

Access control due diligence report

A complete inventory of who can touch the system: every on-chain address and off-chain account with power, the role it holds, and exactly what it can and cannot do.

The subject of this sample, the Lumenswap Protocol, is fictional. Every address, email and name below is an invented example. This document illustrates format and depth only.

1. On-chain identity register

Holder	Address (example)	Type	Role
Founders' safe	0x3F5c . . . 9A21	3-of-5 Safe multisig	Owner
Ops safe	0x81dD . . . 4C07	2-of-3 Safe multisig	Pauser, Oracle admin
Timelock	0xA940 . . . E63B	Contract, 48h delay	Executor of Owner actions
Governance	0x5B12 . . . 77F0	Token voting + timelock	Fee manager
Deployer (retired)	0xC7e8 . . . 0D55	EOA, powers renounced	None since launch

2. What each role can perform

Capability	Owner	Pauser	Fee mgr	Oracle adm
Upgrade contracts (via 48h timelock)	Yes	-	-	-
Pause swaps	Yes	Yes	-	-
Halt withdrawals (max 72h on-chain cap)	Yes	Yes	-	-
Change fee split (via 48h timelock)	-	-	Yes	-
Rotate price feeds (24h timelock)	-	-	-	Yes
Move user funds directly	-	-	-	-

No role, including Owner, can transfer user balances directly; the last row is the most important line in this report.

3. Off-chain access register

Account (example)	System	Can perform	MFA
ops@lumenswap.example	Admin dashboard	View metrics, trigger pause via Ops safe	Hardware key
oracle-bot@lumenswap.example	Feed publisher API	Push prices within deviation bounds	API key, rotated monthly
dev-team@lumenswap.example	CI and deploy repo	Propose upgrades; cannot execute	Hardware key
support@lumenswap.example	Helpdesk	Read tickets only; no chain access	TOTP

4. Hygiene checklist

Check	Status
Every privileged role behind a multisig	[x] Pass (fixed during engagement)

Check	Status
Upgrades cannot bypass the timelock	[x] Pass (proxy admin moved to timelock)
Withdrawal halt is time-bounded on-chain	[x] Pass (72h cap added)
Deployer key powers renounced	[x] Pass
Signer list published and current	[] Open, publish with launch
Quarterly key-loss rehearsal scheduled	[] Open

SAMPLE