

Use Cases

Definition:

A **use case** is a definition of a specific business objective that the system needs to accomplish. A use-case will define this process by describing the various external actors (or entities) that exist outside of the system, together with the specific interactions they have with the system in the accomplishment of the business objective.

Source: <https://www.inflectra.com/ideas/topic/use-cases.aspx>

The dimensions of the use cases are:

- Mono-modal / multi-modal
- Travel during peak periods / travel during off peak periods
- Travel now / travel in the future
- Travelling through unfamiliar territory / a commuter
- A commuter that doesn't plan
- A traveller that requires special assistance (e.g. registered disabled)
- Dealing with unplanned incidents (e.g. congestion due to an incident)
- Dealing with planned incidents (e.g. a major festival)
- A preference for active mobility – happy to walk when the air quality is OK

The above leads to many combinations below. Excluding cross-border travel, the most common intra-HK ones are listed below. The list provides a flavour of the most common challenges facing stakeholders, including the passengers themselves, and is subject to further refinement and development during the period of research.

Use case #	Use case	Additional Context.
1	A passenger wishes to get to a nearby destination during peak period but is unfamiliar with the area. He / she wants to know what the travel options are, including walking.	Simple mono-modal planning requirement.
2	A passenger wishes to get from A to B now and wants to know how much the total trip will cost.	Simple planning requirement but may include one or more modes
3	A passenger wishes to get from A to B tomorrow and wants to know what the travel options are.	Simple planning requirement but may include one or more modes
4	A passenger wishes to get from A to B tomorrow and wants to know how much the total trip will cost.	Simple planning requirement but may include one or more modes
5	A passenger is arriving by train from the Airport by Airport Express in Central and needs a taxi to meet him / her without having to wait. Taxis are usually available but typically long queues.	The initial mode choice is known, but a connection is needed. The passenger is travelling on business and would be prepared to pay the standard booking fee of \$5 (or more) to get certainty.

6	A commuter takes the MTR and as he / she exits, if there's a taxi then the commuter would take it, otherwise he/she would walk	Could a taxi be ready and waiting? The commuter hasn't booked but would certainly take it.
7	A passenger is on a bus and there's been an accident and there's heavy congestion ahead. The passenger needs to know what the options are to get to his / her destination and the new Estimated Time of Arrival	The passenger hasn't booked the trip but the bus operator wishes to provide good service to every customer – but the advice needed is different for each passenger.
8	A passenger is making his / her first visit to Chai Wan and wants to pay for a trip covering MTR and taxi to the destination. He / she has no idea when the trip will start.	The passenger has not yet entered the MTR station, but the MTR certainly knows when the passenger enters the MTR's paid area and leaves the MTR's paid area at the end of the trip.
9	A passenger works 6-days per week and maintenance work is planned on the MTR. The commuter needs to be notified if there's a risk of this – without asking.	An event that is internal to a mode that the passenger frequents. He / she would like to know – without asking.
10-	It could rain tomorrow, and the travel time could be extended. The commuter needs to be notified if there's a risk of this – without asking.	An event that is internal to surface modes only. Historic travel patterns show that rain could impact surface transport and increase congestion. Notification to a commuter could be helpful to improve quality of service. Generally, commuters have fixed arrival times, and therefore the departure time would need to change.
11	A traveller with impaired mobility wishes to travel door-to-door on an unfamiliar journey, probably including more than one mode. An adapted taxi and step-free access to each mode is needed. He / she can walk for short distances unaided.	What information is known about the route, including step-free access and perhaps availability of support staff?
12	There are lots of passenger is on a ferry from an outlying island and its likely to be few minutes late. They may miss the bus and its 30 minutes to the next one.	Can the ferry company help? This is a regular occurrence during the winter months when sea conditions vary.