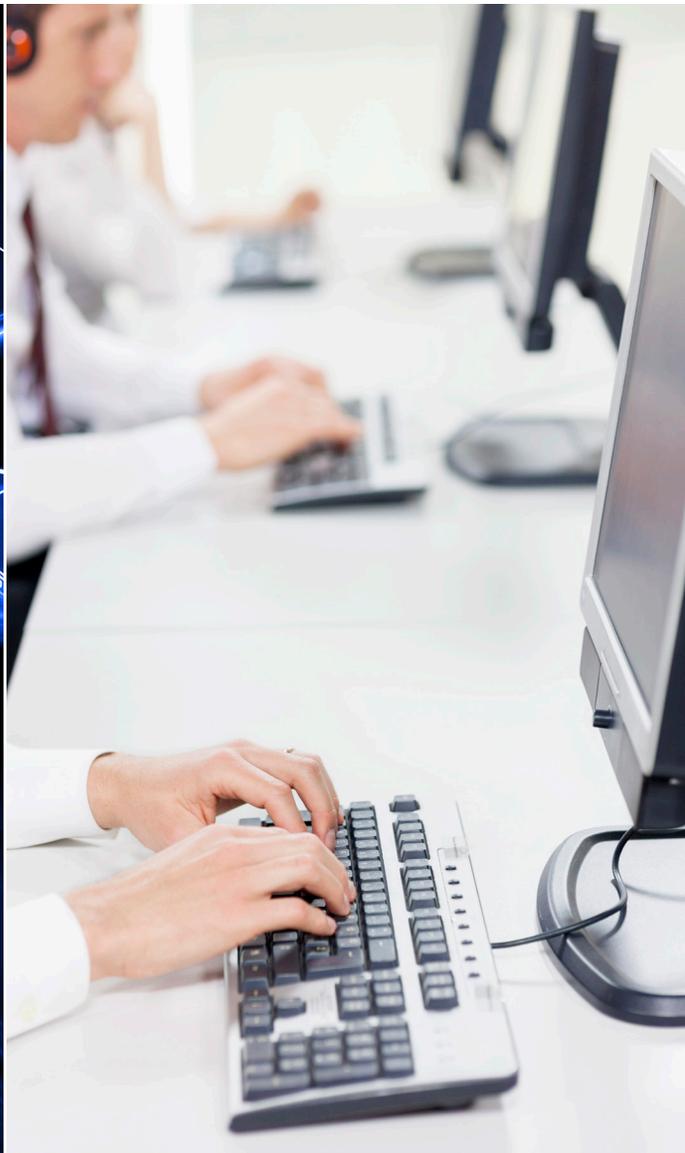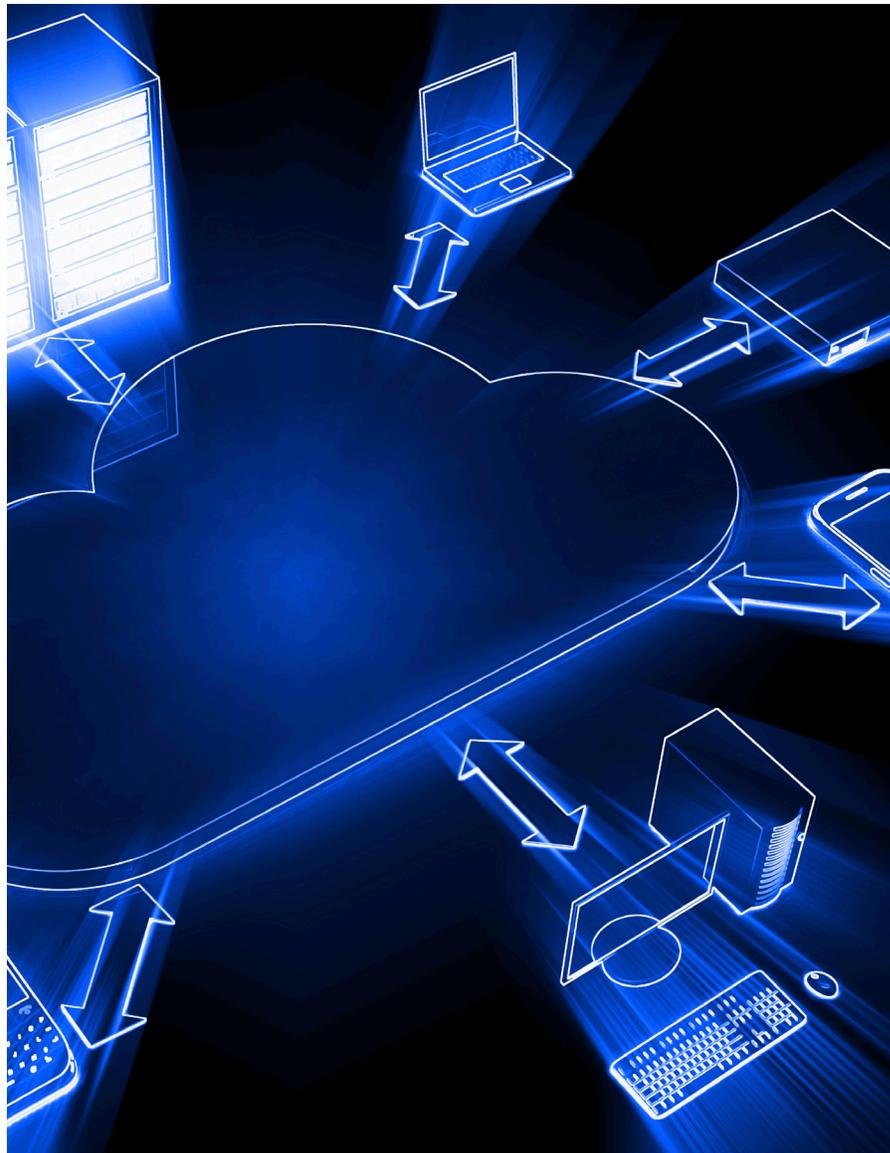# ACCELERATED CLOUD TRANSITION

GO BEYOND WITH BALL.®

Accelerated Cloud Transition (ACT) enables National Geospatial-Intelligence Agency (NGA) data owners to move their data into Amazon's Commercial Cloud Service (C2S), and make their data accessible to the Intelligence Community (IC) GovCloud. ACT is enabling NGA to take full advantage of Amazon C2S, and provide a central storage and retrieval service for many common imagery files. This will allow NGA to share data system-to-system and with other members of the Intelligence Community.

OVERVIEW

The National Geospatial-Intelligence Agency business area is one of seven business areas within the System Engineering Solutions organization of Ball Aerospace. We provide geospatial intelligence (GEOINT) solutions that support national and departmental missions in pursuit of the national security and foreign policy objectives of the United States.
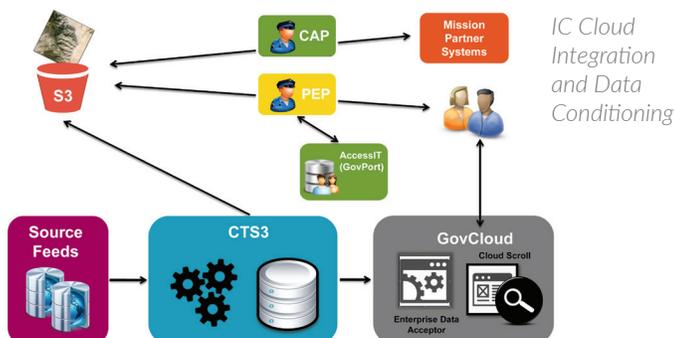
OUR ROLE

Accelerated Cloud Transition (ACT) is a program that enables NGA data owners to store NGA's intelligence holdings in Amazon's C2S and makes the data accessible to the entire IC through the IC GovCloud. ACT is developing an architecture for the NGA content holdings in the cloud, designing a data retrieval and delivery capability, and creating an open enterprise framework for sending data to C2S, the IC GovCloud and other systems within the IC.

The ACT program has demonstrated the following functions:

- Sending NGA metadata to the IC GovCloud and storing full imagery files in C2S
- Providing data validation services within NGA
- Rating NGA products and allowing users to comment on data sets

GEOINT DATA CONDITIONING

A major challenge for ACT is to provide data conditioning services that enable search and discovery within NGA. Conditioning involves cataloging, indexing, and extracting meaningful metadata from a variety of files. The end result is data files that have well-defined attributes and structures that work well with modern search engines. In addition, the ACT program will develop a universal catalog of NGA's data holdings in the cloud, which will greatly facilitate the end user's ability to find content and download it to their desktop.

IC Cloud Integration and Data Conditioning

OUR VALUE

- Click-to-Content allows users to find and download large imagery files directly to their desktop with a single click and without any additional software installation

- Streamline data storage in the cloud using Amazon's Simple Storage Service (S3) and condition data to integrate with IC GovCloud's search capability, making NGA's data accessible to the entire IC

- Enable NGA to share data with other members of the IC through a user-friendly cloud service

- Allow users to securely download large files over NGANet

- Provide an enterprise data validation service for ensuring standards compliance

- Manage the Chief Data Officer's (CDO) enterprise data content account and data stores to consolidate NGA's data holdings and make them accessible to trusted systems and end users

- Assist data owners with transitioning their data to the cloud

- Create a consolidated enterprise catalog and index of NGA's data holdings to enhance enterprise search capabilities

IC GOVCLOUD INTEGRATION

Ball has developed techniques to transfer data to the IC GovCloud, and has an operational system that provides the following services:

- Transformation of NGA metadata to an Avro file format required by the IC GovCloud
- Storage of imagery files in Amazon's S3, which are accessible to other systems within the IC
- Retrieval and delivery of images stored within S3 directly to the end user's desktop