AMD INFINITY ARCHITECTURE
A Scalable, Coherent Server Architecture for the Exascale Era
1st generation coherent interconnect

Scalable Fabrics Enabling Architectural Innovation

On-Package and Between Sockets

Muxed with PCI Express® lanes
2ND GENERATION AMD EPYC™ LEADERSHIP ARCHITECTURE

AMD INFINITY ARCHITECTURE – THE FOUNDATION OF THE MODERN DATA CENTER

**EFFICIENCY**
*Hybrid Multi-Die SoC Design*
First 7nm x86 server processors
Energy & NUMA Enhancements

**PERFORMANCE**
*Core Performance Upgrades*
~2.2X Performance Increase\(^1\)
Up to 4X Theoretical FLOPS\(^2\)

**2ND GENERATION**

**THROUGHPUT**
*Breakthrough System Features*
First PCIe\(^3\) x86 Server Processors
Leading I/O and Memory Bandwidth\(^3\)

**INFINITY FABRIC™**

**SECURITY**
‘Hardened at the Core’
Micro-Architecture Enhancements
Advanced Security Features

SEE ENDNOTES
1ST GENERATION

Four SOCs Interconnected
via 1st Gen AMD Infinity Architecture

2ND GENERATION

Eight 7nm Chiplet CPUs and One 14nm Chiplet I/O
Interconnected via 2nd Gen AMD Infinity Architecture

Each IP in its Optimal Process Technology

Distributed Control

I/O Die and CPU Die Optimizes Latency and Power

Flexible and More Unified Memory Architecture
CPU-GPU CONNECTIVITY COMING WITH FRONTIER

Coming Soon

Infinity Fabric
A COHERENT FUTURE

CPU, Accelerators, Fabrics, I/O

Sharing a Coherent Pool of Memory

COMING SOON...