

A Different Approach to Field Site Comms

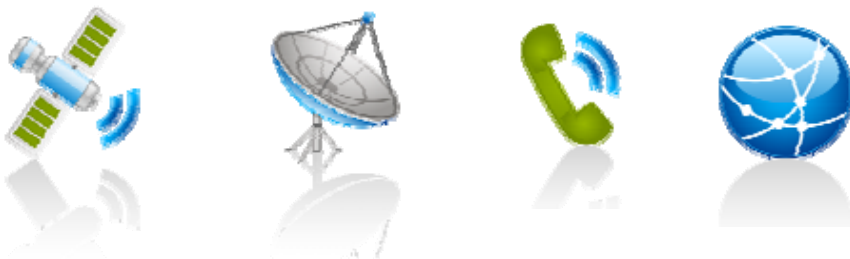


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About ISN / Our Experience

- Started in 1999
- 3 of top 4 UK Independents
- Specialist in Upstream Infrastructure



Case Study – Tullow Oil

- The Project
- Why?
- What?
- How?
- Traditional Model
- Tullow Architecture
- The Future



The Project

- New semi-sub going to Ghana
- Innovative and scalable
- Tight timescales



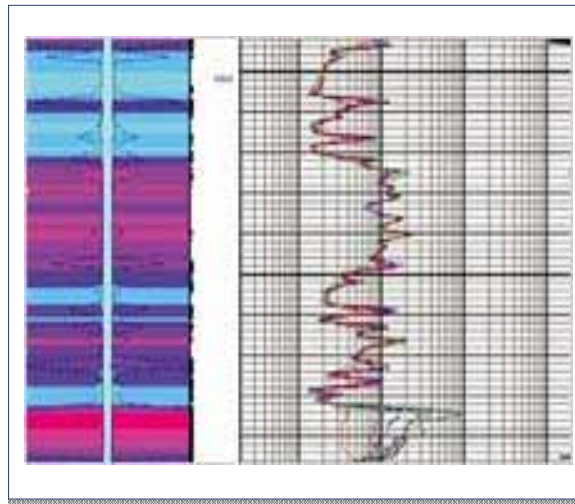
Why? - Issues

- Performance – PCs freezing
- Reliability – Voice problems
- Link performance – Filtering/management ad-hoc
- Local IT at capacity
- Limited remote access to apps

What? – Service Requirements



- Voice
- Internet
- Email
- Local data



- Guaranteed bandwidth
- Network Access



- Voice
- Remote Connectivity
- Network access

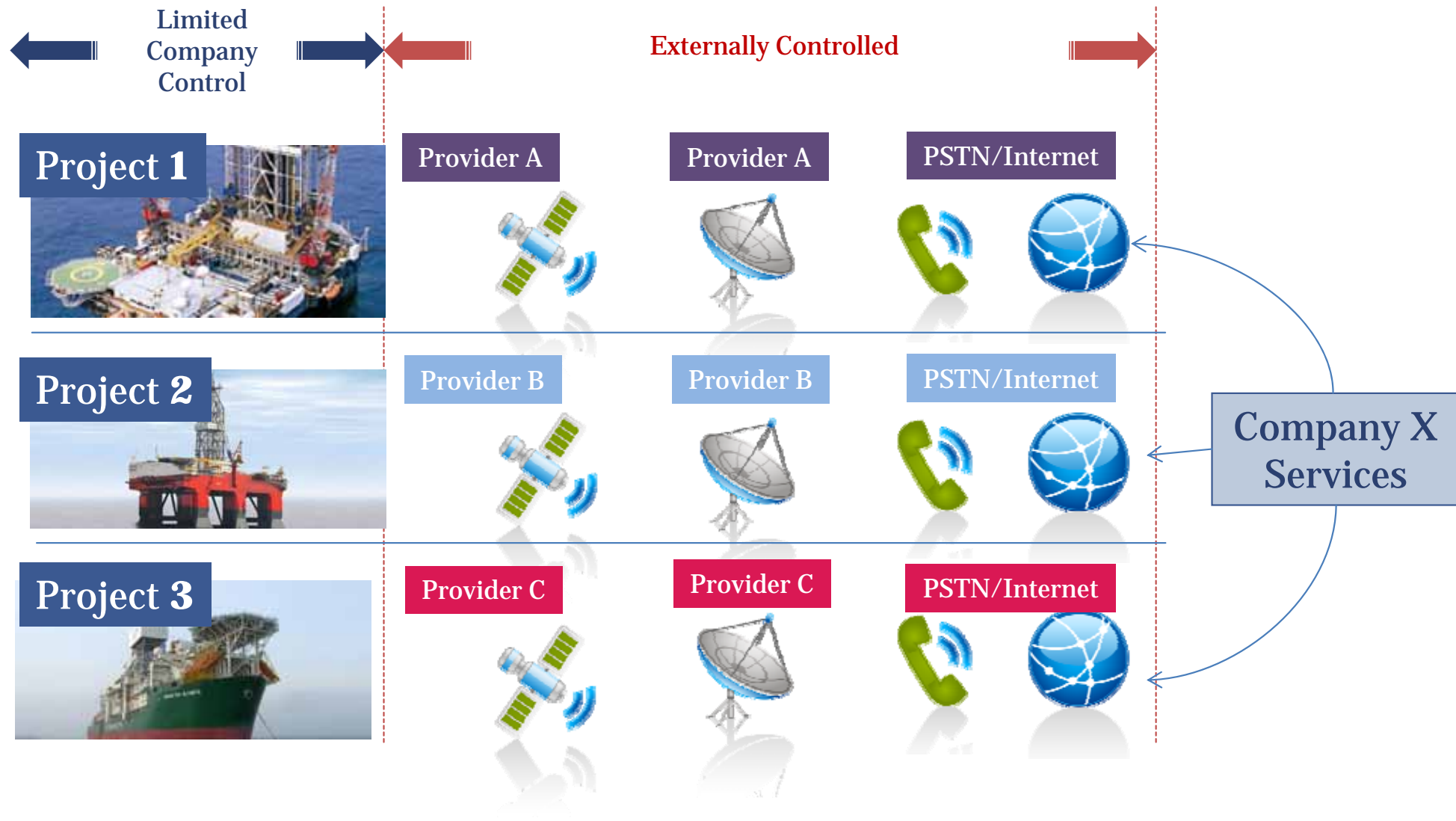
How? – Our Approach

- Requirements led
- Consider entire service life cycle
- Be prepared
- Solid technology foundation
- Agree and stick to defined processes

How? – Design Goals

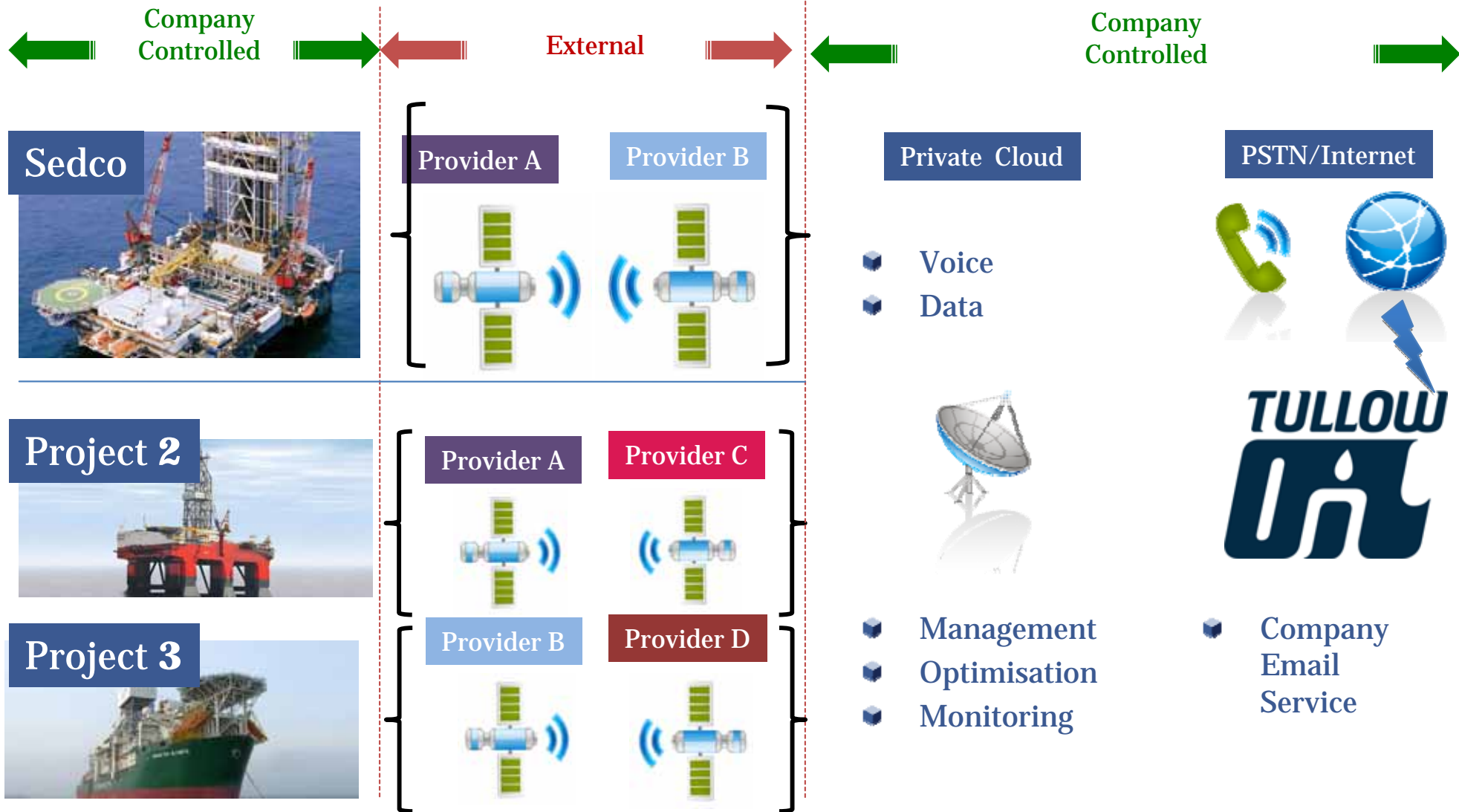
- Simplicity
- Scalability
- Flexibility
- Resilience
- Performance
- Management

Traditional Model



Tulow Architecture

{ = Active / Active Links



IT Services for Upstream Oil & Gas

Simplicity

- Private Cloud - Single delivery point for all sites
- Minimum offshore infrastructure
- Single point of contact for support



Scalability

- Can easily increase in terms of rig size
- Can easily add additional rigs/field sites
- Capacity of all tiers can be increased/decreased independently

Flexibility

- Modular - Can easily adapt to accommodate new services/applications
- Can accommodate different links – not necessarily Satellite



Resilience

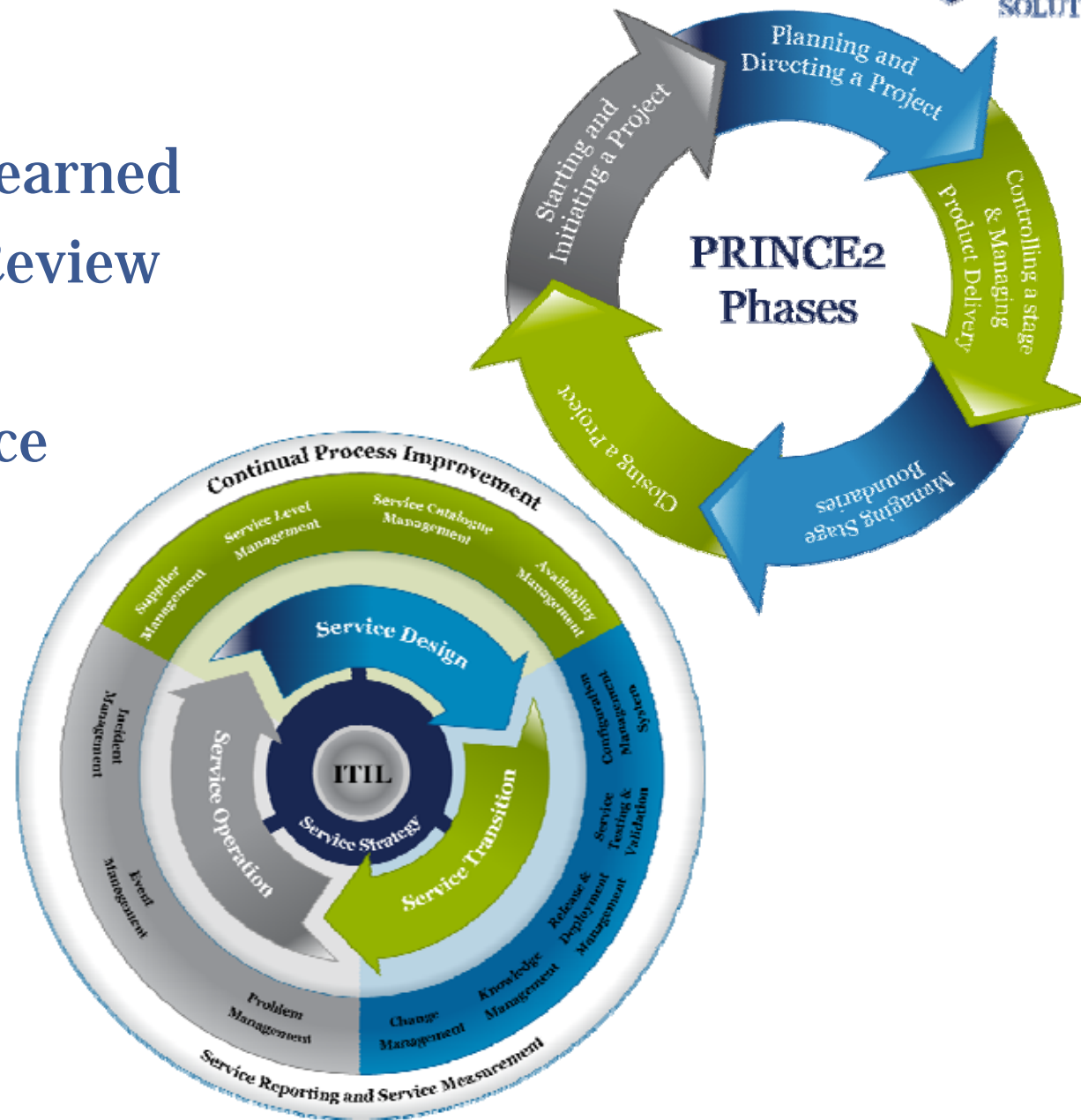
- Dual comms providers
- Separate physical satellites
- Failover and recovery
- Full redundancy for critical hardware and services

Performance

- Active/Active comms providers
- Fast logins
- Optimisation
- Web Filtering
- Segregated networks
- Traffic management

Management

- Project - Lessons Learned
- Support - Service Review
- 24/7 support
- Network Intelligence
- Continual Service Improvement



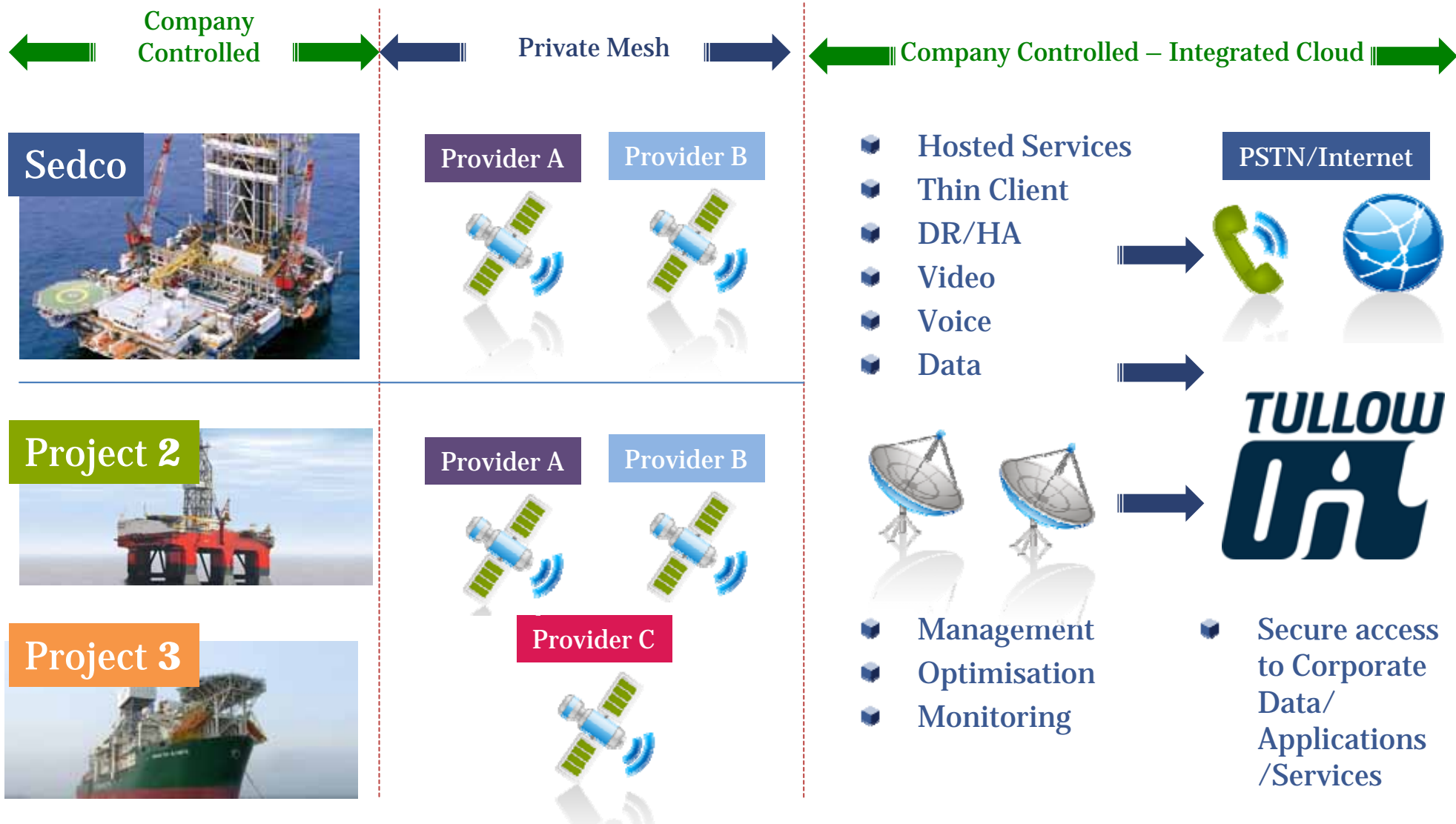
Benefits

- Innovative – technology enables new services/economies of scale
- Responsive – services/sites can be added quickly
- High performance – Delivers what the users need when they need it
- Cheaper site rollout (CAPEX)
- Reduced support costs (OPEX)

The Future

- Integrated Cloud
- Unified application delivery
- Meshed VSAT
- Increased resilience/DR
- Real-time video and monitoring (Virtual Rig Site/Virtual Operator)
- Field site becomes “Just another office”
- Additional Sites – not just Rigs

The Future - Architecture



In Summary

- Service first technology second
- We are listening! - Service providers must collaborate to deliver best service to client
- Keep it simple and flexible
- Breakaway from Traditional Model
- Consider entire service cycle – Continual Improvement





THANK YOU, ANY QUESTIONS?



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