



**ATHENS**  
SEPTEMBER 4-7, 2022  
AT THE GRAND HYATT

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**FOCUSED**  
**ON THE FUTURE**

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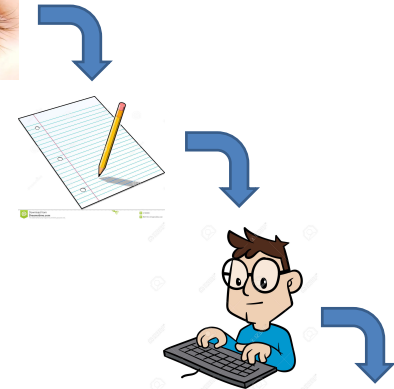
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Bringing Digitalization to ULD Day to Day operations

# ULD stuck in a time warp

- Data capture- human eyeball
- Data recording- paper and pencil
- Data entry- manual via keyboard
- Data transmission- legacy EDI



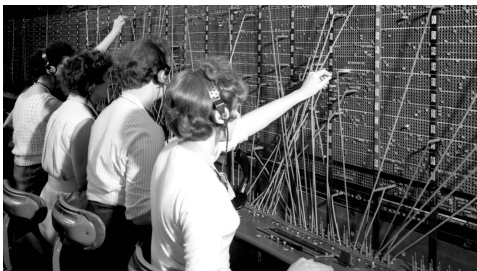
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PAP8646AF/27JUL1999/1200/AZ/AF/LIN/057 26803/LIN/SER  
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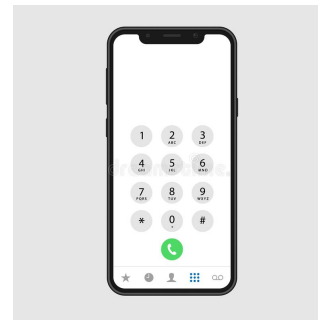


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1970's



Today



ADDRESS: D X R T V K K COPY TO: B X B T G E K COPY TO: S X S T H C K C 2101'

OPERATION: N R B T F C K C

ULD CONTROL RECEIPT

TYPE CODE	PLATE NUMBER	UNIT NUMBER	PORT	TYPE	DATE OF TRANSFER	UNIT	UNIT TYPE	RELEASED
1	P M C 3 5 7 7 7 E K	1 8 5 0 6 2 0 2 4	1	1	1 6 6 6			S V
2	P M C 3 3 5 4 9 E K							
3	P M C 3 4 6 8 1 E K							
4	P M C 3 5 6 7 7 E K							
5	P M C 3 5 9 3 3 E K							

CONDITION CODE KEY: SER (Serial), DAM (Damage/Changed)

CONTROL RECEIPT NUMBER: 1 2 4 - 1, 1 2 4 - 2, 1 2 4 - 3, 1 2 4 - 4

TRANSFER POINT: N C C

UNIT RELEASED: SV HELIX 2021-09-04

UNIT TYPE: CARRIER ULD ONLY

UNIT CHARGES: \$1000

TOTAL CHARGES: \$

ADDRESS: D X R T V K K COPY TO: B X B T G E K COPY TO: S X S T H C K C 21'

OPERATION: N R B T F C K C

ULD CONTROL RECEIPT

TYPE CODE	PLATE NUMBER	UNIT NUMBER	PORT	TYPE	DATE OF TRANSFER	UNIT	UNIT TYPE	RELEASED
1	P M C 3 5 7 7 7 E K	1 8 5 0 6 2 0 2 4	1	1	1 6 6 6			S V
2	P M C 3 3 5 4 9 E K							
3	P M C 3 4 6 8 1 E K							
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CONTROL RECEIPT NUMBER: 1 2 4 - 1, 1 2 4 - 2, 1 2 4 - 3, 1 2 4 - 4

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# Time for a transformation

- Data Capture- OCR and RFID
- Data recording- Smart device app
- Data entry- On the spot “lite touch”
- Data transmission-data upload from smart device



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Accurate UCR's are at the heart of effective ULD control.

- BLE and other technologies can do some of the job
- “Smart ULD” cannot yet replace the need for a signature
- Anything requiring visual and manual processes is subject to human error
- Effective ULD management requires real time accurate information



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# Resistance to change

- Cost justification
- Interface with legacy IT systems
- Multiple parties across the industry
- Data security





## Risk/Reward **What's in it for me?**

### Rewards resulting from new technology

- Accurate, reliable, real time data on ULD custody
- Low installed cost per ULD
- Low local infrastructure cost
- Minimal familiarisation training
- Reduced back office manpower
- Greater clarity for ULD management

### Risk of adopting new technology

- Its something new
- It'll get broken
- It'll require management effort
- It'll cost money





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# ULD CARE Digitalization Objective

- Incubate new digitalisation innovations
- Promote solutions that can support efficient connectivity with the proposed Next Gen IULDUG
- Open opportunities for value add functions

**LETS NOT LET THE PERFECT BE THE ENEMY OF THE PERFECTLY GOOD.**



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# Smart device App.

- Objective:
  - Recreate an on screen ULD Control Receipt
    - ULD ID
    - Time and Date
    - Location of transfer
    - Transferring and receiving parties
    - ULD Condition
    - Accessory items
    - Signatures of both parties



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# Key features

- On screen signatures
- Photographic evidence of damage
- Easy and accurate ULD ID capture
- Instant data transfer to central systems

15:58

← Sign Off Confirmation

Receiving Party

Receiving Party  
Cathy Pacific Airline

Signatory  
Bill Burr

Handwritten signature of Bill Burr

Transferring Party

Transferring Party  
Emirates SkyCargo

Signatory  
Abdul

Handwritten signature of Abdul

Confirm



# RFID Identification

- RFID is back !!!!!!!
- Key developments
  - Works well close to metal
  - Fully passive design
  - Low cost hand held multi function readers





## Escaping the time warp...

- Data capture- automated through OCR/RFID/BLE
- Data recording- direct on screen entry using Smart device App
- Data entry- 95% superseded by use of app
- Data transmission- direct from the Smart App, no delay





# Cost/ Benefit analysis

## Cost

- Free app
- Low transaction unit cost
- Low unit cost of RFID tagging

## Benefit

- Accuracy
- Real time data
- Reduced administration costs
- High level of UCR compliance supports demurrage charging

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## Value Proposition

- ULD CARE presents these digital solutions as a way of moving out of the 1970's era ULD ID acquisition, the use of a paper based UCR, the need for extensive keyboard work and the straitjacket of legacy EDI messaging.
- ULD CARE seeks to demonstrate and make available to the industry their solutions in a non exclusive manner, in the hope that the UCR process will achieve widespread digitalisation in a short period of time
- ULD CARE sees UCR digitalisation as being a building block for widespread charging of demurrage for late return of ULD assets, providing very significant benefits for the entire airline industry.

