

AlbumDirect™ Trial Technical Fact Sheet

Digital Rights Management System:

IBM's Electronic Music Management System (EMMS) is the digital rights management (DRM) system used in the AlbumDirect trial. EMMS's end-to-end offerings specify how creative works are prepared, distributed over open networks, licensed to consumer devices in both connected and disconnected environments, and protected against unauthorized copying or use.

EMMS Elements:

- **Content Preparation:** The five music companies participating in the AlbumDirect trial – BMG Entertainment, EMI Music, Sony Music Entertainment, Universal Music Group and Warner Music Group – used the EMMS Content Preparation Application at their mastering studios to prepare music and promotional materials to be used in the trial. Music companies were able to specify content usage conditions such as, but not limited to, the number of copies permitted for download, availability dates and usage periods, ability to offer custom compilation, and content compression rates. In addition, EMMS's encryption and secure container technology protected the digital content against unauthorized interception or modification as it was transferred over open networks to the content hosting facility and, ultimately, to the consumer.
- **Content Hosting:** Encrypted albums and songs were then stored at an EMMS content hosting facility at the Road Runner headend facility in San Diego. The content host was connected to the Road Runner infrastructure using standard Internet protocols and served content to test participants in both San Diego and Portland, Maine. As the content host was located in San Diego, participants in Portland were added to evaluate music delivery via connectivity that partially relied upon open Internet distribution.
- **Clearinghouse:** The EMMS Clearinghouse provided a trusted custodian for rights management, transaction reporting for royalty payment, and financial clearing. As each consumer transaction was authorized by the Clearinghouse, appropriate information was sent to the consumer to unlock the downloaded music.
- **Retail Software:** An EMMS Electronic Music Store Application enabled the AlbumDirect on-line store to use the promotional secure containers created in the mastering process and build its own retail offering based on rights granted by the content owners. The EMMS application also provided a customer service function, enabling the store to track the electronic content transactions
- **Client Software:** The AlbumDirect player allowed the consumer to download music, manage the acquired music library, control the permitted interaction with CD-R devices, and listen to the music in a secure environment. Participants could download both singles and albums, print cover art and liner notes, and link to artist-related Web sites for which the URLs were transferred during a download as part of the metadata that describes each album/song.

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