STAC-chat

Spatiotemporal assets in your chat

Darren Wiens, Sparkgeo

geo

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44.43555, 26.102347

STAC

- SpatioTemporal Asset Catalog

- Specification for *all* EO:

Organization (cleverly linked JSON files)	Catalogs
	Collections
	Items
Queries	API

Image courtesy of: La-Rel Easter on Unsplash

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Existing Front Ends

Browsers (manually explore catalog):

- stac-browser (Vue)
  - https://github.com/radiantearth/stac-browser
- stacjs (jQuery)
  - https://github.com/GravityLabGeo/stacjs
- stac-gdaljs-viewer (Ember)
  - https://github.com/alkamin/stac-gdaljs-browser

Query Browsers (filter catalog items):

- Earth OnDemand
  - https://astraea.earth/earth-ondemand/
- SAT-API Browser
  - https://github.com/sat-utils/sat-api-browser

Image courtesy of: Mr Cup / Fabien Barral, Unsplash

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Pull users *to* STAC

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Opportunity

- Enable queries in a familiar environment
- Allow realtime discussion around imagery assets

Image courtesy of: Rosie Kerr, Unsplash

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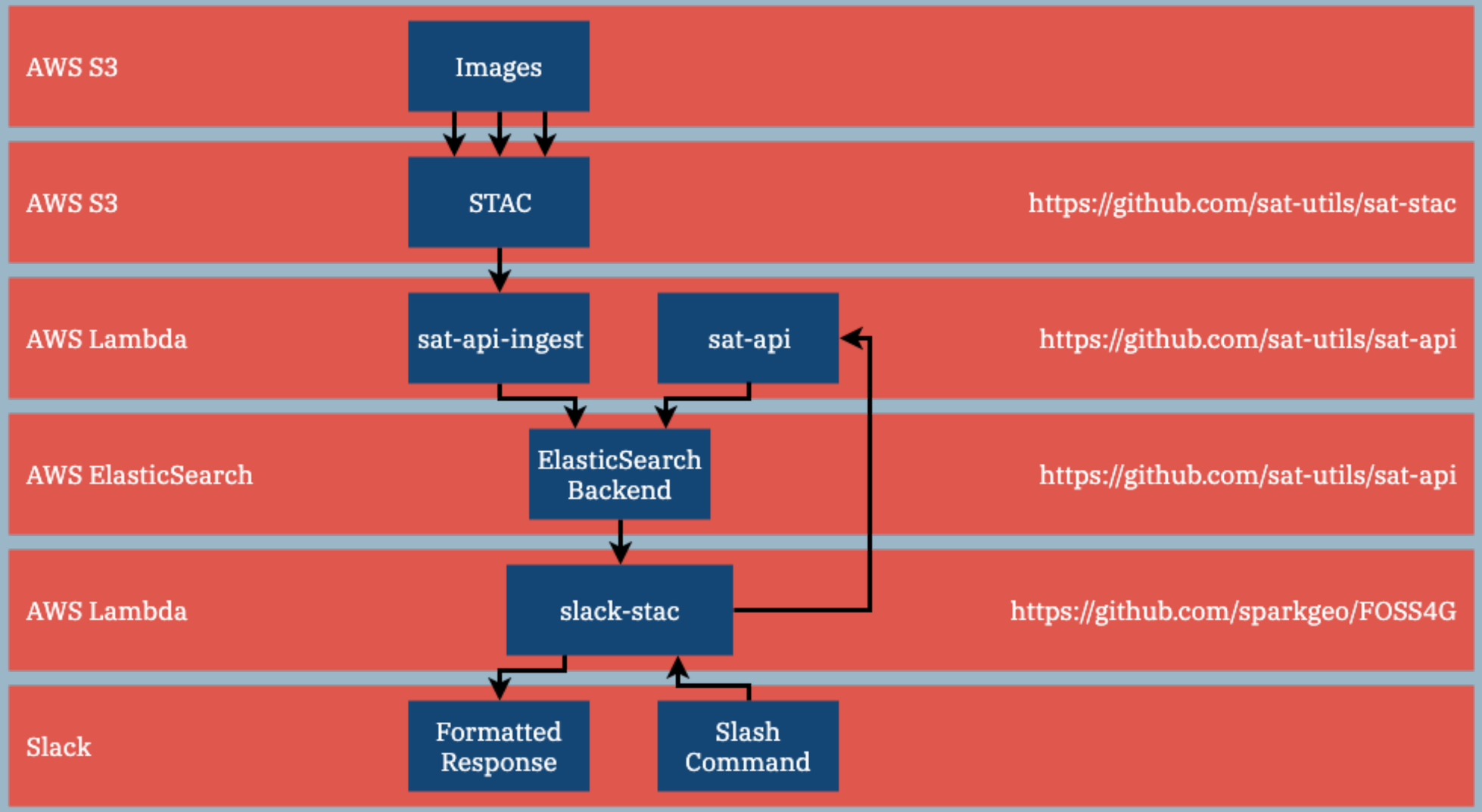
Push STAC *to* users

Slack-STAC



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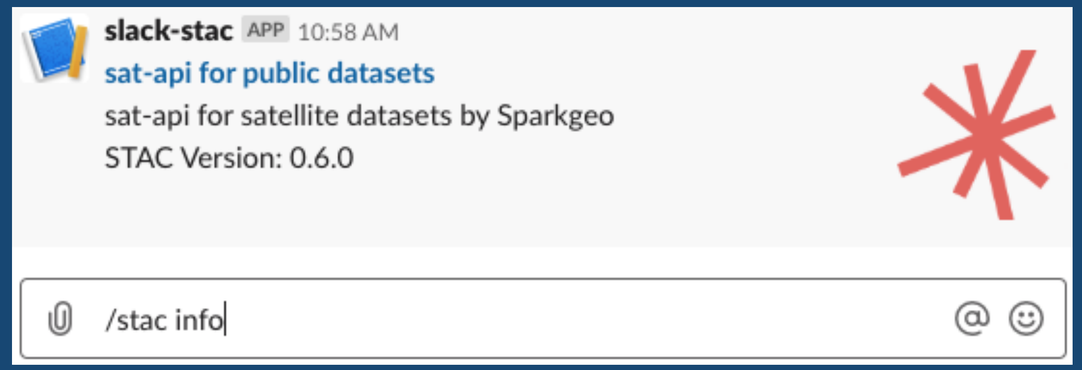
Request

- */stac info*
- API endpoint: */stac*

Response



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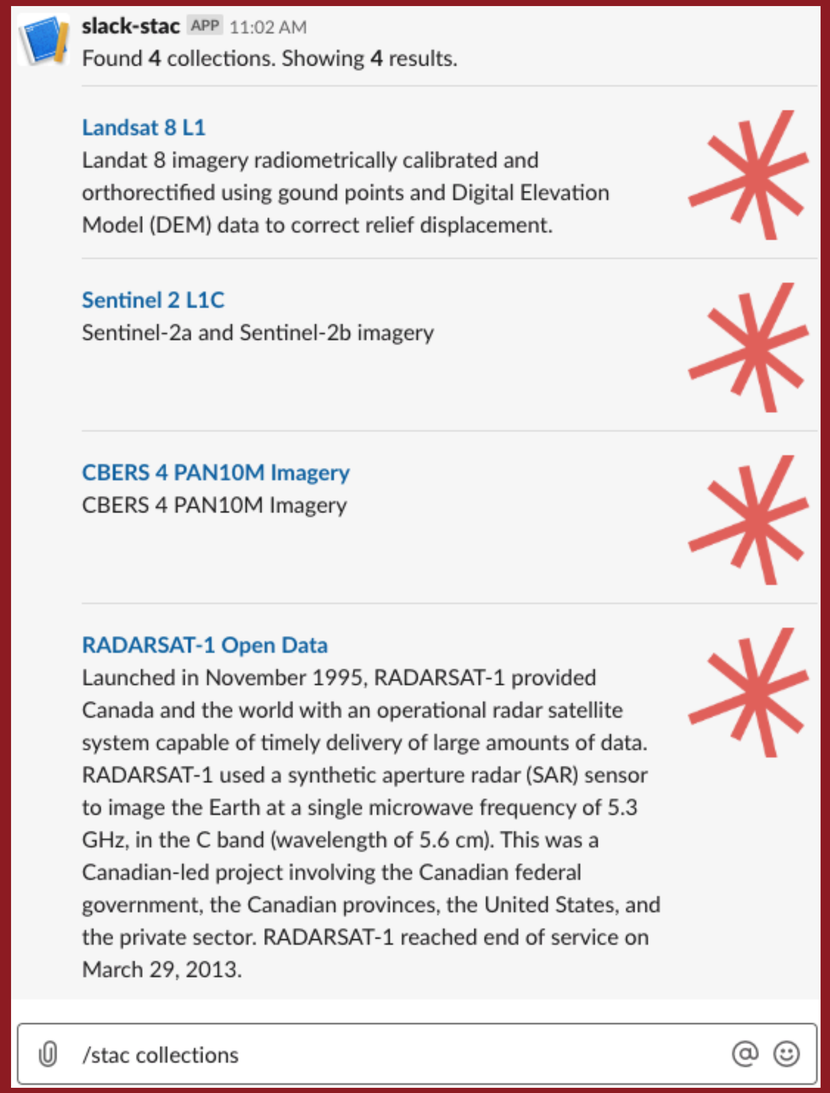
Request

- */stac collections*
- API endpoint: */collections*

Response



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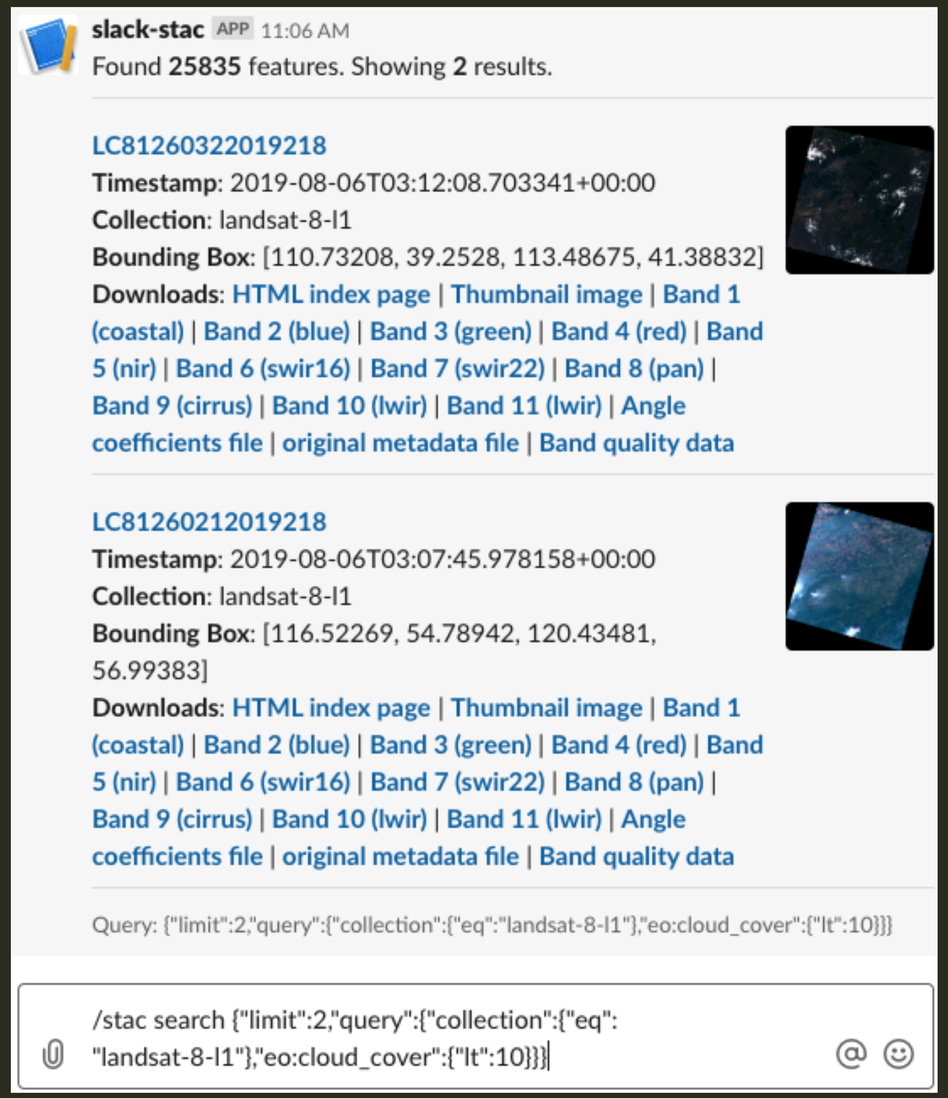
Request

- */stac search [params]*
- API endpoint: */stac/search*
- simple filter or advanced query
- syntax: https://github.com/radiantearth/stac-spec/tree/master/api-spec

Response



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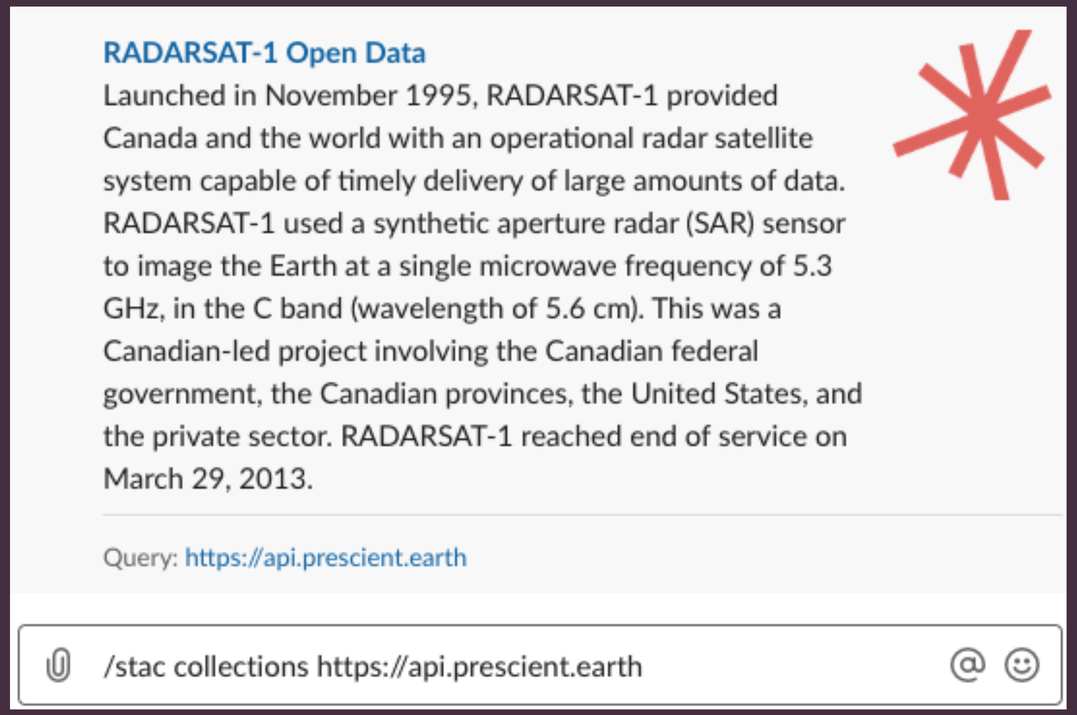
Request

- use your own API
- */stac request_type api_url*

Response



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Use Case

- Application requiring discussion and focused dissemination of bite-sized geodata (metadata, clipped images)
- Users not necessarily technical
- Event response, municipal planning, etc.

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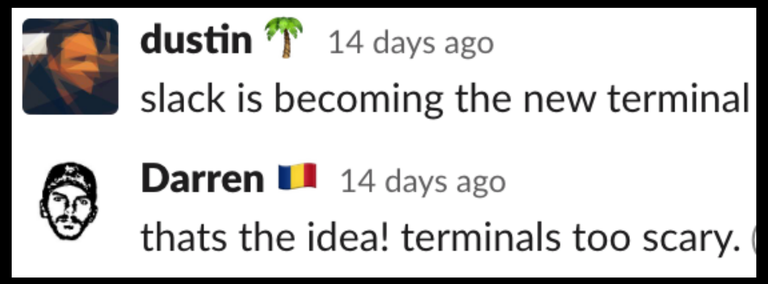
Image courtesy of: Ryoji Iwata, Unsplash

“Slack is becoming the new terminal.”

– Dustin Sampson, Sparkgeo



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How should you use it?

- Inspiration for getting geo into a familiar environment
- Example of interacting with Slack's new *Block Kit UI framework*
- Use *sat-search* for definitive search functionality: https://github.com/sat-utils/sat-search

Image courtesy of: Jon Tyson, Unsplash

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What's Next?

- Appify search parameters
- Pagination
- Option to clip and return COG
  - */cog-clipper* clips COG to bounding box, saves to AWS S3, and returns clipped

Image courtesy of: Benjamin Davies, Unsplash, but I added the little inset

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“Your imagination is the limit.”

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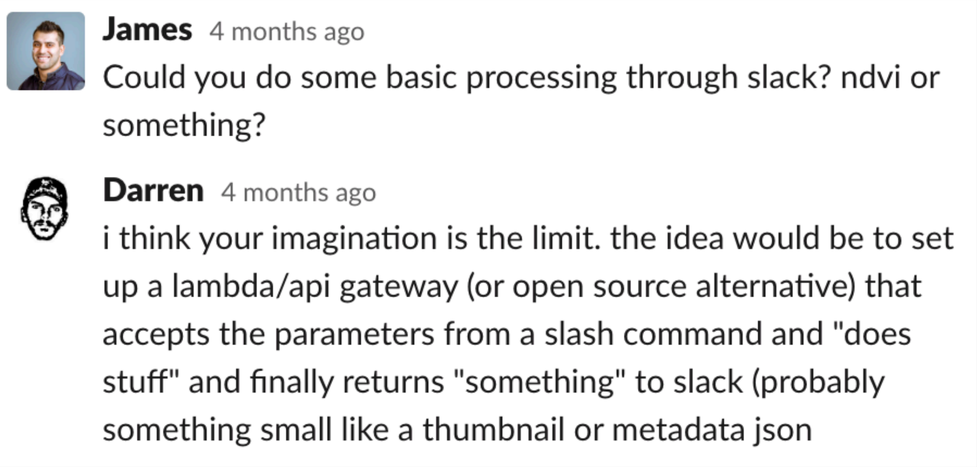
“Your imagination is the limit [using slash commands because you can use whatever cloud resources you want].”

– Darren Wiens, Sparkgeo



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Questions?

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Or, find me on Slack in the Spatial Community

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