

RRADS

Rajant Remote Advanced Diagnostic System

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Rajant Remote Advanced Diagnostic System (RRADS) is an advanced network administration, monitoring and diagnostic system that automates many of the functions typically performed by remote network support personnel.

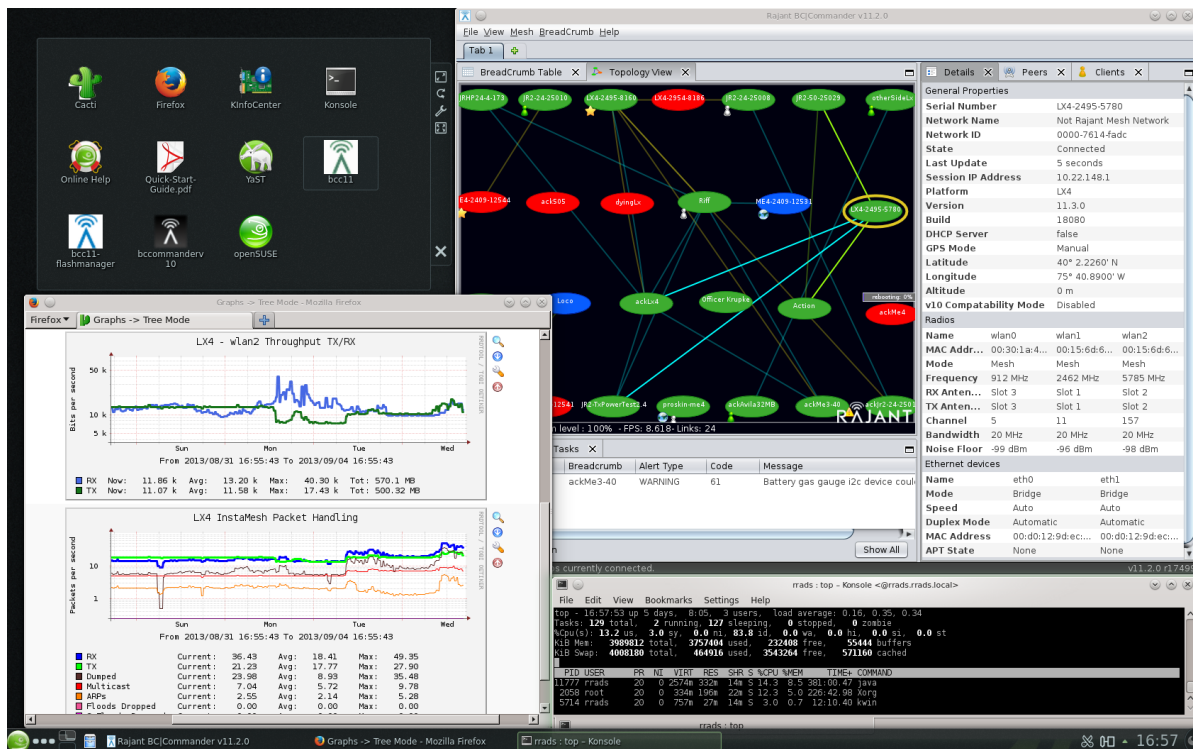
The RRADS appliance software is a collection of specialized tools designed for Rajant Kinetic Mesh Network analysis. The information obtained from these tools can be used to make the necessary adjustments needed to optimize network performance.

Rajant offers the appliance software as a self-contained single system image file and requires that it is installed on a customer provided generic x86-64 host computer system. The appliance can operate either in virtual machine or native mode.

RRADS allows for wireless packet capture from the radio modules of BreadCrumb® devices coupled to the RRADS host system through Ethernet.

Features

- Linux-based operating system.
- Easily embedded into a Kinetic Mesh Network.
- Allows remote access by Rajant support staff.
- Remote access and control tools: NX Server and VNC Server remote desktop applications, Secure Shell (SSH).
- Allows real-time and historical network analysis.
- Specialized tools onboard: BC|Commander® (v10 and v11), BC|Catcher, BC|Commandline, Cacti, NACK, Wireshark, iperf, ping, and others...
- Packet capture through various BreadCrumb® models.



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System Image Characteristics

Rajant offers the RRADS appliance software as a single, self-contained system image file. The file is available for download on the Rajant web site. The characteristics of the system image are:

- Single, self-contained, read-only file.
- Single file download and upgrade.
- Tolerant to data corruption and hardware malfunction.
- Solid-state drive (SSD) friendly.
- Supports zeroizing to factory defaults.

Host Computer System Requirements

The RRADS appliance needs to be installed on a generic x86-64 host system meeting the following requirements:

Processor

- x86-64 (x86 instruction set, 64-bit capable). Intel i3, i5, i7, Xeon or later.
- Minimum two cores. Preferably four or more.
- Minimum 2.5 GHz base (not Turbo) clock frequency. Preferably 3.0 GHz or more.
- If the appliance will run in a virtual machine, the following processor features are recommended:
 - Support for LAHF and SAHF CPU instructions.
 - The processor eXecute Disable (XD) bit should be enabled in the BIOS.
 - Support for Intel virtualization (VT-x) with Extended Page Tables (EPT), and Intel Virtualization Technology for Directed I/O (VT-d).

RAM

- Minimum 6 GB for native operation (4 GB if running in virtual machine mode).

Disk Drive

- Minimum 128 GB.

Network

- One 100 Mbps (1000 Mbps preferred) Ethernet port for connecting to LAN or wireless packet capture device.
- A second, dedicated 100 Mbps (1000 Mbps preferred) Ethernet port for connecting to wireless packet capture device is recommended.

RRADS

Included Tools

- **BC|Commander® (v10 and v11):** BC|Commander is Rajant's management and monitoring application for BreadCrumb-based wireless mesh networks. BC|Commander provides a global view of your network with an easy-to-use graphical interface.
- **BC|Capturer:** Allows for wireless packet capture from the radio modules of BreadCrumb devices coupled to the RRADS host system through Ethernet. Simultaneous packet capture from multiple BreadCrumb devices is supported. Supports any BreadCrumb model, except the JR, running version 11.3 or greater firmware.
- **BC|Commandline:** Allows command line access and control of BreadCrumb devices.
- **Cacti:** A data trend graphing tool that allows users to visualize BreadCrumb performance and usage data in a familiar format. A customized installation of Cacti has been included by Rajant to work with its BreadCrumb API on RRADS.
- **NACK:** Another innovative tool, NACK, automates the customer support function by analyzing the network snapshots taken in BC|Commander. After post-processing the data from the network snapshot, NACK generates an HTTP-based report, which allows users to easily analyze BreadCrumb configuration and interconnectivity.
Note: For v11 networks, NACK functionality is embedded in BC|Commander v11.
- **Wireshark:** GUI-based packet capture and analysis tool.
- **Tcpdump:** Text-based packet capture and analysis tool.
- **Iperf:** Network TCP and UDP bandwidth performance measurement tool. Iperf allows the tuning of various parameters and UDP characteristics. Iperf reports bandwidth, delay jitter, and datagram loss.
- **Ping:** Computer network administration utility used to test the reachability of a host on an Internet Protocol (IP) network and to measure the round-trip time for messages sent from the originating host to a destination host.
- **Fping:** A ping like program, which can simultaneously ping multiple destination hosts.
- **NX Server:** Remote desktop access and control tool.
- **VNC Server:** Remote desktop access and control tool.
- **Secure Shell (SSH):** A cryptographic network protocol for secure data communication, remote command-line login, remote command execution, and other secure network services between two networked computers that connects, via a secure channel over an insecure network, a server and a client (running SSH server and SSH client programs, respectively).
- and others...



► www.rajant.com

Rajant Data Sheets
WEB QUICK LINK

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