

# Automated genomic surveillance in Wyoming with Microsoft Azure and Nextflow

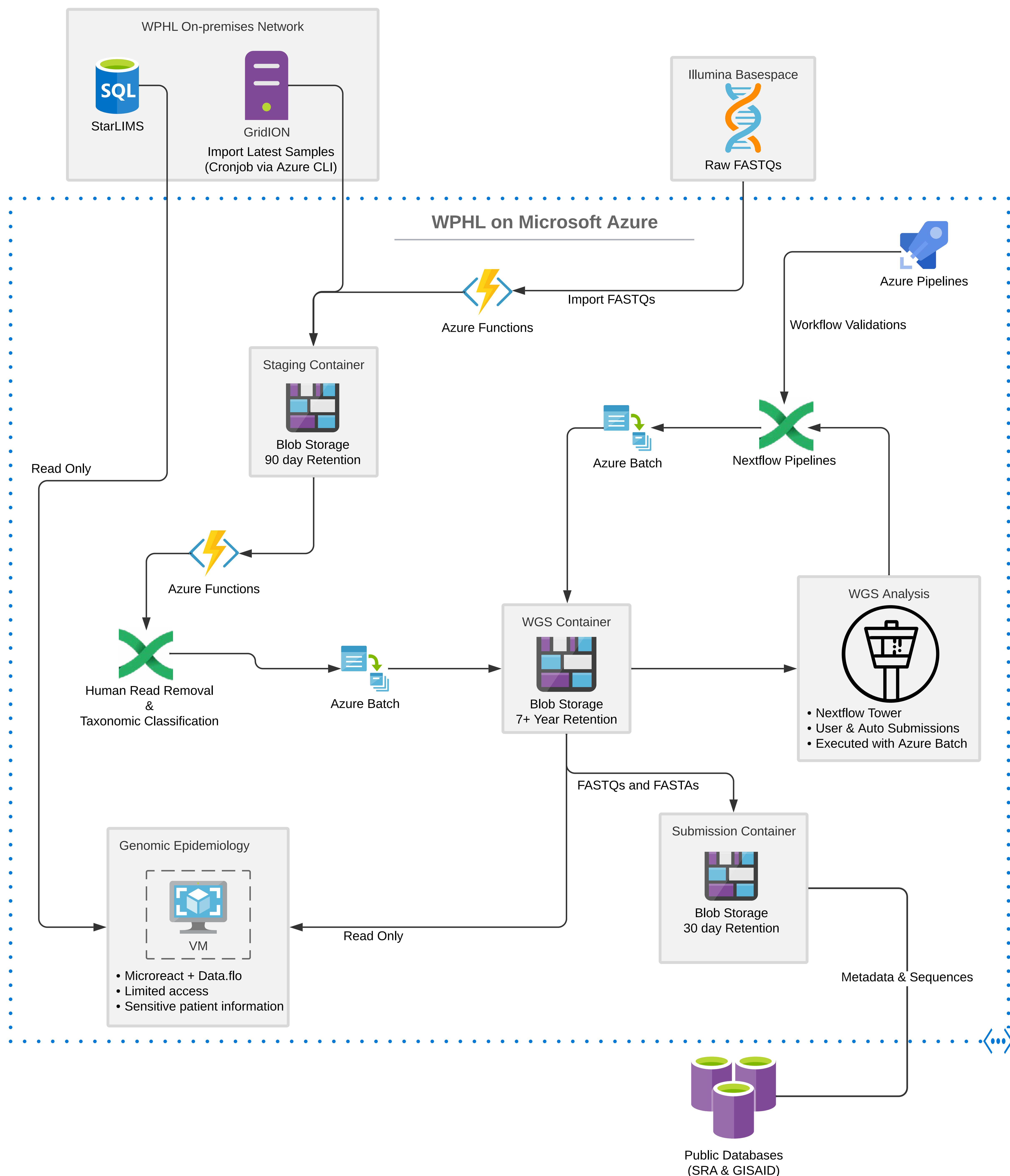
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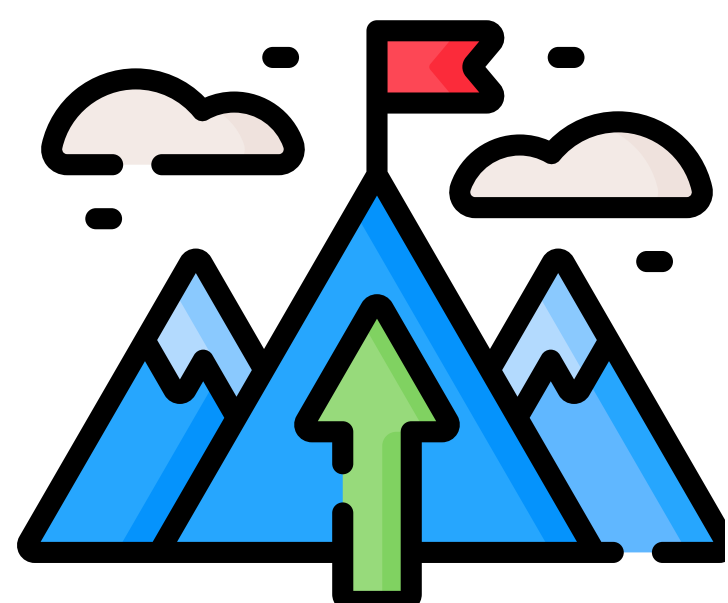
robert.petit@wyo.gov 
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## Bioinformatics Infrastructure At WPHL



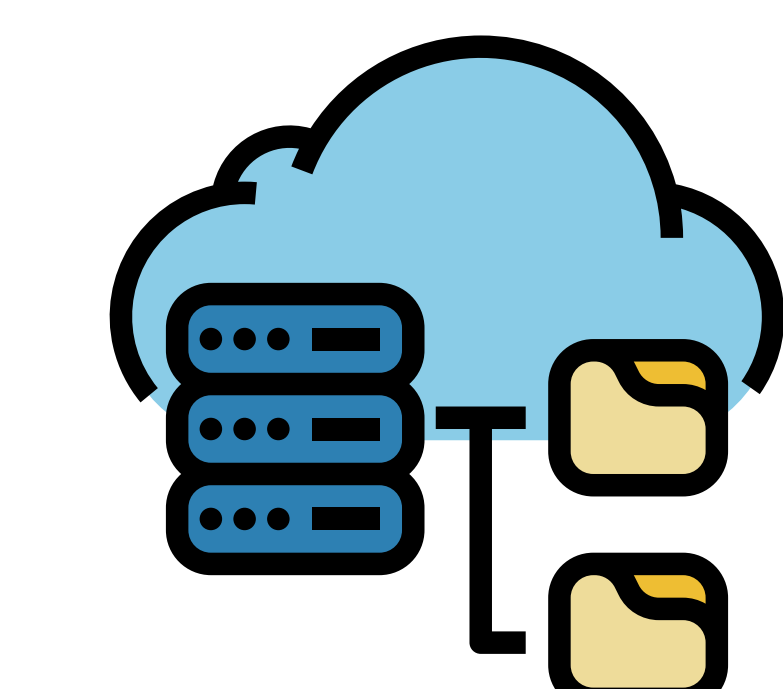
### Infrastructure Overview

At WPHL we are making use of Microsoft Azure to automate our on-going genomic surveillance. Working closely with our IT department we were able to take full advantage of Azure while remaining behind the state firewall.



### Project Milestones

- 16 month process
- Significant relationship building with IT team
- Security measures are in place on Azure network
- WPHL has full control of Azure resources



### Benefits of Azure

The usage of Azure allows WPHL to rapidly scale to our needs. There is no need to maintain local infrastructure saving time and costs. Our Azure subscription has required security protocols in place to allow complete usage.



### Why Nextflow?

At WPHL we wanted to use a workflow manager that was portable, reproducible, and had a strong community backing. Based on this we selected Nextflow and regular work with the nf-core community.

**nextflow**  
Pipelines In Use



nf-core/  
viralrecon

nf-core/  
taxprofiler

nf-core/  
mag

nf-core/  
rnaseq