

# Introduction To ESRI Image Server

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# ESRI Image Server

- Provides easy access to Imagery
- New paradigm in image services  
Collect / Publish / Serve

# ESRI Image Server – What are we trying to solve?

- Faster access to large image collections
- Easy access to images from multiple clients
- Shorter time from data capture to data distribution

# ESRI Image Server: Who are the Target Users?

- GIS Professionals
  - Publish/Serve
- Raster/Imagery Professionals
  - Publish/Process-Serve
- Imagery Suppliers
  - Collect/Publish/Process-Serve

# ESRI Image Server: Key Features

- Easy Publishing of Image Data (no data loading)
- On-the-fly Server side processing
- Create multiple image products from a single source
- Image Services useable in multiple clients
- Scalable to massive imagery collections

# Publishing

- Author Image Service
  - In ArcMap
  - Define Service Properties
  - Add Data
  - Define Processes
  - Optimize
  - Compile Service Definition
- Publish Service
  - Use Server Manager
  - Server (load balancer)
  - Service Provider (Application)
  - Image Service (compiled service definition)

# Server Side Processing

- Image Server can perform a range of image processing on the server. E.g., enhancements, pan-sharpening, and classification.

# Image Service Processes

- enhancements
- convolution filter
- pan-sharpening
- band extraction
- NDVI
- ortho-rectification
- classification
- band / image algebra
- more...

# Enhancements



# Pan-sharpening



Color 240 cm



Pan 60 cm

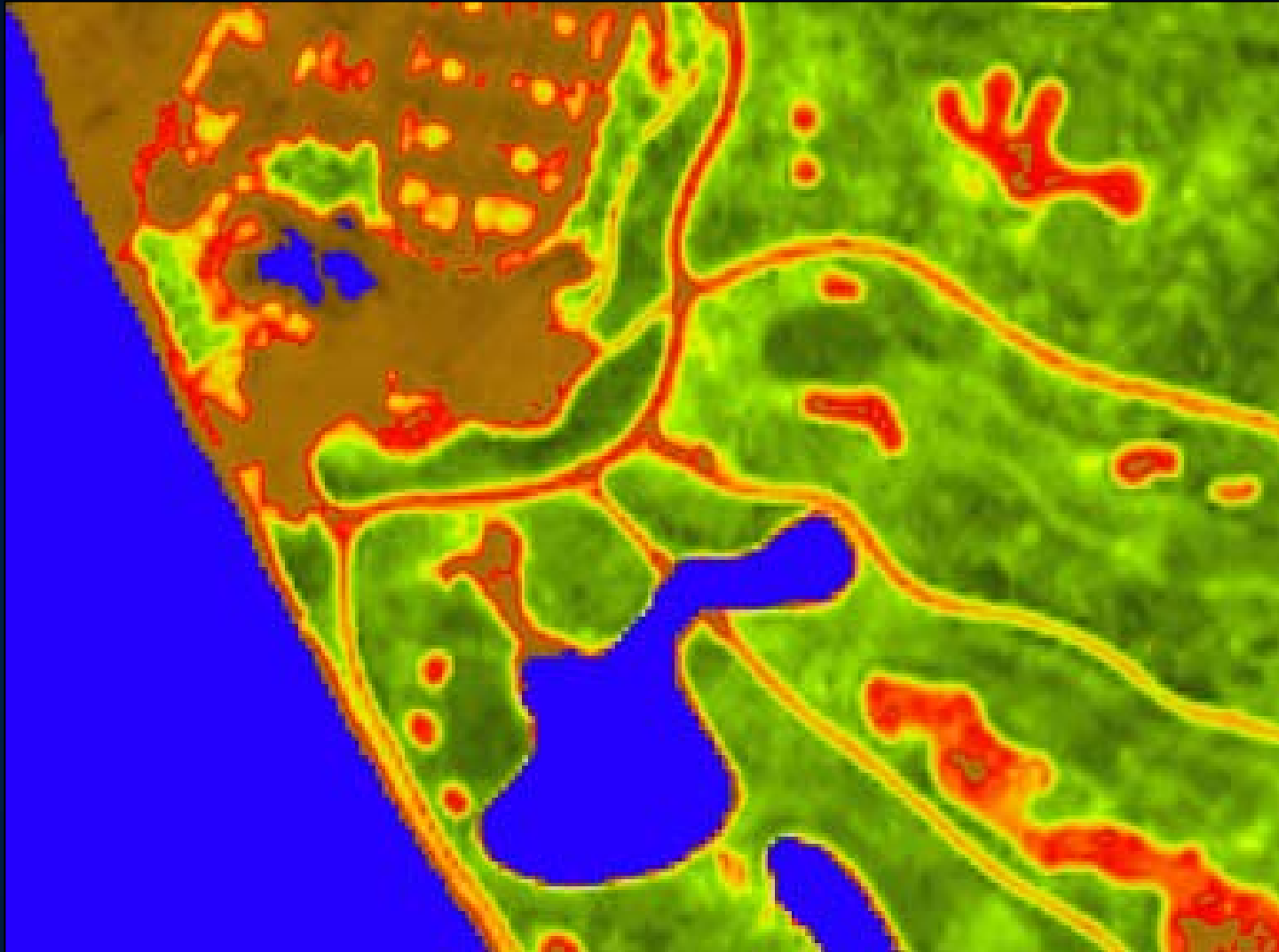


Pan-sharpened 60 cm

# Band extraction



# NDVI

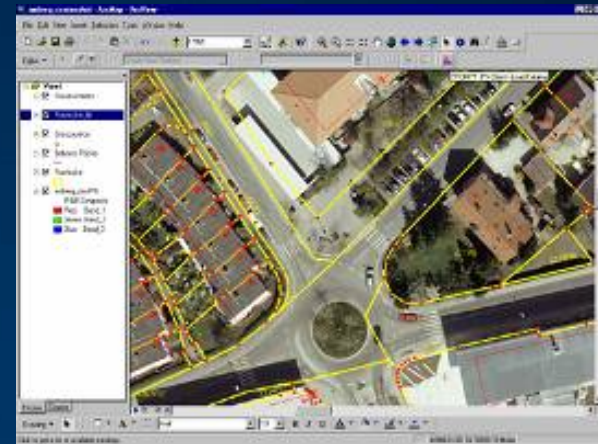


# Multiple Image Products

- One data source, Multiple Derived Products
  - On-The-Fly Processing
- Example
  - Landsat Source
    - NDVI
    - Pan Sharpened
    - 4,3,2 / 7,4,2
    - ...

# ESRI client applications

- ArcGIS Desktop (9.1 and 9.2)
- ArcGIS Engine (9.1 and 9.2)
- ArcGIS Server (9.2)
- ArcIMS (ArcMap Server 9.2)
- Console Client (command line)



# Non-ESRI client applications

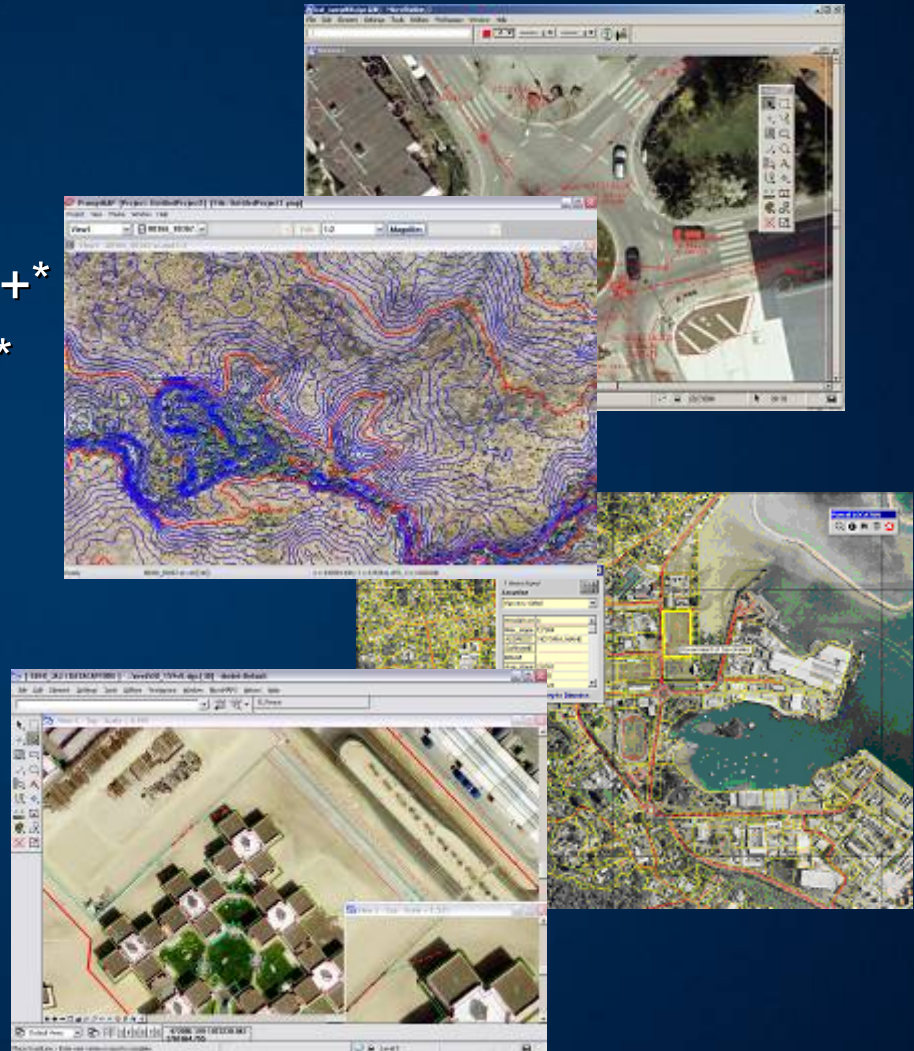
## Other Clients

- MicroStation
- AutoCAD
- MapInfo: MapInfo Pro 7.5+\*
- Intergraph: GeoMedia 6+\*
- Leica: Erdas Imagine 9+\*

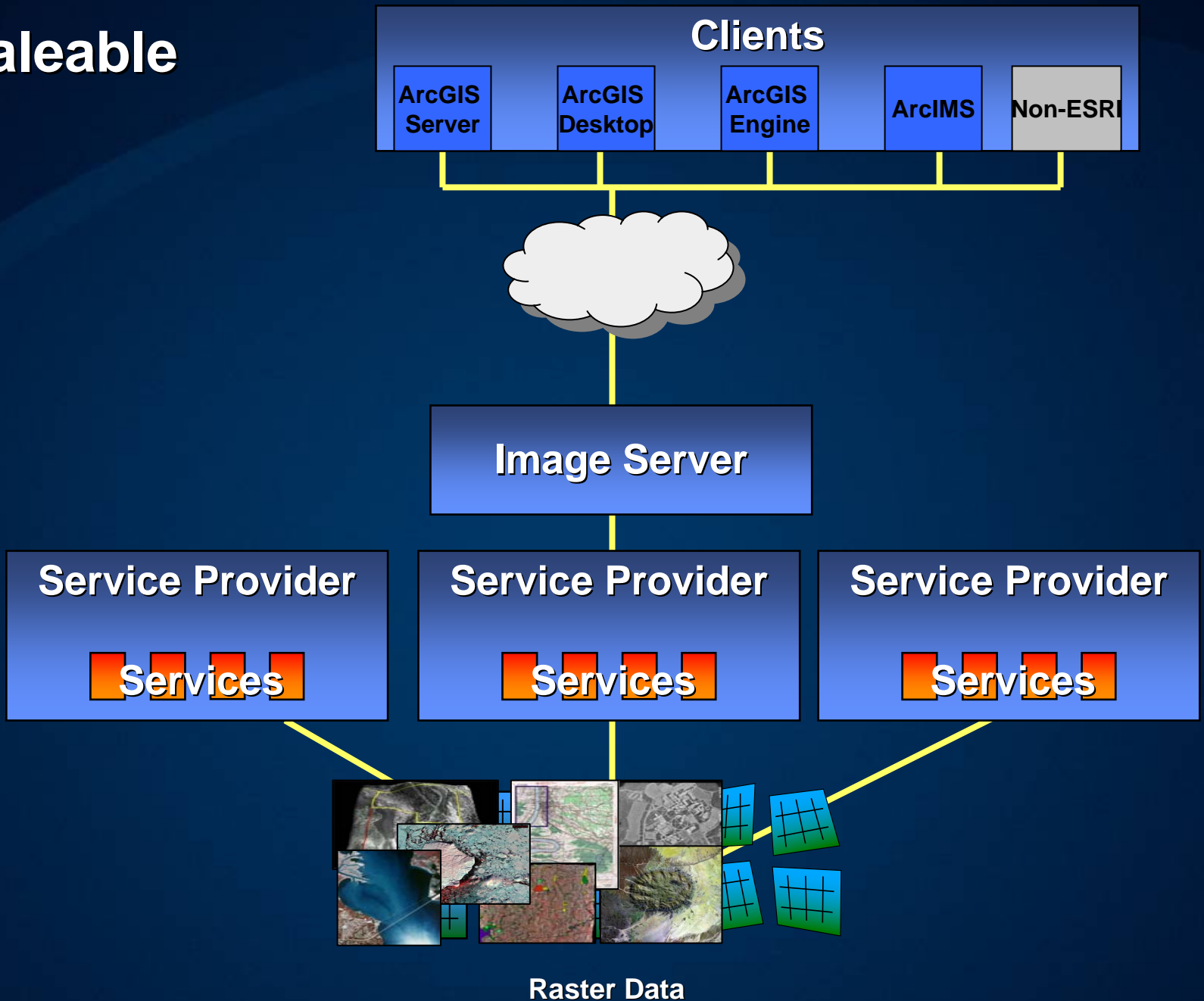
## Open API

- for developers

\*To be available in a service pack



**Scaleable**



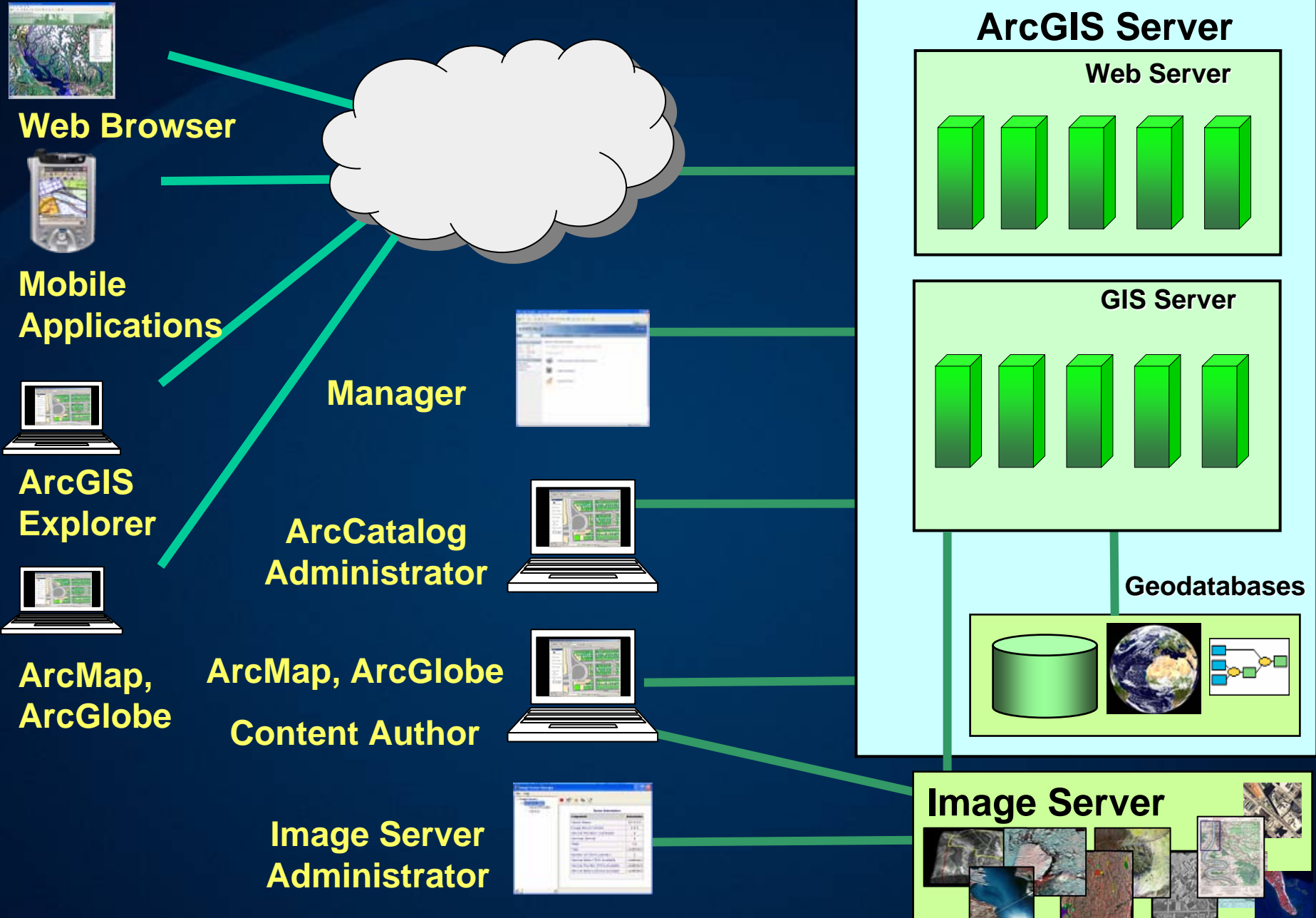
# Supported Raster Formats

- Support for all standard Raster formats
- Some are optimized for a format (i.e., Tiled TIFF)
- Some are generic (All ArcGIS Supported Rasters)
- Generally recommend NOT to use compression on primary imagery
- SDK is available to add additional formats

# ArcGIS Server and Image Server

- ESRI Image Server is a LAN-based client/server application
- ESRI Image Server provides the data
- ArcGIS Server provides the distribution infrastructure
  - Map Services
  - KML Services
  - WMS Services
  - Mobile Services

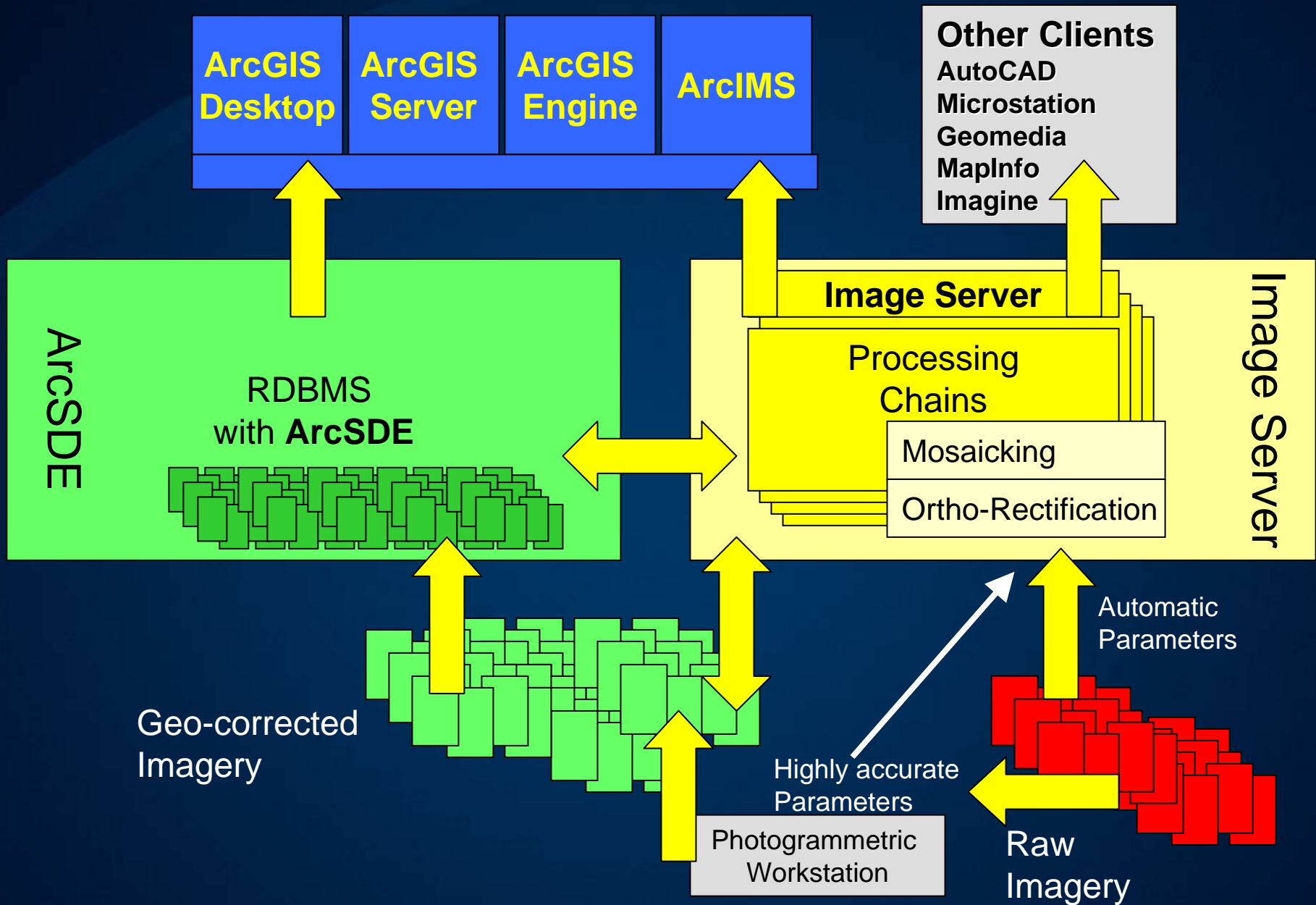
# ArcGIS Image Server and ArcGIS Server



# ArcGIS Server (ArcSDE Technology) and Image Server

- Complimentary
  - Image Server can pre-process data for ArcSDE
  - Image Server can directly read data from ArcSDE
- User choice
  - Database centric?
  - Dynamic images

# Image Server and ArcSDE Technology



# Getting Started

- Image Server Tutorial
  - Step-by-step instructions for setting up Image Server Manager, Provider, and Services
- Imager Server User Guide

# Software Demo