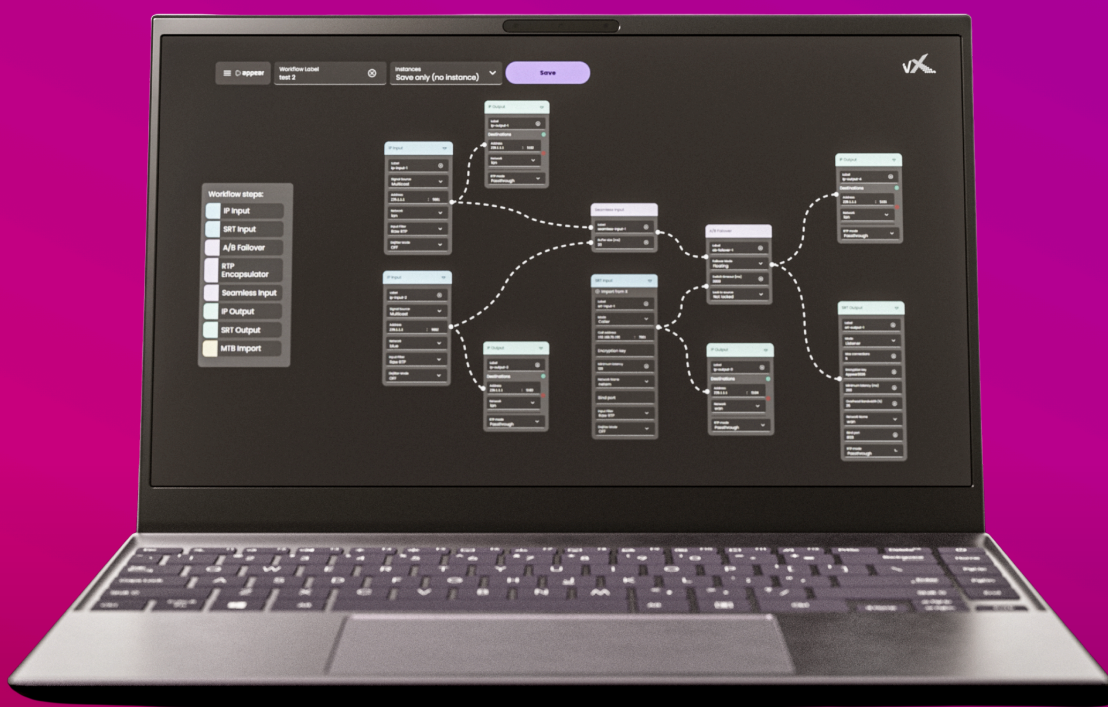




Technical Specifications

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Overview

VX is Appear's software-defined media processing platform for next-generation live IP production. It is built to give broadcasters cloud-scale flexibility without giving up the reliability, resilience, and low-latency behavior that live broadcast demands. VX is designed to complement Appear's X hardware infrastructure, creating a unified hybrid operating model across ground, cloud, datacentre, and event-side compute.

Key Benefits

Broadcast-grade resilience Supports SMPTE ST 2022-7 seamless protection, A/B failover, isolated workflow steps, and a resilience model designed for high-value live operations.	Advanced transport gateway Delivers SRT and UDP/RTP connectivity with de-jitter tools, monitoring, caller/listener modes, and high-bandwidth contribution support.
Workflow-based control Visual workflow editor plus extensive JSON-RPC API for static and dynamic workflow creation.	Deep observability Built-in Prometheus & Grafana monitoring, live flow views, & alarms at system, workflow, & workflow-step level.
Hybrid deployment model Runs on physical servers, virtual machines, and public cloud infrastructure using the same software stack.	Designed to grow Architecture extends naturally from gateway functions into future media processing and live production capabilities.

Platform Specs

Inputs	Transport stream, UDP/RTP, SRT.
Processing and Control	Seamless input ST 2022-7, A/B failover, IAT monitoring, workflow-level routing, MTB import, RTP encapsulation.
Outputs	Transport stream, UDP/RTP, SRT.

Monitoring	Prometheus and Grafana, TS and SRT status, connection status and bitrate, SRT RTT / retransmissions / lost packets, seamless sync status, A/B failover status, IAT, and system status. UI based live monitoring of workflow status.
User Management	Local users and groups, Admin/User/Viewer/Metrics roles, Azure AD / Microsoft Entra SSO.
Security	Certificates securing API, web UI, and data between VX processes; secure platform and secure connections are a core design principle.

Transport Gateway

UDP/RTP input and output	Multicast or unicast UDP/RTP, MPEG transport stream or raw RTP filtering, RTP passthrough, de-jittering, and output linearization support.
Advanced SRT	Appear-built Advanced SRT derived from X platform development, built for high-bandwidth contribution up to 840 Mb/s per stream, with caller and listener mode, multi-caller listener support, AES encryption, and de-jitter tools.
Signal resilience	Seamless protection for ST 2022-7 paths plus configurable A/B failover in floating or reverting modes.
Workflow reuse	MTB import allows workflows to source streams from other workflows for routing and distribution.

Operations

Workflow-level alarms, licensing visibility, live monitoring, and machine-readable workflow state.

Use Cases

Contribution into cloud

Complete the ground-to-cloud and cloud-to-ground story with Appear-controlled software transport.

Cloud remote production

Build flexible workflows around event-driven compute, local resilience, and monitored transport paths.

Primary distribution

Create resilient distribution and affiliate delivery workflows with monitored ingress and egress points.

Cloud MCR

Route, distribute, monitor, and protect streams in a software-defined MCR environment.

Global connectivity

Use local SRT and long-haul cloud infrastructure to reduce latency and improve resilience.

Redundant infrastructures

Design single-source, dual-source, and fully resilient transport architectures around VX.

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