

DELIVER!™

The tactical game of service management and DevOps

by Nigel Hopkins

“DELIVER!” is a tactical business simulation game set in the challenging world of IT service delivery and improvement. It focuses on creating the best tactical approach to deliver the most benefit to your customers whilst continually improving the stability of your IT landscape. The gameplay progresses in a series of rounds with each round seeing input from the service desk that sets the operational challenges for the round.

The game develops a cross functional understanding of the holistic nature of incident, problem, and change areas of ITIL. Playing the game, provides the basis to establish a practical tactical approach to prioritisation of activities.

The interactive nature of the game develops many soft skills including communications, teamwork, time management, and leadership.

In the game, each team is managing their own service along with its underlying systems and technical platforms. They are also supporting, from an operational point, other shared services, leading to a semi-cooperative approach in the game-play. The players must continually improve their services whilst maintaining their support promise to their customers.

All of the operational activities put a heavy demand on the limited resources available to each team, and it is this aspect that leads to the development of a successful tactical approach.

OBJECTIVE

You are the lead in one of a number of centrally located teams, with end-to-end service management responsibilities. Each team is responsible for one of the solutions and have shared responsibility for several other solutions.

You are tasked with improving your service's functionality and, at the same time, ensuring that any incidents are dealt with effectively, preferably without breaching your support promise.

Whilst you have your own service to take care of, you, along with the other teams, also have a shared responsibility for some other services. You gain influence when helping others, either the

shared services or other teams. However, you lose influence if you fail to keep your support promise.

You will gain business value by improving your service, especially where the improvements align with the needs of your customer. In the long term, creating stability across all services is of value to the business as well and will be rewarded accordingly

In the end it all comes down to the player that manages to create the most business value.

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Boards, cards and elements

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SETTING UP

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SEQUENCE OF PLAY

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ACTIONS

WHAT'S IN THE BOX?



6 operations decks, each of 36 cards



8 automation cards
4 each of 2 types



64 service desk cards

Customer improvement request deck, 24 cards



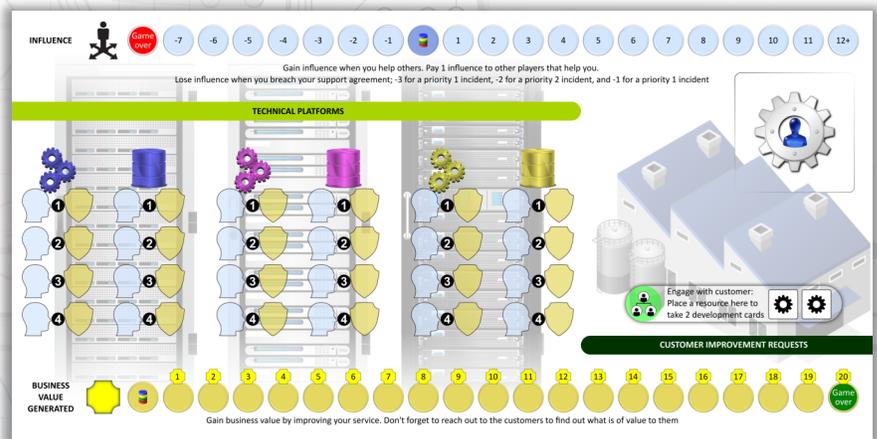
Centre board



6 Emergency change



D10



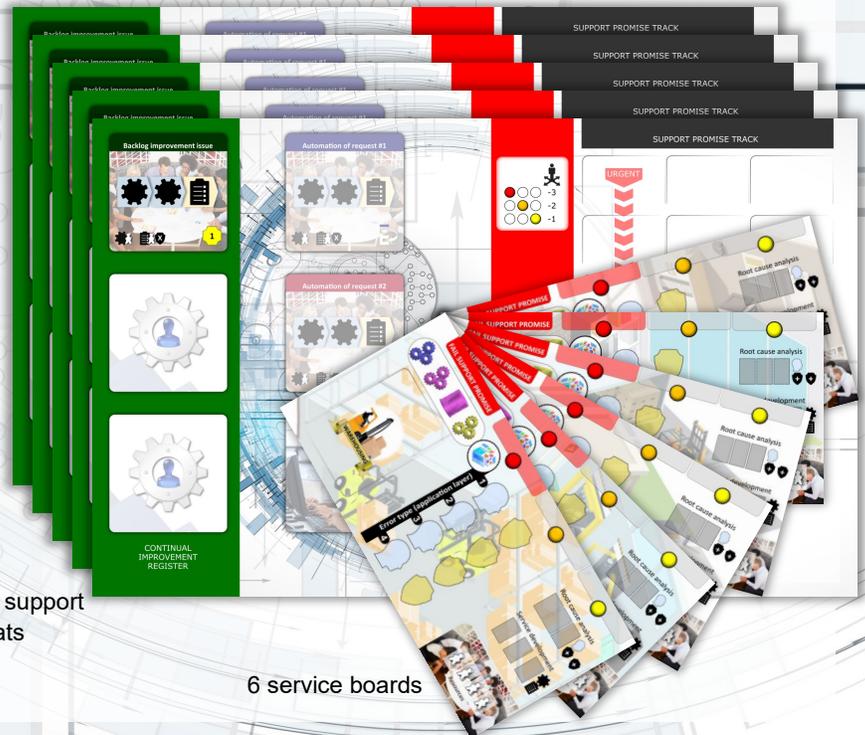
22 player tokens in each of 4 colours (blue, green, red, and yellow)



4 resources in each of 4 colours (blue, green, red, and yellow)



5 player support mats

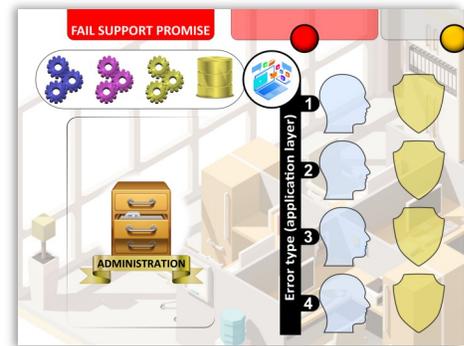


6 service boards

Key concepts

The services

There are six services represented in the game; Administration, Finance, Logistics, Manufacturing, Security, and Warehousing. Each of the services has a similar approach with an application layer and an infrastructure layer comprising of four technical platforms, from the six available (see below). To the right is the administration service, with its application layer and 4 supporting technical platforms, as an example. The application layer has four vulnerabilities, each of which can cause a failure in terms of an error of type 1-4.

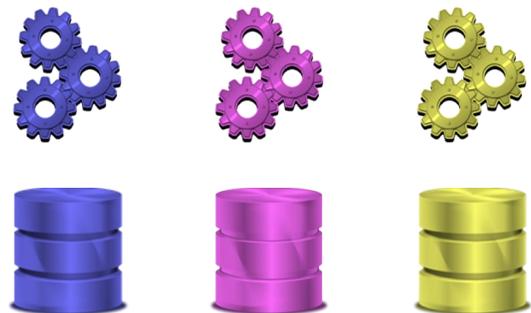


Technical platforms

The architecture behind Stabil-IT is one of six platforms in three platform areas. Each area (see right) is designated by a different colour; Blue, Purple, or Yellow.

Each platform area comprises two platforms, one for the operating system (OS), shown to the right along the top row, and one for middleware (MW), typically database, shown along the bottom row.

As with the application layer, each technical platform has four vulnerabilities which can generate failure if triggered.



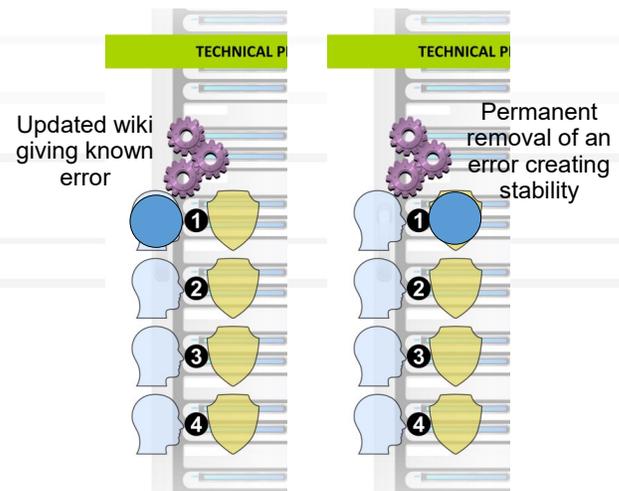
Addressing vulnerabilities and creating stability

When triggered, a vulnerability will generate an incident of a given error type in the associated infrastructure platform or application layer.

To avoid an incident or to lessen its effect there are two options available.

Firstly, if an incident is experienced and resolved, the knowledge gained can be documented in a wiki, thereby making the error type a known error. In future, this will take less resources to resolve.

A permanent removal of the error type can be achieved by either performing a root cause analysis on a known error or through an emergency change. When an error type is permanently removed, stability is created, and the error type will no longer create an incident.



Service desk

The service desk provides the primary interface between the user and the IT organisation for reporting service requests and incidents.

The service desk classifies the call and, if possible, identifies whether any incidents are associated with known errors, based on the information available in the knowledge articles/wikis.

Service requests are pre-defined support activities that

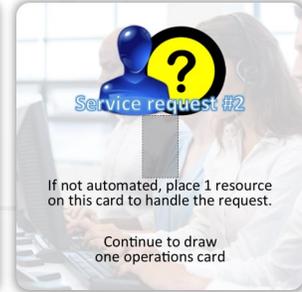
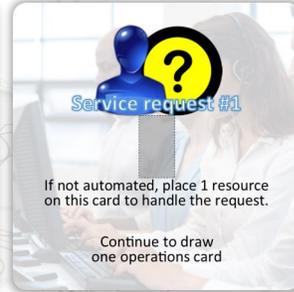
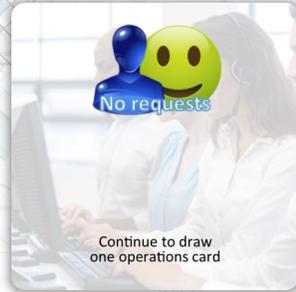
are not incidents though they do require attention to deliver the required outcome.

In the interest of game-play, the service desk is represented in two steps, the first identifying whether there is a service request, and the second identifying the key vulnerability, and potential incident.

The cards and decks

Service desk

The service desk determines whether the users have submitted a service request.



Operations

Each service has its own operations deck distinguished by its name on the back of the cards. Within the deck are two types of cards; the standard vulnerability cards, and the "Already fixed" cards that

are used when constructing the shared services deck for solo and 3-player games.

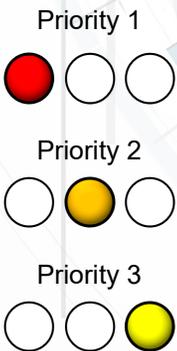


Top left of the card face is the area in which the vulnerability is found being either the application layer, as seen here, or one of the technical platforms supporting the service.

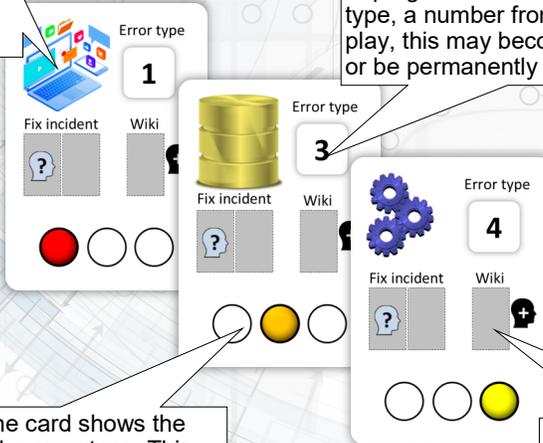
Vulnerability cards

Top right of the card is the error type, a number from 1 to 4. During play, this may become a known error or be permanently fixed.

"Already fixed" cards



The bottom of the card shows the priority level of the error type. This determines here the card will be placed on the support promise track.



The centre of the card has the area for placing resources needed to fix the incident and, optionally, update the wiki with a knowledge article

Emergency change

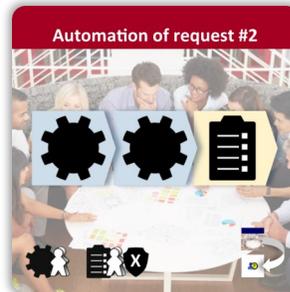
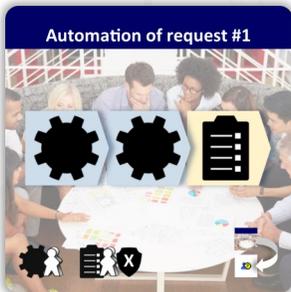
Sometimes, an incident will generate an emergency change, tracked with this card, complete with an area for the necessary resources.

The emergency change is an optional game element, placing more pressure on your resources.



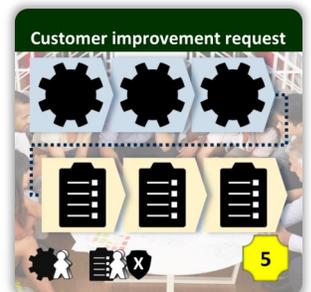
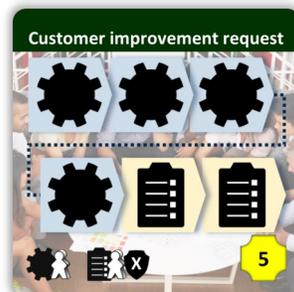
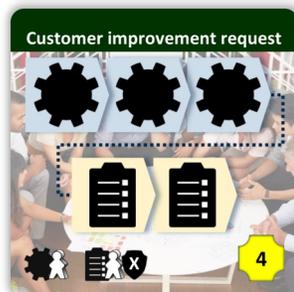
Automation cards

Each player has two automation cards for service request #1 and #2. One side shows the development steps and the other shows that the automation has been completed.



Customer improvement requests

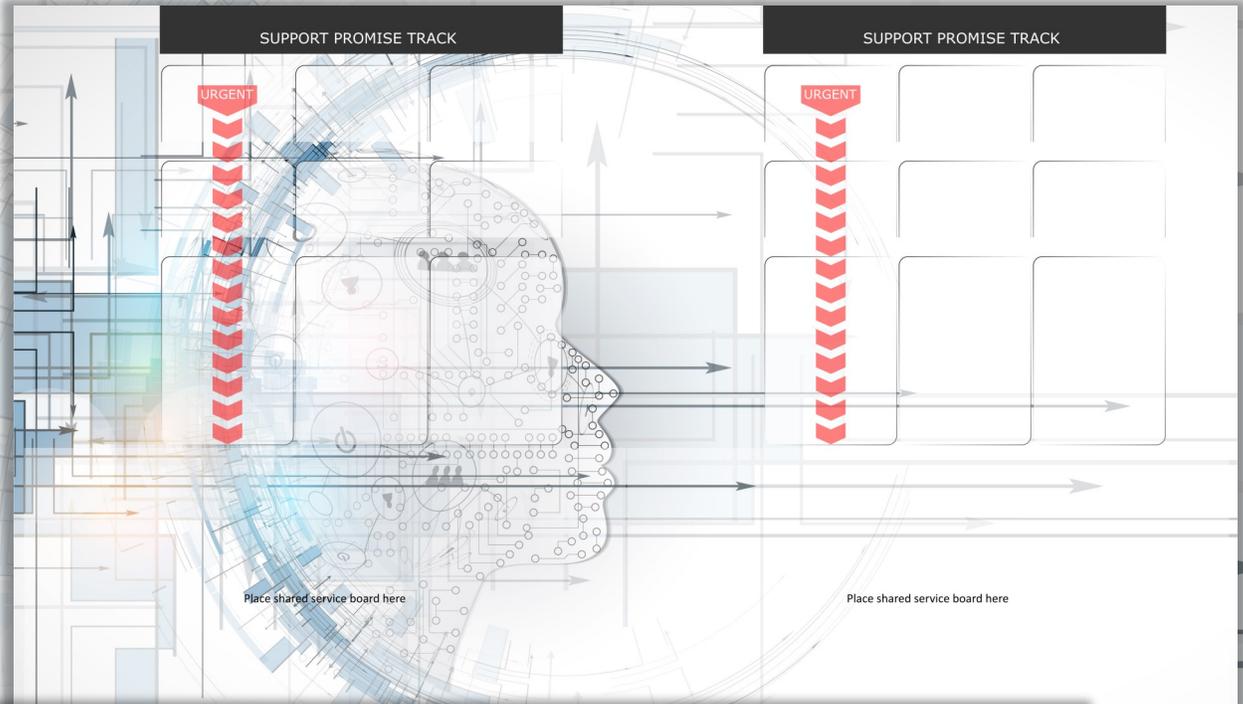
There are a number of Customer improvement request cards detailing service improvement opportunities.



The boards and mats

Player support mats

The double sided player mats go beneath the players' service boards or under the boards of the shared services



Backlog Improvement Issue

Automation of request #1

Automation of request #2

SERVICE DESK

CONTINUAL IMPROVEMENT REGISTER

DELIVER!

SUPPORT PROMISE TRACK

URGENT

Place player service board here

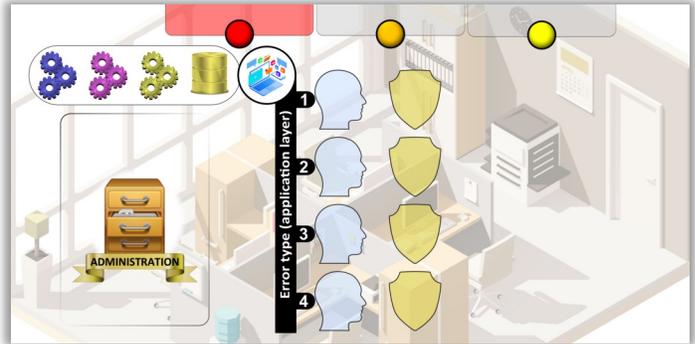
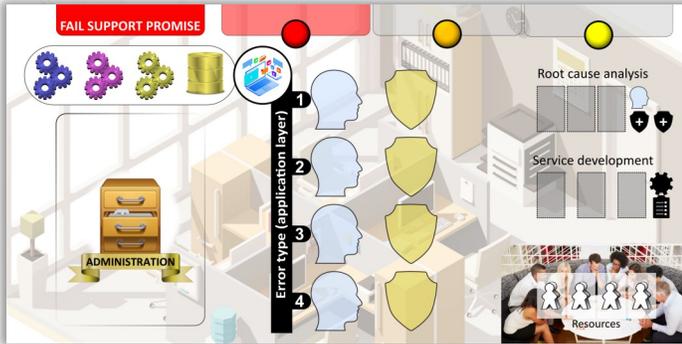
Priority Scale:
-3 (Red)
-2 (Yellow)
-1 (Green)

Service boards

The six service boards have one side for a player managed service and the other side for a shared service

Player managed service

Shared service



Centre board

The centre board contains the Technical platforms, the Customer improvement requests, and tracks for both Influence and Business value.

INFLUENCE

Game over

-7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12+

Gain influence when you help others. Pay 1 influence to other players that help you.
Lose influence when you breach your support agreement; -3 for a priority 1 incident, -2 for a priority 2 incident, and -1 for a priority 1 incident

TECHNICAL PLATFORMS

Engage with customer:
Place a resource here to take 2 development cards

BUSINESS VALUE GENERATED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Game over

Gain business value by improving your service. Don't forget to reach out to the customers to find out what is of value to them

SETTING UP

Player count

The game is for 2-4 players/teams. With a 2-player game, set up as 4-player with each player having two service boards and 2 sets of player tokens/figures

Player service initial setup

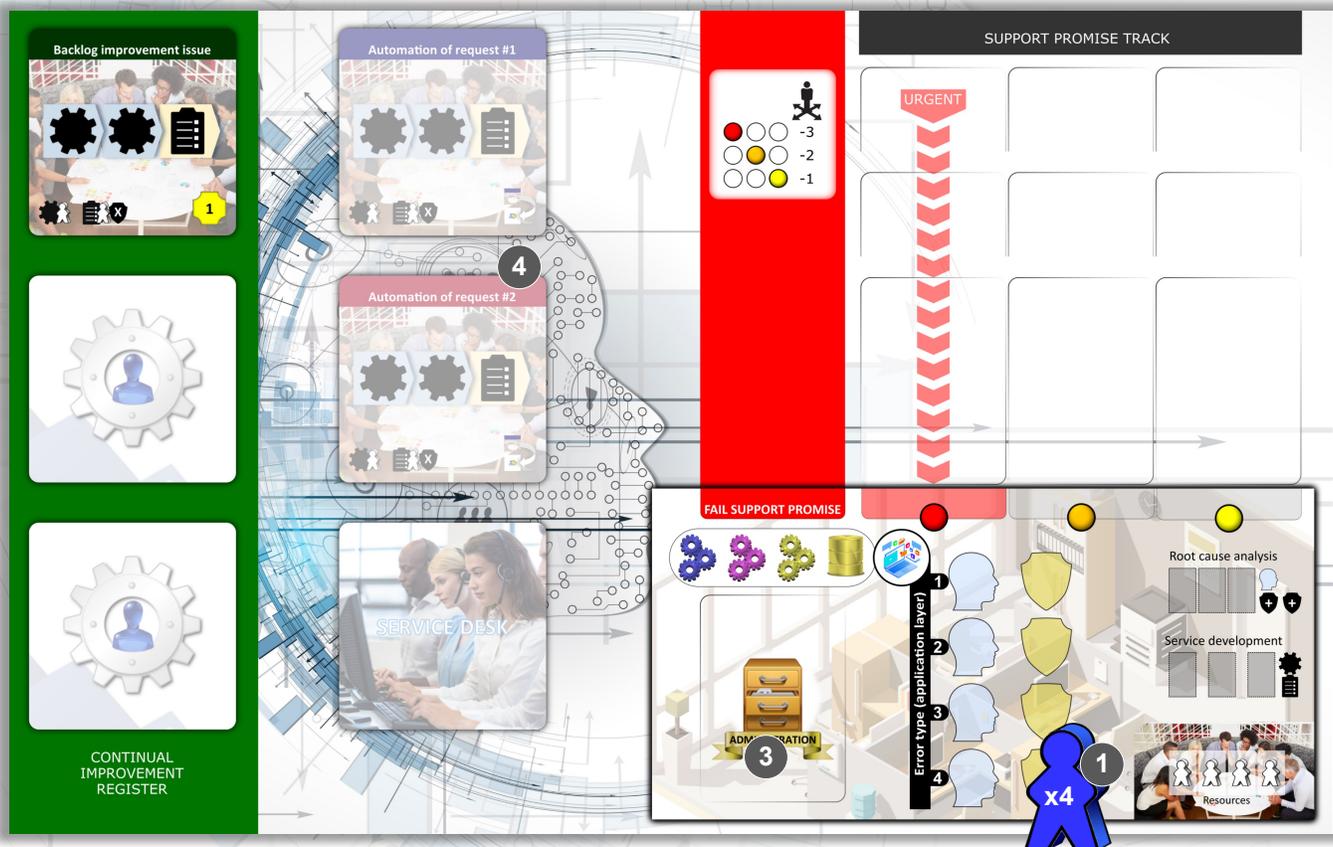
Each player:

Places a player support mat and your chosen Service board in front of you and take the 4 wooden figures and 22 tokens in your chosen colour. Be sure to have the support mat and board with the player service side up

- 1 Place the resources (wooden figures) into your DevOps resources area.
- 2 Place 20 tokens next to your board to form your token supply (the remaining 2 will be used later).
- 3 Remove the "Already fixed" cards and put them back in the box - you will not be using them. Shuffle your service's operations deck and place 15 cards

face-down onto your service board. Place the remaining 16 cards back in the box

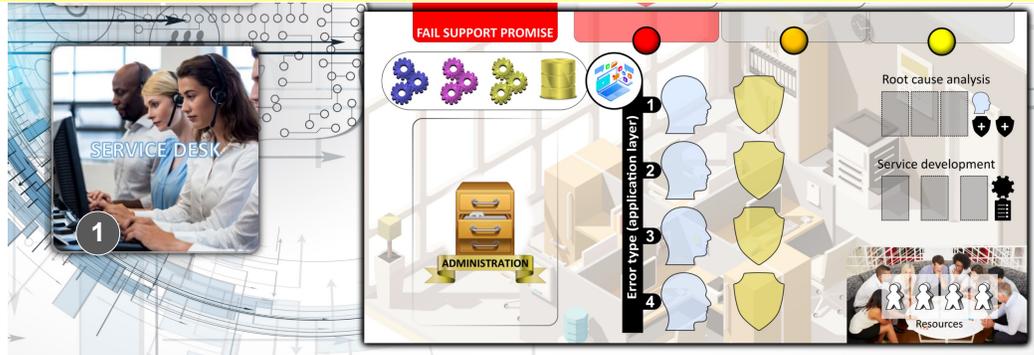
4 Take one each of type of Automation card and place them onto your player support mat with the development track facing up as shown.



Player service finalise

Shuffle the service desk cards and deal 15 cards to each player.

- 1 Each player places their service desk cards face-down next to their service board as shown.



Shared services setup

Places the shared service player support mat in easy reach of all players.

In a 1-2 player game, place one of the unused service boards onto either the player support mat with the shared services side up. In a 3-4 player game, place two of the unused service boards onto the player support map with the shared services side up.

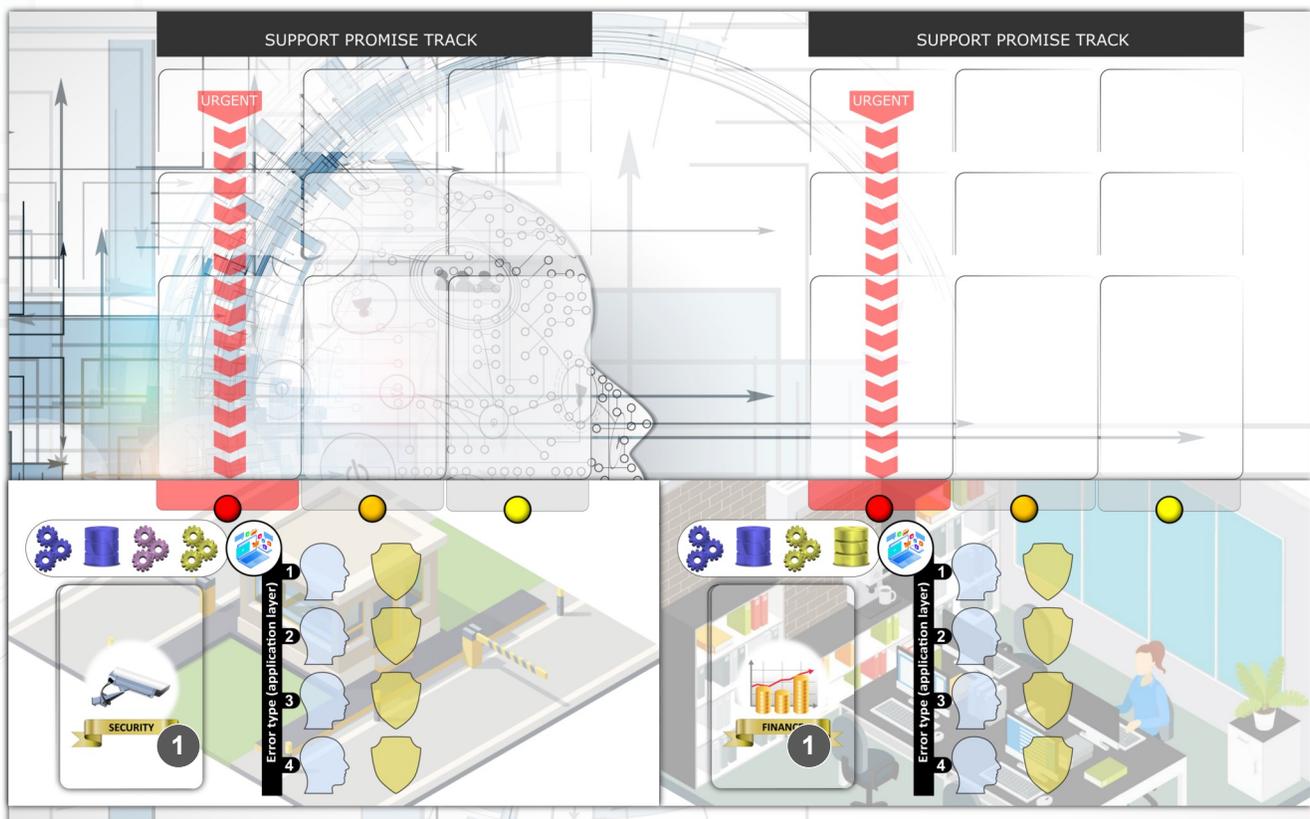
and set aside. For each deck, shuffle and combine 4 “already fixed” cards with 11 of the vulnerability cards, then reshuffle.

For a solo game, remove the “Already fixed cards” and set aside. Shuffle and combine 7 “already fixed” cards with 8 of the vulnerability cards, then reshuffle.

1. Place the operation decks face-down onto their corresponding shared service board.

Create the shared service operations decks

For a 2 or 4 player game, remove the “Already fixed” cards from each the decks and place them into the box. Shuffle the operations deck for each of the shared services and take 15 cards to form the operations deck. For a 3-player game, remove the “Already fixed cards”



Centre board setup

The centre board should be placed within reach of all players

- 1 Shuffle the Customer improvement request cards and place them face down on the centre board as shown.
- 2 Each player places one of their 2 remaining tokens

on the Influence track and the other on the Business value track at the identified positions.

INFLUENCE -7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12+

Gain influence when you help other players. Gain 1 influence to other players that help you.
Lose influence when you breach your support agreement; -3 for a priority 1 incident, -2 for a priority 2 incident, and -1 for a priority 3 incident

TECHNICAL PLATFORMS

BUSINESS VALUE GENERATED 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Gain business value by improving your service. Don't forget to reach out to the customers to find out what is of value to them

CUSTOMER IMPROVEMENT REQUESTS

Engage with customer:
Place a resource here to take 2 development cards

Emergency change option

If playing with the Emergency change option, each player takes an Emergency change card and places it next to their board. Place a D10 dice next to the centre board.



Example 4-player and 3-player setup configuration

The image displays various components of a board game, organized into several sections:

- Player Boards (Left and Right):** Multiple boards for individual players, each featuring a central character illustration, a red progress bar, and various icons representing different game elements.
- Central Rule Sheet:** A large sheet with a grid of icons and text. It includes sections for "WILDERNESS" (with a skull icon), "BUSINESS VALUE GENERATED" (with a gear icon), and "BUSINESS MANAGEMENT REPORT" (with a bar chart icon). It also contains instructions on how to use the icons and how to calculate business value.
- Delivery Board (Bottom Right):** A board with a large "DELIVERY" text and a grid of icons, likely used for tracking or managing the delivery phase of the game.

SEQUENCE OF PLAY

The game can be played semi-cooperatively or fully cooperatively. There will always be some need to cooperate with regards to the shared services but when playing fully cooperatively, the end of game scoring reflects that the goal is to increase the value for the business both in terms of direct business value from improvements and

indirect business value in terms of increased stability and reliability of the IT estate. Decide which way you would prefer to play before starting the game.

Introduction

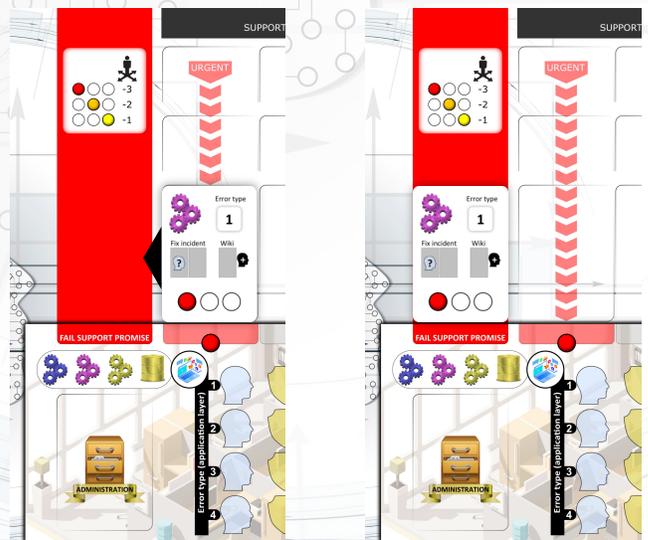
Each round is played through a number of phases: The number of rounds is controlled by the number of cards in each player's service desk and operations deck. Each deck is normally set to contain 16 cards, giving 16

rounds though this number can be reduced to have a shorter game. It is recommended that the number of rounds is a minimum of 10.



Move incidents

As time advances through the game, incidents become more urgent and should be prioritised to avoid breaching the support promise. Move all incidents on the support promise tracks one step to the left except for incidents in shared services that are already in the left-most position. In this example (right) the incident has breached the support promise.



Lose influence if support promise is breached

Any incidents that are moved into, or remain in the FAIL SUPPORT PROMISE section of your player support mat, will incur a loss of influence. The amount of influence lost depends on the original priority of the incident. If any player falls below -7 on the influence track the game ends at the end of this phase. Refer to END OF GAME on page 14. Influence is tracked along the top of the centre board.

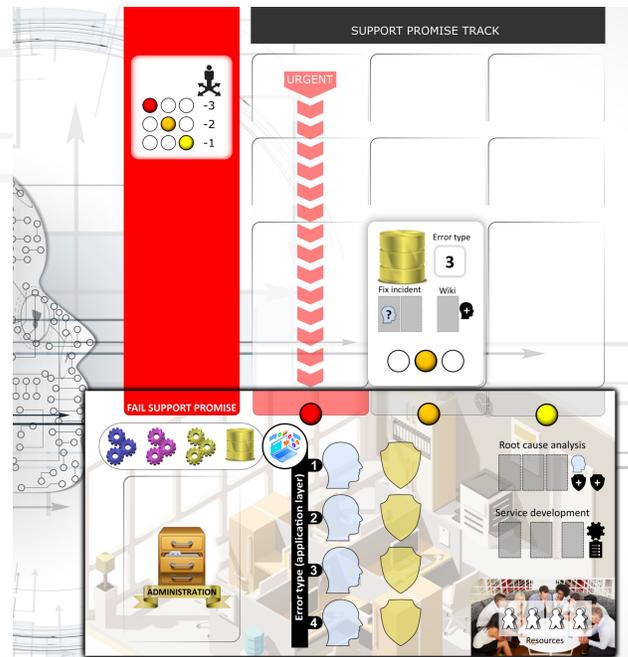


Service desk - requests

Each player flips the top card of their service desk deck to see whether they have received any service requests from their users. If the card is a service request and you have not automated the type of request shown (#1 or #2), place one of your resources onto the card to deal with the request.

Operations (register incidents)

The second step of the service desk activity is to check for vulnerabilities, any that have not been permanently fixed will generate an incident. Reveal the top card from your operations deck and check the area and error type (see page 3 for more information on the operation cards). If stability has been created on the corresponding vulnerability, the card is discarded and this phase is over. If the vulnerability exists, place the card onto your support promise track above your service board, matching the priority on the card with the position indicated at the top of your service board. Priority 1 incidents will be placed in the left column of the support promise track, priority 2 incidents will be placed in the middle column, and priority 3 incidents will be placed in the right column. Finally, reveal the top card from the operations decks of the shared services and place them, as needed to their support promise tracks. Only one card is revealed per shared service. Any "Already fixed" card is discarded.



Plan

It is now time to plan your available resources by assigning them to the various incidents. If playing with the Emergency change option, planned resolution of an urgent incident or one that is already in breach of the support promise, will require a test for Emergency change. See page 18 for mor information on Emergency changes.

Planning is done in parallel for all players but some discussions will be necessary to determine who is doing what, with regards to the shared services. Also some

players may want resource assistance from others.

Influence: If a player gives one or more resources for use by another player they receive one influence. The receiving player loses one influence. If multiple players give resources to a single player, the receiving player loses only one influence in total and each of the donating players receive one influence.

Perform actions

According to your planning, perform the associated actions in whichever order you see fit. All players perform their actions at the same time.

Influence: Any player performing an action in support of a shared service, receives one influence.

Take any business value points

Successfully completing service improvement activities will generate business value.

Any completed automation cards are flipped to their "active" side and the tokens are put back into your supply.

If a customer improvement request has been completed, return the tokens to your supply, take the business value shown bottom left of the card and return the card to the development deck on the centre board, shuffling the deck.

If the backlog improvement issue has been completed,

return the tokens to your supply and take the single business value point..

If any player reaches or exceeds 20 business value points the game ends at the end of this phase. Refer to END OF GAME on page 14.

Business value is tracked along the bottom of the centre board.



Recover resources

Recover all your resources and place them back into the resources area of your service board.

Discard the flipped service desk card. If there are no more service desk cards left on your board, the game is over. Refer to END OF GAME on page 14.



If, at the end of a round, any service has more than 5 incidents, the game is over for all

END OF GAME

There are four ways that the game can end:
One or more players have gone below -7 influence points. In this case the game is over for all. There are no winners when the one or more players are allowed to lose so much influence, sorry.

A services has 5 or more incidents. No scoring, you all lost, sorry.
One or more players have reached or exceeded 20 business value points or there are no more service desk cards. Time to check the scores - see below

Scoring

Stability

Each player receives an additional 1 business value point for every 2 areas of stability created (rounded down).



Influence

Adjust your business value points by one business value point for every 4 influence points. Round down for positive influence, round up for negative influence.

So, an influence of -2 would lose one business value point whereas an influence of +2 would gain none.



If, at the end of the scoring, two or more players are tied for first place, the one with the most influence is declared the winner. If it is still a tie, there is no outright winner. Truly you equally contributed to the success of your services and, by extension, the company. Well done!



Your service

You gain or lose points based on your success at resolving incidents in your service:

0-1 incidents (no urgent incidents), 2 business value points

2-3 incidents (no urgent incidents), 1 business value point

Urgent incident, -1 business value points per incident.

Solo play

If you have scored 10 or more points you can be quite satisfied with your performance. More than 15 points is excellent.

ACTIONS

INCIDENT MANAGEMENT - Fix incident



Occasionally things stop working as expected. It may be a complete failure or it could just be a reduction in performance below agreed thresholds. In either case, an incident will be created to identify the issue and route it to the appropriate team for resolution. Incidents can be categorized according to their urgency, such as priority 1, 2, or 3. Each priority level will have an agreed support promise, detailing the

amount of time before the incident must be fixed. If the incident is not fixed in the allotted time, the support promise has been broken.

An issue may be of a known error type, which makes fixing the issue easier, and less time consuming, as there is less investigation time spent identifying the error.

Registering an incident

Each player reveals the top card from their operations deck. The boards are checked to see if the error type has already been fixed for the associated application or platform.

If the error has not been fixed, it is registered as an incident by placing the card onto the support promise area above the board, according to its priority. The support promise area has the most urgent incidents to the left and the least urgent to the right.

At the beginning of each round the incidents will move one space to the left, meaning that all incidents will eventually become urgent.

If, at the beginning of a round, there is an incident in the first location of a player's board, it will be moved off the support promise area, indicating that the support promise has been broken.

This is only done for services managed by a player, not for shared services.

Check for Emergency change (optional)

Once per round only, if the incident to be fixed is either in the "Urgent" section of the support promise track or in the red "fail support promise" section, an emergency change may result.

Roll a D10 dice and, in the event of a 0, place the "Emergency change" card over the incident. See page 16 for how to proceed with an emergency change.

Fixing an incident

It takes two resources to fix an incident. The first resource is used to determine how to solve the incident and the second resource resolves the issue.

If the wiki associated with the error type has been updated with a knowledge article, the first resource is not needed.

KNOWLEDGE MANAGEMENT - Update wiki



Knowledge management is fundamental to ensuring that everyone has access to, and an understanding of, information relevant to the task in hand.

Updating the wiki

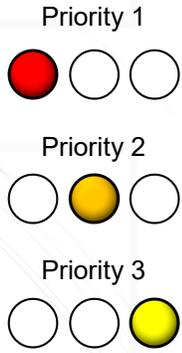
This can only be done as an extension to a "fix incident" action.

Adding a knowledge article to the wiki will mean that the error type, associated with the incident being fixed, will in future be a known error.

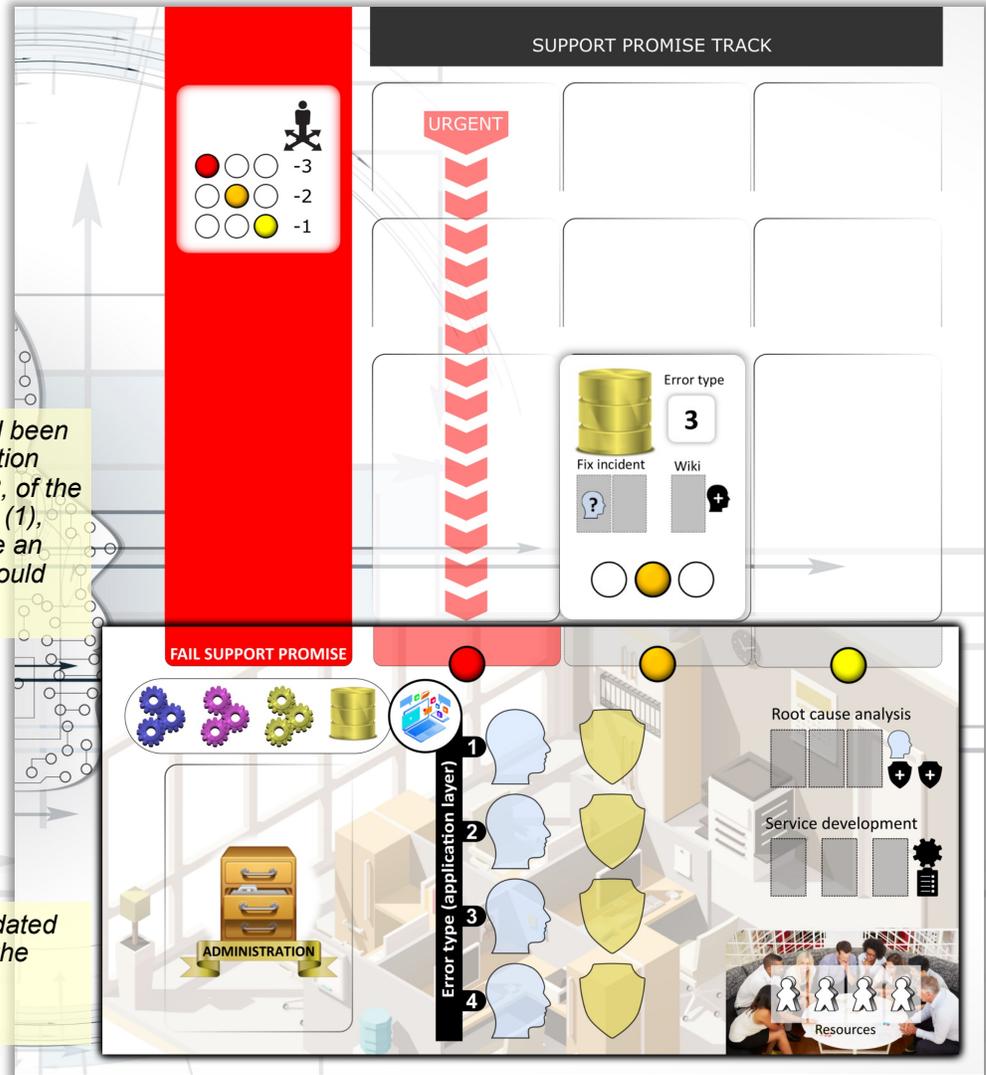
It costs one resource to update the wiki, placed during the planning phase.

During the perform actions phase the player places one of their markers on the wiki location corresponding to the error type. This can only be done if the wiki spot is initially empty.

Once an incident is fixed, the card is removed from play.



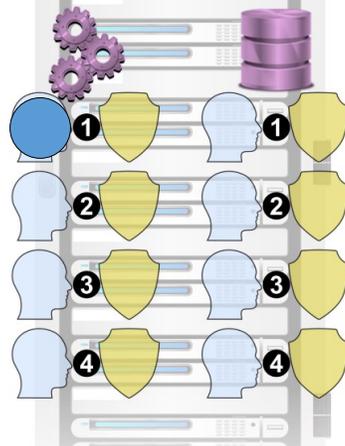
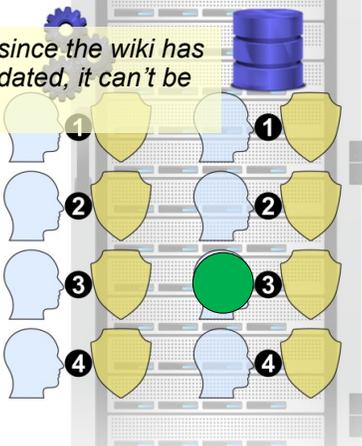
In this example, if there had been a token on the stability location associated with error type 3, of the yellow middleware platform (1), the card would not generate an incident as the error type would have been removed.



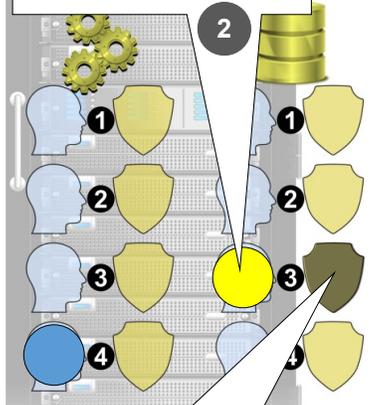
Here, the wiki has been updated by the yellow player (2) so the incident will only require 1 resource to fix.

TECHNICAL PLATFORMS

In our example, since the wiki has already been updated, it can't be updated again.



This is a known error as the wiki has been updated



Stability here would have avoided the incident

1

PROBLEM MANAGEMENT - Root cause analysis



Problem management sets out to reduce the number of incidents. One aspect of problem management is to further analyse incidents and known errors to

establish the root cause, which, once addressed, creates stability.

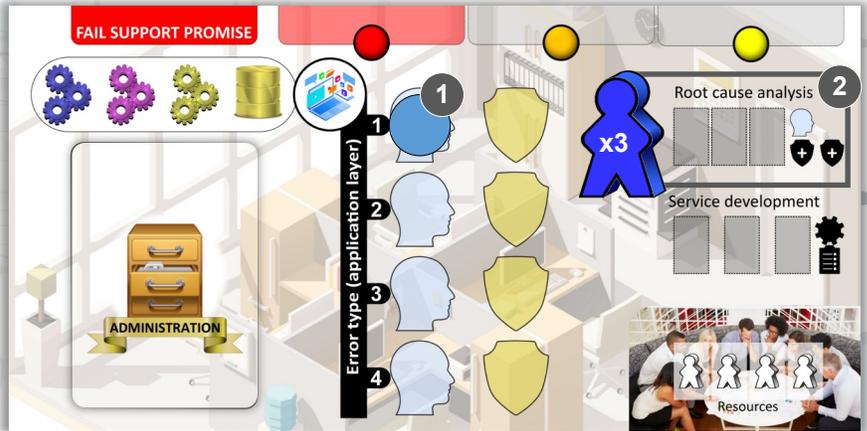
Performing a root cause analysis

Helen is playing the blue colour and has the Administrative service to manage.

Previously, she has solved an incident caused by error type 1 in the application layer and has created a knowledge article in the wiki, thereby making it a known error (1).

She now decides to perform a root cause analysis to increase the stability in her service.

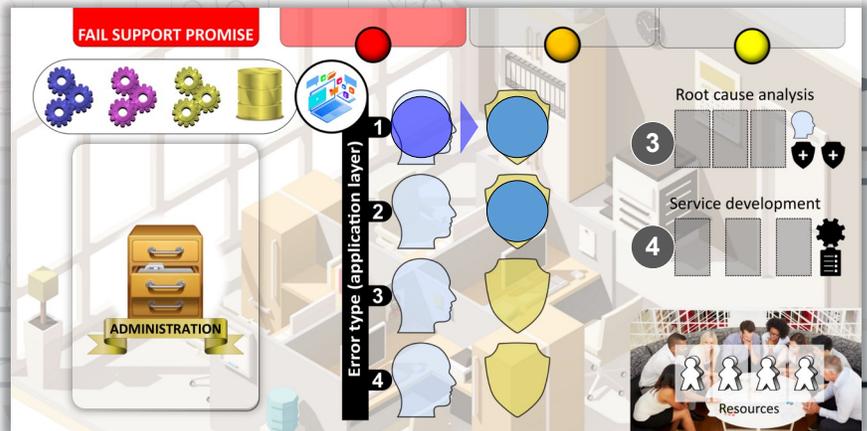
In the "Plan" phase, she places 3 resources in the root cause analysis area to the right of her board (2).



Now it is time to perform the action she has planned.

Since Helen has previously updated the wiki, she moved that token to the right, creating stability (1). If it had been someone else's token, it is returned to its owner and Helen would place one of her tokens onto the stability space.

A second token is added to the nearest empty stability space (4). If there is no empty space, this step is omitted.





CHANGE MANAGEMENT - Emergency change (optional content)

Change enablement ensures the timely implementation of required changes with minimum risk.

An emergency change will usually result from identifying a needed change whilst working on an urgent incident.

Also, if new releases and updates from development are delivered without appropriate testing, it is likely that the overall stability of the solution is negatively impacted.

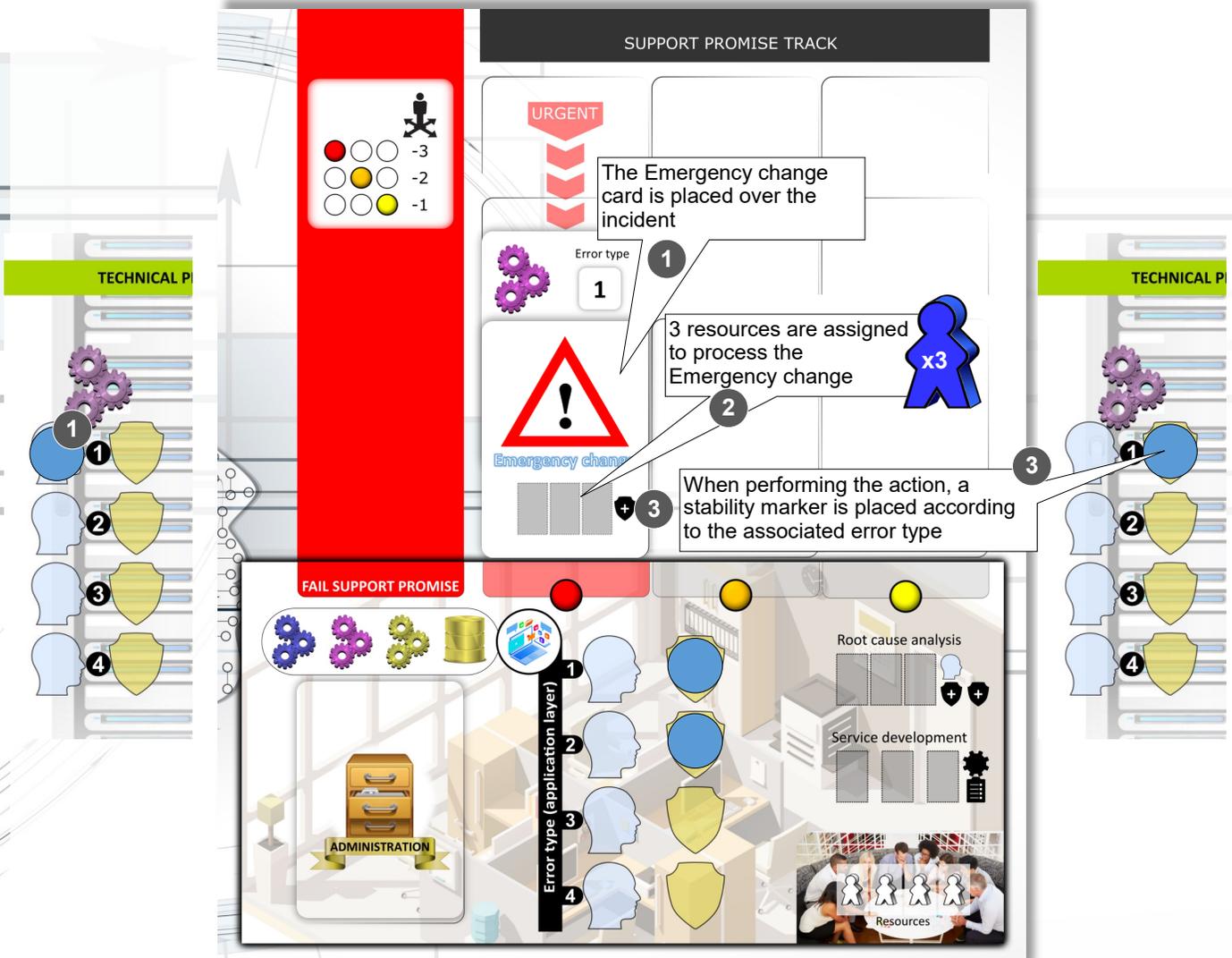
NOTE: Emergency changes MUST be prioritised

Performing an emergency change

Helen draws a priority 1 operations card (error type 1, purple OS) and plans to fix the associated incident during the current round. As the incident is in the urgent section of the support promise track, she must test for emergency change. She rolls a "0" with the D10 dice indicating that this incident generates an emergency change, so places the emergency change card on top of the incident, leaving the error type visible (1).

During the "Plan" phase, 3 resources are placed on the card (2). This is unaffected by any known error tokens in place.

During the "Perform action" phase a stability marker is placed at the corresponding value type, returning any known error marker (3).

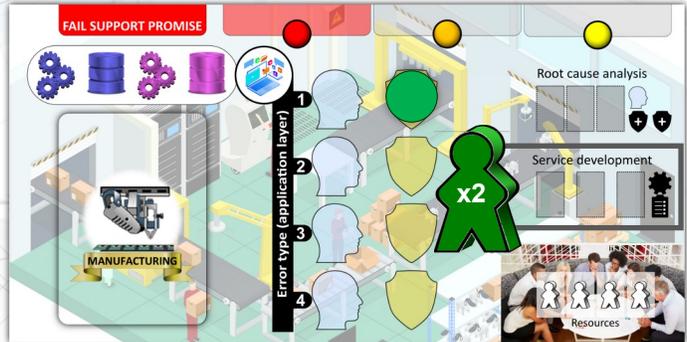


DEVELOPMENT - Automation of request handling



Plan for development

During the Plan phase, Phil decides to develop his service and assigns 2 resources for development (he could assign from 0 to 4 resources)



Register development work

For each of the resources assigned, a token is placed on a development track. So Phil will have 2 tokens to place. Phil had previously developed 2 steps of "Automation of request #1" (1), leaving just 1 step needed to complete this development in this area.

Since he can place 2 tokens, Phil places one to complete the development of this automation and one on

the first steps of "Development of request #2" (2). He then recovers the tokens from the completed development, returning them to his supply, and flips the card to show that the automation is done (3). In future, if he gets a request #1 from service desk there will be no need to assign resources.





CONTINUAL IMPROVEMENT REGISTER - Customer improvement requests

The continual improvement register represents a backlog of identified service improvement. These may have come from the DevOps team or been received from the customer/user. Since the customer really understands the business impact of the requested improvements, any requests

received from them will generate more benefit to the business. Than those identified independently by the DevOps team. Time must be spent engaging with the customer to learn what improvements are considered important.

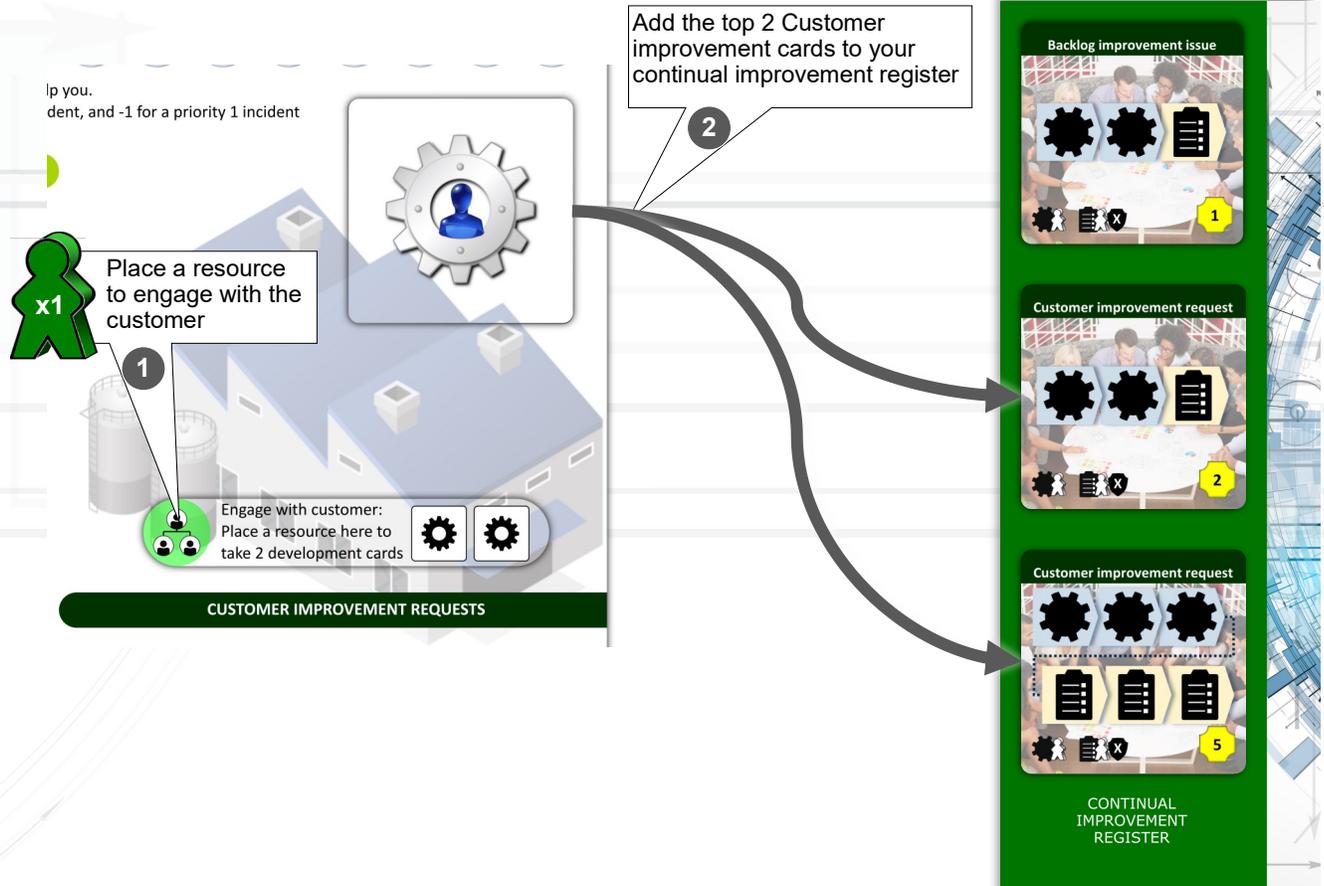
Engaging with the customer

Phil decides that it is time to find out what the customer want improving in his manufacturing service.

Phil places a resource in the customer improvement

requests area on the central board and takes the top two cards from the customer improvement deck and adds them to his continual improvement register area.

If there had been only space for one card, he would have returned one of the cards to the customer improvement



DEVELOPMENT - Service improvements



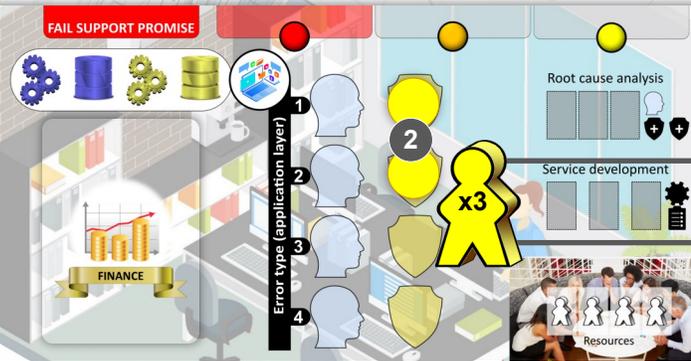
When developing an improvement item, there are two types of development step:



A standard Development step can only be completed with a token obtained from the assigned resources.



A Testing step can be completed in one of two ways; either by using a token obtained from the assigned resources or by using a token currently adding stability to an application or platform. A player can only use a token of their own colour.



Plan for development

During the Plan phase, Susan decides to assign the maximum 3 resources to development. This will give her here three tokens to use in the continual development register area.

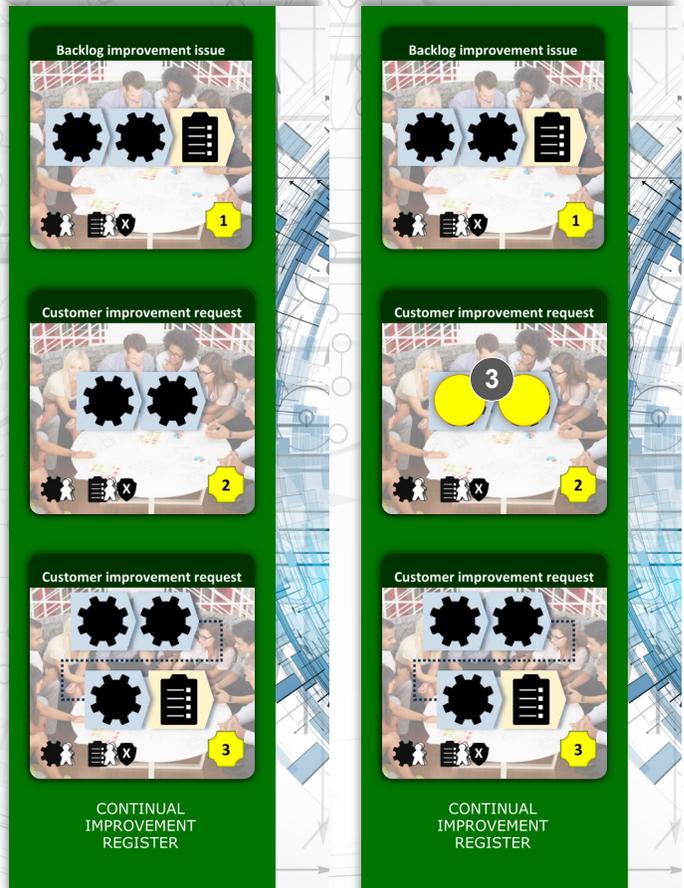


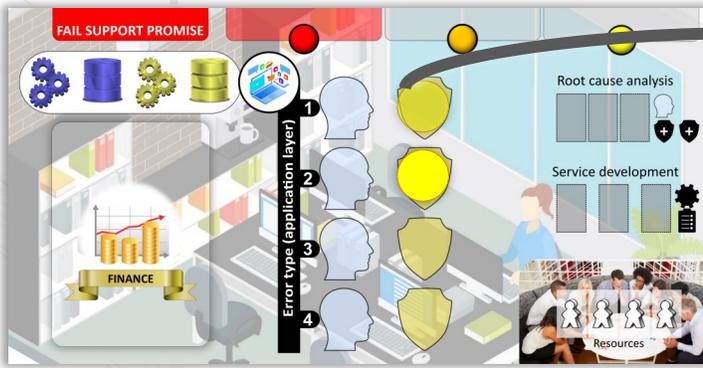
Develop

Susan has previously developed one step in a standard backlog improvement issue (1) but has since added two customer improvement requests.

During the Perform actions phase, she has several options as to how to place the tokens, including whether to use her existing stability tokens on her player board (2).

She decides to place one token in the backlog improvement issue and the other two in the upper customer improvement request (3).



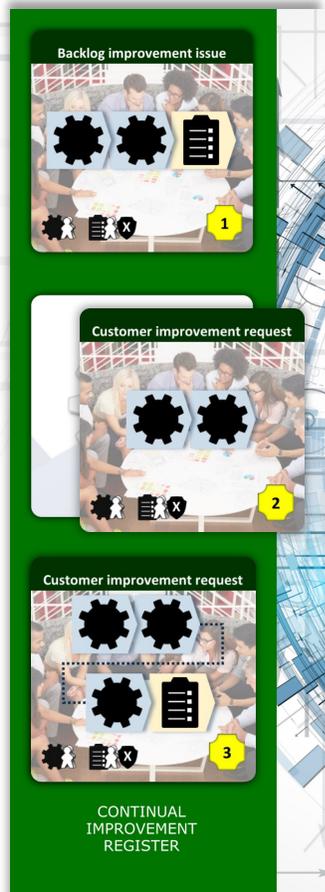
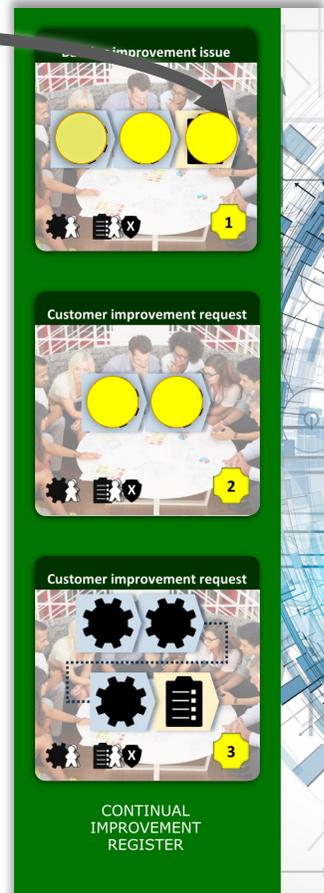


She also decides to use one of her stability tokens to complete the testing step of the Backlog improvement issue.

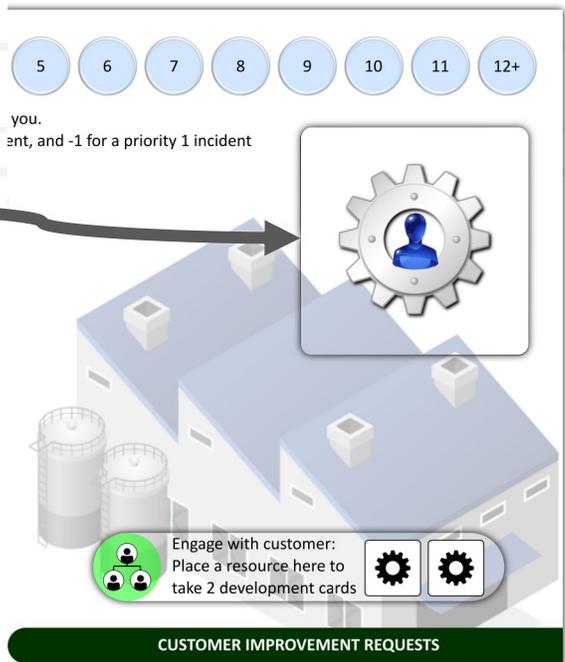
Note: This represents releasing a change without sufficient testing and will reduce the stability of her service.

Take points

Susan has earned a total of 3 business value points which she takes by advancing her token on the centre board's business value track.



Finally, she returns all of the 5 tokens, used in the development action, to her supply, and puts the completed Customer improvement request face-down back into its deck, then shuffles the deck





The number of rounds in the game is controlled by the number of cards in your service desk. Once the service desk cards run out, the game is over. Normal number of cards would be 15 though this can be reduced to any value down to 12 for a shorter game.



The Emergency change is an option for the game. If you decide to play this option you will need the D10 dices and each player will need an emergency change card.



If anyone goes below an influence of -7 the game is over for all

If, at then end of a round, any service has more than 5 incidents, the game is over for all

End-of-game scoring

Stability

Each player receives an additional 1 business value point for every 2 areas of stability created (rounded down).



Influence

Adjust your business value points by one business value point for every 4 influence points. Round down for positive influence, round up for negative influence. So, an influence of -2 would lose one business value point whereas an influence of +2 would gain none.



Your service

You gain or lose points based on your success at resolving incidents in your service:

- 0-1 incidents (no urgent incidents), 2 business value points
- 2-3 incidents (no urgent incidents), 1 business value point
- Urgent incident, -1 business value points per incident.

Influence is the tie-breaker