Vulcan
EarthRanger

Vulcan built EarthRanger to help wildlife park rangers fend off poachers by better monitoring protected wildlife areas and the animals within them.

1. Park ranger
A park ranger needs to monitor a large wildlife park with hard-to-reach areas.

2. EarthRanger activation
The ranger uses Azure multi-tenancy to quickly spin up a new EarthRanger instance.

3. Sensor inputs
EarthRanger collects data from various sensor inputs as well as manual inputs:
- 3a. Animal collars
- 3b. Game cameras
- 3c. Vehicle sensors
- 3d. Drones and satellite sensors
- 3e. Spatial data

4. Microsoft Azure
Azure aggregates the data and sends it to a central, real-time dashboard.

5. Informed patrols
The park ranger makes more informed patrolling decisions and plans better routes.

Challenge
To help park rangers better monitor wildlife areas, Vulcan built EarthRanger, a tool that collects data from various sensor inputs and feeds it back to park rangers. While it was an effective monitoring tool, replicating EarthRanger across sites was a labor-intensive process requiring park rangers to manually configure new systems.

Solutions
Vulcan migrated EarthRanger to Azure to improve its scale and efficiency through multi-tenancy. Park rangers can now spin up new EarthRanger instances anywhere within seconds, immediately gaining access to real-time information streaming in from various sensor inputs. The data is aggregated into a central dashboard where park rangers can make sense of their data—and make more informed patrolling decision.