocation and performance supervision can only be executed from a master station

Environments/program size
Hardware Requirements: RC38013 CPU, 64Kb or 128 Kb memory, RC822 or RC831 console.
Software Requirements: MUS or DOMUS operation system.
Coroutine monitor CM011 or later versions.
Code procedure module CPM 36-00995.01.
Time
Control Unit table.
Program Size: Up to 8 pipelines: 13.000 bytes.

Documentation
1. RCSL: 43-GL10697 Programmers Reference manual.
2. RCSL: 43-GL10936 ROCS/3270 Operators Reference Manual.
3. RCSL: 43-GL10744 CUTAB Programmers Reference Manual.

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AS REGNECENTRALEN af 1979

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