

ROKE

CC1TM

CHARLIE CHARLIE ONE

S22

CONTROL YOUR BATTLESPACE



Background

Roke recognises that people, not equipment, are the critical component in all operations. We also understand the significant physical and cognitive burden faced by our war-fighters and understand how the application of technology can help reduce both of these factors.

Commercial technology is becoming common place in modern theatres of operation. It provides the opportunity to leverage investments made by large technology companies that can be adapted and subsequently adopted by war-fighters. Their user friendly interfaces reduce both time to train and the cognitive burden ensuring the soldier is able to focus on the insights to inform their decision making. Smartphones and tablets present excellent technology platforms that provide the opportunity to process, exploit and disseminate intelligence at the tactical edge.

Operations can be conducted with either limited or no user input, exploiting the platform's processing capacity to leverage advances in Artificial Intelligence and Machine Learning. Tactical smartphones enable the hosting of Battle Management Applications (BMA) which provide user interfaces that allow operators to comprehend the common

operating picture. They are re-configurable to support the next mission with the benefit of being hardware agnostic enabling evergreen development.

Charlie Charlie One (CC1) is a Tactical End User Device (EUD) ecosystem that is secure, networked, intuitive and supported in the field. CC1 provides a lightweight solution that meets the demand for soldier worn sensors and systems. In this way, devices can present key operational information to the deployed operator where it can be displayed, aggregated and shared within the team and beyond. CC1 is fully compatible with Battlefield Management Applications such as ATAK and Teleplan FACNAV.

Based on the flagship Samsung Galaxy S22 smartphone, CC1 was engineered by Roke and Samsung to meet the demanding requirements of the tactical environment. It's scalable, secure, and underpinned by open standards and architectures to drive modernisation in military operations. CC1 is also compatible with third party Google Android apps and a range of tactical accessories such as cases, mounts and cables.

Specifications

| | | |
|----------------------------------|--|--|
| Device | Samsung Galaxy S22 | Colour Black |
| Processor | CPU Speed 2.8GHz, 2.5GHz, 1.8GHz | CPU Type Octa-Core |
| Display | Size 153.9mm (6.1" full rectangle) 149.9mm (5.9" rounded corners) | Resolution 2340 x 1080 (FHD+) |
| Storage/Memory | Storage (GB) 256 | Memory (GB) 8 |
| Connectivity | USB Interface USB Type-C | USB Version USB 3.2 Gen 1 |
| Operating System/Security | Android 12 (Snow Cone) | Samsung Knox API v3.3 or higher |
| Physical Specification | Dimension (HxWxD, mm) 146.0 x 70.6 x 7.6 | Weight (g) 167 |
| Battery | Battery Capacity (mAh, Typical) 3700 | |
| Hardware | OEM SKU: SM-S901BZKGEUB | IP68 dust/water resistant (up to 1.5m for 30 minutes) |

Enabling Features

- Multiple tactical network interfaces
- Open interface to tactical features enables rapid third-party app development
- Selective inhibition of all RF sources to support EMCON
- Configurable touch screen with enhanced sensitivity for gloved use

Security Enhancements

- Configurable external device storage encryption
- Enhanced network interface firewalls
- WiFi device whitelisting
- Bluetooth device whitelisting
- Ability to fully disable Bluetooth, WiFi and cellular capability including E911 suppression
- Security Maintenance Release (SMR) updates

Mobile Device Management (MDM)

The CC1 Management Laptop provides the user with the ability to configure and apply security and user policies to meet changing tactical environments and re-provision to recover following security events. CC1 is compatible with all major MDM software packages

Specifications (continued)

Accessories Supplied with Juggernaut OPRTR smartphone case with PALS Armour Molle Mount for Samsung Galaxy S22, and the cables and tactical USB hubs needed to integrate with multiple tactical radios

Software Platform Open Tactical API v1.0 providing programmatic access to:

- Static and DHCP IPv4/v6 configuration for all network interfaces
- Per network interface advanced firewall
- EMCON RF transmit inhibitor
- EMCON light reduction - Start-up screen brightness 25% of normal

Compatibility Compatible with the full Google Android eco-system of apps
Compatible with Samsung Secure Settings for device policy management
Supports integration of third party MDM solutions in the event that additional controls are required over and above the CC1 security and user policy tools
Support for military and commercial data radios via USB CDC ECM, ASIX and RNDIS Host mode drivers



Core Applications

Network Manager

The inbuilt 'Network Manager' makes connection to modern mesh radios a simple plug in and go process. CC1 can be networked with new and existing systems through built-in tactical radio drivers, and is linkable with multiple radios and sensors via a tactical hub to deliver network resilience and connectivity.

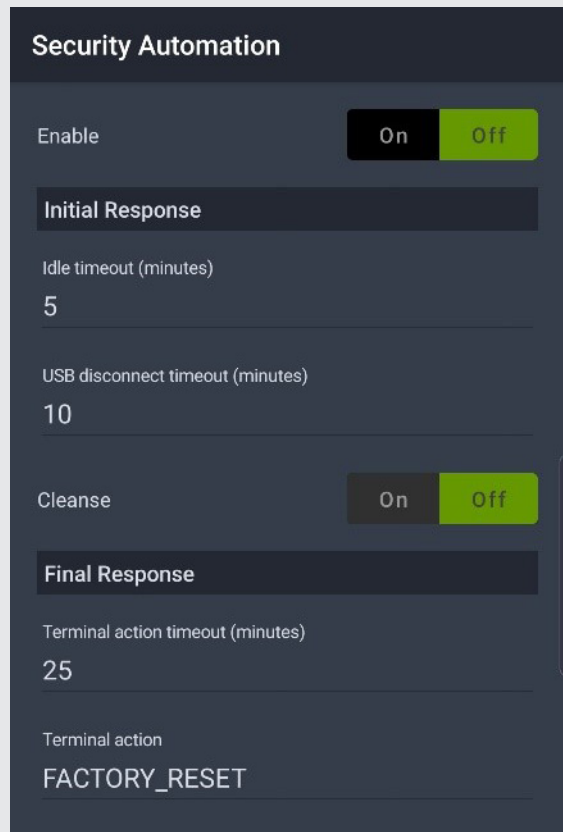
- User interface to view and modify configuration of all network interfaces
- Automated or manual configuration of tactical radios and peripherals



Security Automation

In the event of user action, device loss or compromise, CC1 enables automatic information protection.

- Configurable automated triggers initiate progressive protection that includes device locking, removal of sensitive data through to complete device sanitisation
- Manual interface to trigger response immediately
- Security events and timers are tailorable to user's needs

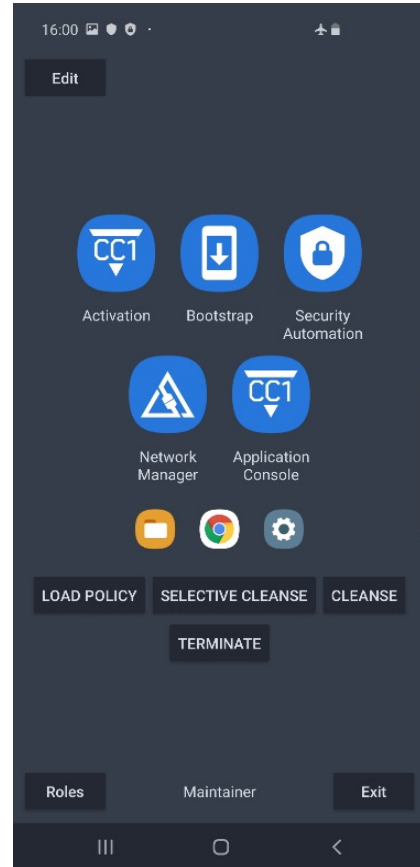


Core Applications

Application Console

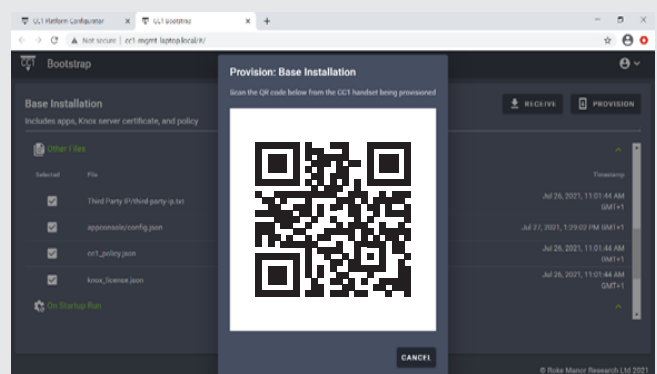
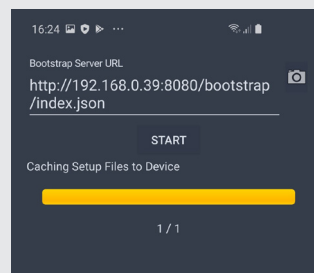
CC1's 'Application Console' provides a simple and intuitive user interface, displaying only the apps needed for the current operation and specific user. It can be easily edited to create custom user views and new profiles, adapting to changing user requirements and missions.

- Mission focussed app launcher
- Role based presentation
- Users are presented only the applications relevant to their role
- Configurable
- Security feature shortcuts



Bootstrap

- Enables rapid and automated device activation and initial provisioning
- QR Codes simplify the process
- Fully automates initial configuration from factory settings





For more information on the items discussed in this document you can contact us

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We believe in improving the world through innovation. We do it by bringing the physical and digital together in ways that revolutionise industries.

That's why we've fostered an environment where some of the world's finest minds have the freedom, support and trust to succeed.

Roke is a team of curious and deeply technical engineers dedicated to safely unlocking the economic and societal potential of connected real-world assets. Our 60 year heritage and deep knowledge in sensors, communications, cyber and AI means our people are uniquely placed to combine and apply these technologies in ways that keep people safe whilst unlocking value. For our clients, we're a trusted partner that welcomes any problem confident that our consulting, research, innovation and product development will help them revolutionise and improve their world.

If you're bringing the physical and digital worlds together, we'd love to talk.

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