iQ2080 Qualified Software Appliance

High performance, 2RU Analytics Network Intelligence and Control Plane COTS Platform

KEY CAPABILITIES

The iQ2080 platform is optimized to deliver application and network intelligence, some of the key features include:

- Analytics platform designed for next generation networks requiring real-time data collection and processing from ActiveLogic – handling more than 10Tbps

- Carrier-class storage for application and QoE analysis suitable for large-scale deployments with millions of subscribers

- Computational capacity for complex analytics and machine learning, which is critical for understanding how well applications are performing on the network

- Integrates with big data lakes to stream data for further analysis via Kafka or ODBC interface

- Hosting Control Plane platforms for better subscriber awareness performance and easily adapt to increase in subscribers

The iQ2080 Qualified Software Appliance is a high-end, compute and storage server platform, offering carrier-grade reliability and availability. The iQ2080 is a high performance, scalable, commercial-off-the-shelf (COTS) solution designed for service providers and enterprises seeking cost-effective network deployments irrespective of their scaling needs. Compatible with Sandvine's Application Quality of Experience (App QoE) technology, this multi-purpose platform supports many of Sandvine's key architectural components and is essential to enabling organizations to analyze, optimize, monetize, and secure their networks.

iQ2080 is based on 4th Generation Intel® Xeon® Scalable Processors, which is one of the latest technologies available for the Intel® Xeon® Scalable Processor family of processors. This offers the latest technology investments, improving quality, interoperability, and resilience.

ARCHITECTURAL SUPPORT

The iQ2080 platform is built on the Dell PowerEdge R760. The hardware accommodates Sandvine data management products within networks, regardless of whether they are physical or virtual, and supports a variety of access technologies. The iQ2080 platform provides improved scalability and performance efficiency and can support different architectural components such as control plane data collection, storage and automation:

Figure 1

iQ2080 –
Data Management
Platforms
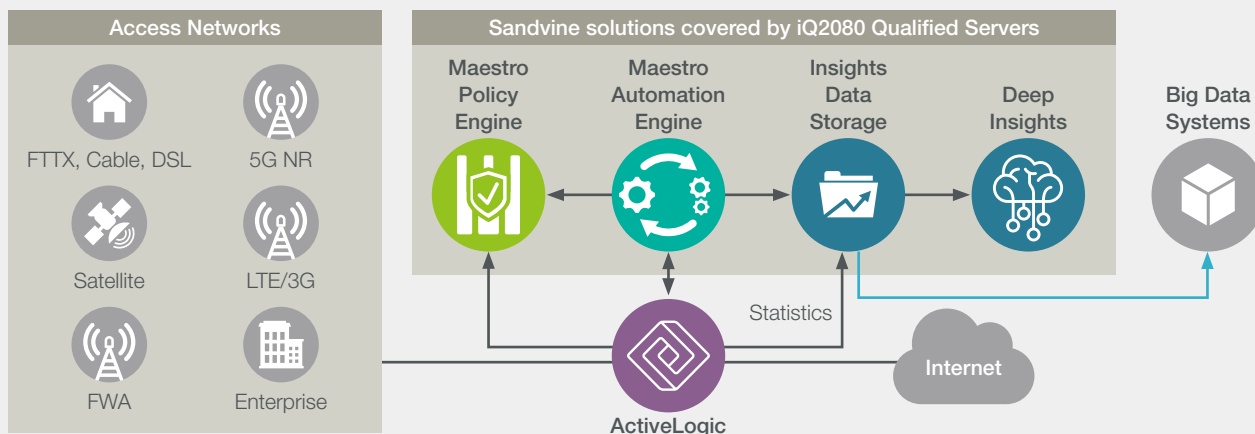
The iQ2080 supports:

- Sandvine's Maestro Policy Engine and Load Balancer: A control plane solution that supports distributed deployments
- Sandvine's Insights Data Storage and Deep Insights: For curated data collection, statistics, visualization solutions, and data export solutions
- Sandvine's Maestro Automation Engine: For sophisticated automation solutions.

WHAT IS A SANDVINE QUALIFIED SERVER?

Sandvine's Qualified Software Appliance series is a hardware reference model directed toward Dell Technologies' COTS rack servers and other third-party component vendors' global retail supply chains. This new appliance series will allow customers to transition from multi-vendor procurement to a centralized, single-source supplier, migrating server technology procurement from international to regional supply chains to allow improved lead times, regional pricing, and local sales and support presence.

SAVE ON TOTAL COST OF OWNERSHIP

Every dollar counts. That's why repurposing, refitting or re-using server technology is important for most organizations who have moved away from proprietary technology. The iQ2080 Qualified Software Appliance provides this flexibility and in turn increases the ROI of the purchased server technology.

Deploy with flexibility, with all optional parts fully customizable within the whole range of Dell portfolio parts, accessories, and refitting possibilities. Moreover, customers will be able to receive server technology-focused support services directly from Dell; hardware support, protection services, advisory services are available directly from Dell with focused efficiency.

Rack Server	Dell PowerEdge R760 - 2.5" Chassis with up to 24 SAS/SATA Drives, 2x2.5" Rear SAS/SATA Drives, Front PERC 11, 2 CPU
Processor family	4th Generation Intel® Xeon® Scalable Processors
Processor models	Revision A: 2 x Intel® Xeon® Gold 6448Y 2.1G, 32C/64T, 16GT/s, 60M Cache, Turbo, HT (225W), DDR5-4800, OEM XL, 96 vCPUs with (SST-PP config base frequency 2.6 GHz), enable Turbo 4.1 GHz Revision B: 2 x Intel® Xeon® Gold 6548Y+ (Gen 5) 2.5G, 32C/64T, 16GT/s, 60M Cache, Turbo, HT (250W), DDR5-5200 MT/s, 96 VCPUs with (SST-PP config base frequency 2.6 GHz), enable Turbo 4.1 GHz
Memory	Revision A: 12 x 64GB RDIMM, 4800MT/s Dual Rank. 768 Gb RAM Revision B: 12 x 64GB RDIMM, 5600MT/s Dual Rank. 768 Gb RAM
Storage	2 x 960GB SSD SATA Read Intensive 6Gbps 512 2.5in Flex Bay AG Drive
Network Interface Adapters	1 x Broadcom 57504 Quad Port 10GbE, OCP 1 x Broadcom 57414 Dual Port 10/25GbE 1 x Broadcom 5720 Dual Port 1GbE
Management Interfaces	2 x 10/100/1000 RJ-45 Ethernet & 2 x 10GE SFP+ ports
Sandvine Software Application	LTS 24.40 or higher
Sandvine OS	Sandvine Linux
Software Installation Process	Sandvine Installation Engine (SIE)

Sandvine provides detailed specification sheets to assist in ordering correct Dell server hardware and other third-party components.

Regulatory and environmental information for the servers can be obtained from the Dell website.

IQ2080 CONFIGURATION VARIATIONS
The iQ2080 Qualified Servers support different components for Sandvine. Below are some suggestions of the hardware variations when considering the functionality requirements for Maestro Policy Engine (MPE), load balancing (MPE-LB), Insights Data Storage (IDS), and Maestro Policy Automation (MPA).

Sandvine Model Revision A: iQ2080, R760 + 12 x 64GB + 2 x 6448Y + 2 x 960GB Revision B: iQ2080, R760 + 12 x 64GB + 2 x 6548Y + 2 x 960GB			
Hardware Variants	System Disk	Network Cards	Disk Type and RAID
Option 1	960 GB x 2 - RAID 1 (Part of Base Profile)	• 1x OCP Quad port 10/25GbE (Broadcom 57504) • 1x PCIe Dual port 10/25GbE (Broadcom 57414) • 1x LOM Dual port 1GbE (Broadcom 5720)	HDD 12 x 2.4TB - RAID10
Option 2			HDD 12 x 2.4TB - RAID50
Option 3			HDD 24 x 2.4TB - RAID10
Option 4			SSD 2 x 960GB - RAID 0
Option 5		• 1x OCP Quad port 10/25GbE (Broadcom 57504) • 1x PCIe Quad port 10/25GbE (Broadcom 57504) • 1x LOM Dual port 1GbE (Broadcom 5720	SSD 4 x 800GB - RAID 1
Option 6			SSD 8 x 800GB - RAID 1

Sandvine Model Revision A: iQ2080, R760 + 12 x 64GB + 2 x 6448Y + 2 x 960GB Revision B: iQ2080, R760 + 12 x 64GB + 2 x 6548Y + 2 x 960GB					
Option	SIE Model	Insights Data Storage	Maestro Policy Engine	Deep Insights	Maestro Automation Engine
Option 1	M.2.1.R760	✓	✗	✗	✗
Option 2	M.2.2.R760	✓	✗	✗	✗
Option 3	M.2.3.R760	✓	✗	✗	✗
Option 4	M.2.4.R760	✓	✗	✓	✓
Option 5	M.2.5.R760	✗	✓	✗	✗
Option 6	M.2.6.R760	✗	✓	✗	✗

ABOUT SANDVINE
Sandvine's cloud-based App QoE portfolio helps customers deliver high quality, optimized experiences to consumers and enterprises. Customers use our solutions to analyze, optimize, and monetize application experiences using contextual machine learning-based insights and real-time actions. Market-leading classification of more than 95% of traffic across mobile and fixed networks by user, application, device, and location creates uniquely rich, real-time data that significantly enhances interactions between users and applications and drives revenues. For more information visit **https://www.sandvine.com** or follow Sandvine on X **@Sandvine**.

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