**Option 1:**

Personnel:

|  |  |  |
| --- | --- | --- |
| 2 | System Analysts (400 h/ea $35/h) | $28 000 |
| 3 | Programmer/Analysts (250 h/ea $25/h) | $18 750 |
| 1 | GUI designer (200 h/ea $35/h) | $7000 |
| 1 | Telecommunications Specialist (50 h/ea $45/h) | $2 250 |
| 1 | System Architect (50 h/ea $45/h) | $4 500 |
| 1 | Database Specialist (15 h/ea $45/h) | $600 |
| 1 | System Librarian (250 h/ea $35/h) | $2500 |

Expenses:

|  |  |  |
| --- | --- | --- |
| 2 | Smalltalk training registration ($3500/student) | $7 000 |

New hardware and software:

|  |  |  |
| --- | --- | --- |
| 1 | Dev Server (Pentium Pro class) | $18,700 |
| 1 | Server Software (Operating system, misc.) | $1 500 |
| 1 | DBMS server software | $7 500 |
| 7 | DBMS Client software ($950 per client) | $6 650 |

Total development Costs: $104950

PROJECTED ANNUAL OPERATING COST:

Personnel:

|  |  |  |
| --- | --- | --- |
| 2 | Programmer/Analysts (125 h/ea $25/h) | $6 250 |
| 1 | System Librarian (20 h/ea $10/h) | $200 |

Expense

|  |  |  |
| --- | --- | --- |
| 1 | Maintenance Agreement for Pentium Pro Server | $995 |
| 1 | Maintenance Agreement for Server DBMS software | $525 |
|  | Preprinted forms (15 000/y @.22/form | $3 300 |

Total projected annual operating cost: **$11 270**

Payback Analysis for Cline-Server System Alternative

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Cash flow description | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| Dev cost: | $104 950 |  |  |  |  |  |  |
| Operation & maintenance cost: |  | $11 270 | $12 000 | $13 000 | $14 000 | $15 000 | $16 000 |
| Discount factors for 12% | 1.0 | 0.893 | 0.797 | 0.712 | 0.636 | 0.567 | 0.507 |
| Time-adjusted benefits (current of present) | $104 950 | $10 064 | $ 9 564 | $9 256 | $8 904 | $8 505 | $9 120 |
| Cumulative time adjusted costs over | $104 950 | $115 014 | $124 578 | $133 834 | $142 738 | $151 234 | $160 345 |

Something

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Benefits derived from operation of new | $0 | $30 000 | $40 000 | $50 000 | $60 000 | $70 000 | $80 000 |
| Discount factors for 12% | 1.0 | 0.893 | 0.797 | 0.712 | 0.636 | 0.567 | 0.507 |
| Time-adjusted benefits (current of present) | $0 | $26 790 | $31 880 | 35 600 | 38 160 | 39 690 | 40 560 |
| Cumulative time-adjusted benefits over | $0 | $26 790 | $58 670 | 94 279 | 13 2439 | 172 129 | 212 689 |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Cumulative lifetime time-adjusted costs+ | ($104 950) | ($78 160) | ($56 344) | ($30 299) | ($1395) | $29 391 | $52 344 |

**Roi: 24%**

**Option 2:**

Personnel:

|  |  |  |
| --- | --- | --- |
| 1 | System Analysts (400 h/ea $35/h) | $14 000 |
| 2 | Programmer/Analysts (250 h/ea $25/h) | $12 500 |
| 1 | GUI designer (200 h/ea $35/h) | $7000 |
| 1 | Telecommunications Specialist (50 h/ea $45/h) | $2 250 |
| 1 | System Architect (50 h/ea $45/h) | $4 500 |
| 1 | Database Specialist (15 h/ea $45/h) | $600 |
| 1 | System Librarian (250 h/ea $35/h) | $2500 |

Expenses:

|  |  |  |
| --- | --- | --- |
| 2 | Smalltalk training registration ($3500/student) | $7 000 |

Rent new hardware and software:

|  |  |  |
| --- | --- | --- |
| 1 | Dev Server (Pentium Pro class) | $1 500 |
| 1 | Server Software (Operating system, misc.) | $500 |
| 1 | DBMS server software | $500 |

Total development Costs: $52 850

PROJECTED ANNUAL OPERATING COST:

Personnel:

|  |  |  |
| --- | --- | --- |
| 1 | Programmer/Analysts (125 h/ea $25/h) | $3 125 |
| 1 | System Librarian (20 h/ea $10/h) | $200 |

Expense

|  |  |  |
| --- | --- | --- |
|  | Rent server | $1 500/ y |
|  | Preprinted forms (15 000/y @.22/form | $3 300 |

Total projected annual operating cost: $8 125

Payback Analysis for Cline-Server System Alternative

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Cash flow description | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| Dev cost: | $52 850 |  |  |  |  |  |  |
| Operation & maintenance cost: |  | $8 125 | $9 000 | $10 000 | $11 000 | $12 000 | $13 000 |
| Discount factors for 12% | 1.0 | 0.893 | 0.797 | 0.712 | 0.636 | 0.567 | 0.507 |
| Time-adjusted benefits (current of present) | $52 850 | $10 064 | $7 173 | $7 120 | $6 996 | $6 804 | $6 591 |
| Cumulative time adjusted costs over | $52 850 | $60 106 | $67 879 | $74 999 | $81 995 | $88 799 | $95 390 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Benefits derived from operation of new | $0 | $30 000 | $40 000 | $50 000 | $60 000 | $70 000 | $80 000 |
| Discount factors for 12% | 1.0 | 0.893 | 0.797 | 0.712 | 0.636 | 0.567 | 0.507 |
| Time-adjusted benefits (current of present) | $0 | $26 790 | $31 880 | 35 600 | 38 160 | 39 690 | 40 560 |
|  | $0 | $26 790 | $58 670 | 94 270 | $132 430 | 172 120 | 212680 |
| Cumulative time-adjusted  benefits over | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Cumulative lifetime time-adjusted costs+ | -$52 850 | -$33 370 | -$9209 | $19 271 | $50 434 | $83 321 | $117 290 |

**ROI: 55%**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Feasibility Criteria | Wt. | Candidate 1 | Candidate 2 | Candidate 3 |
| Operational Feasibility  **Functionality.** Describes to what degree the alternative would benefit the organization and how well the system would work.  **Political**. A description of how well received this solution would be from both user management, user, and organization perspective. |  | Only support Member Services requirement and current business processes would have to be modified to take advantage of software functionality | Fully supports user required functionality. | Same as candidate 2. |
| Technical Feasibility  Technology. An assessment of the maturity, availability (or ability to acquire), and desirability of the computer technology needed to support this candidate.  Expertise. An assessment to the technical expertise needed to develop, operate, and maintain the candidate system. |  | Current production release of Platinum Plus package is version 1.0 and has only been on the market for 6 weeks. Maturity of product is a risk and company charges an additional monthly fee for technical support.  Required to hire or train C++ expertise to perform modifications for integrations requirements. | Although current technical staff has only Powerbuilder  experience, the senior analysts who saw the MS Visual Basic demonstration and presentation, has agreed the transition will be simple and finding experienced VB programmers will be easier than finding Powerbuilder programmers and at a much cheaper cost.  MS Visual Basic 5.0 is a mature technology based on version number.  Score: 95 | Although current technical staff is comfortable with Powerbuilder, management is concerned with recent acquisition of Powerbuilder by Sybase Inc. MS SQL Server is a current company standard and competes with SYBASE in the Client/Server DBMS market. Because of this we have no guarantee future versions of Powerbuilder will "play well" with our current version SQL Server. |