



Net Present Cloud – User Guide Version 1.0

Principles of Output:

Net Present Cloud is designed to estimate the cost of maintaining an in-house computer facility and compare those costs to the cost of a cloud migration and monthly subscription. The current operating costs become the source of cash flow. The amortization of the investment, plus the cost of the ongoing subscription become the operating cost.

Using the “Decision Criteria” fields it becomes easy to see if the move is worthwhile and how long it will take to turn positive results.

Each of the following field definitions affords more detail about how the data is incorporated in the algorithms to present the results.

Currently, the application relies empirical knowledge for risk assessment. It is our goal to provide local and national statistics of incident rates to

Field Definitions:

Business Profile

1. **Annual Revenue:** Total revenue supported by the infrastructure being evaluated. If the business entity being evaluated is independent of a parent business with its own locations and facilities it may be evaluated separately. In this case the Annual Revenue would be the gross contribution of the division/department. Otherwise, use the total revenue for the company.
2. **Annual Biz Hours:** The scratch sheet provides a mechanism to tabulate the total number of business hours in which the total revenue is generated. Enter the various daily business hours and the number of days that those hours are maintained. Enter the number of weeks you do business annually. The default is 52. Upon pressing “Close” or “Update” the hours will appear on the main screen.
3. **Business Type:** The scratch sheet provides a few sample types with a percent field and a field for the number of slack days. The top of the screen explains the term “Slack Time.” The actual descriptions are minimally important. What is important is to apply a slack time for the different activities performed by the business. For example, a business may consist of a graphic art studio (70% of the income generation) and a web based retail store (30% of the income generation). While the studio may be minimally impacted by an outage of several days, the retail store would probably take an immediate hit. Therefore, the slack time for 70% of the business would be



longer than the slack time of the web business, say 7 & 0 days respectively. The slack time will be considered in the estimated loss of income when calculating the “Risk Reduction Value.”

4. **Locations:** This field is used to determine if the cost of an “in-house” offsite backup solution. Entering more than one location will immediately cut the calculated risk reduction value in half. However, if there are more than one computer facilities and they are both running at near capacity the use of one as a disaster recovery site is not really valid. “Net Present Cloud” does not account for this. It does, however, display the cost of idle resources that would be needed for an emergency, which become part of the cash flow calculations.
5. **Avg Wkly Transactions:** This field is primarily informative and is used to calculate the “Estimated 5 Wk Loss” field, which is not included in the “Risk Reduction Value.” This is an alternate method of estimating the impact of an outage. “Avg Wkly transactions” are calculated by profiling the business’ normal transaction sizes and interpolating their percentage into the annual revenue. The “Transact Loss @ 5 Wks” is then calculated using a diminishing returns formula, which generally estimates that more than 80% of lost transactions are unrecoverable after 5 weeks.
6. **Employee Payroll:** The scratch sheet provides way of roughly tabulating the different salaries to come up with an estimated payroll. Subsequent calculations are not impacted if a single entry is made putting the total payroll in the first field and using the quantity one (1). In the event of an outage, payroll cost is added to the cost of lost revenue to determine the “Risk Reduction Value.” Lost revenue is calculated based on average income per hour.
7. **Server Floor Space:** This field should be populated with the number of square units floor space dedicated to computer facilities, not including office equipment such as printers and copiers that would remain if a cloud solution were adopted.
8. **Server Quantity:** Server quantity and the next field “Total Watts” are updated using the same scratch sheet. The quantity is a foundation for calculating power costs based on the different server sizes. If more accurate data is available, it should be used.
9. **Server Total Watts:** This and the prior field “Server Quantity” are updated using the same scratch sheet. The quantity is a foundation for calculating power costs based on the different server sizes. If more accurate data is available, it should be used.



Risk Elements

Note: The default values for the risk element fields are used to help quantify the risk of occurrence of any particular incident. They are based on empirical data that could be different from those calculated for businesses in a different environment. The formula only accounts for the likelihood of an incident and calculates the impact separately. This is in contrast to including the number of days in the likelihood calculation. The general formula used is the following: $1 / \text{estimated number of days between incidents} \times 100$.

Example: $1 / (365 \times \text{years}) \times 100 = .027\%$ for a once in 10 year risk.

Note: rounding adjustments on the display will sometimes make the length of time between incidents longer.

1. **Fire/Sprinklers:** Estimated likelihood is once in 10 years
2. *****Power Out 5 days:** Default is incorrectly set to 0.7%. The correct value should be .07%, which would be approximately once in 4 years.
3. **IT System Fail:** Estimated likelihood once in 3 years.
4. **Human Error:** Estimated likelihood once in 1 year.
5. **Vehicle Accident:** Estimated likelihood once in 20 years.
6. **Employee Exit:** Estimated likelihood once in 2 years.
7. **Environmental:** Estimated likelihood once in 20 years.
8. **Crime Scene:** Estimated likelihood once in 20 years.
9. **Outage Durations:** Are adjustable, but will only apply to the immediate session. Changes are not made to the default. Durations represent the expected number of days of downtime associated with the different each of the different incident types.

Cost Basis

1. **Floor Space sq units:** Enter the cost per unit of the same square unit of floor space used in the Business Profile column. For example, if you used square feet in the profile, use cost per square foot in the "Cost Basis."
2. **Power Kilowatt Hour:** Enter the cost of power in kilowatt-hours.



3. **Server Maint Monthly:** Enter the cost of MONTHLY maintenance for all computer facilities that could potentially be moved to the cloud.
4. **Offsite Backup Monthly:** Not having any backup solution costs indicates a very high-risk condition that doubles the “Risk Reduction Value.” Entering an amount in this field will reduce the risk by half because it makes the assumption that a copy of the data would not be destroyed by fire. However, it does not fully mitigate risk, because facilities would need to rebuilt and recovered. Net Present Cloud will use the default outage duration for fire of 90 days (or an override in the outage durations field) if a backup solution exists. If none exists the data is assumed to be totally lost and duration of 365 days is used.
5. **Intrusion Protection:** Enter the cost of software and hardware used to prevent or detect intrusion. This field can also be used for any other monthly costs that may not be included in the cost basis column.
6. **Cloud Migration:** This is the one-time capital cost of moving to the cloud. It would typically be made up of consulting fees, but it should include things like disposal fees for depreciated equipment.
7. **Cloud Monthly Service:** This is the monthly subscription fee for cloud services. Re-use of the floor space that would prevent the cost of a move could be deducted this field due to its positive impact.
8. **Average Cost of Capital:** Interest amount the business typically pays to finance time-base purchases or leases.
9. **Opportunity Cost Percent:** This is the percent return that could be earned if the capital invested (migration cost) were used for some other profitable purpose.
10. **Annual Insurance:** This is the insurance covering the in-house computer facility. This field could also be used for other annual computer related expenses.
11. **Investment Term Years:** The number of years over which the capital investment would be amortized. Default is 3 years.

Computed Metrics

1. **Facility Floor Space:** Extrapolation of cost of floor space
2. **Facility Power:** Extrapolation of cost of power



3. **Facility Operations:** Extrapolation of other operational costs from the “Cost Basis” column
4. **Total Facilities:** Summary of above costs (1-3)
5. **Monthly Amortized Migrations Cost:** Estimated monthly cost of the migration based on the “Average Cost of Capital” and term length
6. **Transact Loss @ 5 Wks:** This is an informative field calculated by a diminishing returns formula. The basis of the estimate is made from the “Avg Wkly Transactions” field and the annual revenue. The formula dictates that after 5 weeks more than 80% of the lost transactions will be unrecoverable. This field helps quantify the cost of an extended outage, but is not included in the “Risk Reduction Value.”
7. **Unused Resources:** From the “Locations” field the percent of unused computer resources is estimated based on the listed cost factors. If resources are maintained for disaster recovery purposes their cost will be displayed in this field. Their costs are automatically included in the cash flow calculations since they are included in the overall cost of facilities.
8. **Risk Reduction Value:** This value is an extrapolation of the cost of any particular outage reduced by the “slack time” (the maximum duration the business would not be affected by an outage) and the statistical likelihood of an event occurring. The cost is based on the sum of the lost revenue per hour plus the payroll cost per hour. The cost is then broken into an estimated monthly premium that can be included in the cost comparison calculations.
9. **ROI with Risk Reduction:** This check box is the switch for the above option. When a value is entered for “Cloud Migration” the “Risk Reduction Value” can be optionally, added to the monthly facilities costs.

Decision Criteria

1. **Monthly Cash Flow:** Once a migration cost has been entered the monthly facilities costs become the source of money used to offset a cloud migration and subscription. Benefit is realized if the overall cost of the cloud services is less than the in-house facilities costs.
2. **Cash Value for Term:** This is the discounted value of the series of recovered operational costs for the duration of the term.



3. **Net Present Value:** This is the discounted cash-flow less the initial investment of the migration.
4. **Return on Investment:** The net profit or loss when the investment is compared to the current cost of in-house operations.
5. **Payback Period Months:** The period count in the term at which the return becomes higher than the original cost amortized over the term.
6. **Internal Rate of Return:** Computed value found by trial computation that determines at what percent the investment would return a zero net value.
7. **Opportunity Cost:** The potential cost of a missed opportunity if the migration costs were invested in a different opportunity.
8. **Graph box** – Click to Clear The graph is designed to provide a rough representation of the investment over time. Red lines indicate the investment has not returned a profit. The green lines show when the investment begins a positive return. The crossover point is represented as the “Pay Back Period” in the quantity of months.

Please feel free to send your suggestions and comments using the contact page on our website.

www.swapmeetconsulting.com