



# TTEC Digital Genomics Launchpad Offer

Assessment + Pilot for HPC/Genomics Workloads

# TTEC Genomics Launchpad

Looking to leverage the scale of Azure to augment or expand your Genomics/HPC capabilities? TTEC brings the ability to quickly deploy preconfigured Azure Infrastructure to support a myriad of HPC use cases while diving into pipeline discovery to determine the best tech stack for your workflows. TTEC will also assess current Data Warehouses, CI/CD processes and determine an optimal path into Azure. This process shortcuts the need to have Azure knowledgeable HPC staff and allows the organization to focus on driving innovation.



Reduce Time to Business Value with existing HPC workflows



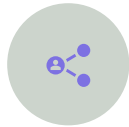
Augment existing processes with AI/ML



Govern and Secure your data estate and provide access with confidence



Leverage best in class tools for workflow optimization and analytics



Simplify collaboration with external parties, SaaS products and Enterprise Apps



Cost Optimization and FinOps for predictable and efficient operations



## Accelerate Business Outcomes

**Proof of Concept:**  
Leverage Microsoft investment to establish viability

**MVP:** Build the HPC and Data Platform and bring a use case to fruition and design adoption roadmap

**Scale:** Prioritize Business outcomes and deploy at the desired speed with multi-disciplinary team



## Adoption

- ✓ Foundation Deployment
- ✓ Discovery and Workflow Optimization Workshops
- ✓ Data Warehousing Discovery, Planning and Design
- ✓ Integrated System Design
- ✓ Business Case & RoI value proposition



## Scale

- ✓ Data Governance and Security for Collaboration
- ✓ 3<sup>rd</sup> Party System Integration
- ✓ Testing, Training and Deployment
- ✓ Foundation for AI and Machine Learning Use cases
- ✓ Data Foundation for Secure External Collaboration



## Outcomes

- ✓ Enable Scalable HPC Workflows
- ✓ Centralize and Enable Data for AI use cases using secure enterprise data sources
- ✓ Reduce Data Sprawl and Cost



**Project Cost:**  
\$300k+ defined by scope in Design Phase



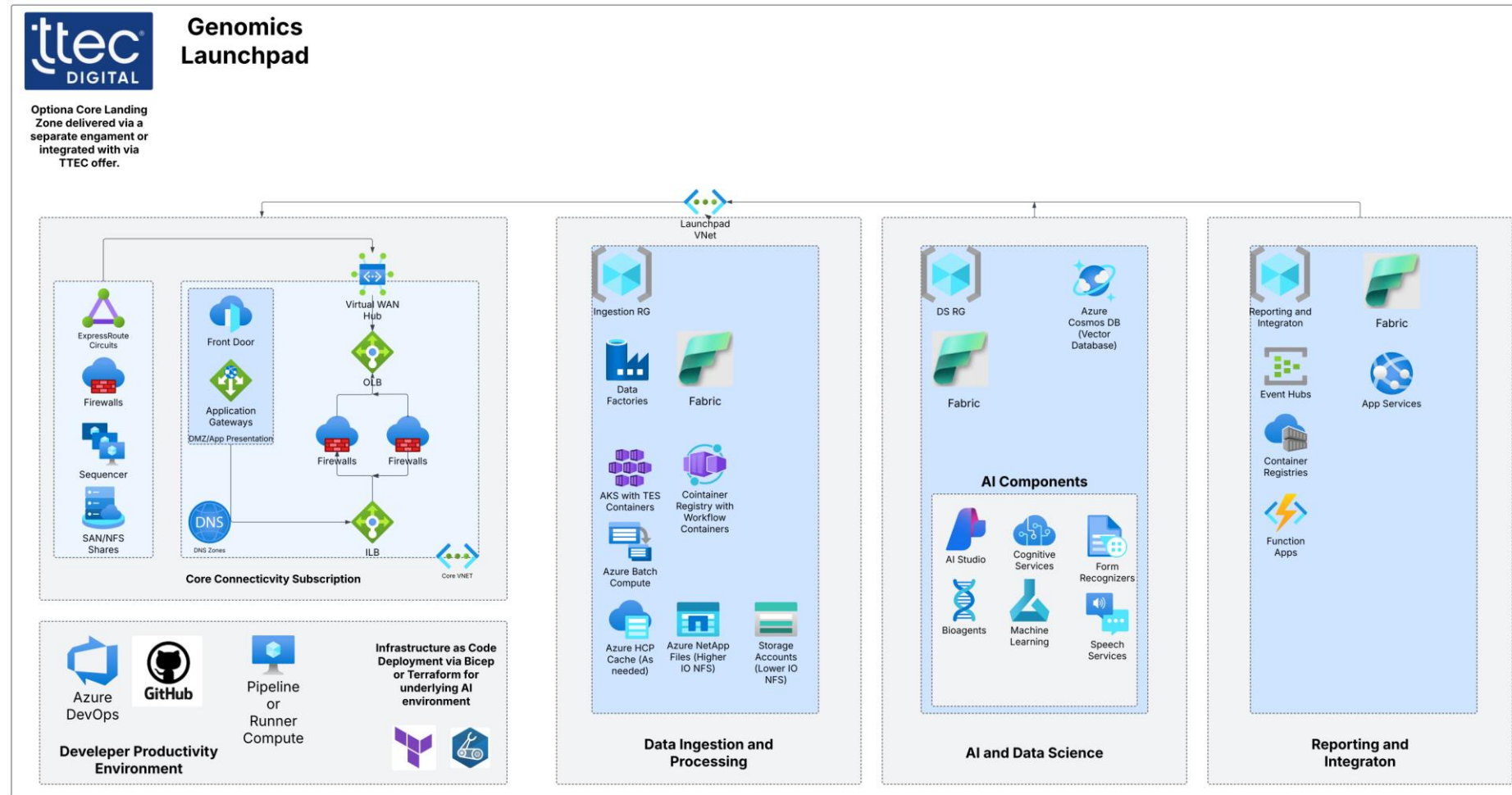
**Project Timeline:**  
8-12 Weeks Depending on Data Sources

# Genomics Workflow Assessment - ~4 Weeks

• Pipeline Review	• Genomics Data Warehouse Review	• Azure Capability and Readiness Review	• Security and Collaboration Review
<ul style="list-style-type: none"><li>Review existing pipeline code for actions, software usage, data and latency requirements</li><li>Map existing workflows into logical Azure endpoints</li><li>Optimize components and stages for optimal compute</li></ul> <p>Existing Schedulers/Code Bases</p> <ul style="list-style-type: none"><li>Google dSub</li><li>Amazon Omics</li><li>Grid Engine</li><li>Slurm</li><li>SnakeMake</li><li>Nextflow</li></ul>	<ul style="list-style-type: none"><li>Deep dive into current Omics data<ul style="list-style-type: none"><li>Retention</li><li>Usage</li><li>Collaboration</li><li>Data Churn</li></ul></li><li>Map to Azure based services and optimize based on cost and performance requirements</li><li>Plan Reserved Capacity</li></ul>	<ul style="list-style-type: none"><li>Review Azure Landing Zone and Orchestration Capabilities<ul style="list-style-type: none"><li>Infra as Code</li><li>Monitoring</li><li>DevOps Capabilities</li></ul></li><li>Review Networking needs<ul style="list-style-type: none"><li>Throughput and Latency</li><li>Region and Failover</li></ul></li><li>Plan Reserved Capacity</li></ul>	<ul style="list-style-type: none"><li>Review Security Footprint<ul style="list-style-type: none"><li>Observability Tooling</li><li>SIEM</li><li>External Collaboration</li><li>Data Governance</li></ul></li><li>Review Networking needs<ul style="list-style-type: none"><li>Firewall Capacity</li><li>Encryption Requirements</li></ul></li></ul>

# Assessment and Launchpad Outcome

- Deployed Landing Zone with Security Controls
- Ability to run workflows within Azure
- Air Gapped environment for external collaboration
- Infrastructure as Code capabilities and DevOps foundation
- Deployment plan to migrate existing Workflows to Azure environment in Production



# Genomics on Azure: Launchpad to Production

## Discovery and Planning

- ✓ Existing Workflow Discovery and optimization planning for Azure based HPC
- ✓ Existing Infrastructure discovery and Azure based mapping and planning
- ✓ Genomics Data Warehousing and Data Collaboration and Reporting/Analytics Requirements Discovery and Mapping

## Launchpad and PoC

- ✓ Deployment of TTEC Genomics Launchpad for Core Infrastructure and Data Functionality
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## Production Scale

- ✓ Automated Workflows
- ✓ AI Optimization
- ✓ Genomics DW
- ✓ Reporting and Analytics
- ✓ Data Ingress and Egress capabilities
- ✓ Monitoring and Automated Management

## Management + Collaboration

- ✓ TTEC Managed Services if needed
- ✓ External Facing Air Gapped Data Environment
- ✓ API Connectivity to Data Sources if needed
- ✓ Monitoring/Logging/Telemetry integrations