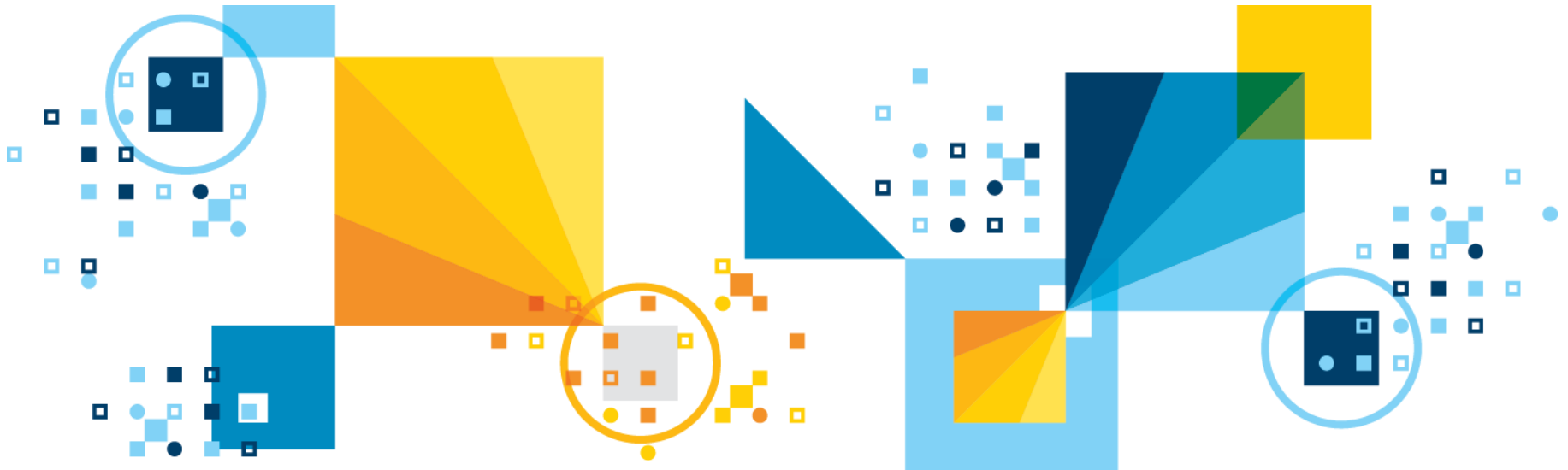**Georgi Ganev Analytics Leader IBM Bulgaria**
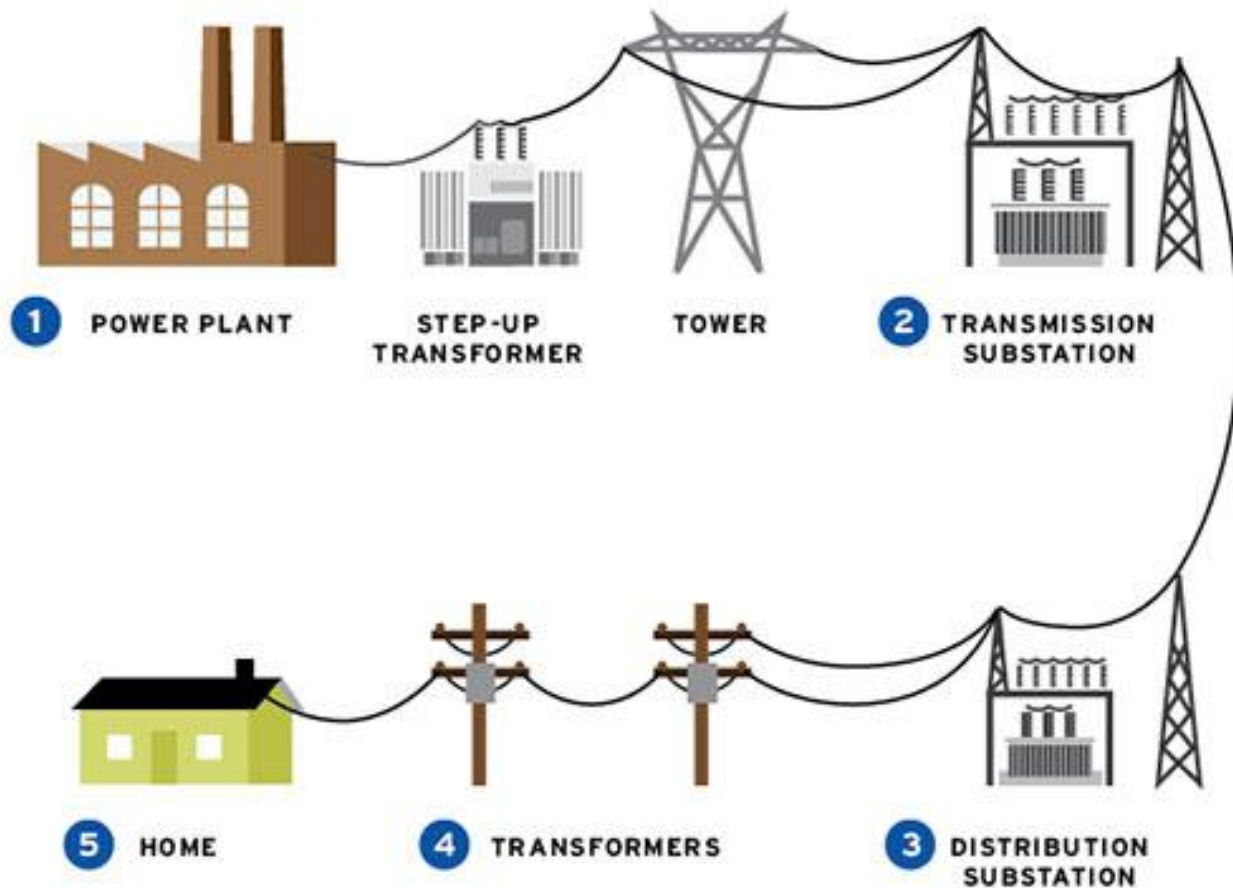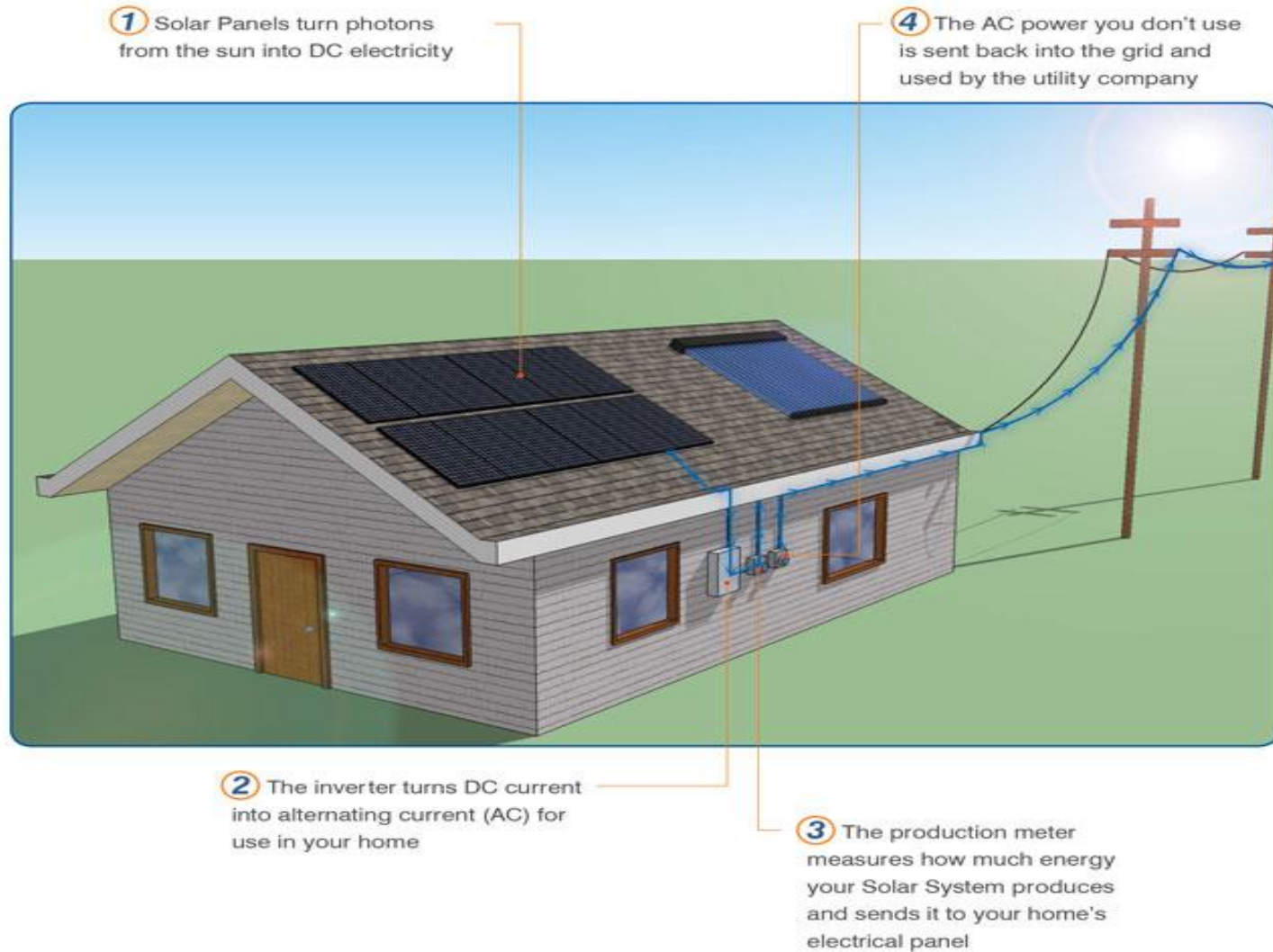
Information Server Overview
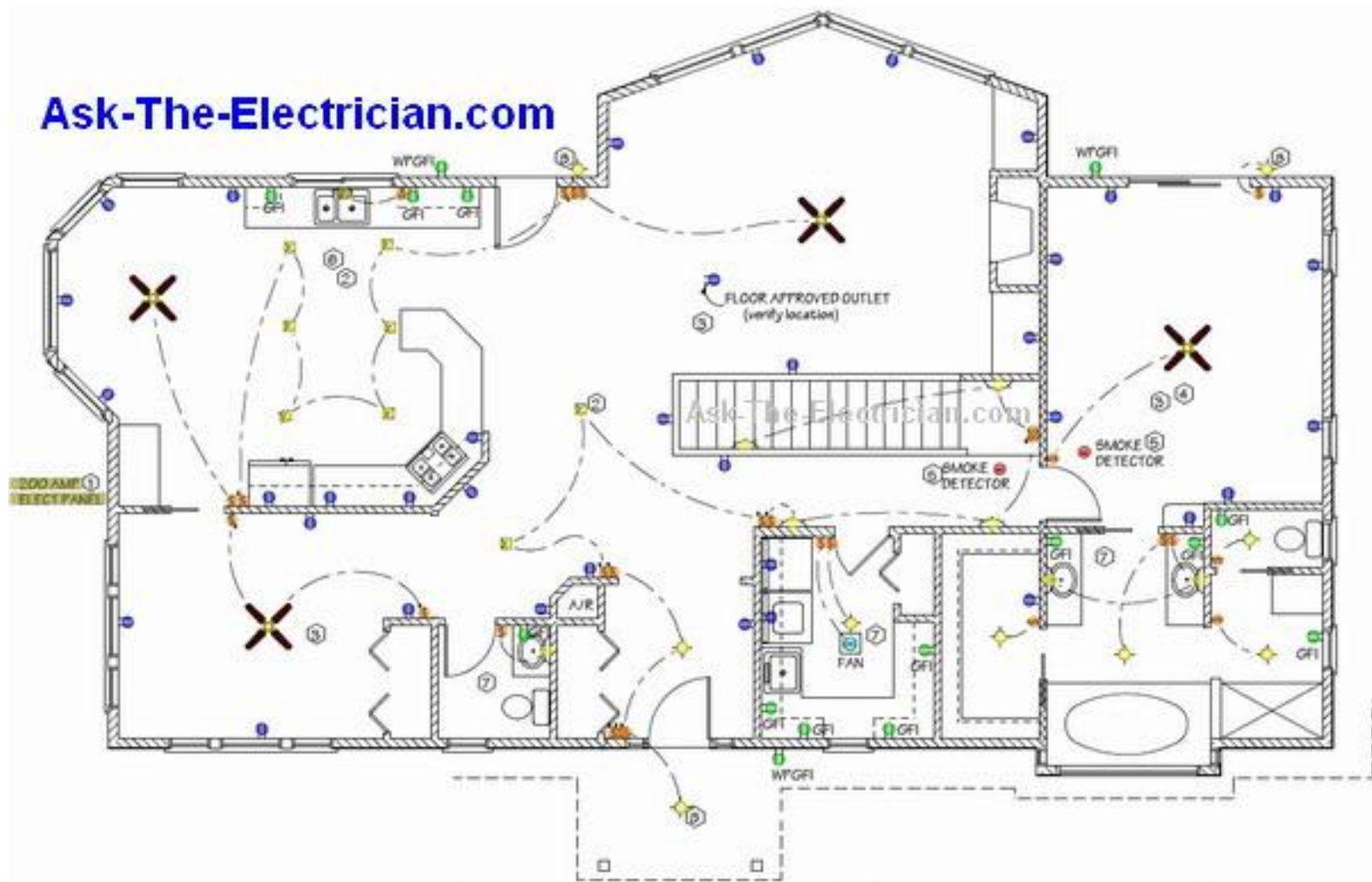
How to bring light where needed
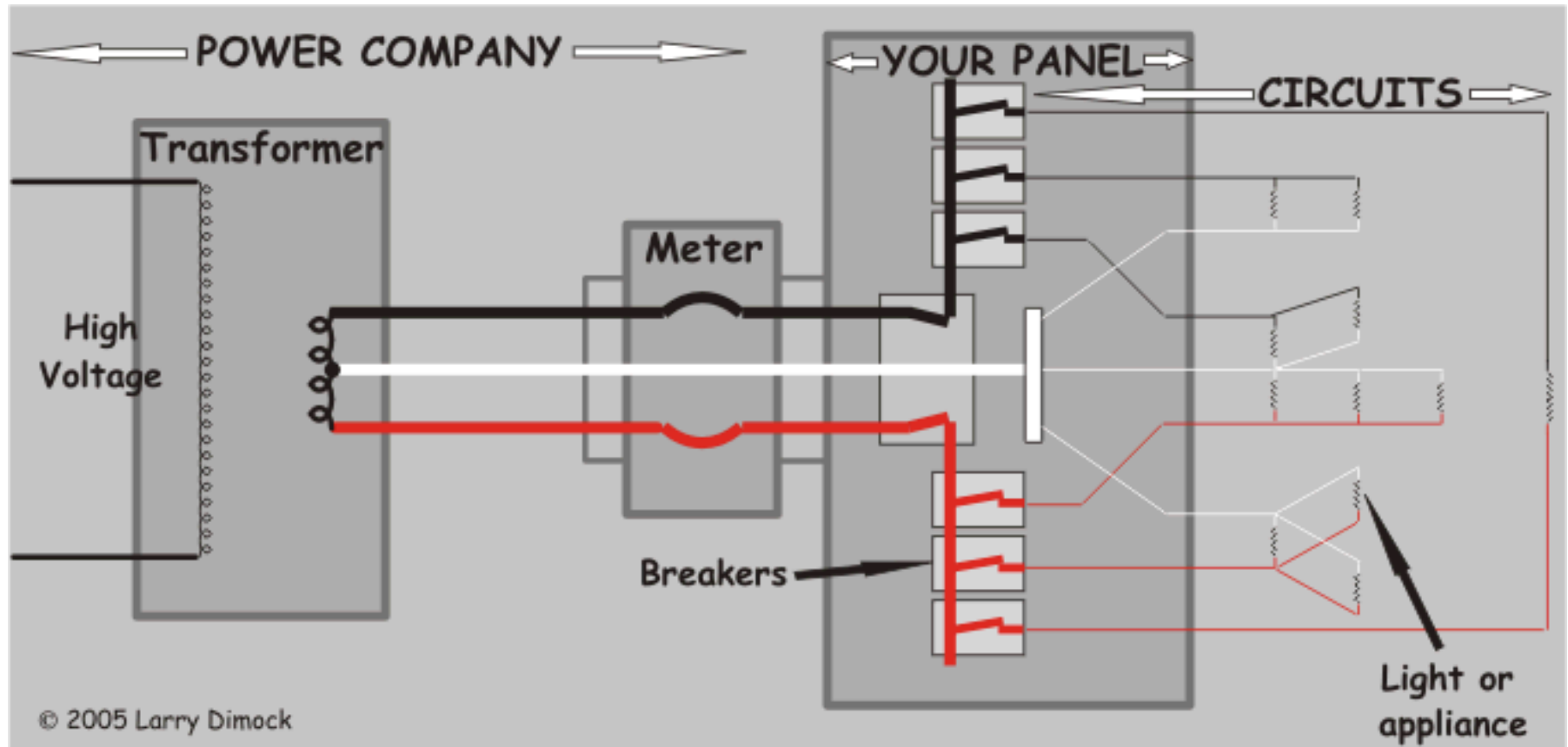

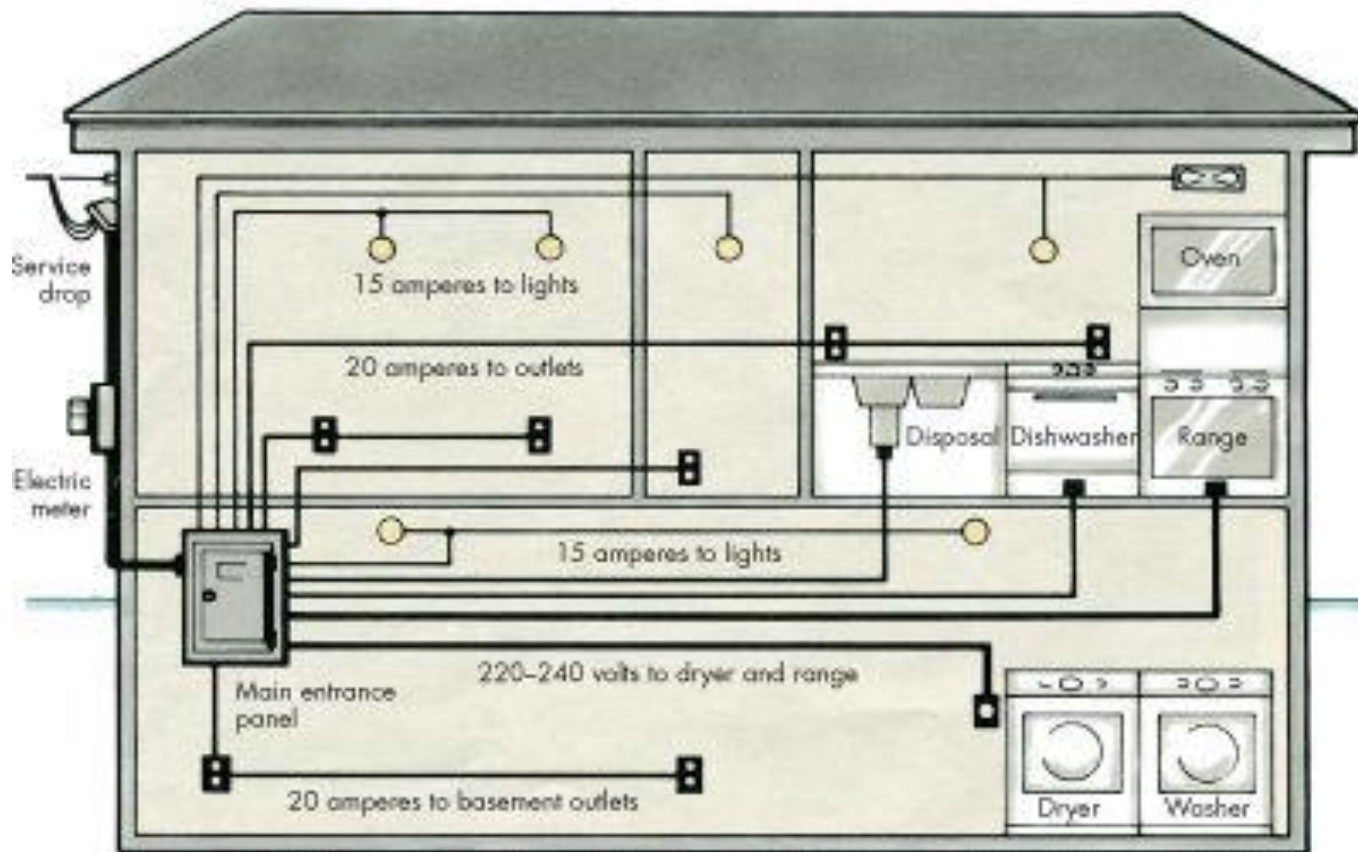**1** POWER PLANT   STEP-UP TRANSFORMER   TOWER   **2** TRANSMISSION SUBSTATION

5 HOME   **4** TRANSFORMERS   **3** DISTRIBUTION SUBSTATION

Electricity is home

1 Solar Panels turn photons from the sun into DC electricity

4 The AC power you don't use is sent back into the grid and used by the utility company

2 The inverter turns DC current into alternating current (AC) for use in your home

3 The production meter measures how much energy your Solar System produces and sends it to your home's electrical panel

Schema design

Light to your home

© 2005 Larry Dimock
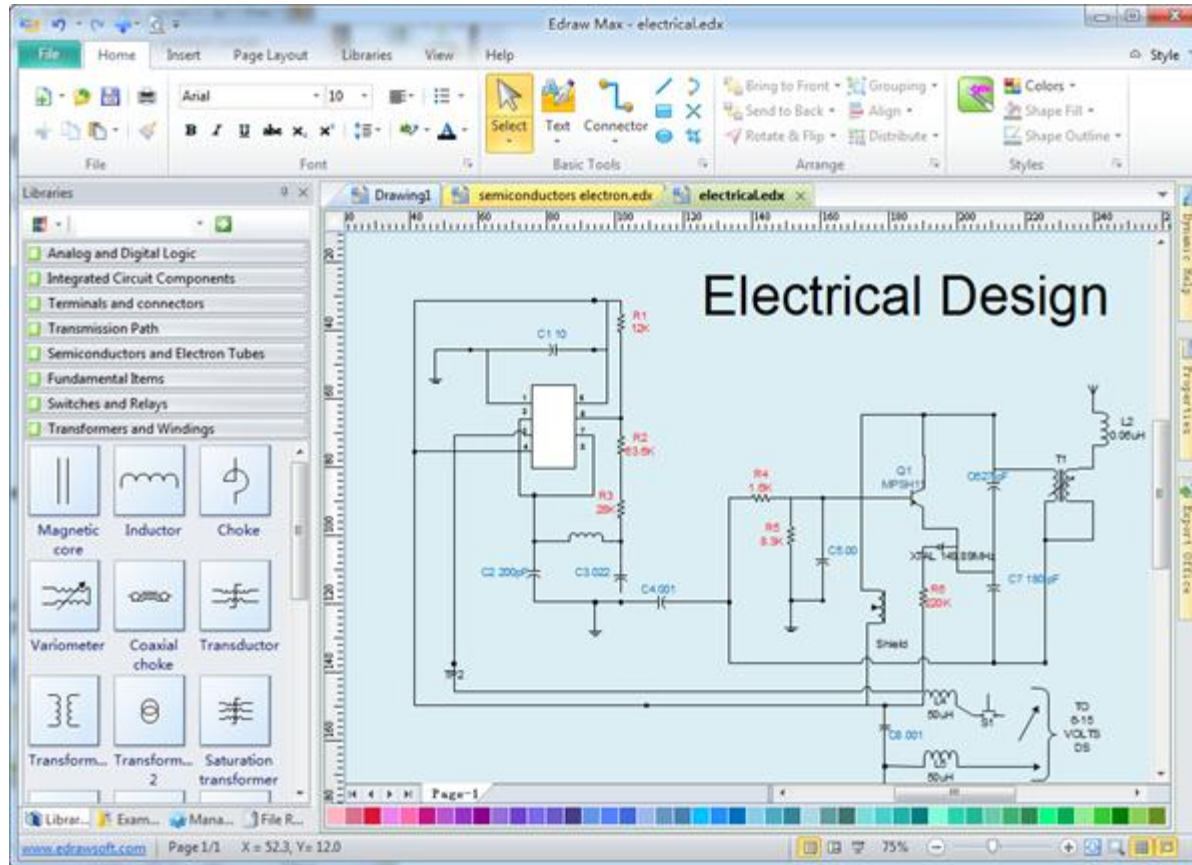
Point of electricity presence

Different sources
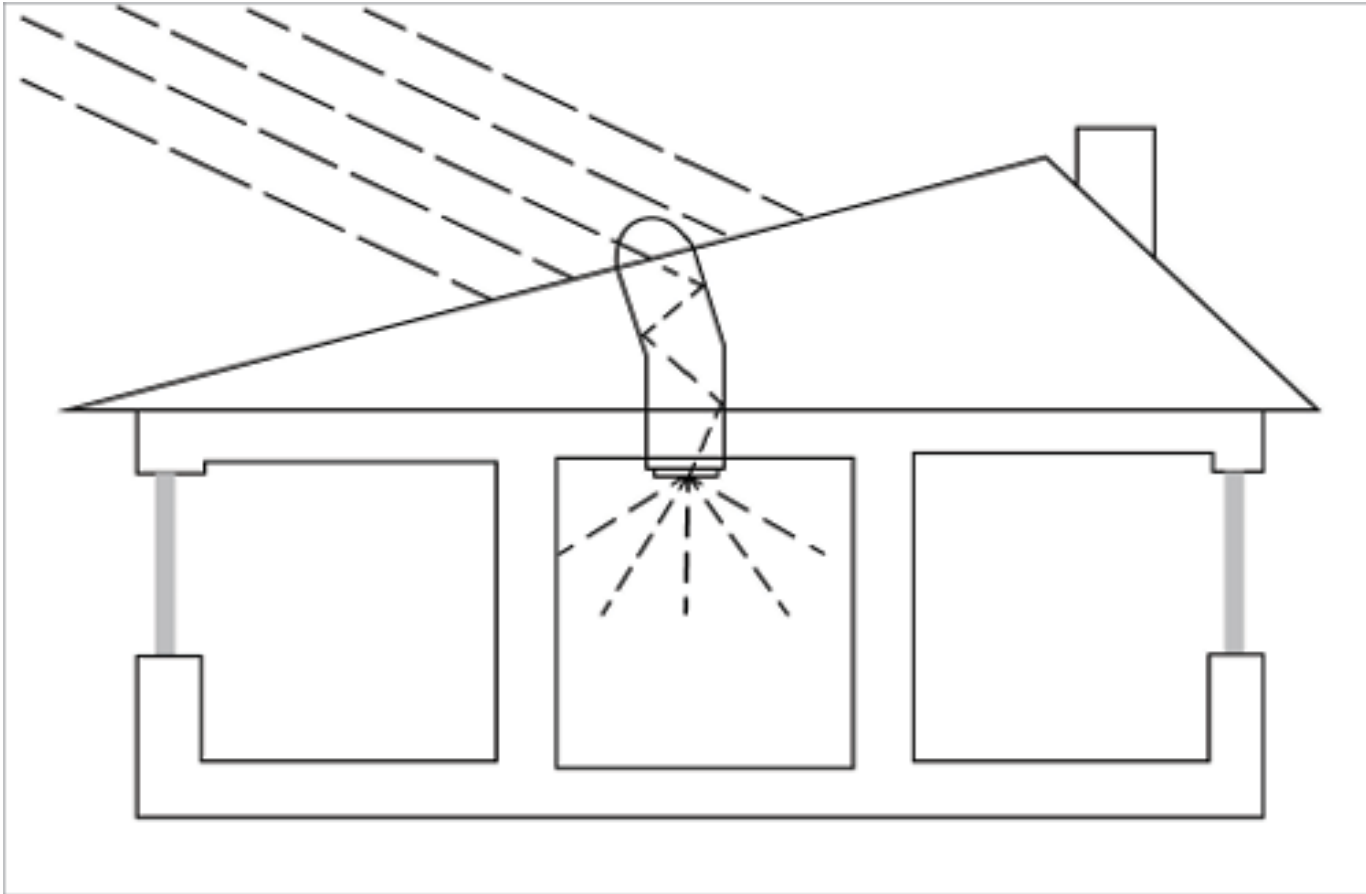
Meter – monitoring and quality

Blueprint to manage and govern

What is where

Meta Data

▬	Electrical switchbox	S	Single Pole Switch
S₃	Three-Way Switch	⊖	SinglePlex Receptacle
⊖	Duplex Receptacle	⊖WP	Duplex Receptacle WP= Waterproof
⊖GFCI	GFCI Duplex Receptacle	△*	Isolated Ground Receptacle
⊖	Switched Receptacle	⊕	FourPlex Four Gang Receptacle
⊖	240-Volt Receptacle	◯PC	Ceiling Mounted Light Fixture PC= Pullchain
◯	Wall-Mounted Light Fixture	R	Recessed Light Fixture
◯WP	Weatherproof Light Fixture	▭	Fluorescent Light Fixture
◯CF	Ceiling Fan	◯	Combination Light & Fan
◯VF	Power Vent Fan	2	Electric Motor Number=HP
SD	Smoke Detector	⌒	Circuit Breaker
▶	Telephone Jack	T	Doorbell Transformer
■	Doorbell Pushbutton	⏚	Ground

Plug and run
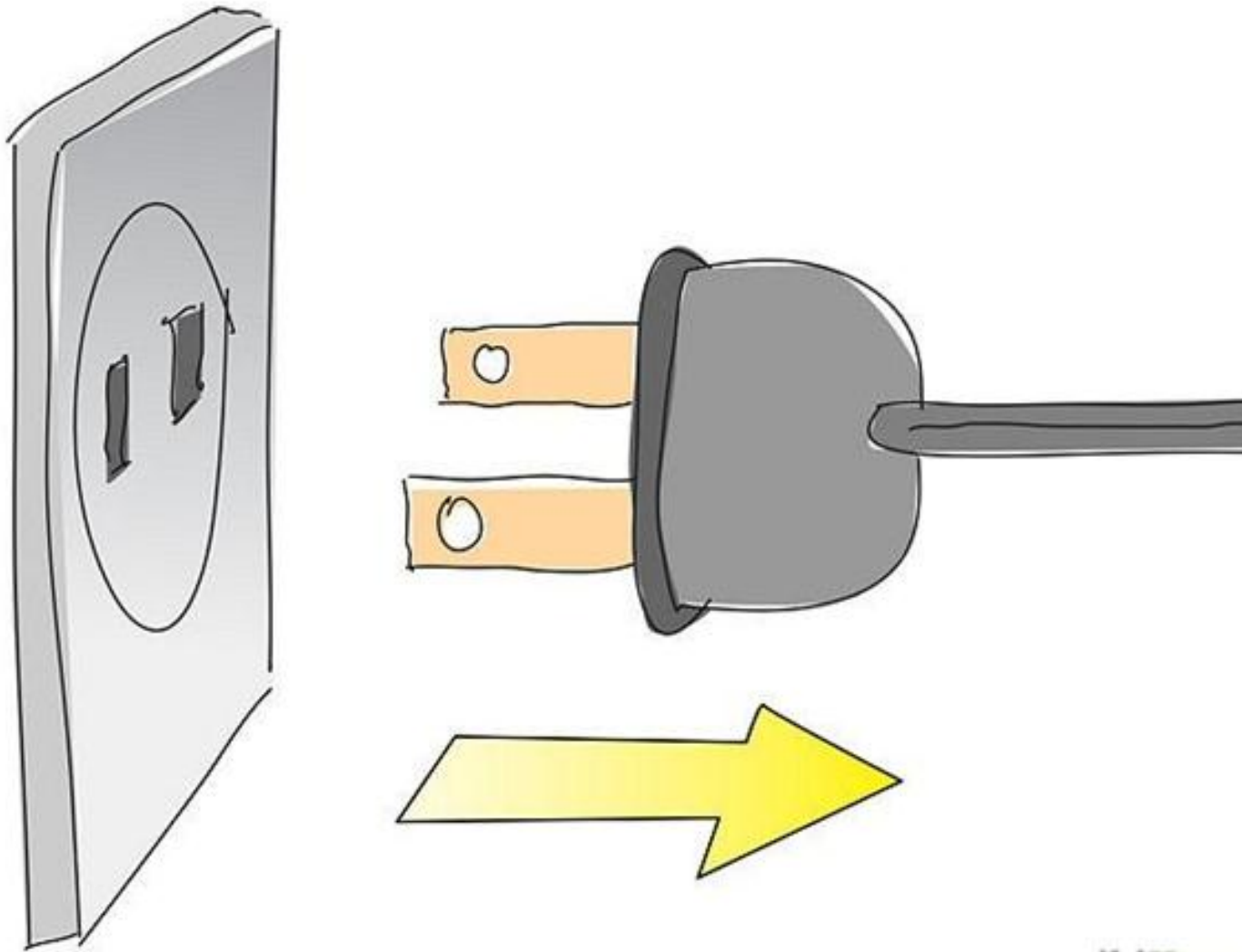
Management and business wants a result in a click

wikiHow to Help Save the Environment

Users Need Data that is Accurate, Reliable and Trustworthy

Data Engineer   Data Scientist   Developer   Business Analyst   Data Steward

Public

Enterprise Data

Web/Mobile Data

Social

IoT

The Weather Company

Businesses are challenged to answer key questions about the integrity of their data:

- Where is my data?
- Who has access to this data?
- Am I protecting sensitive data?
- Do I have the right data and context?
- How do I move and transform complex datasets?
- Do I understand the risk of using this data "as is"?
- How do I make data more readily available to my consumers?

Understand All Your Data for Consistent Outcomes and Better Impact Analysis

- **Data is not properly integrated**
  - Data silos
  - Disparate data sources
  - Inconsistent data quality between sources

- **One integrated source of data**
  - Confidence in communicating as one
  - Improved accuracy and consistency of analysis and reporting
  - Minimized complexity searching for data
  - Understand data lineage

Have the Right Data at the Right Time

- **Users don't have access to the right data at the right time**
  - Creates a strain on IT to meet LOB needs
  - More time integrating and cleansing
  - Less time interpreting and analyzing

- **Self-service access and capabilities**
  - Provides data users with the necessary access to manage data on their terms
  - Empowers both IT and LOB to focus on high priority projects

Improve Decision Making and Meet Compliance Guidelines

- **Organizations are facing compliance requirements**
  - Fines for non-compliance
- **Inaccurate decisions based on lack of governance and policies**

- **Governance and Data Quality**
  - Strengthen risk data aggregation capabilities and internal risk reporting practices
  - Enhance the risk management and decision making processes at banks

Information Empowerment for your Data Ecosystem

.. powered by Information Server

Integrating and transforming data and content to deliver accurate, consistent, timely and complete information on a single platform unified by a common metadata layer

Data Governance

UNDERSTAND & COLLABORATE

TRANSFORM & DELIVER

InfoSphere Information Server

Data Quality

CLEANSE & MONITOR

Data Integration

Data Governance

Understand & Collaborate

- Catalog technical metadata & align w/ business language
- Manage (big) data lineage Compliance reporting

Data Quality

Cleanse & Monitor

- Analyze & validate with enhanced classification
- Cleanse & standardize
- Define, manage & monitor data rules + exceptions

Data Integration

Transform & Deliver

- Massive scalability
- Power for any complexity
- Deliver in batch and/or real-time with change capture

- common connectivity • shared metadata • security (data privacy functions included)
- common execution engine with flexible deployments (native on YARN)

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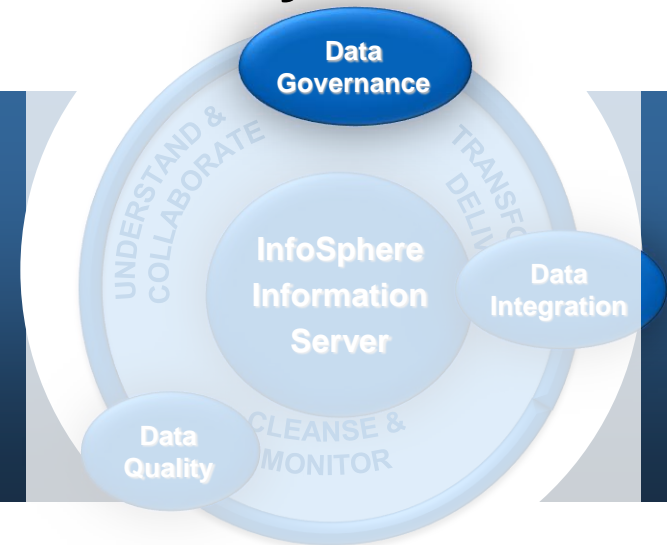- Deliver in batch and/or real-time with change capture

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Understand Your Information
Make It An Enterprise Asset

Information Governance

Define common business terms, policies, and rules

Understand all sources of big data with centralized metadata

Visualize and explore data lineage

Create workflow to consistently manage change

Key use cases

Establish a common understanding and manage business perspectives to better align with IT
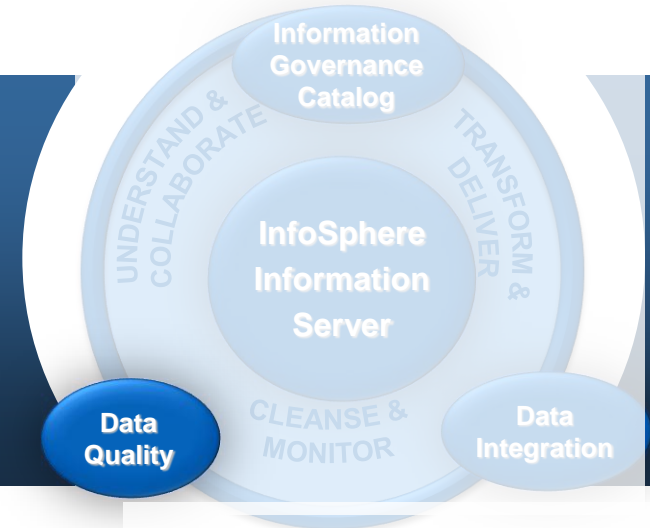
Capture data lineage and data structures required for regulatory reporting and establishing confidence in data being used for analytics

Capture and codify policies for handling information including sensitive and private information

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Information Governance Catalog

UNDERSTAND & COLLABORATE

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Data Governance	Data Quality	Data Integration
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Turn Your Data Assets Into High Quality Trusted Information

Data Quality

Automate discovery of critical data and hidden relationships

Investigate, standardize, match, and survive data

Define data stewardship workflow for remediating data quality concerns

Validate and monitor data in motion

Key use cases

Analyze, cleanse and monitor your big data natively on Hadoop

Use source system analysis to understand where data quality issues exist
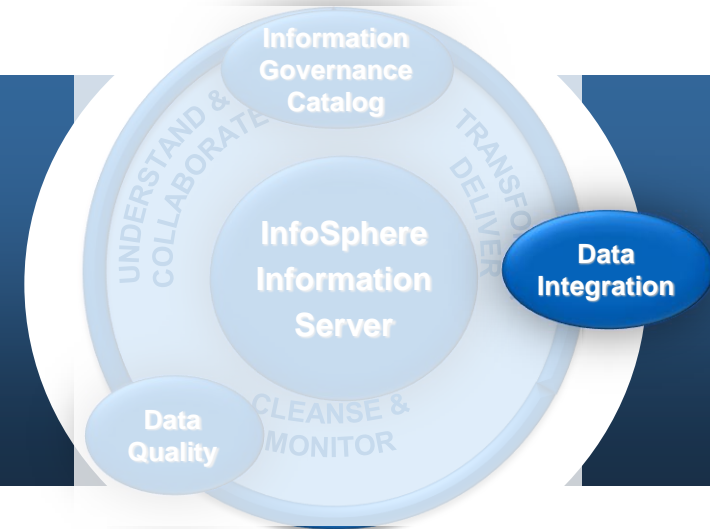
Monitor the quality of your data anywhere; within databases or data flows

Align your data quality metrics with your governance objectives and policies

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Improve Time-to-value to Rapidly Transform and Deliver Data

Information Integration

Transform data of any complexity

Deliver data for real-time analytics and continuous availability

Create virtual, consolidated views of multiple data sources without moving data

Efficiently capture and deliver changes to enterprise data

Key use cases

Ingest, transform, process and deliver data natively on Hadoop

Transform and deliver data between systems critical to running your business

Ensure the appropriate treatment of sensitive and private information via data masking

Utilize the cloud for expanding workloads as needed