



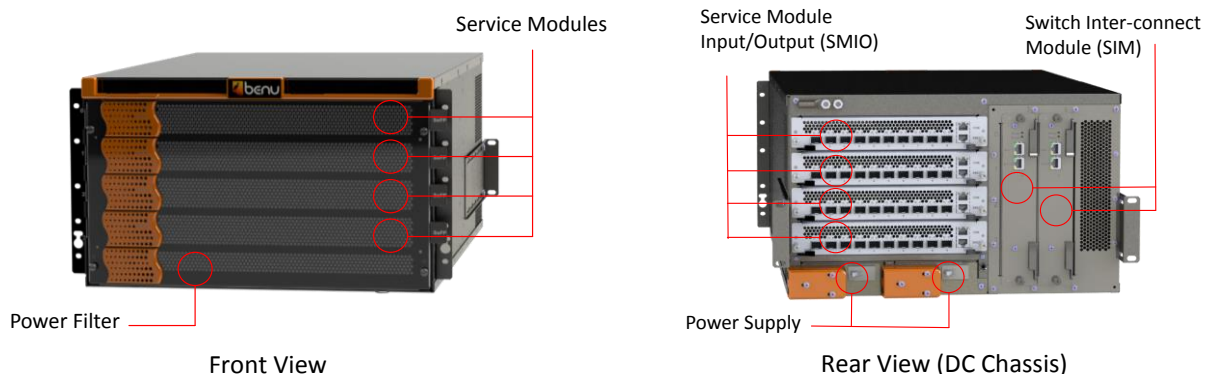
MEG-400 *New class of intelligent subscriber session control platform to deliver new broadband service experience for the deluge of Wi-Fi devices requiring seamless access and mobility.*

The MEG-400 platform is designed for fixed and mobile broadband operators integrating scalable and intelligent carrier Wi-Fi service offerings. MEG-400 supports industry leading performance for subscriber session control and policy enforcement to address the growing need for higher degrees of intelligence, policy enforcement and mobility. Carrier Wi-Fi applications such as community Wi-Fi (WISPr, HS 2.0) for large scale residential and enterprise hotspot services, and Wi-Fi integration into 3G/LTE packet core are ideally suited for MEG-400.

MEG-400 Overview

MEG-400 is a modular chassis design to run intelligent Service Modules which hardware accelerate the performance of Benu network service applications such as WLAN Access Gateway (WAG), Trusted WAG and Programmable Data Plane (PDP).

MEG-400 is a split-chassis design that consists of service modules in front, service module I/O cards in rear, and switch Inter-connect modules in rear. The chassis supports front to back cooling with per slot based by integrating fan assembly on each service module.



Benu's first intelligent service module is the Secure Fast Path (SeFP). The SeFP performs highly optimized packet processing, tunnel processing, and intelligent service control functions that are

required to run scalable subscriber session control services. The MEG-400 supports up to four Service Modules in the front slots.

Service Module I/O (SMIO) cards provide high density Ethernet interfaces for network connectivity. SMIO are inserted in rear of chassis directly behind Service Modules (up to 4 SMIO). MEG-400 supports 10x10GE interfaces using standard small form-factor pluggable plus (SeFP+) connectors.

Switch Interconnect Modules (SIM) support high-speed and redundant interconnect between slots for traffic moving between and among Service Module slots. Additionally, they provide separate Ethernet management switch interconnect between each slot.

The MEG-400 includes power filter unit configuration for both AC and DC power supplies to meet different facility requirements. All modules support full environmental monitoring, hot insert and removal.

Secure Fast Path (SeFP)

The SeFP utilizes state-of-the-art design leveraging multi-core Network Processors (NPUs), search processors and traffic management engines. The SeFP design has the best performance, session intelligence and packet processing per watt and per rack unit (RU) in the industry.



The SeFP hardware accelerates Benu's software applications by integrating it into bare metal processing (Fast Path) to achieve massive scale in subscriber

session control, tunnel processing, H-QoS, mobility, and Layer 3 services. The SeFP supports integrated intelligent network services such as CG-NAT, DHCP server and application steering functions to reduce the number of functional elements needed in Carrier Wi-Fi deployment. Each SeFP provides 100 Gb/s invariant performance characteristics even when intelligence, Quality of Service (QoS), and security features are applied to all subscriber sessions.

Operating System

The MEG-400 features the BenuOS – a highly modular operating system that features a protected memory architecture that prevents processes from exceeding allocated resources, process and thread protection for integrity of critical applications, and automatic process restarts. The BenuOS is optimized to leverage Fast Path processing for superior subscriber session control.

Specifications

	MEG-400
System Throughput	Up to 400Gbps, 40x10GE SFP+ Ports
Service Module Slots	4 (Front)
Service Module I/O Slots	4 (Rear)
Capacity per Slot	100 Gb/s per slot
Scalability per Slot	Up to 100Gbps of IPv4/IPv6 Subscriber Session Control
Console Access	RJ45 RS-232 Console RJ45 Ethernet Console
Operating System	BenuOS/Linux
Rack Units (RU)	6 RU (19" Rack Mountable)
Dimensions	Height: 10.50" (266.7mm), Width: 28" (711.2mm), Depth: 28" (711.2mm)
Weight	Chassis Only approx. 80 lbs. (39.9 kg) Chassis plus Shipping Container approx. 120 lbs. (54.43 kg)
Max Power Ratings	AC: 100-240V, 50/60 Hz, 15A max (x3) DC: -48V to -60V (x2) 90A Max Current Draw 3600W Max Power
Cooling	Front-mounted fan and filter on each Service Module Slot (front to back air flow)
Compliance	<p>Safety Agency Certification:</p> <ul style="list-style-type: none"> • EN 60950-1:2011 • UI60950-1:2011-12 • CAN/CSA-C22.2 No. 60950-1/A1:2011 • UL 60950-1/R:2011-12 • EN 60950-1/A12:2011 <p>Electromagnetic Emissions Agency Certification</p> <p>EMC Emissions:</p> <ul style="list-style-type: none"> • EN 55022:2010/AC:2011 Class A ICES-003 Issue 5 Class A • CFR 47 FCC Part 15 Subpart B Class A • VCCI Class A • AS/NZS CISPR 22:2009/A1:2010 Class A • EN 61000-3-2:2006/A1:2009/A2:2009 EN 61000-3-3:2008 <p>EMC Immunity:</p> <ul style="list-style-type: none"> • EN 55024:1998/A1:2001/A2:2003
Environmental	<p>Operating Temp: 0°C – 50°C Ambient</p> <p>Storage temp: -40 °C to 70°C</p> <p>Above Sea Level: -200 to 10,000 feet</p> <p>Humidity: 5%-95% R.H. - non-condensing</p>