



The Agility of F1: Accelerate Your Applications with Custom Compute Power



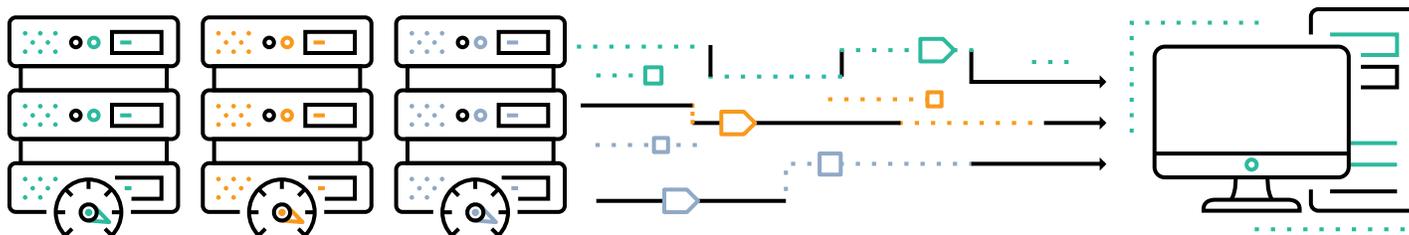
Complex workloads often need highly customizable solutions to produce useful results. Amazon EC2 F1 Instances provide a significant increase in performance through customizable field programmable gate arrays (FPGAs) in the AWS cloud.

▶ F1 for users

Using F1 instances to deploy hardware accelerations can help solve heavy compute problems that will benefit from faster time to results and, in some cases, can't be solved without customized compute acceleration.

▶ F1 for developers

Developing FPGA apps has never been this easy. AWS provides a Hardware Development Kit (HDK) to help you develop your hardware accelerations quickly as well as an FPGA Developer AMI with all of the needed FPGA tools ready to use.



▶ Where Customization Meets Ease-of-Use

Features of F1 Instances include:



On-demand access to FPGAs

In the past, developers would need to purchase an FPGA board to create FPGA code and setup operational infrastructure. With F1 instances, every developer has access to FPGAs in the cloud on a pay-as-you-go model.



Feel the Power of F1s

Use FPGAs to accelerate your applications by up to 30x when compared with servers that use CPUs alone.



Simplified Development

Develop your custom accelerations at cloud scale with the FPGA developer AMI ([link](#)) at no additional cost. Coupled with the AWS FPGA github ([link](#)) repository you have all the needed tools, code samples, compile scripts, and debug interfaces to develop the FPGA accelerations for your F1 instances.



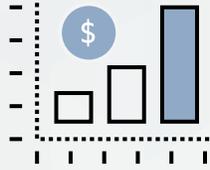
Marketplace

Developers can publish their accelerators to the AWS Marketplace, packaged as AMIs or API/SaaS. AWS customers can discover, buy, and launch those accelerators and go straight to production.

▶ How global professionals are using F1 Instances:



Genomics research



Financial analytics



Real-time video processing

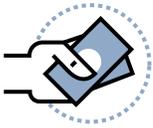


Big data search and analytics

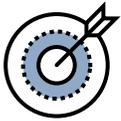


Security and anomaly detection

▶ Benefits and global availability



Cost effective FPGA access



Predictable performance



Accelerated application deployment at scale



Centralized access to customers for developers and applications for businesses



F1 Region

USA:
N. Virginia, Oregon,
GovCloud

Europe:
Ireland, London (preview)
Frankfurt (preview)

Asia Pacific:
Sydney (preview)

China:
Beijing (preview)

— | Start using F1 instances today. | —

Learn more: <https://aws.amazon.com/ec2/instance-types/f1/>