

Current Trends in Self-Service Transportation Terminals

Travelling Light

By Jean Salomon, international logistics, travel and security consultant

Quickly searching Google

for 'HISTA' in the Free

Acronym Dictionary by

Farlex yields the

following: 'Honey I Shrank

The Audience.'

A slight revision, reading:

'Honey I Shrank The ATM'

seems more appropriate to

the self-service industry in

general, and to its

transportation segment in

particular.

Allow me to present a short review of the reasons and consequences of the current 'downsizing' of the kiosk industry:

The installed base of transportation kiosks is relatively low, yet their contribution to seamless travel is well established and growing.

Self-service kiosk usage is steadily growing for on- and off-premise ticketing, check-in, and identity management, and air transportation stakeholders are reaching out to travellers across approximately 12,000 units today, around 20% of which are shared between different carriers in over 70 airports through CUSS.

Yet this number represents less than 1% of the total number of the banking ATM installed world base (1.5 million) and, even if tripled to include other transportation modalities (like railways), only about 6% of the world's deployed retail kiosks.

Coordinated and more systematic kiosk usage by carriers and airports has resulted in significant cost reduction, enhanced customer brand loyalty and favoured seamless procedures – three major and distinctive requirements of

the air transportation industry.

Low cost carriers, though reluctant to invest in non-critical infrastructures, have considered light kiosk configurations, minimising their total cost of ownership. Tangible changes materialise as we speak!

A Kiosk in a Cell Phone?

Shrinking an ATM or check-in kiosk picture into a cell phone is easy and trivial. Applying the same shrinkage to kiosk functionalities is more instructive: key kiosk components are preserved (interactive screen and keyboard); application connectivity, uptime and responsiveness improve; wireless and ubiquity of usage are within immediate reach; process ownership, however, would change: the business would then belong to the telecoms companies, and ultimately winning suppliers may be amongst those delivering the coveted triple play (voice, data and internet).

Some carriers and airport services have already launched interactive applications using cell phones. IATA is promoting 2D bar code types (QR, Aztec) which are 'pushed' onto cell phone screens and machine-read at boarding instead of using paper documents. Therefore, boarding entitlement has been added to the existing portfolio of cell phone and PDA check-in applications, mimicking some of the kiosks procedures with advanced mobility, ubiquity, and scaling factors.

Beam Me Up, Scotty!

In order to book and secure an airline seat, airport and off-premise transportation kiosks have to measure up against other new channels, such as home or internet check-in. A key precursor to the latter channel progression was the Electronic Ticketing breakthrough, now reaching approximately 80% of global IATA traffic. Instead of morphing the check-in kiosk size and shape, the space domain available to transact is conceptually further 'warped' and expanded beyond the airport, parking and nearby hotels to include the comfort of the traveller's own home.

Performing most pre-travel steps from

his own desk (or pocket), the passenger will benefit from expedited security and seamless boarding procedures when reaching the airport, especially if travelling without luggage. A crucial condition for this alternative to succeed is to align the new kiosk human interface with a look and MMI already familiar to the traveler. Dominating service providers in the future will probably favor this approach.

The expected regular growth in passenger traffic will still require the various stakeholders to sustain 'traditional' self-service kiosk usage at their usual points of contact, striving to differentiate their offer while maintaining loyalty to their frequent flyer programmes (carriers and airline alliances), further streamlining passenger flow across the access points (airports and ground handlers) and promoting seamless, risked assessment-based access for Registered Travellers (Police and Control Authorities).

On top of the above, delocalised access channels (e.g. home check-in), as well as emerging automated ID management applications will mandate more significant kiosk transformations, both in shape and functionality.

The 4 Cs

Four distinct characteristics should shape the common features of new channel kiosks: control, cooperation, convergence and completion – all of which will become central to the airports of the future.

Control: early kiosk adopters, such as Schiphol or Vancouver airports, have optimised the layout and functionalities of existing kiosks to promote bag drop areas, where the bar coded bag tags delivered by the kiosks are attached to the luggage by an agent or the traveler himself, before loading it onto the baggage conveyor.

The number, location and functionality of the bag drops depend on each airport's topology, carrier location in the terminal, traffic patterns and passenger travel profiles. Incremental reshuffling of the layout is useful, until optimal traffic flow and decongestion is achieved for each specific airport. This trend is expected to

Image courtesy of IBER



"The role of transportation kiosks should evolve beyond their present role of empowering on-site check-in transactions."

further evolve, resulting in more kiosks controlling tasks previously performed by agents.

Cooperation: 2D Bar Codes, whether printed from a check-in kiosk onto a boarding pass or transmitted via SMS/MMS onto a cell phone screen are viable ways to enable boarding control. Multiple, cooperative, boarding channels are a reasonable answer, promoting service differentiation favouring both carrier branding and airport congestion.

Completion: the role of transportation kiosks should evolve beyond their present role of empowering on-site check-in transactions. Kiosks will play a critical completing role in controlling passenger ID during boarding.

Hence, the inclusion of ID or e-ID document readers will enable security upgrading by installing automated ID matching kiosks, where the passenger's right to board (i.e. his boarding 'token', under any acceptable form or shape) will be automatically matched against his electronic travel document. This will help prevent ID substitution during boarding.

Process control and ownership will remain under joined airport and control authorities mandate, leading to enhanced security via kiosk driven secure (self-)boarding.

Convergence: once the role of kiosks has been redefined as a key security enabler, further deployment of automated border control installations will lead to secure biometrics-



image courtesy of Kevin Molloy, VP at YVR

Vancouver Airport was among the first to embrace self-service check-in.



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enabled kiosks (or checkpoints) as key authentication steps in fast track immigration programmes.

Here, the kiosk shape and layout would somewhat differ, being now part of an airlock (i.e. a mantrap closed by two sliding/revolving doors). The kiosk could be located at the airlock entrance, or enclosed between its dual doors. The airlock role would be to ascertain that the kiosk biometric matching is done only on one single person, eliminating tailgating and piggybacking, thus preventing an illegal matching of an imposter's biometrics.

Advanced layout models favour using a set of passport-reading kiosks, grouped in front of a line of parallel mantraps, further optimising flow and reducing the

number of immobilised immigration officers. This new type of application is key to ensuring the future convergence and interoperability of border crossing procedures, a necessity for countries to sustain traffic growth.

In Conclusion

Condensing selected check-in kiosk features inside of a cell phone and its embedded applications represents both a potential and a challenge.

Keeping the travelling customer's loyalty to his or her brand, product and service is a key differentiator for the savvy provider, which requires travel industry stakeholders to work in unison. Therefore, a composite channel offer

blending kiosk, cell phone and internet usage with a common look-and-feel seems a most likely approach, with local channel dominance strongly depending on each local travelling population profile. Amongst the various promising new transportation applications, bag drops, secure boarding with ID management and automated border control are most likely to unfold, using kiosks handling e-passports, biometrics capture for enrolment, as well as on board biometrics, ID authentication and matching.

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