



Boeing Global Services

Debra Santos, Chief Marketing Officer, Commercial Services

Around the Clock. Around the World. Always Ready.

The CMO is our long-term forecast of global air travel, new airplane demand and commercial services

**All jets >30
seats and
freighters in
commercial
service**

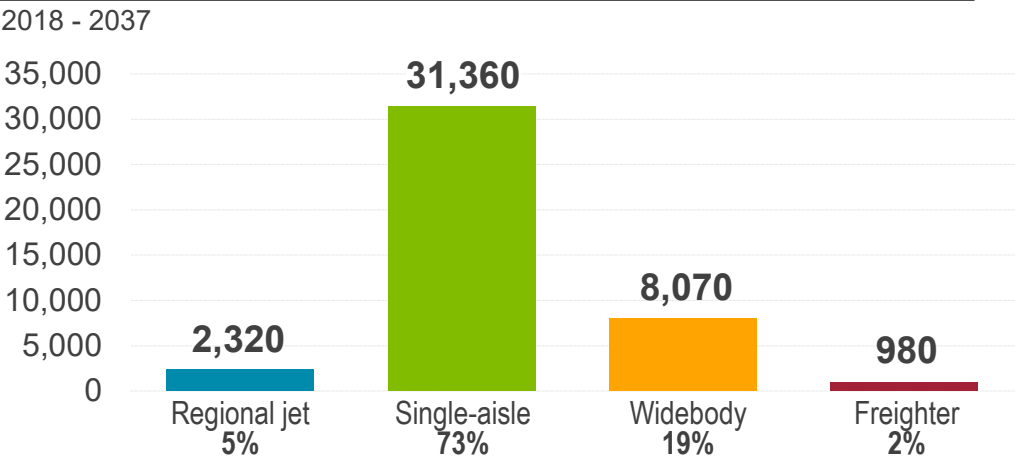


**Services
required to
support the
operation of
commercial
aviation**

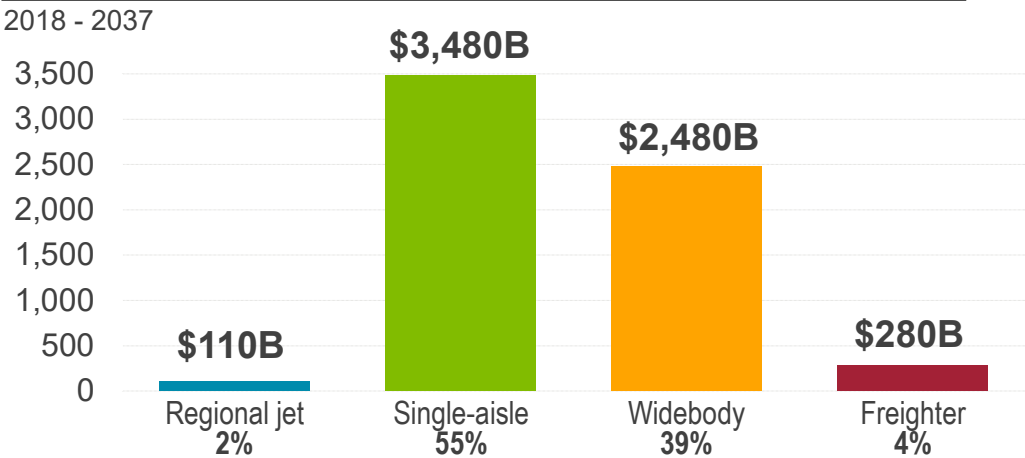
Airlines will need 42,700 new airplanes valued at \$6.3 trillion



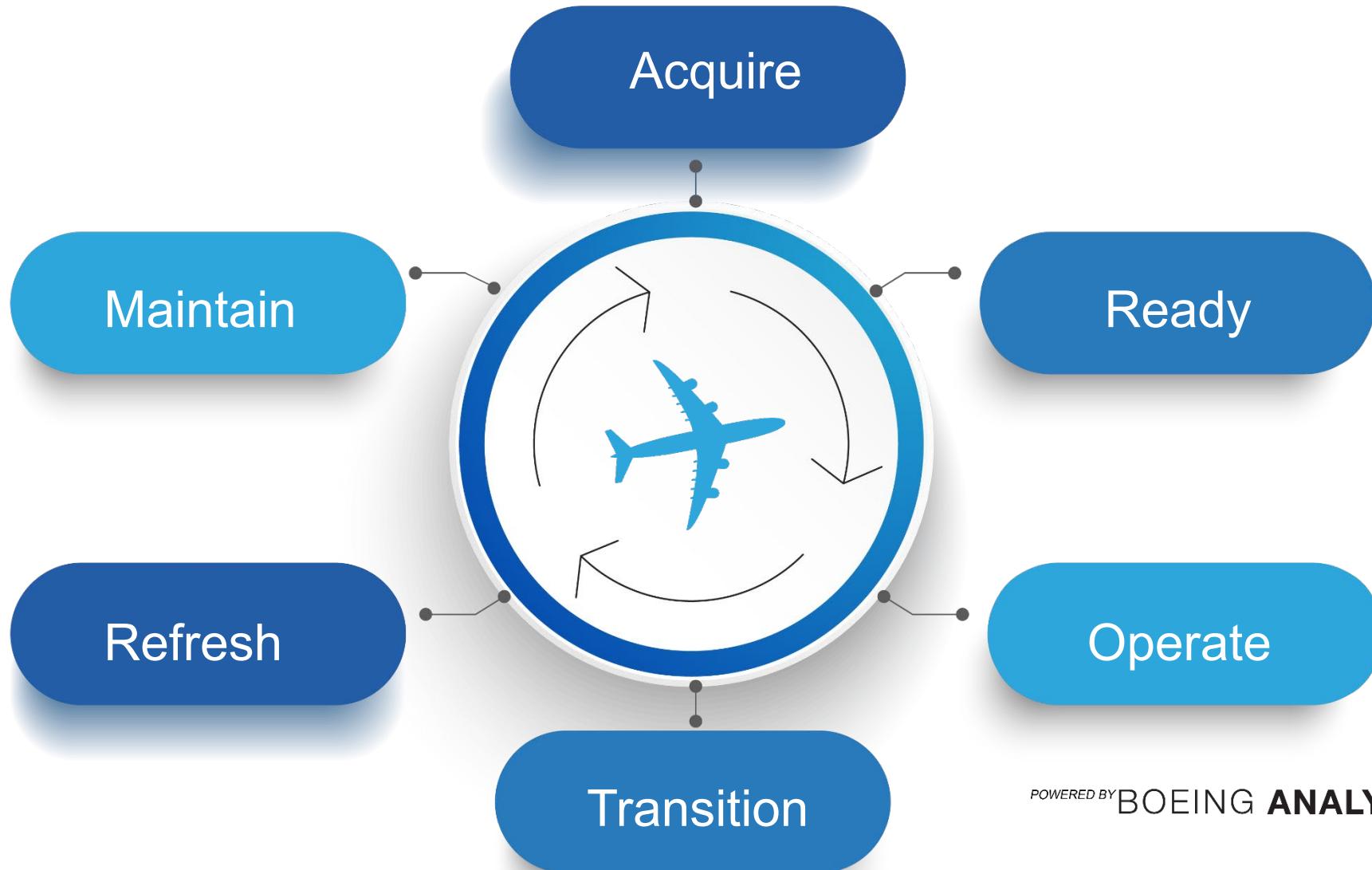
Airplane deliveries: 42,700



New airplane values: \$6.3T



Total Lifecycle Commitment and Support



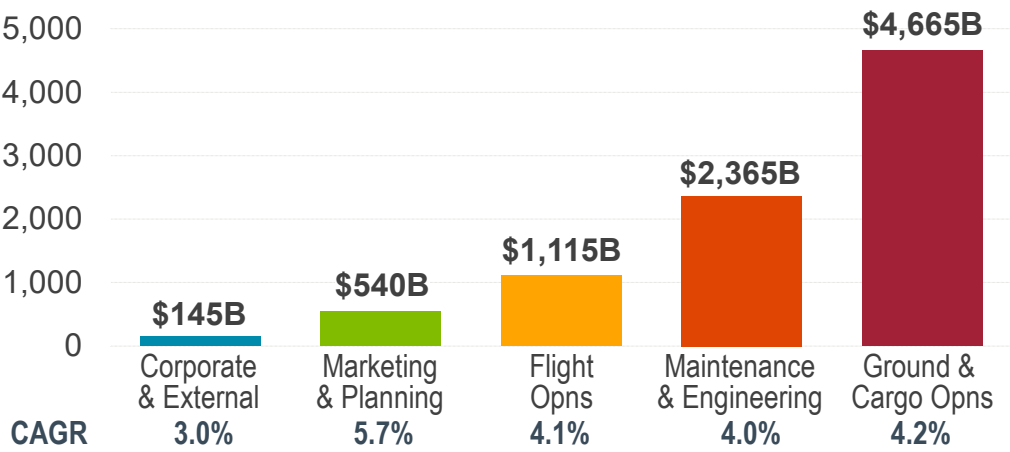
POWERED BY BOEING **ANALYTIX**

Commercial aviation will demand \$8.8 trillion in services over 20 years



Commercial Aviation Services: \$8.8T

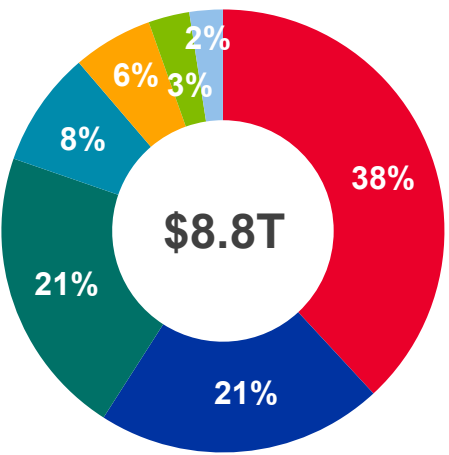
2018 - 2037



Services by Region

2018 - 2037

Region	Services	CAGR
Asia Pacific	3,365	5.1%
North America	1,850	2.9%
Europe	1,875	3.5%
Middle East	745	4.6%
Latin America	515	5.1%
Russia/CA	265	3.2%
Africa	215	5.2%
World Total	\$8,830B	4.2%



Middle East is uniquely positioned

Just 8 hours away from massive potential

65% of the global economy

70% of the 20-year economic growth

>80% of the global population

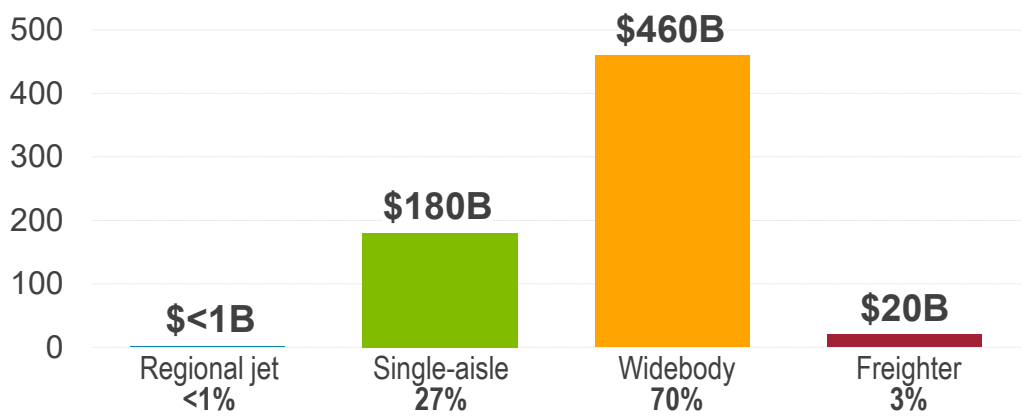


Middle East will need 2,990 new airplanes reaching 3,890 aircraft by 2037 generating services valued at \$745 billion



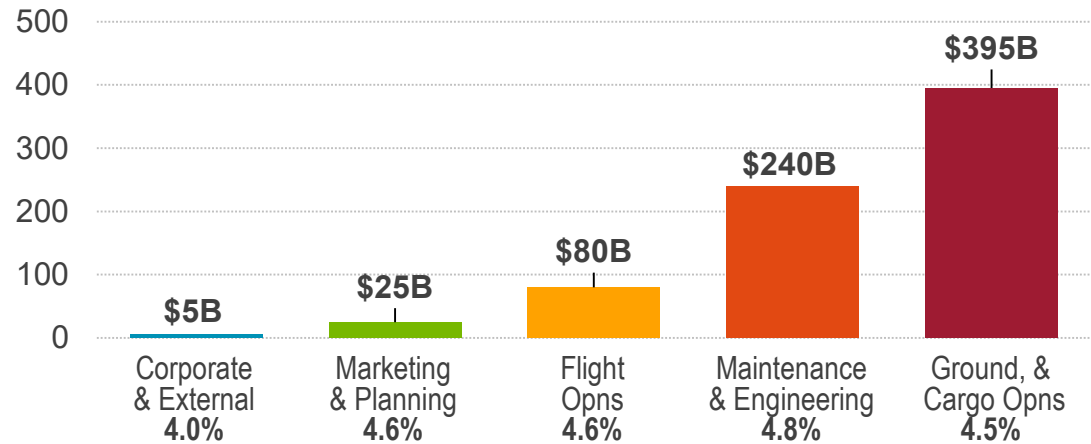
Middle East New airplane values: \$660 billion

2018 - 2037



Middle East Commercial Aviation Services: \$745B

2018 - 2037



Services market trends



Airline business models



Big data and analytics



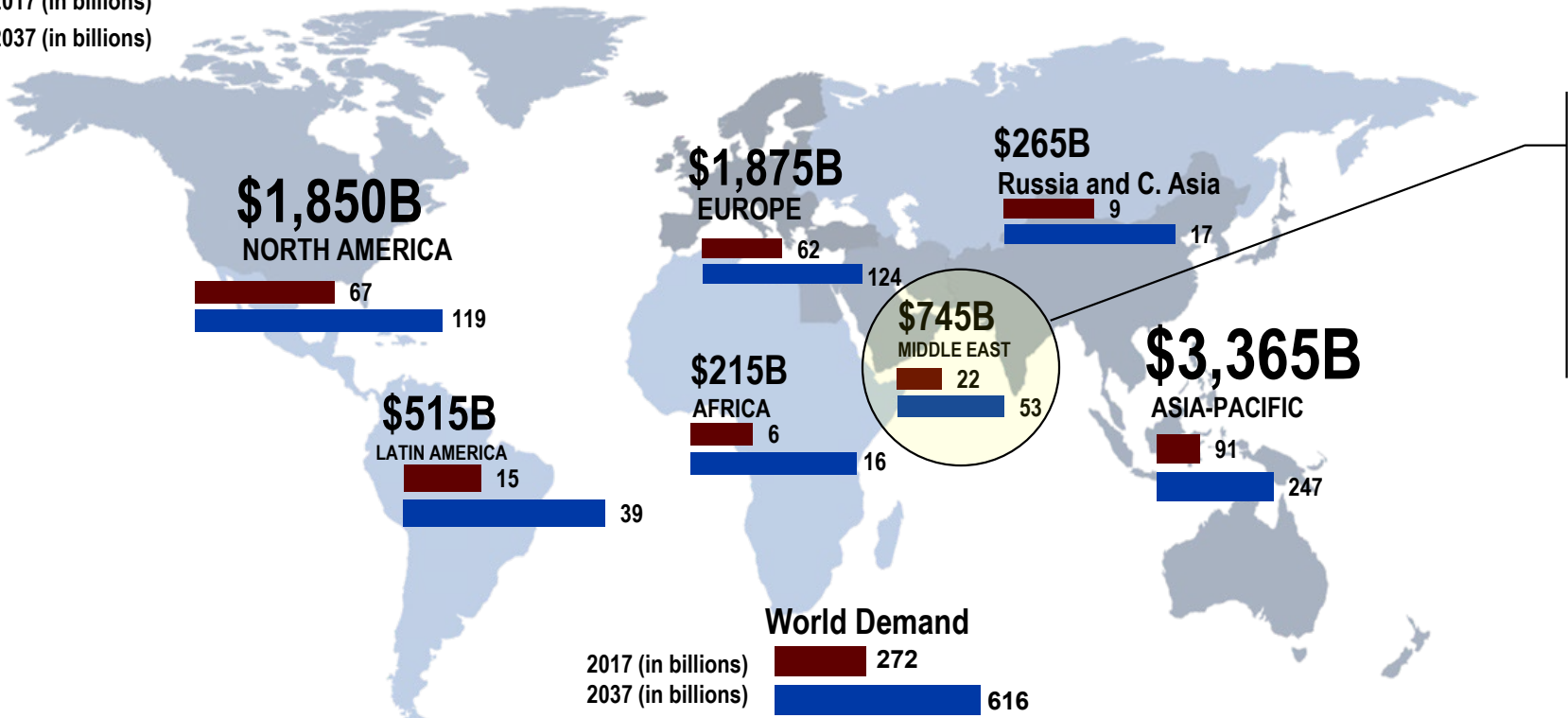
New technologies and innovations

Commercial aviation will demand \$8.8 trillion in services over 20 years

Middle East will drive more than 8% of the global demand, growing at 4.6% annually

Market Demand by Region
Commercial Aviation Services

2017 (in billions)
2037 (in billions)




Nearly 218,000 new pilots, technicians and cabin crew needed


Big Data & Analytics

OEM & MRO Investments in the Region to meet demand


Nearly 218,000 new personnel needed in Middle East



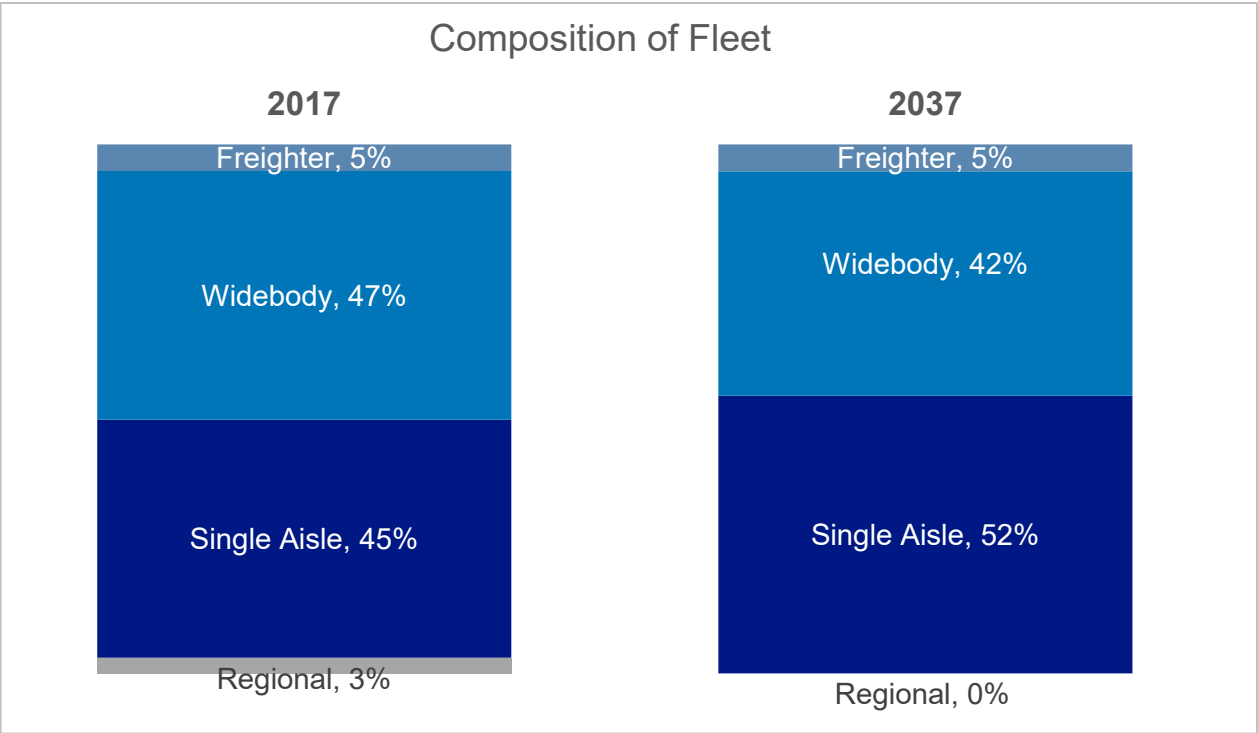
60,000 pilots



63,000 technicians



95,000 cabin crew



Boeing Global Services in the Middle East

Services Solutions by Country

Bahrain*

- Supply Chain
- Digital Aviation
- Engineering, modifications, and maintenance
- Training

Egypt

- Apache
- Chinook

Iraq*

- Supply Chain
- Digital Aviation
- Engineering, modifications, and maintenance
- Training

Jordan*

- Supply Chain
- Digital Aviation
- Engineering, modifications, and maintenance
- Training

Kuwait

- Apache
- C-17
- F-18
- Supply Chain*
- Digital Aviation*
- Training*

Lebanon*

- Supply Chain
- Digital Aviation

Oman*

- Supply Chain
- Digital Aviation
- Training

Qatar

- Apache
- C-17
- Supply Chain*
- Digital Aviation*
- Engineering, modifications, and maintenance*
- Training*

Saudi Arabia

- AH-61
- Apache
- Chinook
- F-15
- Supply Chain*
- Digital Aviation*
- Engineering, modifications, and maintenance*
- Training*

United Arab Emirates

- Apache
- C-17
- Chinook
- Supply Chain*
- Digital Aviation*
- Engineering, modifications, and maintenance*
- Training*

*Commercial Services

★ Boeing-Aviall facility and Boeing-Jeppesen facility



More than 2,300 employees and partners providing services support

Market outlook

Commercial: Boeing estimates that the Middle East will need **2,990 airplanes** over the next 20 years for fleet renewal and growth.

Government: Boeing estimates the Government Services market in the Middle East to **exceed \$90 billion** over the next 10 years.



Partnerships to grow indigenous capabilities

- Alsalam Aerospace Industries
- Boeing-Aviall Middle East facility
- Emirates Flight Training Academy
- Boeing-Jeppesen Middle East facility
- Saudi Rotorcraft Support Company



Service capabilities



Extensive local supply chain



Maintenance, repair, and overhaul facilities



Data-driven solutions



Comprehensive training services

