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World Bank regional digital programs in Central Asia: The example of the Digital CASA regional program

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Digital Development Global Practice
World Bank

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Outline of presentation

1. Why a Regional Digital Program for Central Asia and South Asia?

2. The Digital Central Asia & South Asia Regional Program (Digital CASA)
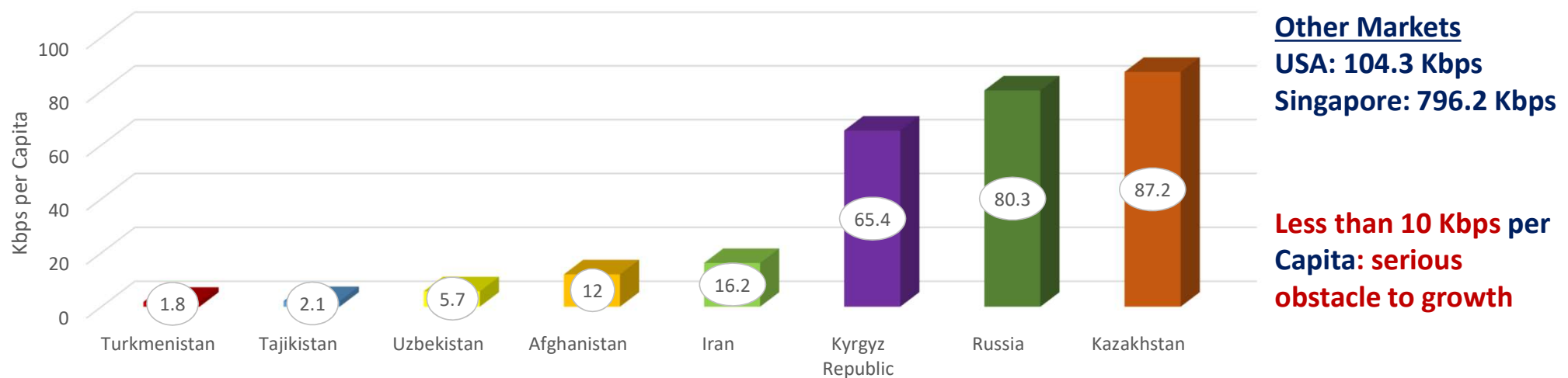
3. Overview and current status

Central and South Asia: Disconnected in the digital age

Central Asia & Afghanistan suffer from poor quality and expensive internet connectivity due to:

- Incomplete policy and regulatory environments
- Landlocked, global Internet traffic bypassing CA
- Limited regional integration

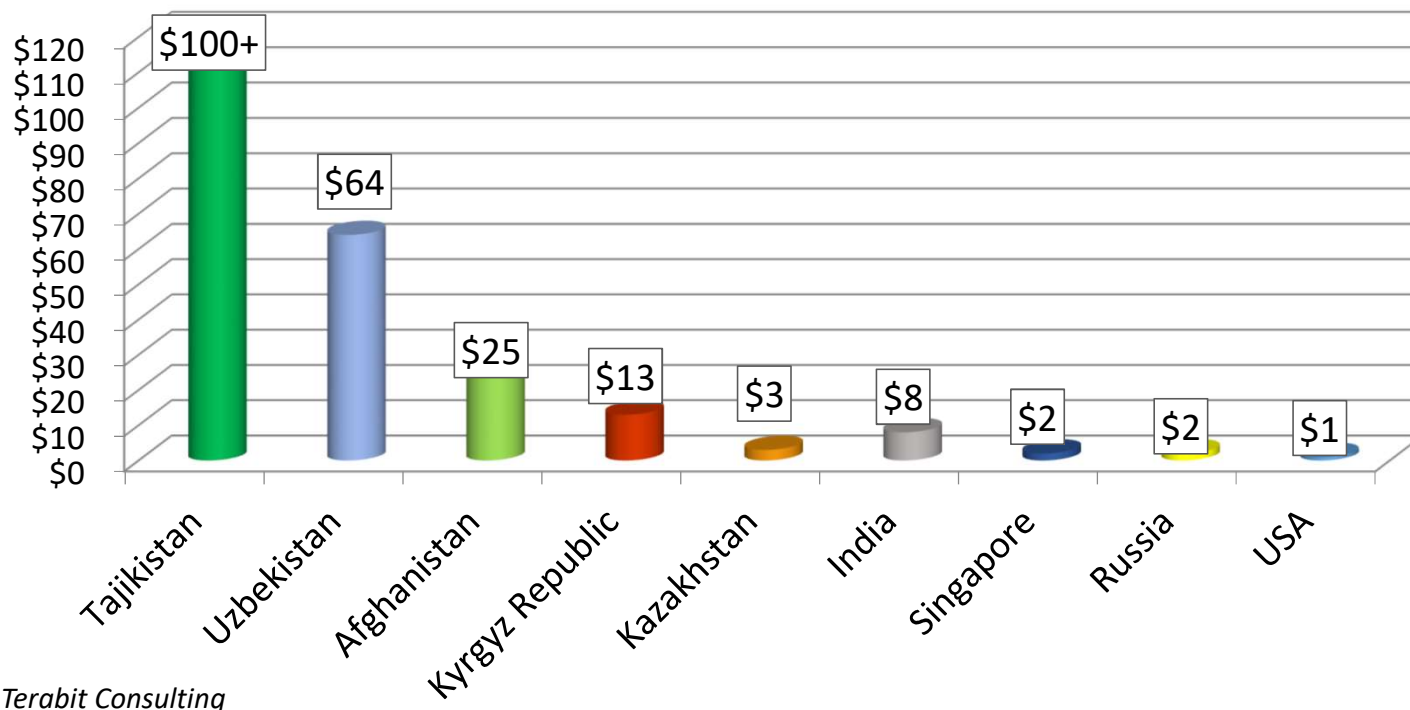- Limited use of ICT
- Low level of private investment

Bandwidth per Capita (Kbps, 2017)

Other Markets
USA: 104.3 Kbps
Singapore: 796.2 Kbps

Less than 10 Kbps per Capita: serious obstacle to growth

Source: Terabit Consulting

Wholesale transit pricing per Mbps per month (USD, 2017)

Bar chart showing wholesale transit pricing per Mbps per month (USD, 2017):
- Tajikistan: $100+
- Uzbekistan: $64
- Afghanistan: $25
- Kyrgyz Republic: $13
- Kazakhstan: $3
- India: $8
- Singapore: $2
- Russia: $2
- USA: $1

Source: Terabit Consulting

Prices for international Internet bandwidth in Central Asia remain among the highest in the world

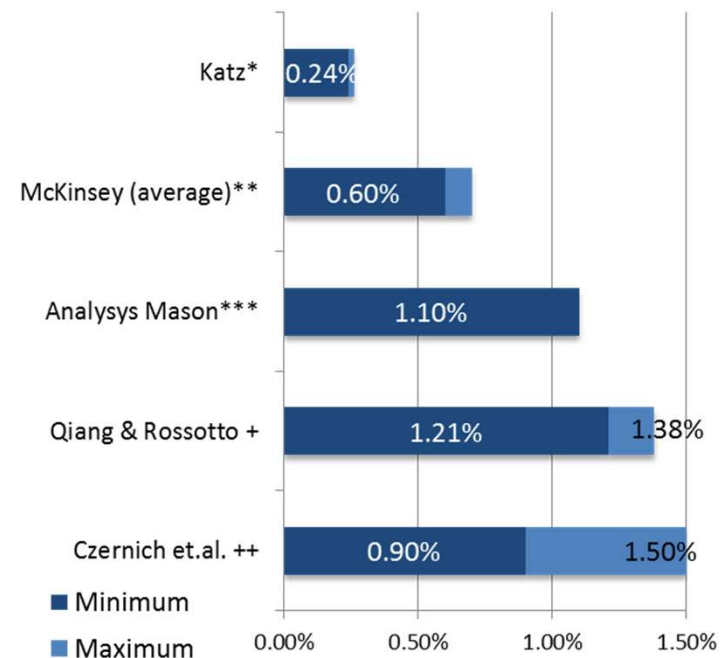# Lack of access to affordable Internet impacts international positioning

International Indices (2016) / # Countries	KYR	UZB	KAZ	TJK	TKM	AFG
ITU ICT Development / 175	113	110	52	--	--	164
UN E-Government Development /193	97	80	33	139	140	171
UN E-Participation /193	67	47	67	149	179	104
WEF Networked Readiness /139	95	--	39	114	--	--
ITU Global Cybersecurity (2014) /29	25	24	23	24	26	20
UNCTAD B2C E-Commerce (2015) /137	109	108	88	--	--	130
WEF Enabling Trade /136	113	--	88	114	--	--

Broadband contributes to growth, employment, innovation, trade

- **10% increase in broadband penetration** yields at least **1% increase in GDP growth** (see chart)

- **1% increase in Internet penetration** correlates with **4.3% export growth** (Wallsten, 2007)

- **20% of all jobs will be contracted online in 2020** (oDesk) - SMEs that integrated the Internet into their businesses created twice as many jobs as the average (McKinsey Global Institute)

- Enables Smart infrastructure, including Intelligent Transport Systems, and Smart Grids

- Health and education programs (distance learning, eHealth, digital technologies for learning)

- Telecom networks underpin a majority of global trade in goods and services: 80% of the production of a 787 Dreamliner is outsourced to contractors linked to Boeing through a complex supply chain enabled by IT (McKinsey Global Institute)

Impact on GDP of an increase of 10% in broadband penetration

	Minimum	Maximum
Katz*	0.24%	
McKinsey (average)**	0.60%	
Analysys Mason***	1.10%	
Qiang & Rossotto +	1.21%	1.38%
Czernich et.al. ++	0.90%	1.50%

The new future of Central Asia: Digital bridge between East and West, North and South

Conditions are ripe:

- **Largely competitive telecom sector**
- **Links to China, Central and South Asia**
- **Qualified IT professionals**
- **Access to cheap green energy**
- **Strong political will**

- **BUT need to work collectively with regional partners**

Low International Bandwidth & Weak international infrastructure has a High Cost Across Central and South Asia
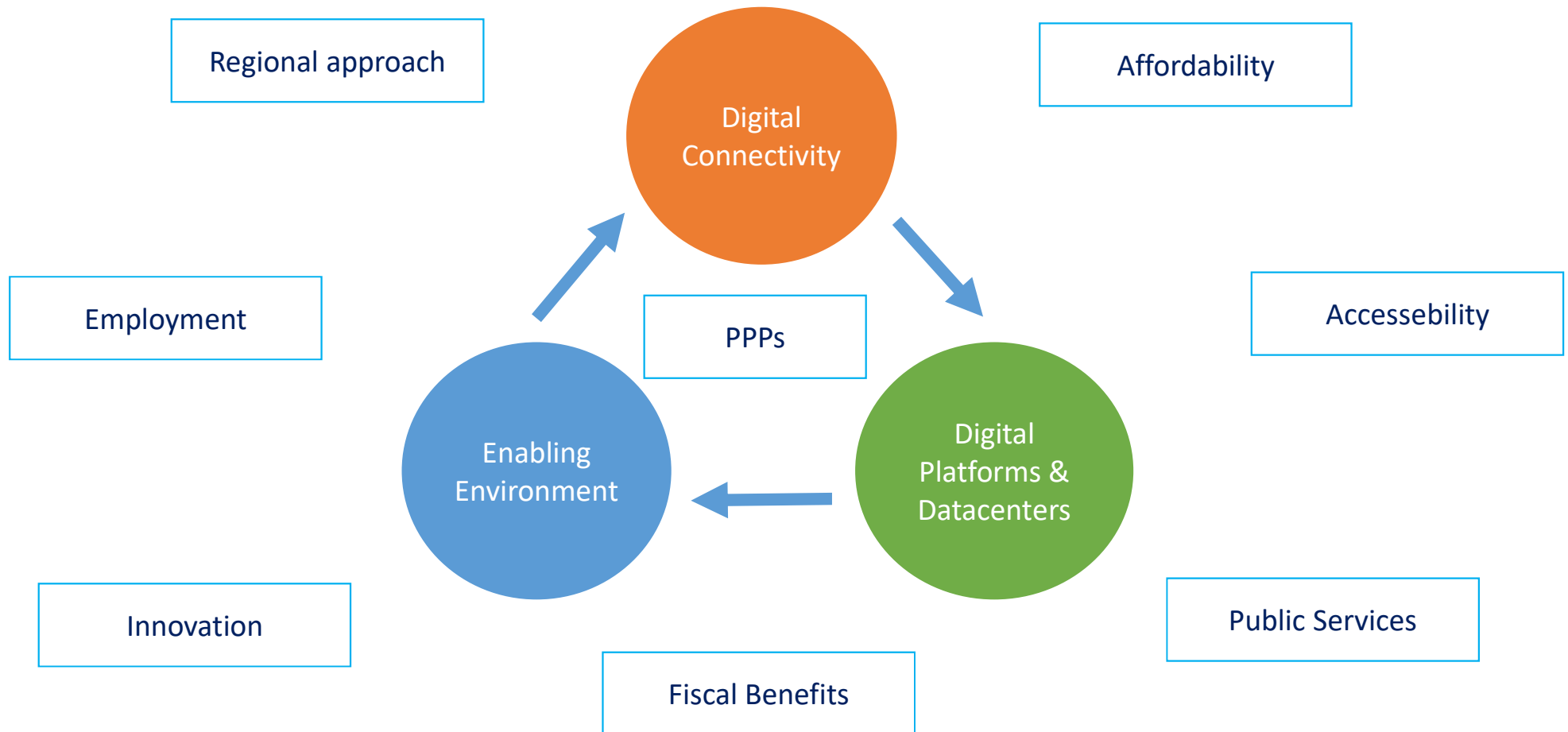
- **At the macro level: a major obstacle to economic and human development**
    - Detachment from digital economy
    - Continued economic inefficiencies and restrained growth
    - Lack of access to critical social development tools including telemedicine, distance learning, scientific/research networks
- **More specifically within the telecom environment: higher wholesale and consumer prices, and lower broadband adoption rates**

Digital CASA Regional Program

The Digital CASA Regional Program

Regional approach

Affordability

Employment

Accessebility

Innovation

Public Services

Fiscal Benefits

Digital Connectivity

PPPs

Enabling Environment

Digital Platforms & Datacenters

Digital CASA Regional Program Objectives

Digital CASA Regional Program aims to increase access to <u>more affordable internet,</u> <u>crowd-in private investment</u>, and improve participating government's capacity to deliver <u>digital government services</u> in Central Asia and parts of South Asia, through the development of a <u>regionally integrated digital infrastructure and enabling environment</u>.

In line with the findings of the World Development Report 2016 "Digital Dividends", the project is expected to lead to:
- increased economic growth
- improved employment opportunities
- better service delivery by government and the private sector

First countries to join:
- **Kyrgyz Republic (US$50 million) – approved by World Bank Board on 20 March 2018**
- **Afghanistan (US$51 million) – approved by World Bank Board on 28 March 2018**
- **Uzbekistan (estimated at $300 million) – target Board approval in mid-2019**
- **Dialogue ongoing with Kazakhstan and Tajikistan**

Proposed Configuration of Digital CASA Regional Connectivity
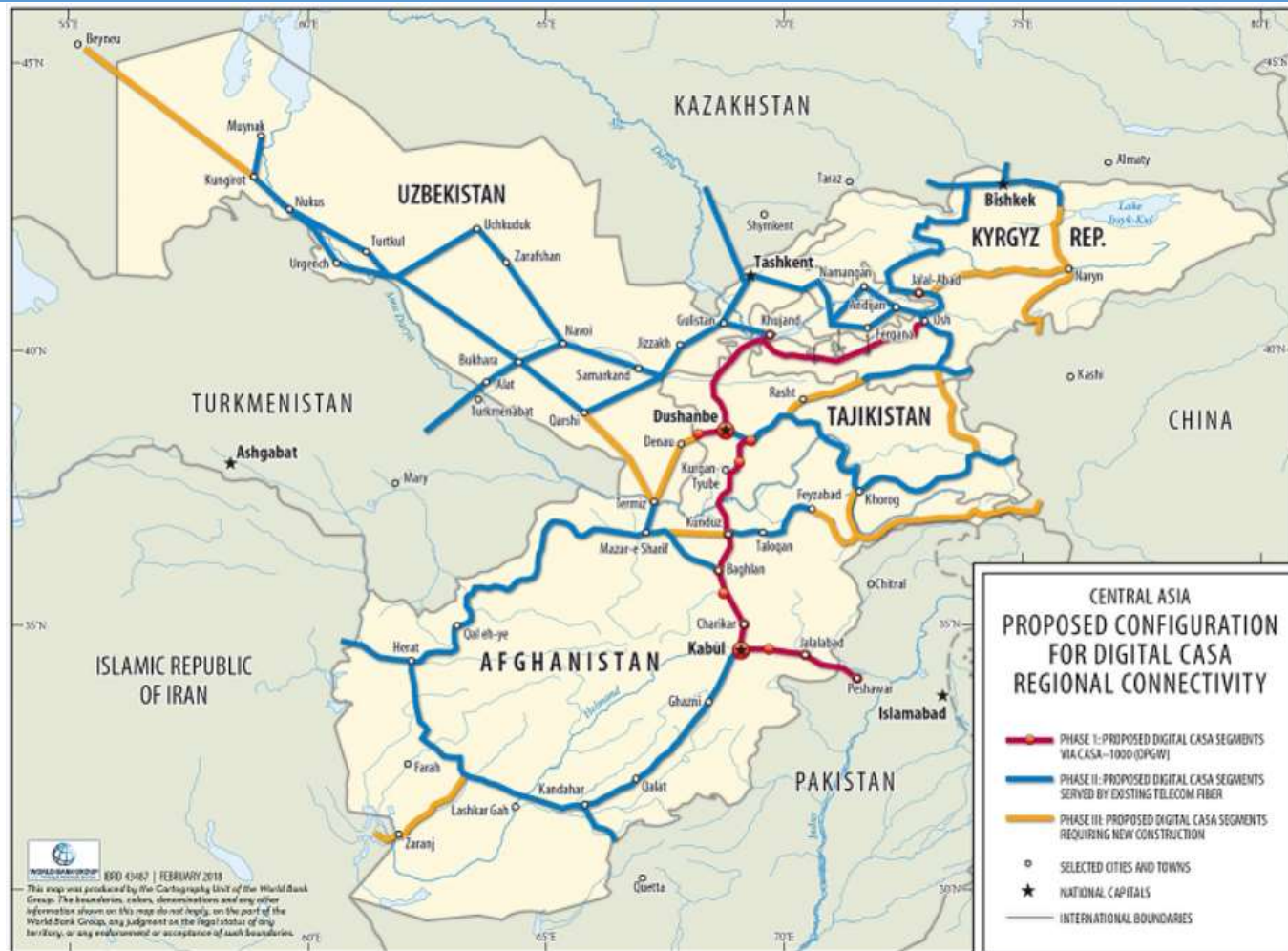
Source: adapted from Terabit Consulting, 2016

Digital CASA - Kyrgyzstan Project Components (US$ 50 million)

Component 1. Regional Digital Connectivity Infrastructure
- Improving regional connectivity: Regional backbone networks and domestic fiber-optic networks
- Increasing the capacity and reach of the government network "G-Net"

Component 2: Regional Datacenters, Digital Platforms and Smart Solutions
- Digital government infrastructure and shared platforms (data centers, e-ID, data integration and portals) – Eurasia Cloud Regional Datacenter Network
- E-services and data innovations in key sectors

Component 3: Enabling Environment for Digital Economy
- Creation of a favorable legal, regulatory and institutional enabling environment for digital transformation
- Partnerships, ICT Skills Development and digital Innovations

Component 4. Project Management and Communications
- Project management activities, citizen engagement.
- Project Implementation Unit establishment, operating costs

Digital CASA - Kyrgyzstan Project was approved on 20 March 2018, ratified by Parliament on 28 December 2018, effectiveness expected in February 2019

Digital CASA - Afghanistan Project Components (US$ 51 million)

Component 1. Digital Infrastructure
- Regional and domestic connectivity infrastructure (including pre-purchase of international bandwidth)
- Government network "Gov-Net"
- Internet exchange point (IXP)

Component 2: E-government
- Shared E-government infrastructure
- Digital platforms, shared services and "smart solutions"

Component 3: Enabling Environment / Skills, Jobs and Innovation
- Policy, Regulatory and Legal Frameworks
- ICT Skills Development, job creation and innovation

Component 4. Project Management
- TA for M&E, communications, procurement, FM, environmental and social safeguards, audits and incremental operating cost
- Institutional strengthening and Digital Leadership capacity development

Digital CASA - Afghanistan Project was approved on 28 March 2018, became effective on 15 May 2018, currently under implementation

Digital CASA - Uzbekistan proposed components (~US$ 300 million)

Component 1. Regional Digital Connectivity Infrastructure
- Improving Regional Connectivity: pre-purchase of international bandwidth
- Bridging the Rural Connectivity gap
- Increasing the security, capacity and reach of the government network «G-Net»

Component 2: Datacenters, Digital Platforms, and Smart Solutions
- G-Cloud
- Digital Platforms and Shared Services
- E-services and Smart Solutions in key sectors (health, agriculture, education)

Component 3: Enabling Environment for the Digital Economy
- Legal, Regulatory and Institutional Framework for digital transformation
- Digital Leadership, Capacity Building and Strategic Communication

Component 4. Digital Innovations and Skills
- Digital Entrepreneurship
- Digital Skills and Human Capital Development
- Digital Innovations; Center of Excellence
- Digital Literacy

Component 5. Project Management
- Project Implementation Unit (PIU) establishment, various operating costs

Digital CASA - Uzbekistan Project under preparation, expected approval in mid-2019

Expected Outcomes of Digital CASA Regional Program

The outcomes of Digital CASA Regional Program include:

1. Increase in the number of people provided with access to the Internet.

2. Significant social benefits related to more efficient delivery of services and enhanced citizen participation, including in health, education, among others.

3. Increase in the number of e-Services and Applications Utilizing the Shared Services Platform.

4. Development of the ICT sector and digital job opportunities through increased productivity of firms, technological innovations across industries.

5. Facilitation of cross-border trade of knowledge, products (e.g. e-commerce) services across the region.

6. Generation of indirect government revenue sources.

Digital CASA – Current Status and Next Steps

- **Digital CASA Kyrgyz Republic (US$50 million)**
  - World Bank Board approved project on 20 March 2018
  - Combines IDA Credit of US$ 25 million and IDA Grant of US$ 25 million
  - Parliament ratification on 28 December 2018, effectiveness expected in February 2019
  - Implementation started on the basis of ECAPDEV grant and Open Data grant
- **Afghanistan (US$51 million)**
  - World Bank Board approved project on 28 March 2018
  - Full IDA Grant of US$ 51 million
  - Effectiveness on 15 May 2018 and currently under implementation
- **Uzbekistan (estimated at US$ 300 million) – target Board approval in mid-2019**
  - Identification mission in February 2018
  - Project Concept Review in mid-May 2018
  - Available IDA estimated at around US$ 100 million, and $50 million IBRD, hence a projected financing gap of around US$ 150 million
- **Tajikistan: awaiting letter confirming interest to join Digital CASA**
- **Kazakhstan: request for Data economy and digital innovation project (estimated at $200 million)**
  - Identification mission in January 2019
  - Project likely to include significant focus on Artificial Intelligence and link to regional digital agenda

Thank you!

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Digital Development