MODEL

The Security Champions Maturity Model

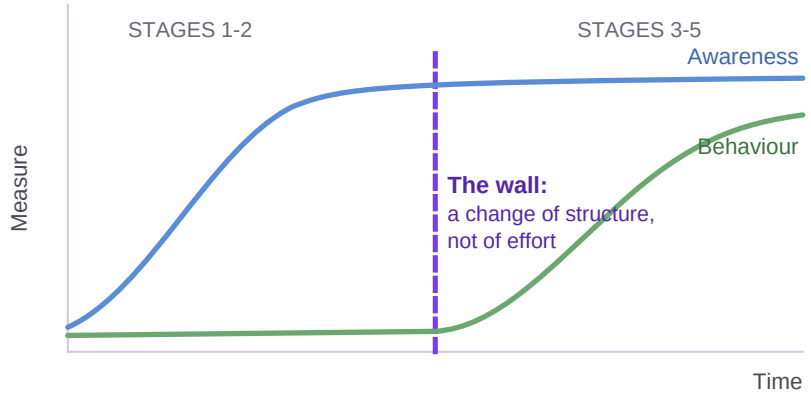
A maturity model for Security Champions programmes graded by what the network can carry, from Roster to Self-sustaining, and why the second year hits a wall.

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Maturity is what your network can carry.

A programme does not mature by doing more; it matures by changing the shape of its network. Security Champions programmes tend to follow the same arc. In the first year the numbers look good: champions recruited, coverage reached, awareness up, a lively community. In the second year awareness holds, behaviour stays flat, and more of the same effort does not move it. Existing maturity models cannot explain this because they grade activity and governance. This one grades structure: five stages defined by the amount of reinforcement a behaviour can need and still spread from the champions to everyone else.



The awareness plateau, schematic. Awareness rises under simple contagion and levels off once the network has reached everyone. Behaviour stays flat until the network is rebuilt to carry complex contagion.

Carrying capacity

People hold thresholds. Each of us adopts a behaviour once enough of the people around us have, and the enough differs from person to person and from behaviour to behaviour. A behaviour that needs reinforcement from several contacts cannot cross a single long tie, because the person at the far end sees only one adopter. It spreads through clustered neighbourhoods, where a person's contacts also know each other, and across wide bridges between them. That is the distinction between **simple contagion**, which carries information, and **complex contagion**, which carries behaviour, and it is set out in full on the network models page.

From this comes a definition. **The carrying capacity of a champions network is the highest reinforcement threshold a behaviour can have and still spread from the champions, through the network, to the rest of the organisation.** A network with a carrying capacity of one carries awareness and alerts. A capacity of two carries awareness and the lighter behaviours, the ones a person will try after seeing a couple of colleagues do them. A capacity of three carries the behaviours that matter most to a security function: the ones that cost something, and that a person will not adopt until several people around them have.

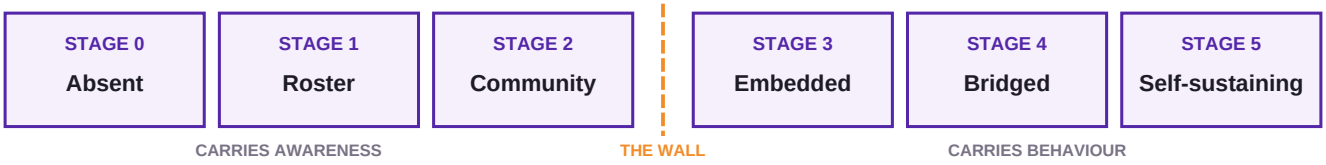
Carrying capacity is a property of the network's structure and of where the champions sit in it, not of the champions' knowledge or enthusiasm. That is why it is the right quantity for a maturity model to grade, and why the models in use, which grade activity, governance or stated intent, keep reporting success at the plateau.

COMMON PROGRAMME TARGET	NEEDS	WHY
Know that a lure is circulating; know where the report button is	1	Information. Nothing about the person's situation has to change.
Try the report button once; attend a session	2	Low cost, low exposure. Two colleagues doing it is permission enough.
Report routinely, including false alarms	3	Costs time and risks looking jumpy. Needs a team where reporting is normal.
Pause on an urgent request that carries authority	3	Risks the relationship with the requester. Needs visible peers who also pause.
Use the password manager; stop sharing credentials	3	Conflicts with habit and with how the team has always worked.
Hold a rehearsed response under pressure (a brace)	4	Held by a team or not at all. The champion cannot hold it alone.

The thresholds are judgements rather than measurements; a field study could estimate them. The ordering is what matters. The top two rows are awareness, and they are what a programme achieves in its first year. The rest are behaviour, and they are what it was created for.

Five stages, five dimensions, one wall.

Each stage is described on five dimensions: **structure** (the shape of the network and where the champions sit), **carriage** (what it can carry, as a threshold), **selection and role** (how champions are chosen and what they are asked to be), **security function** (where it sits relative to the network) and **measurement** (what the programme counts). Stages 1 and 2 build a network that carries awareness. Stages 3 to 5 need a differently shaped network to carry behaviour. Between them is a change of structure, not a slope.



STAGE 0

Absent

There is no network. Security has a few informal contacts in the business, usually the people who have complained most usefully. Nothing is designed.

Structure: None

Carries: Nothing by design

Champion role: Informal contact

Security function: Everywhere and nowhere

Measures: None

STAGE 1

Roster

Champions have been recruited against a ratio and a list exists. The network is hub and spoke: each champion is tied to the security function and to a small fan of colleagues, and champions do not know each other. Alerts and content go out from the centre and reach every team in two hops. Coverage and message reach both look good quickly. This stage is reached in months, and it is where many programmes stay.

Structure: Hub and spoke; singles in teams; no champion ties

Carries: Threshold 1: alerts and content, outward

Champion role: Volunteers and nominees; named contact

Security function: Hub of the network

Measures: Coverage; message reach

STAGE 2

Community

The champions have a channel, a regular meeting and events of their own, and they have become a community of practice. They know more, stay longer and speak up more. Structurally they are now a single dense cluster, tied to each other far more than to their teams, and the reinforcing structure that behaviour needs has been built among the people who have already adopted. Awareness is at its plateau. This is where the second-year arc begins, and where most mature-seeming programmes sit.

Structure: Single champion cluster; thin ties into teams

Carries: Threshold 1 to 2; awareness at plateau

Champion role: Volunteers; learner and advocate

Security function: Centre of the cluster

Measures: Capability; retention; attendance

> ### The wall between Stage 2 and Stage 3
>
> The transition is a change of shape: from a single cluster of champions to champions clustered inside their teams. It is not crossed by doing more of what Stage 2 does. More content, more sessions and a bigger community are more Stage 2, and in the model they move nothing. The way over is to move champions, or choose new ones, so that each target team has two or three who know each other and are tied to most of the team; to thin the community to a backbone; and to start counting what reaches colleagues rather than what reaches champions. It is harder and less pleasant than the Stage 2 work, because it trades the champions' community, which is warm, for the teams' resistance, which is not, and it lowers the coverage number the programme has been reporting. A programme owner who understands the model can make that trade knowingly and explain it upwards.

STAGE 3

Embedded

The network has been rebuilt. Champions sit in pairs or triads inside the teams whose behaviour is the target, chosen for their position in the team rather than their interest in security, with their security-related ties mostly inside the team. The champion community survives as a thin backbone for alerts and identity. A colleague can now see several adopters at once, teams begin to tip, and the first behaviour lines move. Coverage has fallen, which is the price, and the programme has to be able to say so.

Structure: Pairs or triads clustered in teams; thin backbone

Carries: Threshold 3 within seeded teams

Champion role: Chosen by position and nomination; local influencer

Security function: Attached to the backbone

Measures: Embedding; exposure counts; tipped teams

STAGE 4

Bridged

Tipping has crossed from seeded teams to their neighbours and from department to department. The programme has deliberately widened bridges: pairing seeded teams with unseeded ones, placing champions on existing cross-team ties, and making sure departments are bridged to each other and not only teams within a department.

Structure: Wide bridges between teams and across departments

Carries: Threshold 3 across the organisation

Champion role: Bridging champions added; team influencer

Security function: Edge of the network

Measures: Bridge width; tipped teams per department; time to neighbour tipping

STAGE 5

Self-sustaining

The behaviour has become a team norm that holds when the champion leaves. Tipped teams produce new champions without recruitment drives, the security function has moved from the centre of the network to its edge, and the programme's work is maintenance and the next behaviour rather than this one. Carrying capacity is no higher than at Stage 4; what has changed is that the network no longer depends on the champions to hold what it carries.

Structure: Regenerating; champions rotate; teams hold norms

Carries: Threshold 3, held without champions

Champion role: Emergent from tipped teams; guardian

Security function: Maintenance and the next behaviour

Measures: Persistence after departure; regeneration rate

You are at the highest stage whose gates you meet. All of them.

The scoring is non-compensatory on purpose, in the tradition of the staged Capability Maturity Model. A programme with an excellent champion community and no embedding is at Stage 2, however good its community is, because the community does not change what the network can carry. Each gate is checkable from the programme's own records or from a short organisational network survey.

1. Roster

- A named champion in every unit in scope
- A route from the security function to every champion
- Alerts reach every team within a defined time

2. Community

- Champions have a shared channel and regular contact
- Champion retention over twelve months above a defined floor
- Champions can describe the current threats and controls unprompted

3. Embedded

- At least two champions in each target team, tied to each other
- The majority of each champion's security-related ties lie inside their own team
- At least one team has tipped on a threshold-three behaviour, measured directly
- The backbone carries alerts but is not where champions spend most of their time

4. Bridged

- Tipped teams in more than one department
- At least one team has tipped without a champion of its own
- Bridge width to neighbouring teams measured and above a defined floor
- Time from a team tipping to a neighbour tipping is falling

5. Self-sustaining

- A tipped team has kept the behaviour for a defined period after its champions left
- New champions have emerged from tipped teams without a recruitment drive
- The security function is not a cut-point of the network

Stage 1 and Stage 2 are identical in every cell.

To make the central claim exact, we simulated the network at each of the first four stages and measured its carrying capacity: 1,200 employees in sixty teams of twenty, twelve departments, sixty champions placed as each stage prescribes, and four behaviours differing only in how many adopting contacts a colleague needs before adoption becomes possible. It is an illustration of a mechanism built from standard models with plausible parameters, not evidence that it operates in any real organisation.

Share of the organisation reached after 120 periods

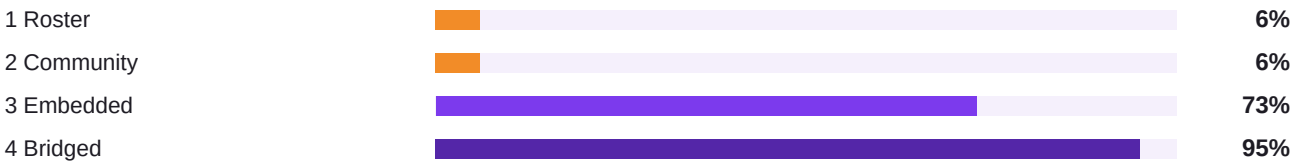
Rows are the stage networks; columns are the reinforcement a behaviour needs. Means of fifteen runs.

STAGE	NEEDS 1	NEEDS 2	NEEDS 3	NEEDS 4
1 Roster	100%	100%	6%	5%
2 Community	100%	100%	6%	5%
3 Embedded	100%	100%	73%	5%
4 Bridged	100%	100%	95%	5%

The ten ties each champion gains at Stage 2 are ties to other champions, who are already adopters, so they change nothing about what any colleague sees. That is the awareness plateau in one row: the champion community, whatever it does for the champions, adds nothing to the network's carrying capacity. Its real benefits, to the champions' knowledge, confidence and retention, are not worthless. They just do not reach colleagues, and a maturity model should not grade them as if they did.

A behaviour that needs three reinforcing contacts

The same sixty champions, same organisation, same behaviour. Only the stage's structure changes.



Stage 3 stalls at 73 per cent because cross-team ties mostly stay inside the department, so a department that received few seeded teams gets little exposure from the others. Stage 4's bridging ties, which deliberately join seeded teams to unseeded ones in other departments, close most of that gap. Nothing carries a behaviour that needs four contacts at a one-in-twenty champion ratio: that kind of behaviour is carried by whole teams seeding their neighbours, which is the Stage 5 mechanism, and why Stage 5 is defined by persistence and regeneration rather than by a higher capacity.

Where you are, and what the next step costs.

Stages 1 and 2 can be located from programme records: the roster, the channel, retention and attendance. The free Champions Programme Health Check gives a first read in about ten minutes, with the caveat that it is the programme's view of itself. **Stages 3 to 5** need a short organisational network survey, asking each person who they go to for security advice, who they would tell about a suspicious message and who they talk to about work, together with a direct measure of the target behaviour that does not rely on self-report.

From those, the Stage 3 gates read off as champion embedding, the exposure count distribution and the list of tipped teams; the Stage 4 gates as bridge width, tipped teams per department and the lag from a team tipping to its neighbours; and the Stage 5 gates as persistence in teams whose champions have left and the appearance of new champions in tipped teams. All of it is checkable with a survey, a spreadsheet and a network library. What it needs is the decision to measure what reaches colleagues.

0 TO 1 (THE EASIEST)

Recruitment and a route from the centre to every team. Months, not years.

1 TO 2 (THE MOST ENJOYABLE)

Building the champions' community. It is worth doing, and the model keeps it, as the thin backbone of Stages 3 to 5. What the model refuses is the idea that a better community is a step towards behaviour. It is a step towards better champions, which is not the same.

2 TO 3 (THE HARDEST: THE WALL)

Restructuring. Choose champions by position and nomination rather than enthusiasm; place them in pairs and triads in target teams; move the programme's attention from the community to the teams; thin the backbone; change what is counted. It lowers the coverage number, and it has to be explained upwards before it is attempted.

3 TO 4 (BRIDGING)

Pair seeded teams with unseeded ones; place champions on existing cross-team and cross-department ties; watch the departments where nothing has tipped.

4 TO 5 (LETTING GO)

Rotate champions out of tipped teams and see whether the behaviour holds; recruit from tipped teams rather than by drive; move the security function to the edge of the network it built.

Two patterns to avoid

Grading by activity. A programme that reports coverage, attendance and content is reporting its Stage 1 and 2 capacity, and will report it forever, because those numbers do not fall when the behaviour line stays flat.

Treating Stage 2 as the destination. The champion community is the most visible and most rewarding part of the programme. It is where the programme owner spends their time, where the enthusiasm is, and where the security function feels at home. Investing in it feels like progress. The identical rows in the simulation are the reason it is not.

The stages and the three journeys

The homepage routes you by where you are. Each of the three journeys maps onto a part of the model, and each journey page now says which stages it covers and what the model asks of you there.

GETTING STARTED · STAGES 0 TO 1

Reach Stage 1 fast, but build for Stage 3

The planner takes you from nothing to a roster with a route to every team. The model's advice is to decide the shape now: recruit by nomination, in pairs per target team, and count what reaches colleagues from the first quarter, so that the wall is a step you planned rather than one you hit.

cybehave.com/getting-started

RUNNING YOUR NETWORK · STAGES 1 TO 2

Find out which stage you are really at

Five people who already run a network, each with a challenge we hear constantly, and each one placed on the model. Most of them are at Stage 1 or 2 and being asked a Stage 3 question with Stage 2 metrics.

cybehave.com/running-your-network

BEYOND AWARENESS · STAGES 3 TO 5

Over the wall

Awareness has plateaued and the behaviour line is flat. This journey is the restructuring, the bridging and the letting go, with the diagnostic method and the measurement to go with them.

cybehave.com/beyond-awareness

Counting what reaches colleagues.

The model's first demand of a programme is to stop grading itself by activity. HEROES by CyBehave is built that way. The **Behaviour Index**, part of the core platform from day one, comes from colleagues rating the security behaviours they observe in their own team every quarter, independent of the champions and the training platform; it is a measure of what the network carried, not of what the programme did. **Programme Capability**, with the Measure & Evidence module, is the programme's own view, kept deliberately separate. **Network Strength**, with the Network Optimisation module (in development), is where the Stage 3 and 4 measures live: embedding, bridges, isolation and the gaps to recruit into. The rater-disjoint measurement work in the Lab explains why the three are kept apart.

The working paper

The model on this page is set out in full, with the review of existing maturity models, the simulation, its limits and the references, in a working paper from the CyBehave Lab, the second of a pair. The paper also describes the field study that would test it: a programme willing to restructure, a network survey before and after, and a behaviour measured directly for at least a year. The prediction is specific. Awareness measures will not change across the restructuring; behaviour measures will; and the teams in which they change will be the ones whose exposure counts crossed the threshold.

Wood, A. (2026). A Security Champion maturity model: Carrying capacity, the awareness plateau and the wall between simple and complex contagion. Working paper, version 1, 24 October 2026. CC BY-NC 4.0.

- Read the preprint on SSRN
- The companion paper: network models
- Back to the Lab

Glossary

The terms from network and behavioural science used in this document, in plain English.

Adopter. Someone who has taken up the behaviour, or who knows the piece of information. In the simulations the champions start as adopters, and the question is how many of their colleagues become adopters too.

Backbone. A deliberately thin set of ties among champions, and back to the security team, kept for alerts and a sense of identity and nothing more.

Bridge. The ties that join one team to another. Bridge width is how many there are. A single tie is a narrow bridge: fine for news, too narrow for behaviour, which needs several ties into the next team before it can cross.

Carrying capacity. The most demanding behaviour a champions network can spread: the highest threshold it can carry. Capacity one carries alerts; capacity three carries the costly behaviours a security function cares about.

Champion embedding. The share of a champion's security-related conversations that happen inside their own team rather than with other champions or the security team. Low embedding is the signature of a champion cluster.

Clustering. How far a person's contacts also know each other. In a tightly clustered team everyone talks to everyone, so several people can show the same behaviour at once. A random network has almost no clustering.

Community of practice. A group of people who do the same kind of work and learn from each other through regular contact. Champion communities usually become one, and it does them good.

Complex contagion. Spread that needs reinforcement: a person takes up the behaviour only after seeing several people they know do it. Most security behaviours work this way, because they cost effort, feel risky, or break a habit.

Cut-point. A person or team whose removal would split the network into separate pieces. If the security function is a cut-point, nothing flows between champions without it.

Exposure count. For each person who has not yet adopted a behaviour, the number of their contacts who have. It is the direct test of whether the behaviour can start to spread to them.

Hub and spoke. A star shape: everyone is connected to one centre and not to each other. The centre knows everyone; nobody else knows anyone.

Long tie. A tie that reaches into a different team or group from your own. Long ties carry news quickly across an organisation. They carry behaviour badly, because the person at the far end sees only one example of it.

Non-compensatory. Scoring in which strength in one area cannot make up for a gap in another. You must meet every gate at a stage to be at that stage.

Organisational network survey. A short survey asking each person who they go to for advice, who they talk to about work, and who they would warn. The answers are turned into a map of the real working relationships in an organisation.

Persistence. Whether a behaviour holds in a team after the champions who introduced it have moved on.

Reinforcement. Seeing the same behaviour from more than one person you know, at the same time. One example is a curiosity; several at once make it the normal thing to do.

Seeding. Where you place the first adopters. Champions are the seeds. The same number of them, placed differently, produces very different spread.

Simple contagion. Spread that needs only one exposure. Hearing an alert or a rumour once is enough to pass it on. Information behaves this way, which is why it travels fast through any shape of network.

Structural. To do with the shape of the network: who is tied to whom. Not to do with people's knowledge, enthusiasm or effort.

Threshold. The number of people around someone who need to be doing something before that person does it too. It varies by person and by behaviour. A threshold of three means three adopting contacts are needed before adoption becomes likely.

Tie. A working relationship between two people: they talk, ask each other for advice, or would pass on a warning. Network diagrams draw ties as lines. It is the pattern of ties, not the org chart, that decides what spreads.

Tipped team. A team in which most people now do the behaviour, so the team itself keeps it going and shows it to newcomers and to neighbouring teams.

About this document

This document was built on 25 November 2026 from the page at cybehave.com/champions-maturity-model, so it carries the guidance as it was published that day. The page is kept up to date; download a fresh copy whenever you need one.

This page cybehave.com/champions-maturity-model

Free Champions Programme Health Check cybehave.com/champions-health-check/

The Rise of the Security Champion, free ebook cybehave.com/the-rise-of-the-security-champion

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