Empowering the Development of Genomics Expertise

What is EDGE?

EDGE is a highly adaptable bioinformatics platform that allows laboratories to quickly analyze and interpret genomic sequence data. The bioinformatics platform allows users to address a wide range of use cases including assay validation and the characterization of novel biological threats, clinical samples, and complex environmental samples. EDGE is designed to:

- Align to real world use cases
- Make use of open source (free) software tools
- Run analyses on small, relatively inexpensive hardware
- Provide remote assistance from bioinformatics specialists

Why Create EDGE?

There is a need for user-friendly bioinformatics solutions that can be provided to OCONUS labs to facilitate successful adoption of High-Throughput Sequencing (HTS) technologies. This is critical because overseas deployment of sequencers allows the technology closer to acquisition point of samples, thereby avoiding political issues associated with removal of strains/samples from host countries. In addition, sequencing specimens closer to the source can also decrease the timeline involved in identification and characterization of unknown agents, and acquisition of information that can be used for force health protection.

What are the Benefits of EDGE?

EDGE is a highly adaptable bioinformatics platform that allows laboratories to quickly analyze and interpret genomic sequence data. The bioinformatics platform allows users to address a wide range of use cases including assay validation and the characterization of novel biological threats, clinical samples, and complex environmental samples. EDGE has been designed to:

- EDGE can assist with mission and threat analysis of biological threats to Operational Forces including: (1) naturally occurring, endemic and emerging infectious disease threats, (2) drug resistant threats, and (3) emerging biological warfare threats (pathogens) delivered intentionally to US forces.
- N EDGE can validate currently fielded PCR assays and enable rapid design of new assays.
- EDGE will enable sequencing as a solution in OCONUS facilities and forward-deployed situations where human-resources, space, bandwidth, and time are limited.
- EDGE supports other biodetection, rapid identification, and biosurveillance technologies.
- EDGE prevents the need to ship samples out of country or region.
- User-friendly Low-cost

• Remote/virtual usability

- Minimal tech requirements
- Immediate availability
- Low-tech maintenance
- Real-time support
- C4 capabilities
- Rapid analysis
- Open source

Overview









Defense Threat

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Suite of Analytical Tools

