

barknor

About Barknor & How We Work	3
How we work	3
WhatsApp Trail Network Bot	4
1. Project overview	4
2. Main WhatsApp menu	4
3. Member validation	5
3.1 Recommended approach	5
3.2 Validation process	6
3.3 Failed validation	6
4. Trail updates	7
4.1 Trail status options	7
4.2 Trail alerts	7
5. Passes	8
5.1 Annual pass	8
5.2 Day pass	9
6. Maintenance requests	9
6.1 Validation	10
6.2 Maintenance request flow	10
6.3 Submission details	11
6.3 Submission details	11
7. Social events	12
7.1 Event information	12
7.2 Joining an event	13
7.3 Event validation	13
7.4 Day-pass requirement	13
7.5 Attendance management	14
8. Notice board	15
9. Help and emergency numbers	16
10. Administration portal	17
10.1 User access	17
10.2 Administration functions	17
Trail updates	17
Pass information	17
Maintenance requests	17
Social events	18
Notice board	18



Help numbers	18
Validation settings	18
11. Configurable validation rules	19
13. Decisions required from the client	19
Membership validation	19
Maintenance requests	19
Events	20
Passes	20
General administration	20
14. Proposed initial scope	20
Client Approval	22
Barknor	22

About Barknor & How We Work

Barknor designs structured systems for complex decision environments.

We work with organisations to design systems that enable better decisions - commercially, operationally, and experientially. While engagements may involve digital platforms, customer journeys, or growth initiatives, the underlying principle remains constant: structure precedes scale.

How we work

Our engagements are delivered in defined phases, each designed to reduce assumptions and increase certainty.

1. Structured Scoping

Each phase begins with collaborative working sessions, system diagrams, and documentation. The objective is to define precisely what is being built, why it is required, and how success will be measured.

2. Agreed Scope & Commercial Definition

Each phase is scoped and quoted independently to maintain clarity and control.

3. Implementation & Validation

The defined system components are designed and implemented in line with the agreed scope. Milestone check-ins and working demonstrations are scheduled throughout to ensure alignment.

4. Stabilisation Period

During this time, the system is monitored, stress-tested, and refined to resolve defects, edge cases, and operational misalignments before progressing to the next phase.



WhatsApp Trail Network Bot

1. Project overview

The proposed solution is a menu-driven WhatsApp bot for a mountain-bike trail network. Users interact with the bot by sending a message to the trail network's WhatsApp number and replying with numbered menu options.

The bot will provide access to:

1. Trail updates
2. Pass information
3. Maintenance requests
4. Social events
5. Notice board
6. Help and emergency numbers
7. Additional future services

All journeys will follow predefined menus, responses and structured workflows.

The managing company will have access to an administration portal where it can update content, manage requests, create events and configure which functions require member validation.

2. Main WhatsApp menu

When a user sends a message such as "Hi", "Hello" or "Menu", the bot will respond with the main menu.

Example:

Welcome to the [Trail Network] WhatsApp service.
Please reply with the number of the option you require:

- 1 — Trail updates
- 2 — Passes
- 3 — Log a maintenance request
- 4 — Social events
- 5 — Notice board
- 6 — Help and emergency numbers
- 0 — Return to the main menu

The user will reply with the relevant number to continue.

The user should be able to reply with 0 at any stage to return to the main menu.



3. Member validation

Certain sections of the bot may only be available to valid trail-network members.

For example, the managing company may decide that only verified members are permitted to:

- Submit maintenance requests
- Join member-only social events
- Access member notices
- Receive certain trail-network updates
- Use future member-specific functions

3.1 Recommended approach

Each main function should include a configurable setting in the administration portal:

- Validation not required
- Validation required
- Validation required for selected items only

This will allow the managing company to decide which functions are available to the public and which functions are restricted to verified members.

For example:

Function	Suggested default
View trail updates	Public
View pass information	Public
View day-pass locations	Public
Submit a maintenance request	Members only
View social events	Public
Join selected social events	Configurable
View notice board	Public or configurable
View help numbers	Public

The final validation requirements must be confirmed by the client.



3.2 Validation process

When a user selects a restricted function, the bot will attempt to validate the user.

Validation may be completed using one or more of the following:

- WhatsApp mobile number
- Membership number
- Email address
- Identity number or another unique member reference
- Existing member portal or membership database integration

Example:

This service is only available to verified members.
Please enter your membership number.

The system will check the submitted information against the membership records.

If the user is successfully validated, the system may link the member profile to their WhatsApp number so that they do not need to validate themselves during every interaction.

The system should include an option for the managing company to determine whether validation:

- Remains active permanently
- Expires after a defined period
- Must be completed during every restricted transaction

3.3 Failed validation

If validation fails, the user should receive a clear response.

Example:

We could not validate your membership details.

Please check your membership number and try again, or contact [support number] for assistance.

The user should not be permitted to continue into a restricted workflow until validation is successful.



4. Trail updates

Users will be able to view the current status of the trails.

The user selects:

1 — Trail updates

The bot responds with the latest available trail information.

Example:

Current trail status:

1 — Green Route: Open

2 — Red Route: Open with caution

3 — Black Route: Closed

4 — Skills Park: Under maintenance

Reply with the trail number for more information.

Each trail may include:

- Trail name
- Current status
- Short status message
- Maintenance information
- Closure reason
- Expected reopening date
- Last updated date and time

4.1 Trail status options

Suggested trail statuses:

- Open
- Open with caution
- Closed
- Under maintenance
- Temporarily unavailable

The managing company will update the trail status through the administration portal.

4.2 Trail alerts

The initial version will allow users to request the latest trail information through the menu.

Optional future functionality may include allowing users to subscribe to proactive trail closure or reopening notifications.



5. Passes

The bot will provide information on annual passes and day passes.

The user selects:

2 — Passes

The bot responds:

Please select an option:

1 — Annual pass

2 — Day pass

0 — Return to the main menu

5.1 Annual pass

Annual passes will not be purchased directly through the WhatsApp bot.

When the user selects the annual-pass option, the bot will provide a link to the existing membership or purchasing portal.

Example:

Annual passes can be purchased through our online member portal.

Use the following link to continue:

[Annual-pass portal link]

The annual-pass portal link must be editable by the managing company through the administration portal.

Optional supporting information may include:

- Annual-pass price
- Validity period
- Included benefits
- Renewal information
- Contact details for membership assistance



5.2 Day pass

Day passes will not be purchased directly through the bot.

When the user selects the day-pass option, the bot will provide a list of locations where a day pass can be purchased.

Example:

Day passes can be purchased at the following locations:

- 1 — Main Trail Centre
- 2 — [Partner shop name]
- 3 — [Coffee shop or venue name]
- 4 — [Additional location]

Reply with a location number for more information.

Each day-pass location may include:

- Location name
- Physical address
- Operating hours
- Contact number
- Google Maps link
- Day-pass price
- Payment methods accepted
- Any relevant purchasing instructions

The managing company will be able to add, edit, remove and reorder day-pass locations.

6. Maintenance requests

Users will be able to log maintenance issues through the WhatsApp bot.

The user selects:

- 3 — Log a maintenance request



6.1 Validation

The current recommendation is that maintenance requests should require member validation.

This prevents unidentified members of the public from creating unnecessary or false maintenance requests.

However, this requirement should be configurable in the administration portal.

The available setting should be:

- Public submissions allowed
- Verified members only

6.2 Maintenance request flow

Once the user is permitted to continue, the bot will guide them through the request.

Suggested flow:

- Select the affected trail
- Select the issue type
- Provide a description
- Upload a photograph, if available
- Share a location, if available
- Review and submit the request

Suggested issue types:

- Fallen tree or branch
- Trail damage
- Erosion
- Flooding or standing water
- Damaged bridge or structure
- Broken or missing signage
- Litter or dumping
- Safety hazard
- Other



6.3 Submission details

The system will save:

- Maintenance request reference number
- Member or user details
- WhatsApp number
- Trail
- Issue type
- Description
- Submitted photograph
- Shared location
- Submission date and time
- Current request status

After submission, the user will receive confirmation.

Example:

Thank you. Your maintenance request has been submitted.
Reference number: MR-00124
The trail team will review the issue.

6.3 Submission details

The managing company will be able to view and manage requests through the administration portal.

Suggested statuses:

- New
- Under review
- Assigned
- In progress
- Resolved
- Closed
- Rejected

The initial scope must confirm whether users will receive automated WhatsApp updates when the status of their request changes.



7. Social events

Users will be able to view upcoming social events through the bot.

The user selects:

4 — Social events

The bot will display a numbered list of available events.

Example:

Upcoming social events:

- 1 — Saturday Social Ride
- 2 — Trail-Building Morning
- 3 — Skills Session
- 4 — Night Ride

Reply with the event number to continue.

7.1 Event information

After selecting an event, the user will be able to:

1. View more information
2. Join the event
3. View day-pass information, where applicable
4. Return to the event list

Event information may include:

- Event name
- Description
- Date
- Start and end time
- Meeting point
- Trail or location
- Skill or fitness level
- Distance
- Maximum capacity
- Cost
- Pass requirements
- Contact information
- Additional instructions



7.2 Joining an event

When the user selects Join event, the system must record their attendance.

The attendance record should include:

- Event
- Member or user name
- WhatsApp number
- Membership number, where applicable
- Registration date and time
- Attendance status
- Pass requirement
- Any additional information requested during registration

The user will receive confirmation once the registration has been saved.

Example:

Your place has been reserved for:
 Saturday Social Ride
 18 July 2026 at 08:00
 We look forward to seeing you there.

7.3 Event validation

Each event should include a configurable validation setting.

Available options:

- Open to everyone
- Verified members only
- Open to members and day-pass holders
- Invitation only

This setting will be selected when the event is created in the administration portal.

7.4 Day-pass requirement

An event may require participants to hold a valid annual pass or purchase a day pass.

When creating an event, the managing company should be able to select:

- No pass required
- Annual members only
- Annual pass or day pass required



Where a day pass is required, the bot will not sell the pass directly.

Instead, it will provide the list of approved day-pass purchase locations.

Example:

A valid annual pass or day pass is required for this event.

Reply with:

- 1 — View day-pass purchase locations
- 2 — Confirm that I already have a pass
- 0 — Return to the event

The client must confirm whether users should be permitted to register before purchasing a day pass, or whether they must confirm that they already hold a valid pass.

7.5 Attendance management

The administration portal will display a list of registered attendees for each event.

The managing company should be able to:

- View registrations
- Search attendees
- Export the attendance list
- Remove or cancel a registration
- Mark attendance on the day
- Set a maximum number of attendees
- Close registrations
- View available spaces

Suggested attendance statuses:

- Registered
- Attended
- Did not attend
- Cancelled
- Waiting list

Waiting-list functionality may be included where an event reaches capacity.



8. Notice board

Users will be able to view current notices.

The user selects:

5 — Notice board

The bot will display recent or active notices.

Possible notice categories include:

- General announcements
- Trail closures
- Maintenance updates
- Safety notices
- Lost and found
- Volunteer opportunities
- Event updates
- Community information

Each notice may contain:

- Notice title
- Short description
- Category
- Publication date
- Expiry date
- Link or attachment
- Contact details

The managing company will create, edit, publish and remove notices through the administration portal.

The initial recommendation is that only authorised administrators may publish notices.

Allowing users to submit notices can be considered as future functionality, with an approval process before publication.



9. Help and emergency numbers

Users will be able to access important contact numbers through the main menu.

The user selects:

6 — Help and emergency numbers

The bot may display:

- Emergency services
- Trail emergency contact
- Trail office
- Security
- Medical assistance
- Maintenance contact
- Membership support
- Day-pass assistance

Each contact may include:

- Contact name
- Contact purpose
- Telephone number
- WhatsApp number
- Operating hours
- Additional instructions

The managing company will be able to update these details through the administration portal.

Users should also be able to type **HELP** or **EMERGENCY** at any point to access the emergency information directly.

The emergency section should clearly state that the WhatsApp bot is not an emergency-response service.



10. Administration portal

The managing company will require a secure web-based administration portal.

10.1 User access

Administrators must log in using secure credentials.

User roles may include:

- Super administrator
- Trail manager
- Maintenance team member
- Events manager
- Content administrator
- Read-only user

The client must confirm whether different access levels are required during the first phase.

10.2 Administration functions

The administration portal should allow authorised users to:

Trail updates

- Add and edit trails
- Update trail status
- Add maintenance or closure messages
- Add expected reopening dates
- Set the last-updated information

Pass information

- Update the annual-pass portal link
- Manage annual-pass supporting information
- Add, edit and remove day-pass locations
- Update day-pass prices and operating hours

Maintenance requests

- View submitted requests
- View photographs and locations
- Update request statuses
- Assign requests
- Add internal notes
- Search and filter requests



Social events

- Create and edit events
- Set event capacity
- Configure validation requirements
- Configure pass requirements
- View registrations
- Export attendance lists
- Mark attendance
- Cancel or close an event

Notice board

- Create notices
- Schedule notices
- Set expiry dates
- Edit or remove notices
- Assign notice categories

Help numbers

- Add, edit and remove contacts
- Reorder contacts
- Mark emergency contacts

Validation settings

- Set whether each function requires validation
- Configure validation rules
- View validated users
- Remove or reset a user's validation



11. Configurable validation rules

The following functions should support configurable validation:

Function	Public	Members only	Configurable per item
Trail updates	Yes	Optional	No
Annual-pass information	Yes	Optional	No
Day-pass locations	Yes	Optional	No
Maintenance requests	Optional	Yes	No
View social events	Yes	Optional	Yes
Join social events	Optional	Yes	Yes
Notice board	Optional	Yes	Yes
Help numbers	Yes	No	No

The final access rules will be confirmed with the client before development.

13. Decisions required from the client

The following items require confirmation before the final scope is approved:

Membership validation

- What system currently contains the member records?
- Can the membership system be integrated through an API?
- Which details should be used to validate a member?
- How long should a successful validation remain active?
- Can one membership be linked to more than one WhatsApp number?
- What happens when membership has expired?

Maintenance requests

- Should maintenance requests be restricted to verified members?
- Should photographs and locations be compulsory or optional?
- Should users receive status updates after submitting a request?



Who will manage and assign maintenance requests?

Events

- Which events should be open to the public?
- Which events should require member validation?
- Can a user register before purchasing a required day pass?
- Does the system need to validate whether an annual pass is active?
- Should events support capacity limits and waiting lists?
- Should users be able to cancel their own registration?
- Does attendance need to be marked on the day of the event?
- Does the attendance list need to be exported?

Passes

- What is the annual-pass portal URL?
- What day-pass locations must be listed?
- Does each location have different prices or operating hours?
- Should annual membership status be available inside the bot?

General administration

- How many administrators will use the system?
- Are different administrator roles required?
- Should changes to trail statuses and notices be recorded in an audit log?
- Does the client need reporting on bot usage, registrations and maintenance requests?

14. Proposed initial scope

The recommended first version includes:

- Numbered WhatsApp menu
- Trail status and maintenance updates
- Annual-pass portal link
- Day-pass purchase locations
- Configurable member validation
- Structured maintenance request submissions
- Social event listings
- Event registration and attendance records
- Configurable event access and pass requirements
- Notice board
- Help and emergency numbers
- Secure administration portal



The final scope will be updated once the client has reviewed and confirmed the outstanding requirements.

Client Approval

Company:

Helon van Dyk

Authorised Representative:

Name & Surname

Title	
Signature	
Date	

Barknor

Authorised Representative:

André Phillip

Title	Direction, Barknor
Signature	
Date	11 July 2026

