The ARRIS CherryPicker Application Platform (CAP-1000) is an advanced, IP-centric, high-density multiplexor designed to give video service providers unparalleled efficiency and flexibility in managing and localizing video streams, with full redundancy. The CAP-1000 is a highly-programmable device that can support evolving technical standards and emerging application needs through simple software upgrades, allowing customers to realize continuous returns on their initial capital investment.

The CAP-1000 performs three primary functions: grooming, rate shaping, and digital program insertion (DPI), for both MPEG-2 and MPEG-4 streams. Additional features include: program and MUX redundancy, time stamping (dejitter), PSIP creation, Slate insertion, SCTE-18 EAS switching, CALM audio leveling, BISS encryption/decryption, and advanced MUX 3.0 EBIF processing and filtering.

Based on the Emmy® award winning CherryPicker technology and algorithms, the CAP-1000 operates with carrier-class reliability, and features massive processing power to handle up to 1.44Gbps of aggregate video stream throughput.
The advanced hardware design includes a passive chassis with field-replaceable (FRU) I/O and processing cards, dual hot-swappable power supplies (AC, DC, mixed), dual hot-swappable speed-varying fan trays, optional ASI I/O cards (up to 8 ports), and 1:1 and N:1 redundancy options, all in a space and power-saving 1RU (rack unit) enclosure.

10+ Years of Innovation and Performance
Inherits over 80 percent of the software from the Emmy® award winning CherryPicker product line, which translates into interoperability and operational ease of use.

Feature-Rich
Software-based DSP technology enables ongoing feature development.

MPEG-2 and MPEG-4 Processing in a Single Chassis
Process both MPEG-2 and MPEG-4 concurrently in the same chassis, even within the same MUX.

Exceptional Bandwidth
Up to 1.44 Gbps aggregate video stream throughput in a small 1RU chassis.

Carrier-Class Reliability
Redundant dual hot-swappable power supplies (can run on a single supply), dual hot-swappable speed-varying fan trays, and all field-replaceable input/output and processing cards.

CherryPicker Redundancy (CPR) / Advanced System Level Redundancy
Offering both 1:1 and N:1 (max 4:1) modes, CPR provides advanced high-performance hardware redundancy. Features include the use of Virtual IP (VIP) addressing to keep DPI operational even during failover, and ability to customize both monitoring and failback operations. In 1:1 mode failover times are less than 100msec.

Advanced BISS Encryption/Decryption Options
Support for both BISS encryption/send and decryption/receive applications. Three modes are supported:
1. BISS-0 – no scrambling
2. BISS-1 – video services are scrambled (encrypted) using a session word
3. BISS-E – similar to BISS-1, plus session word is encrypted using BISS-injected ID as the encryption key to avoid sending a session word through the network unencrypted
CAP-1000

GENERAL SPECIFICATIONS

Extensive Interoperability
MPEG-2 and MPEG-4
MPTS and SPTS
Ethernet I/O (standard) and ASI (optional)
Unicast and Multicast ARP, ICMP, IGMPv3 over UDP / IP / RTP
QoS and VLAN tagging IEEE 802.1p, 802.1q

Seamless Program Splicing and Switching
High-reliability SD and HD digital program insertion (DPI)
SCTE 35 and 30 standards

Comprehensive Re-Multiplexing
Synchronization of video, audio, and data
PID filtering and remapping
PCR de-jittering and restamping
PAT and PMT creation and management
Data PID insertion

Advanced Stream Processing
CBR to VBR conversion
VBR to CBR conversion (rate clamped VBR)
Bitrated conversion CBR to CBR, VBR to VBR
SD/HD rateshaping
Grooming, regrooming, time-based switching

Flexible Management /Control and Monitoring
2 RJ-45 10/100Mbps management ports. Bonded pair with single gateway and IP
Management access through all GbE ports (and ability to restrict management functions on all ports for security)
4PAC serial console maintenance port
Full Java-based GUI
RADIUS
Extensive SNMP Traps and status
XML configuration files for both input and output
Local and remote logging capability

DEPLOYMENT SERVICES

Part Number | Services Description
---|---
476666-087-00 | CherryPicker CAP-1000 Onsite Configuration
476666-153-00 | CherryPicker CAP-1000 Remote Configuration

TRAINING

Part Number | Training Description
---|---
559890-001-00 | This two-day instructor-led class gives participants the opportunity to perform CAP-1000 configuration procedures in a lab environment. Located in Horsham, PA. Onsite training is also available.

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