

# **US and Swedish Industrial Support to Network Centric Warfare for US and Swedish Forces**

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Ericsson Microwave Systems AB**

## The commercial technology leap

World's most advanced  
radio in 1983



Price: US\$ 20 000  
Production: 200 000 pcs.

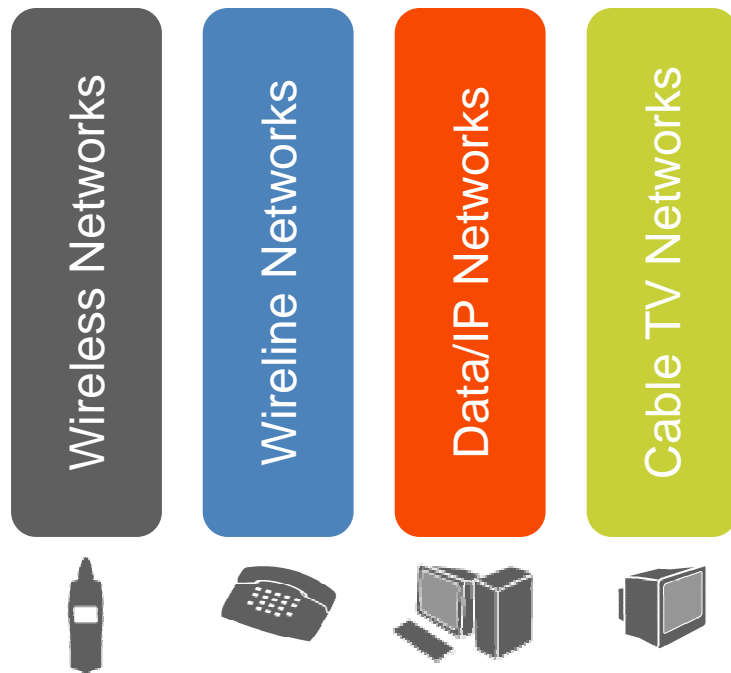
World's most advanced  
radio in 2003



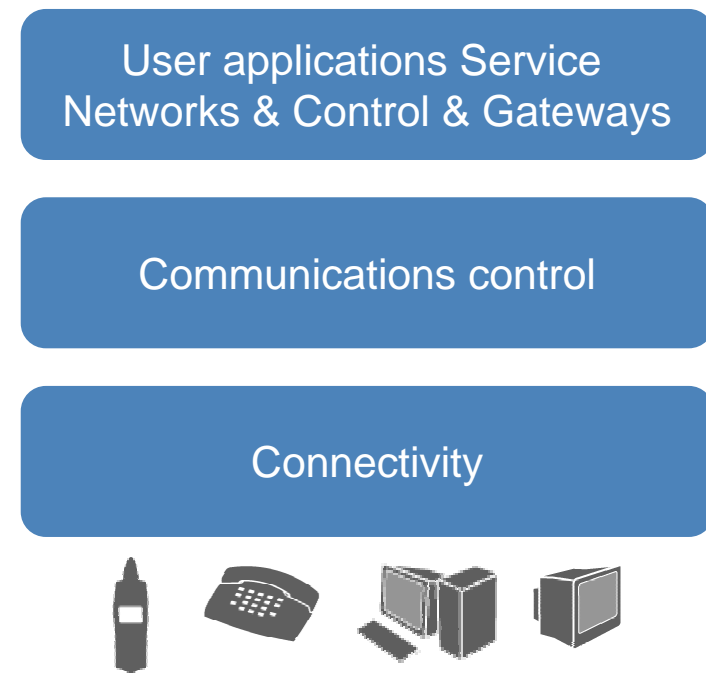
Price: US\$ 400  
Production: 20 000 000 pcs.

# Multi-service communications architecture

Before

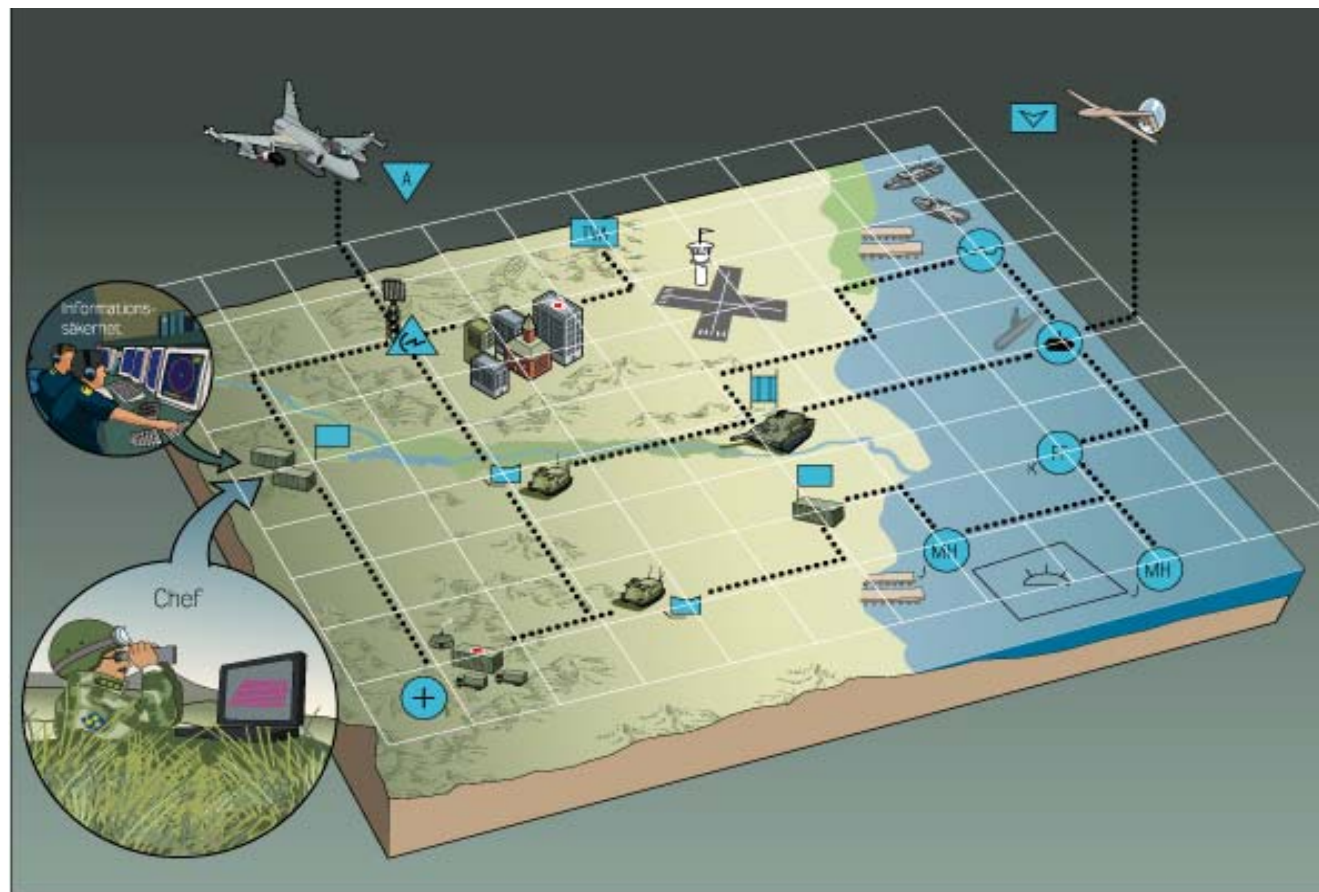


After



# Network based defense

Commanders, information and weapon systems in one network



## Key network characteristics - enablers for efficient decision cycles

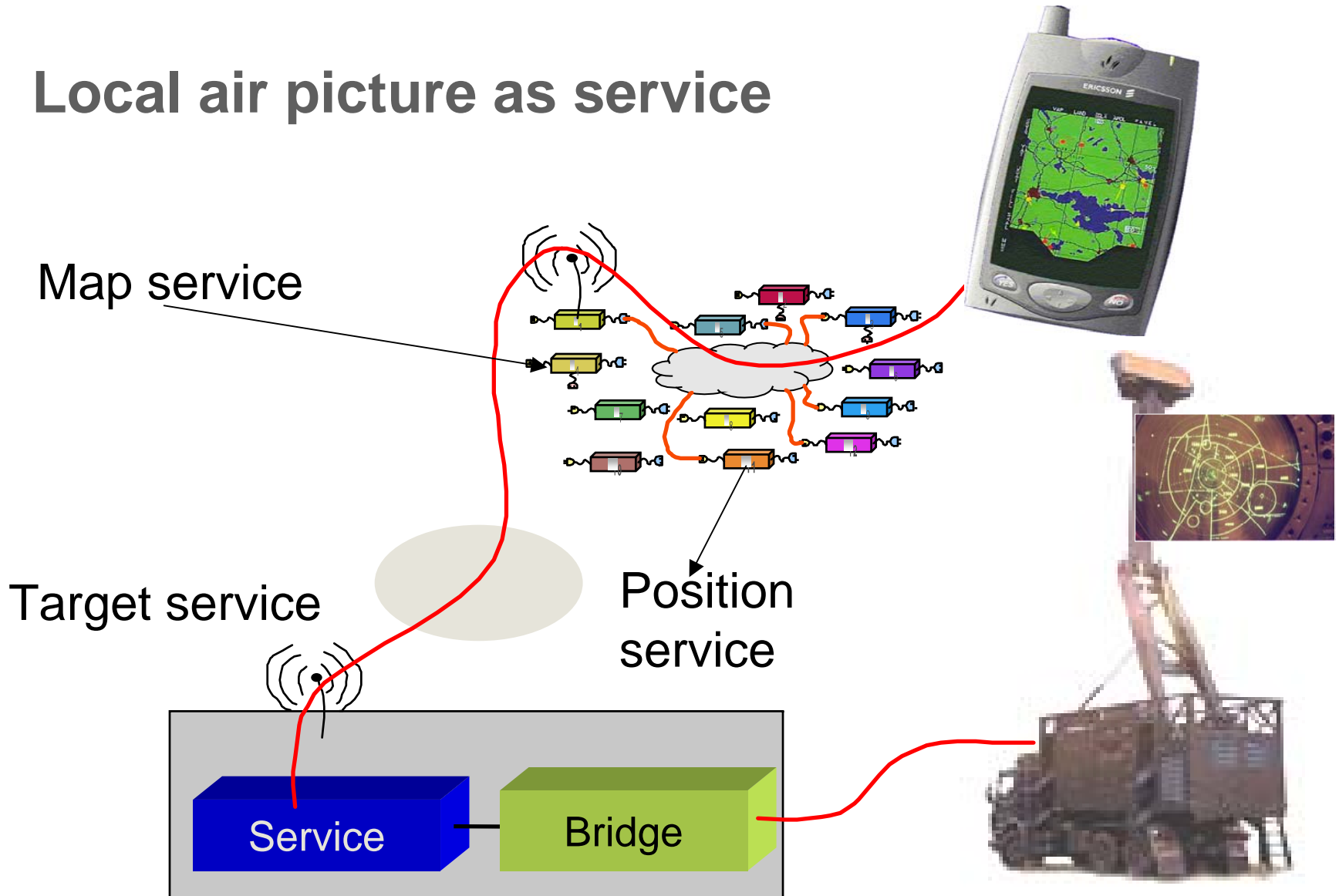
- **Full connectivity - “anything to anyone”**  
Commanders, units and physical resources are fully interconnected for joint operations at any level
- **Full mobility - “anywhere, anytime”**  
An individual’s access to C4ISR functions relates to his/hers current role, irrespective of geographic location or type of access terminal
- **Full flexibility - “just in time, on demand”**  
The command structure is independent of the physical communication structure - situation specific decision cycles may emerge

# Ericsson Microwave Systems

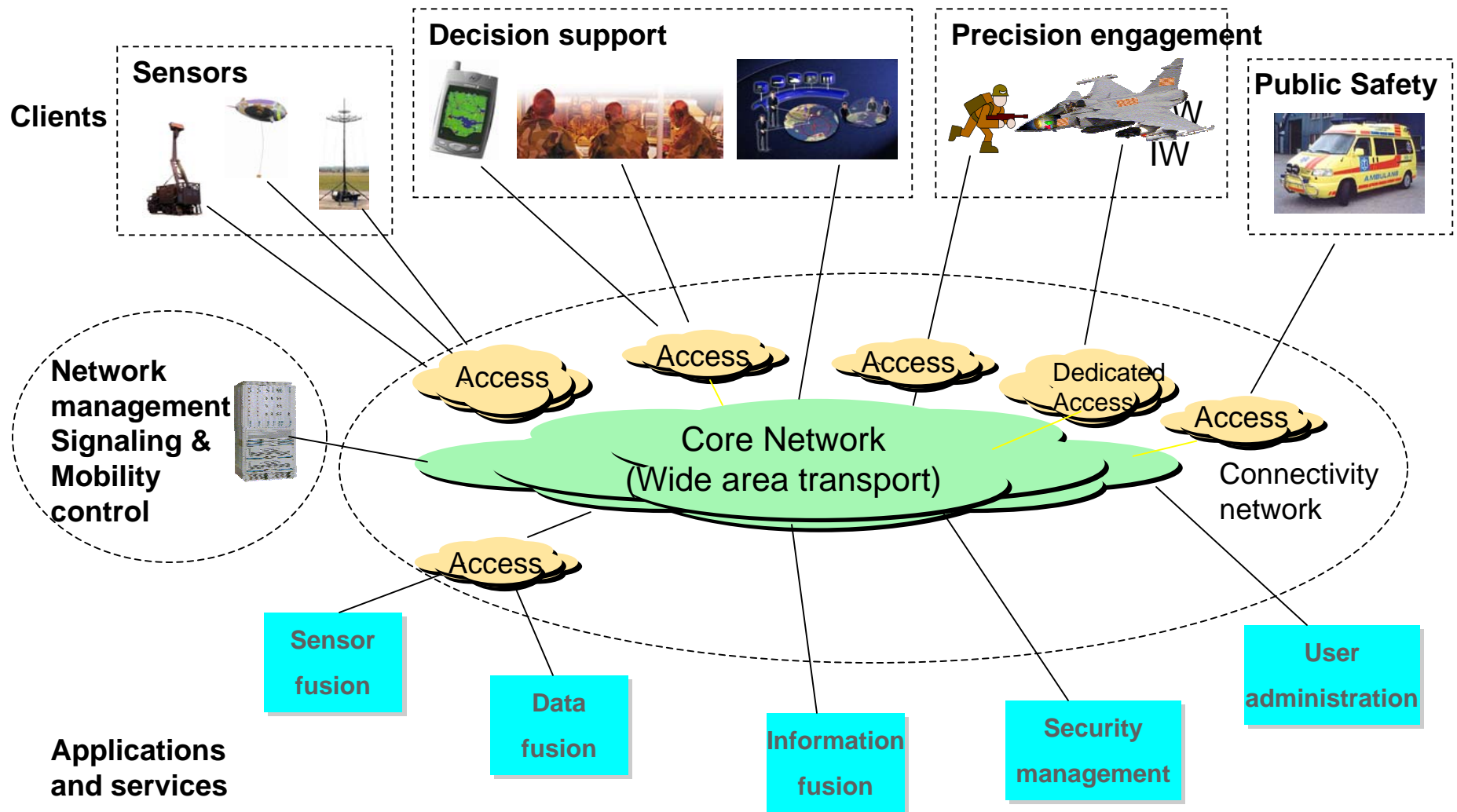
## Radars for Airborne, Ground and Naval Applications



# Local air picture as service



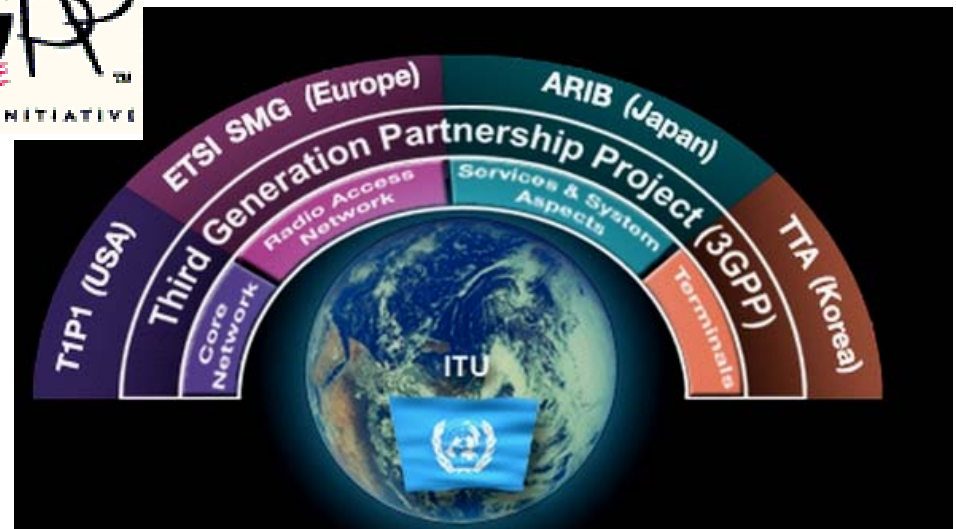
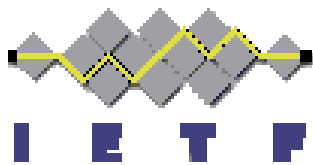
# Network based C4ISR architecture





# Development of civil communication systems

- Industry sets the standards



- Suppliers develop to standards => products available off-the-shelf

## Life cycle of civilian communication systems

- The industry continuously updates standards
  - Capabilities and features added in new standards releases
- Operators buy at best price/performance ratio
- Long-term relations between operator and supplier



## Current military model for COTS acquisition

- The military sets the requirements
- Contracted integrators start looking for COTS that fit the requirements
- A strong urge to modify COTS prevails in order to fully meet specs
- The result:
  - COTS cease to exist
  - out of sync with standards releases
  - equipment rapidly becomes obsolete => no support from suppliers

## Final remark

- NBD has come to stay
- NBD means a new way of operating, not only a technology shift
- Both military and commercial technology will play a roll to meet the requirements, at an affordable cost
- Commercial technology requires a new behavior in procurement, operation and training
- Industry can support in the paradigm shift!

