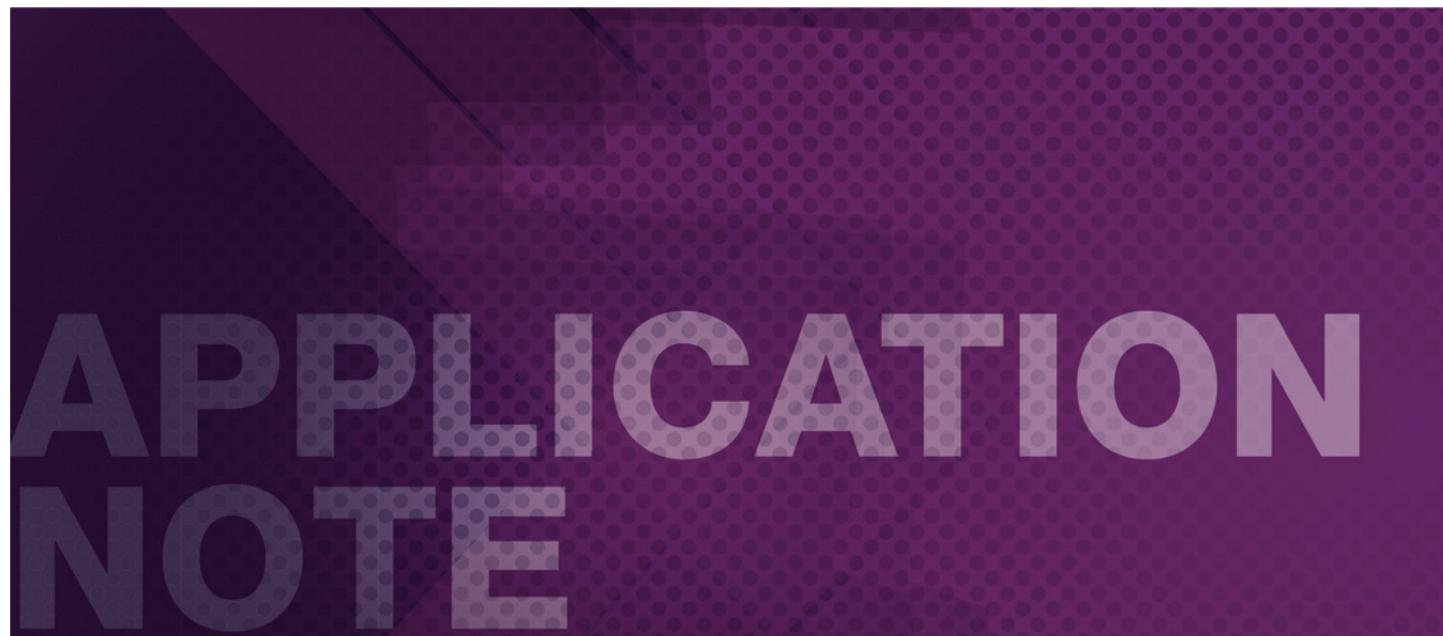




GV STRATUS and Aspera FASP Integration

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The unified GV STRATUS and Aspera FASP solution helps media organizations operate and collaborate more effectively on a global scale. Users will benefit from a considerably faster file exchange with a secure delivery protocol, achieve real-time collaboration among geographically distributed teams, reduce production cycles and get programming to air at a fraction of the time.

Introduction

Today's global digital media environment demands the ability to move large data over standard public and private IP networks at maximum speed, regardless of the size of the files, the distance between locations and the conditions of the network. Connecting geographically distributed facilities, individuals, teams and cloud-based platforms requires a high-performance digital transport that enables efficient sharing of data, enhances collaboration, improves utilization of resources and accelerates media production workflows.

Inherent to Grass Valley's ongoing commitment to provide industry-open platforms, Grass Valley, a Belden Brand, has collaborated with Aspera, an IBM company, on inclusion of their patented Fast Adaptive and Secure Protocol (FASP) transport technology into the GV STRATUS workflows. As a result, the GV STRATUS platform offers dramatic improvements in how digital media is transferred to and from the GV STRATUS-based production platform, with FASP file transfers achieving speeds that are up to hundreds of times faster than conventional TCP-based technologies. All the while, the FASP protocol ensures a guaranteed delivery time regardless of file size, transfer distance or network conditions.

Benefits

Aspera's FASP transport technology is the de facto standard for the high-speed movement of large files or large collections of files over wide area networks (WANs), without the delays and risks of shipping physical media across the world, and going far beyond the speed, reliability and security limitations of TCP-based technologies such as FTP and HTTP. The integration of Aspera's FASP transfer technology on the GV STRATUS platform enables fast and secure content import and export so that users can have their productions running quickly and more reliably than ever before.

service providers resulting in shortened production cycles for more efficient creation, distribution and monetization of media content.

Using GV STRATUS' RESTful Web API, Aspera's FASP technology adds the capability to transport files and associated metadata at maximum network speeds. This high-speed file transfer can take place from remote locations or field producers to a centralized facility comprised of GV STRATUS production, content and asset management tools and K2 media servers and storage systems. Similarly, GV STRATUS users can export content with its metadata to outside destinations, or send files to remote GV STRATUS sites via the FASP transfer protocol.

Easy-to-create, flexible GV STRATUS workflow rules leverage the FASP protocol, allowing for faster, more reliable and secure transfer of video files and metadata between broadcasters, content owners and

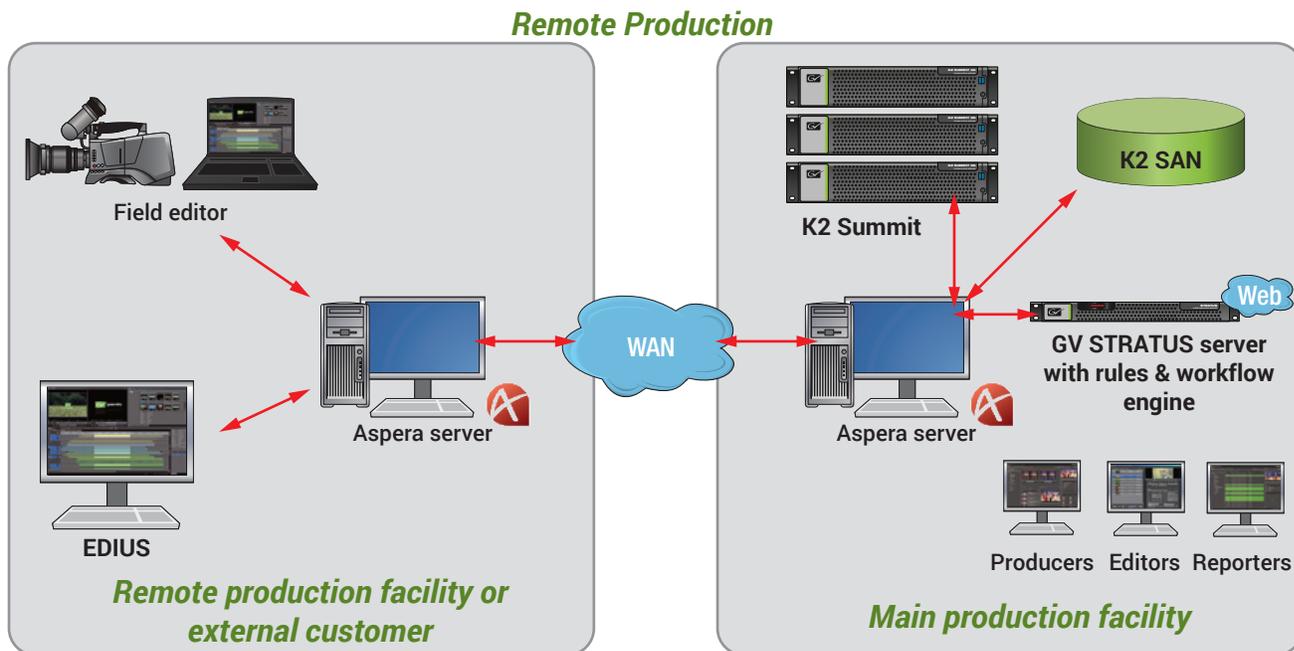


Figure 1: Remote production with FASP file transfer.

Workflows

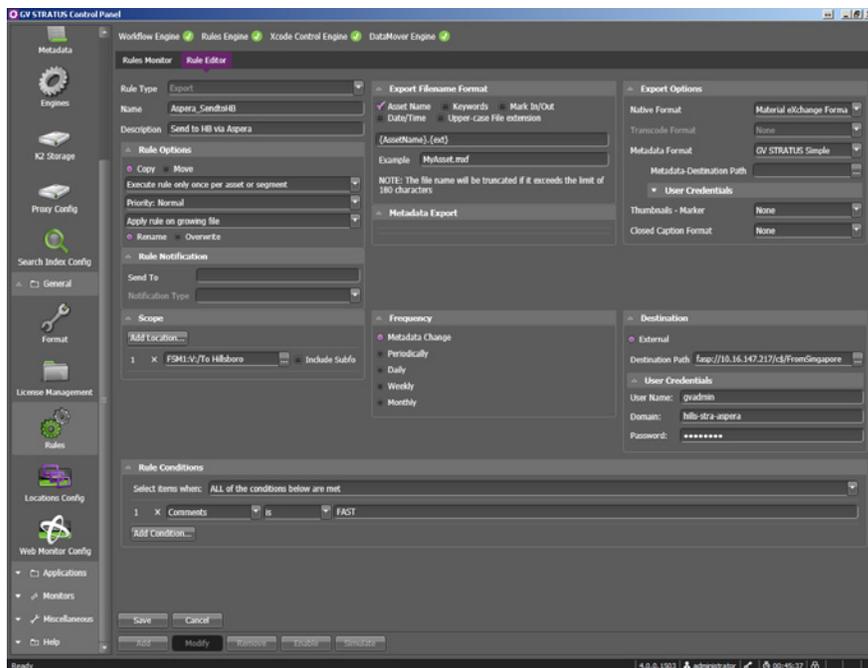
Aspera's FASP integration with GV STRATUS powers efficient transport of high-resolution media and associated metadata between remote locations connected via a wide area network (WAN).

Aspera servers are required at each remote location where media exchange and collaboration is required. The following steps explain the one-time setup process, usually completed by system administrators, and transparent to the end users. Effectively, the workflow employs GV STRATUS export or import rules that can be triggered by a variety of conditions, such as a user modifying a metadata field.

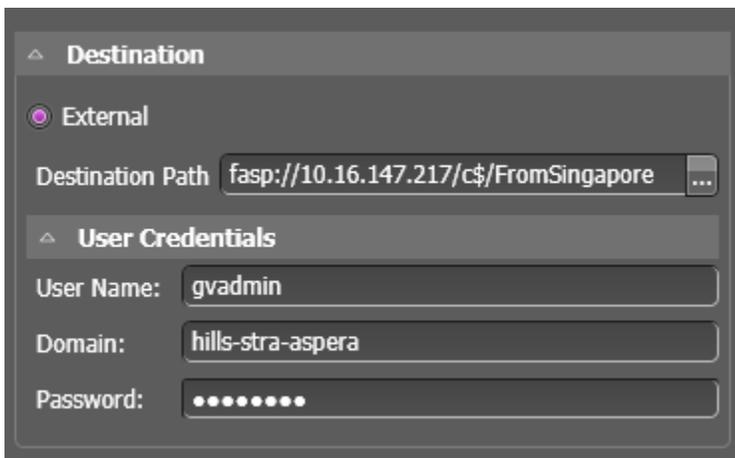
Exporting Content from GV STRATUS to a Remote Location

Let us take the example of a user who may need to push content from the central production facility to remote locations via a WAN. In one such scenario, a news producer sends camera rushes of an exclusive story to selected affiliate stations, so that they can create their own edited packages. In another scenario, the producer of a documentary series transfers the final high-resolution cut to a client.

For these types of applications, all that needs to be set up is a GV STRATUS export workflow rule. Within the Control Panel, administrative users have the flexibility to specify export rules (with or without transcoding) based on different combinations of filenames, export locations, export destinations, as well as specific metadata values.



This type of workflow rule is no different from GV STRATUS export rules created to export media to external destinations for access by third-party software, or to a Content Management System for web publishing. The only difference is the “External Destination” section, which should indicate “FASP” as the protocol to be used, as well as specify the IP address of the target Aspera server at the remote location.



Once an export rule has been set up, users can trigger the export procedure as they progress through their workflows using the GV STRATUS production tools — for instance, by modifying a metadata field or dragging and dropping assets they need to send on to a specific folder. Users can select to send the entire clip, or only a portion of it to be sent. Multiple assets can be sent in a single step.

Once the workflow rule is triggered, GV STRATUS will save the video files and any associated metadata at a location that the Aspera server can access. From there, the network transfer will take place from the source site to the remote site, such as from “Singapore” to “London” in Figure 2. Using the distance and network-independent FASP transfer technology with end-to-end security and exceptional bandwidth control, the file typically reaches the remote destination up to 10-100 times faster than standard TCP-based transfers. This can radically speed up traditional production cycles and allows media enterprise to produce more valuable content while better utilizing existing resources.

For full details on the set up and parameters of GV STRATUS export rules, please consult Grass Valley’s “GV STRATUS Digital Publishing Workflows” application note or the “GV STRATUS Topic Library.”



Figure 2: Drop-down metadata field allows the user to choose the remote destination.

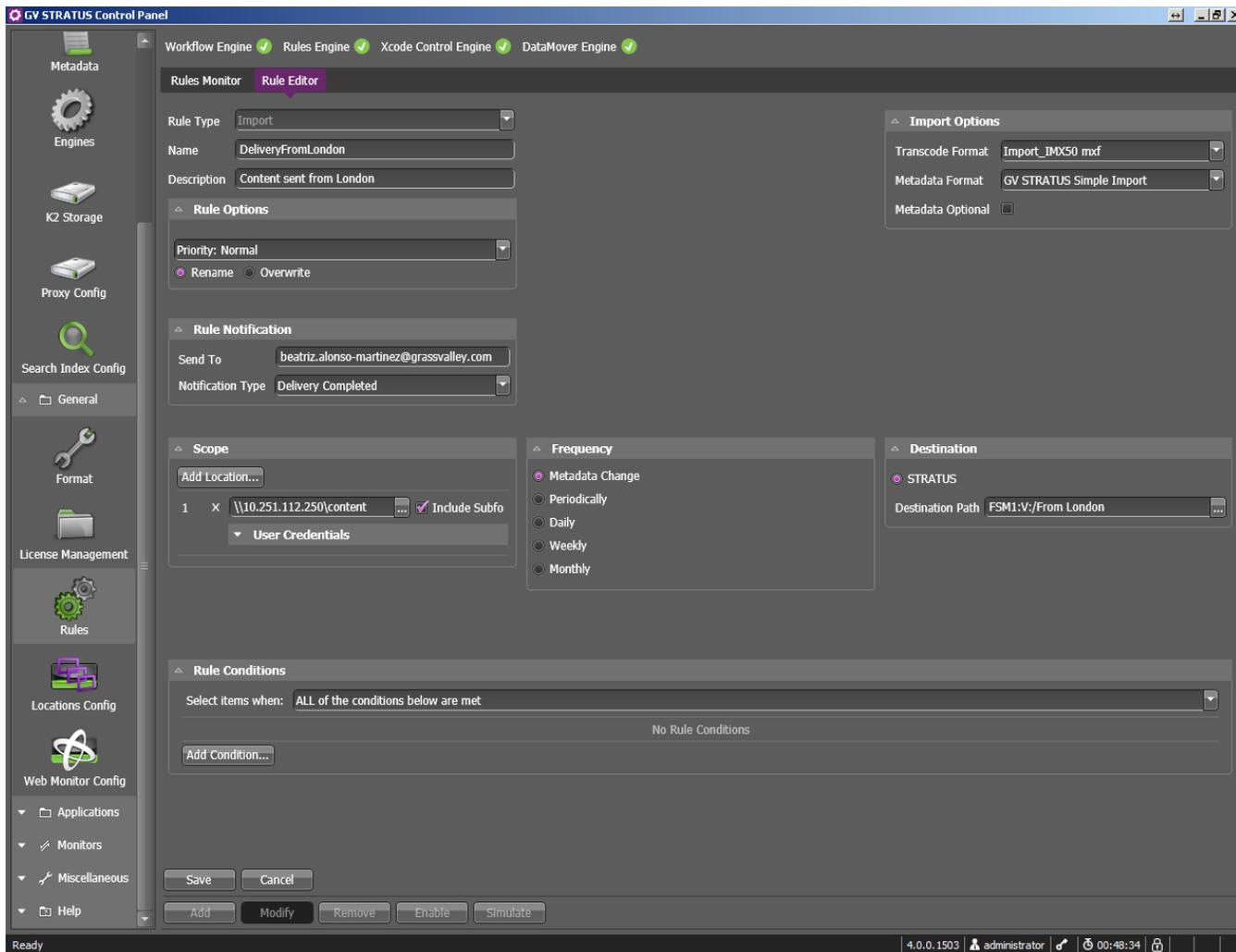
Importing Content from a Remote Location to GV STRATUS

Let us look at the reverse workflow, whereby a field crew, a freelance editor or a remote client needs to send raw footage, finished edits, promos, bumper material, etc. to the production facility. Again, with an Aspera server at the source location, files can be transferred at high speed and delivered to a server location watched by the GV STRATUS system for the arrival of new media material.

With the relevant configuration, a GV STRATUS import rule can be set up to watch such location and import new video files immediately upon arrival. If necessary, the material can be transcoded by

GV STRATUS transcode engine's integration with a third-party transcoder, before getting imported to the K2 storage. Multiple import rules can be set up with different conditions, so that different types of content are imported to specific locations on the K2 server. For example, sports and news material would be imported to their corresponding bins. Any accompanying metadata can also be imported into the GV STRATUS system.

For more detailed and complete information on setting up GV STRATUS Import rules, consult Grass Valley's application note "Using GV STRATUS Import Rules to Effectively Manage External Content Ingest" or the "GV STRATUS Configuration Topic Library".



GV STRATUS Multisite Workflows

GV STRATUS integration with Aspera FASP is particularly beneficial for those users who have multiple production facilities, all with a GV STRATUS/K2 system, and interconnected with GV STRATUS multisite capability. This allows users to search and browse content between locations, preview proxy video, and push/pull content between sites according to applicable user permissions. With an Aspera server deployed at each participating site, remote sites can efficiently exchange large amounts of media over the FASP high-speed file transfer protocol, fully utilizing the available interconnecting infrastructure bandwidth.

Multiple files can be queued up to be transferred over a given period of time. For example, a producer in New Jersey may want to push

a number of edited packages and/or rushes to Singapore, ready for their morning show. They can simply send the content using a meta-data checkbox, or a drop-down field as shown above, and queue up the material for overnight transmission. When the producer of the Singapore morning show logs on to their GV STRATUS terminal, they can quickly navigate to the GV STRATUS/K2 import bins, and review the content that has been sent by their counterpart in the U.S.

Equally, the Singapore producers can push content and metadata to a London facility, in time for their morning news, simply using GV STRATUS workflow rules and their Aspera servers. The export rules can be automated in such a way that, for example, all finished packages are transferred automatically between sites (e.g., everything that is saved to the “On Air” folder).

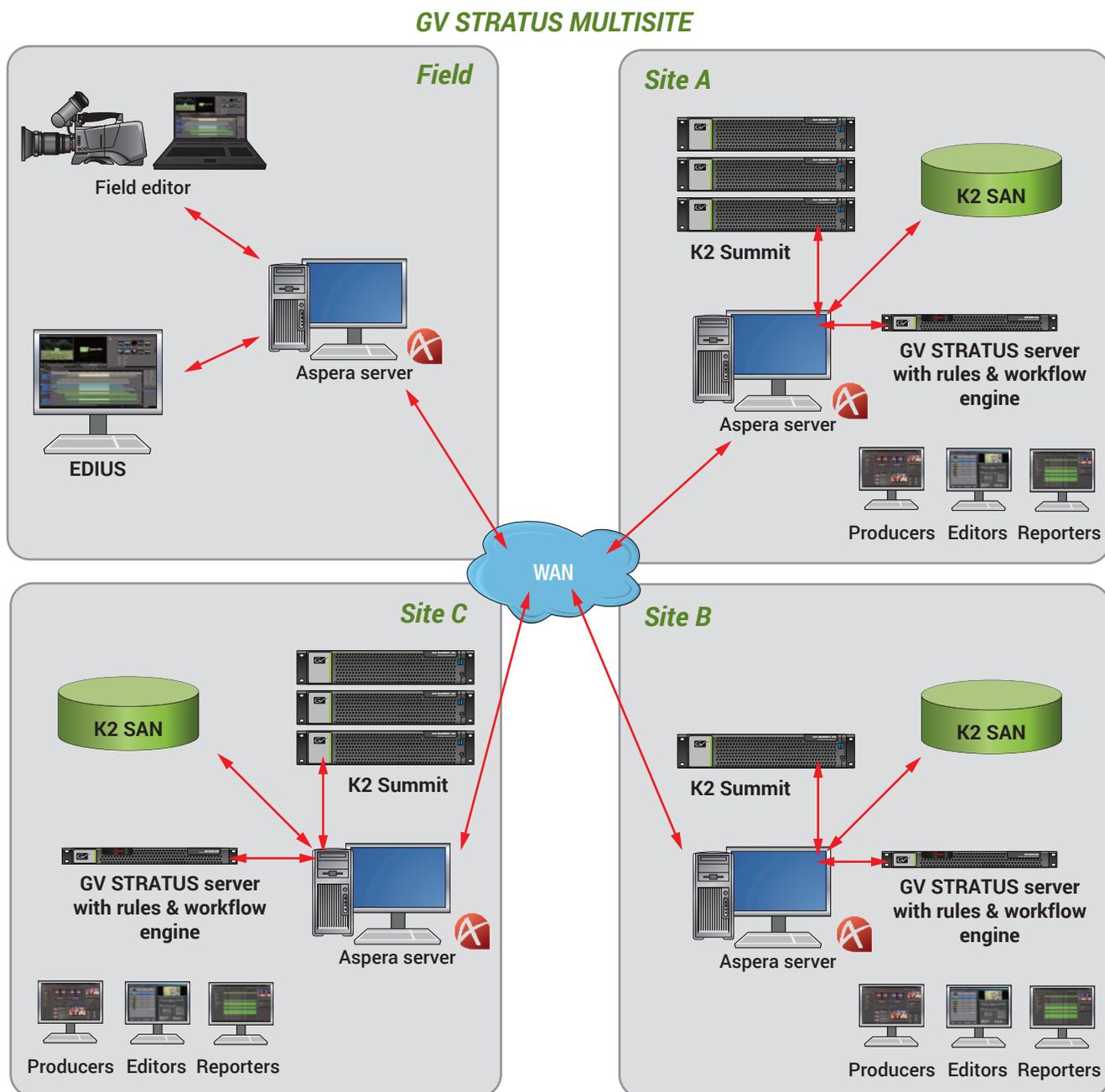


Figure 3: GV STRATUS multisite with FASP file transfer.

Summary

The unified GV STRATUS and Aspera FASP solution helps media organizations operate and collaborate more effectively on a global scale. Users will benefit from a considerably faster file exchange with a secure delivery protocol, achieve real-time collaboration among geographically distributed teams, reduce production cycles and get programming to air at a fraction of the time.

The FASP based high-speed file transfer is applicable to a broad range of workflows, including file transfers between multiple geographically dispersed user groups, multisite locations, remote editing stations and field crews. The GV STRATUS/Aspera framework can be implemented across production centers, news operations, live production, post-production and archive operations, enhancing collaboration and optimizing the use of existing assets.

References

- Aspera and GV STRATUS joint partner solution www.asperasoft.com
- GV STRATUS User and Configuration Manual
- GV STRATUS Digital Publishing Workflows Application Note
- Using GV STRATUS Import Rules to Effectively Manage External Content Ingest Application Note



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