Bringing the Whole World Online
Identifying and closing the gaps

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New America
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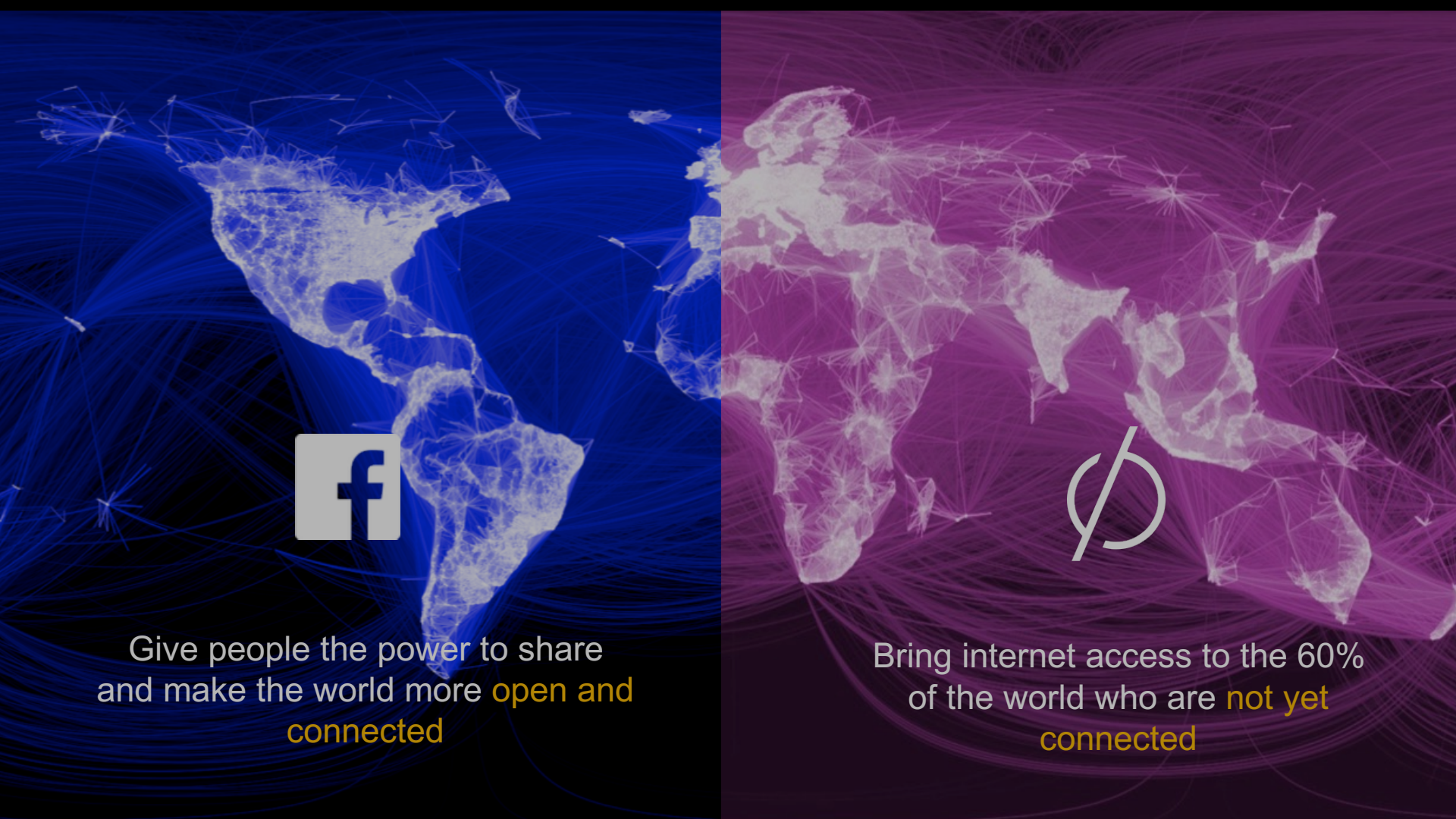

Give people the power to share and make the world more open and connected
Bring internet access to the 60% of the world who are not yet connected

Alignment of Incentives and Benefits for All

Give people the power to share and make the world more open and connected

Bring internet access to the 60% of the world who are not yet connected

3 BILLION

4 BILLION

World Population

Today's world

Bandwidth Scarcity

Slow telecom tech innovation

High data price for consumers

Move toward

Bandwidth Abundance

More people connected at faster speeds

Price/performance affordable for everyone

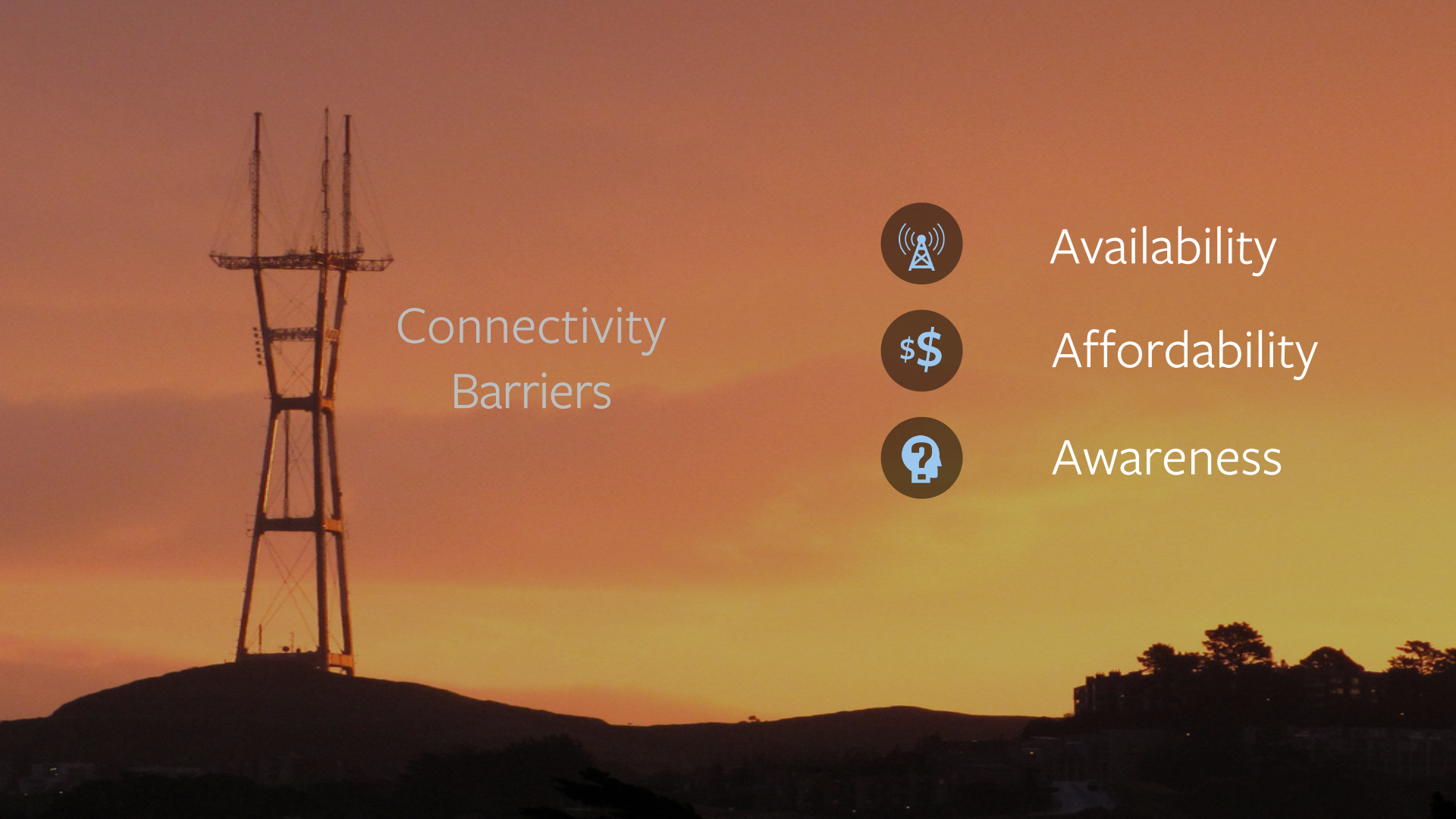
Multiple Dimensions of Abundance

More coverage

More people

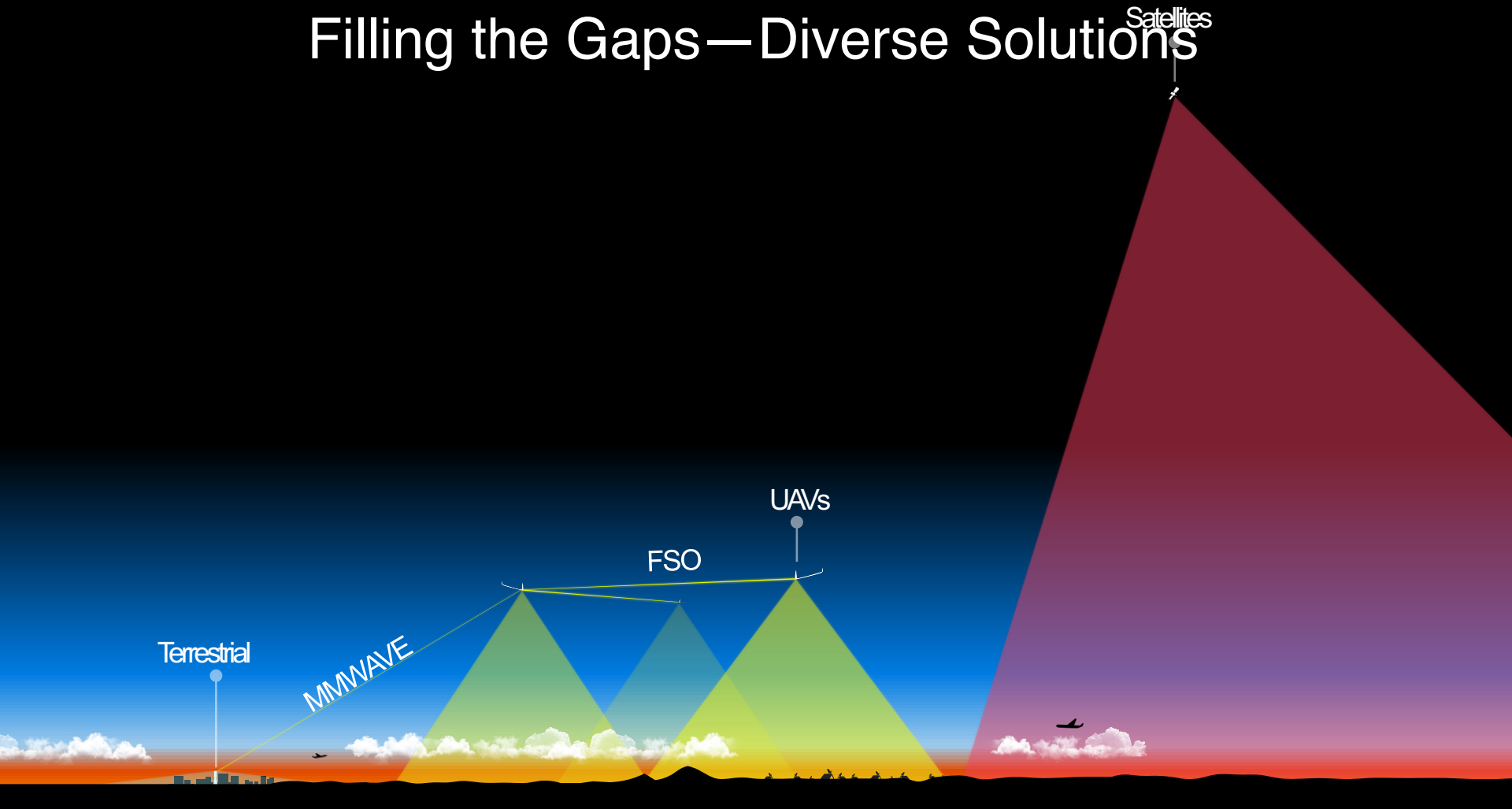
More & diverse devices/applications

More/better capacity/quality


Connectivity
Barriers
Availability
Affordability
Awareness

Identifying the Gaps in Availability

Filling the Gaps—Diverse Solutions



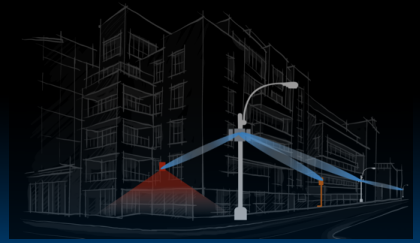
Solutions to Fit/Solve the Problem—Close the Gap

DENSE URBAN

Quality of connectivity

TERRAGRAPH

60GHz high bandwidth wireless network



MEDIUM DENSITY

Limited or no connectivity

AQUILA

Solar-powered, high altitude, long endurance aircraft, free space optical

LOW DENSITY

Limited or no connectivity

SATELLITES

Low-earth orbit and geosynchronous satellites, free space optical

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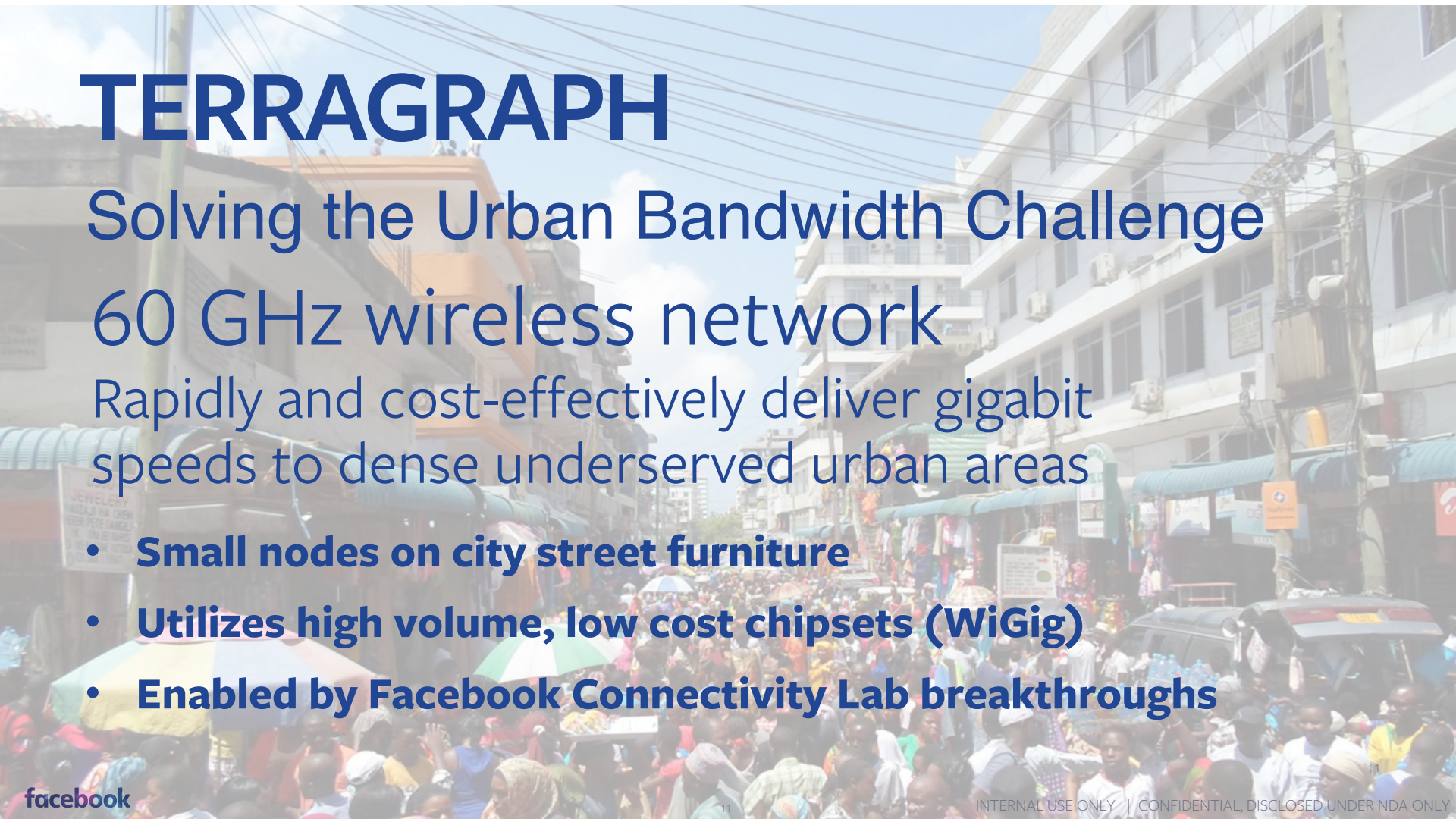

TERRAGRAPH

Solving the Urban Bandwidth Challenge

60 GHz wireless network

Rapidly and cost-effectively deliver gigabit speeds to dense underserved urban areas

- **Small nodes on city street furniture**
- **Utilizes high volume, low cost chipsets (WiGig)**
- **Enabled by Facebook Connectivity Lab breakthroughs**

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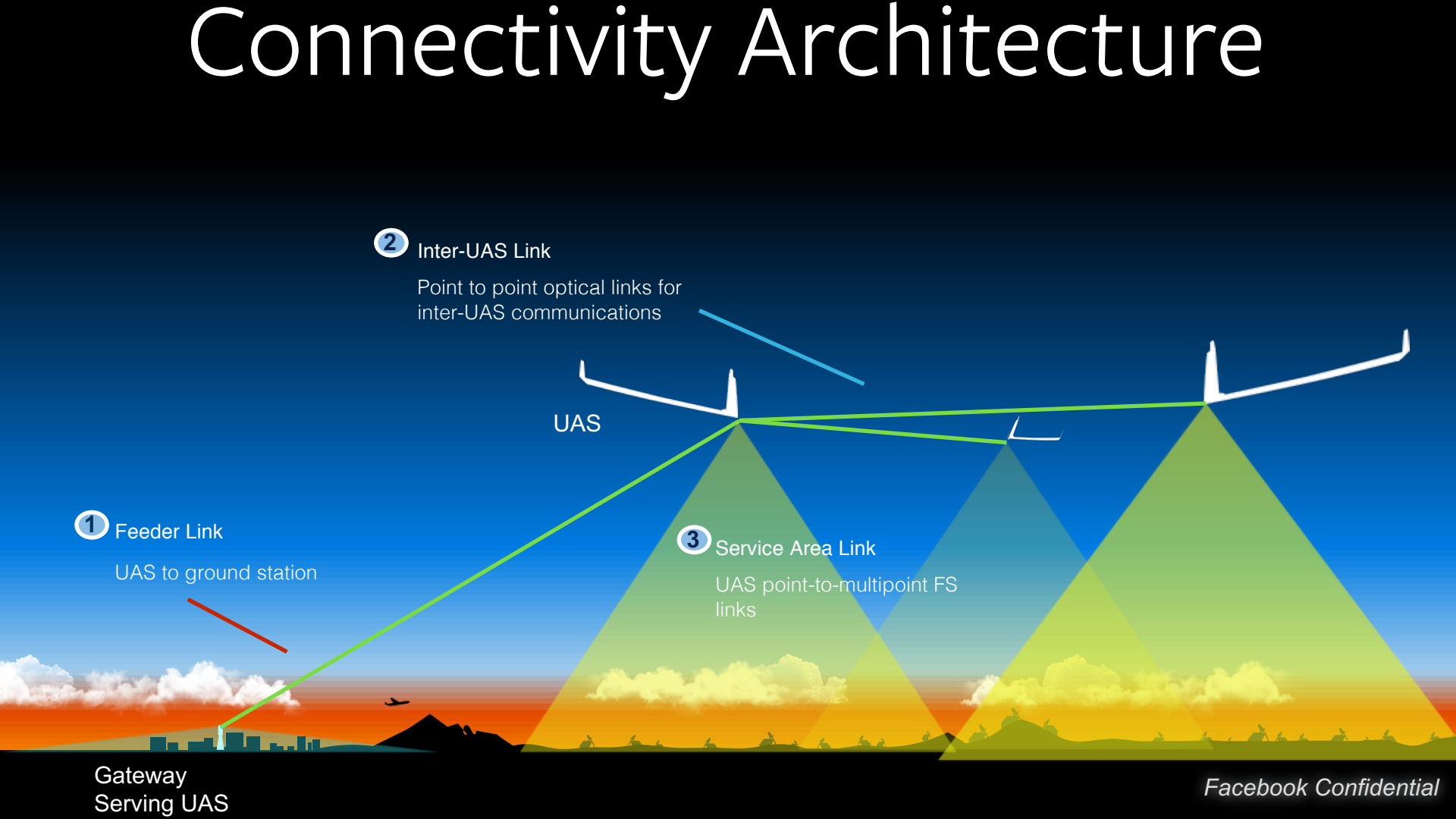
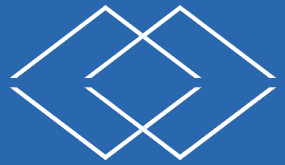
Aquila
Unmanned Aircraft System (UAS)
Goal: deliver gigabit speeds to medium density regions

Connectivity Architecture



Facebook Confidential



TELECOM INFRA
PROJECT

Mission

The Telecom Infra Project (TIP) is an engineering-focused initiative driven by operators, infrastructure providers, system integrators, and other technology companies that aim to reimagine the traditional approach to building and deploying telecom network infrastructure.

Some of TIP Broadbased Membership

Building Awareness: An Onramp to the Internet