

TRANSCODING – MST

The Sansay MST - media server for transcoding - converts media encoding of IP-based audio and video traffic for VoIP service providers.

The MST functions as a transcoding subsystem for Sansay VSXI session controllers.

Service providers have the option to deploy the MST as a dedicated media resource or combined on the same hardware as the VSXI session controller.

Service Provider Benefits

International Wholesale:

- Add routes and new traffic that require G.729 / G.723 - G.711 transcoding

Retail & US Wholesale:

- Improve call quality via echo cancellation, p-time normalization, & latency reduction

Cellular:

- More flexible transcoding of iLBC, AMR, & G.722.2 / AMR-WB for off-net call termination

Wireless Broadband & WebRTC:

- Add new services & call resilience using advanced codecs designed for OTT service delivery

Value Added Applications:

- Reduce dropped calls and failed call setups with fixes for G.711 - T.38 Fax termination and DTMF detection (RFC2833 to SIP INFO method interop)
- Increase security via SRTP media encryption and generate QoS statistics for improved network troubleshooting
- Improve support for video calling and video conferencing services with H.263 and H.264 transcoding

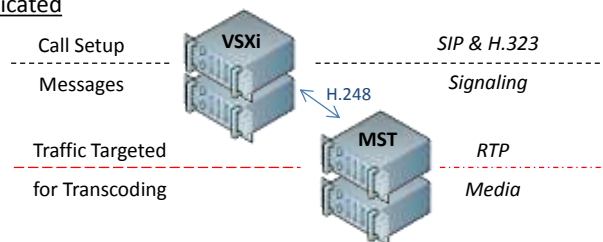
Product Description

The MST is primarily delivered as a rack-mounted 1U appliance and supports up to 2000 sessions per node. Transcoding is performed by specialized digital signaling processor (DSP) resources.

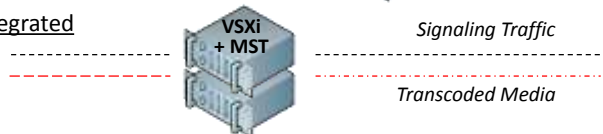
The VSXi directs traffic for transcoding to the MST using H.248. Traffic is load-balanced across a pool of MST nodes. Redundancy is handled via n+1 pooling.

Transcoding is licensed by simultaneous active sessions. The license can be distributed across a pool of MST nodes, enabling better transcoding support for localized bursts, follow-the-sun traffic patterns, and geographic redundancy.

Dedicated



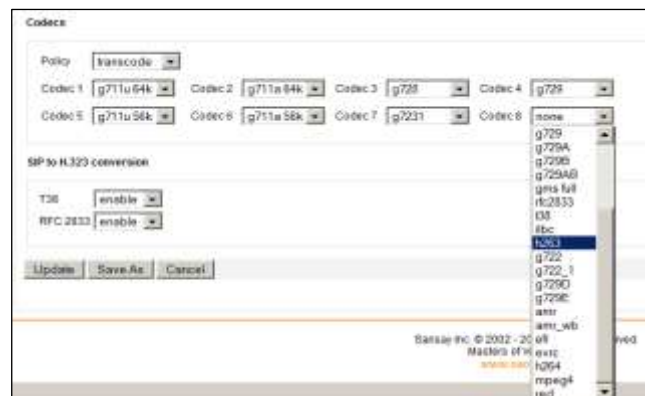
Integrated



Above: MST offers flexible configuration options

Simple to Operate

MST setup and operation is managed using an intuitive graphical user interface (GUI). Transcoding is associated with specific trunk ID (TID). Codecs are selected using a drop-down selection.



Above: Codec selection using a drop-down menu

Intelligent and Flexible Traffic Handling

MST configurations support a wide range of traffic management approaches and networking requirements. The MST includes intelligence and configuration flexibility consistent with Sansay's deep expertise in session control and RTP media handling.

Deployed with Sansay's VSXi session controller, the MST offers the following traffic handling advantages to service providers:

- Transcodes only targeted traffic to optimize the use of transcoding resources & ports
- Maintains "state" on the media and provides traffic characteristics via CDR output
- Offers options to minimize network hops and traffic hair-pinning

Bulk / Automated Provisioning

In addition to the GUI for configuration changes, the MST can be configured / provisioned via API using SOAP / XML.

Wholesale HD Voice Services

With the increasing number of HD-capable devices, demand is growing for interconnects that support HD traffic between retail operators. The MST represents a straightforward means for VoIP service providers to add HD voice services and routes to their existing wholesale services.

Compression for SIP Trunking

SIP trunking represents the standard for business voice connectivity. The MST enables service providers to offer greater channel density and improved QoS resilience for the delivery of services to communications CPE

QoS Monitoring

The MST can be configured to monitor traffic for key QoS properties. Using the same trunk group assignment process used for transcoding configurations, select media traffic is directed to the MST for the detection of delay, jitter, and packet loss.

Specifications

Audio Encoders:

G.711u64K	G.711u56K	G.711a64K	G.711a56K
G.729	G.729A	G.729B	G.729AB
G.729D	G.729E	G.723.1	G.728
G.722	G.722.1	EVRC	iLBC
AMR	AMR-WB	GSM-FR	GSM-EFR
SILK*	OPUS*		

Video & Audio / Video Encoders:

H.263	H.264	MPEG4	REDCODE
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Additional Encoders:

T.38: Fax	RFC 2833: DTMF MTP
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Licensing:

1U delivers up to 2000 concurrent transcoding sessions**
All codecs fully indemnified – no additional fees required

Interoperability (including but not limited to):

Session Border Controllers: Acme Packet, Sonus, Dialogic, Genband (NexTone), Mera (ALOE), Metaswitch, Sonus

Media Gateways: Cisco, Audiocodes, Dialogic, TelcoBridges, Huawei

Billing Systems: APEX, Fastlink, BillCall, Oculeus, OptimalPath, Orcawave Teledynamicx, MCL, WebCDR, RiverRock Systems, Logisense

Power and Physical:

19 inch rack mountable
1U server
300W, 25 lbs
Universal AC / Autoswitched

Certifications:

FCC: Part 15, Class A, UL 1950, CSA 950, CE EN60950
CISPR 22/EN55022, NEBS GR-63, GR-1089
ETSI 300 386, 300 019, 753

*Available via firmware upgrade

**Actual capacity determined via codec & application info

Summary

The MST is a straightforward addition for VSXi operators to add transcoding. Please contact Sansay at sales@sansy.com to learn more about added networking capabilities, specialty use cases, a walk through of the management portal, and how quickly transcoding is added to VSXi networks.