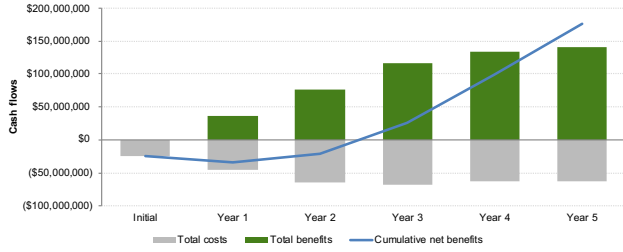


Financial Summary (risk-adjusted estimates)

ROI	Payback period (months)	Total benefits (PV)	Total costs (PV)	Net present value
44%	30.0	\$363,354,790	(\$252,669,700)	\$110,685,090

Financial Analysis (risk-adjusted)



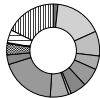
Cash Flow Analysis (risk-adjusted estimates)

	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
Total costs	(\$24,655,600)	(\$46,273,114)	(\$63,957,024)	(\$68,035,471)	(\$62,310,017)	(\$63,479,784)	(\$328,711,011)	(\$252,669,700)
Total benefits	\$0	\$36,800,115	\$76,353,041	\$115,926,699	\$134,387,168	\$141,584,385	\$505,051,409	\$363,354,790
Net benefits	(\$24,655,600)	(\$9,472,999)	\$12,396,017	\$47,891,228	\$72,077,150	\$78,104,601	\$176,340,398	\$110,685,090
ROI								44%
Payback period (months)								30.0

FORRESTER

Total Benefit

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include Technology savings: optimize data center resources with platform management, Technology savings: decommission data centers with cloud migration, Technology savings: optimize cloud resources with platform management, etc.



- Technology savings: optimize data center resources with platform management
Technology savings: decommission data centers with cloud migration
Technology savings: optimize cloud resources with platform management
Technology savings: optimize resources with app modernization
Technology savings: avoid overprovisioning with cloud scalability
Technology savings: reduce software licensing
Technology savings: avoid infrastructure lock-in

Technology savings: optimize data center resources with platform management

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include A1 Number of VMs, A2 Server rack density, A3 Power consumption in OpsCenter, etc.

Technology savings: decommission data centers with cloud migration

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include B1 Number of data centers, B2 Legacy server racks per data center, B3 Portion of workloads migrated to IBM Cloud IaaS, etc.

Technology savings: optimize cloud resources with platform management

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include C1 Cumulative decommissioned server racks, C2 VMs per server rack, C3 Apps per VM, etc.

Technology savings: optimize resources with app modernization

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include D1 Number of redundant cloud apps, D2 Estimated cloud cost per app, D3 Projected annual cloud cost with legacy platform, etc.

Technology savings: avoid overprovisioning with cloud scalability

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include E1 Projected annual cloud cost with legacy platform, E2 Portion avoided access cost for overprovisioning in legacy apps, E3 Technology savings: avoid overprovisioning with cloud scalability, etc.

Technology savings: reduce software licensing

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include F1 Baseline licensing cost per VM, F2 Number of VMs with licensed multivendor consumer platform, F3 Portion reduction in licensing, etc.

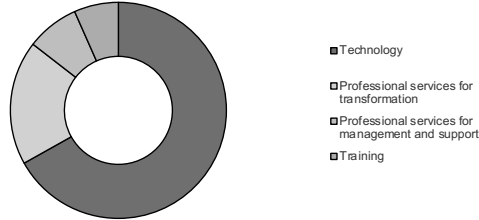
Technology savings: avoid infrastructure lock-in

Table with 11 columns: Ref, Metric, Calculation, Initial, Year 1, Year 2, Year 3, Year 4, Year 5, Total, Present Value. Rows include G1 Non-optimized annual cloud costs, G2 Non-optimized annual server costs, G3 Total server costs.

Total Cost

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
Otr	Technology	\$0	\$23,092,650	\$40,860,776	\$55,497,919	\$55,055,641	\$56,225,408	\$230,732,395	\$168,974,261
Ptr	Professional services for transformation	\$15,750,000	\$15,750,000	\$15,750,000	\$5,250,000	\$0	\$0	\$52,500,000	\$47,029,113
Qtr	Professional services for management and support	\$0	\$5,250,000	\$5,250,000	\$5,250,000	\$5,250,000	\$5,250,000	\$26,250,000	\$19,901,631
Rtr	Training	\$8,905,600	\$2,180,464	\$2,096,248	\$2,037,552	\$2,004,376	\$2,004,376	\$19,228,616	\$16,764,695
Total costs (risk-adjusted)		\$24,655,600	\$46,273,114	\$63,957,024	\$68,035,471	\$62,310,017	\$63,479,784	\$328,711,011	\$252,669,700

Costs by Category



Technology

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
O1	Application resource-equivalents (number of apps adjusted to reflect resource reduction from benefits)	$(XX10+XX14)*(1-C9-D3)+XX12*(1-C9)$		97	165	230	232	232		
O2	Cloud and platform cost per app	Sample logistics provider		\$195,000	\$199,485	\$204,073	\$208,767	\$213,569		
O3	Cloud hosting and platform subscription costs	$O1*O2$		\$18,993,000	\$32,915,025	\$46,855,161	\$48,433,944	\$49,548,008		
O4	Additional hardware and subscriptions for AI and IoT	Sample logistics provider		\$3,000,000	\$6,000,000	\$6,000,000	\$4,000,000	\$4,000,000		
Ot	Technology	$O3+O4$	\$0	\$21,993,000	\$38,915,025	\$52,855,161	\$52,433,944	\$53,548,008	\$219,745,138	\$160,927,868
Risk adjustment		±5%								
Otr	Technology (risk-adjusted)		\$0	\$23,092,650	\$40,860,776	\$55,497,919	\$55,055,641	\$56,225,408	\$230,732,395	\$168,974,261

Professional services for transformation

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
P1	Professional services, including IBM Services and Red Hat Container Adoption Program	Interview data	\$15,000,000	\$15,000,000	\$15,000,000	\$5,000,000				
Pt	Professional services for transformation	P1	\$15,000,000	\$15,000,000	\$15,000,000	\$5,000,000	\$0	\$0	\$50,000,000	\$44,789,632
Risk adjustment		±5%								
Ptr	Professional services for transformation (risk-adjusted)		\$15,750,000	\$15,750,000	\$15,750,000	\$5,250,000	\$0	\$0	\$52,500,000	\$47,029,113

Professional services for management and support

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
Q1	Professional services			\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000		
Q2	Note: no additional internal labor costs, as existing IT teams replace existing work with the new platform			\$0	\$0	\$0	\$0	\$0		
Qt	Professional services for management and support	$Q1+Q2$	\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$25,000,000	\$18,953,934
Risk adjustment		±5%								
Qtr	Professional services for management and support (risk-adjusted)		\$0	\$5,250,000	\$5,250,000	\$5,250,000	\$5,250,000	\$5,250,000	\$26,250,000	\$19,901,631

Training

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
R1	Hours of training per employee	Interview data	160	40	40	40	40	40		
R2	Number of IT/operations admins	$H1+H4+H7+H10-H14$	200	182	149	126	113	113		
R3	Fully burdened hourly salary	Sample logistics provider	\$58	\$58	\$58	\$58	\$58	\$58		
R4	IT training costs	$R1*R2*R3$	\$1,856,000	\$422,240	\$345,680	\$292,320	\$262,160	\$262,160		

CostDetails

R5	Number of developers	Sample logistics provider	600	600	600	600	600	600		
R6	Fully burdened hourly salary	Sample logistics provider	\$65	\$65	\$65	\$65	\$65	\$65		
R7	Developer training costs	R1*R5*R6	\$6,240,000	\$1,560,000	\$1,560,000	\$1,560,000	\$1,560,000	\$1,560,000		
Rt	Training	R4+R7	\$8,096,000	\$1,982,240	\$1,905,680	\$1,852,320	\$1,822,160	\$1,822,160	\$17,480,560	\$15,240,632
	Risk adjustment	↑10%								
Rtr	Training (risk-adjusted)		\$8,905,600	\$2,180,464	\$2,096,248	\$2,037,552	\$2,004,376	\$2,004,376	\$19,228,616	\$16,764,695