

i-Cluster™ Open Series

The New Generation Of Application Service Provisioning Platform



i-Cluster™ 120

The patented *i-Cluster*™ Open Series, a totally new and open Carrier Grade application provisioning platform, has been designed with the Service Providers' needs in mind. Through the use of ACR's unique RealScale™ architecture, large-scale and cost-effective application deployments become a reality.

If current IT solutions work fine on a limited scale, the related complexities grow exponentially with the multiplication of users, making application provisioning almost impossible on a large scale.

Based on ACR's unique RealScale™ architecture, Service Providers are now in the position to deliver thousands of web-enabled applications as simply as telecom operators manage their line provisioning.

Designed to reduce the Total Cost of Ownership to its minimum

- Lowest cost per square foot of rack space: capability to host up to 240 application servers within the same physical rack.
- Power consumption reduced by at least a factor of 5 compared to traditional solutions.
- Reliable by design, with high fault-tolerance devices and improved system availability (Raid 0,1 mirrored disks...).
- Carrier Grade serviceability implying minimized human intervention:
 - Hot-swap support for all critical components,
 - Easy and remote software updates and upgrades.

Seamless integration with legacy Service Provider environments

- Carrier Grade and easy-to-use centralized management executed thanks to ACR's patented "2 steps" proxy management and deployment architecture:
 - Full SNMP enabled control: all supervision tasks are centrally executed from the Network Operating Center (NOC), which may be in a separate location from the platform,

- The management chassis within each platform handles up to 240 application servers, with status reporting, firewall, SSL certificate allocation and single IP address sharing functions.
- Highly flexible network deployment from network core to edge in order to satisfy various customer demands:
 - Be closer to the end-user for better response-times,
 - Optimize bandwidth usage to avoid bottlenecks.
- Carrier Grade EMC compliance and heat dissipation.

Dramatically reduced Time-to-Market

- Carrier Grade scalability for rapid and seamless extension of the number of application servers.
- Carrier Grade centralized management allowing Service Providers to instantaneously:
 - Allocate web applications to subscribers,
 - Set service levels like per server bandwidth or per server redundancy levels.

HIGHLIGHTS

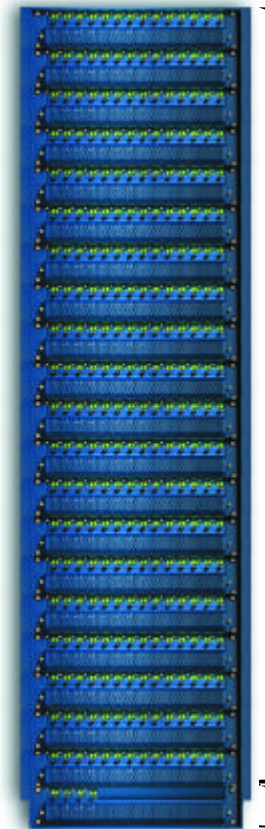
- A New Generation of application provisioning platform
- Minimal footprint, rack space and power usage
- Carrier Grade serviceability
- To be installed wherever it fits best (Core or Edge)
- The most cost-effective platform on the market



i-Cluster™ Server Module

i-Cluster™ Open Series

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| <p>Management Chassis</p> <ul style="list-style-type: none"> • 1 management chassis for up to 240 web application servers, • Single IP address sharing function, • HTTP, SNMP, SSL Proxies, • Load balancer, • Administration server, • Optional: POP3 and FTP Proxies, Payment Gateway, • Embedded System on Compact Flash disk. <p>Carrier Grade Switching</p> <ul style="list-style-type: none"> • Dual Ethernet 100 Base-T cables per chassis, • Front swappable switches, • Upgradeable to Gigabit Ethernet. | <p>Application Chassis</p> <ul style="list-style-type: none"> • Dedicated chassis provisioning, • Two Redundancy Levels: <ul style="list-style-type: none"> - Raid 0,1 mirrored disks, - Servers redundancy within a chassis. • Lowest power consumption, • Redundant Ethernet interfaces, • Application Servers: <ul style="list-style-type: none"> - Similar to telecom server modules, - Up to 12 servers per chassis, - Up to 240 servers per rack, - Intel chipset, - Linux and Windows NT enabled, - Embedded Application on Compact Flash disk. |
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By choosing the i-Cluster™ Open Series and its RealScale™ architecture ASPs find a really cost-effective and timesaving way of providing value-added appliance services... securely and reliably.

Up to 20 Appliance Chassis

Management Chassis

i-Cluster™ 2400

i-Cluster™ Open Series Technical Specifications

Hardware Specifications

Physical Dimensions

Form factor: 2U, rack-mountable (fits standard 19" equipment rack).
 Mounting: Front and back-mount brackets included; rails available as accessory.
 450mm Width x 600mm Depth x 89mm Height.
 Weight: 11 lbs for one chassis of 12 servers.
 Footprint: 0.27 m2 per chassis.
 Up to 240 application servers per rack (42 U).
 Front panel PLD: Power, alert.

Power Requirements

DC: Nominal -48 v DC, Range -36 to 56.
 Optional: v AC: Auto sensing 90 to 240 v (47-63 Hz).

Operating Environment

+10°C to +35°C (humidity 95%, non condensing at 30°C).

System and Software

Intel Chipset: up to 512 MB of RAM.
 Remotely upgradeable - hosted on Compact Flash disk of up to 410 MB.
 CGI support; Perl scripting; PHP scripting, Frontpage 2000 Server Extensions; PostgreSQL Database.

Connectivity

Dual Ethernet 100 Mbp/s Base-T interface.

Alarms

Support for temperature, power supply, hard disk and software failure detection and reporting.

Software Specifications

Protocols Support

TCP/IP, HTTP 1.1, UDP, SMTP, POP3, LDAP, IMAP 4, FTP, NTP, SNMP v.2.

Regulatory Approvals

CSA 950, NTRL/UL 1950, TUV EN 60 950
 Telecom Standards FCC Part 68, FCC Part 15.

Quality of Service

Per site bandwidth and disk capacity control.

Security

Packet Filtering. 56/128 bits SSL support.
 Raid 0,1 mirrored hard disks of up to 15GB per disk.

Management

Browser interface for simplified provisioning and management of new service offerings.
 SSL, 56 bit for secure administration.
 One asynchronous console port, Telnet, FTP network downloads, SNMP MIB II compliant, SNMP Enterprise MIB extensions.
 Service Monitoring. IP Ethernet 10/100 Mgt equipment. Date & Time. NTP Client. Hardware, software and system logs alerts via SNMP traps.
 Hardware failure detection: voltage variation, thermal, operating system watchdog timer, fan failure.

Operating System

Open standard design based on Linux operating system and Open Software Apache web server;
 HTTP 1.1 compliant. Windows NT embedded.

Ordering Information

i-Cluster™ 120
 (for 12 servers with management)
 i-Cluster™ 600
 (for 60 servers with management)
 i-Cluster™ 2400
 (for 240 servers with management)
 i-Cluster™ Ext
 (12 servers chassis extension)