Mindset

- Want the network to succeed
- Treat it like a business
- Be 'On Call' to fix you node
- Anonymous and Independent
- Strong Security and Privacy

Capital Requirements

- 500K-1M RUNE
- $2M to 6M of Capital*

Held by the protocol - used as 'insurance'.

Figures change constantly!

https://thorchain.net/#/nodes

*Depending on the price of RUNE

Bond Considerations

- Actual min bond changes every Churn (~3 days)
- You want enough bond to be and stay active.
- Too much bond is inefficient*
- You cannot increase bond after 24 hours.
- You cannot withdraw bond when active.
- Choose your bond amount carefully

Track it at https://thorchain.network/

*Will change if bond weighted rewards is implemented (issues 1187)

Income Potential

Income

- 6,000 to 10,000 RUNE per month
- $40,000-$70,000* per month

Considerations

- Income received only when Node is Active
- Cannot withdraw income when Active
- Every Node will get Slash Points
- Every Node will be churned out at some point

#Many factors effect node income (e.g. Swap Volume, Emission Schedule, Position of the Incentive Pendulum, Incentive Curve Value and accrued Slash Points)

*Depending on the price of Rune, income only applies when churned in (Active status).

Costs

Costs

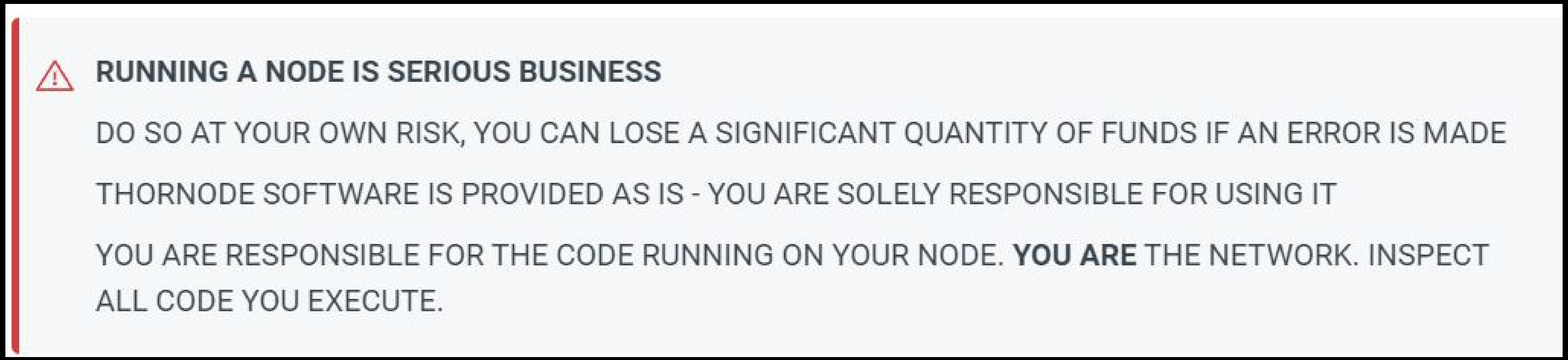
- $1000 to $2000 per month on Hosting
- $10-20 per month for cloud admin server
- $~50 per month for monitoring
- Your own pay

Time Commitment

- Several Hours a day + learning
- 'On call'

Risks Part 1

1. Capital Risk
    a. RUNE loses value due to market forces (Market Risk)
    b. Part / Complete loss of Bond (theft or slash points)
    c. Theft of funds e.g. leaking of seed phrase or important credentials (hosting account or K8 access).



⚠ RUNNING A NODE IS SERIOUS BUSINESS

DO SO AT YOUR OWN RISK, YOU CAN LOSE A SIGNIFICANT QUANTITY OF FUNDS IF AN ERROR IS MADE

THORNODE SOFTWARE IS PROVIDED AS IS - YOU ARE SOLELY RESPONSIBLE FOR USING IT

YOU ARE RESPONSIBLE FOR THE CODE RUNNING ON YOUR NODE. **YOU ARE** THE NETWORK. INSPECT ALL CODE YOU EXECUTE.

You can lose some or all of your income and bond!

https://docs.thorchain.org/thornodes/managing#node-security

Risks Part 2

2. Liquidity Risk - Can't cash out your position when you want

3. Return Amount Risk - Income is less than expected.

4. Control Risk - aka Protocol Risk. Adverse event out of your control.

Except for major bond Theft, **every Risk has been released with THORChain!**

Risks Part 3

THORChain Specific risks

Two war stories

Skill Sets Required

Components of a THORNode Deployment

- Linux
- Kubernetes
- Cloud Provider
- Full Nodes
- Secure and Self Custody Funds

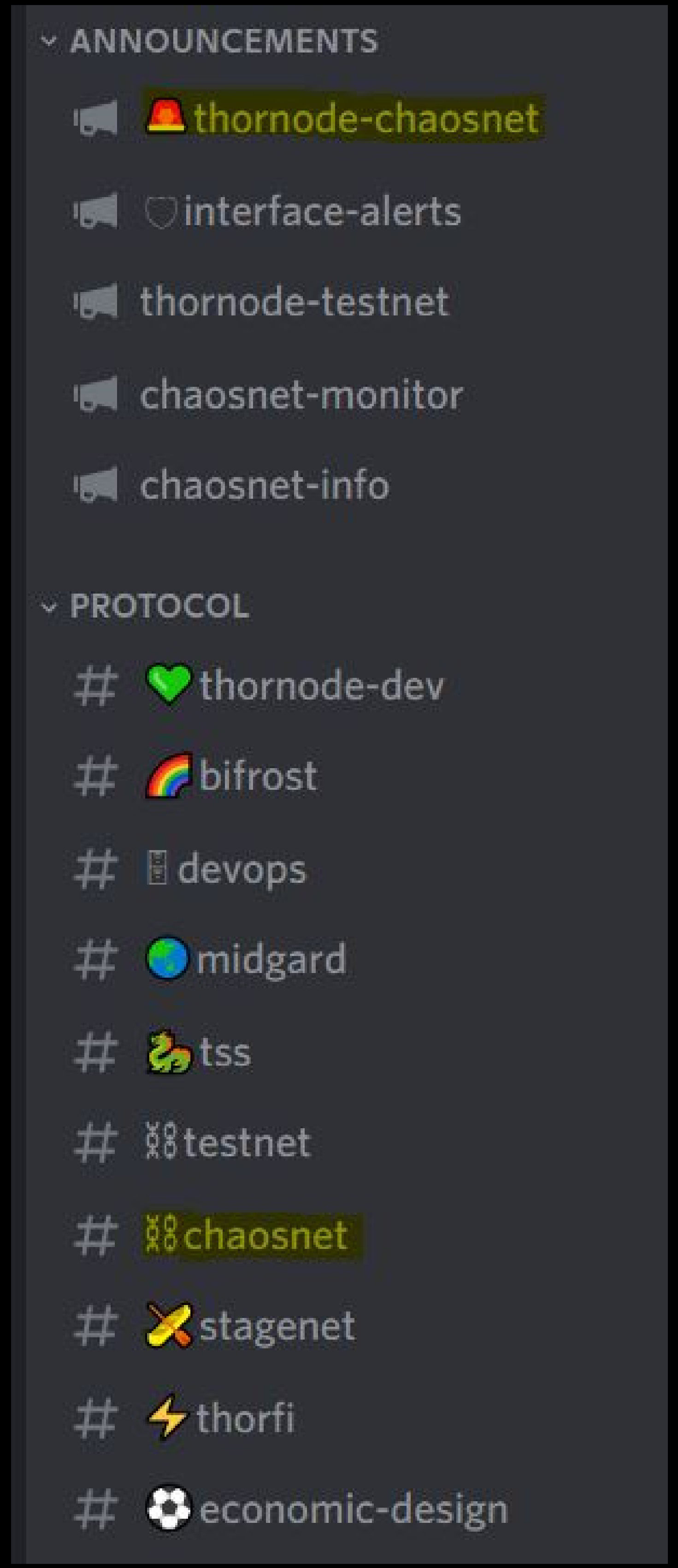
Questions

Answered

- How much bond is required?
- What Skills are required

Not Answered

1. Where can I host a THORNode?
2. What happens if I am not available 24/7?
3. How to view logs?
4. Where to ask questions or get help?

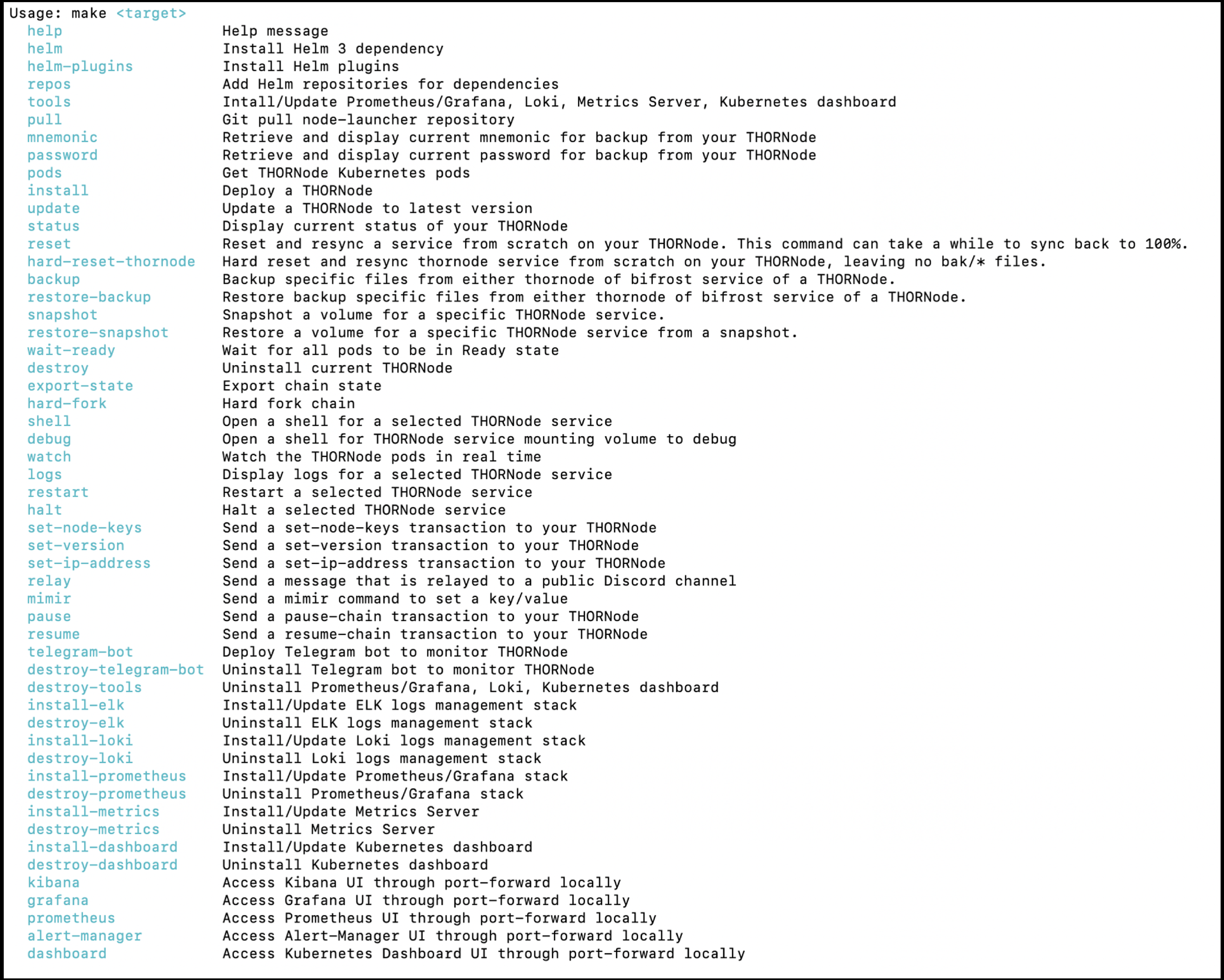


ANNOUNCEMENTS

- 🚨thornode-chaosnet
- 🛡interface-alerts
- thornode-testnet
- chaosnet-monitor
- chaosnet-info

PROTOCOL

- # 💚thornode-dev
- # 🌈bifrost
- # 🚦devops
- # 🌏midgard
- # 🐍tss
- # ⛓testnet
- # ⛓chaosnet
- # 🩹stagenet
- # ⚡thorfi
- # ⚽economic-design



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Usage: make <target>
  help                  Help message
  helm                  Install Helm 3 dependency
  helm-plugins          Install Helm plugins
  repos                 Add Helm repositories for dependencies
  tools                 Intall/Update Prometheus/Grafana, Loki, Metrics Server, Kubernetes dashboard
  pull                  Git pull node-launcher repository
  mnemonic              Retrieve and display current mnemonic for backup from your THORNode
  password              Retrieve and display current password for backup from your THORNode
  pods                  Get THORNode Kubernetes pods
  install               Deploy a THORNode
  update                Update a THORNode to latest version
  status                Display current status of your THORNode
  reset                 Reset and resync a service from scratch on your THORNode. This command can take a while to sync back to 100%.
  hard-reset-thornode   Hard reset and resync thornode service from scratch on your THORNode, leaving no bak/* files.
  backup                Backup specific files from either thornode of bifrost service of a THORNode.
  restore-backup        Restore backup specific files from either thornode of bifrost service of a THORNode.
  snapshot              Snapshot a volume for a specific THORNode service.
  restore-snapshot      Restore a volume for a specific THORNode service from a snapshot.
  wait-ready            Wait for all pods to be in Ready state
  destroy               Uninstall current THORNode
  export-state          Export chain state
  hard-fork             Hard fork chain
  shell                 Open a shell for a selected THORNode service
  debug                 Open a shell for THORNode service mounting volume to debug
  watch                 Watch the THORNode pods in real time
  logs                  Display logs for a selected THORNode service
  restart               Restart a selected THORNode service
  halt                  Halt a selected THORNode service
  set-node-keys         Send a set-node-keys transaction to your THORNode
  set-version           Send a set-version transaction to your THORNode
  set-ip-address        Send a set-ip-address transaction to your THORNode
  relay                 Send a message that is relayed to a public Discord channel
  mimir                 Send a mimir command to set a key/value
  pause                 Send a pause-chain transaction to your THORNode
  resume                Send a resume-chain transaction to your THORNode
  telegram-bot          Deploy Telegram bot to monitor THORNode
  destroy-telegram-bot  Uninstall Telegram bot to monitor THORNode
  destroy-tools         Uninstall Prometheus/Grafana, Loki, Kubernetes dashboard
  install-elk           Install/Update ELK logs management stack
  destroy-elk           Uninstall ELK logs management stack
  install-loki          Install/Update Loki logs management stack
  destroy-loki          Uninstall Loki logs management stack
  install-prometheus    Install/Update Prometheus/Grafana stack
  destroy-prometheus    Uninstall Prometheus/Grafana stack
  install-metrics       Install/Update Metrics Server
  destroy-metrics       Uninstall Metrics Server
  install-dashboard     Install/Update Kubernetes dashboard
  destroy-dashboard     Uninstall Kubernetes dashboard
  kibana                Access Kibana UI through port-forward locally
  grafana               Access Grafana UI through port-forward locally
  prometheus            Access Prometheus UI through port-forward locally
  alert-manager         Access Alert-Manager UI through port-forward locally
  dashboard             Access Kubernetes Dashboard UI through port-forward locally
```