

# Cisco PowerVu D9190 Conditional Access Manager

The Cisco<sup>®</sup> PowerVu<sup>®</sup> D9190 Conditional Access Manager (PCAM) is one of the PowerVu next generation system core components. The D9190 is used for encrypting services with PowerVu CA (PCA), and is designed for use with the Digital Content Manager to provide a functional replacement for the PowerVu D9140 Advanced Multiplexer.

For network monitoring and control, the D9190 is integrated with PowerVu Network Centre (PNC).



Figure 1. Cisco PowerVu D9190 Conditional Access Manager

### **Chassis Overview**

The D9190 chassis features dual redundant and hot-swappable power supplies. It has the capacity for up to six modules. The chassis supports advanced internal common synchronization mechanisms which can be used to synchronize the various services being hosted. Dedicated management and auxiliary input ports are also provided for control system monitoring and communication. The PowerVu Conditional Access modules are field-replaceable to allow for fast service with minimum down time. A contact closure output is used to signal a Major alarm to the control system when it is active.

### PowerVu CA (PCA)

The PCA module is used to encrypt ECM and EMM traffic and to communicate with a DCM using various Simulcrypt protocols. The PCA module has four 1000BASE-T Ethernet ports, one of which will be used to communicate with the DCM Multiplexer.

### Features

- PowerVu CA (PCA) encryption
- Dual redundant, hot-swappable power supplies
- Supports one PCA module
- PNC management support
- Supports up to 85 services
- Simulcrypt communications support

# Specifications

 Table 1.
 Product Specifications

Feature	Description			
Conditional Access				
Brand	PowerVu CA			
Crypto Cycle	>= 1 sec			
Services	85			
Management				
Control System	Integrated in PNC			
Inputs/Outputs				
Number of ports	Port 1 is for Simulcrypt communications Ports 2, 3, and 4 are unused			
Туре	Eight-pin RJ-45, MDI			
Ethernet type	100/1000BASE-T			
Format	Simulcrypt Protocols			
Environment/Physical				
Dimensions	1.73 in. H x 21.42 in. W x 17.36 in. D (4.4 cm H x 54.4 cm W x 44.1 cm D) 1U high, 19 in. rack mountable, stackable			
Operating temperature	0 – 50°C (32 – 122°F)			
Storage temperature range	-10 – 70°C (14 – 158°F)			
Weight	9.2 kg / 20.2 lbs.			
Relative humidity	0 to 95%, non-condensing			
Cooling	Forced cooling with air inlets on front panel, air exit at rear			
Power Requirements				
Voltage range	90 to 264 V AC input			
Line frequency	47 to 63 Hz			
Consumption	400 W maximum (typical power consumption is 120 W)			
Regulatory Compliance Standards	i de la construcción de la constru			
CFR 47, Part 15, Subpart B Class A	Unintentional Radiators			
CISPR 22:2008-09				
EN 55022:2006 +A1:2007, Class A -	Information Technology Equipment			
CISPR 24:1997 +A1:2001, +A2:2002				
EN 55024:1998 +A1:2001, +A2:2003 Characteristics	EMC Requirements - Information Technology Equipment - Immunity			
IEC 61000-3-2:2005 / EN 61000-3-2:2006 Harmonic Currents, Class A				
IEC 61000-3-3:2002 / EN 61000-3-3:	1995' +A1:2001, +A2:2005 Flicker			
Australia Radio Communications (Ele	ectromagnetic Compatibility) Standard 2008			
CAN/CSA-C22.2 No. 60950-1-07				
UL 60950-1 Ed. 2 Mar 27 2007				
IEC 60950-1-am1 ed2.0 (2009-12), including all country and regional differences currently in force				
EN 60950-1:2006+A1:2010				

## Figure 2. D9190 Rear Panel

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## Table 2. Ordering Information

Chassis	Part Number			
Chassis, D9190, 1RU (Include 2AC Power Supply, SW)	D9190-1RU			
Chassis, D9190, 1RU, SPARE	CHAS-D9190-1RU=			
Hardware Modules				
MODULE, D9190, PCA card	D9190-PCA-K9			
MODULE, D9190, PCA card, SPARE	D9190-PCA-K9=			
Power Supply				
PSU, D9036/D9190, AC, 400W, SPARE	D9036-PWR-400W-AC=			
Accessories				
KIT, D9036/D9190, FAN REPLACEMENT, 1RU, SPARE	D9036-FAN-1RU=			
KIT, D9036/D9190, AIR FILTER, 1RU, SPARE	D9036D9190-DUST=			

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