CenturyLink Broadband in Montana

Presentation to the Montana Economic Affairs Interim Committee

Phil Grate, CenturyLink Government Affairs Director

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CenturyLink in a nutshell

- **2nd Largest** U.S. communications provider to global enterprise companies
- **450,000** global route miles of fiber
- Serve customers in **60+** countries
- **150,000+** on-net buildings
- Trusted **leader in cybersecurity** space
- CenturyLink's **Black Lotus Labs: Global Defender of a Clean Internet**
  - **See more: -114 Billion** Net Flow sessions monitored daily
  - **Stop more: -40** command and control servers, the brains of a botnet, taken down each month
  - Connections to **2,200+** data centers worldwide
- Communications partner for **sports stadiums, technology events, banks, and government offices** in the US

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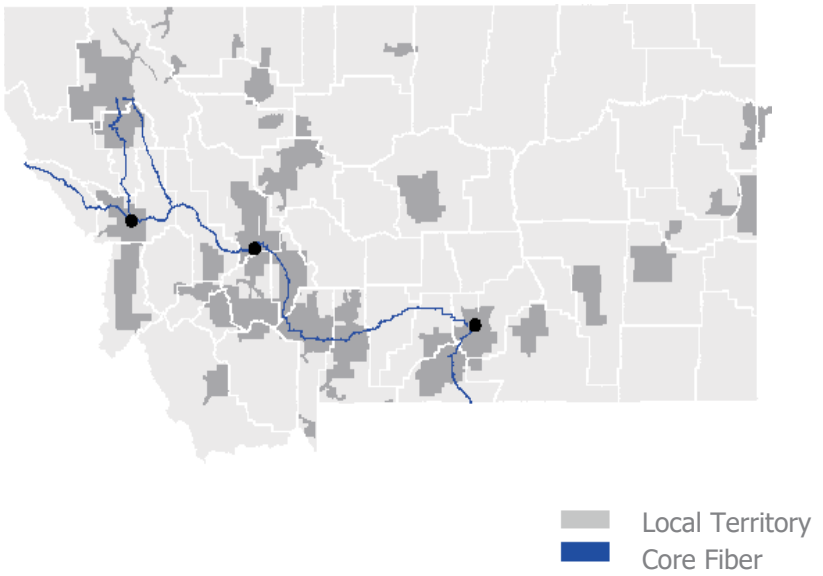
CenturyLink in Montana



- Nearly 165,000 connections statewide
- More than $11 Million annual salaries
- More than $1.2 Billion total network investment
- More than $28 Million investment in 2019
- More than 4,500 fiber route miles
- Nearly 2,000 On-net buildings

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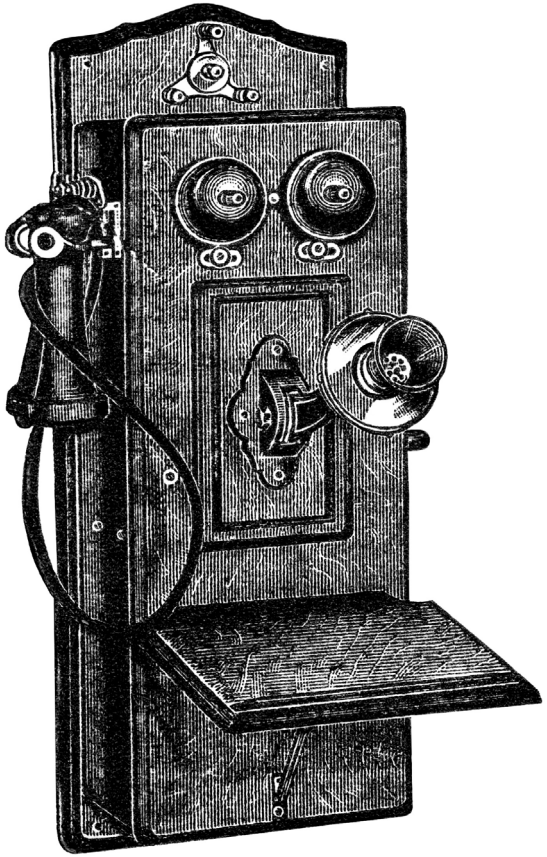
Our origins



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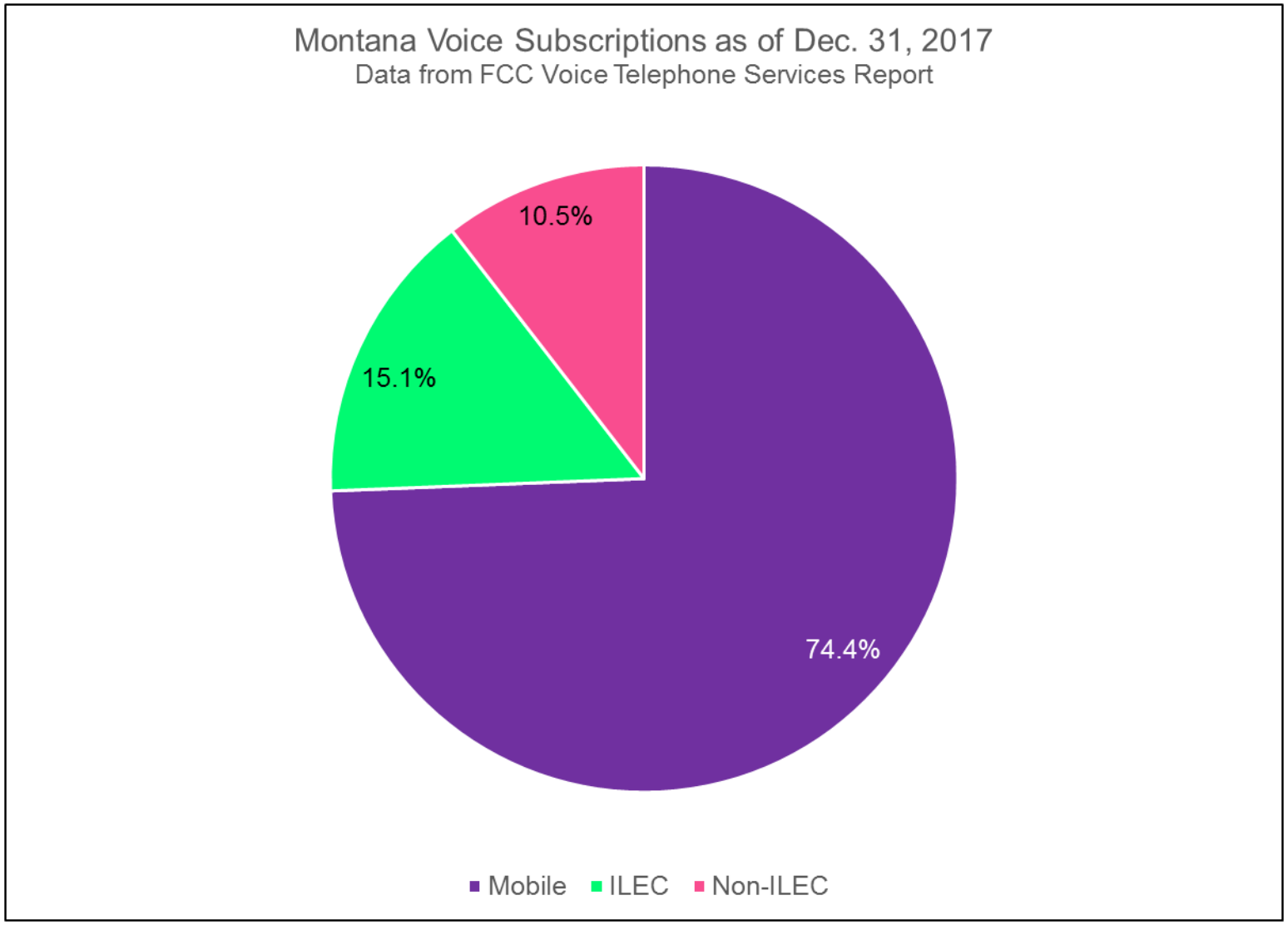
Our competitors



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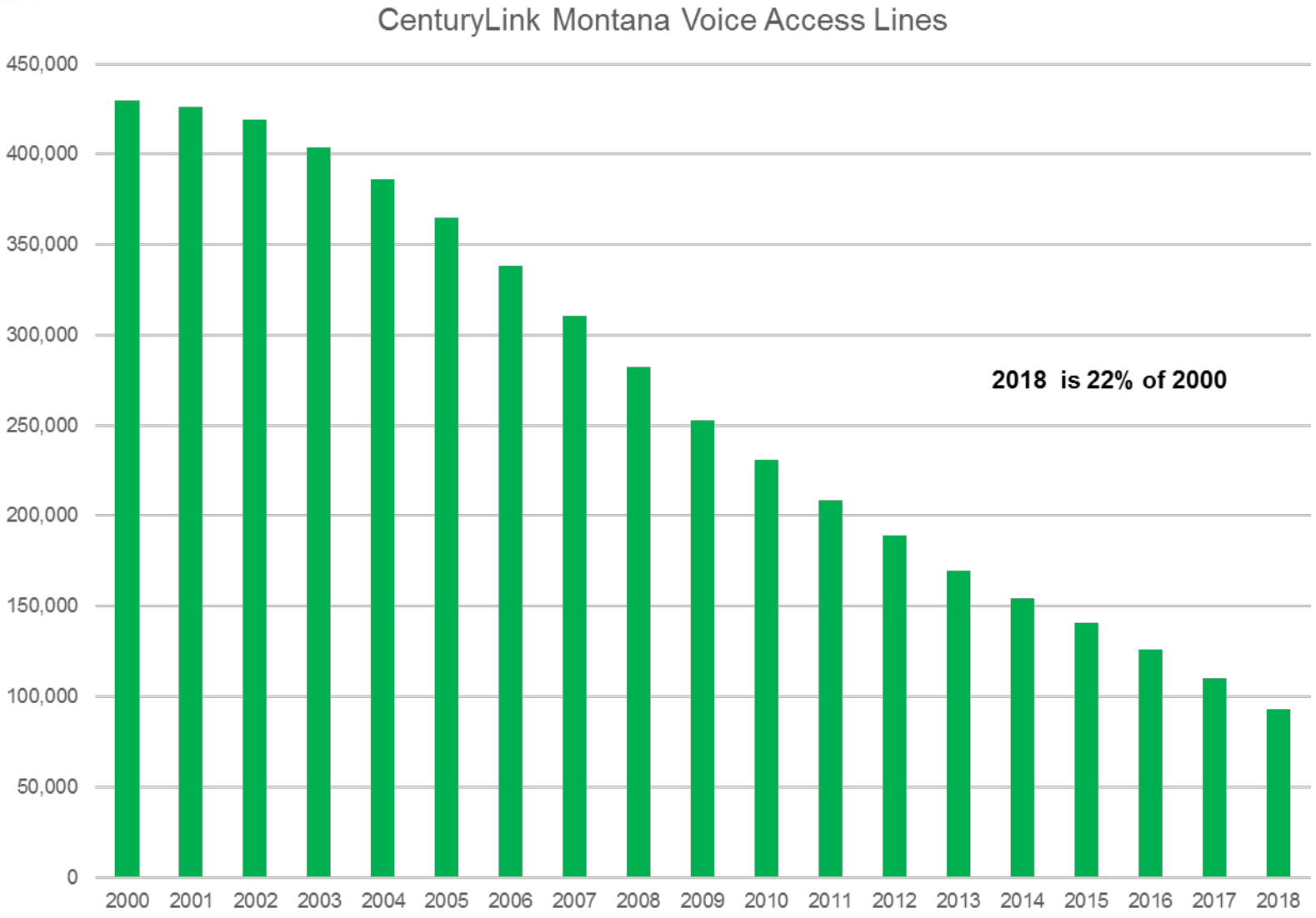
Our Montana telephone business



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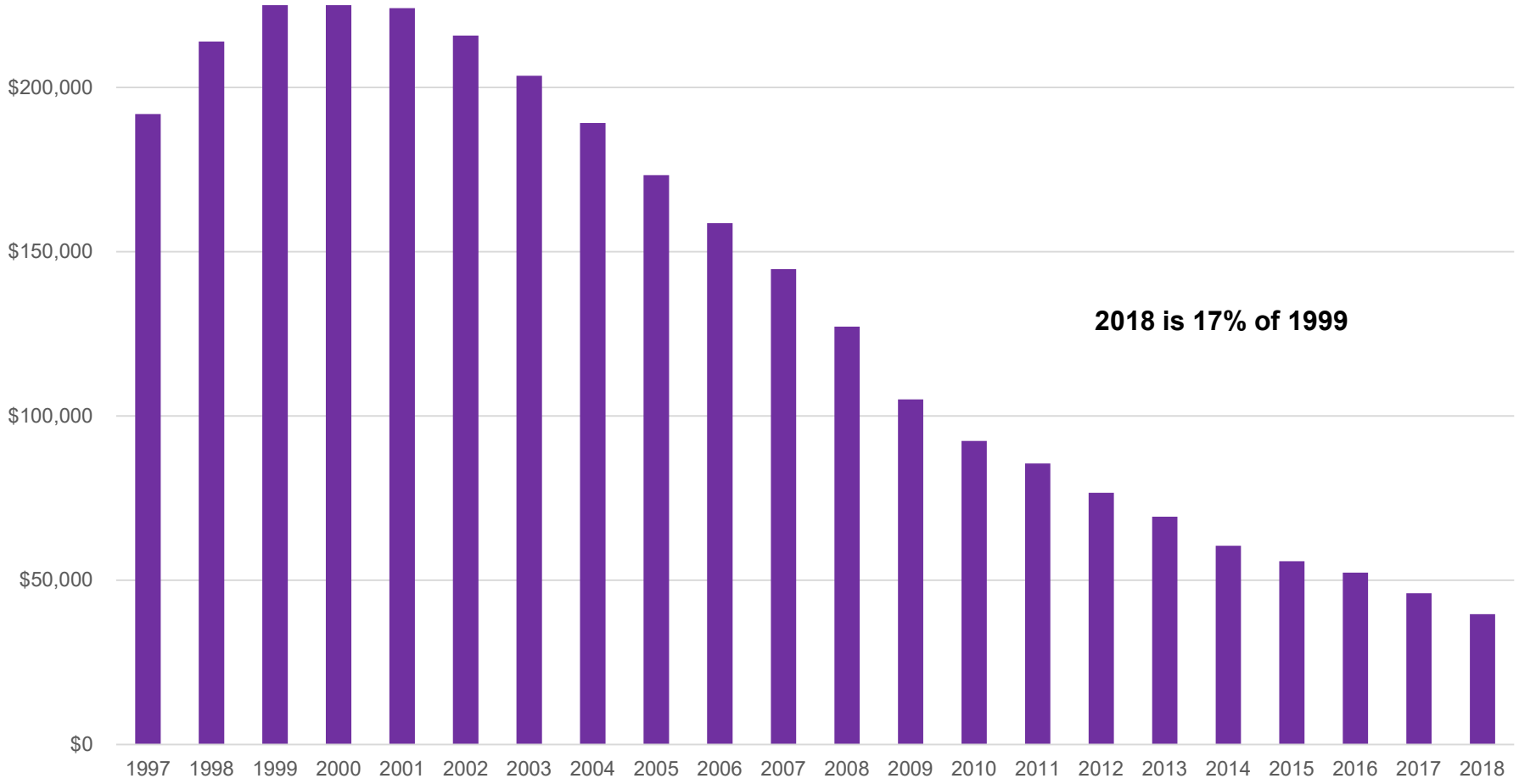
Our Montana telephone revenues

CenturyTel of Montana and Qwest Corporation Annual Montana **Basic Local Service** Revenue Inflation Adjusted to 2018 $1000s



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Our future (the advanced services we offer)

SOFTWARE DEFINED NETWORKING
- SD WAN

CLOUD CONNECTIVITY
- Cloud Connect
- Dynamic Connections

INTERNET & NETWORKING
- Business Bundles
- Ethernet
- Internet
- IP-VPN
- Private Line
- Wavelengths

MANAGED SERVICES & IT CONSULTING
- Managed Enterprise
- Managed Network Services
- Professional Services

SECURITY AND COMPLIANCE
- Cloud Security
- Infrastructure Security
- DDoS and Web Application Security
- Analytics and Threat Management
- Email and Web Security
- Risk and Compliance
- Threat Research Labs

MANAGED CLOUD
- Multi-Cloud Management
- Private Cloud
- Public Cloud

CLOUD CONNECTIVITY
- Cloud Connect
- Dynamic Connections

HYBRID INFRASTRUCTURE
- Cloud Network Storage
- Disaster Recovery
- Managed Hosting
- Regional Data Centers

MANAGED & IT SERVICES
- Advanced Managed Services
- Data Analytics
- Design and Transition
- Infrastructure Management
- Strategy, Systems and Technology

COLLABORATION
- Unified Communications and Collaboration
- Conferencing

VOIP
- Hosted VoIP
- SIP Trunk

CUSTOMER SUPPORT
- Contact Center

MANAGED SERVICES
- Advanced Managed Services
- Application Management Development
- Operating System Management
- Infrastructure Management
- Managed Network Services
- Professional Services
- Resiliency Services

IT CONSULTING
- Strategy,
- Systems and Technology
- Design and Transition
- Data Analytics
- Cyber Security

CONTENT DELIVERY
- CDN
- Vyvx Video Solutions

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Our speeds and broadband types

Our facilities pass more than 450,000 Montana businesses and residences

Speeds – our capabilities vary

- from 512 kilobits per second
- to multiple gigabits per second
- and everything in between

Speed is dependent on

- Location
- What the customer will pay

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Funding deployment

Investors

- We compete for scarce investment dollars
- Investment in broadband must compete with other investment opportunities worldwide

Government

- No profit motive
- Can invest where investors won’t
- Can offer subsidies to attract investors

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Deciding where to invest

- Strategic goals
- Demand for our services and products
- Cash flow generated by operating activities
- Cash required for other purposes
- Regulatory considerations (such as our CAF Phase 2 infrastructure buildout requirements)
- Rigorous
- Disciplined

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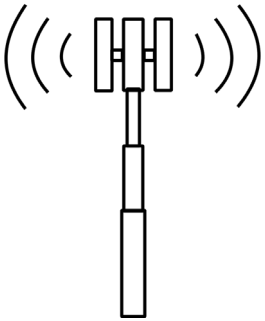
Underserved areas

- Uneconomic = Underserved
- Subsidies must be sufficient
  - to mitigate competitive risk
  - to out compete other investment opportunities
  - to make service affordable
- And/or use a more cost effective technology



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Determining factors

We evaluate capital expenditure projects based on a variety of factors, including

1. expected strategic impacts, such as effect on
   - revenue growth
   - productivity
   - expenses
   - service levels and
   - customer retention
2. Expected return on investment.

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Best incentives

Clear, simple predictable requirements:

- How many units?
- What speed?
- Completion deadline?
- How much support and when?

Low administrative costs:

- No elaborate (fund) accounting
- No elaborate record keeping
- No elaborate reporting obligations

Most attractive option:

- We invest a known, fixed amount
- Partners supply any additional investment required

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