

RETIREMENT SYSTEM

Public Investment Memorandum

Apax Digital II L.P.

Private Equity Fund Commitment

Darren C. Foreman, CAIA

Director, Private Equity

Luke M. Jacobs, CFA, CAIA Manager, Private Equity

February 2, 2021



Executive Summary:

PSERS' Investment Office Professionals ("IOP"), together with Hamilton Lane Advisors, L.L.C. ("Hamilton Lane"), recommend to the Board a commitment of up to \$175 million to Apax Digital II L.P. ("ADF II" or the "Fund").

Apax Partners LLP ("Apax" or the "Firm") is raising the Fund to target a balanced portfolio of minority growth equity and growth buyout investments in mid-market technology companies, predominantly in North America and Europe.

Fund Name	Apax Digital II L.P.		
Firm Name	Apax Partners LLP		
Target Fund Size / Hard Cap	\$1.5 Billion / TBD		
Recommended Commitment Amount \$175 million			
Existing Relationship	Yes		
Source of Funds	Private Equity Distributions		
Asset Class / Sub Asset Class	Private Equity / Buyout		
Investment Office Oversight	Charles J. Spiller, Deputy CIO / Non-Traditional Investments Darren C. Foreman, Director Luke M. Jacobs, Portfolio Manager		
ternal Consultant Oversight Hamilton Lane Advisors, L.L.C.			

Firm Overview:

Apax Partners is a global private equity advisory firm with a long-standing presence and investment experience in both North America and Europe, having been founded over 50 years ago. The history of Apax is interwoven with the development of the private equity asset class in Europe and the U.S. Throughout its 50-year history, the Firm has successfully raised and advised 35 distinct funds for a combined value of over \$60 billion. These funds have invested across all investment stages, and through several economic cycles. Apax's buyout funds have an established strategy and attractive track record of investing in four distinct sectors: Technology & Telecommunications, Services, Healthcare and Consumer. Apax has decades of sector-driven investing experience. The Fund will be able to leverage Apax's broader platform and PSERS believes that the Fund will benefit greatly from the depth and experience of the Apax Digital team, a group of 19 growth technology investment professionals within Apax dedicated exclusively to the Apax Digital Fund strategy.

As of January 2021, the Firm employs approximately 250 people including more than 130 investment professionals speaking 24 languages spread across seven offices. The Firm's two main hubs are London and New York City and, regional offices are in Munich, Mumbai, Tel Aviv, Shanghai, and Hong Kong. Apax's collaborative culture encourages the pursuit and recommendation of geographically diversified investment opportunities. Apax often staffs deals across multiple offices in order to use the relevant sub-sector expertise on a particular investment opportunity.



Apax has historically leveraged its platform to support global businesses, or businesses that are not yet global, but may be ready to benefit from international expansion. Apax has exhibited this platform in their prior flagship funds, as portfolio companies are able to benefit from the value and support of a well-resourced, global firm like Apax, which can leverage its global insights, spot trends, and effectively support the growth of such companies while utilizing the world's equity and debt markets most effectively.

Apax has executed two successful leadership transitions since its founding and now is led by Mitch Truwit and Andrew Sillitoe. This proven succession model ensures stability through long-term planning and provides clear governance that is aligned with investors' interests and helps to reduce organizational risk. It also ensures that economic rights accrue primarily to the active partners of the Firm. Apax has a unique culture, a proven succession model and has exhibited sound governance practices, all of which are firmly aligned with the interests of their investors.

Market Opportunity:

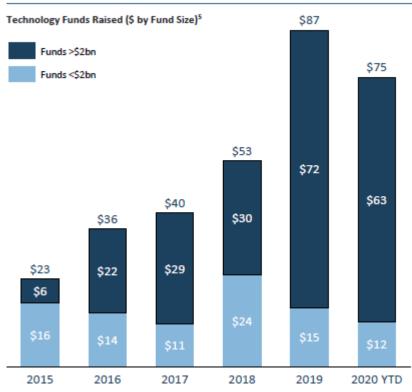
PSERS and Apax continue to believe that technology remains a large and expanding sector in the global economy. With long-term growth potential for high quality global assets, capital inflows, and strong investor demand have all been factors that have driven technology valuations higher.

Market opportunities that Apax will consider for the Fund are highlighted by statistics that show:

- Worldwide software expenditures are forecasted to grow at approximately 11% annually between 2020 and 2024, reaching ~ \$700 billion by 2024 (according to Gartner Forecast Analysis IT Spending Worldwide, Q3 2020).
- Globally, the number of internet users is expected to reach 5.3 billion people by 2023, representing over two thirds of the world's population (according to Cisco Annual Internet Report, 2018-2023).
- Businesses are planning to increase their digital transformation budgets by one and a half times by 2022, stemming from increasing online, as well as social and mobile touchpoints with consumers (Bank of America Global Research, December 2019).
- The COVID-19 pandemic has shifted 58% of customer interactions to digital channels, representing a three-year acceleration versus prior trends. (McKinsey & Company, "How COVID-19 Has Pushed Companies Over the Technology Tipping Point – and Transformed Business Forever.", October 2020).

Also, as PSERS has evaluated this Fund offering, we believe ADF II is well-positioned to occupy an attractive space in the technology growth equity landscape based on its mid-market positioning combined with the assets and capabilities of the broader Apax global platform. Apax has identified compelling factors in the mid-market technology space including:

 Other technology funds raised over the last five years have been concentrated at the larger end of the growth equity market, with ~75% of capital raised since 2016 going into funds with total commitments above \$2 billion. (Please see the table that follows which is from Preqin as of November 2020. This includes both growth and buyout funds with Information Technology as a core strategy).



Capital has continued to flow into tech focused funds, but is concentrated above \$2bn

- Based on the prevalence of larger funds targeting larger opportunities, PSERS believes Apax is differentiated since opportunities in the large cap growth space are often characterized by higher valuations due to increased competition.
- PSERS believes the Fund will have significant competitive advantages in the mid-market segment, due to the breadth of resources that Apax can utilize, including deep tech sub-sector experience, the global network of the wider Apax platform, the size and experience of the dedicated Apax Digital team, and the value accretive expertise of the Apax Operational Excellence Practice ("OEP") resources. While competitor funds can offer comparable elements of some of these factors, the combination of all factors provides the Fund with a differentiated and attractive offering.

Portfolio Fit:

A commitment to the Fund will be allocated to the Buyout bucket of PSERS' Private Equity portfolio. The table that follows summarizes PSERS' projected Private Equity portfolio exposure, as of September 30, 2020, inclusive of a recommended \$175 million commitment to the Fund:



					Pending Current Commitments		
Investment Type	Market Value	Unfunded ¹	Total Exposure	%	March 2021	Total Exposure	%
Buyout	\$ 7,054	\$ 5,165	\$ 12,219	76.4%	\$ 175	\$ 12,394	76.6%
Growth Equity	628	1,097	1,725	10.8%	-	1,725	10.7%
Venture Capital	633	234	867	5.4%	-	867	5.4%
Internal Co-Invest	895	291	1,186	7.4%	-	1,186	7.3%
Total	\$ 9,210	\$ 6,787	\$ 15,997	100.0%	\$ 175	\$ 16,172	100.0%

¹ Includes commitments approved through January 2021

Dollar amounts are in millions.

Investment Strategy:

The Fund will seek to benefit from the deep sub-sector expertise of Apax and, more specifically, the Apax Digital team, the strength and scale of the Apax global platform, and the value creation potential of Apax's operational expertise. That combination offers a compelling proposition for a fund of ADF II's size in the mid-market technology investment segment.

The Fund intends to target investments globally on a flexible basis. ADF II intends to target minority growth equity and growth buyout investments within specific sub-sectors (as further described below) and will not target venture capital investments.

The Fund intends to focus its investment strategy on deals in technology sub-sectors in which the Firm and the Apax Digital team have significant expertise and proven success: Tech-enabled Services, Software, Data & Analytics, Digital Marketplaces, Digital Media, and Disruptive Ecommerce. It is these targeted sub-sectors that continue to represent large, fast-growing pockets within the technology market, benefiting from strong secular tailwinds as the digital economy continues to expand. This sub-sector strategy is consistent with that of Apax Digital Fund I, which has completed ten investments as of September 30, 2020, with representation in each of the target sub-sectors.

A summary of each sub-sector is as follows:

Tech-enabled Services – The adoption of technology and digital solutions is increasingly transforming industries, allowing next-generation tech-enabled services companies and legacy incumbents that are embracing technology solutions to deliver superior offerings, drive market share gains, and increase margins. As a result, former traditional "brick and mortar" services (e.g. financial services, marketing services, education, information services) are shifting online, and services businesses enabling digital transformation are further engraining themselves in all end markets to help close technology gaps in previously antiquated industries. IT services spending is expected to reach \$1 trillion by the end of 2021 and is then expected to grow at 7% annually through 2024 (Gartner Forecast Analysis IT Spending Worldwide, Q3 2020).

<u>Software</u> – Software-as-a-service ("SaaS") solutions address the functional needs of a specific industry. SaaS solutions are increasingly penetrating small and medium sized businesses and providing better user experiences for less implementation cost and necessary maintenance, particularly as cloud-based deployments reduce the need for centralized IT infrastructure. Total expenditures on software solutions were expected to reach \$459 billion in 2020, and are then expected to reach \$696 billion by 2024, representing an 11% annual growth rate (Gartner Forecast Analysis IT Spending Worldwide, Q3 2020).



COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Data & Analytics – More than 59 zettabytes of data were expected to be created by the end of 2020, driven by the rise of connected devices and sensors for measuring more data activity. Based on current projections, the amount of data created over the next three years will exceed the amount of data created over the last 30 years (IDC, "Worldwide Global DataSphere Forecast, 2020–2024: The COVID-19 Data Bump and the Future of Data Growth", April 2020). This expanding world requires new toolsets to structure, analyze, and visualize data in real-time, creating actionable insights and powering predictive capabilities based on historical experience.

Digital Marketplaces – Leading digital marketplace businesses are able to drive increasing efficiency between fragmented bases of demand and supply across multiple categories and geographies. In particular, product and services marketplaces in specific verticals (e.g. automotive, real estate, medical services) enable market leaders to enjoy strong network effects, which facilitates highly recurring revenue and barriers to entry. These businesses tend to be local leaders in a specific market but may also have the potential to scale internationally. Globally, \$2 trillion was spent on digital marketplaces in 2019, a number that is expected to grow as consumer buying patterns move increasingly online, especially in underpenetrated categories today (McKinsey and Company, "Moving past friend or foe: How to win with digital marketplaces", June 2020).

Digital Media and Disruptive Ecommerce – Changes in consumer behavior and advances in technology are accelerating content migration from offline to online, with corresponding changes in business models moving away from a reliance on advertising revenue in favor of subscription or transactional revenue. Globally, the entertainment and media market was expected to surpass \$2 trillion in revenue in 2020, with digital transformation driving much of the growth in the future, with expected annual growth of 6% by 2024 (PwC "Pulling the future forward: The entertainment and media industry reconfigures amid recovery 2020"). Next-generation eCommerce companies with innovative business models are showing increasing traction, with eCommerce penetration of total retail sales in the US reaching 14% in 2020 and with expected penetration of 19% by 2024. Total eCommerce sales in the US are expected to eclipse \$1.2 trillion by 2024, representing an 11% annual growth rate over 2020 levels (Insider Intelligence eMarketer, "US Ecommerce Growth Jumps to More than 30%, Accelerating Online Shopping Shift by Nearly 2 Years", October 2020).

PSERS firmly believes that Apax's strategy of seeking multiple investments in targeted sub-sectors helps the Fund to build deep, specialized expertise, to identify attractive market niches and target companies ahead of competitors, and to apply tested operational improvement and value creation initiatives in portfolio companies, which, in turn, unlocks further insight and differentiated deal flow.

Investment Team:

The Apax Digital team raised their first fund in 2017, of which PSERS is an investor. Their team is now comprised of 19 investment professionals, across two offices, New York City and London. The table below lists the Investment Committee for the Fund:

Name	Title	
Andrew Sillitoe	Co-CEO Apax Partners, Equity Partner, (Technology and Telecommunications sector)	
Marcelo Gigliani	Equity Partner, Apax Digital	
Daniel O'Keefe	Equity Partner, Apax Digital	
Salim Nathoo	Equity Partner, (Technology and Telecommunications sector)	
Jason Wright	Equity Partner, (Technology and Telecommunications sector)	



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The Apax Digital Investment Committee is comprised of the Firm's most experienced technology and digital investment professionals. Mitch Truwit serves as Chairman of the Apax Digital strategy. Mitch is also Co-CEO of Apax with 15 years of investment experience at Apax and another 13 years of operational experience in the digital sector, including as President and CEO of Orbitz Worldwide and Chief Operating Officer of Priceline.com.

The Apax Digital Investment Committee also includes Andrew Sillitoe, Apax Co-CEO and former head of the Firm's Technology and Telecommunications sector team; Salim Nathoo, the co-leader in the Firm's Technology and Telecommunications sector team in London; and Jason Wright, the co-leader in the Firm's Technology and Telecommunications sector team in New York. Andrew, Salim and Jason each have over 20 years of investment experience at Apax Partners.

The Investment team is led by two Managing Partners, Dan O'Keefe and Marcelo Gigliani, each of whom is an Equity Partner, and each has over 20 years of investment experience in technology and digital growth equity or buyout transactions. Dan and Marcelo share a single Investment Committee seat and only one of Dan or Marcelo will participate in any Investment Committee meeting (with Dan participating in the Investment Committee meeting to consider deals presented by Marcelo and vice-versa).

Including Dan and Marcelo, the broader Apax Digital team comprises a diverse group of dedicated technology investment professionals, who bring extensive prior experience from leading growth technology firms. Since the commencement of Apax Digital Fund I, the Digital team has increased both in terms of size and seniority, with the addition of a third Partner and several Principals amongst its additional hires and promotions.

Combined with this dedicated team, the Fund intends to capitalize on the synergies and benefits from the broader Apax organization, including the Firm's global footprint of seven offices worldwide, and large investment team of over 130 investment professionals globally, 20 of whom are focused on technology investing for the Apax buyout funds (i.e. "flagship strategies"), and the value creation expertise of the 21 professionals within its Operational Excellence Practice ("OEP") group.

Investment Highlights:

- Growing Dynamics of the Technology Market
- Access to the Mid-Market Space
- Depth and Experience of the Digital Team
- Access to Apax's Broader Platform
- Operating Value Add Component

Investment / Risk Considerations:

- Overall Valuations in the Technology Sector
- Smaller Companies Exhibit More Volatility Risks
- COVID-19



PSERS History & Performance:

This will be PSERS' fourth investment with Apax, and the second commitment to the Digital strategy. PSERS also committed \$31 million across two co-investments sponsored by Apax Digital Fund I. The table below summarizes PSERS' performance with Apax Digital as of September 30, 2020 (in millions):

Fund	Vintage Year	Original Commitment	Contributions	Distributions	NAV	Net IRR	Net MoC
Apax Digital Fund I	2017	\$ 100	\$ 43	-	\$ 67	45.5%	1.5x
Co-Investments		31	29	-	67	60.1%	2.3x
Apax Digital Total		\$ 131	\$ 72	-	\$ 134	53.7%	1.8x

Investment Committee Disclosure:

Relationship with Hamilton Lane:	Hamilton Lane will not be committing any discretionary capital to the Fund, nor do they have any advisory clients that will be committing capit to the Fund.		
Introduction Source:	Existing Relationship.		
Placement Agent:	 In accordance with Board policy, no placement agents were used, and no payments from or on behalf of PSERS to Placement Agents shall be made in connection with securing PSERS' investment in the Fund. Any placement fees charged to the Fund in connection with securing commitments from other investors (excluding PSERS) will result in a corresponding reduction to PSERS' management fees. As confirmed by PSERS' Office of Chief Counsel on July 20, 2020, this investment complies with the Public School Employees' Retirement Board Placement Agent Policy. 		
PA Political Contributions:	None Disclosed.		
PA Presence:	None.		
Potential Conflicts:	We are not aware of Apax having any material conflicts.		
Litigation Disclosure:	Apax receives communications from regulators and is involved in litigation from time to time in the ordinary course of business. PSERS is not currently aware of any litigation which has or may have a material effect on the Fund.		
First Time Fund With PSERS:	No		
PSERS Allocation Implementation Committee Approval:	February 2, 2021		



January 19, 2021

Board of Trustees Commonwealth of Pennsylvania Public School Employees' Retirement System 5 North 5th Street Harrisburg, PA 17101

Re: Apax Digital II L.P.

Dear Trustees:

Apax Partners, LLC ("Apax," "General Partner") was founded in 1969 and has developed a reputable brand across its targeted sectors, with investments made through the firm's various buyout and growth equity products. Since establishing the standalone digital product line in 2016, the General Partner has thoughtfully built out its dedicated digital investment team with internal transfers and external hires of professionals with significant technology investing experience. These dedicated professionals specialize by geography, enabling professionals to develop deep regional networks and expertise within their areas of focus. The dedicated digital investment team leverages the broader Apax platform, which includes significant investment resources and 18 Operational Excellence Practice professionals who contribute to sourcing and value-add capabilities. Resource sharing, retention across the firm and collaboration are incentivized through a broad and shared distribution of carried interest. The managing partners and senior investment professionals are committing a large portion of personal wealth to the fund, creating strong alignment with limited partners. Apax is targeting \$1.5 billion in commitments from limited partners for its fund, Apax Digital II L.P. (the "Fund"). Apax plans to hold a first close in May or June 2021.

The Fund will invest primarily in enterprise technology and consumer internet companies in North America and Europe. Due to the General Partner's longstanding organization, the Fund will benefit from its significant expertise and strong networks within these functional areas and geographies. The Fund is also expected to benefit from the dedicated investment team's sourcing initiatives and its proprietary metrics-driven sourcing engine, Apax Artemis. In addition to the Fund's dedicated sourcing initiatives, deal flow is expected to be shared from the broader platform, often stemming from digital opportunities too small for Apax's flagship strategy. The Fund employs a flexible investment approach that allows it to pursue various ownership stakes through control buyout transactions and minority growth positions, enabling opportunistic investing. The Fund will target 15 to 20 investments and investment sizes will range from \$50 million to \$150 million. The General Partner has generated top-quartile performance on a net IRR and TVPI basis in its prior dedicated digital fund, Apax Digital, L.P.

Apax Digital II L.P.'s investment thesis can be summarized as follows:

- Experienced, dedicated digital investment team supported by the global Apax platform
- Flexible target with an active, hands-on value creation approach
- Attractive, top-quartile performance with near-term upside expected

Hamilton Lane's recommendation is based upon the following analytical factors and is made within the context of the Commonwealth of Pennsylvania, Public School Employees' Retirement System's ("PSERS") investment guidelines.

• Detailed due diligence, including interviews with industry peers and private equity professionals. The virtual on-site due diligence was conducted on January 6, 2021; the fund was approved by Hamilton



Lane's Investment Committee on January 19, 2021; and the recommendation to PSERS was issued on January 19, 2021.

- Evaluation of the composition of the investment team, how they work together, compensation structure and other factors that help determine whether a group is likely to be able to replicate past successes as currently configured
- Detailed operational due diligence, including interviews with Apax Digital Partners' back office team to review the controls and processes surrounding the firm's finance, fund administration, tax, legal, compliance, IT, HR, and accounting functions
- Evaluation of the Fund's proposed investment strategy within the context of the current investment environment
- The strategy proposed for the Fund is appropriate for the private equity partnership component of the portfolio.

The individuals at Hamilton Lane who were involved in the due diligence process for the Fund are:

Ilene Levinson – Principal, Bala Cynwyd Office Greg DiSanto –Associate, Bala Cynwyd Office Matt Paciulli – Analyst, Bala Cynwyd Office

Based on the above, Hamilton Lane recommends that PSERS commits an amount of up to a combined \$175 million in Apax Digital II L.P. Hamilton Lane makes this recommendation considering the General Partner's qualifications and PSERS' overall investment guidelines.

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Fund since their needs, objectives, and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Fund. Hamilton Lane does not provide legal or other non-investment-related advice.

Sincerely,

Michael Koenig, Chief Client Officer

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Corina English, Principal