



Global Xpress

A new era is dawning. Inmarsat Global Xpress® is here

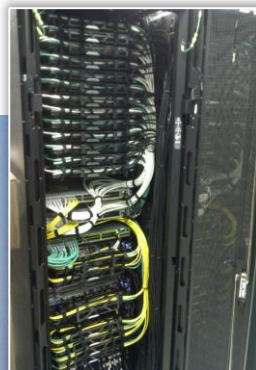
Global Xpress snapshot

- › World's first global commercial Ka-band network
- › >\$1.5B investment in new Ka-band satellites, teleports, ground network and back office systems
- › 3+1 geostationary Ka-band satellites
- › Each satellite to carry multiple Ka-band spot beams and 6 fully steerable high power beams
- › Complementary to existing L-band network and minimum life expectancy of 17 years
- › System designed for mobility and fixed networks

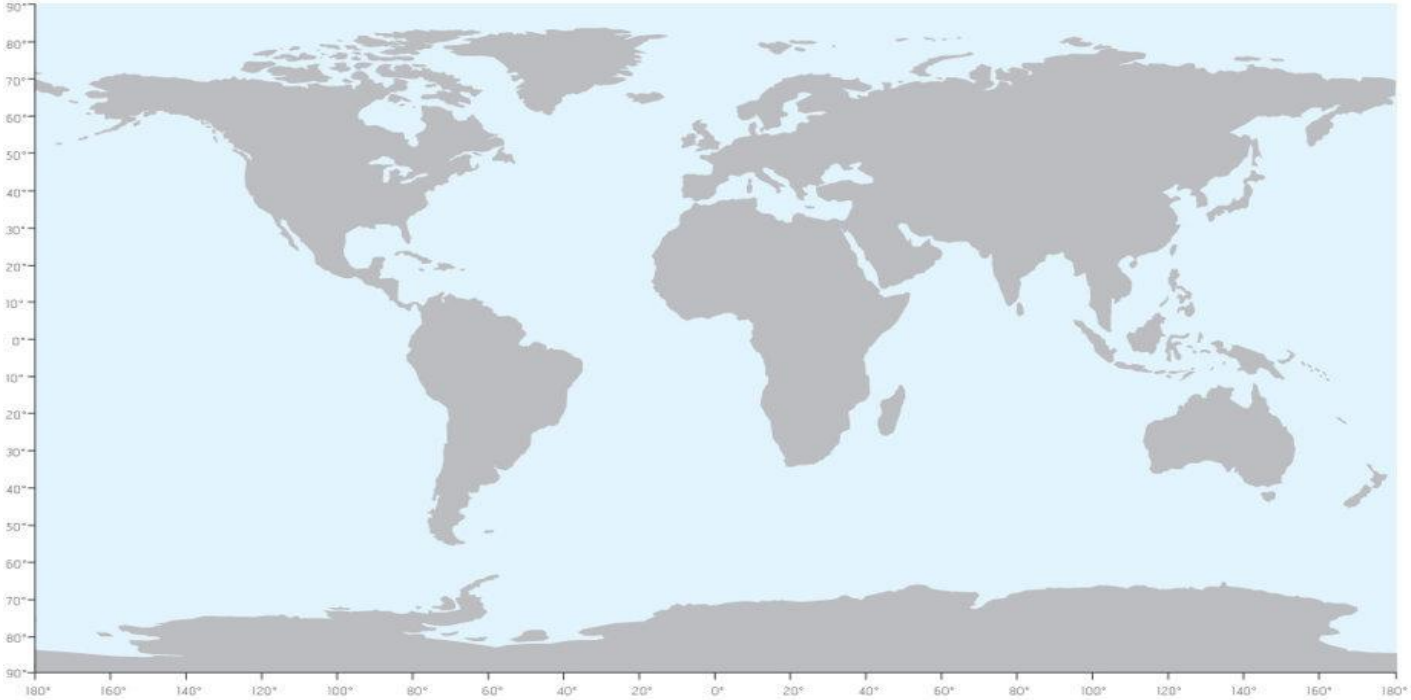


Global Xpress ground stations operation

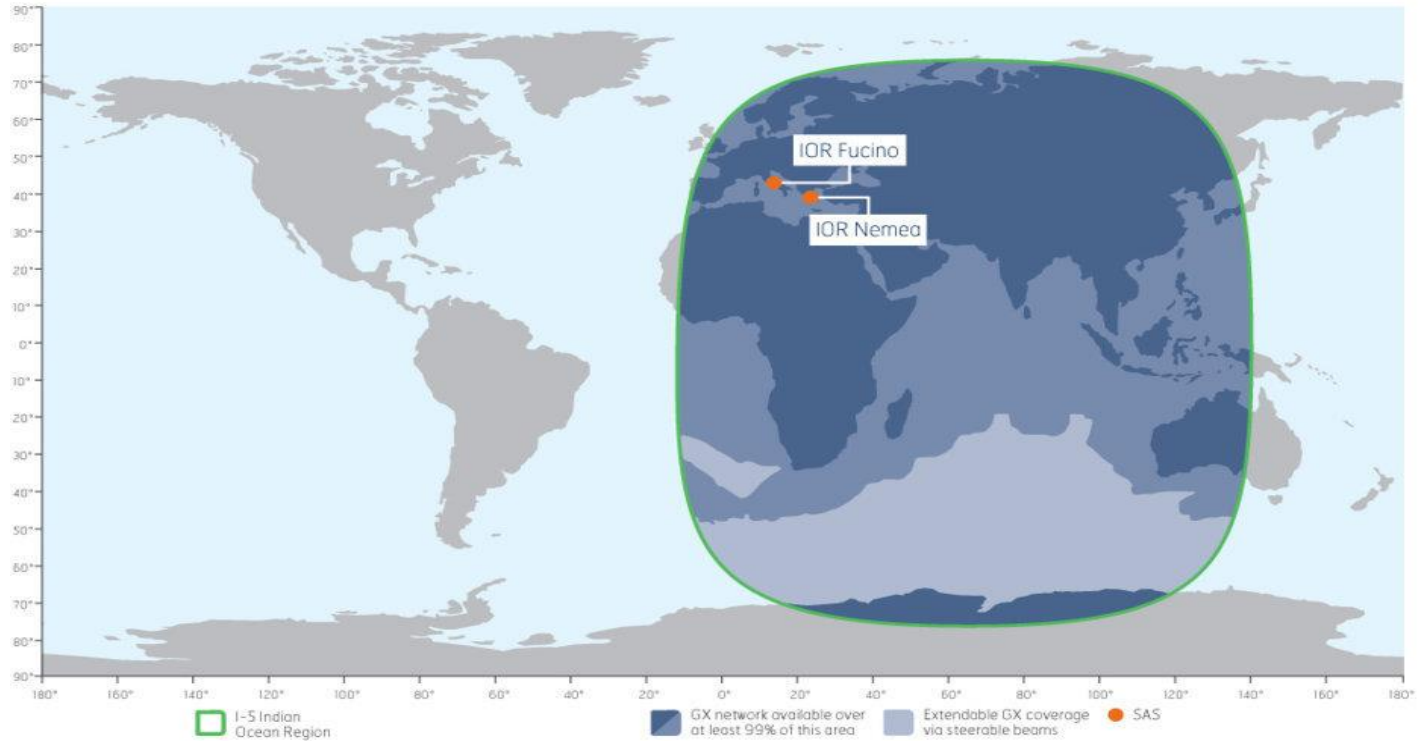
With full redundancy



Global Xpress coverage

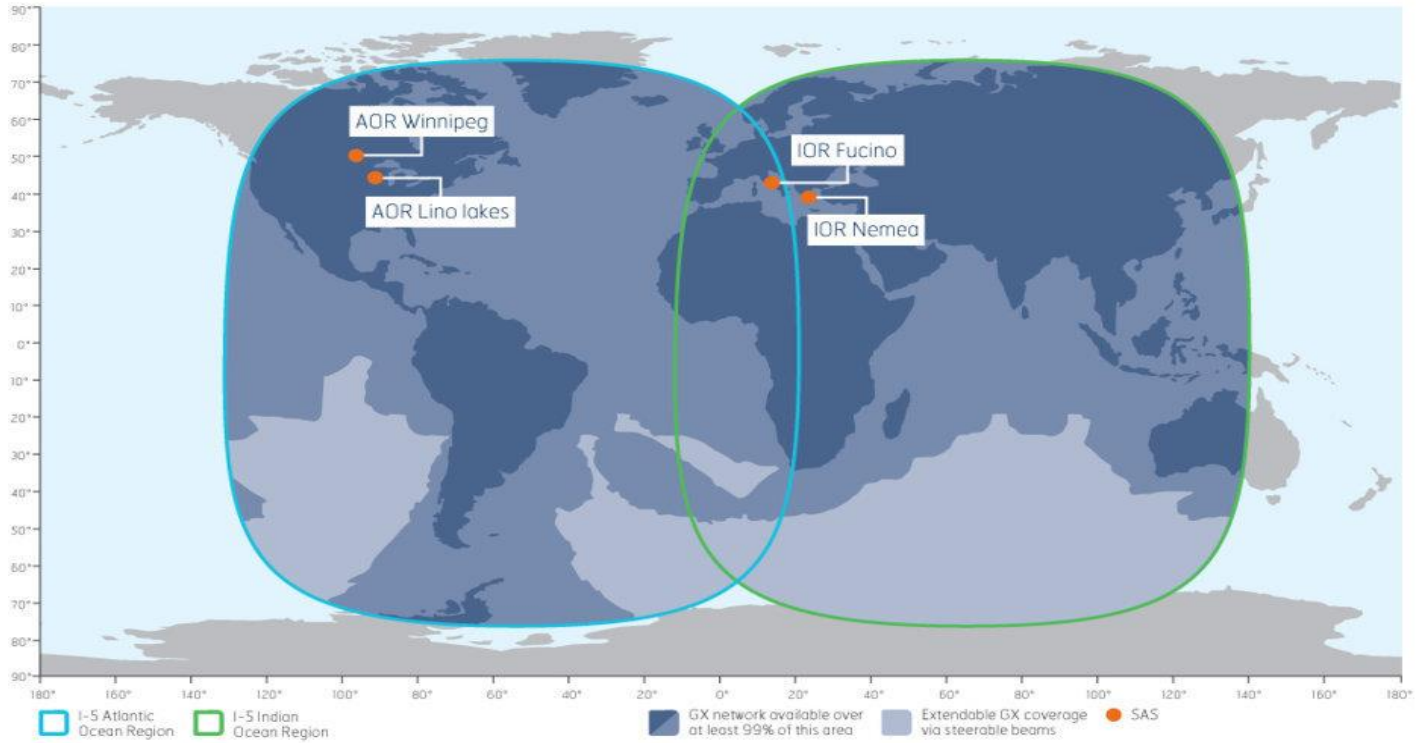


I-5: IOR coverage + SAS locations



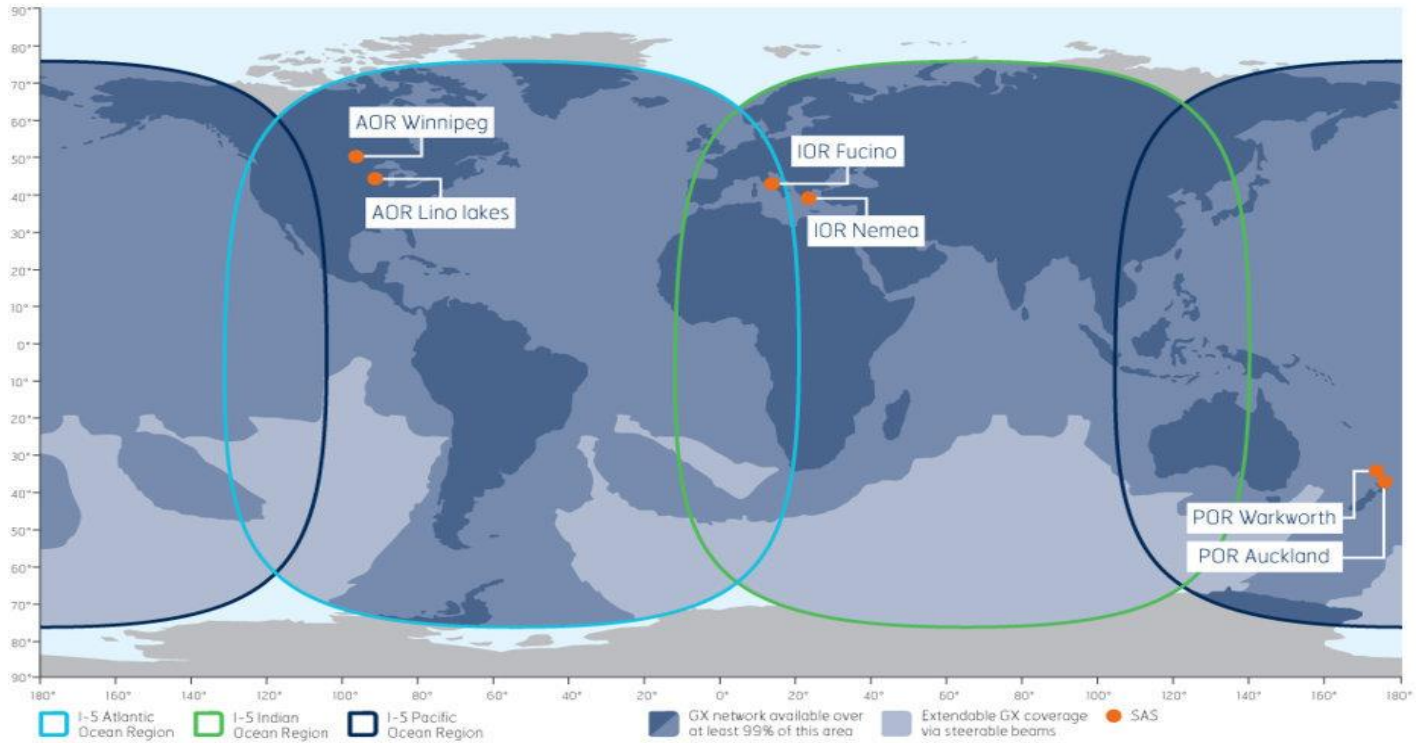
Please note coverage is indicative as the service is not yet operational

I-5: IOR + AOR coverage + SAS locations



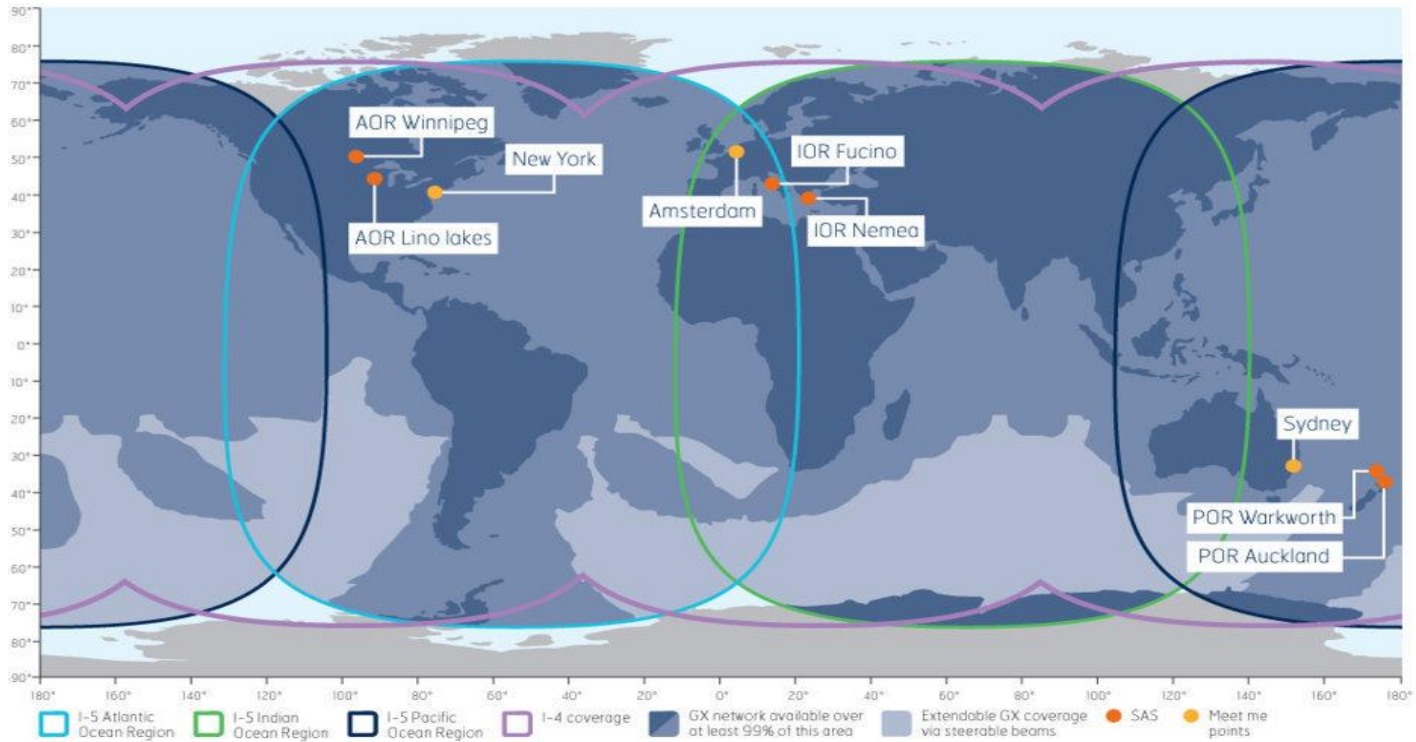
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I-5 POR: global coverage + SAS locations



Please note coverage is indicative as the service is not yet operational

Global coverage: meet me point locations



Please note coverage is indicative as the service is not yet operational

Global Xpress roll-out

Update



Global Xpress roll-out

Completed 2014

- › GX Ground network, including construction of all 6 SAS locations
- › All three initial I-5 satellites now completed
- › F1 successfully deployed earlier this year over the IOR region
 - First VARs are now interconnecting and testing the service
 - Integrated VARs can offer subscription services in Jan 2015
 - Terminals can be ordered from the manufacturers

Early 2015

- › F1 launched
- › F2 launched
- › F3 launch anticipated in 2015

Early second
half 2015

- › Global GX coverage early second half of 2015

Q3 2016

- › F4 satellite delivery on track for Q2 2016

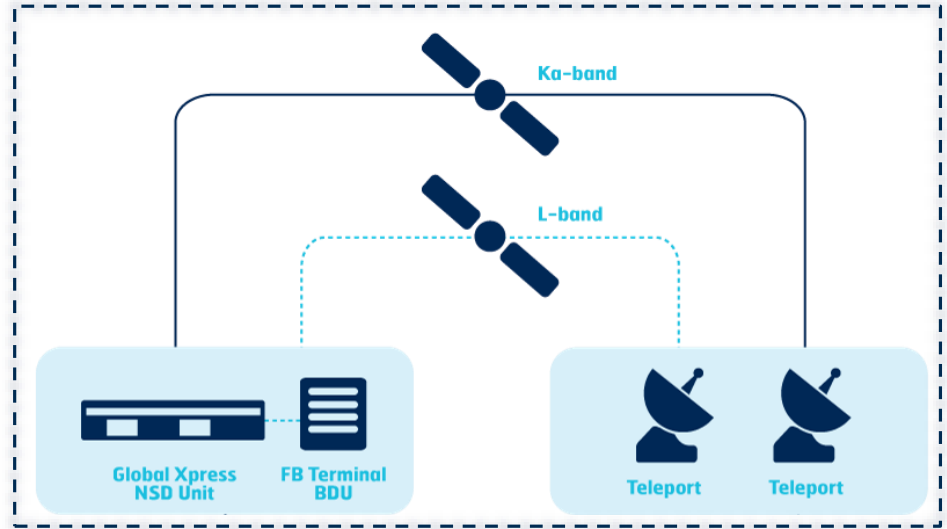
Maritime GX



Global Xpress overview

Global Xpress and Fleet Xpress

- › Fleet Xpress is the maritime service offering
- › Fleet Xpress is a 1m or 60cm Ka antenna with an FB500 or FB250 controlled by an onboard Network Service Device
- › The Network Service Device switches and routes traffic over the Ka or L-band networks. It provides acceleration, firewall, proxies, postpaid and prepaid voice, video chat and content prepositioning. The NSD also has the physical interfaces for LAN, WAN and telephony
- › The Service Enablement Platform named 'Inmarsat Gateway' provides provisioning, billing and assurance data



Rain Fade - performance in adverse weather conditions

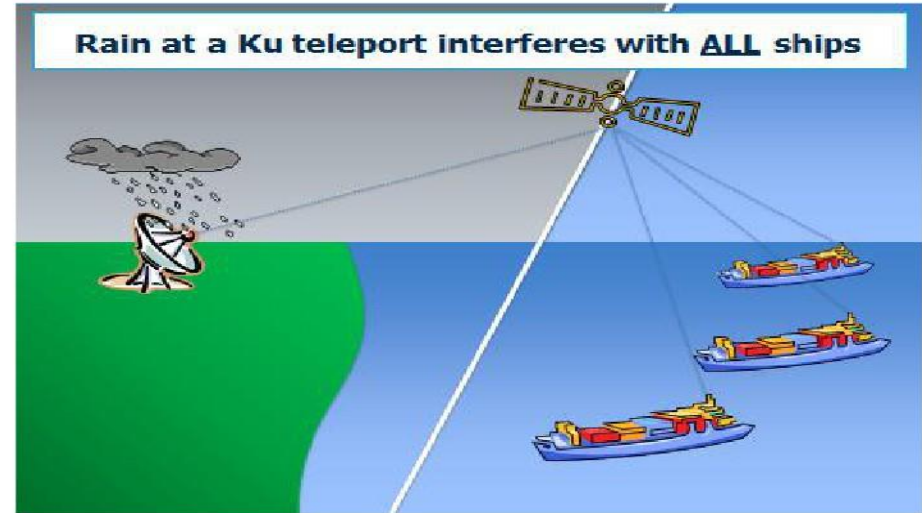
- ➔ Less than 1% difference than Ku-band in adverse weather
- ➔ Next generation adaptive code modulation (ACM) minimizes rain interference
- ➔ Throughput reduces in steps, until **GX L-band** offers higher performance
- ➔ 1m antenna provides further improvements

Where else can rain interference occur?



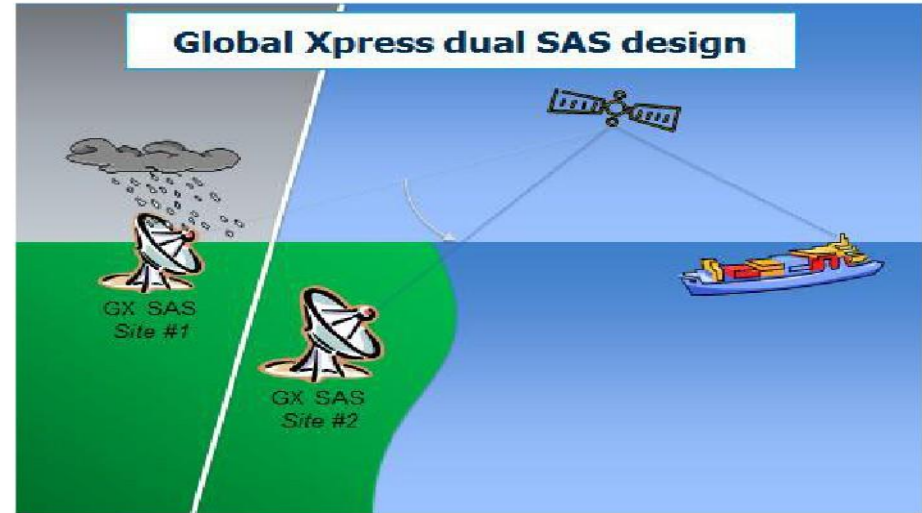
Rain Fade - Performance in adverse weather conditions

- ➡ Ku-band networks are designed with a single teleport.
- ➡ Ku-band VSAT users are familiar with notifications of weather condition at the VSAT teleport



Performance in adverse weather conditions

- Two GX SAS sites in each ocean region
- Physical separation of hundreds of miles (Meteorological science on location)
- Automatic switchover
- Virtually eliminates SAS outages



In conclusion

- ➡ **By next year, GX will redefine what's possible in maritime communications -**
 - Superfast broadband service
 - Ultra reliable global coverage
 - Fixed price use of seamless Ka & FleetBroadband constellations
 - Dynamic bandwidth management & multicast delivery capabilities
 - Rich suite of application and content, provided by content partners

Service offerings for high data allowances

High data options

- › FleetBroadband high volume allowance plans (4GB, 8GB and 12GB)
- › Fleet Xpress high data plans provide burst and committed data rates (in Mbps)
- › FleetBroadband Xtra – transitional service
 - FleetBroadband 12GB package across all regions
 - Fleet Xpress in available regions, IOR now, AOR when available
 - FX network selected as priority
 - Fully managed service using a preliminary NSD version (NSD Lite)
 - Provisioned by Inmarsat, billing and assurance from the VARs
 - Third party applications (i.e. smart box) can be connected to the NSD Lite
 - Open FUP over FX allowing internet browsing and streaming services
 - Upgradable to FX when available with limited (or no) intervention

FleetBroadband Xtra

Product

Terminal Manufacturer	FB Antenna Model for FBX	FX Approved
Addvalue	FX500	X
Addvalue	FX250	X
Cobham	SAILOR 500	✓
Cobham	SAILOR 250	✓
Furuno	FELCOM 500	✓
Furuno	FELCOM 250	✓
JRC	JUE-500	X
JRC	JUE-501	✓
JRC	JUE-250	X
JRC	JUE-251	✓
Inmarsat	Globe i500	X
Inmarsat	Globe i250	X
Intellian	FB500	X
Intellian	FB250	X

FleetBroadband Xtra

Price

> Pricing is defined in the VAR agreement

- Only available to DPs who are VARs – Inmarsat, Airbus, NSSL, Singtel , NI.

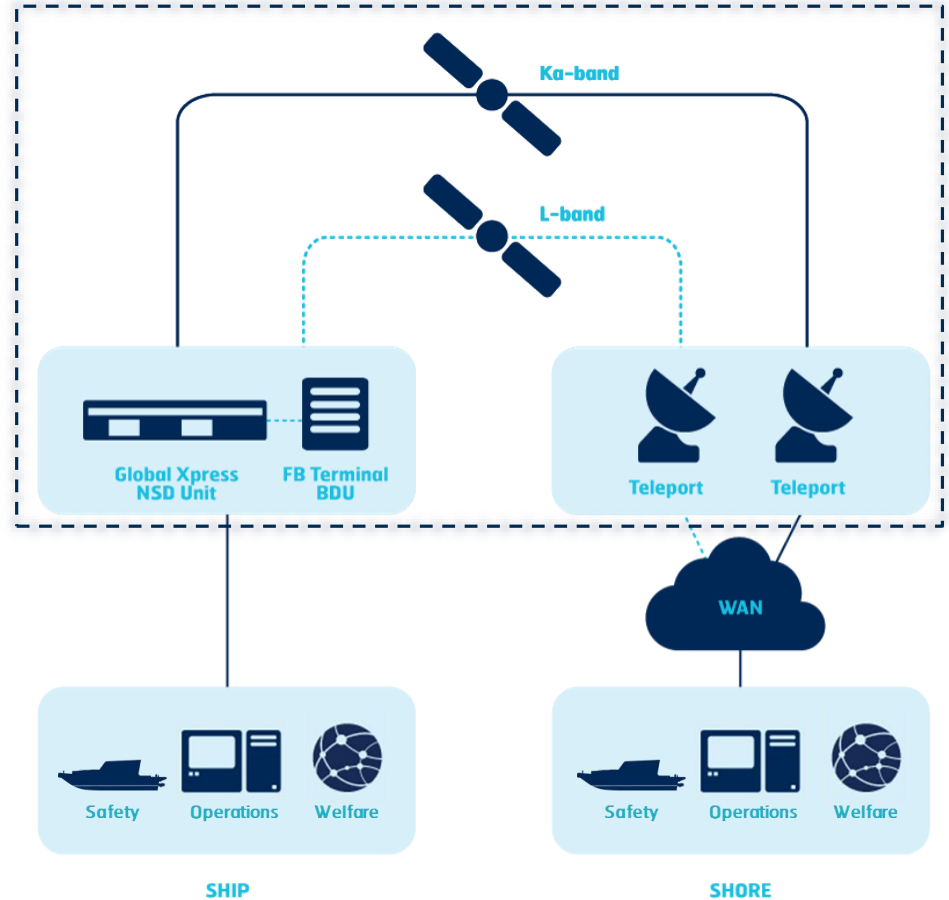
> Two plans 1MB and 2MB

	GX Services				FB Service
FB Xpress service plans	Downlink		Uplink		
	MIR	CIR	MIR	CIR	
FBX Package 1Mb - 1m	1024	256	256	64	AYCE
FBX Package 2Mb - 1m	2048	512	512	128	AYCE
FBX Package 1Mb - 60cm	1024	128	256	32	AYCE
FBX Package 2Mb - 60cm	2048	256	512	64	AYCE

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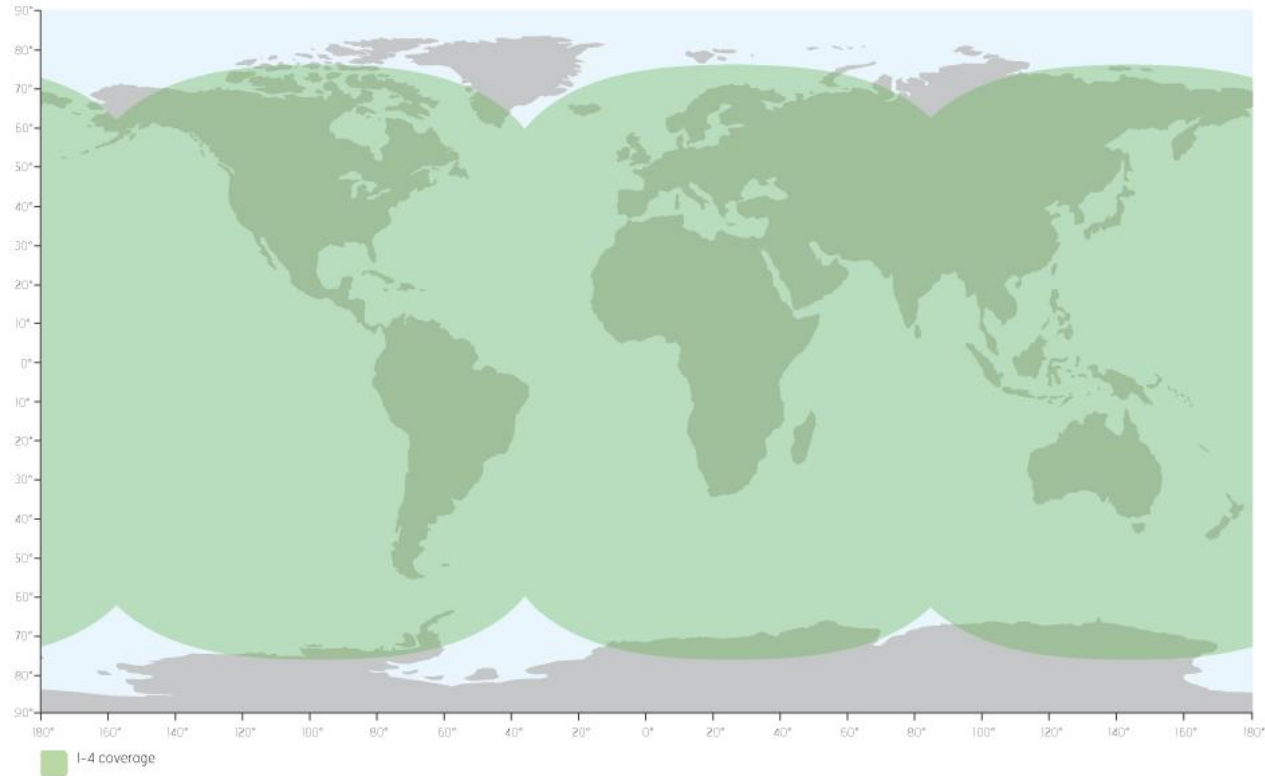
Comparisons

FBXtra to FX

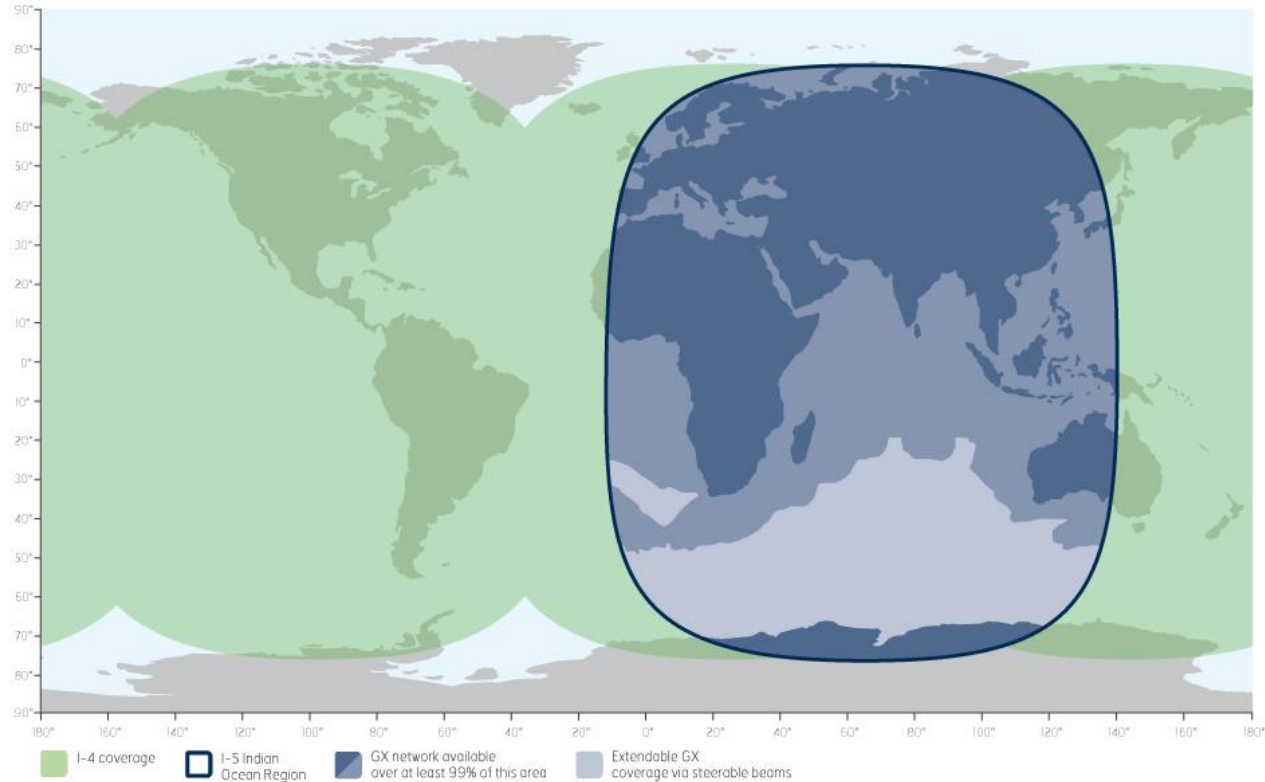
- > Uses a type approved FX antenna
- > Uses an updated FB antenna
 - FB500 (FB250 with monthly fee)
 - Cobham approved currently
- > Uses an 'NSD Lite' onboard controller
 - Parallel development with full NSD
 - Replaced as soon as NSD is released
- > New monthly plans being introduced
 - Alignment with FB and FX plans
 - Wholesale to FX VARs only
 - Plans being finalized, to be announced

Feature / Capability	FB Xtra	Fleet Xpress
Coverage	IOR: GX with FB backup AOR/POR: FB	Global GX with FB Backup
Managed Service	Yes	Yes
Satellite control	NSD Lite	NSD
Include FB airtime at no charge	Yes	Yes
Supports multicast	-	Yes
Public IP address	-	Yes
Direct Internet access	Yes	Yes
Connectivity to SAS (MPLS interconnect)	-	Yes
FUP allows streaming class services	Yes (IOR GX only)	Yes (Global)
Supports content pre-positioning	-	Yes
Supports dynamic bandwidth	-	Yes
Service provisioning	By Inmarsat	By the VAR
Service billing	By the VAR	By the VAR
Service assurance	By the VAR	By the VAR

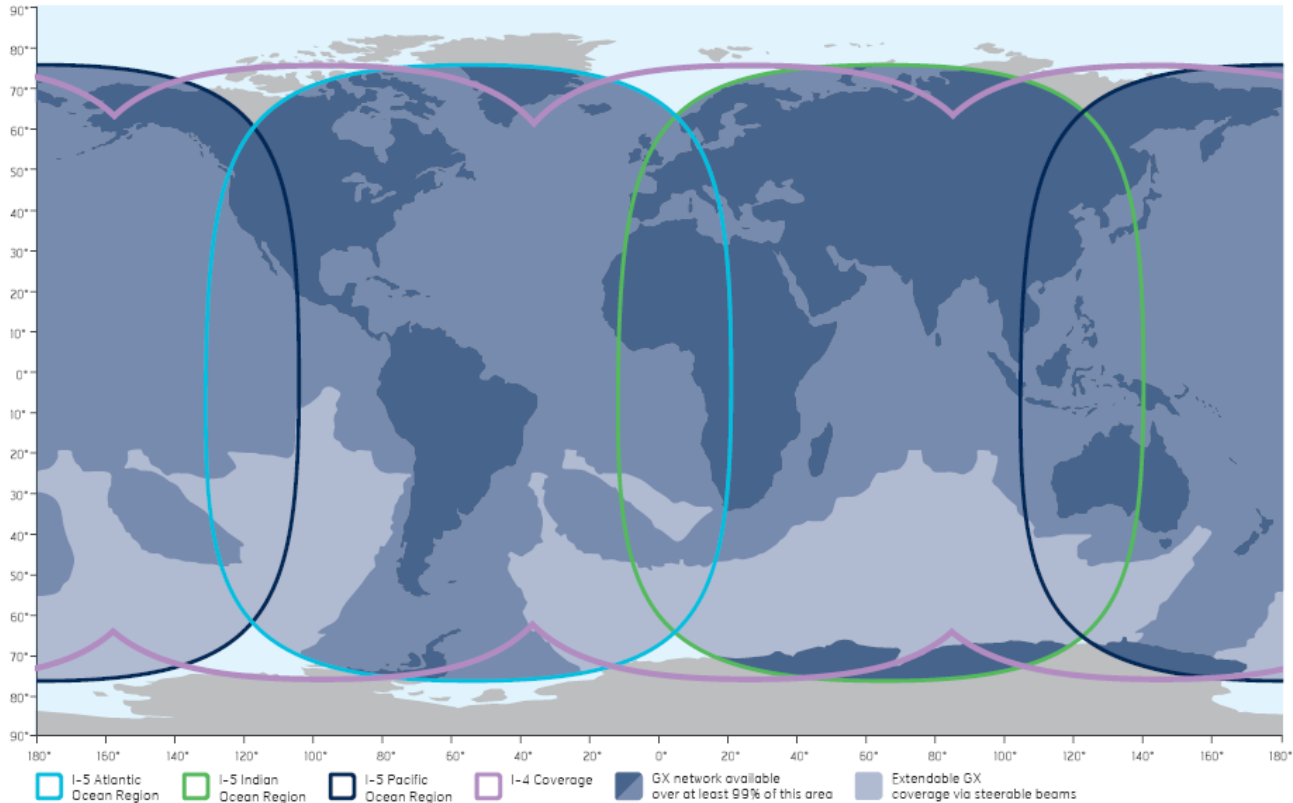
FleetBroadband coverage



FleetBroadband Xtra coverage(Today)



Fleet Xpress Coverage



Stabilized terminals



Stabilized terminals



JUE-60GX

Japan Radio Company



- > Commercial Maritime operations
- > **65cm** aperture
- > Integrated above and below-deck GX core module options
- > Very lightweight

Stabilized terminals



Sailor 100GX



Cobham Thrane

- > Commercial Maritime operations
- > **100cm** aperture
- > Integrated below-deck GX core module

Stabilised terminals



v60GX

Intellian



- > Commercial Maritime operations
- > **65cm** aperture
- > Integrated below-deck GX core module

Stabilized terminals



GX60



Cobham Sea Tel

- > Commercial Maritime operations
- > **65cm** aperture
- > Integrated below-deck GX core module

Global Xpress applications

GX isn't just providing faster downloads, it enables service performance previously deemed incompatible with satellite networks, and is the facilitator of new business models

- Corporate connectivity
- Satellite news gathering
- Operational efficiency
- Health, safety and environment
- Security
- Crew welfare

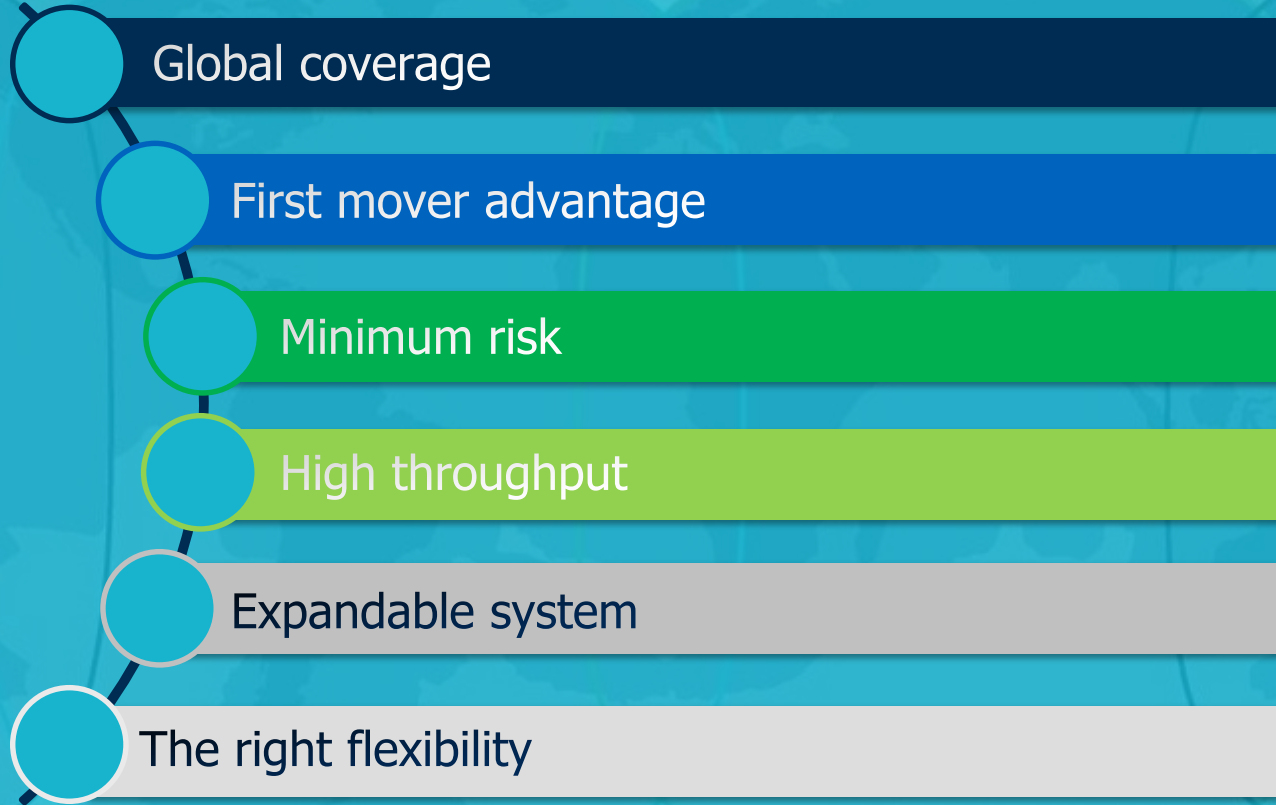
Reliable global coverage for mission critical and crew welfare applications wherever your end user business occurs worldwide

Applications enabled by GX:

- VoIP
- Video conferencing
- Real-time remote video streaming, collaboration and data management
- Enterprise applications (e.g. SAP, Citrix, email)
- High-speed file transfer
- High-speed broadband internet access and video chat
- VPN access
- Video surveillance
- Telemedicine



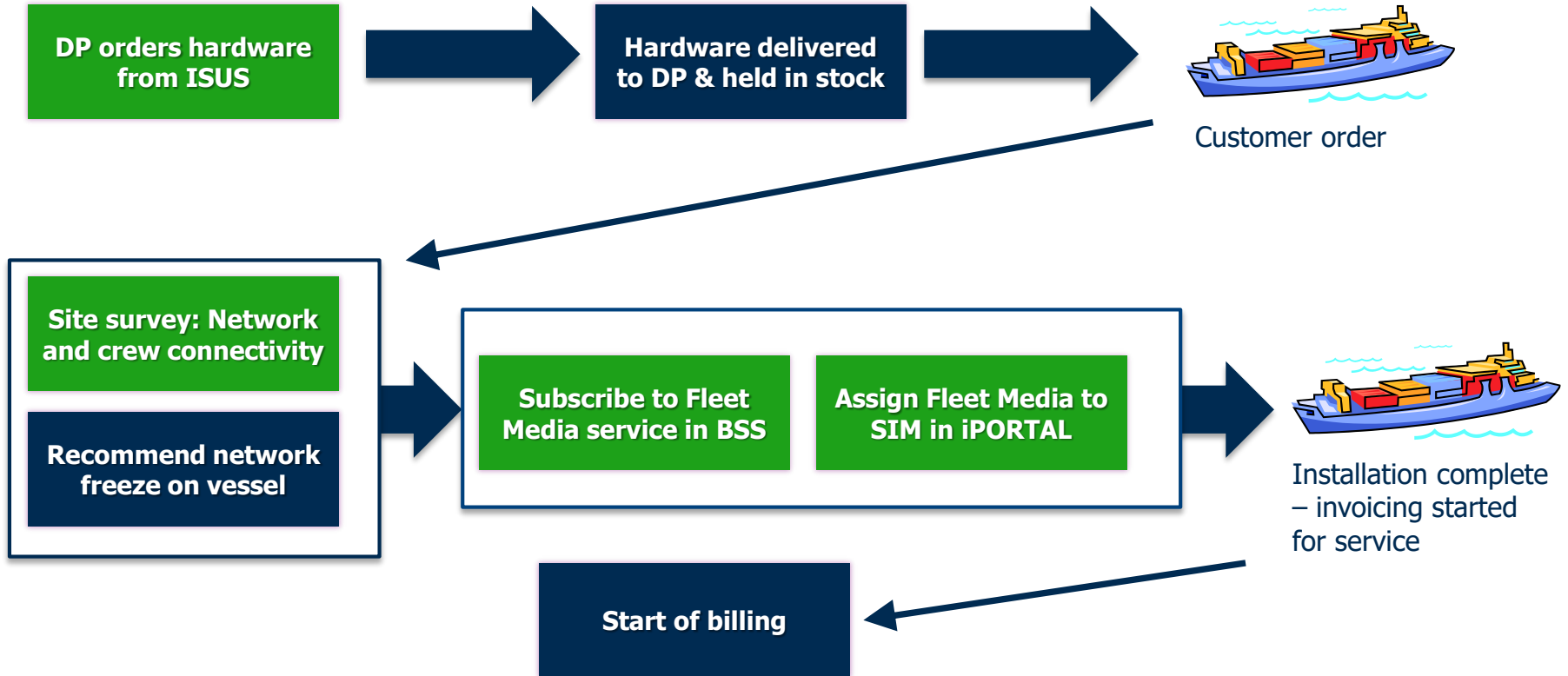
To summarise: Global Xpress objectives



The technology offers



End to end installation process



Thank you

