

Students in the Cloud

Creating a Service for Event-Based Processing

Three student interns worked this past summer under the supervision of ASF DAAC engineers to create infrastructure for a cloud-based service that processes synthetic aperture radar (SAR) data and images. "You place an order, and a virtual machine hands the result back to you," says ASF Software Engineer Kirk Hogenson.

The students dubbed the service the Hybrid Pluggable Processing Pipeline (HyP3). "The students worked on what is basically a generic, cloud-based way to do event-based processing," says Hogenson. "It opens up a lot of possibilities for ASF. It isn't just about adding new products; ASF could use a system like HyP3 to do our own internal processing."

In the future, a user interested in an event — for example, the recent New Zealand earthquake — could select an area of interest on the service's map, select an interferometric (InSAR) product, and a virtual machine in the cloud would do the processing.

HyP3 is one of many potential ways that ASF may offer cloud services as ASF explores the promise of the cloud. ASF will present posters on cloud-based processing (</news-notes/2016-fall/asf-at-agu/>), including HyP3, at the December 2016 American Geophysical Union (AGU) meeting.



Student interns created this prototype while working with ASF engineers on cloud processing of SAR data.



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