Use of commercial services and outsourcing to supply CNS services –

An ANSP's perspective

Dr. W. Langhans, MBA
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Outsourcing changes CNS services

- Communication, navigation and surveillance services are key constituents of safe and cost-effective air navigation services worldwide.

- In the 2nd half of last century,
  - air navigation services have been well-regulated by international rules (e.g. ICAO, 1944) and
  - have been governed by mainly state-owned air navigation service providers.

- Since the beginning of this century, the air navigation service business is changing continuously.

- One of the drives for change are emerging options to outsource specific CNS services or parts of specific CNS services to commercial service providers.
Let’s look at the antagonism between inhouse and outsourced provision of CNS services along key categories:

**Inhouse**
- Safety / Risk
- Sovereignty
- Value chain
- Business capabilities
- Value proposition
- Compliance
- Customers and Marketing
- Revenue streams
- Cost - effectiveness

**Outsourcing**
ANSPs are always accountable for safety and risks

- Clear accountability for all safety related topics and associated business risks.
- This accountability cannot be delegated to an outsourcing partner.

- Outsourcing partner can take responsibility for parts of the service, but never the full accountability for safety and risks.
In case of crises, State authorities need to have full access to CNS services

**Sovereignty**

- States have full sovereignty for the airspace above the national territory.
- In case of crises, State authorities need to have full access to all CNS services (especially in small countries).
- In case of crises, access to CNS services might be limited or even impossible (e.g. in case of war, on purpose deactivation of specific CNS services or related constituents might occur).
A split of value chain might increase cost

Value Chain

- The whole value chain (end-to-end) is handled within the ANSP,

- If parts of the value chain are handled by an outsourcing partner, the end-to-end view might be affected.
  - This will increase cost due to more overheads, more communication needs and larger distance of control.
In case of outsourcing, more precise specifications are needed

- Business capabilities can be tailored to the specific needs of the ANSP.
- To get the business capabilities needed by the ANSP from the outsourcing partner needed, more precise specifications are needed.
- This will lead to additional cost.
Unbundling of services must not be mandatory

Value proposition

- The CNS service needs to fit to the needs of airspace users and internal customers (mainly ATCOs).
- In specific cases, outsourcing of specific services might make sense, but decision needs to be taken by the ANSP.
- Unbundling of services must not be mandatory.
The CNS service needs to fulfil the regulatory requirements. This has to be achieved by involving certified ATSEPs.

Also in case of outsourcing, the CNS service needs to fulfil the regulatory requirements and certified ATSEPs need to be involved. This will lead to additional cost.
The outsourcing decision should be transparent for airspace users

- **Customers and Marketing**

- **Inhouse**
  - Airspace users and internal customers (mainly ATCOs) are served directly.

- **Outsourcing**
  - Airspace users and internal customers (mainly ATCOs) are served indirectly.
The outsourcing decision is expected to have no impact on revenue streams.

### Revenue streams

#### Inhouse
- CNS services do not generate direct revenues.
- CNS services generate revenue indirectly (route charges for en-route and approach/departure).

#### Outsourcing
- CNS services do not generate direct revenues.
- CNS services generate revenue indirectly (route charges for en-route and approach/departure).
The over-all cost implications depend on the specific situation

- The cost for CNS services depend (among other) on the way how the CNS service has been implemented and is being operated within the ANSP’s organisation.

- Some specific services may be available at less cost than internal services (e.g. New PENS).
- Nevertheless, the total cost of outsourcing needs to be considered (see cost items related to previous categories).
Conclusion

- Basically, for most CNS service the whole range between full inhouse service and complete outsourcing to an external service provider is possible.

- Nevertheless, the impact of the specific mix between inhouse and outsourcing on the ANSPs has to be evaluated for each specific CNS service and for each key category.

- Unbundling of services must not be mandatory. The business decision regarding the solution for a specific service needs to be taken by the ANSP.