



Networking Technologies Sector

<http://nts.cti.gr>

Short Description for the OpenRSM system for lightweight remote systems and network management

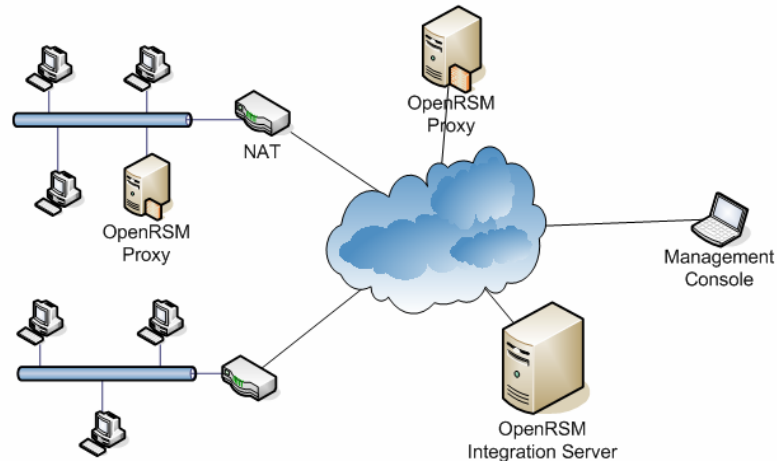
OpenRSM is a lightweight, open source tool for remote management of workstations. It extends and integrates high-value open source projects in order to provide an integrated management platform. The goal has been to build a remote systems and network management platform capable to facilitate daily tasks. The system is designed to be fully functional yet simple, unlike most commercial management systems.

OpenRSM is designed to offer:

- **Inventory and assets management:** information retrieval about installed assets
- **Remote control:** real time control of the graphical environment of the managed stations
- **Software delivery:** management of installed software. Supports user-interactive and silent installations/uninstallation among other
- **Remote procedure call:** sending executable commands to stations
- **Network monitoring:** based on the NINO open source management system
- **Reporting and usage statistics**

The OpenRSM system is composed by the OpenRSM server, the user management interface, and the agents. The management console accepts user input and conveys it to the server. The server is responsible for business logic enforcement and action coordination. The agent is the

passive component that resides on managed stations. It accepts administrative commands from the server alone. The figure below presents the general system architecture.



The system is designed to be adaptable to all installation and network requirements. It is also designed to be multiplatform and multilingual. It is offered to the IT community as open source hosted at <http://openrsm.sourceforge.net>. The server tier is composed of the integration server front-end, the web and the database servers. The servers can be installed in centralized or distributed configurations. OpenRSM proxy modules have also been developed in order to bring control to hidden network segments or to provide management traffic routing. The server communicates with the agents so that no ports are held listening at the agent end. Special networking techniques have been employed for this purpose. Communication is practically agent-initiated and thus agents remain inactive and invulnerable to network scans and attacks. Moreover, only the minimum number of ports are held open. The agent system is released in many flavours; they can be installed as a system service, as a console application, as a background process and as a graphical application. Platforms supported include windows and most *nix platforms. The agent and the OpenRSM server have been tested and proved to scale well for several tens of thousands of jobs.