Analytics for Interactive Advertising
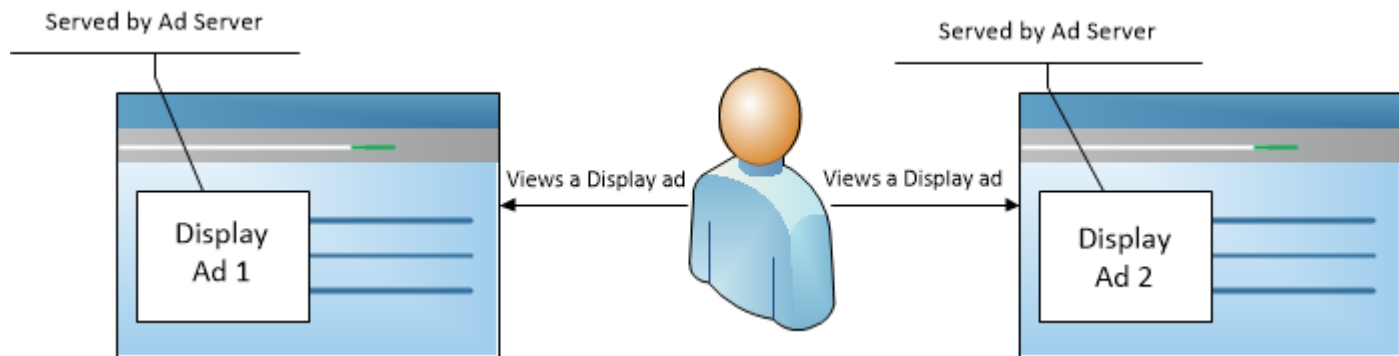
In this session...

- Campaign performance

- Clicks, Impressions, Conversions

- Landing pages, tracking all interactions

- Spotlight

- Pixels

- Logs, Aggregation and Reporting

- View through conversions

- Cross channel attribution

Campaign Performance

Impressions

- An **impression** is a measure of the number of times an ad is displayed, whether it is clicked on or not.

- Each time an ad displays it is counted as one impression.

- Impressions Vs. Pageview - An **impression** is the display of an ad to a user while viewing a web page. A single web page may contain multiple ads. In such cases, a single pageview would result in one impression for each ad displayed.

Served by Ad Server

Display Ad 1

Views a Display ad

Views a Display ad

Served by Ad Server

Display Ad 2

4

Clicks

- A **click** is the interaction where user clicks on an ad.

- The ad impression is served to the user and user performs click interaction to find more details about the ad.

- On performing click action on any ad, user is redirected to the advertiser's landing page.

Campaign Performance

- Online advertising campaigns are measured using various metrics or parameters like – Clicks, Impressions, Conversions and ClickThroughRate (CTR).

- Various ad networks / ad servers provide such campaign insights with raw data (log files) and pre-calculated metrics.

- Campaign performance data helps measure and track the performance of ad campaigns so the advertisers can make smarter decisions.

- One can also implement custom tracking for Clicks, Impressions and Conversion.

CTR

- **Click-through rate** (**CTR**) is a way of measuring the success of an online advertising campaign for a particular website.

- The purpose of click-through rates is to capture customers' initial response.

- The click-through rate of an advertisement is defined as the number of clicks on an ad divided by the number of times the ad is shown (impressions), expressed as a percentage.

- CTR = (Clicks / Impressions) X 100

Tracking Impressions and Clicks

# Impressions and click tracking workflow
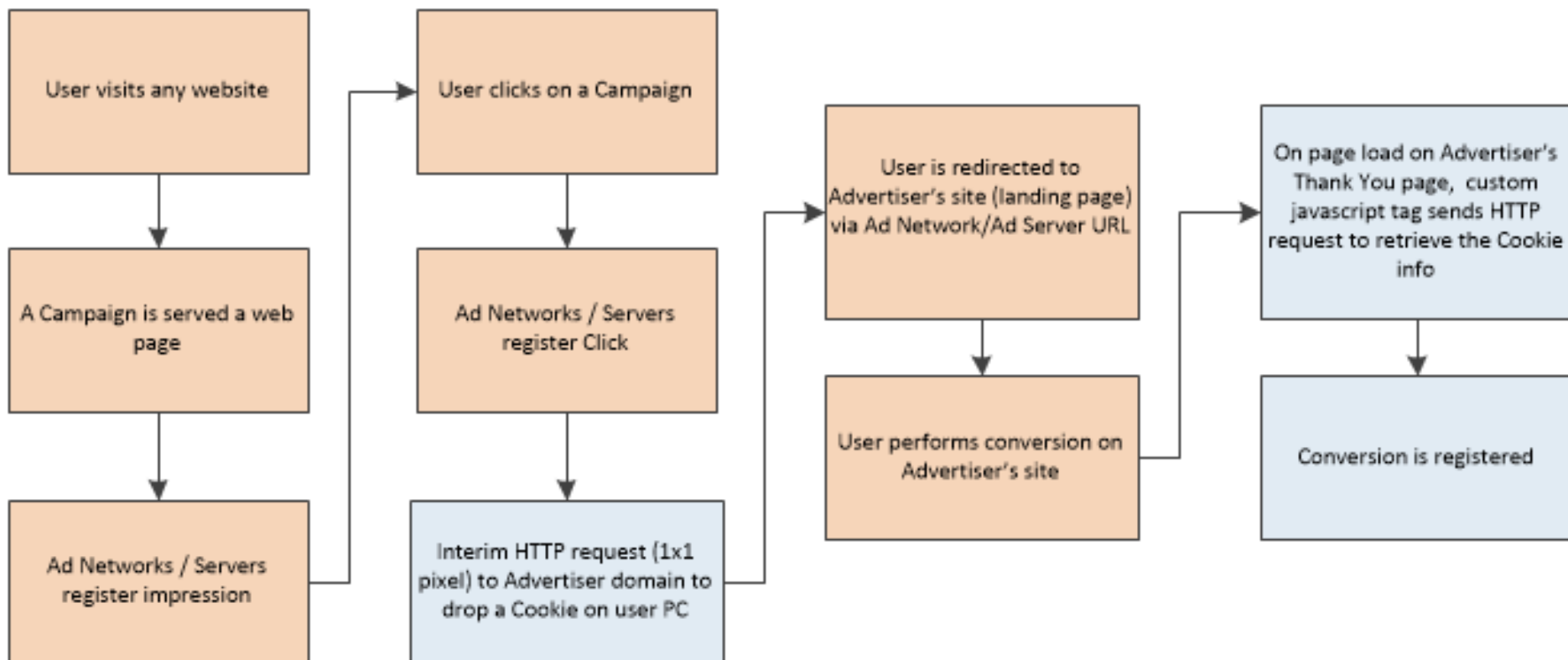
Beacon / Spotlight Tags

- Beacon or Floodlight (as known for DoubleClick) is a feature that allows advertisers to capture and report on the actions of users who visit their website after viewing or clicking on one of the advertiser's ads.

- For the implementation of Floodlight, Floodlight tags must be placed on the advertiser's webpages.

- Advertisers use Floodlight to determine the effectiveness of their online campaigns in terms of both sales and user activity on their sites

- You can determine the monetary value of purchases that were a direct result of your campaign, or discover how many users purchased a product or completed an online form.

- The information recorded by the Floodlight tag depends on its configuration and its location on the advertiser's site.

- Using dynamic tags, advertisers can also include their own tracking tags, tracking tags from a publisher, or any other code that they want to serve in conjunction with the Floodlight conversion-tracking tag.

Logs, aggregation

- Ad serving infrastructure with Ad servers collects information of various events in the Ad life cycle as pixels and impressions are logged in server logs.

- The data generated by the such platform is massive, furthermore regulatory and customer needs require processing enormously large data at high processing rates and also retain and manage very large data volumes for the year long retention period that leads to a Big Data problem

- Such a challenge could be addressed with solutions around:
  - Log Collection
  - Parallel compute – Hadoop
  - Storage and archival
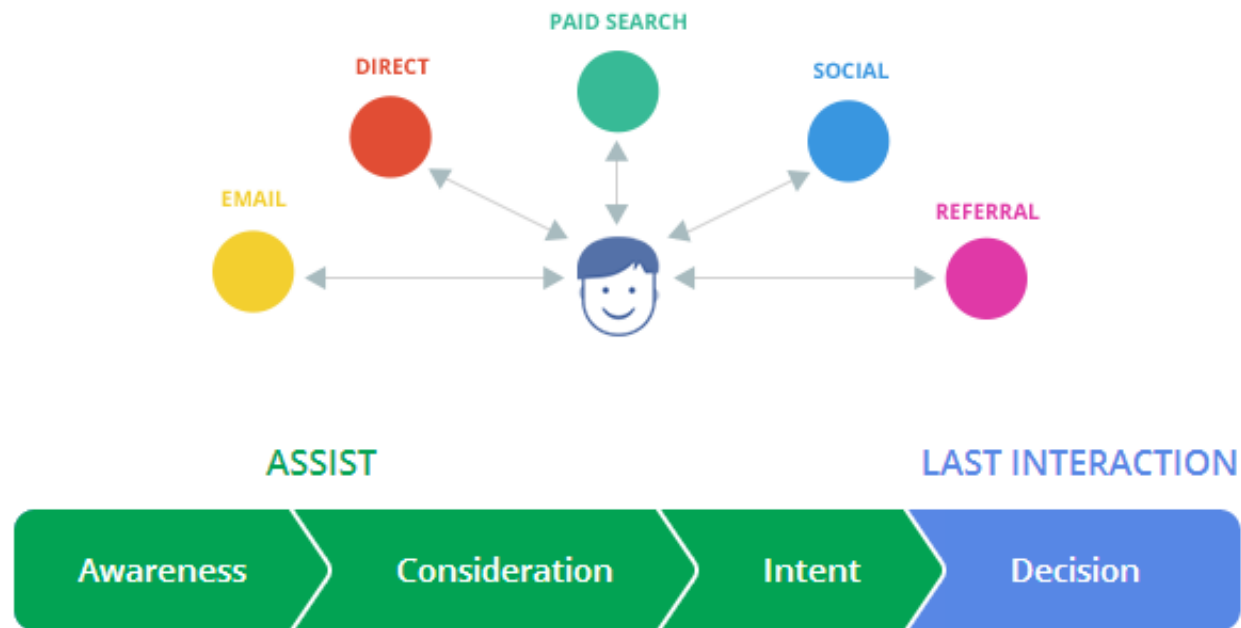 - Data warehouse
  - ETL

Logs, aggregation – Solution approach
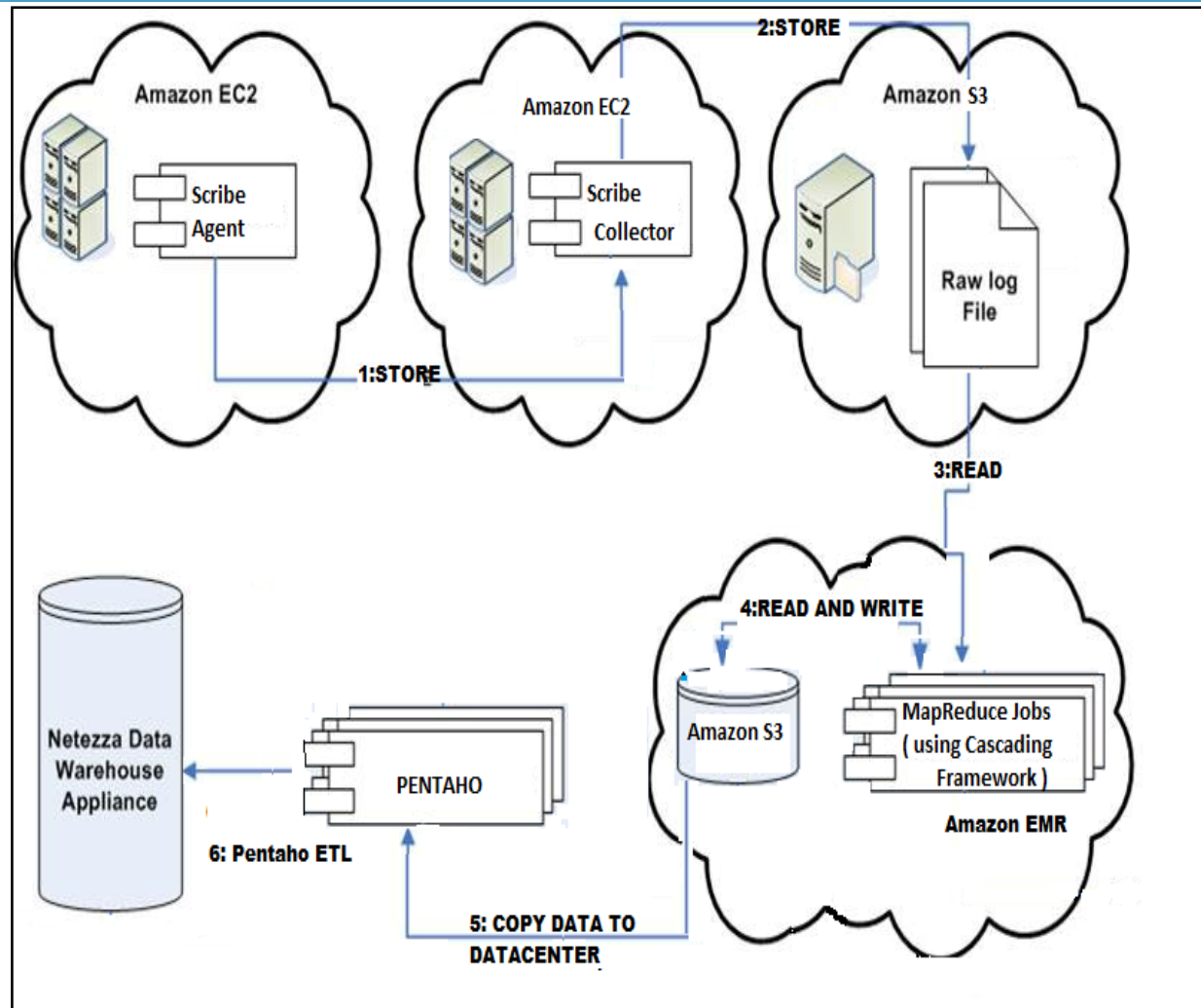
Conversion Tracking

Customer journey to online purchase

Marketing channels (such as email, display ads, paid search ads, social, and direct visits to your website) influence the customer at different points in the path to purchase.

PAID SEARCH
DIRECT
SOCIAL
EMAIL
REFERRAL

ASSIST
LAST INTERACTION

| Awareness | Consideration | Intent | Decision |

ASSISTING channels build awareness, consideration, and intent earlier in the customer journey or "purchase funnel."

LAST INTERACTION channels act as the last point of contact prior to a purchase.

14

Conversions

- A **conversion** is an action that a customer takes on your website that has value to your business, such as a purchase, a sign-up, or a view of a key page.

- These actions are called conversions because a customer's click translated -- or *converted*-- to business.

- By tracking conversions you'll know which ads, keywords and campaigns bring you business. This helps you invest more wisely in the best ones and, ultimately, boost your ROI.

Conversions workflow

- Advertisers can get the conversion code, define the conversion types and view conversion stats reports.

- Publishers can generate/view the conversion code to assist their advertisers with the initial setup
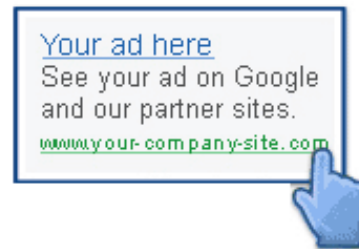
A visitor views the ad	Visitor clicks the ad and explores advertiser's site	This visitor eventually makes a purchase
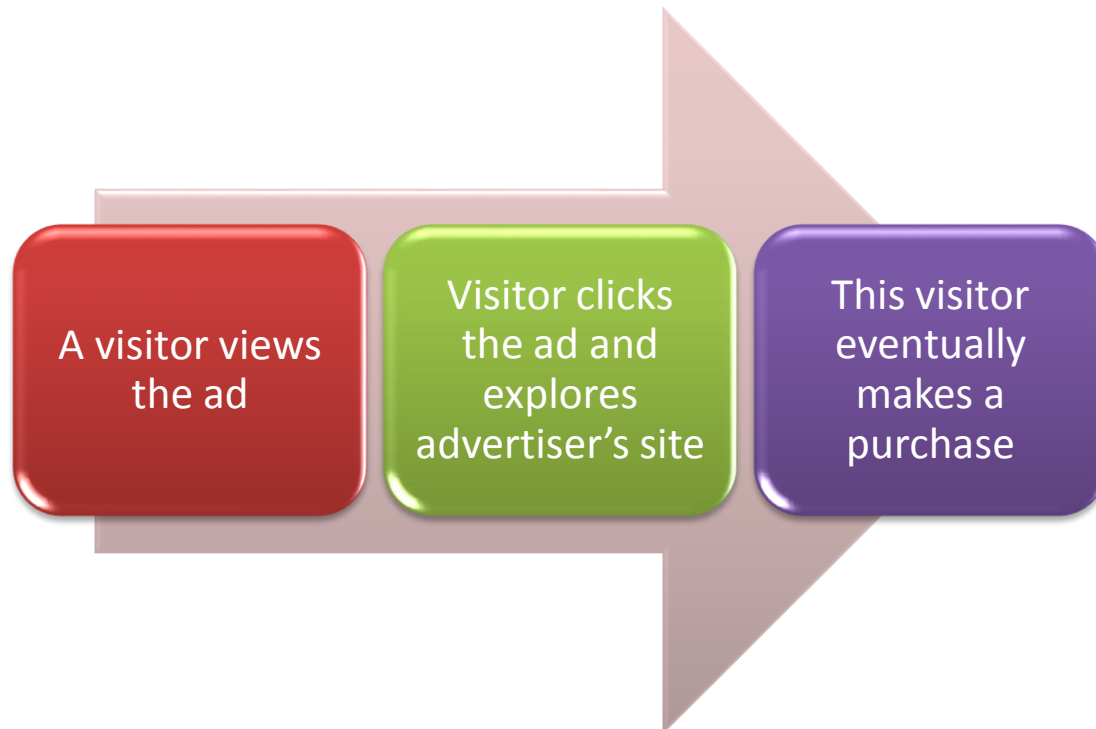
Google AdWords conversion tracking

Prospect Searches For Your Services...

Google

New York City Dentist

Prospect Clicks Your ad...

Your ad here
See your ad on Google and our partner sites.
www.your-company-site.com

Prospect Reads Your Landing Page & Fills Out a Web Form...

Calculate AdWords Campaign ROI & Optimize Account

Prospect Visits Your "Thank You" Page with AdWords Conversion Code

Thank you

Google Site Stats learn more

Google Site Stats learn more

Prospect Submits Your Web Form...

SUBMIT

Focus on Conversions, Not traffic
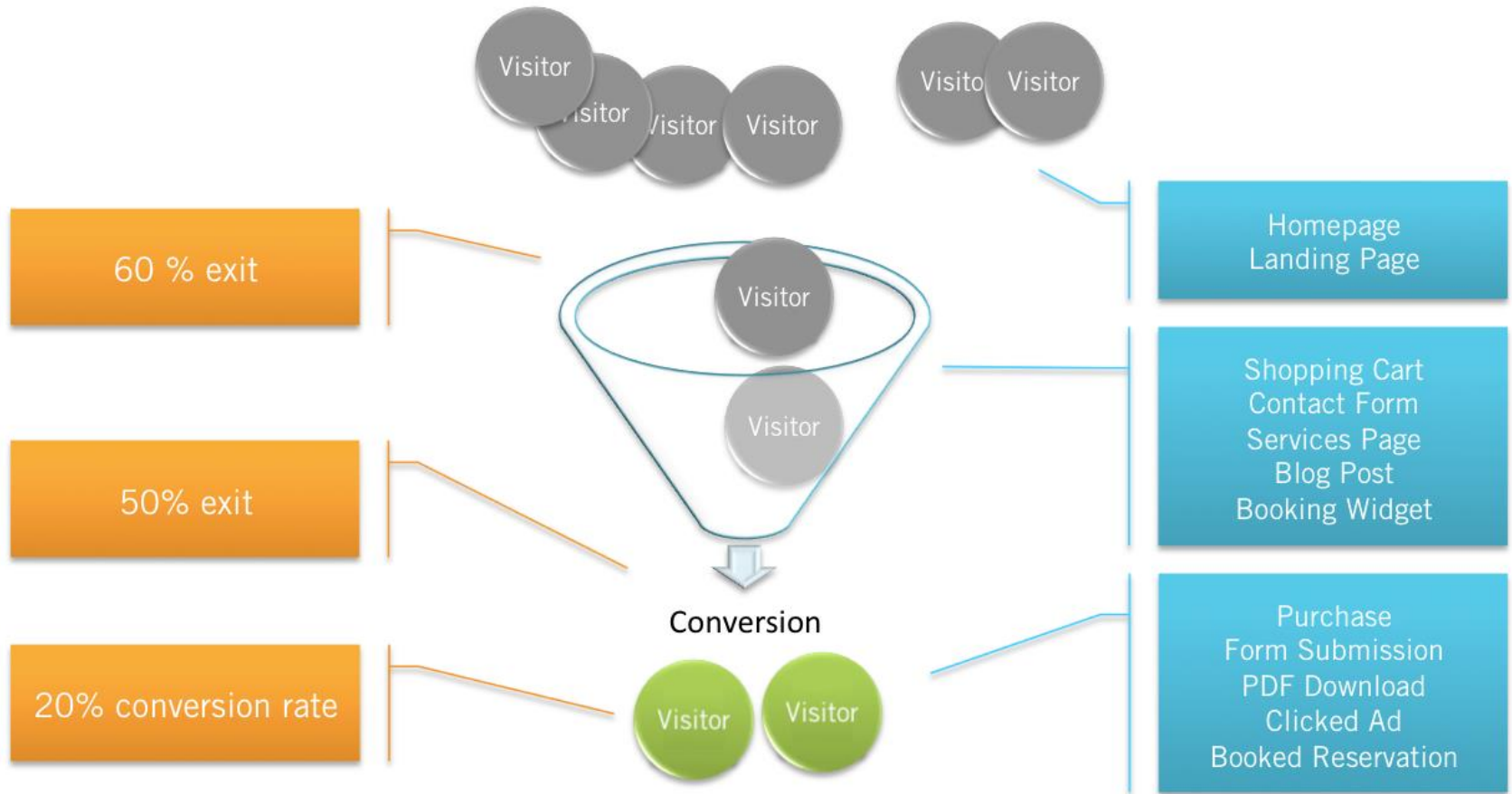
View-through Conversion

View-through / Post-impression conversions

- View-through Conversions are different from click-through conversions which occur when a consumer completed a conversion on your site after having clicked on your ad.

- There is no click interaction involved in view-through conversion. User views the ad, visit's advertiser's page later and performs conversion.

VIEW-THROUGH   **CONVERSION TRACKING**

Display ad (impression) is seen but not clicked

Consumer visits and purchases/submits lead from advertiser website at a later date

Original display ad/impression is given due credit for the conversion

View-through Rate (VTR)

- Viewthrough rate (VTR) measures the number of post-impression responses. Such post-exposure behavior can be expressed in site visits, on-site events, conversions occurring at one or more Web sites or potentially offline.

- VTR is related to the popular Clickthrough Rate (CTR) measurement, but differs in that it is not an immediate measure of response - it is instead time-shifted and passive, i.e. no click is required.

- Also, viewthroughs lack a specific predetermined landing page since the visit can come through a direct type-in or via another click-based digital marketing channel, e.g. search, email or social media.

- VTR = 100% * Viewthrough / Impressions

Attribution Modeling

What is Attribution Modeling

- In Analytics, conversions and ecommerce transactions are credited to the last campaign, search, or ad that referred the visitor when he or she converted.

- What role did prior website referrals, searches and ads play in that conversion? How much time passed between the visitor's initial interest and his or her purchase? These questions are answered by Multi-channel attribution reports.

- It shows how your marketing channels (i.e. sources of traffic to your website) work together to create sales and conversions.

Conversion Paths

- Multi-Channel Funnels reports are generated from conversion paths, the sequences of interactions, i.e. clicks/referrals during the 30 days that led up to each conversion and transaction. Conversion path data include interactions with virtually all digital channels. These channels include, but are not limited to:

  - paid and organic search
  - referral sites
  - Affiliates
  - social networks
  - email newsletters
  - custom campaigns that you've created

Why use Multi-source, Multi-channel attribution?

- View all of your digital marketing channels in one place

- Better understand the value of your marketing efforts

- See a complete picture of the steps your customers take before purchasing or converting

- Improve your marketing based on channel performance

- Make the right digital marketing budgeting decisions

Multi-source

- Following Sources provide raw data and metrics via APIs:

  Google Adwords

  DoubleClick –

  Bing Search / Atlas

  Yahoo Search

  Omniture

  Facebook

- Standard reports display Clicks, Impressions and Conversions

- Assisted Conversion is additional parameter reported by attribution modeling

- The process of calculating Assisted Conversion involves marrying various raw data points and perform ETL in order to derive various metrics

Data Aggregation & Sources

Data	Source	Data
Unique identifier	Cookie data	• Unique user ID • User information on subsequent logons • IP address and time stamp
Transactional data	Google Analytics and Cookie data	• IP address • Time stamp • Geo-location
Ad data	Third parties	• Campaign data • Average position • Clicks • Impressions • CTR • CPC • Cost • Conversions • Conversion rate • Cost per conversion • Revenue • ROAS
Conversion path data	Google MCF reporting API	• Average number of clicks to conversion • Average lead time per click • Average time spent on page • Break down by geo-location
Conversion tracker	Pixel and Cookie data	• User unique identifier • Pixel data
Email data	Email service provider	• Clicks • Impressions (open rate) • Conversions • Associated email data as required

Attribution Models

Model	Descriptions
Last click or interaction	This attribution model would allot 100 percent of the credit of the conversion to the last click or interaction made by the user.
First click or interaction	This attribution model would allot 100 percent of the credit of the conversion to the first click or interaction made by the user.
Linear attribution	All clicks and interactions in the conversion path would be provided equal credit for the conversion.
Time decay	In this model, the click or the interaction closest to the conversion time would be given higher credit.
Reverse time decay	This model, similar as the earlier one, would give clicks or interactions at the start of the conversion path higher credit for the conversion.
Position based	This model would attribute credit based on the position of the click or the interaction.
Custom attribution	This would be a configurable model that could be used in conjunction with linear, time, or position-based attribution.

Google MCF

- Google started providing Multi-Channel Funnel Reporting APIs in September 2012

- MCF APIs offer pre-calculated metrics on assisted conversion which could be used for attribution modeling and reporting

- Google Multi-Channel Attribution Reporting is part of Google Analytics Premium. It costs US$1,50,000 yearly recurring.

- However, MCF APIs are free to use with standard quota limits.

Google MCF
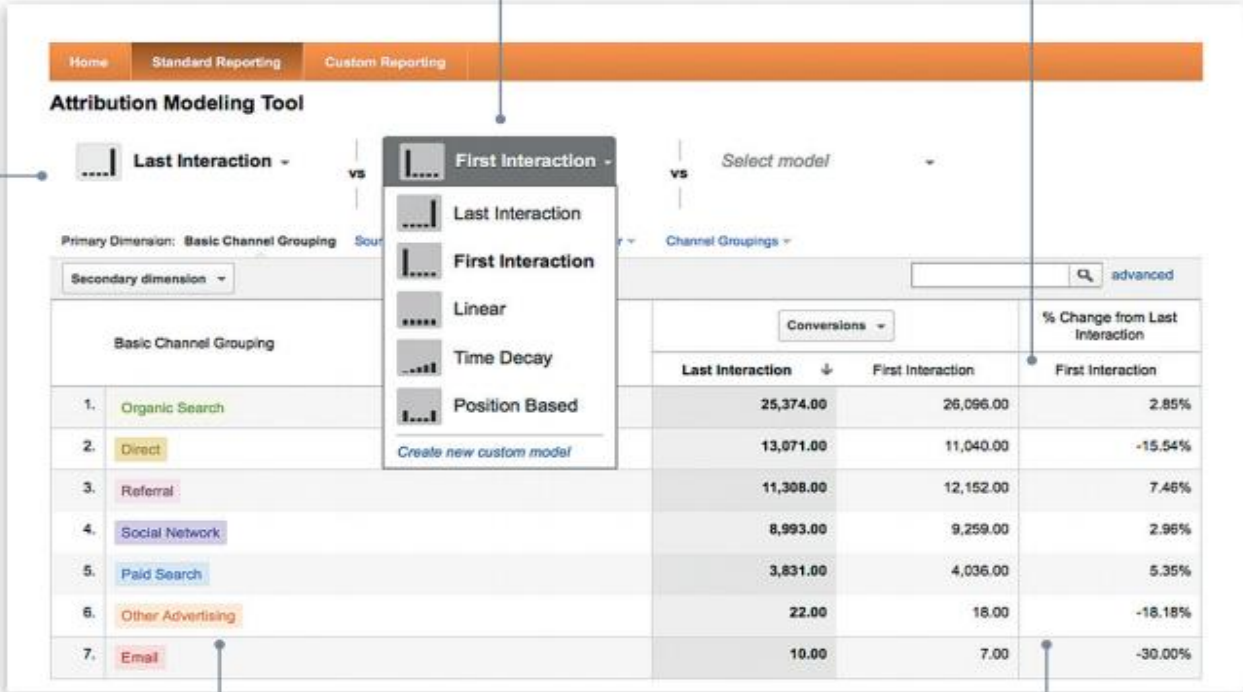
Google MCF

Attribution Reports

Overview Report	• A snapshot of total clicks, impressions and conversions
Interaction Report	• A snapshot of No. of Interactions by users resulting in conversion
Time Lag Report	• A snapshot of No. of days taken for conversion
Conversion Path Report	• A snapshot of No. of Top Conversion Paths - includes group by conversion medium, keyword, Campaign
Attribution Report	• User could give weights to each channel and re-generate report. First Interaction, Last Interaction, Linear, Time Decay, Position Based. User could select attribution type (First interaction, linear, last interaction, time decay, custom)

Thank You !