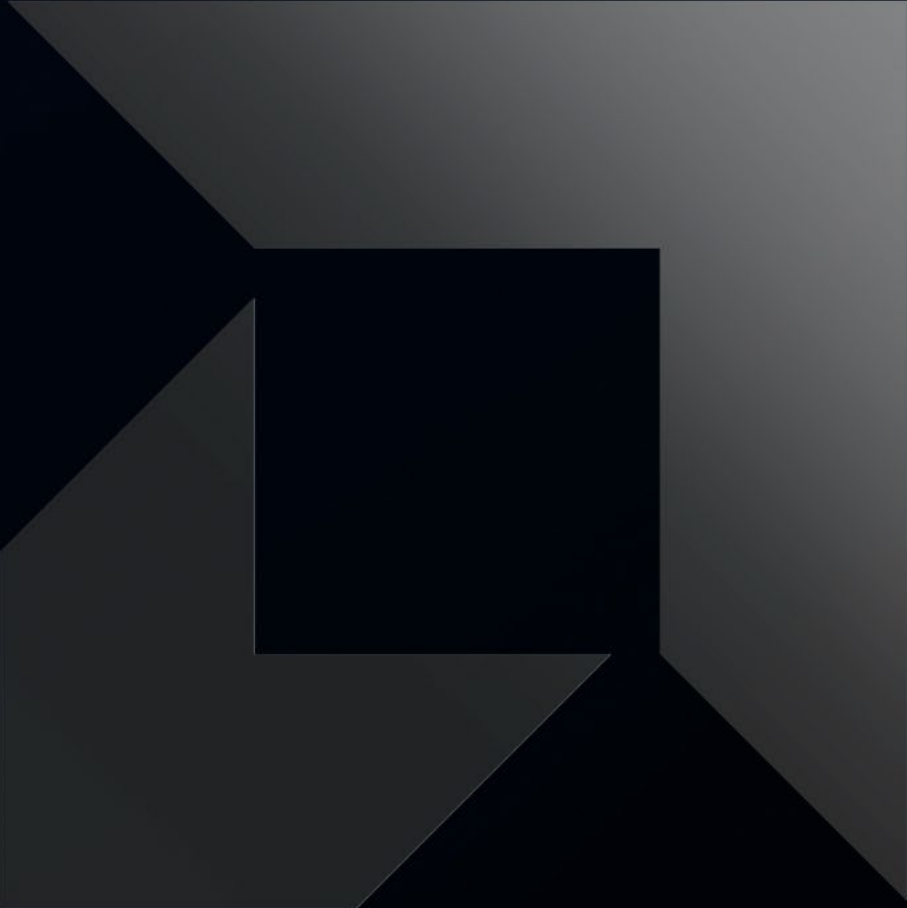




Reference Network Design Architecture MI3XX series

2K GPU

Version 4.0 – August 2025

Network Design Topology Notations:

Design note:

Topologies listed are based on either Jericho / Ramon switch type (Accton, Arista, Ciena, Nokia) or 51.2T switch type (Arista, Cisco, Dell, Juniper)

Vendors/switch models vary for port count and features – please consult desired vendor port count directly to confirm.

Scalable Units/PODs note:

Diagrams presented are designed around a Scalable Unit or POD – which can determine overall network end to end latency and AI use cases.

Certain ML/AI workloads may require change of scalable unit size. Please consult with AMD Architecture as required.

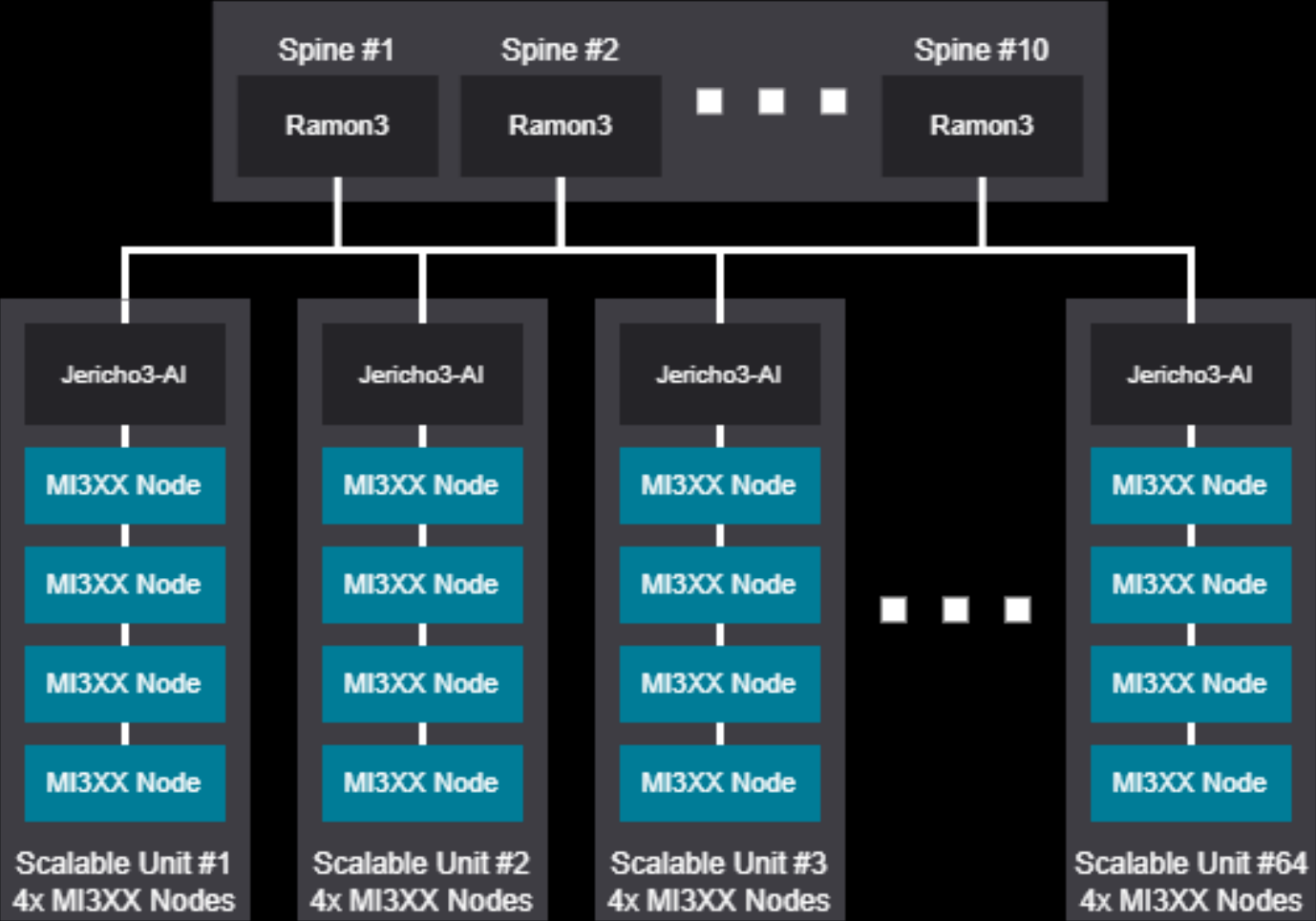
2K GPU Topology Design Examples

Jericho/Ramon

Network Diagram - 2048 GPU (256 Nodes)

Tree Design

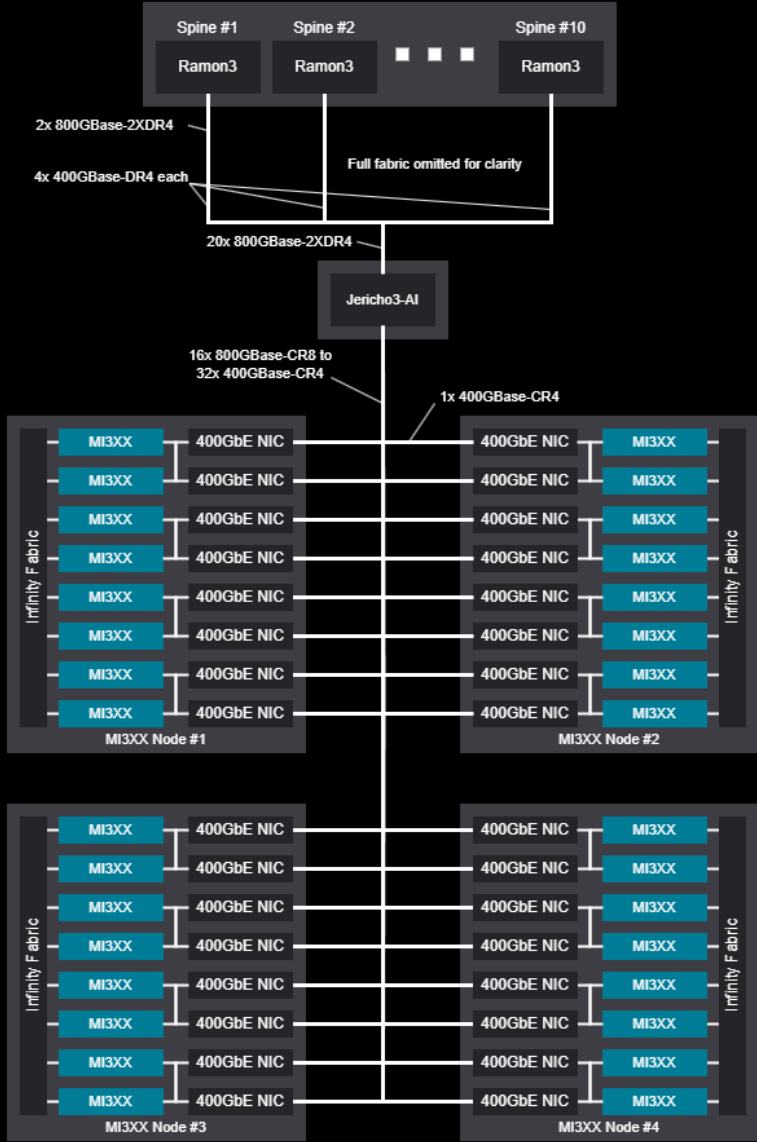
Jericho/Ramon



Network Diagram - 2048 GPU (256 Nodes)

Tree Scalable Unit

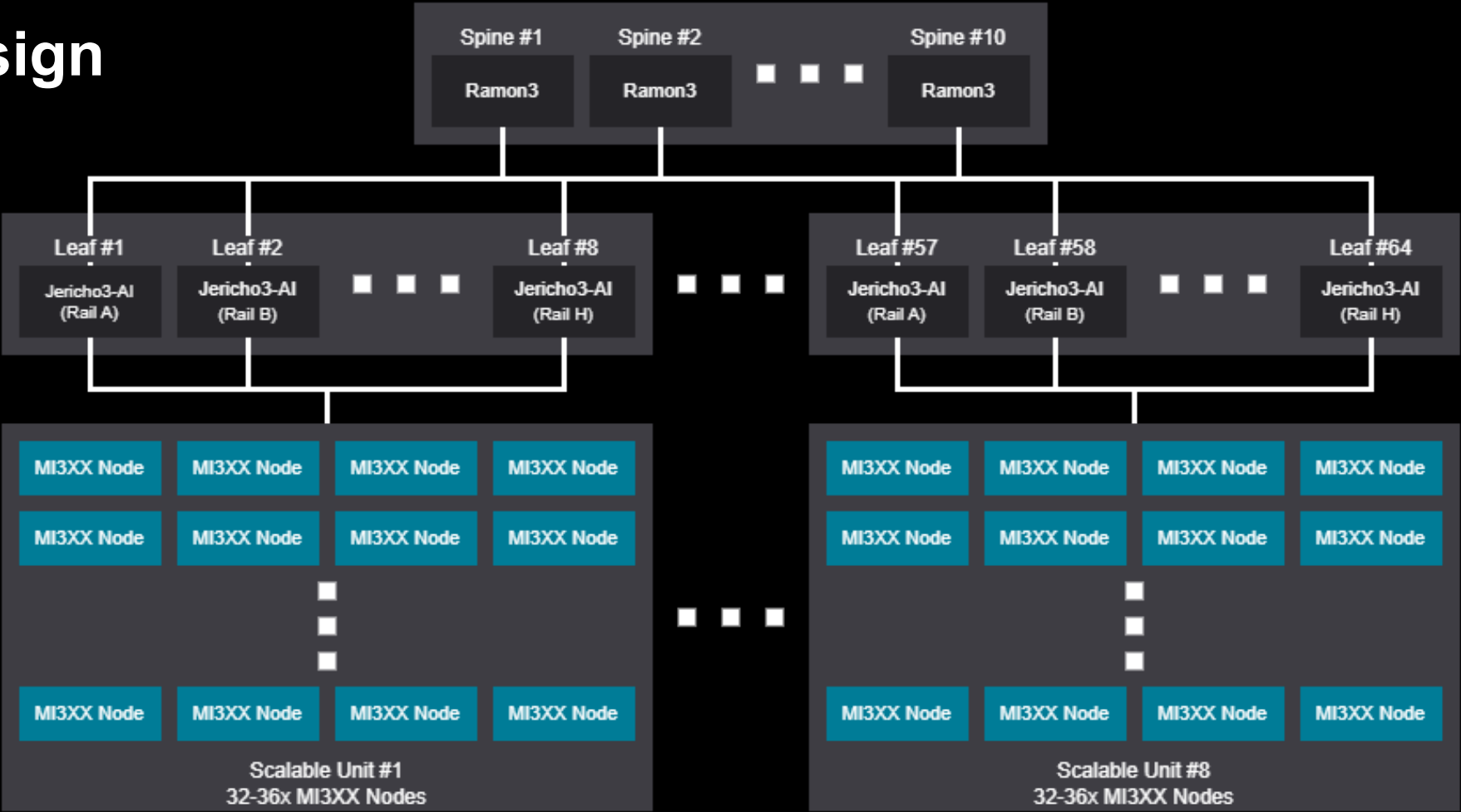
Jericho/Ramon



Network Diagram - 2048-2304 GPU (256-288 Nodes)

Rail Design

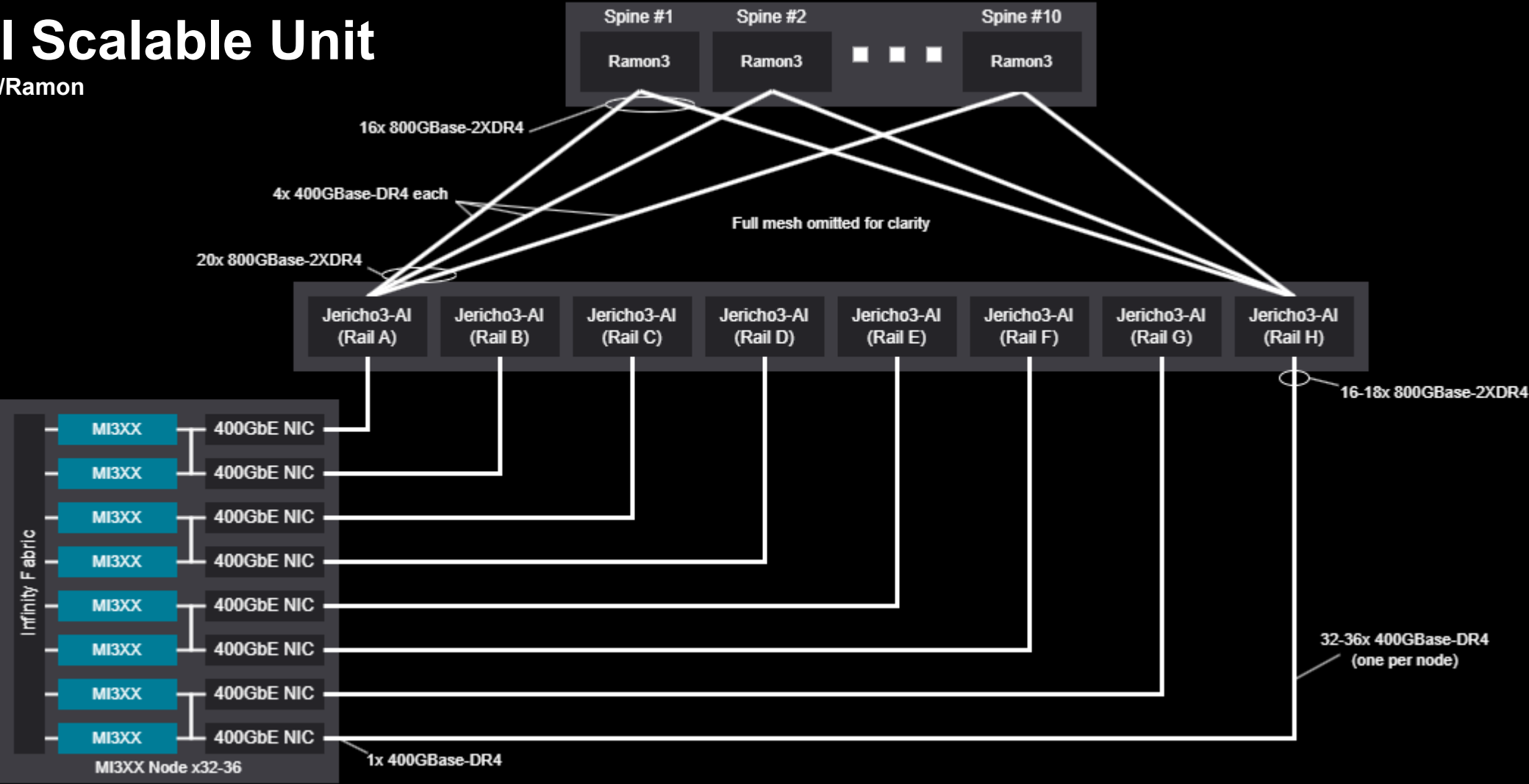
Jericho/Ramon



Network Diagram - 2048-2304 GPU (256-288 Nodes)

Rail Scalable Unit

Jericho/Ramon



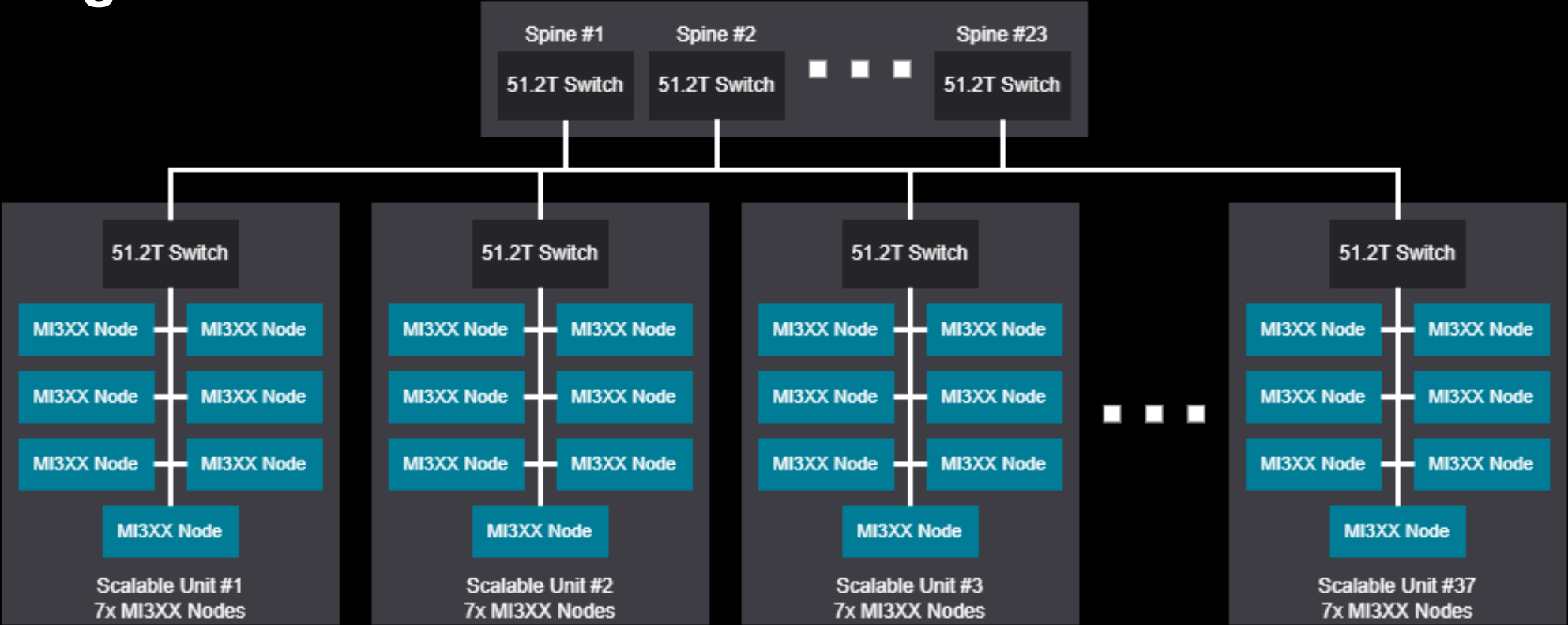
2K GPU Topology Design Examples

51.2T

Network Diagram - 2072 GPU (259 Nodes)

Tree Design

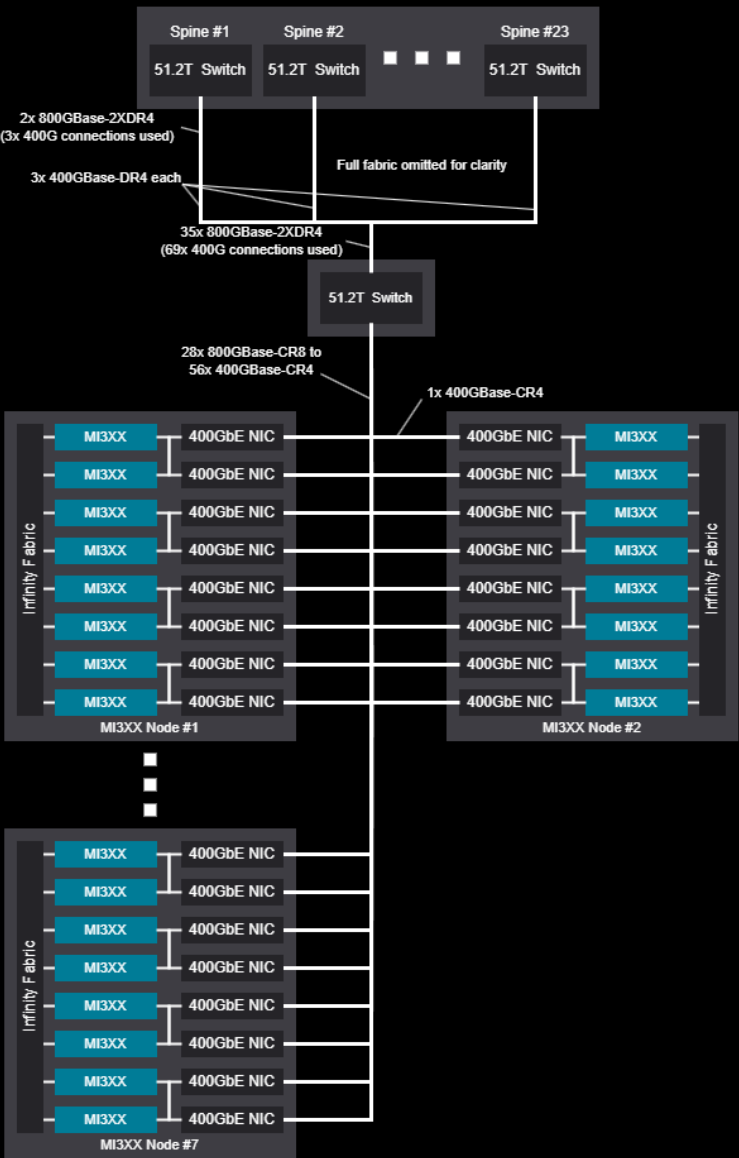
51.2T



Network Diagram - 2072 GPU (259 Nodes)

Tree Scalable Unit

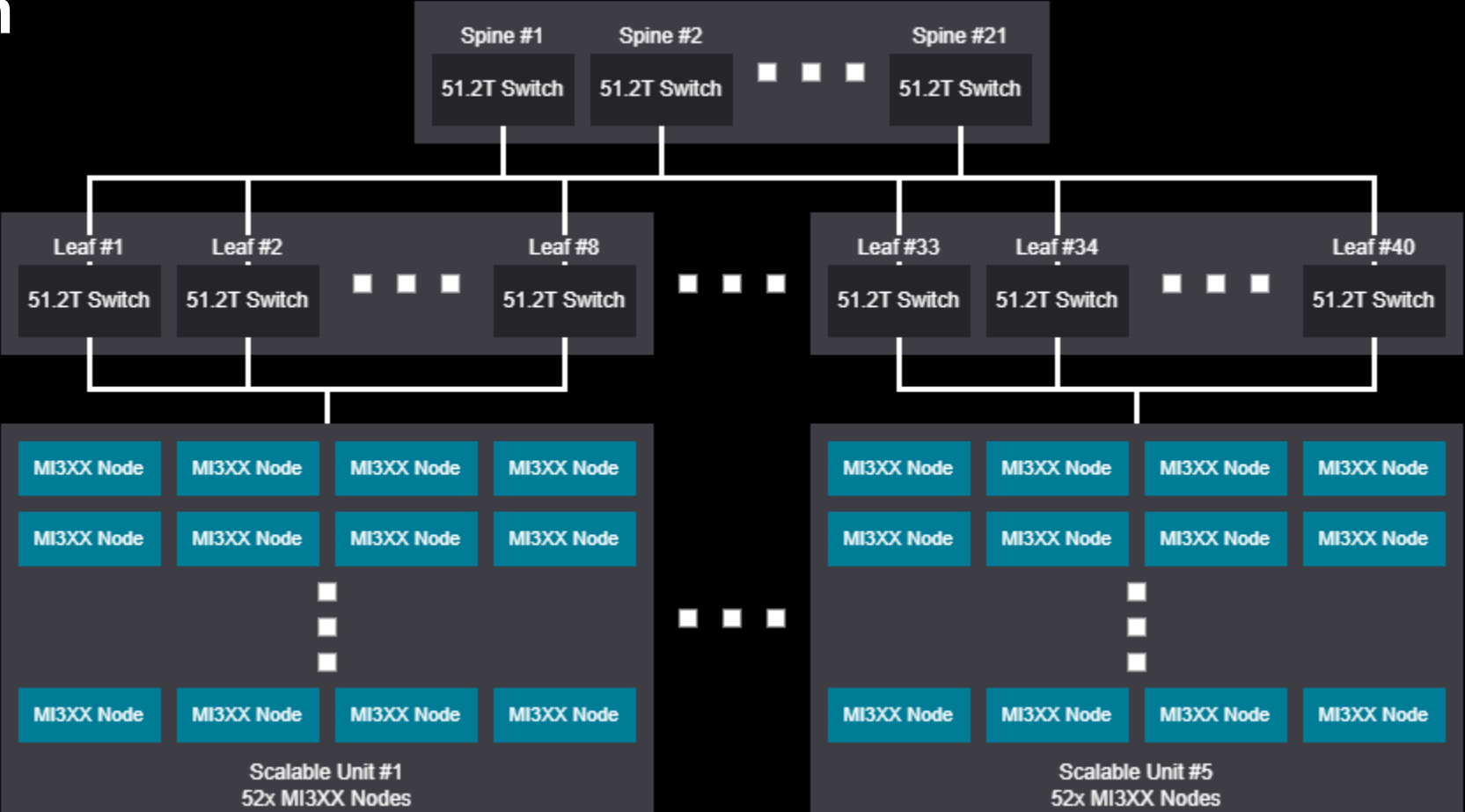
51.2T



Network Diagram - 2080 GPU (260 Nodes)

Rail Design

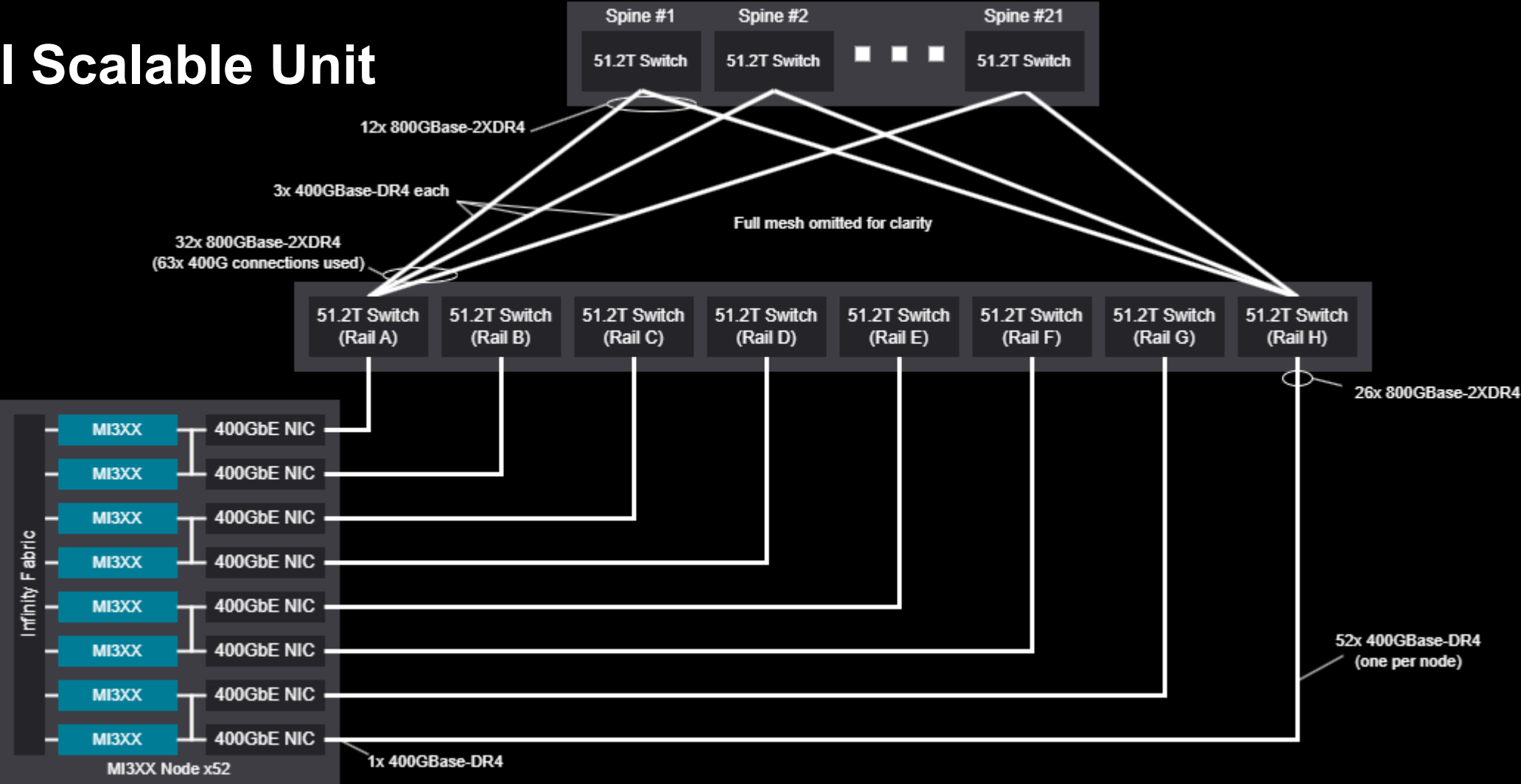
51.2T



Network Diagram - 2080 GPU (260 Nodes)

Rail Scalable Unit

51.2T





DISCLAIMER AND ATTRIBUTIONS

DISCLAIMER

The information contained herein is for informational purposes only, and is subject to change without notice. While every precaution has been taken in the preparation of this document, it may contain technical inaccuracies, omissions and typographical errors, and AMD is under no obligation to update or otherwise correct this information. Advanced Micro Devices, Inc. makes no representations or warranties with respect to the accuracy or completeness of the contents of this document, and assumes no liability of any kind, including the implied warranties of noninfringement, merchantability or fitness for particular purposes, with respect to the operation or use of AMD hardware, software or other products described herein. No license, including implied or arising by estoppel, to any intellectual property rights is granted by this document. Terms and limitations applicable to the purchase or use of AMD's products are as set forth in a signed agreement between the parties or in AMD's Standard Terms and Conditions of Sale. GD-18

COMPLIANCE WITH LAWS

Customer shall adhere to all applicable export laws and regulations including, without limitation, those administered by the U.S. Department of Commerce – Bureau of Industry and Security (U.S. Export Administration Regulations 15 CFR 730 et seq.) and those administered by the U.S. Department of State in accordance with the U.S. International Traffic in Arms Regulations (ITAR) set forth in Subchapter M, Title 22, Code of Federal Regulations, Parts 120 through 130 (22 CFR 120-130), as the same may be amended from time to time, and shall not export, re-export, resell, transfer, or disclose, directly or indirectly, any Products or technical data, or the direct product of any Products or technical data, to any proscribed person, entity, or country, or foreign national thereof, unless properly authorized by the U.S. government and/or any other applicable or relevant government or regulatory body, including the export authorities of all respective countries. For the avoidance of doubt, Customer shall not use Products in, or re-export Products to Belarus, Russia and the Donetsk (DNR) or Luhansk (LNR) regions of Ukraine, regardless of the applicable export laws and regulations. Customer shall impose upon its customers terms at least as restrictive as those contained in this Clause 14 with respect to any sale, distribution or export of Products.

© 2025 Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD Arrow logo, AMD together we advance_ and combinations thereof are trademarks of Advanced Micro Devices, Inc. Accton, Arista, Ciena, Dell, Cisco, Juniper, Nokia, Tomahawk and other product names used in this publication are for identification purposes only and may be trademarks of their respective owners. Certain AMD technologies may require third-party enablement or activation. Supported features may vary by operating system. Please confirm with the system manufacturer for specific features. No technology or product can be completely secure.