ESS – Technical Specifications

Technical Notes: Mediaocean client-server software products run on LANs in client offices and connect to data files on the Mediaocean mainframe through a central Mediaocean External System Server (ESS) located at the client site. This briefing outlines general requirements for an ESS client-server environment

General Requirements

Mediaocean client-server applications running on user workstations require access to two shared LAN-based software packages beyond the applications themselves:

- ESS, a Mediaocean-written communications, control and security package
- A database server, to store data so it can be used by the client server applications. Mediaocean applications are compatible with Microsoft® SQL Server™, v6.5

Use of the applications also requires a connection to the mainframe, via an SNA gateway package to enable communications (both LU2 and LU 6.2) between ESS and the mainframe. This requires the installation of Microsoft's SNA Server™ gateway.

What is ESS?

ESS is software created by Mediaocean to perform distributed computing tasks and mainframe-to-LAN data transfer. It is used in the context of Mediaocean's client-server applications (like Tempo or Presto), or in standalone mode (for RDR). ESS is composed of two independent systems: the ESS Application Server and the ESS Extract Server.

ESS Application Server

The ESS Application Server (ESS AS) manages execution of designated tasks on the ESS server on behalf of client applications running on users' PCs. It listens on the network, on a predefined number of ports, waiting for a request issued by an ESS Client (such as Presto) on a user PC. For example, an application might submit a request for data either from the mainframe or from a local SQL database server.

Each request is scheduled by ESS according to its priority and then executed by an ESS AS extension, which is another executable running on the ESS machine under the control of ESS AS. (Among other things, ESS AS monitors how long a request has been running in case the client application has set a timeout value.) On completion of a request the resulting data is transferred from the ESS Extension to ESS, and then from ESS to the client application.

ESS Extract Server

The ESS Extract Server (ESS XS) downloads data from Mediaocean system and updates SQL databases at the client's site. It communicates with a mainframe application called Hostess through an SNA LU6.2 connection (provided by Microsoft SNA Server). Hostess creates extract files that reflect the most recent changes in a predefined system. On a regular schedule, if a new extract file has been created, Hostess sends a notification to ESS XS, which then initializes a data transfer from the mainframe to ESS. When the file download is complete, ESS XS sends an acknowledgment to Hostess and begins the database update.

A single download can target multiple databases on different SQL servers. Information about the databases to be updated is kept on the mainframe by Hostess and sent to ESS along with the data. ESS XS sends an acknowledgment to Hostess after each database update, including an indication of whether or not it was successful.

Both Hostess and ESS XS maintain a log of the order in which files need to be downloaded and processed, to avoid situations where files are sent twice, skipped or sent in the wrong sequence.

Determining a server strategy

ESS and the relational database package require use of one or more dedicated LAN servers. Server strategy is dictated by the users' taste for maximizing reliability of performance versus increased cost.

ESS, SQL Server and SNA Server require the Windows NT™ 4.0 operating system.

The most conservative strategy is to deploy one server (a Host Communications Server) under NT to run both ESS and Microsoft SNA Server. This server should generally be a Pentium PC.

In this strategy a second server (the DB server) is deployed as the SQL server. This server must be robust and sized for (or capable of expansion to) a capacity suitable for the number of potential transactions and users. A multi-processor capable Pentium server is the logical choice.

The more aggressive strategy is to put all the packages -- ESS, SNA Server and SQL Server -- on a single NT box, sized approximately like the DB server.

Finally, the applications themselves must be installed on an existing application file server

LAN Operating System

The LAN Operating System must be a Novell Netware® 3.11+ or Windows NT™ Server. Any 16-bit ESS client applications require IP/IPX protocol between workstations and the ESS server. Thirty-two-bit applications require IP protocol. Mediaocean client-server products are not supported in any other LAN environments.

Remote Support via ESS Monitor

The ESS package includes a utility called ESS Monitor. ESS Monitor logs commands submitted to ESS, providing clients with a way to audit ESS activity. ESS Monitor also gives Mediaocean technical staff the ability to interpret what is happening on your ESS LAN remotely from Mediaocean in order to provide technical support. This capability is solely for use in providing ESS support.

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