

Experiments in scaling microfinance

RTS Uganda Pilot Results

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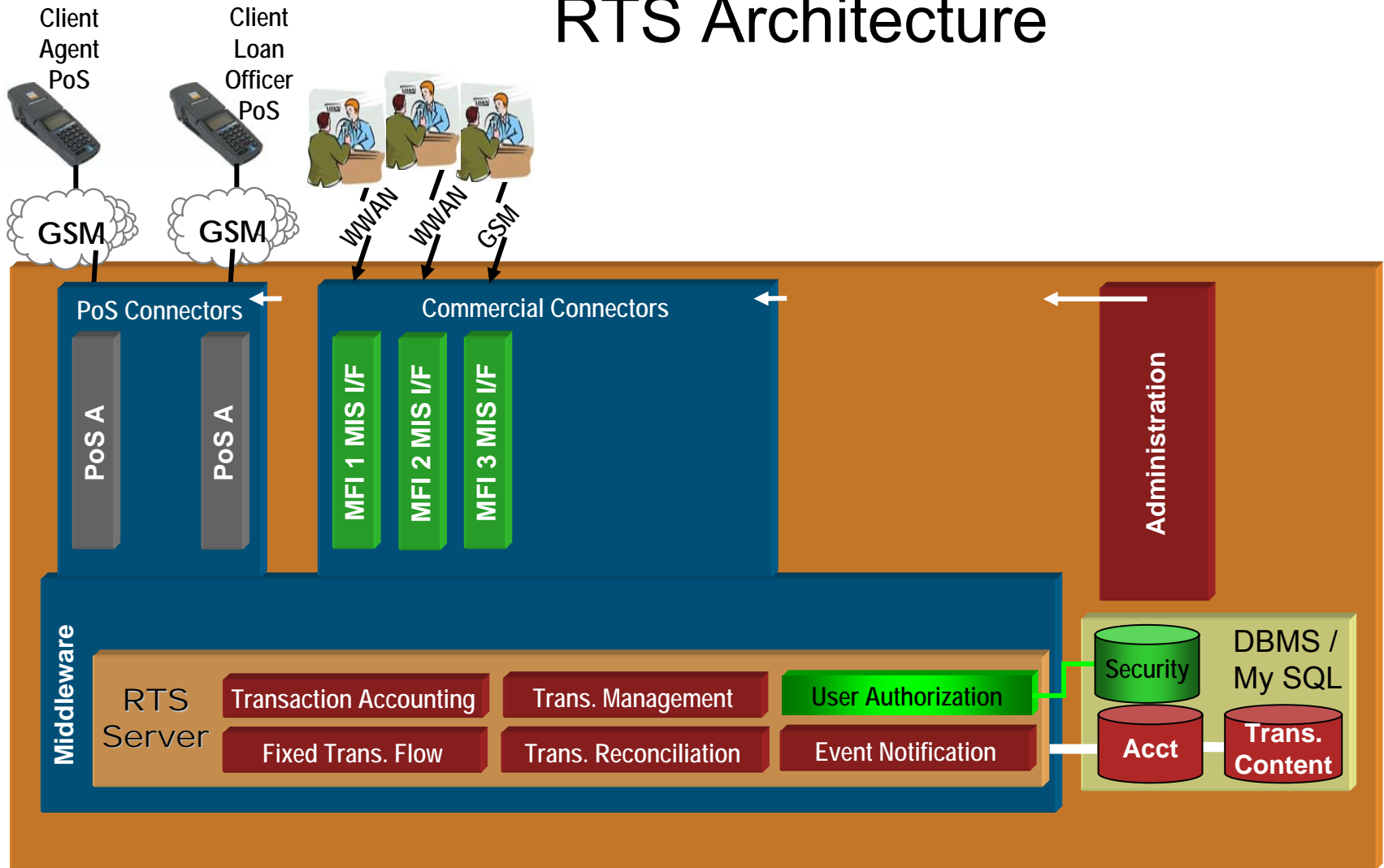


Microfinance Initiative



To champion a breakthrough in the effectiveness, relevance and scale of microfinance

RTS Architecture



Payment Services Landscape

Debit and Credit Cards	Electronic money Tied directly to bank accounts Works at any ATM/POS device Universally accepted	Trak Card Systems, Kenya VISA, USA
Pre-paid Cards	Money transfer, pensions, salaries Utilities, airtime, gasoline, school fees Fill up at bank branch or head office Replaces cash	FERLO, Senegal Skylight Financials, USA NET1 UEPS, South Africa
Online and Mobile Payments	Internet banking Mobile phone payment systems Competitive to MasterCard and VISA	Fundamo, South Africa Paynet, Kenya SMART Communications, Philippines Vodafone, Kenya
Banking Information Management	Provides accounting and general ledger Manages account transactions Clients inc Uganda Finance Trust, CRDB	Temenos (eMerge), Switzerland Neptune Software (Equinox), UK Microbanx, Equador Venture InfoTek, India
Financial Switching	Enables transaction flow between institutions Requires sophisticated back-end systems Relatively high-cost solutions Manage ATM and POS networks	OASIS Technology, Canada OPUS, India Bankom, Uganda Mosaic Software, USA

RTS Differentiators

- Bridges the gap between evolving payment services and core microfinance business requirements
 - Built to handle existing microfinance services
 - Loan payments, savings deposits, withdrawals, fund transfers
 - Functions within groups as well as through individual agents
 - Does not require a cash-less or e-banking system
- Optimized for low-cost, scalability, and rural settings
 - Online and offline modes available
 - Simple connectors allow MIS vendors to build links to RTS
 - Easy-to-manage interfaces that require minimal technical support
 - Open source for rapid dissemination and MFI collaboration, established Sevak Solutions, a 501(c)(3) as licensing entity

RTS Uganda Pilot

Group Model: empower loan officers, capture individual data

Individual Model: empower clients and build third-party agent network



Sub-branch Model: enable low-cost rural sub-branch



RTS Uganda Pilot Results

- Unique public-private partnership model, including strong partnerships with universities
- All partners received at least a 2x leverage of investments
- Built, tested and piloted a new solution for financial services in three different institutions
- Positive results for 2 of the 3 business models tested. These institutions continuing to integrate RTS in their businesses
- Three papers due Summer 2005: Case study, detailed financial analysis, lessons related to scale in microfinance
- Sevak Solutions, a new 501(c)3, will provide industry with RTS executable and source through Open Source licenses

Group Model Results

Required business re-engineering for value



- Rolled out Sept 2004
- 7 groups, approximately 250 clients and an average 100 trans/week
- In Feb 2005, this institution invested in business re-engineering.
- Considering rolling out solution to 170 groups.

Group Model Financial Results

	Group Lending	Current	Expected	Savings
26 Clients in group, w/ 16 meetings per 4 month loan cycle	Time in group meetings - w/ individual loan tracking - value of time saved Commingled client funds	1245 Hrs 2 % of Loan	830 Hrs 0 % of Loan	415 Hrs \$860 \$40 <hr/> \$900
Agent Field Officer, 16 times per loan cycle	Data capture method Agent time in group meeting Additional costs	Paper 48 hours - None -	Electronic 32 hours RTS Airtime	++ Accuracy \$20 ((\$15)) <hr/> \$5
MFI 1 group	Visibility of client arrearage Group delinquencies Transaction data flow Data entry team RTS capital costs (3yr) RTS recurring costs TOTAL SAVINGS TO MFI	- None - Surprise Monthly \$11 (Clerks) - None - - None -	Individual data Visible Daily - None - \$15 \$5	++ Transparent + Faster Fixes Up to 30x better \$11 ((\$15)) ((\$5)) <hr/> ((\$9)) <hr/> ((\$4))

Group Model Financial Results

	Group Lending	Current	Expected	Savings
26 Clients in 621 groups, w/ 16 meetings per 4 month loan cycle	Time in group meetings - w/ individual loan tracking - value of time saved Commingled client funds	776,000 Hrs 2 % of Loan	517,000 Hrs 0 % of Loan	259,000 Hrs \$532,000 \$23,000 <hr/> \$555,000
Agents Field Officers, average 23 groups	Data capture method Agent time in group meeting Additional costs	Paper 29,808 hours - None -	Electronic 19,872 hours RTS Airtime	\$12,600 (9,100) <hr/> \$3,500
MFI 621 groups, w/ 16 meetings per 4 month loan cycle	Visibility of client arrearage Group delinquencies Transaction data flow Data entry team RTS capital costs (3yr) RTS recurring costs TOTAL SAVINGS TO MFI	- None - Surprise Monthly \$6,600 (Clerks) - None - - None -	Individual data Visible Daily - None - \$15 \$5	++ Transparent + Faster Fixes Up to 30x better \$6,600 (9,500) (3,400) <hr/> (6,300) <hr/> (2,800)

Sub-branch Model Results

Alternate solution more viable



- Rolled out Oct 2004
- One sub-branch, 47 groups, 1,650 clients and average 50 trans/week
- Requires scale, more expansive use of solution to obtain value

Sub-branch Model Financial Results

	Sub-branch	Current	Expected	Savings
Group Assumes 22 clients per group. 16 trips per 4 month loan cycle. One hour to meeting. 2 hours in meetings.	Transport time to meetings	352 Hrs	No change	0
	Transport cost to meetings	207 \$US	No change	0
	Hours in meetings	704 Hrs	No change	0
	Group leader transport	32 Hrs	No change	0
	Group leader trans cost	28 \$US	No change	0
Teller 47 groups transact at sub-branch. Approx 50 transaction per banking day	Data entry per week	2 hours	0	2 hours
MFI	Sub-branch capital costs	25,000 \$US	26,600 \$US	(\$1,600)
	Sub-branch annual costs	4,305 \$US	5,450 \$US	(\$1,500)
	- Technical support	0	12,000 \$US	(\$12,000)
				<u>(\$15,100)</u>

Individual Model Results

Pursuing additional scale for individual model



- Rolled out Jan 2005
- 2 agents, 400 clients, average of 25 trans/week
- Building business processes, preparing more cards for market
- Seeking 1,000 – 1,500 clients in six months

Individual Model Financial Results

	Agent Payment	Current	Expected	Savings
Client Individual clients travel to branch or agents minimum of 17 times per loan	Unintended expenditures Transport time - value of time saved Cost to visit branch Transaction fee (100%)	20 % 47 Hrs \$86 \$99 0	15 % 9 Hrs \$17 \$21 \$20	\$154 38 hrs \$70 \$78 (\$20) <hr/> \$282
Agent Revenue per client per loan cycle	Transaction fee (60%) Agent staff time RTS airtime and supplies	0 0 0	\$12 (\$2) (\$2)	\$12 (\$2) (\$2) <hr/> \$8
MFI Expand without adding branches or save on existing branches per loan cycle	Branch processing Transaction fee (40%) RTS capital costs (3yr) RTS recurring costs	\$5 0 0 0	0 \$8 \$4 \$0.24	\$5 \$8 (\$4) (\$0.24) <hr/> \$8.76

Individual Model Financial Results

	Agent Payment	Current	Expected	Savings
Client 10,000 Individual clients travel to branch or agents minimum of 17 times per loan cycle	Unintended expenditures Transport time - value of time saved Cost to visit branch Transaction fee (100%)	20 % 473,000 Hrs \$869,000 \$990,000 0	15 % 87,500 Hrs \$161,000 \$206,000 \$212,000	\$1,544,000 385,000 Hrs \$708,000 \$784,000 (\$212,000) <hr/> \$2,824,000
Agent Revenue/costs per 10,000 clients per loan cycle	Transaction fee (60%) Agent staff time RTS airtime and supplies	0 0 0	\$127,000 \$23,000 \$22,000	\$127,000 (\$23,000) (\$22,000) <hr/> \$82,000
MFI Expand without adding branches or save on existing branches per loan cycle	Branch processing Transaction fee (40%) RTS capital costs (3yr) RTS recurring costs	\$46,000 0 0 0	0 \$85,000 \$35,000 \$2,350	\$46,000 \$85,000 (\$35,000) (\$2,350) <hr/> \$92,820

Bushnet

Local ASP providing technical support



- Committed to building a business around the RTS for the region
- Seeking opportunities across a series of verticals, particularly health care and HIV/AIDS

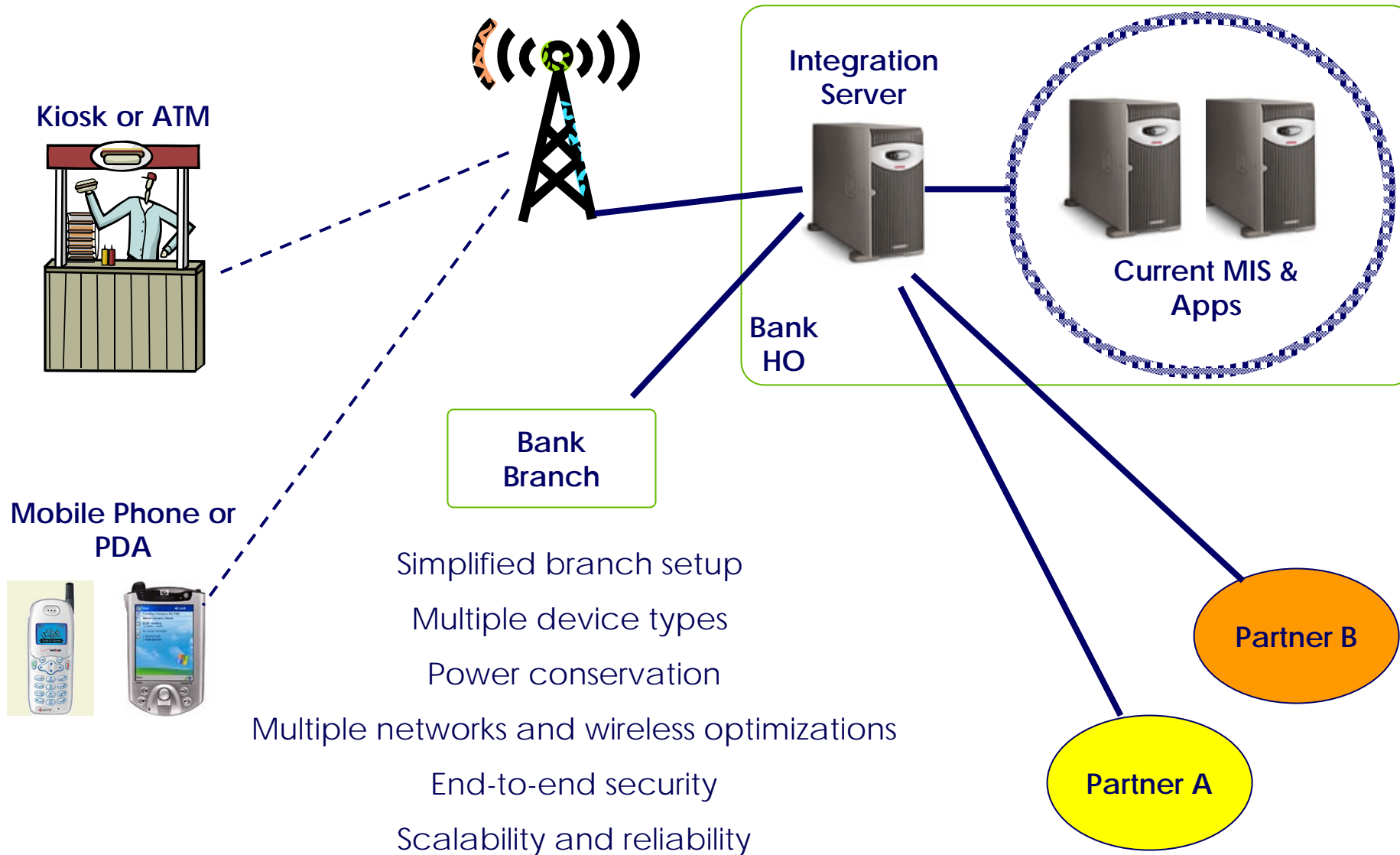
Major Lessons – Technology

- Specification/development teams need to be local
- Entrepreneurial leadership is required
- Local teams need to function as content and technology consultants from the start of the project
- Successful tech integration requires management commitment and process re-engineering
- Never underestimate the lack of technical sophistication in the market and the clients
- Emerging markets require emerging technology – that takes innovation and investment

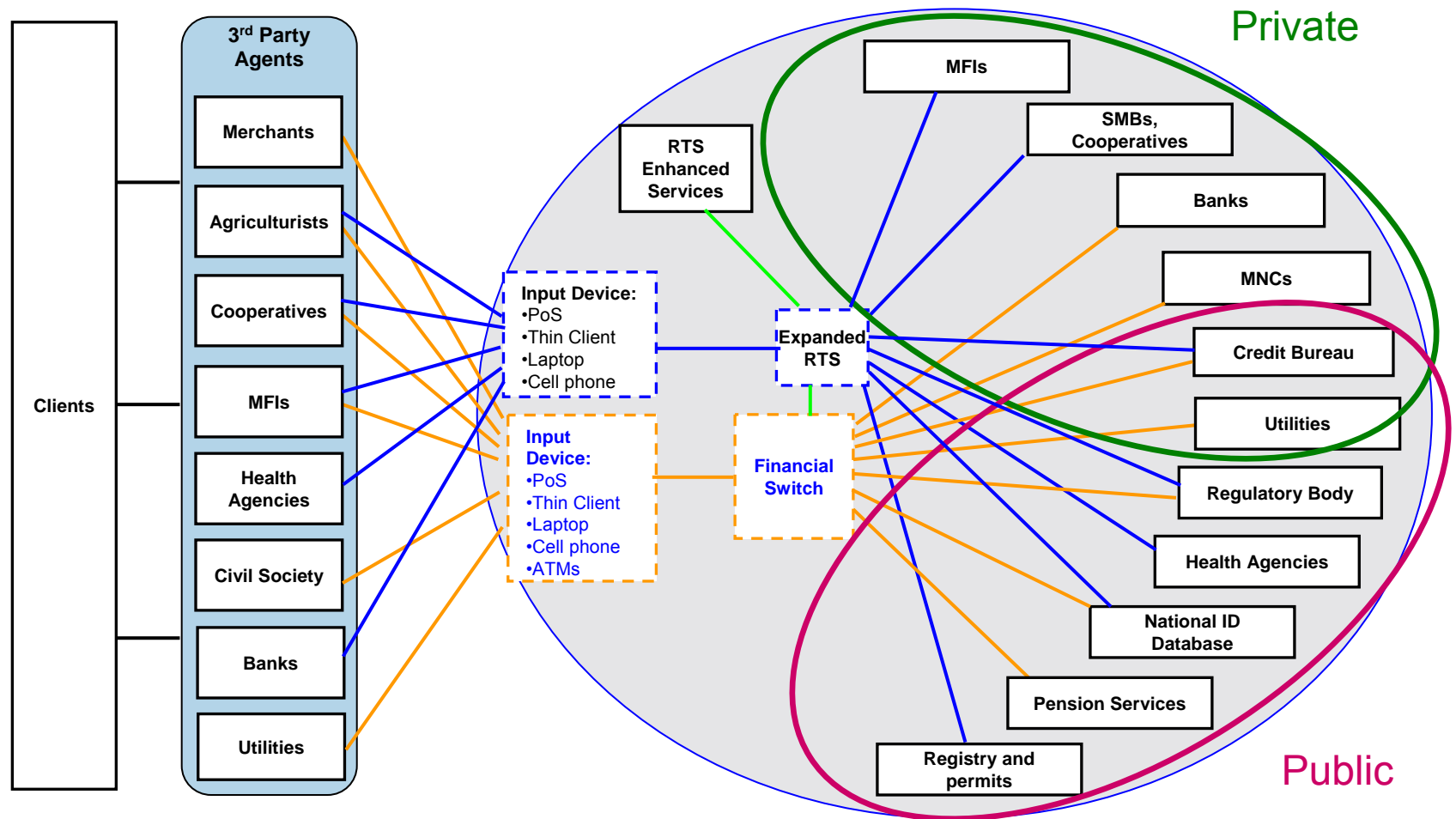
Major Lessons – Achieving Scale

- Business process re-engineering is more important than the technology innovation
- Management **MUST** take leadership role for success
- Silos don't scale, standardize down and across
- Standards and shared infrastructure are required for industry scale
- New start-ups will emerge, but they require financial support for early stage growth
- New relationships between R&D, business development, and donor funding can be a catalyst

Beyond Silos to Scale



Universal Infrastructure Diagram



A World of Access

