



INTRODUCTION

Delivering high quality, reliable services over Wi-Fi at large scale is an important and growing trend for many Ruckus customers. Beyond the initial deployment, there's an inherent requirement for ongoing expertise in the monitoring, operation, maintenance, tuning, and design evolution of a mission-critical Wi-Fi network. Ruckus Wireless is working with leading customers worldwide to help them sustain operational excellence for their Wi-Fi deployments.

The BullDog Essential Support Program is designed to deliver a services relationship for our premium customers that includes both world-class baseline product support as well as more advanced engagements. This support leverages our unique expertise in developing and evolving successful carrier Wi-Fi networks, and extends to those customers who are not carriers in the traditional sense, but have similar requirements in terms of performance and availability.

BullDog Essential Support lays a solid foundation of the fundamentals of wireless network product support, helping customers meet network demands with technical and operational support designed to keep networks running reliably, while at the same time protecting their high-performance networking investments.

The program helps customers to:

- Drive efficiencies and scale in network operations.
- Reduce the Mean Time to Repair (MTTR) – the time needed for problem identification, troubleshooting, and repair.
- Allow operations staff to concentrate on higher priority tasks that drive the business.
- Improve operational stability and network availability with early identification of incidents that are reported in real-time, allowing for early intervention and rapid response.
- Leverage expert guidance to evaluate the operational success of the network and evolve the network's functionality, tapping best practices learned from pioneering Ruckus Wireless deployments worldwide.

BullDog Essential Support

BULLDOG ESSENTIAL SUPPORT PROGRAM

The BullDog program can be customized to meet the needs of our customers. Capabilities include rapid response from our technical support engineers, E-support, E-Learning, hardware replacement options, and much more.

To ensure program integrity and proper customer engagement, the program is only available to premium customers via approval by Ruckus Support Management.

Deliverables

BullDog Essential extends the Ruckus baseline service offering (24x7 technical support, E-Support, E-Learning, software updates and upgrades, hardware replacement, and service automation) with a series of specialized capabilities designed for a higher level of service. These include:

- Monthly calls to review the network issues that occurred over the previous 30 days.
- Accelerated response times on all technical support issues
- Return to Factory (RTF) for outdoor units for life of contract (subject to EOL policies). The standard warranty for outdoor units is 1 year.
- Annual service reviews, which can occur onsite or via a remote secure web session.
 - Review includes report card and metrics on issues arising during the past year, a look at RMA (return material authorization) activity, as well as performance against SLAs, and more.
 - This review is also to help plan for the coming year, including network upgrades, new deployments, process changes, etc. We'll share any best practices that may enhance your service offering.

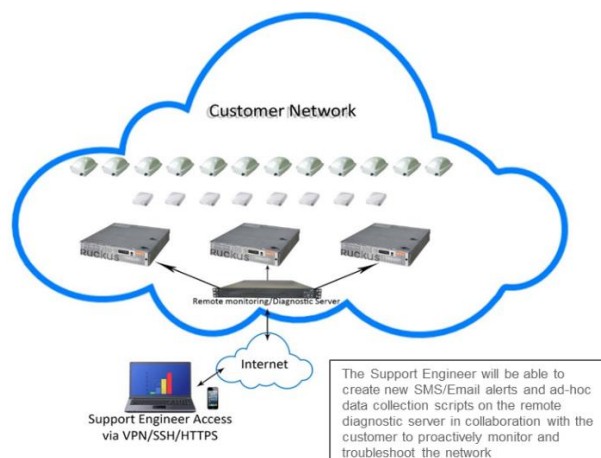
- Inbound service requests are routed automatically to the premium customer support team
 - Provides expert-level assistance from support engineers experienced with large, mission critical deployments.
 - Includes an escalation path to a live, expert resource 24x7
- Documented root cause analysis and corrective action plans

Additional Options

BullDog Essential customers can also choose additional options to augment the above deliverables, including:

- Advance replacement on controllers for all hardware faults. This does require that customers have taken the necessary steps to guarantee high availability, which includes HA design practices.
- An assigned point of contact from within the Ruckus technical support organization
 - This highly trained technical resource, in your time zone, will spend time on preventative planning and release planning in addition to break/fix issues.
 - This designated engineer is backed up by a 24x7 team that has access to all pertinent information on your network.
- Customized bug reporting and analysis, with new release alerts. The bug reporting system allows bugs to be prioritized in different ways for different users, eliminating the need to search through bug reports for the information that is

REMOTE TROUBLESHOOTING



BullDog Essential Support

- Customers may request a remote alerting and diagnostic appliance that can be used to monitor the health of the Ruckus Wi-Fi equipment in the customer's network. Alerts to the BullDog Essential Support team are generated should a key performance indicator be triggered.
- Onsite visits to occur on an agreed-upon schedule. They will include preventative maintenance discussions, upgrade planning, and proactive support. They will also involve a requirements review along with best practices sharing.
- Software or hardware upgrade assistance with standby or onsite support, depending on the scope of the upgrade. This can involve a secure web session ahead of time to step through the upgrade process, as well as rollback planning should it be necessary to revert to the previous release.
- Dedicated on-site, full-time technical resources
- RAN assessment (design, performance, opportunities for optimization) and recommendations. This is provided by our professional services organization.
- End-to-end network audit (devices, L2/L3, backhaul, back-end integration, etc.) Also provide by professional services.
- New product impact review to evaluate the impact new Ruckus products and technologies will have on network performance.
- Design change reviews to analyze best approach for changing the overall network design to meet evolving needs

BullDog Services Available	Essential	Optional
Premium web access to support portal	✓	
Software upgrades	✓	
24/7 access to technical assistance center	✓	
Access to designated worldwide BullDog support team	✓	
Accelerated response times	✓	
Annual deployment review	✓	
Technical and management escalation paths	✓	
Monthly support and proactive review calls with issues reports	✓	
RTF replacement of all APs	✓	
Advance replacement for physical controllers		✓
Named, designated, local support engineer		✓
Quarterly business reviews with metrics reports		✓
Weekly calls to review issues and action plans		✓
Remote diagnostics of network and alert monitoring		✓
Customized bug reporting and analysis		✓
Upgrade assistance/testing assistance/standby support/onsite visits		✓
RAN assessment, Network audit		✓
Dedicated on-site resources		✓
SOW-based professional services engagements		✓

BullDog Essential Support

Ruckus Escalation Procedures

Escalation flow

If a customer requires an immediate update on the status of a support issue, the customer can request Ruckus Support to engage the Duty Manager at any time. Escalation from the Duty Manager is shown below.



Ruckus Management Notifications

	P1	P2
Technical Support Managers	30 minutes	2 hours
Technical Support Director and Sales Account Manager	1 hour	1 day
Ruckus E-staff	4 hours	3 days

Notifications are fully automated through the CRM system

RUCKUS SUPPORT INFORMATION

Ruckus Support Case Priorities and Service Level Agreements

	P1 – Critical	P2 – High	P3 – Medium	P4 – Low
Priority Description	Network service is down and business is impacted. No known workaround	Network or service is impacted but not down. Business impact may be high. Workaround may be available.	Network or service is moderately impacted but most business remains functional.	Request for information, product documentation, or product enhancements.
Initial Response time	15 minutes	1 hour	1 Day	1 Day
Customer Update Frequency	Every 1 hour	Every 12 hours	Per specified update frequency	Per specified update frequency
Initial Restoration Time	4 Hours	8 Hours	n/a	n/a
Initial Restoration Objective	Restore services. Emergency bug fix/patch provided if necessary. Fixes included in the next update or upgrade.	Provide workaround – patch or fix included in next update or upgrade	n/a	n/a
Final Correction Time	4 weeks	12 weeks	24 weeks	n/a

All hours and days are calendar hours and days. SLA for “Final Correction Time” applies to software issues only

Ruckus Contact Information

Ruckus Technical Support Contacts

Name	Role	Contact Details
BullDog TAC Centre	Primary Contact Point for all support related issues	Phone contact is the preferred method for P1/P2 and web portal/chat for other issues https://support.ruckuswireless.com/contact-us Support Portal includes live web chat, knowledgebase, technical forum, product manuals, RMA initiation and access to software updates
Alternative TAC Centre number	Alternative TAC Centre number	Phone: +1 855 782 5871

BullDog Essential Support

RUCKUS BASELINE SUPPORT DELIVERABLES

Hardware Repair/Replacement

Return to Factory (RTF) service

All returns must be authorized and assigned Return Materials Authorization (RMA) numbers in advance by a Ruckus Technical Support Engineer. To begin the RMA process, contact Ruckus Technical support via the web portal, chat, or phone. Be prepared to provide serial number(s) and a description of the problem. See <https://support.ruckuswireless.com/cases/new> for full details. Note that you will need a login.

Optional Advance Replacement

Controllers covered by the BullDog Essential program are shipped in advance of the returned unit in the event of a hardware failure.

- U.S./Canada and EU Customers: Advance replacement units are shipped within one (1) business day Monday through Friday PST via overnight shipment.

Delivery times will vary for locations outside of the U.S., Canada and EU.

Warranty Guidelines

The most updated Ruckus Warranty terms can be found at:

<http://support.ruckuswireless.com/warranty> and a Warranty FAQ can be found [here](#).

RUCKUS TECHNICAL SUPPORT ORGANIZATION

- Ruckus technical support engineers can be reached via phone, web portal or chat support.
- Self-support via the Ruckus Support Web includes online case management, community forums, and an extensive knowledge base.

About Ruckus

Ruckus Wireless (NYSE: RKUS) is a global supplier of advanced wireless solutions for the rapidly expanding mobile Internet infrastructure market. The company offers a wide range of indoor and outdoor "Smart Wi-Fi" products to mobile carriers, broadband service providers, and corporate enterprises, and has over 52,000 end-customers worldwide. Ruckus technology addresses Wi-Fi capacity needs driven by the massive adoption of mobile devices such as smartphones and tablets. Ruckus invented and has patented state-of-the-art wireless voice, video, and data technology innovations to ensure consistent and reliable distribution of delay-sensitive multimedia content and services over Wi-Fi. For more information, visit <http://www.ruckuswireless.com>.

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- Hardware Repair/Replacement Support troubleshooting by Ruckus Technical Support Engineers.
- Software Updates, Upgrades, Bug Fixes, Maintenance releases, and accompanying documentation are available via the Ruckus Support Web and/or Ruckus FTP Servers.

Ruckus Support Locations

Ruckus Support Operations are headquartered in Sunnyvale, CA, and we have a well-established Technical Center of Excellence in Bangalore. We have physical support labs in Sunnyvale and Bangalore, and have virtualized those labs to provide worldwide access if needed by our distributed support engineers. These organizations are supplemented remotely by well-seasoned and veteran support engineers in the following locations: Boston, Miami, Mexico, Netherlands, Spain, UK, South Africa, Malaysia, Shanghai, Shenzhen, Australia, Hong Kong, and Singapore.

Corporate Headquarters are located at:

Ruckus Wireless

350 West Java Dr. Sunnyvale, CA 94089
USA
(650) 265-4200

ORDERING INFORMATION

Ruckus BullDog Services are available globally. For details, please contact your local Ruckus sales manager.

The descriptions herein are provided for reference purposes only and summarize the offers of the BullDog Essential Support Program. The Ruckus' terms of service for such offering shall be solely set forth in BullDog Essential Support Agreement between the customer and Ruckus.



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