

Features

Standalone operation independent from the production system, providing an offline solution

Support for legacy code download and up to 20 code objects in a code download package

GUI-configurable IP address of each downstream device as Unicast, Multicast, or Broadcast IP address types

Support for UDP/IP transport for each downstream device

GUI-based configuration of data rate from 1 Kbps to 200 Kbps for each active carousel

Automatic repeat of segment 0 to improve acquisition times on legacy set-top models

Cache storage of up to 800 MB of code objects

GUI start/stop of all or individual carousels

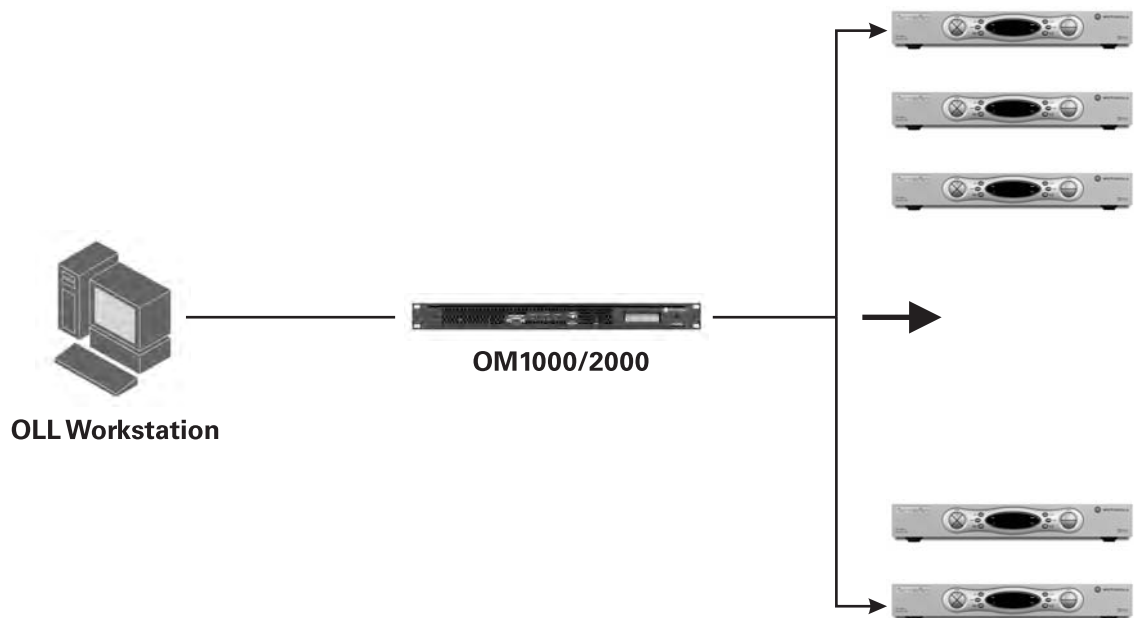
GUI-based staging of code download packages and viewing of all cached CDL packages

Support for both RF and Ethernet return set-tops

The Motorola Offline Loader OLL1000 is a specialized carousel server that provides the capability to rapidly load numerous code objects on various set-top box types in a warehouse environment or other staging area independent of the production system. The OLL1000 uses broadcast functions to clear stale code and/or configure mixed set-top types, so that no individual set-top addressing/configuration is required.

The OLL1000 provides the warehouse with more control over code suites. It does so by keeping the loading independent, which has the added benefit of pre-loading set-tops in anticipation of planned code upgrades to support field installations on the day of the code upgrade. It is possible to create the code assignments for the new code a day or two in advance, providing the warehouse with more control over the code suites being pre-loaded.

As shown in the figure below, the OLL1000 system consists of an OLL server, an OM1000/2000, and a population of set-tops. The OLL provides a canned OOB transport stream, necessary configuration messages, code download control messages, and a DCII-compliant code download object carousel to allow a set-top or host to download the desired suite of code objects for a particular warehouse or region.



DATA SHEET

OLL1000

Example Performance Expectations

> 5 MB of code objects in
< 5 minutes, compared
with 20-40 minutes on a
production system (depending
on bandwidth allocation)

Spin more than 20 MB of
code objects; spin more than
10 code suites

Hardware Operating Environment

Server Platform: Sun Fire
X2250

CPU: 2 GHz

Memory: 4 GB

Hard Drive: 250 GB SATA
internal HDD

ROM Drive: DVD ROM drive

Display: 17-inch LCD monitor

Software and Operating Environment

Operating System: SUSE
Linux Enterprise Server 10
SP2

Motorola Software
Application: OLL1000

Benefits

- Supports standalone operation
 - Frees up bandwidth on the production system
 - Greater flexibility without risk of interaction with the production system
 - Enhanced security, isolation, and hardening
- Enables rapid deployment
 - Pre-configured installation CD minimizes required setup
 - Automatically stages content/commands for transmission
 - Reduced home installation time
 - Flexible control via drag and drop of code suite message infrastructure generation
- Simplifies downloading
 - Enhanced tools minimize manual steps and support flexible download configurations
 - Easy configuration and pre-provisioning of set-tops / hosts that use the legacy OOB
- Improves download performance
 - Leverages bandwidth of dedicated OOB
 - Allows downloads at high bitrates
 - Improves acquisition time on legacy set-tops
 - More control over pre-loaded code suite
- Reduces deployment cost and time

Downloading Code Objects

The Motorola OLL1000 provides the following to enable an RF or Ethernet set-top/host to download the suite of code objects for a particular warehouse or region.

- Canned OOB transport stream
- Configuration messages
- Code download control messages
- A DCII-compliant code download object carousel

Concept of Operations

- Canned out-of-band with built-in support for 20 background services
- Pre-configured carousels supporting:
 - Canned OOB (PID 0, 1, PMT, Network, EMM)
 - Download control commands
 - Initialization and cold-initialization commands
 - Up to 20 code/data objects
- Definition of Download Packages via drag and drop of code/data objects into a pre-defined directory structure
 - Highly simplified download control command syntax
 - Highly flexible download configurations with optional configuration file settings
 - Download control messaging support on EMM and background service PIDs
- Execution of package preparation/staging tools via double-click
 - Auto-generation of CDG compatible XML
 - Manual override of auto-generated XML
- Optional cold-initialization of set-tops prior to downloading
 - Useful for clearing previously fielded set-tops
- Optional warm-reset of set-tops when download completes
 - Provides indication to operator without having to monitor serial port output or OSD
- Optional initialization of set-tops after downloading
 - Useful for clearing set-top configurations prior to fielding