

CASE NORWEGIAN INF3290

Bendik Bygstad

IFI 1.November 2013

Case: Norwegian

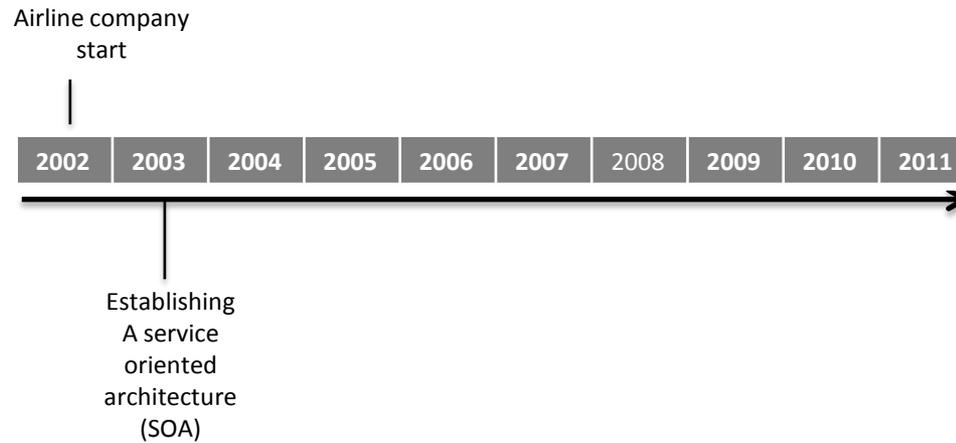
- Starting in 2002
- Deregulation of air traffic

Today:

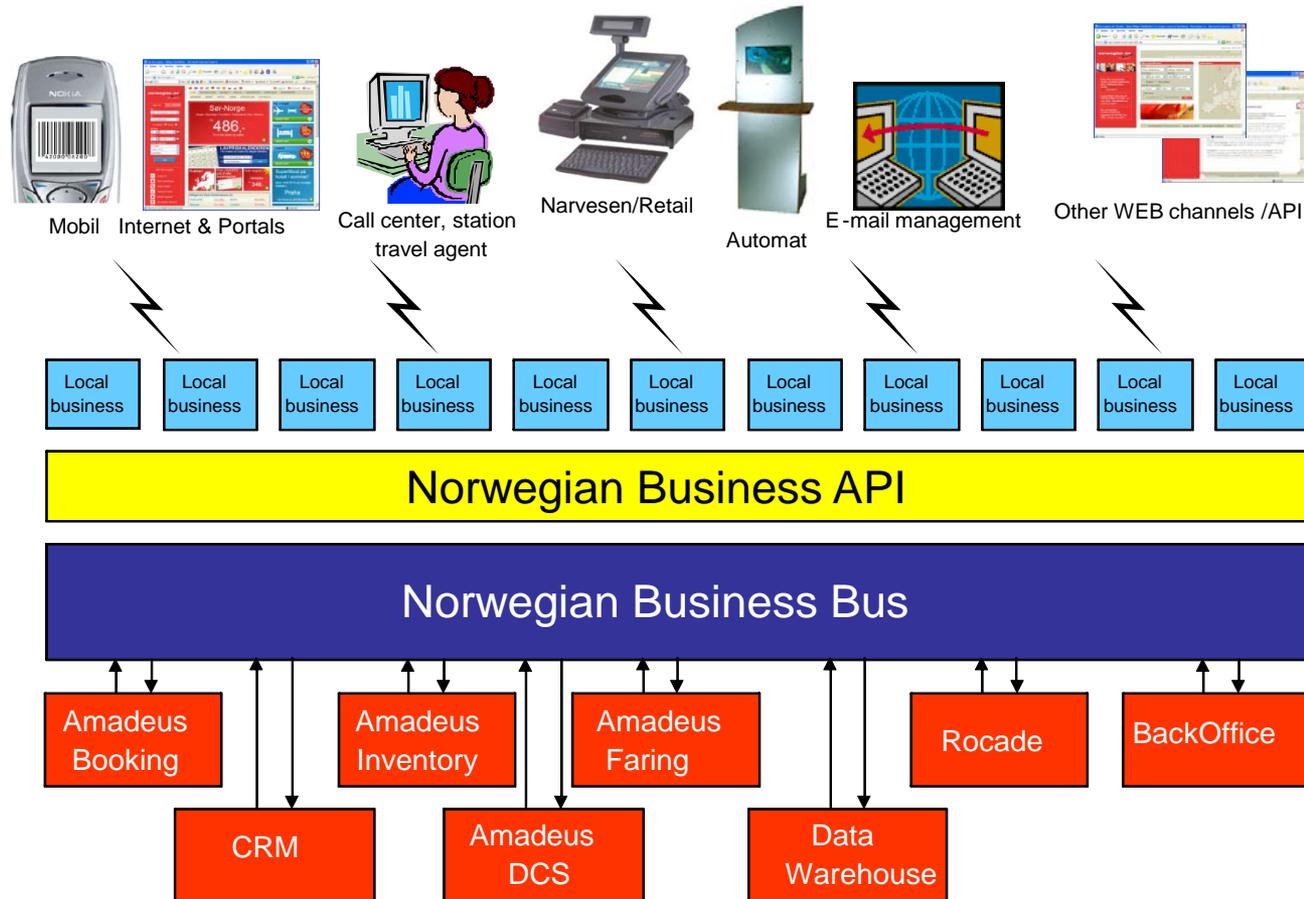
- 383 routes to 122 destinations in Europe, Middle East, Thailand og USA.
- 17 mill passengers in 2012
- 3000 employees
- Revenues 1.5 bn US dollar



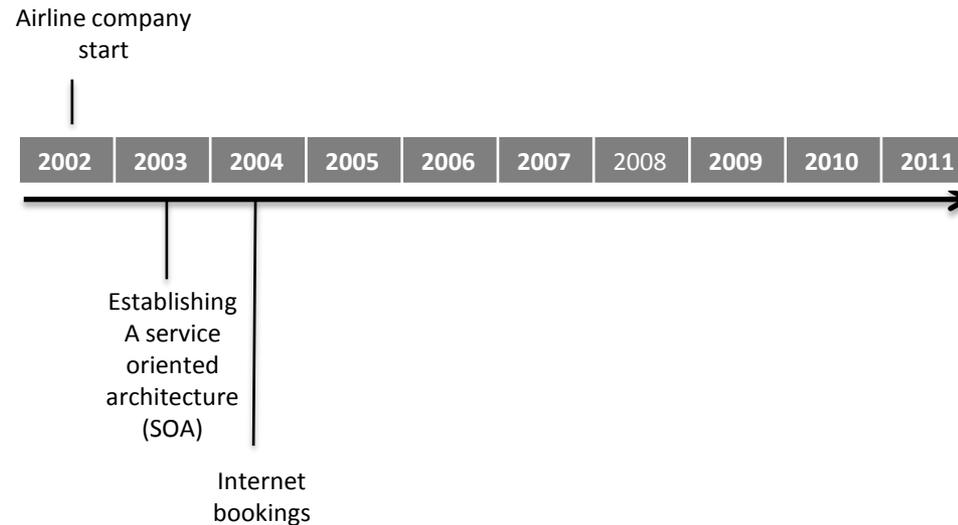
Norwegian timeline: SOA



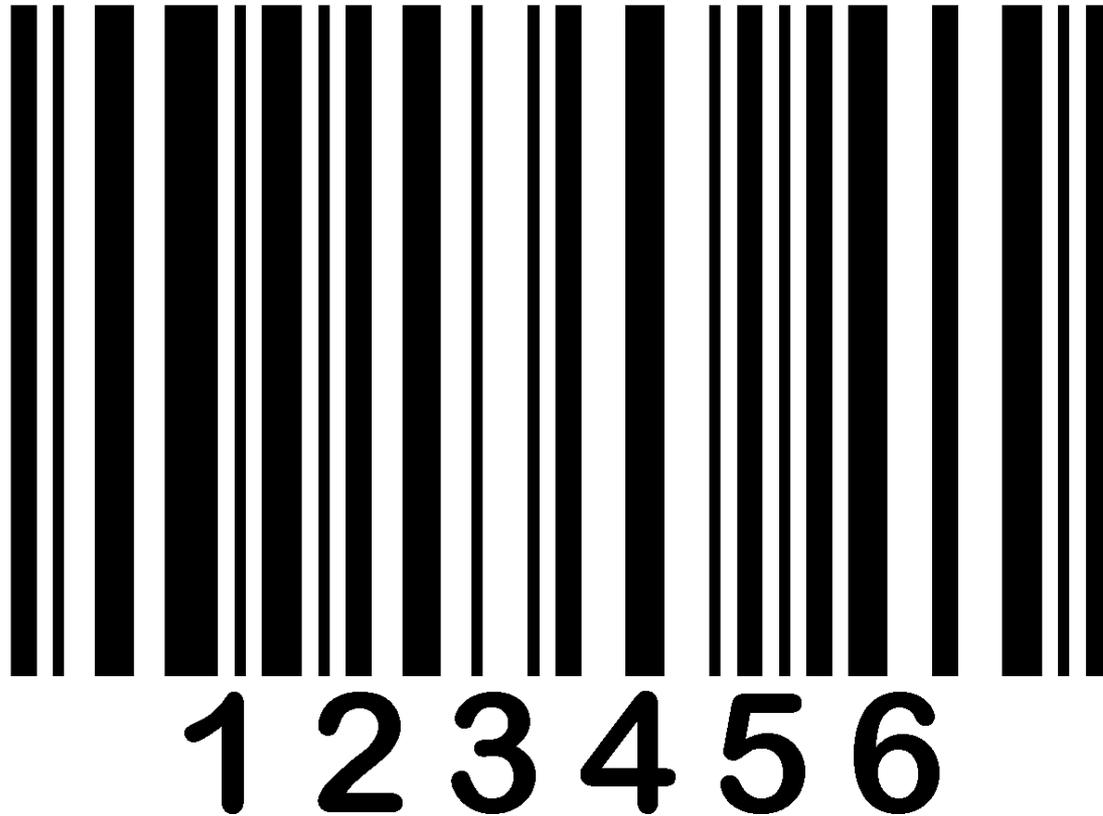
2002: IT architecture



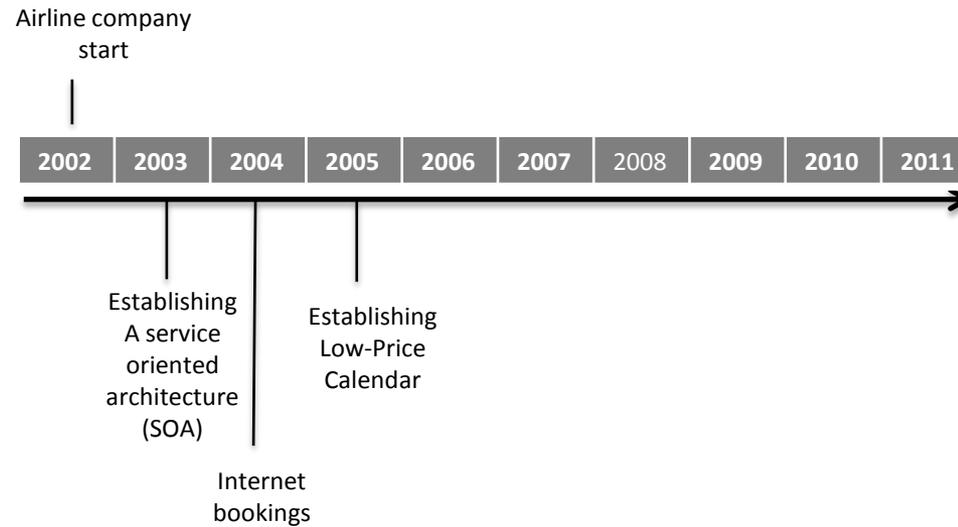
Norwegian: Internet bookings and tickets – bypassing travel agencies



2003: Bar code on tickets



Norwegian timeline



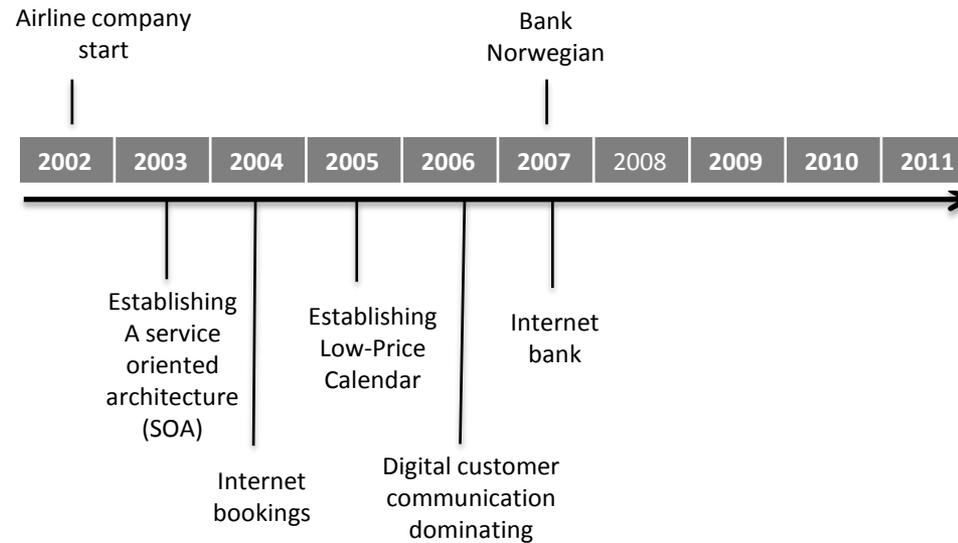
2005: Low Price Calendar

The screenshot shows the Norwegian Airlines website interface. At the top, there is a navigation bar with the logo and menu items: Bedrift, Reisebyrå, Grupper, Fordelsprogram, Charter, Mine reiser, Logg inn, and Norsk. Below this is a secondary navigation bar with tabs for Fly, Hotell, Leiebil, Fly+Hotell, Feriehus, Reiser mål, Nyttig på reisen, Kundeservice, and Om Norwegian. The main heading is "Alle destinasjoner - Billige flybilletter fra Oslo-Alle flyplasser". Below the heading is a search form with fields for "Fra" (Oslo-Alle flyplasser (OSLALL)), "Til" (radio buttons for "Alle dest...", "Norge", "Snø og ski", "Sol og Bad", "Storby"), "Direkte/Flybytte" (checkboxes for "Kun direkte"), "Reiseperiode" (dropdown for "- Velg periode -"), "Makspris" (dropdown for "- Vis alle -"), and "Valuta" (dropdown for "NOK"). Below the search form is a calendar view for the months of November, December, and January. The calendar shows flight prices for various destinations:

Destination	Nov	Des	Jan
Fly til Agadir fra Oslo-Alle flyplasser (Marokko)	599	599	599
Fly til Algarve-Faro fra Oslo-Alle flyplasser (Portugal)	399		
Fly til Alicante fra Oslo-Alle flyplasser (Spania)	349	349	399
Fly til Alta fra Oslo-Alle flyplasser (Norge)	399	399	399
Fly til Amsterdam fra Oslo-Alle flyplasser (Nederland)	299	299	299
Fly til Antalya fra Oslo-Alle flyplasser (Tyrkia)	399	399	699
Fly til Barcelona fra Oslo-Alle flyplasser (Spania)			

At the bottom of the screenshot, there is a Windows taskbar with icons for Internet Explorer, Word, and PowerPoint, and a system tray with the date and time.

Norwegian timeline

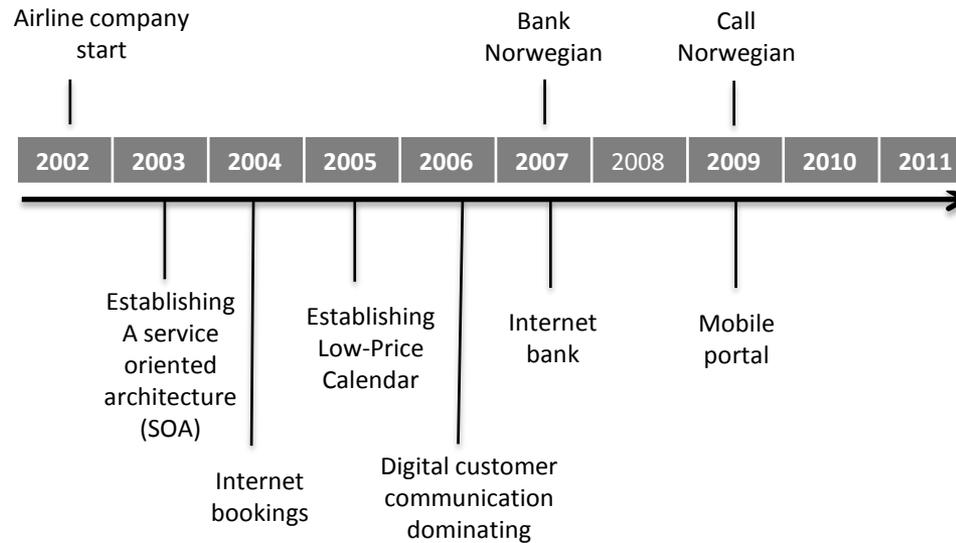


2007: Bank Norwegian

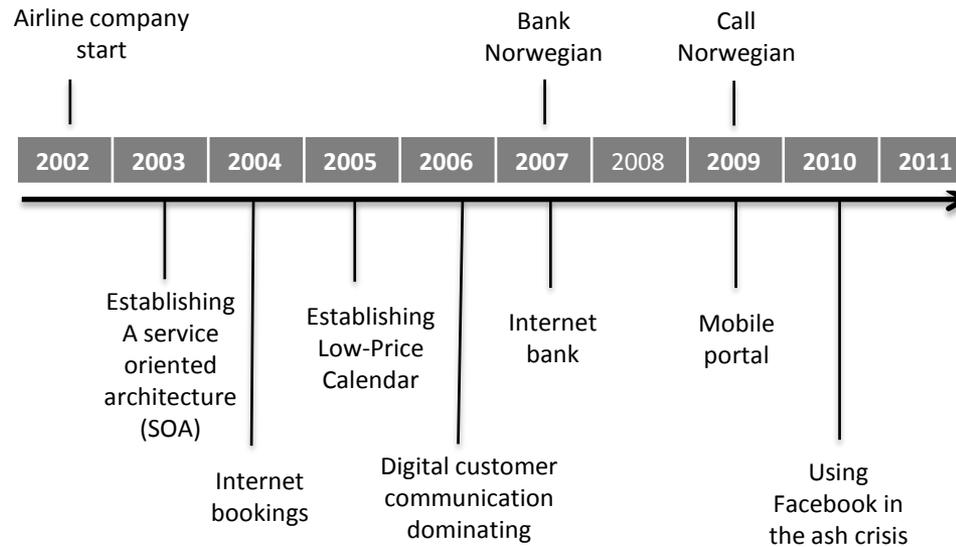


Internet bank
Handles Norwegian's FFP system
Profits 2012: 165 mill NOK

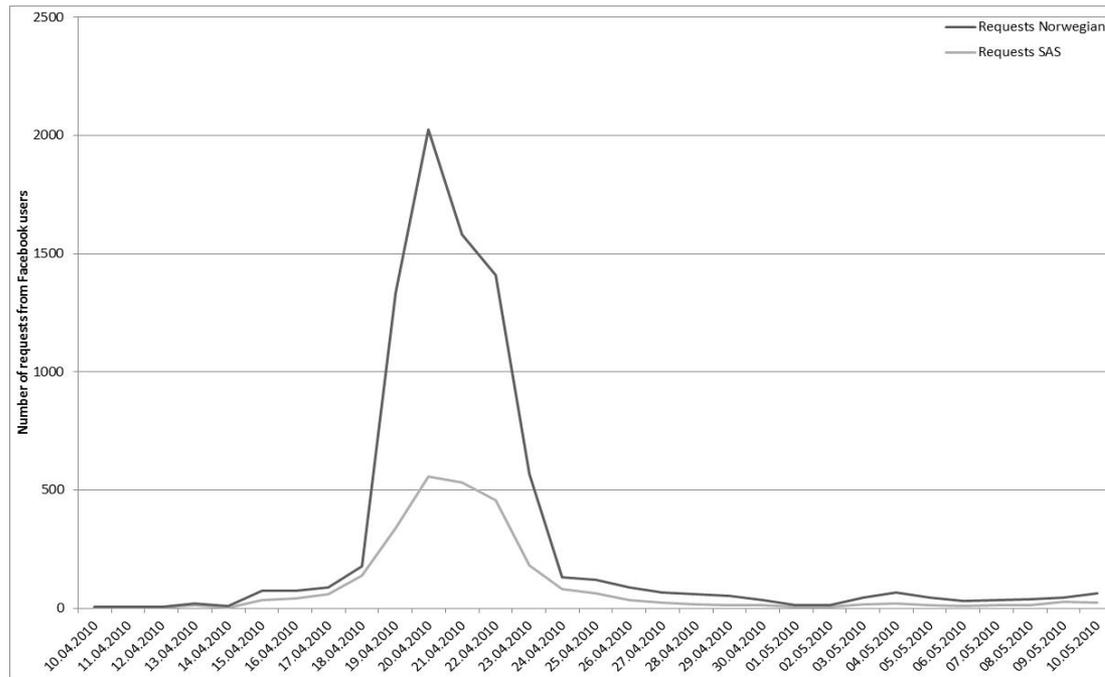
Norwegian timeline



Norwegian timeline

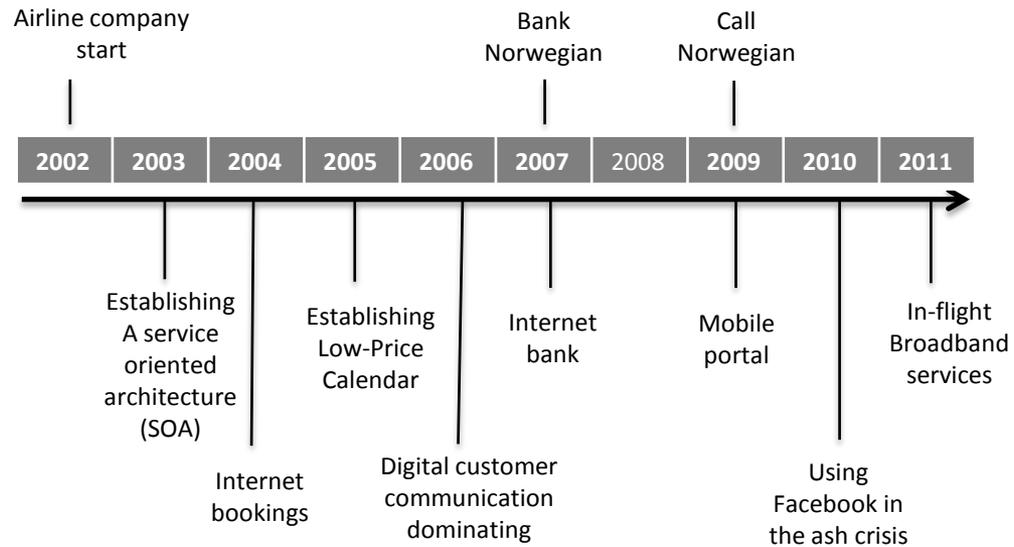


Ash crisis in 2010



Number of requests for SAS and Norwegian during the ash crisis

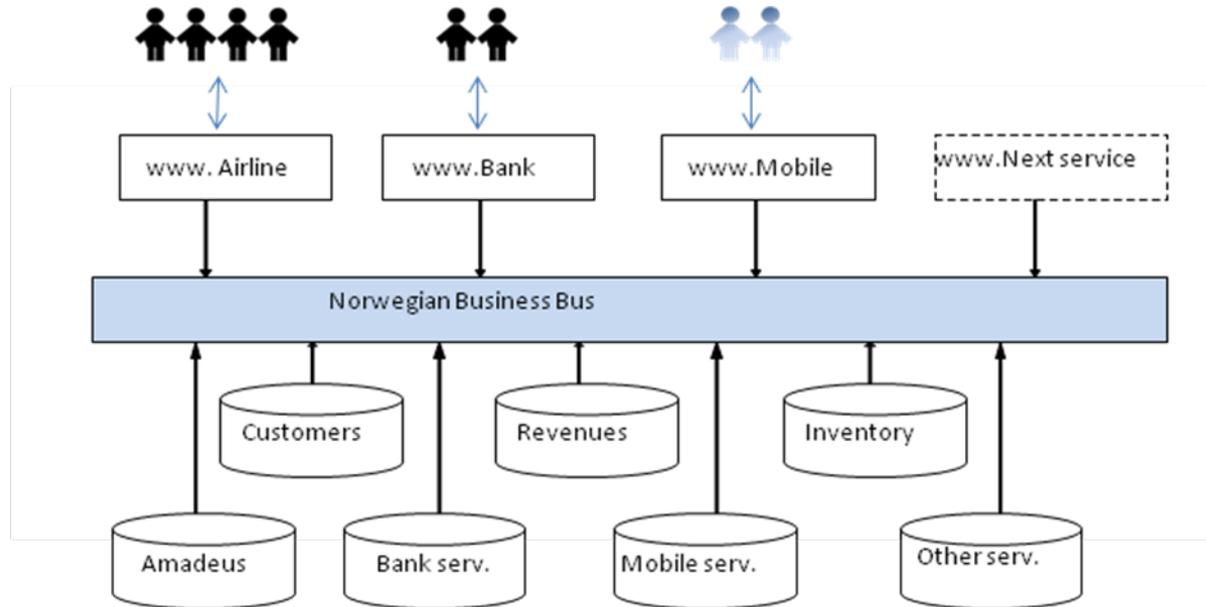
Norwegian timeline



Recent developments at Norwegian

- 2012: Largest airplane order: Norwegian purchases 122 fly from Boeing
- 2013: Start of long-haul operations to Thailand and USA

Innovation



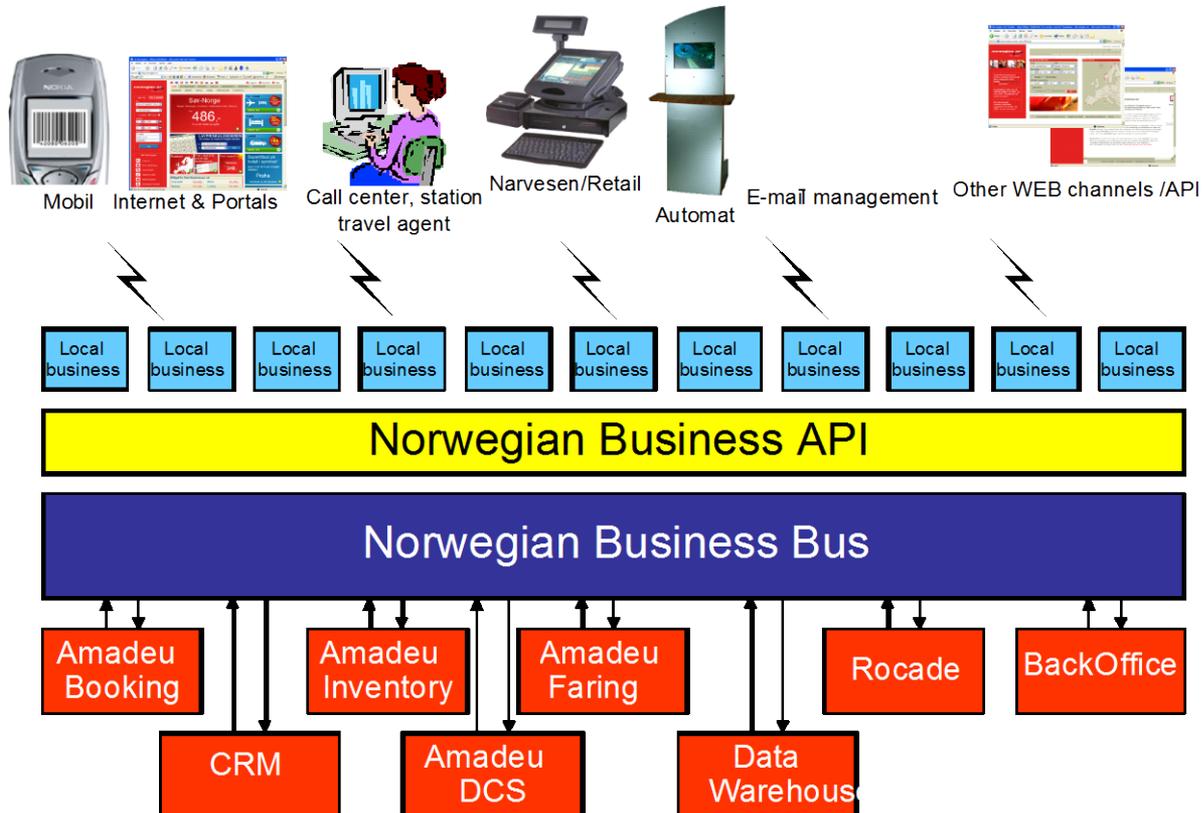
Case Analysis

Level	Description	Innovation aspect
Level 1: Technical infrastructure	A service bus architecture, based on an opensource bus with web service interfaces.	Enables the extension of new components at low cost, within a business unit.
Level 2: Service innovation infrastructure	An innovation mechanism, based on combinations of resources on the bus.	Enables the innovation of new business services.
Level 3: Organizational structure	A lean and flat organization structure, structured on business units.	Enables creative cooperation and fast decisions.

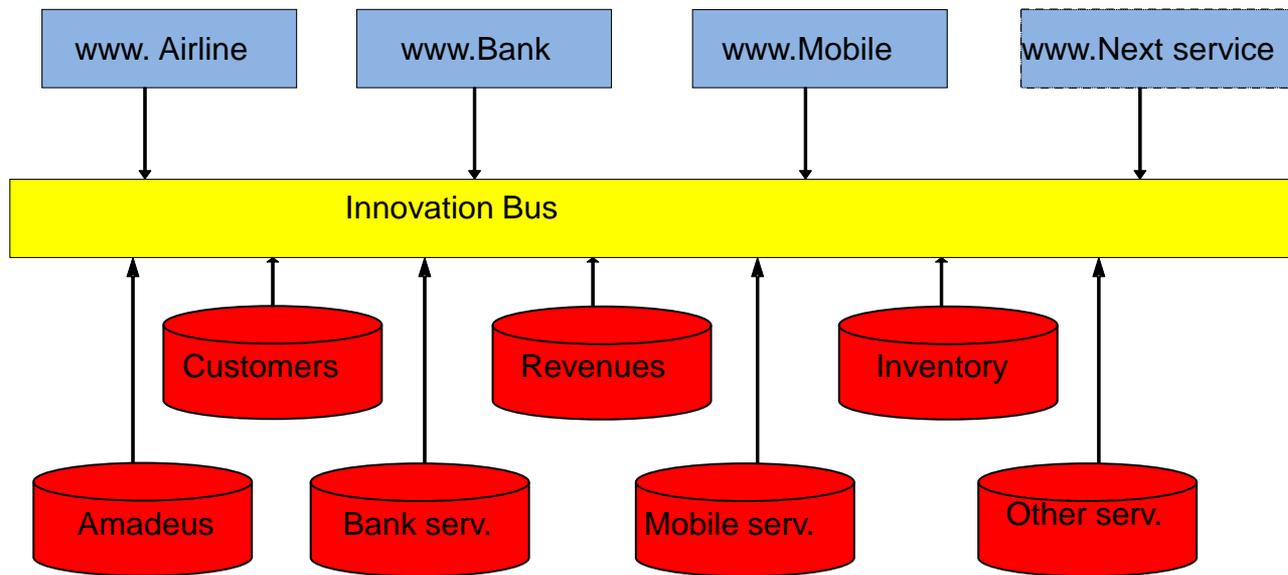
Conclusion

Level	Benefits	Concerns
Level 3: The Bus as Organization Structure	<ul style="list-style-type: none"> • Supports an agile and innovative organization. • Low costs 	<ul style="list-style-type: none"> • May not be sustainable as organization grows into an international diversified company • Dependent on a culture of trust, vulnerable to power games
Level 2: The Bus as Service Innovation Infrastructure	<ul style="list-style-type: none"> • Enables innovation in horizontal expansion, with short time to market • Supports reuse of business components 	<ul style="list-style-type: none"> • Synergies may be harder to harvest with further growth • Dependent on managers who understands the three level structure
Level 1: The Bus as Technical Infrastructure	<ul style="list-style-type: none"> • Supports a flexible systems architecture • Enables fast extensions of services at low cost 	<ul style="list-style-type: none"> • Increased technical complexity may threaten flexibility • Depending on key personnel with deep knowledge of architecture

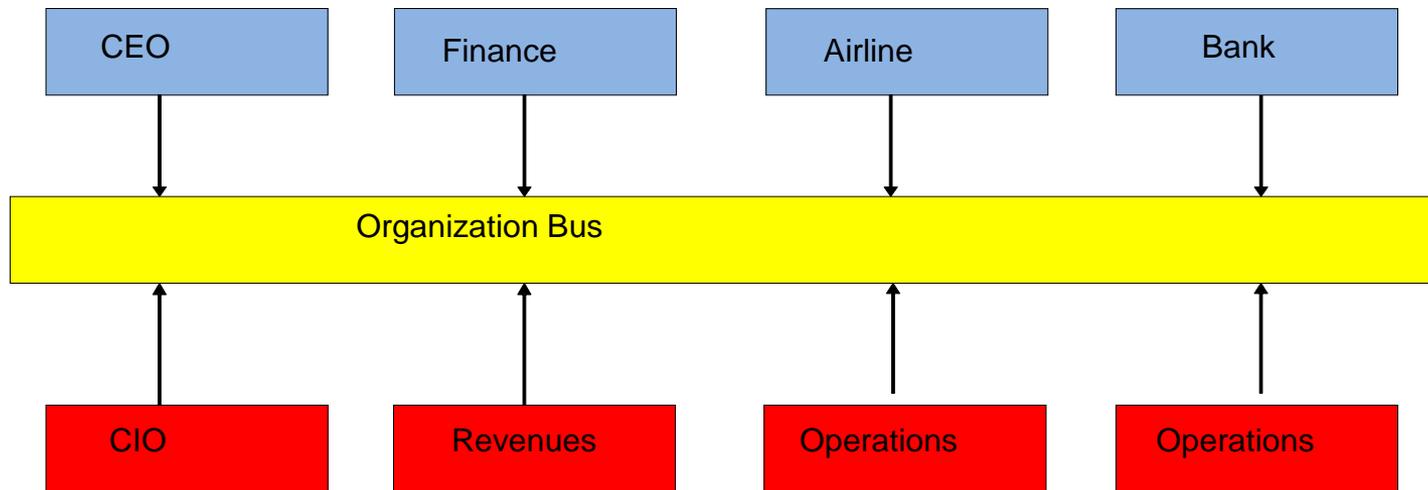
The Bus Architecture



The Innovation Bus



The Organisation Bus



Conclusions

- Three mechanisms explain digital infrastructure evolution: **Innovation Adoption, Scaling**
- A configurational view
 - The **interaction** of mechanisms (and contextual conditions) explain outcomes
 - Loose architecture and distributed control are triggers for the AIS configuration, but not for AS
- Critical Realism offers a powerful lens for understanding infrastructure evolution