
IBM WebSphere Cast Iron Cloud Integration

**Christopher Markes
Vasile Patrascu**

WebSphere Cast Iron Development

01 Aug 2013



IBM Confidential where marked

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Agenda

- ↓ What is Cloud?
- ↓ WebSphere Cast Iron Cloud Integration - product overview
- ↓ Deployment Options
- ↓ Positioning with other IBM integration products
- ↓ Demonstration

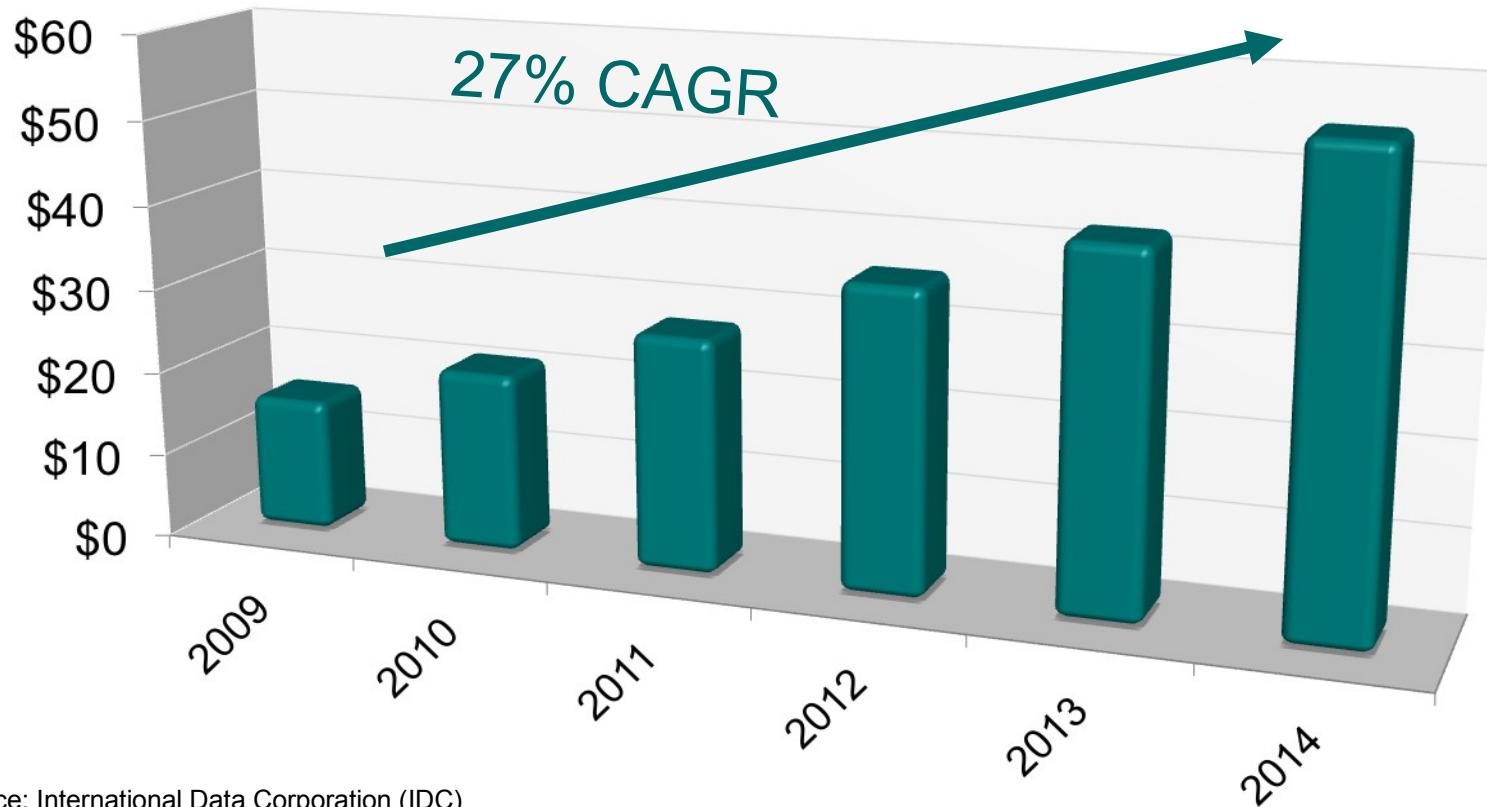
What is Cloud?



Cloud Application (SaaS) Use is Exploding

Global Public Cloud Market: \$55.5B in 2014

Worldwide Cloud Revenue in Billions



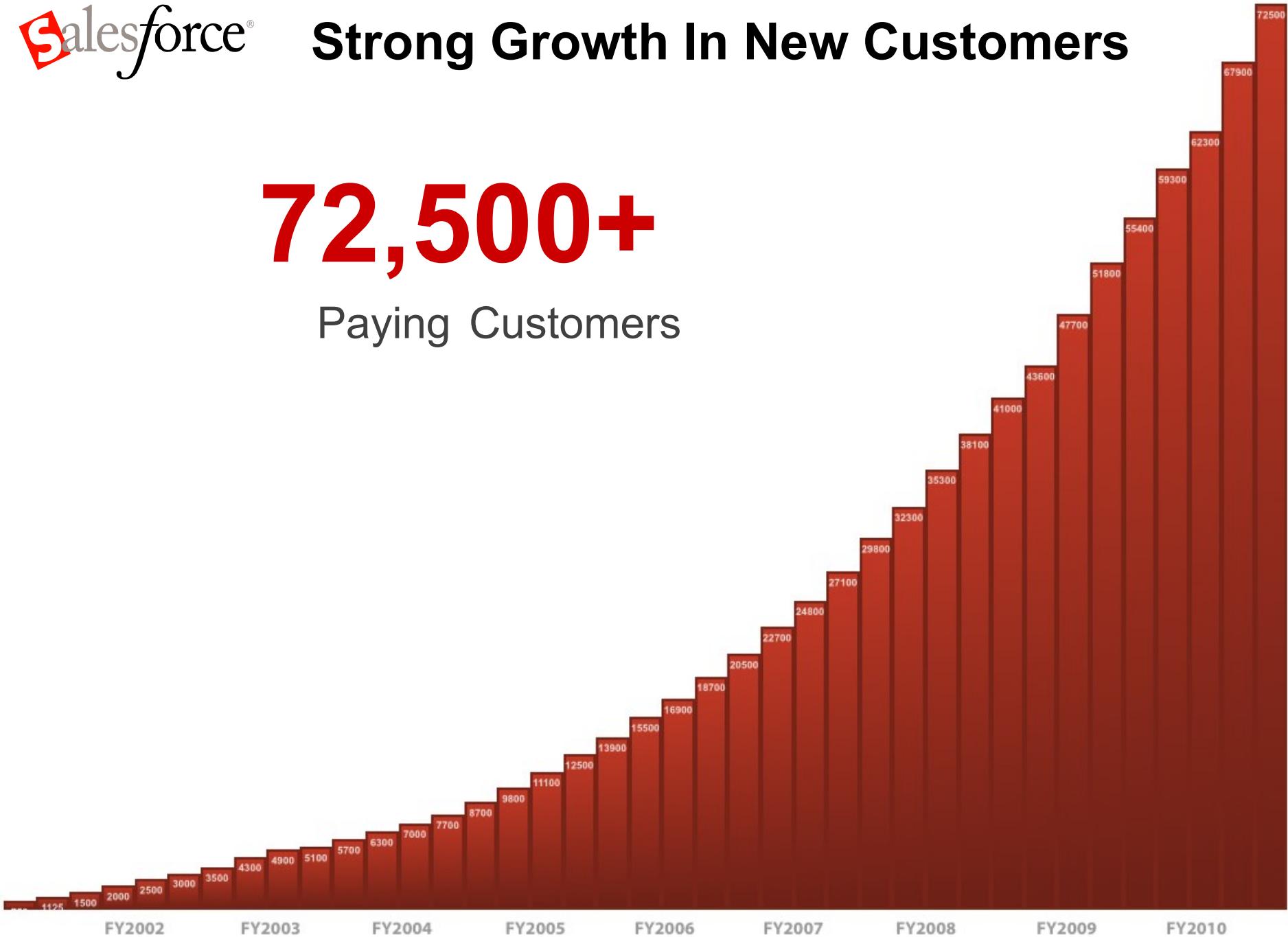
Source: International Data Corporation (IDC)



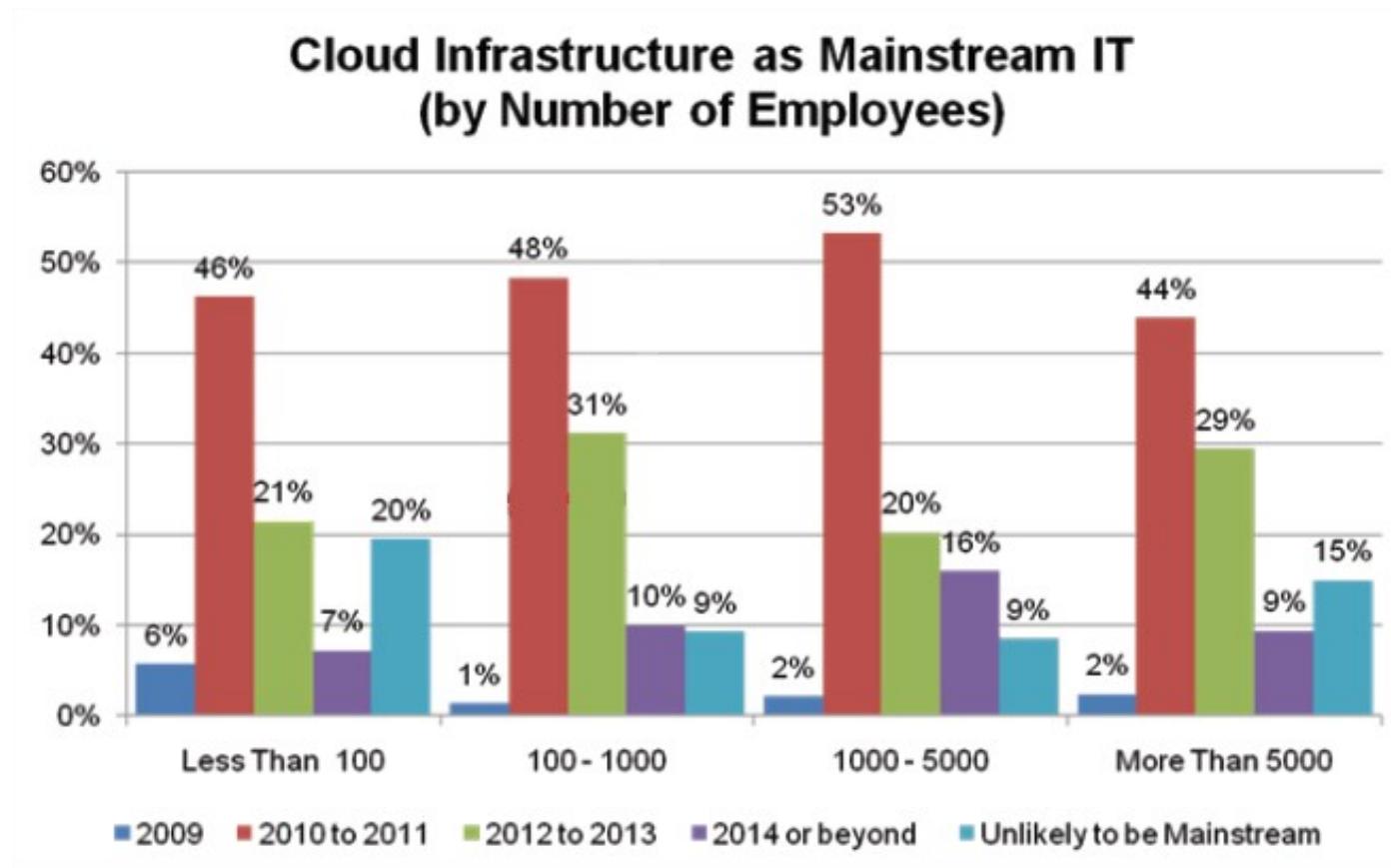
Strong Growth In New Customers

72,500+

Paying Customers



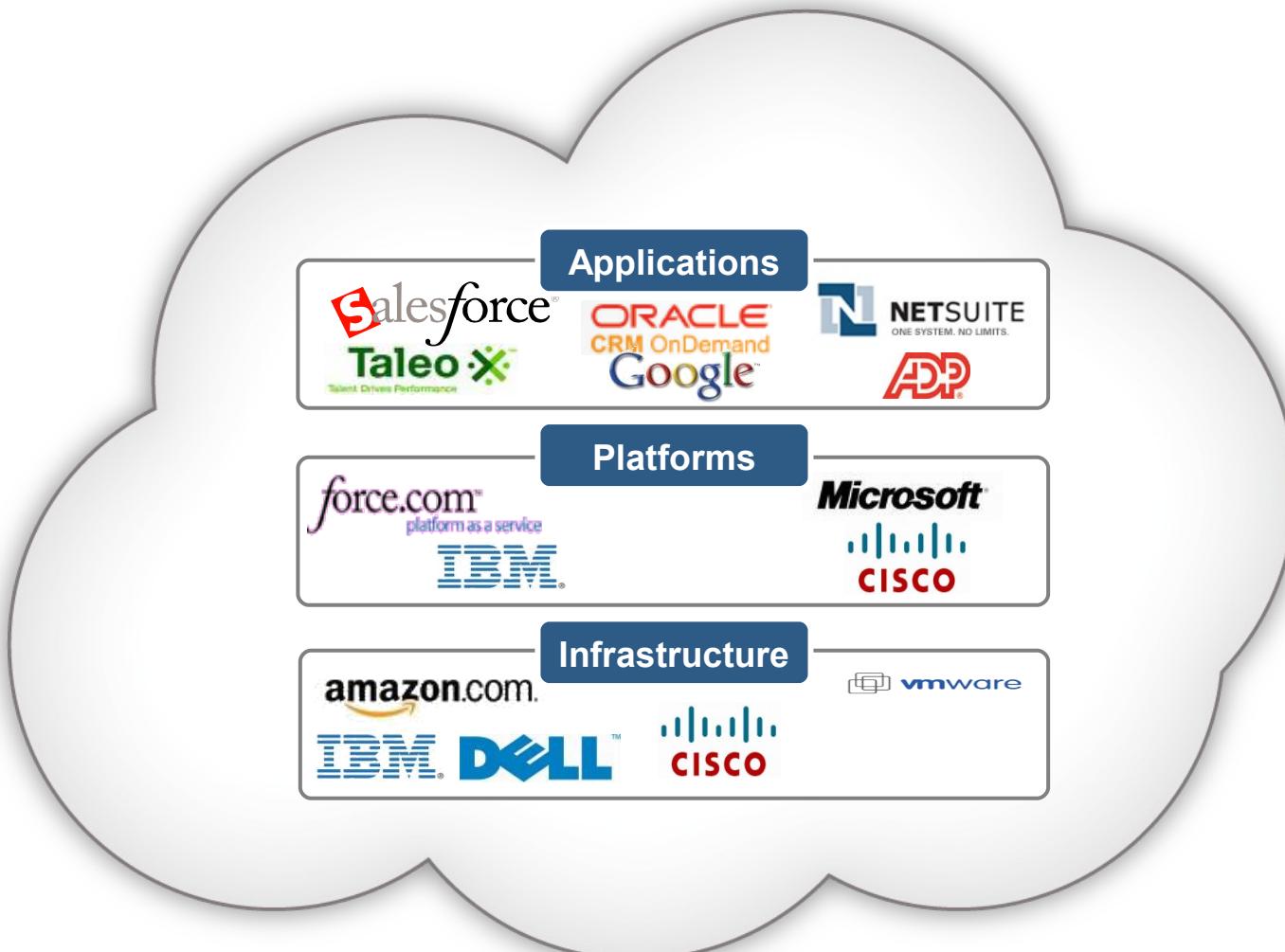
Adoption Not Limited to Mid-Market



Source: Saugatuck Technology Inc., 2009 Global User Survey

Layers of the cloud

Cloud Applications = SaaS



It's a Hybrid World

Companies have both Cloud and On Premise Applications

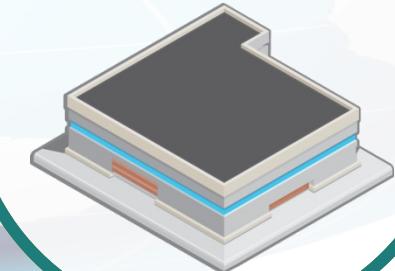
Public Clouds

Private Clouds

Packaged Applications



Home-grown Applications



That Demands Integration

Integration is Critical in a Hybrid World

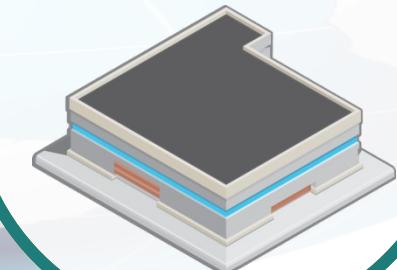
Public Clouds

Private Clouds

Packaged Applications



Home-grown Applications



Needs Become More & More Complex

Integration Maximises Value of Cloud Investments



Cast Iron Cloud Integration Platform

Complete. Proven. Trusted



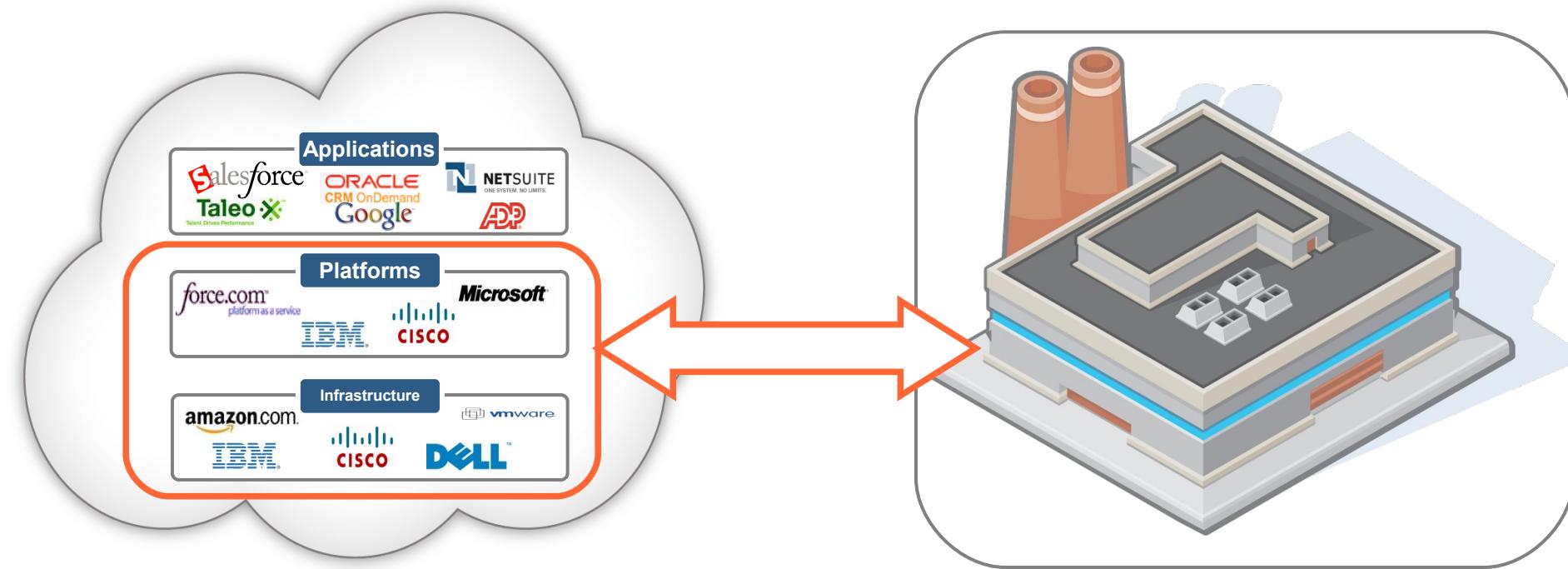
IBM Confidential

IBM Service Management Pack for Hybrid Cloud (HCI)



Managing Hybrid Environments

- requires more than application integration



- ↓ How do I provision cloud assets?
- ↓ Can I sync my user registry between cloud and on-premise?
- ↓ How do I get one view of my IT landscape irrespective of cloud or on-premise?

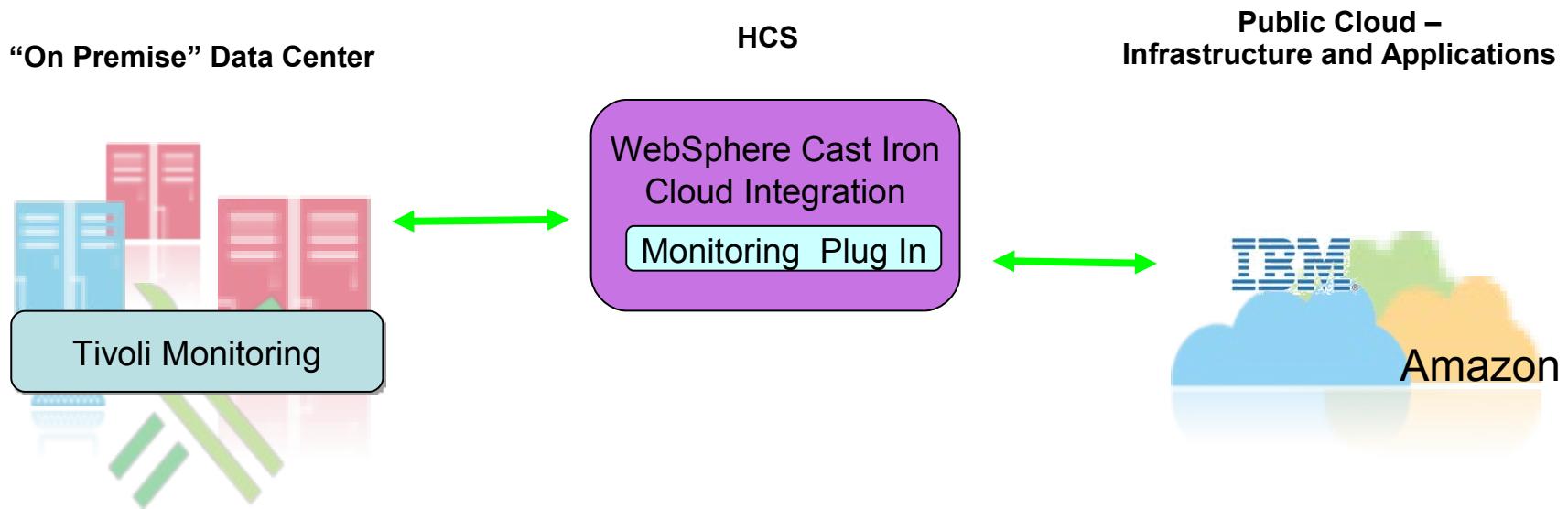
IBM Service Management Pack for Hybrid Cloud (HCI)



- ↓ Hybrid Workload Monitoring
 - On-premise: Tivoli Enterprise Monitoring Server (TEMS)
 - Cloud: IBM Smart Cloud for Enterprise, Amazon EC2
- ↓ Governance & Hybrid Workload Management
 - On-premise: Tivoli Service Automation Manager (TSAM)
 - Cloud: IBM Smart Cloud for Enterprise, Amazon EC2
- ↓ Identity Federation & Secure Zone Overlay
 - On-premise: LDAP, ActiveDirectory, Domino
 - Cloud: LotusLive
- ↓ Expected to be released later this year

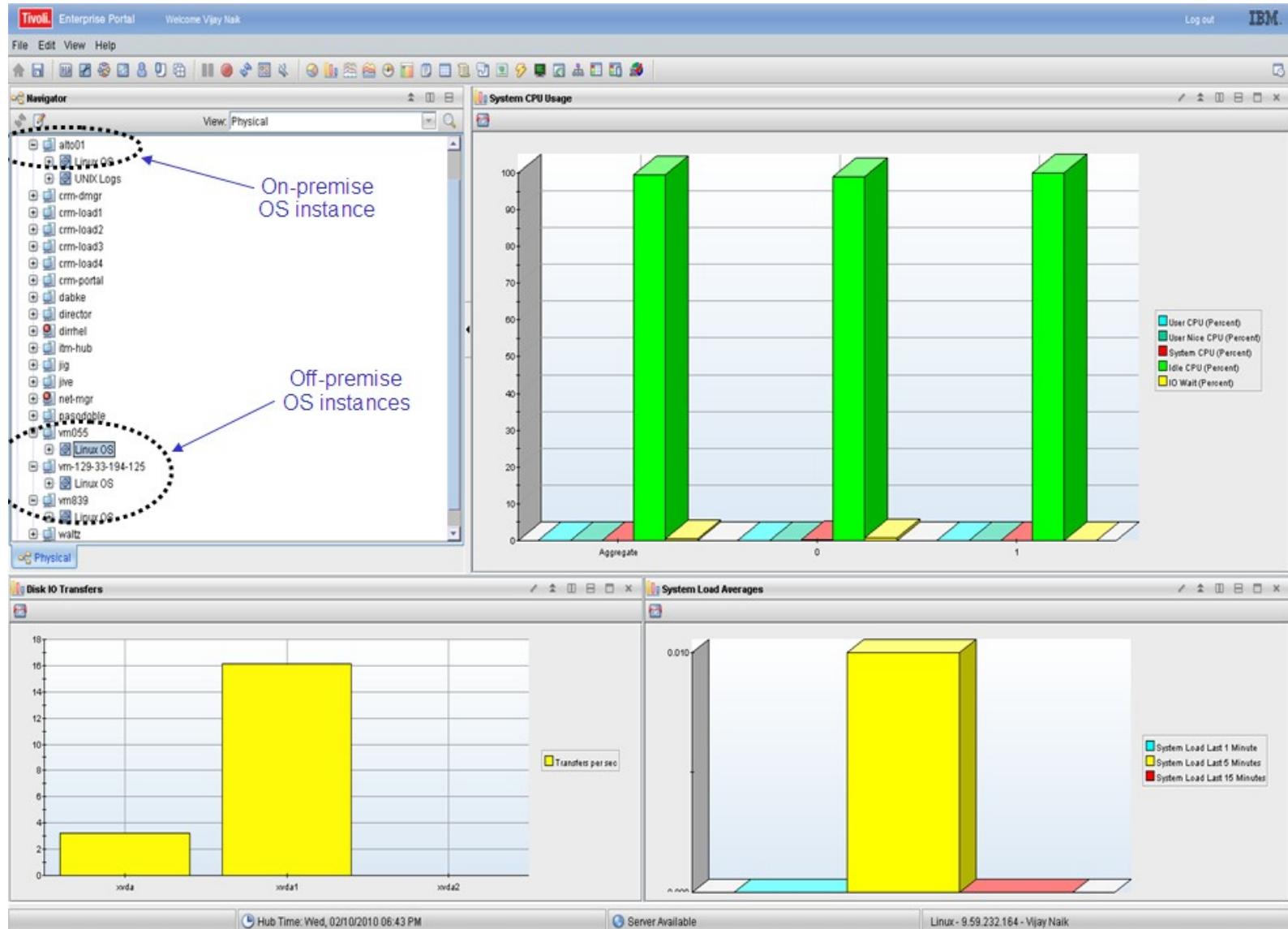
IBM Tivoli Cast Iron Hybrid Cloud Solution: Monitoring

Client wishes to begin monitoring and managing off-premise resources using their existing Tivoli ITM installation:



Value: Client gains visibility into their off-premise “cloud” infrastructure to the same using the same UI as those on premise.

... enables Unified Workload Monitoring



WebSphere Cast Iron Cloud integration Product overview



Cast Iron Company Overview

Corporate Facts

- Founded in 2001 by integration industry experts
- Acquired by IBM May 2010
- Pioneered SaaS / cloud integration
- Unique focus on speed & simplicity — accelerated development
- Thousands of customer integrations
- 96% customer retention
- Patented, Best-Of-Breed, Award-Winning technology

Buzz

“ IBM and Cast Iron...this pair could be match made in enterprise heaven. ”



“ With Cast Iron, IBM gets a proven Cloud integration-as-a-service solution. ”



Recent Awards



CLOUD COMPUTING
WORLD SERIES AWARDS





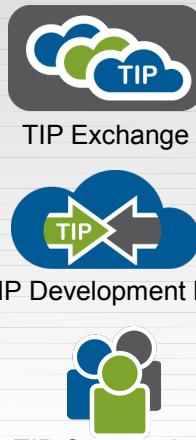
Total Connectivity



Complete Flexibility

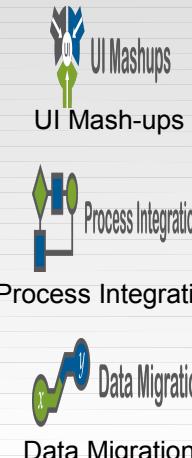


Complete Re-usability



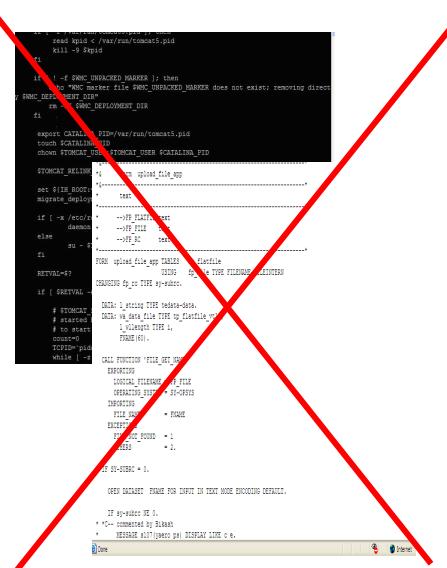
TIP Community

For All Types of Projects

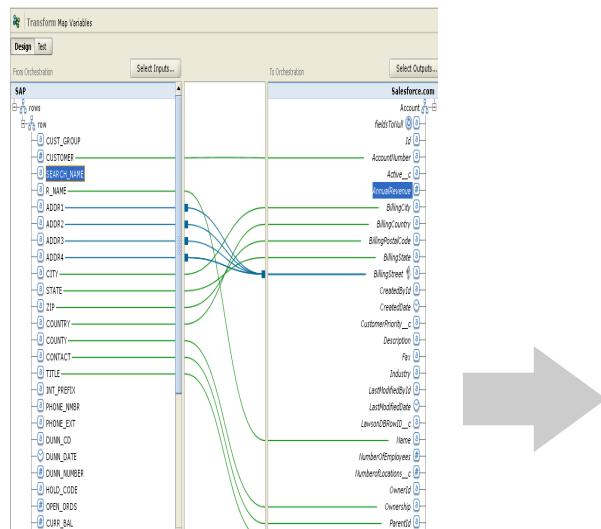


Create Features That Capture Experience

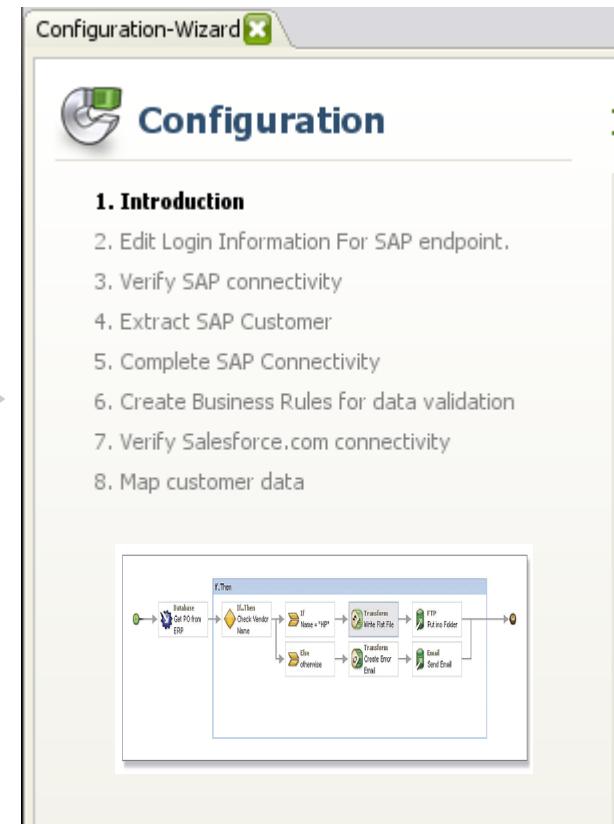
No Coding



Beyond Configuration



Pre-configured Templates (TIPs)



Proven Results

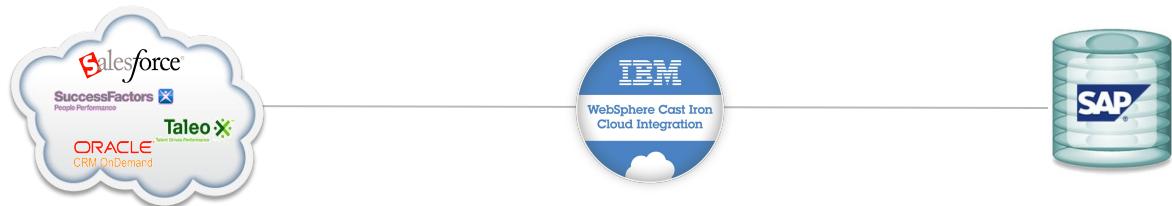
Customer	1 st Project	Duration
 IndigoVision	SFDC – Access Dimensions Sales Order Visibility	10 Days
 SIEMENS	SFDC – SAP Customer and Sales Order Integration	14 Days
 BRITISH AMERICAN TOBACCO	MS SQL – SAP (Malaysia) B2B, Partner and Purchase Order Integration	20 Days
 youSee® <small>Known as • Broadcast • Television</small>	SFDC – Oracle, MS SQL 360 Customer View	14 Days
 Innovators in Vacuum Technology	SFDC - Jeeves Order to Shipment	14 Days

Cast Iron deployment patterns



Integration Patterns

↓ Public cloud to on-premise



↓ Private cloud to on-premise



↓ Cloud to cloud
(public or private)

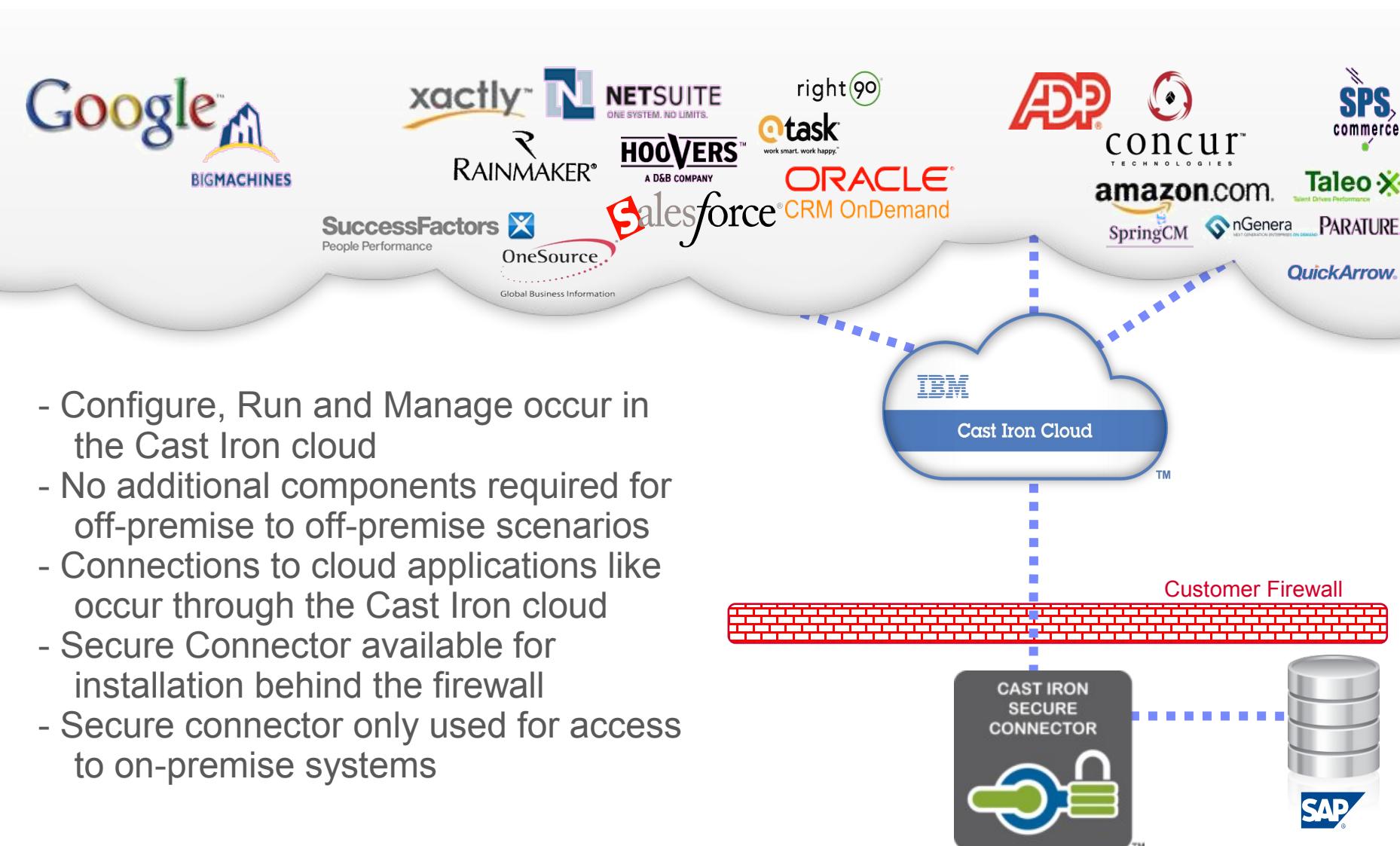


Selecting the correct form factor

Consistent function across all form factors



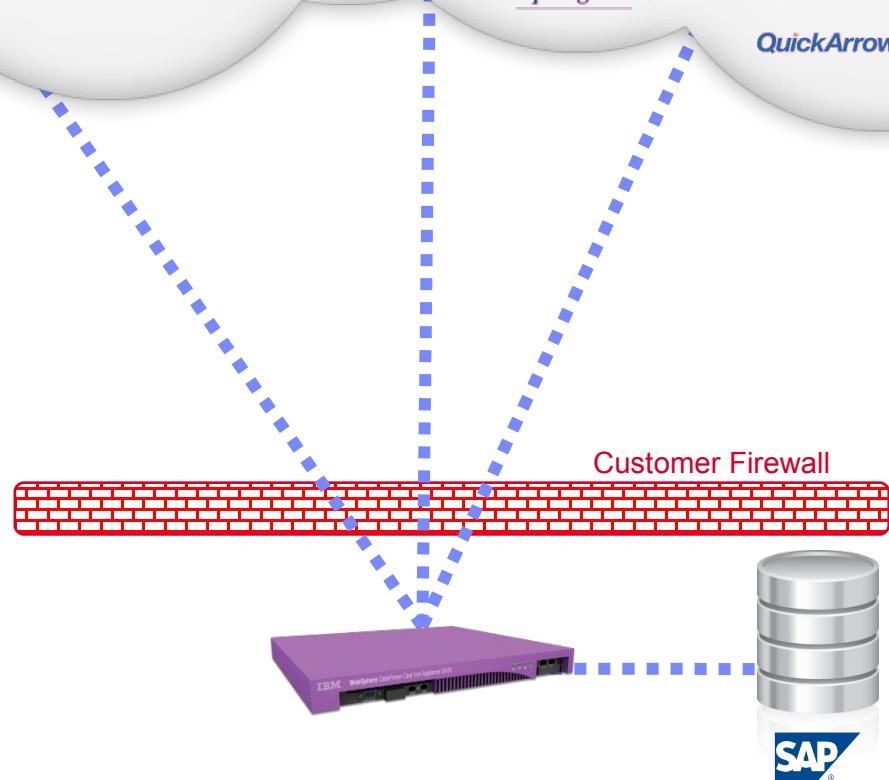
Cloud Deployment Topology



Appliance Deployment Topology



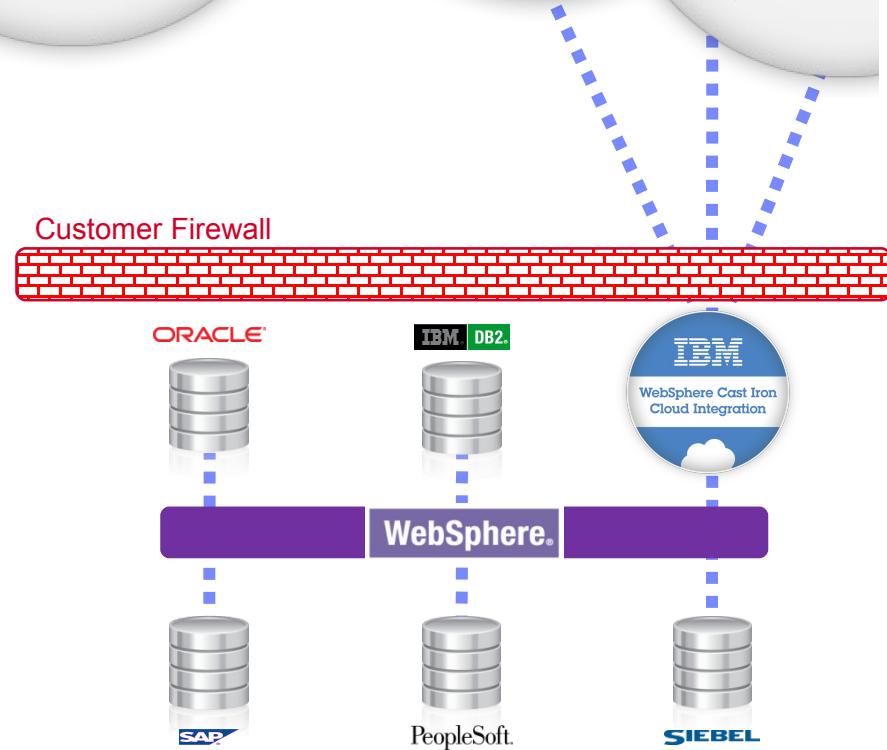
- Configure, Run and Manage occur behind the customer firewall
- Appliance installed behind the customer firewall
- Connections to cloud applications like occur through the appliance
- Connections to on-premise ERP applications like SAP occur on the local network
- Typically not a DMZ deployment



Cast Iron & Enterprise Middleware



- Complimentary to existing ESB and SOA technologies
- Connectivity to enterprise stacks through protocols such as Web Services, JMS, MQ Series
- Leverage Cast Iron for rapid cloud application connectivity
- Use the appliance form factor for a behind-the-firewall solution
- Use the Cast Iron Live form factor for a hybrid solution

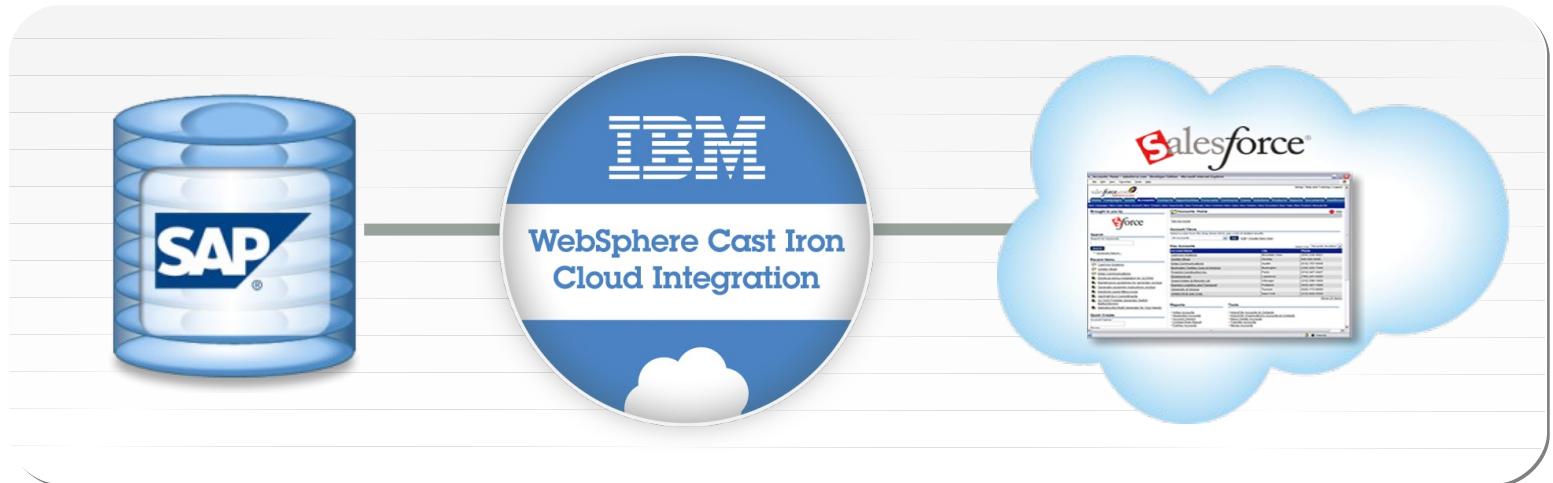


Demonstration

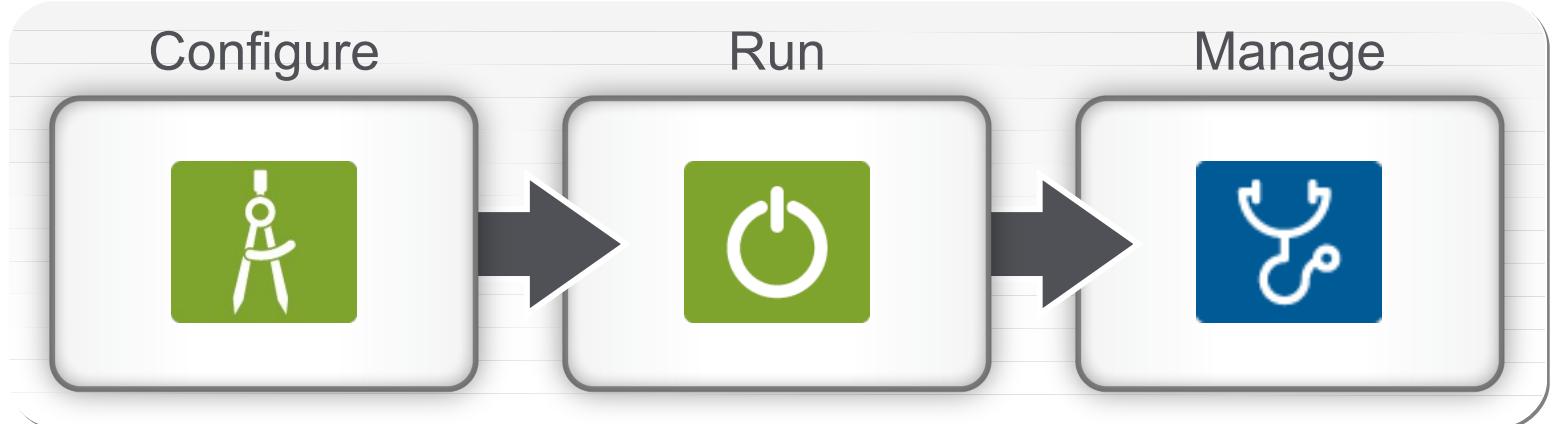


Demonstration

What



How



Summary: WebSphere Cast Iron cloud integration

- ↓ The cloud market is growing rapidly
- ↓ There are three layers to “the cloud” – infrastructure, platform and application
 - ↓ WebSphere Cast Iron is IBM's offering for cloud integration
 - Cast Iron Appliances / Live layer Application
 - Service Management Pack for Hybrid Cloud Infrastructure layer
 - ↓ Focused on accelerated development and rapid deployment through TIPs
 - ↓ Choice of three form factors to suit your business requirements



More Information

The image shows the front cover of a Redguide titled "Connect Cloud and On-Premise Applications Using IBM Cast Iron OmniConnect" by Chandar Patacharan. The cover features a black and white photograph of two people sitting at a table in an office setting. The top right corner has a small graphic of a person walking with a double-headed arrow above them. The bottom right corner contains the author's name, Chandar Patacharan. The IBM logo is positioned in the top right corner of the slide.

Connect Cloud and On-Premise Applications Using
IBM Cast Iron OmniConnect

Redguides
for Business Leaders

Chandar Patacharan

- Connect cloud and on-premise applications quickly and easily
- Use a "configure, not code" method of integration
- Deliver cloud integration with built-in connectivity and integration templates

 Redbooks

www.castiron.com/redguide

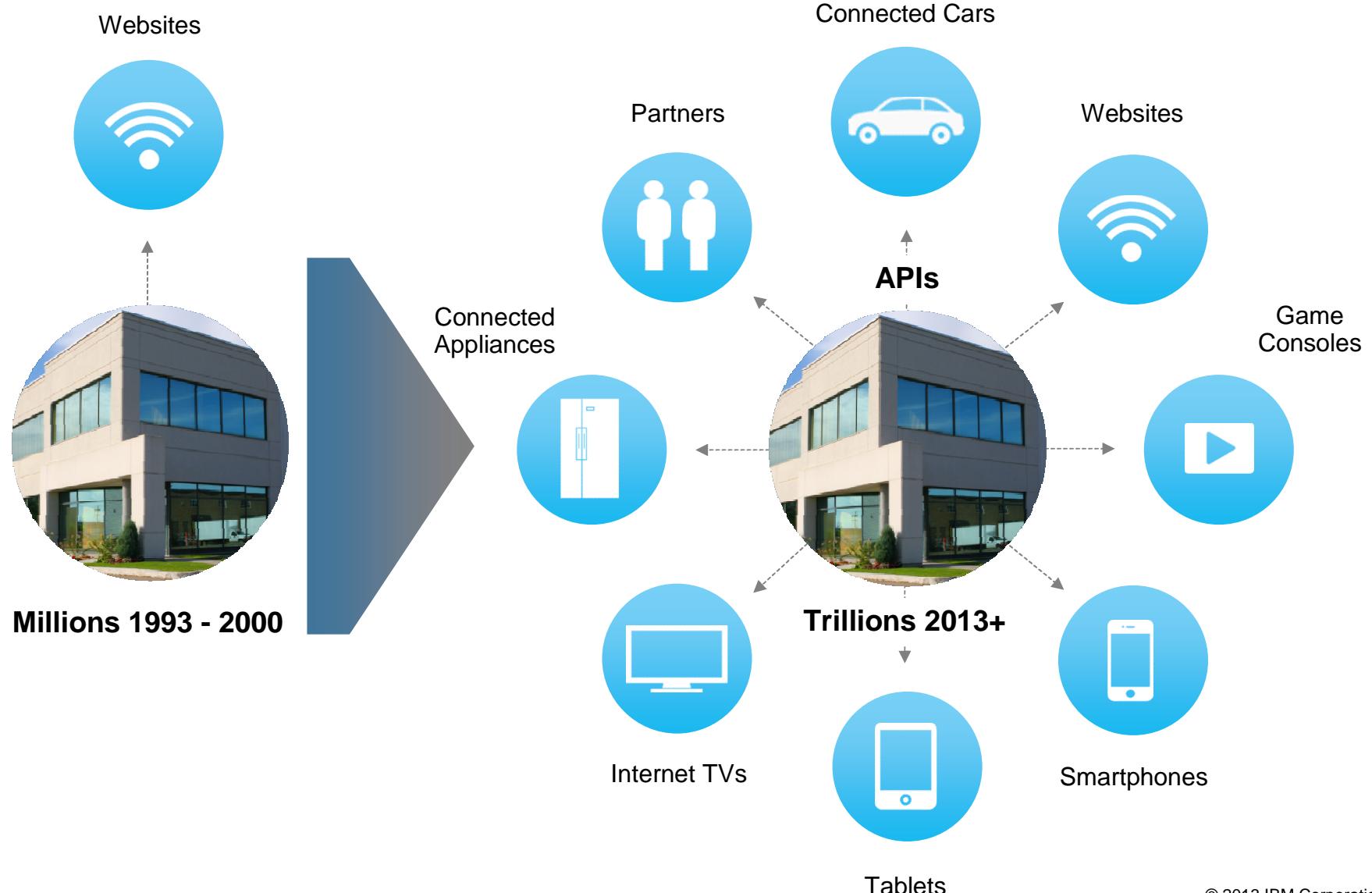
More Information

- ↓ WebSphere Cast Iron
 - <http://www.ibm.com/software/integration/cast-iron-cloud-integration/>
- ↓ Success Stories
 - <http://www.castiron.com/case-studies/index.html>
- ↓ Redguide: Connect Cloud and On-Premise Applications Using IBM Cast Iron OmniConnect
 - <http://www.redbooks.ibm.com/abstracts/redp4674.html>

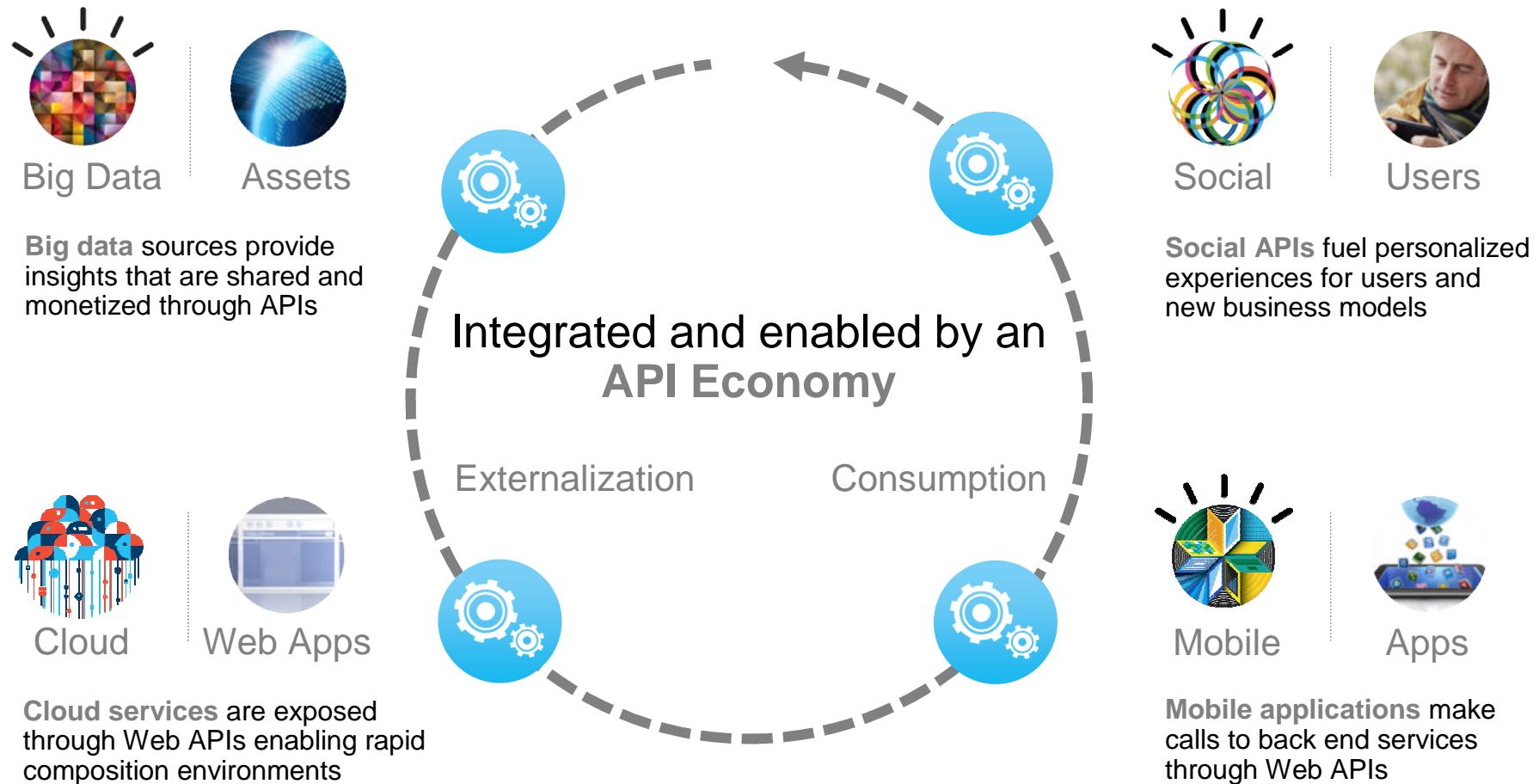
IBM API Management 2.0 Technical Overview



The way we reach and understand customers is evolving

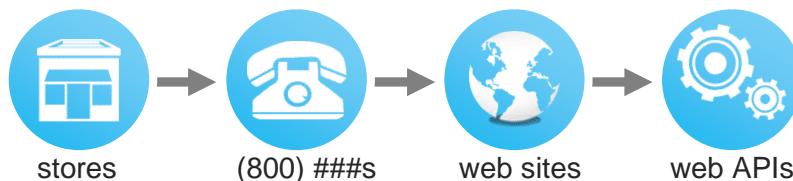


APIs are giving rise to a new app “value chain”



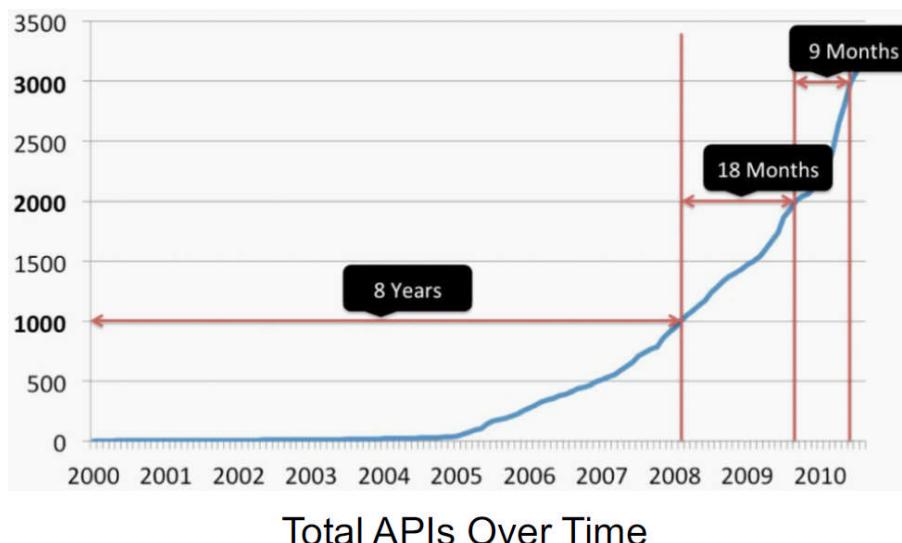
APIs are a path to new business opportunities

Business models are evolving



APIs represent a new, fast-growing channel opportunity

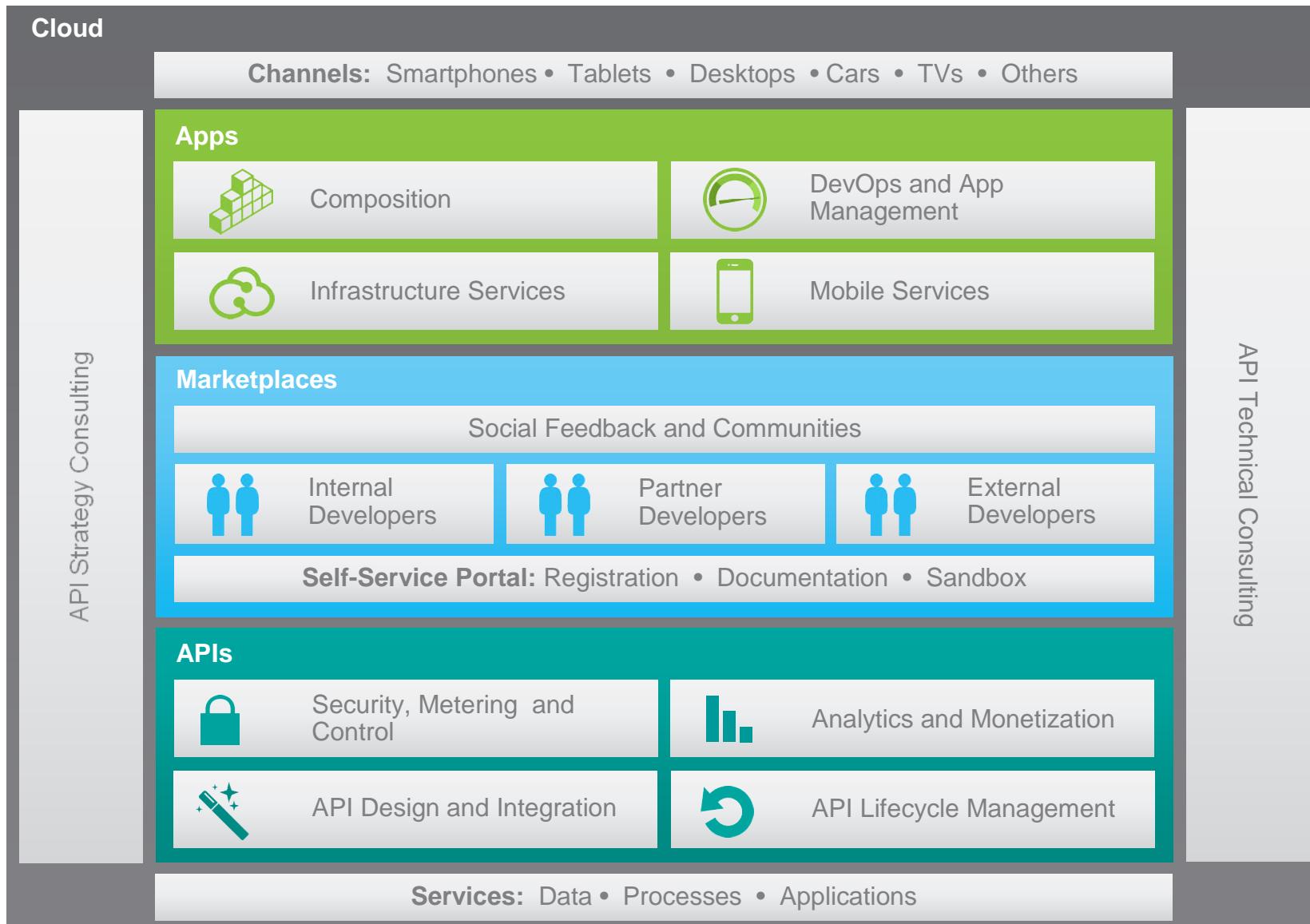
and growth is accelerating dramatically



By 2014, **75%** of the Fortune 1000 will offer public Web APIs.

By 2016, **50%** of B2B collaboration will take place through Web APIs.

A successful API initiative requires end-to-end capabilities



Success Requires Addressing Needs of Multiple Stakeholders

Steve

Steve is the API Product Manager

Jane

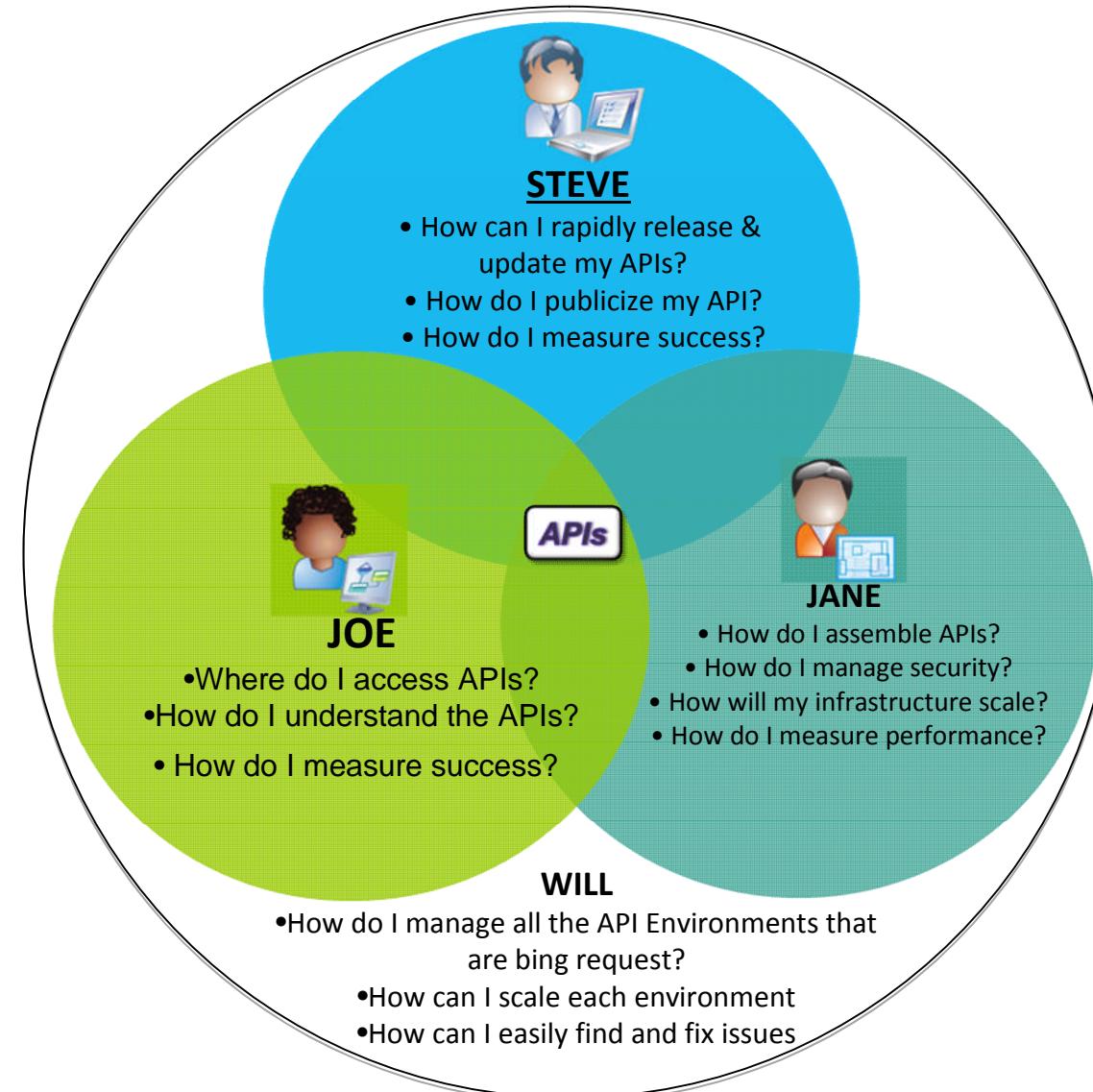
Jane is the technical user who creates and manages the APIs from an IT Operations perspective

Will

Will has the operations roles and is responsible for administration the systems environments

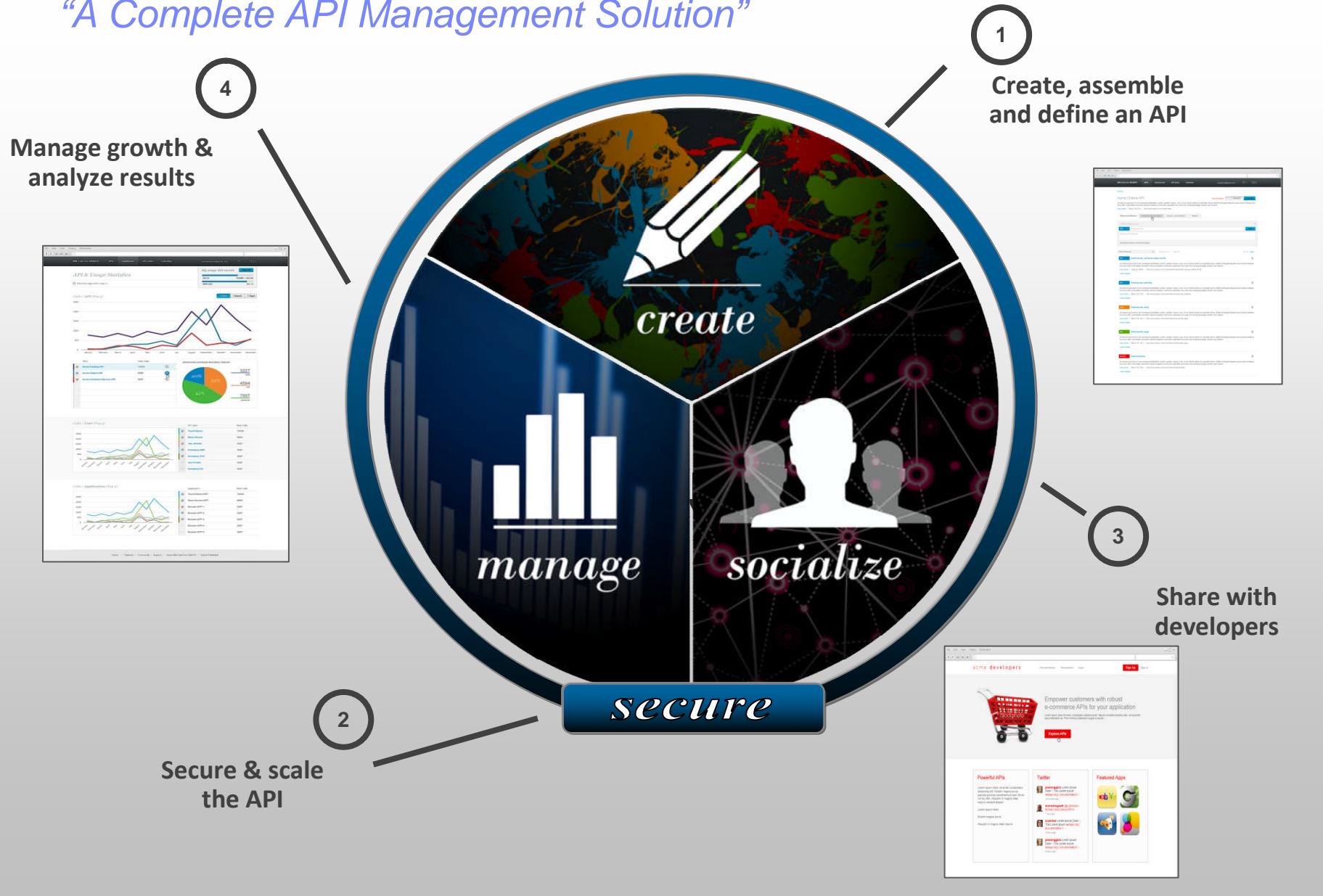
Joe

Joe is the app developer who maybe outside the enterprise or inside the enterprise. He is the consumer of the APIs



Introducing IBM API Management 2.0

“A Complete API Management Solution”



Now Available In the Cloud and On-premise

① In the cloud



② On-premise *Multi-tenant*

 New!

Power by IBM DataPower gateway appliances, the industry leading security & integration gateway appliance

Key Stakeholders



Steve

Steve is the API Product Manager



Jane

Jane is the technical user who creates and manages the APIs from and IT Operations perspective



Will

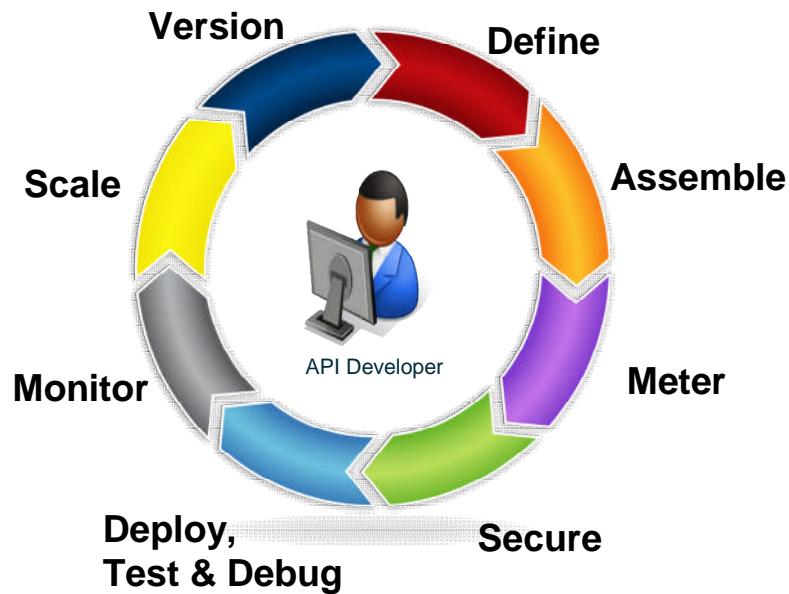
Will has the operations roles and is responsible for administration the systems environments



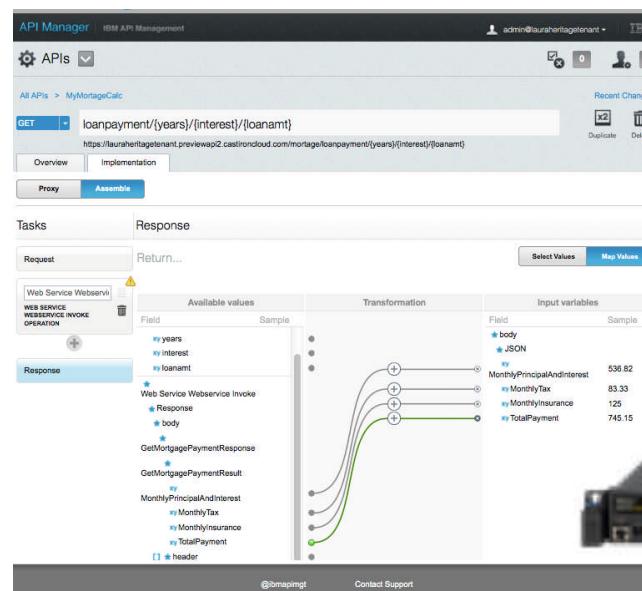
Joe

Joe is the app developer who maybe outside the enterprise or inside the enterprise. He is the consumer of the APIs

Create & Secure... *Simple interface accelerates iterative development and deployment of APIs*



- Intuitively and iteratively **define** APIs and associated policies
- Rapidly **assemble** APIs via configuration-not coding
- Minimize risk with industry leading **security & scalability**



The screenshot shows the IBM API Manager interface. The top navigation bar includes 'API Manager' and 'IBM API Management'. The main area shows an 'APIs' dropdown menu. Below it, a URL 'loanpayment/{years}/{interest}/{loanamt}' is displayed. The interface has tabs for 'Overview' and 'Implementation'. The 'Implementation' tab is selected, showing the 'Proxy' and 'Assemble' tabs. Under 'Assemble', there are sections for 'Tasks' and 'Response'. The 'Response' section shows a 'Web Service Webservice' with a 'WEB SERVICE INVOCATION OPERATION'. It lists fields like 'years', 'interest', 'loanamt', 'body', 'GetMortgagePaymentResponse', 'GetMortgagePaymentResult', 'MonthlyPrincipalAndInterest', 'MonthlyTax', 'MonthlyInsurance', and 'TotalPayment'. Transformation rules map these fields to 'body' and 'JSON' format. Input variables include 'MonthlyPrincipalAndInterest' (538.82), 'MonthlyTax' (83.33), 'MonthlyInsurance' (125), and 'TotalPayment' (745.15). A large server rack icon is overlaid on the bottom right of the screenshot.

Easily Define APIs

Define APIs and Resources

Create new API

API name	context
<input type="button" value="Create"/>	
API description	
https://jkhlairways.web.castiron.com/	

API Manager IBM API Management

All APIs Baggage

Overview Resources Entitlements & Authentication Version Start Duplicate Export Delete Test Manage Versions

+ Add a Resource

GET - Resource URI (e.g. customer/{customerID}/address?queryParam1=sampleData1&queryParam2=sampleData2) Add

Resource description

https://lauraheritagetenant.previewapi2.castironcloud.com/tracker/status?ID

GET tracker/status?ID Created on Jul 3, 2013, 12:03:37 PM Tracks the status of luggage Not Running NOT SECURED

GET - status?ID https://lauraheritagetenant.previewapi2.castironcloud.com/tracker/status?ID Overview Implementation Description Tracks the status of luggage Analytics Store details of all calls to this resource Parameters ID bagag ID example: 234123H Request Headers Response Headers Header name Description Header name Description Header name Description Header name Description Response Body

```
{
  "bagstatus": [
    {
      "bags": [
        {
          "id": "1133944",
          "status": "On Belt",
          "checkinLocation": "LHR",
          "checkinTime": "Wed Jun 27 21:50:25 UTC 2012",
          "currentLocation": "JFK",
          "destination": "LVS"
        },
        {
          "id": "1133823",
          "status": "On Plane",
          "checkinLocation": "YYZ",
          "checkinTime": "Wed Jun 27 21:50:25 UTC 2012",
          "currentLocation": "TRANSIT",
          "destination": "LVS"
        }
      ]
    }
  ]
}
```

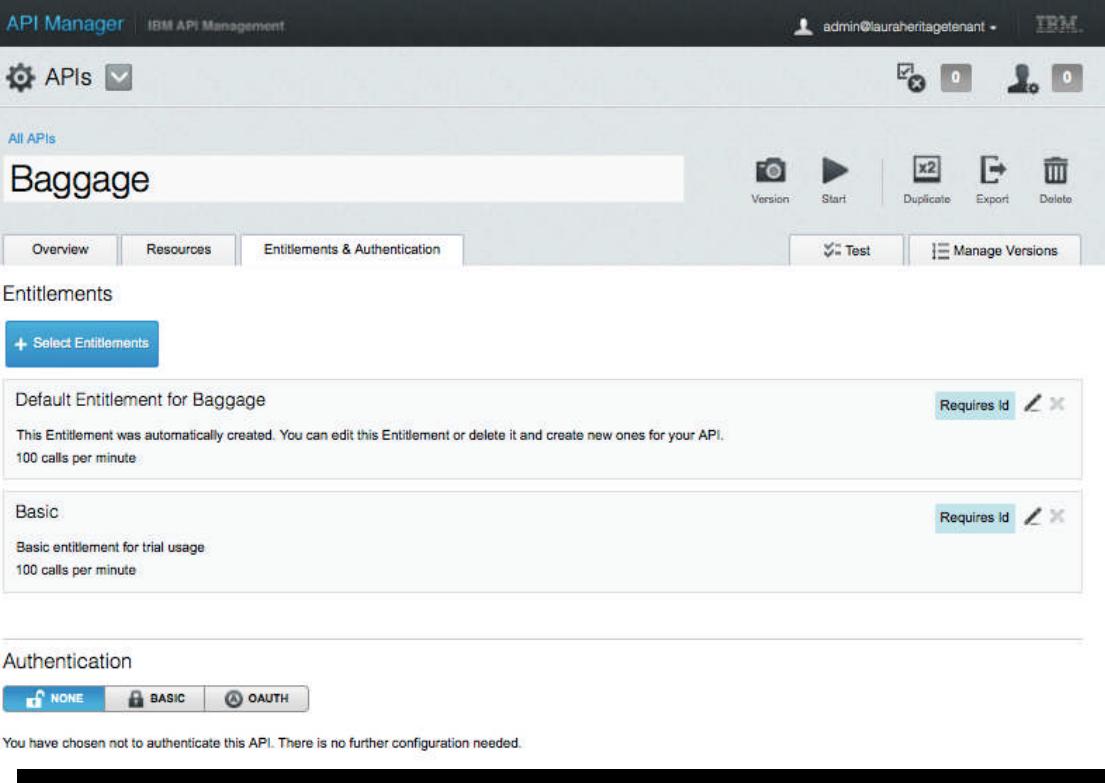
Assemble New APIs Through Configuration

The screenshot shows the 'Assemble' tab of the API configuration interface. The 'Request' section contains a 'Web Service Webservice' node with a 'WEB SERVICE WEBSERVICE INVOKE OPERATION' configuration. The 'Response' section contains a 'GetMortgagePaymentResponse' node. A mapping table is used to transform the request into the response:

Available values	Transformation	Input variables	
Field	Sample	Field	Sample
x years		* body	
x interest		* JSON	
x loanamt		xy MonthlyPrincipalAndInterest	536.82
*		xy MonthlyTax	83.33
Web Service Webservice Invoke		xy MonthlyInsurance	125
* Response		xy TotalPayment	745.15
* body			
*			
GetMortgagePaymentResponse			
*			
GetMortgagePaymentResult			
xy MonthlyPrincipalAndInterest			
xy MonthlyTax			
xy MonthlyInsurance			
xy TotalPayment			
[] * header			

- Connect to one or more datasource
 - DB2
 - MySQL
 - Oracle
 - Salesforce.com
 - SOAP to REST
 - HTTP
 - Drag and connect linking the request and response messages
 - Transform the message elements with a click
- 

Meter through API Entitlements



The screenshot shows the IBM API Manager interface for managing APIs. The top navigation bar includes 'API Manager' and 'IBM API Management'. The user is logged in as 'admin@lauraheritagetenant'. The main area shows the 'All APIs' list with 'Baggage' selected. Below the API name are buttons for 'Version', 'Start', 'Duplicate', 'Export', and 'Delete'. A toolbar at the bottom includes 'Test' and 'Manage Versions'. The 'Entitlements' tab is active, showing two entries:

- Default Entitlement for Baggage**: This entitlement was automatically created. It requires an ID and allows 100 calls per minute.
- Basic**: A basic entitlement for trial usage, also allowing 100 calls per minute.

The 'Authentication' section indicates that no authentication is required ('NONE').

Specify Entitlement:

- Limit based on number of calls
- Per period of time 
- Specify requirements for App Key, and Secrets
- Specify an request approval is needed to use this entitlement level

Management of Entitlements:

- Create an Entitlement once and reuse across several APIs
- Easily change existing entitlements and activate the changes
- View which APIs the Entitlements are applied to.

Secure with Industry Leading Technology

The screenshot shows the IBM API Management interface. At the top, there's a blue oval button with the word "New!". Below it, the "Entitlements" section lists two plans: "Free" and "Premium". The "Free" plan allows "1000 Calls / 10 MB / Min" and requires an "App Key". The "Premium" plan allows "GET 10000 Calls / 100 MB / Min", "POST 100 Calls / 10 MB / Hr", "PUT 100 Calls / 10 MB / Min", and "DELETE 1000 Calls / 10 MB / Min", and requires "App Key & Secret" and "Approval". In the "Authentication" section, a red box highlights the "NONE" button, which is selected. Below it, a message says: "You have chosen not to authenticate this API. There is no further authentication configuration needed."

Basic Auth Support

- LDAP
- Authentication URL



Authentication

The screenshot shows the OAuth configuration screen. It starts with a dropdown menu set to "OAuth 1". Below it, a note says: "The selected OAuth Profile makes use of Authorization Code and Implicit Grant Types. Please make note of the following Authentication Endpoint URL. It will be required to invoke this API: company.web.castiron.com/telcoapi/oauth/authenticate". A "Learn More..." link is provided. At the bottom, there are two radio buttons: one selected for "Authenticate using an LDAP user directory" with "LDAP 1" in a dropdown, and another for "Authenticate using an Authentication URL" with a text input field containing "Specify a URL".

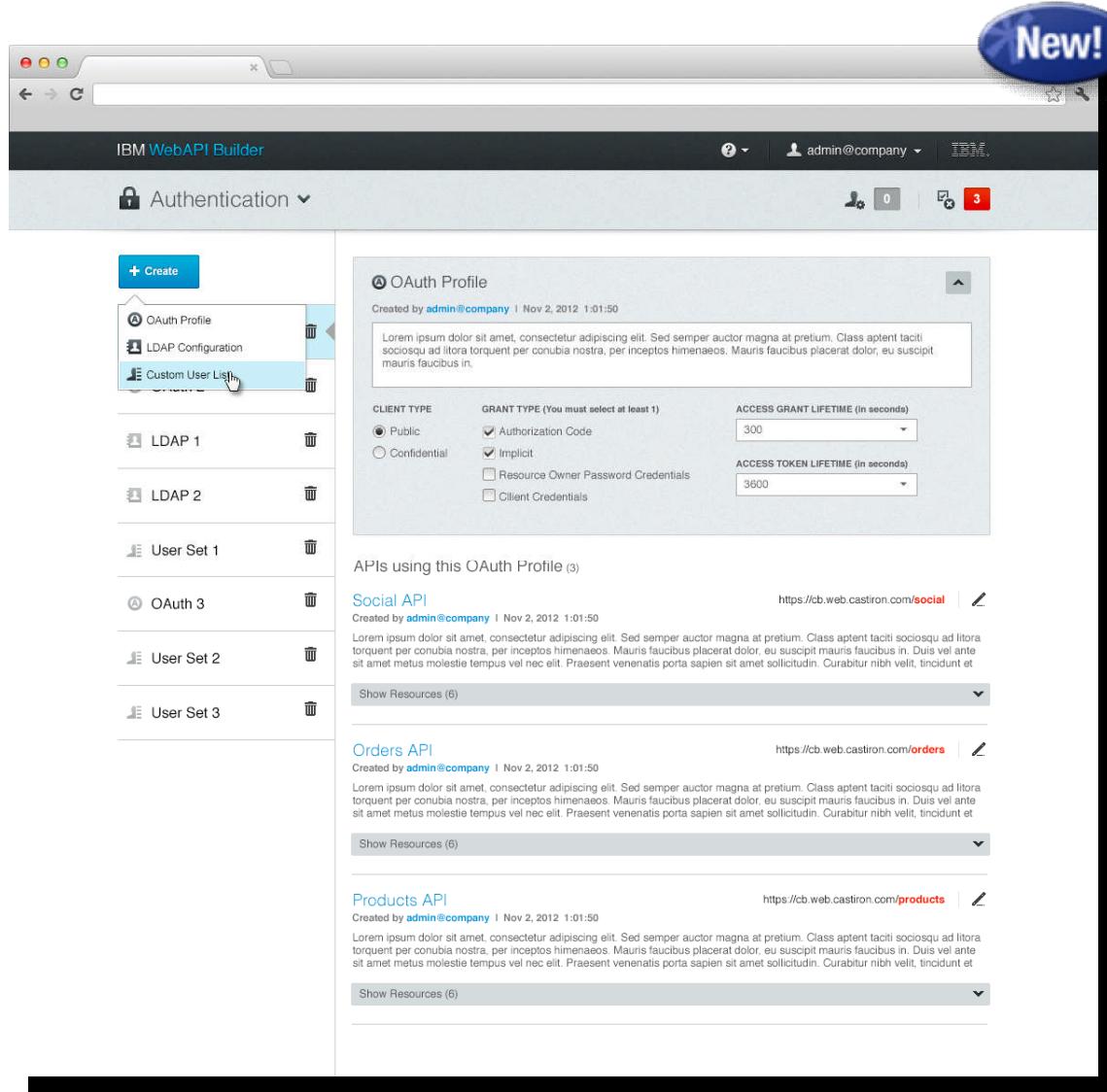
Secure with Industry Leading Technology

The screenshot shows the IBM WebAPI Builder interface. On the left, a sidebar lists various authentication configurations: My LDAP, OAuth 1, OAuth 2, LDAP 1, LDAP 2, User Set 1, OAuth 3, User Set 2, and User Set 3. The 'My LDAP' item is selected. The main panel displays the 'LDAP Configuration' screen. It shows a configuration for 'ldap ldap' on port 8080, using LDAP version 2, with a PREFIX of 'uuid=' and a SUFFIX of '<USERNAME> ou=People,dc=company,dc=com'. A 'Test Configuration' button is shown as 'LDAP is working'. Below this, under 'APIs using this LDAP Configuration (3)', there are three entries: 'Social API', 'Products API', and another 'Social API'. Each entry shows its status ('1.3 is Running'), creation date ('Nov 2, 2012 1:01:50'), and a brief description of the API's purpose.

- Configure your LDAP Server inline or globally and reuse configuration
- See which APIs are leveraging the LDAP Server



Secure with Industry Leading Technology



The screenshot shows the IBM WebAPI Builder interface. On the left, a sidebar lists various configurations: OAuth Profile (selected), LDAP Configuration, Custom User List, LDAP 1, LDAP 2, User Set 1, OAuth 3, User Set 2, and User Set 3. A blue 'New!' button is visible in the top right corner. The main panel displays the 'OAuth Profile' configuration screen, which includes fields for Client Type (Public selected), Grant Type (Authorization Code selected), Access Grant Lifetime (300 seconds), and Access Token Lifetime (3600 seconds). Below this, a section titled 'APIs using this OAuth Profile (3)' lists three APIs: Social API, Orders API, and Products API, each with its URL and a edit icon.

Simplified OAuth 2.0 through a Configuration Approach

- Configure an OAuth Profile that can be applied to the APIs
- View APIs which leverage the OAuth Profile



DataPower Hooks for Advanced Use Cases

Use Cases Such As:

- Filter (including schema validation for JSON and XML, AV scanning using ICAP, & other non-schema based filtering)
- Alternate Authentication and Authorization mechanisms
- Message level security(Encryption & decryption of entire parts of the messages, Digital Signature Verification or Signing)
- Message enrichment (add pieces of data)
- Message Transformation
- Additional Entitlements
- Traffic Shaping



Test APIs Without Leaving the Management Center

- Get instant feedback on the API

The screenshot shows the IBM API Management API Manager interface. The top navigation bar includes 'API Manager' and 'IBM API Management'. The user is logged in as 'admin@lauraheritagtenant'. The main area displays the 'Baggage' API. The 'Test' tab is selected. In the 'Request' section, a GET request is defined with the URL 'status?ID' and the 'Test application' selected. Parameters include 'ID' set to '3453H'. Request Headers are listed as 'No headers'. The 'Returned Response' section shows a 200 OK status. The 'Response Headers' section lists standard HTTP headers. The 'URL' field is empty. The 'Response Body' section displays the JSON response:

```
{  
  "bagstatus": {  
    "bags": [  
      {  
        "id": "133944",  
        "status": "On Belt",  
        "checkInLocation": "LHR",  
        "checkInTime": "Wed Jun 27 21:50:25 UTC 2012",  
        "currentLocation": "JFK",  
        "destination": "LVS"  
      },  
      {  
        "id": "133823",  
        "status": "On Plane",  
        "checkInLocation": "YYZ",  
        "checkInTime": "Wed Jun 27 21:50:25 UTC 2012",  
        "currentLocation": "TRANSIT",  
        "destination": "LVS"  
      }  
    ]  
  }  
}
```

Debug an Assembly and Supply Custom Error Message

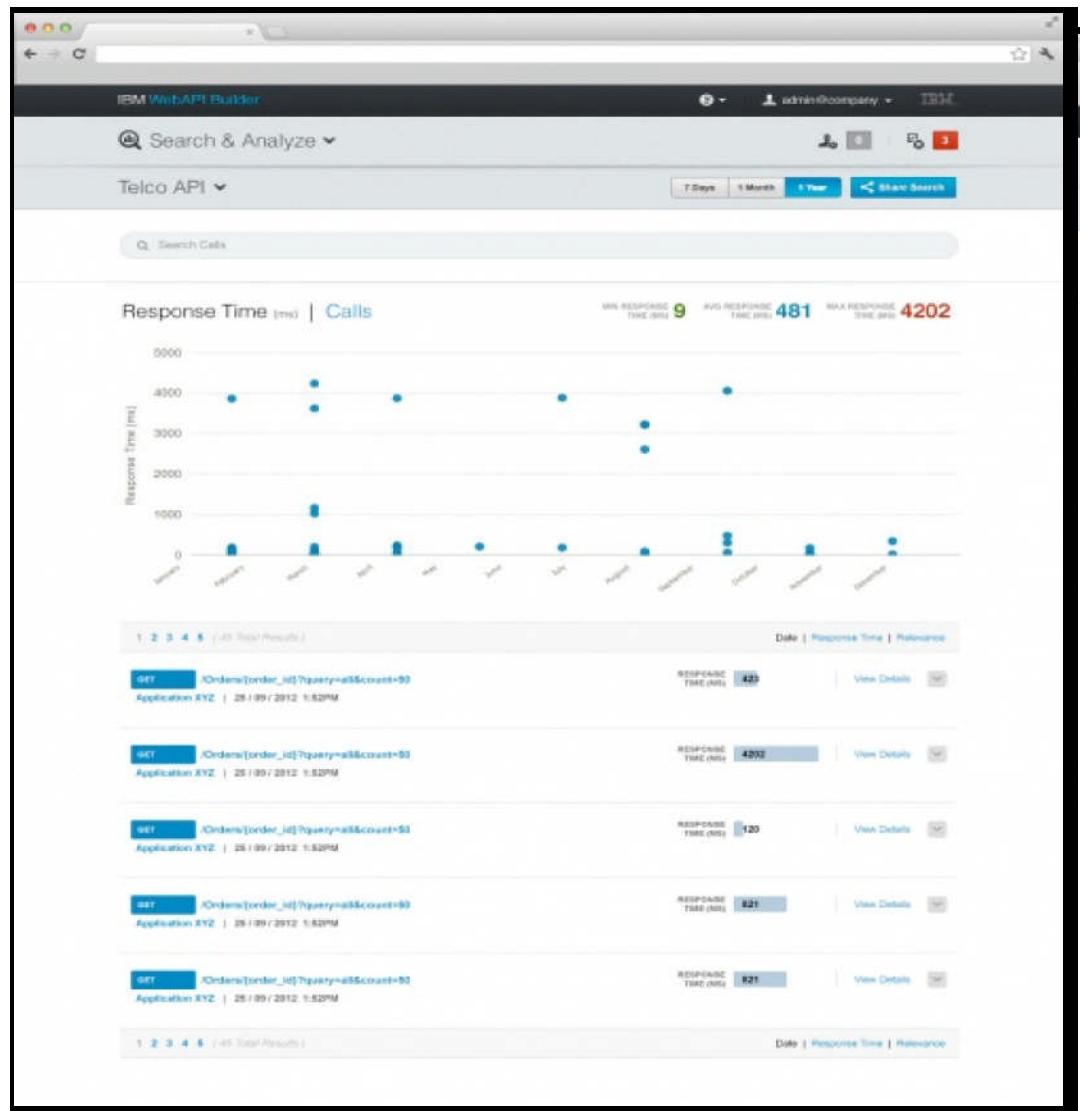
▪ Inspect request, assembly and response messages

▪ Define custom error messages

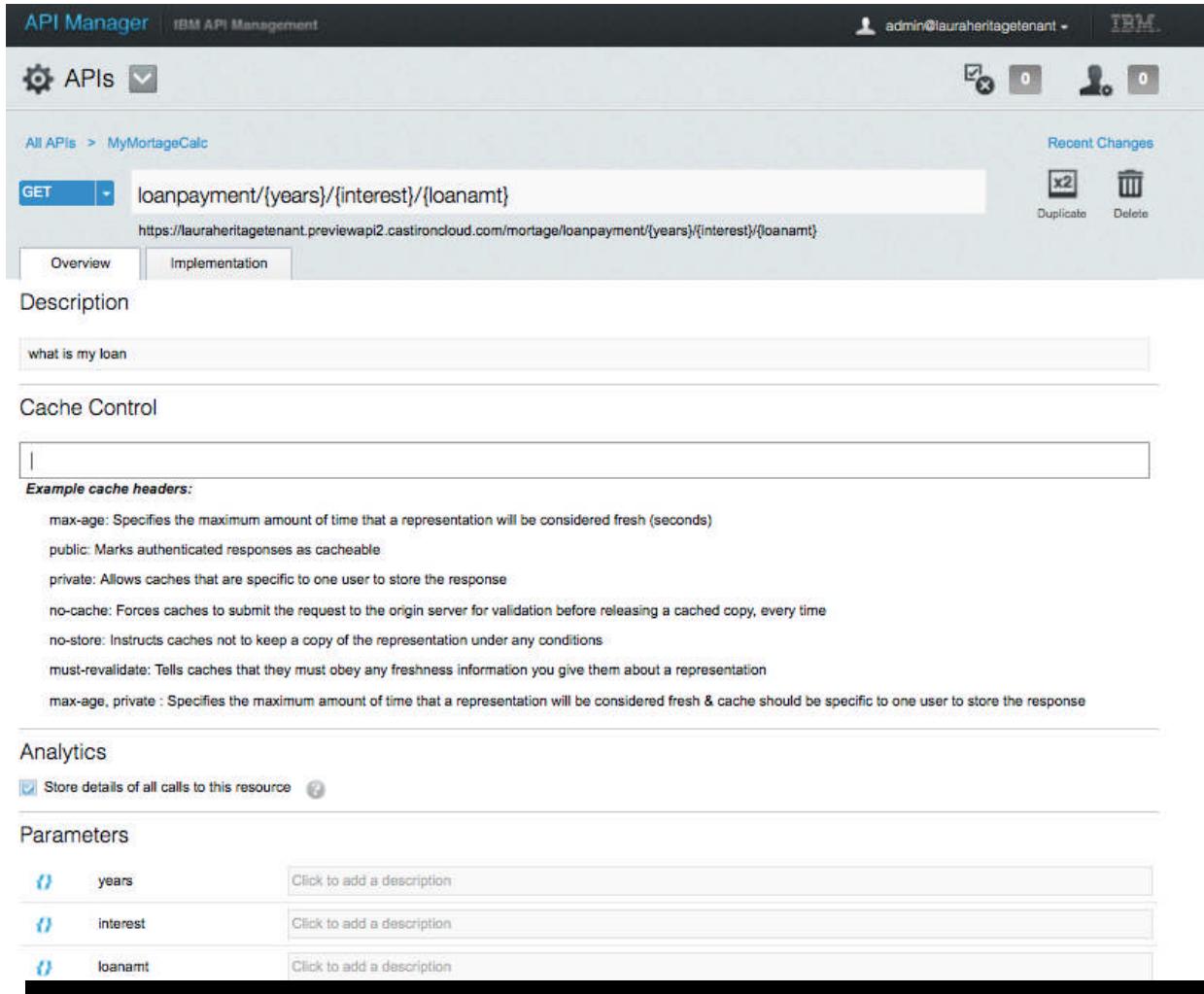
The screenshot shows the IBM API Management interface. At the top, there's a navigation bar with 'Activity Feed' and 'Manage Secure Connectors'. Below it, a section titled 'Monitor Activities' displays activity counts: 11 ALL ACTIVITY, 6 API ACTIVITY, and 0 ALERTS. A message indicates a successful GET request to 'http://jkhleairways.appspot.com/baggage.json'. The main area shows an 'HTTP GET Operation' configuration with a 'Request' tab (method: GET, URL: http://jkhleairways.appspot.com/baggage.json) and a 'Response' tab (body: No body). The 'Response Body' pane shows a JSON object representing baggage status. Below this, tabs for 'CONNECT', 'DEFINE', 'CONFIGURE', and 'REVIEW' are visible. At the bottom, an 'Error Handling' section is shown with two configurations: one for 'Operation error' returning 417 Expectation Failed and sending a message, and another for 'For ALL other cases' selecting an HTTP code and action.

Monitor Your APIs to Ensure You Meet the QoS You Defined in Your Entitlements

- Pinpoint fluctuations
- Details of the Response time of each API 
- Number of Call Received
- Export the Analytics



Scale with a Click



The screenshot shows the IBM API Manager interface for the 'MyMortageCalc' API. The top navigation bar includes 'API Manager' and 'IBM API Management'. The user is logged in as 'admin@lauraheritagetenant'. The main view displays the 'APIs' section with a single entry:

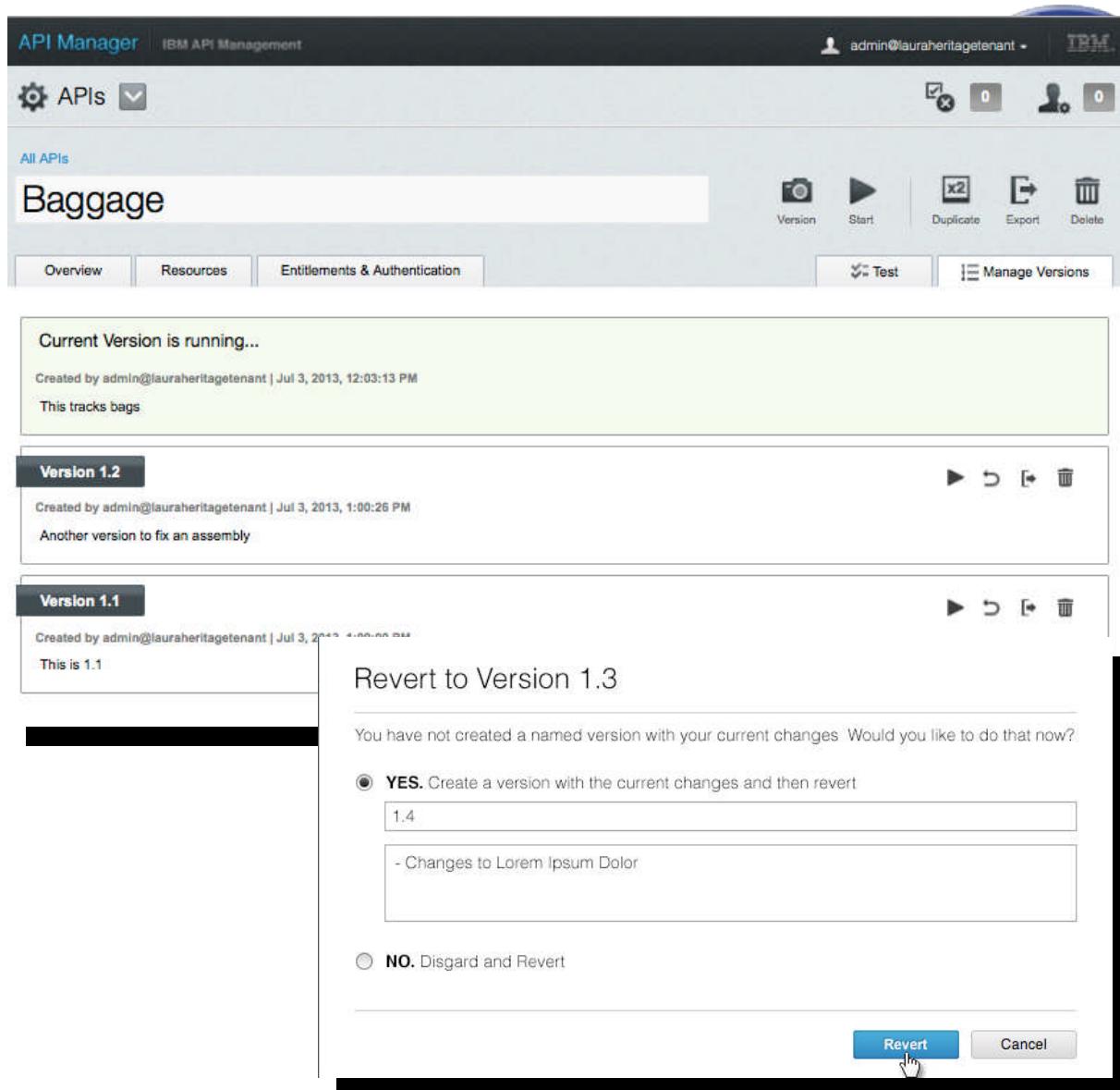
- Method:** GET
- Path:** loanpayment/{years}/{interest}/{loanamt}
- URL:** https://lauraheritagetenant.previewapi2.castironcloud.com/mortage/loanpayment/{years}/{interest}/{loanamt}

The interface includes tabs for 'Overview' (selected) and 'Implementation'. Below these are sections for 'Description' (containing 'what is my loan') and 'Cache Control' (with an example header block). The 'Analytics' section contains a checkbox for 'Store details of all calls to this resource'. The 'Parameters' section lists three parameters: 'years', 'interest', and 'loanamt', each with a 'Click to add a description' button.



API Requests

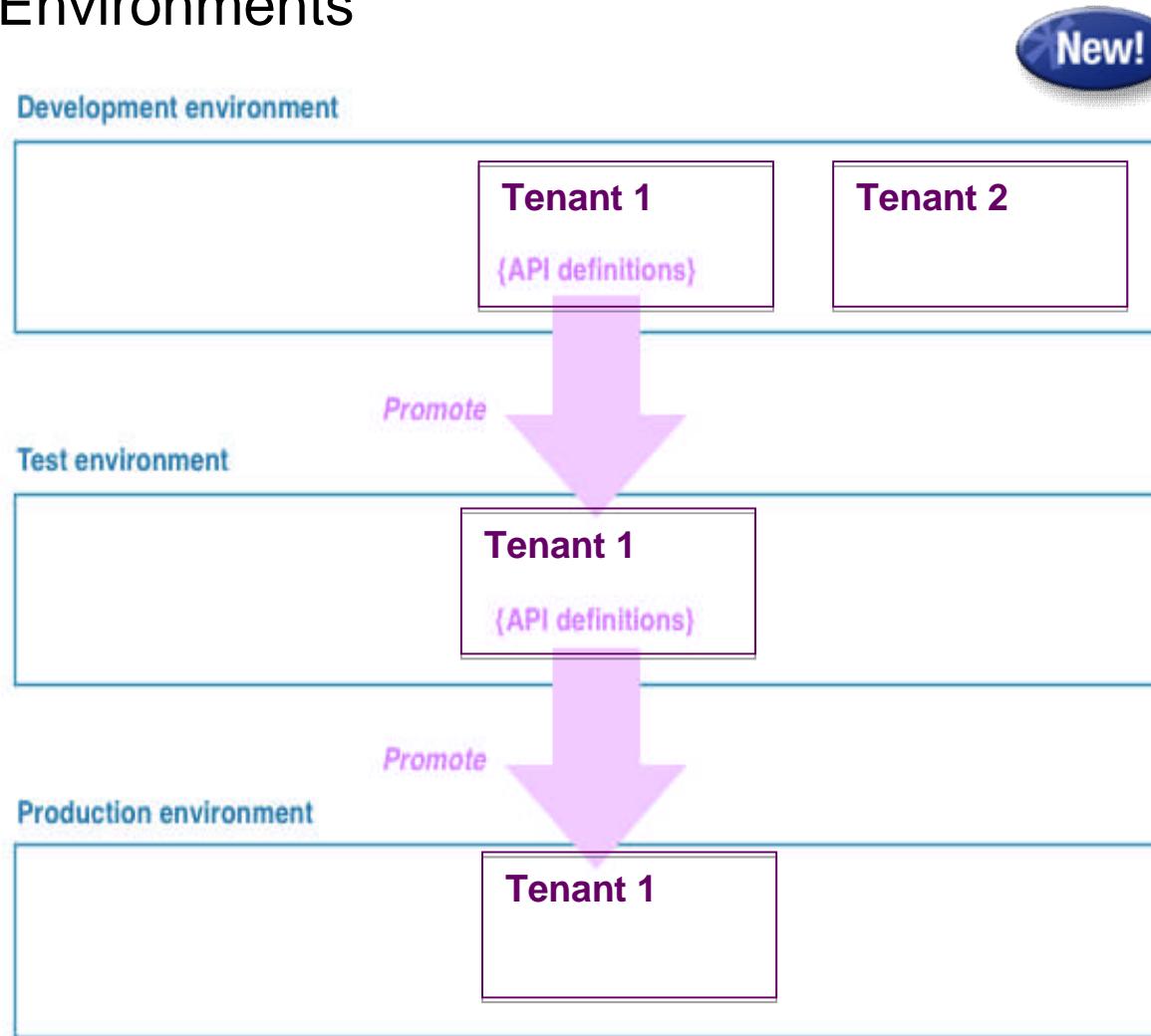
Version and Snapshot for Simplified Management



The screenshot shows the IBM API Management interface for the 'Baggage' API. The main view displays the current version (1.3) as 'running'. Below it are two previous versions: 'Version 1.2' and 'Version 1.1'. A modal dialog is open over the interface, titled 'Revert to Version 1.3'. It asks if the user wants to create a new version with the current changes and revert. Two options are available: 'YES. Create a version with the current changes and then revert' (selected) and 'NO. Discard and Revert'. The 'Revert' button is highlighted.

- Edit an API configuration while the API is actively running
- Push minor changes out to consumer with out large disruptions
- Version the API Configuration
- Revert prior version
- Create a duplicate of the API for a major version change or to create a similar API

Multi-Tenant Solution with Ability Promote APIs To Various Environments



- Promote API definitions to various environments or tenants through export
- Ability to substitute new values for configuration properties on import

User Roles



Steve

Steve is the API Product Manager



Jane

Jane is the technical user who creates and manages the APIs from and IT Operations perspective



Will

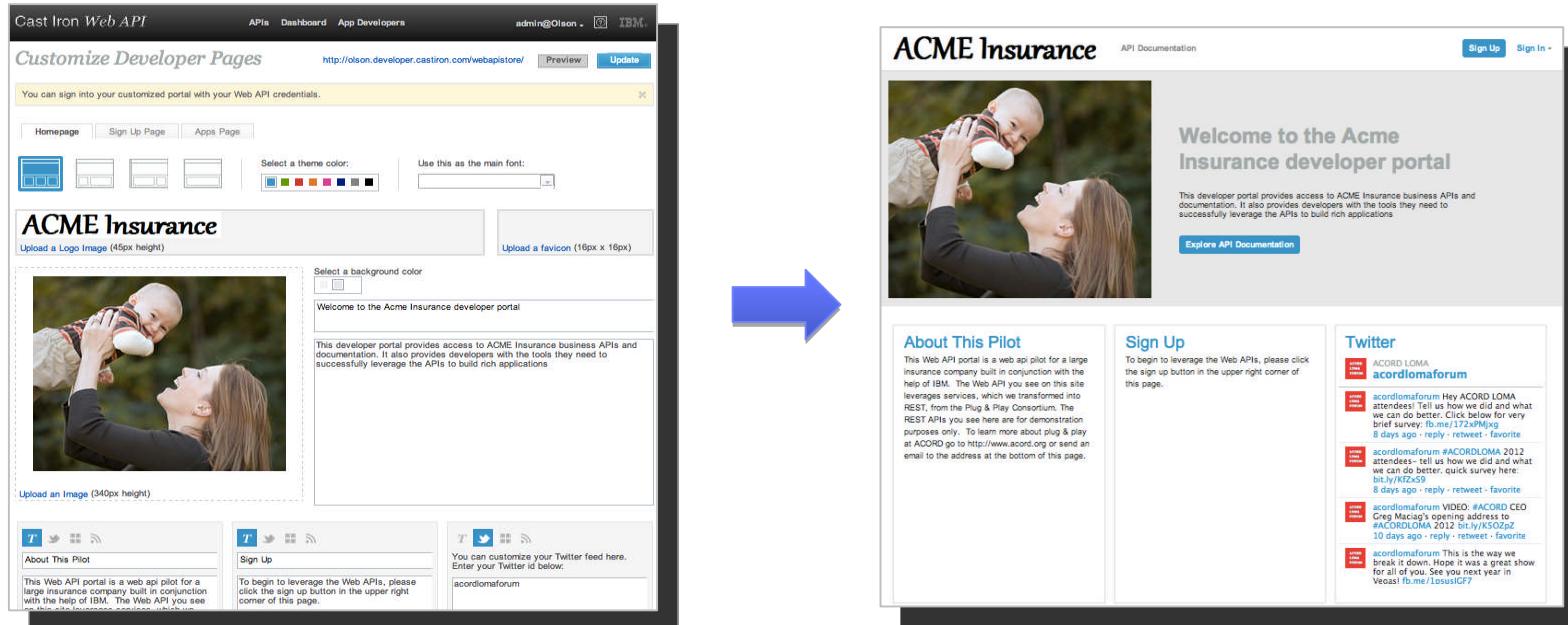
Will has the operations roles and is responsible for administration the systems environments



Joe

Joe is the app developer who maybe outside the enterprise or inside the enterprise. He is the consumer of the APIs

Socialize... Expose your APIs through a Branded Developer Portal



- Branded to your company look and feel through configuration
- Quick exploration of API
- Easy developer sign ups
- Features apps built by the developers
- Hooks into social communities
- Enables developers to manage their applications

WebSphere Cast Iron WebAPI <https://acmerv.developer.castiron.com/webapistore/#tab=userHomepage>

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Getting Started

Start adding applications and managing your API usage on your [Homepage](#). To access this Getting Started page at any time, access the user menu top-right and click Show Getting Started.

Don't Show Again 



Browse APIs



Register Apps



Manage

[Discover](#)

WebSphere Cast Iron WebAPI <https://acmerv.developer.castiron.com/webapistore/#tab=userHomepage&userHomepageTab=apps>

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My Applications Entitlements Dashboard

Register an Application

 Track My Bags
See exactly where your bags are as they make their way to you on the baggage carousel!

Provide a URL link (Optional)

There are currently no applications...
Add applications using the form above. You will receive an application id to use with your application. You will also receive an application secret, which may be required to call an API based on your entitlement.

WebSphere Cast Iron WebAPI <https://acmerv.developer.castiron.com/webapistore/#tab=serviceLevels&apiId=4212>

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Baggage

Basic Tier
Require Id

This is a very basic level of access designed for developers getting started with the API. You will have to provide an App Id in order to make any API calls.

1000 Calls / Month

Active

Premium Tier
Require Id

This level of service is for developers who want to publish their Apps in marketplaces. This requires you to pass an App Id and App Secret.

10000 Calls / Month

Select

Powered by IBM Cast Iron Live

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Drive socialization and adoption beyond the developer portal

Welcome to the Acme Insurance developer portal

This developer portal provides access to ACME Insurance business APIs and documentation. It also provides developers with the tools they need to successfully leverage the APIs to build rich applications.

About This API

This Web API portal is provided by an insurance company to help IBM. The Web API leverages services, which REST, from the Plug & Play REST APIs you see here are for purposes only. To learn more at ACORD go to <http://www.acord.org> email to the address at the bottom of this page.

developerWorks Technical topics Evaluation software Community Events

developerWorks > Technical topics > WebSphere > Technical library >

Introduction to Cast Iron Live Web API Services

Tanmayee Potluri (tptluri@us.ibm.com), Product Manager, Cloud Integration, IBM
Simon Dickerson (simon.dickerson@uk.ibm.com), WebSphere Technical Sales for Connectivity/Mobility, IBM

Summary: Web APIs are a new and fast-growing business channel that is helping companies connect with the outside market and deliver services and products efficiently. This article shows you how to create, socialize, and manage your web APIs, by using IBM Cast Iron Live Web API Services.

Date: 21 Mar 2013
Level: Intermediate
PDF: [A4 and Letter \(168 pages\)](#)

Activity: 3580 views
Comments: 0 ([View comments](#))

A
[Rate this article](#)

IBM API Management provides embedded access to developerWorks – collaboration with millions of developers to drive adoption of APIs

4 million

Unique visitors a month

1 million

Registered Users

40,000

Resources in dW library

93

Countries

34

Industry Awards

Key Stakeholders



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Steve is the API Product Manager



Jane

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Manage API's with Business Controls

The screenshot shows the 'Entitlements' section of the IBM API Management interface. It displays a form for creating an entitlement, with fields for 'Basic' and 'Advanced' configurations. Under 'Advanced', there are rate limits for GET, PUT, POST, and DELETE methods. Below the form, a section titled 'APIs using this Entitlement (1)' lists a catalog entry.

Manage API Entitlement

- Define entitlement criteria
- Assign Entitlements to APIs and Resources

Manage External Experience

- Self documenting APIs
- Ability to add samples and tutorials
- Control Visibility Of APIs



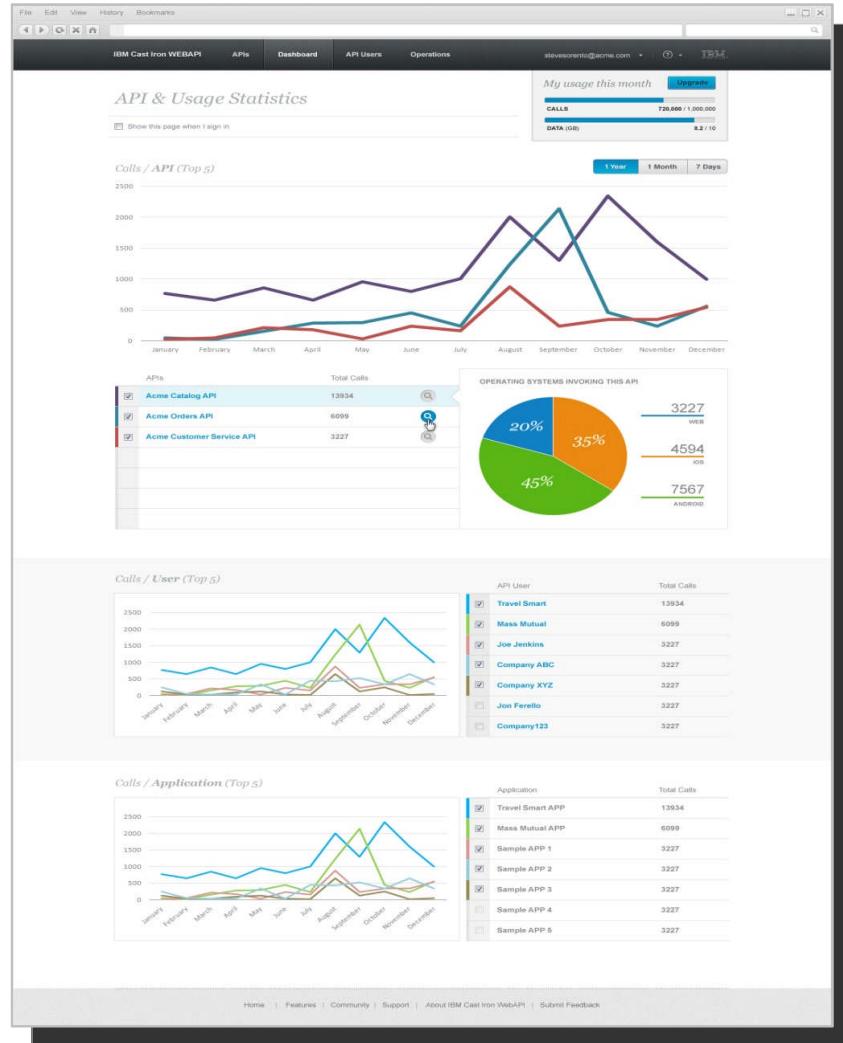
The screenshot shows the 'All APIs' section for the 'Acme HR API'. It includes tabs for 'Resource Definition', 'More Documentation', 'Entitlements', 'Test', and 'Metrics'. A 'PUBLIC PRIVATE' visibility switch is shown. Below the tabs, there is a 'Add Additional Documentation' section with fields for 'Upload a file or Provide a URL Link', 'Name File or Link', and 'Describe File or Link'. Two attachments are listed: 'EmployeeAPI Test Cases.docx' and 'http://www.github.com/acme'. The 'Test' tab is selected, showing a sample application link.

The screenshot shows the 'App Developers' section for the 'Cast Iron Web API'. It displays a table of developers with their names, email addresses, active since dates, and invocation counts for the month. Two rows are shown: 'lauraolson2009' and 'lauramenke'. Buttons for 'Reject' and 'Approve' are visible at the top right of the developer list.

Manage Developers

- Approve entitlement requests
- Send email
- Block a developer
- View usage

Manage the APIs with Business Insight through Analytics



Pinpoint **key market fluctuations and find correlations** related to your business

- Business Analytics for both API provider and application developer:

- Top traffic producing API ,
- Top APP producing traffic
- GeoLocation of the traffic

- Structured Filtered Search across analytics for example

- country:USA, color:red

- Saved Searches and Filters for easy and consistent retrieval

- Billing for API consumption by developers

- Export as CVS files for audit trails



Key Stake Holders



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Leveraging your existing IBM DataPower and Cast Iron Investments

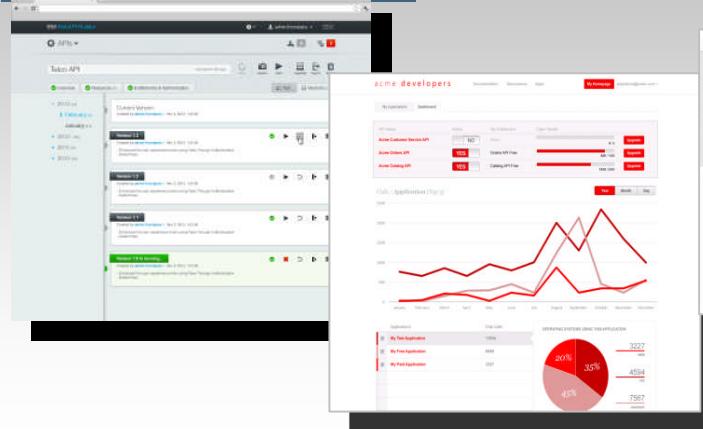


IBM API Management

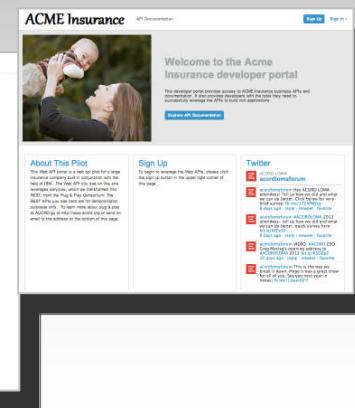
IBM API Management



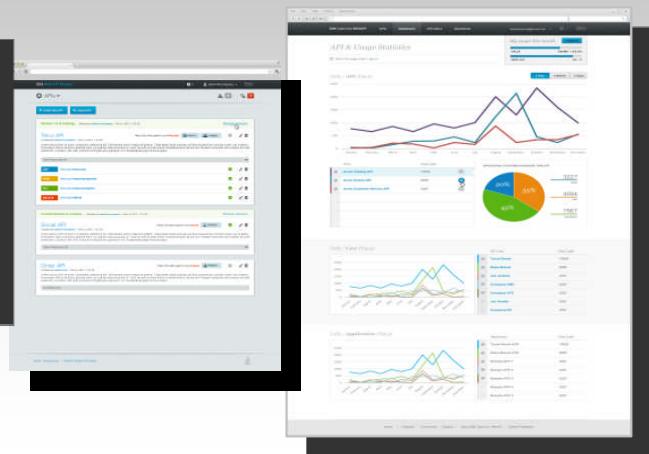
Secure, Control, & Optimized



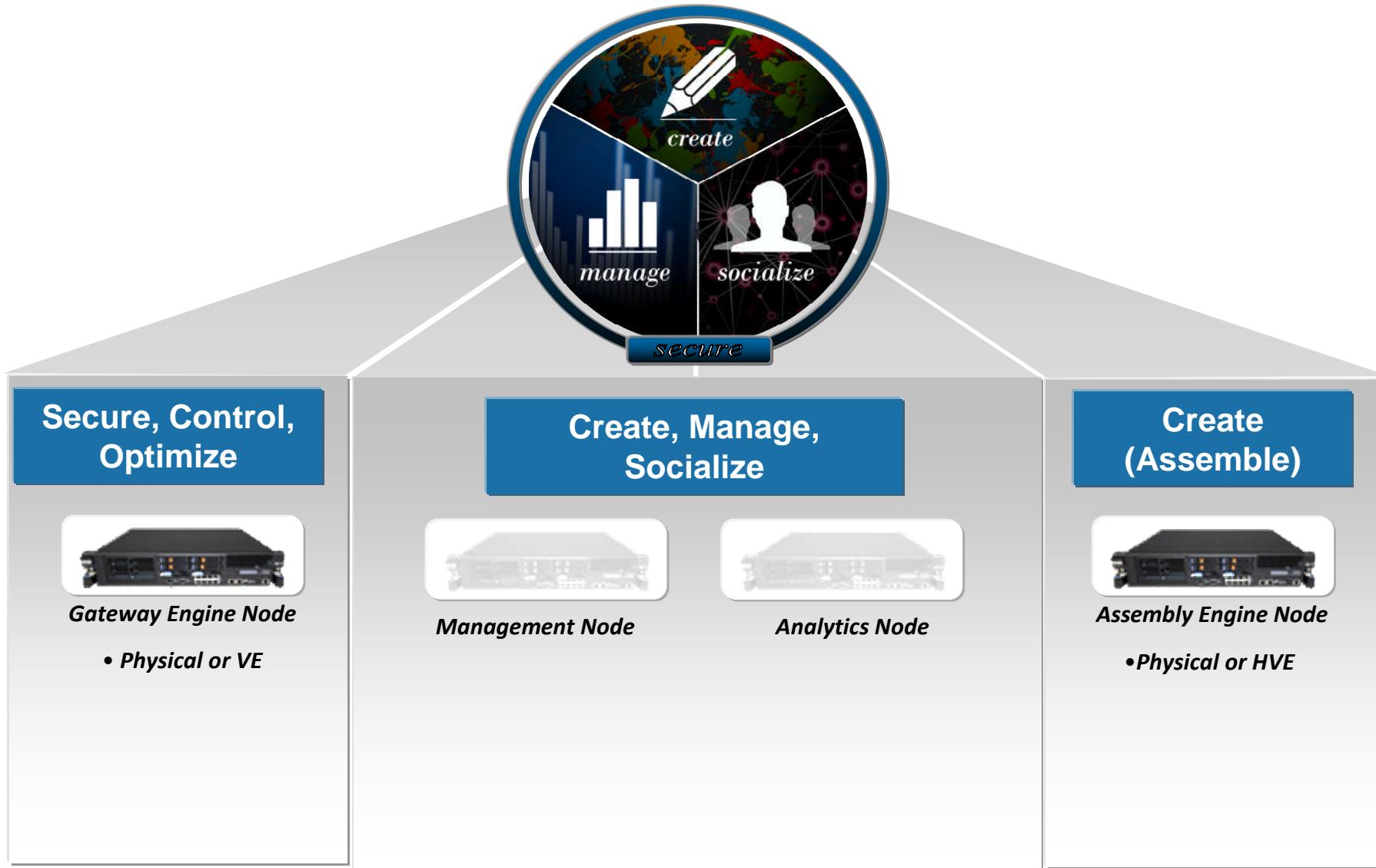
Create, Manage, Socialize



Create (Assemble)



Leveraging your existing IBM DataPower



An Environment Console for Easy Management



The screenshot displays two main sections of the IBM API Management Environment Console:

- Release Environment:** This section contains four panels: Management Tier, Analytics Tier, Gateway Tier, and Assembly Tier. Each panel shows a single active node with a "Manage Environment" dropdown menu.
- Monitor Environment:** This section includes a "Node Status and Health" table and a "Node Metrics" chart. The table lists four nodes: ep1cloud154.pbm.ihost.com, ep1cloud118.pbm.ihost.com, ep1cloud144.pbm.ihost.com, and ep1cloud114.pbm.ihost.com, all marked as Active with yellow warning icons. The "Node Metrics" chart tracks CPU, Memory, Load, Disk, and Domain Memory usage over time, with a threshold line and a warning message indicating exceedance.

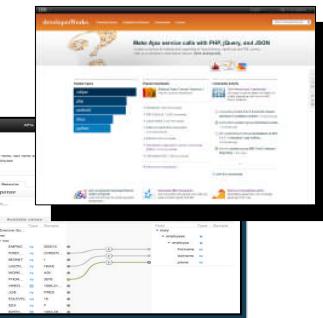
- Easily **configure and scale** your API Management environment with the new Environment Console
- **Create and manage** the environment's tenants

Key capabilities in IBM API Management solution



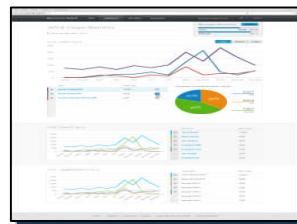
Industry best security and integration in one solution

- Based on IBM market leading DataPower gateway
- Available as a service, providing risk free, full featured, no hassle 90 day trial
- Sign in and begin deploying APIs in **less than 5 minute**



Configuration, no coding

- Create and deploy a new API in **just minutes**
- Create a developer portal in minutes, and socialize your APIs to **over 1 million developers**
- ROI in a matter of days** instead of months and years



Out of the box business analytics and operation insight

- Ability to **pinpoint key market fluctuations** and **find correlations** related to your business
- Drill down debug inspections of request and response **messages reduce the time to problem determine** of orchestrated APIs in production and development time.



Support for continuous iterative development

- Provide updates to the APIs with minimal to no interruption to your consumers.
- Test out minor fixes and push to production in **matter of minutes**
- Revert to a previous snap shot** to restore last known good configuration at the touch of a button

Improving transit through developer outreach



"It was inspiring to see so many talented teams turn out...and put forth ideas that have the potential to transform the transit experience for millions of riders every day"

Challenge

A regional transit authority needed to challenge software developers to use APIs and data to create new apps to improve the transit experience of millions of daily riders

Hackathon

To drive interest they hosted a hackathon—a 2 day challenge with judging and prizes that asked participants to develop apps using APIs to make transit work better in a single, 30-hour sit-down

Results

- Creation of 17 App concepts, 3 winning teams announced
- Grand Prize Winner: Leverages transit data to allow customers to identify favorite subway musicians that perform, locate them, and buy their singles.

APIs are emerging across industries



APIs Exposed

- Customer API
- Account API
- Transaction API
- Branch / ATM Location API

Apps Composed

- Financial Overview
- Financial Timelines
- Mapping Financial Relationships
- Added Value Services: Loyalty, Couponing, Targeted Marketing

APIs are emerging across industries



Insurance

- Need to leverage partnerships to deliver joint solutions, and decentralize business value chain
- Need greater agility to explore new revenue channels

APIs Exposed

- Policy API
- Customer API
- Account API

Apps Composed

- Claims Filing & Processing
- Comparative Quotes / Multiple Insurers
- Policy Sales and Renewals

APIs are emerging across industries



Retail

- Shifts in buying patterns and customers
- Need to reach customers on mobile devices
- Need presence in every channel

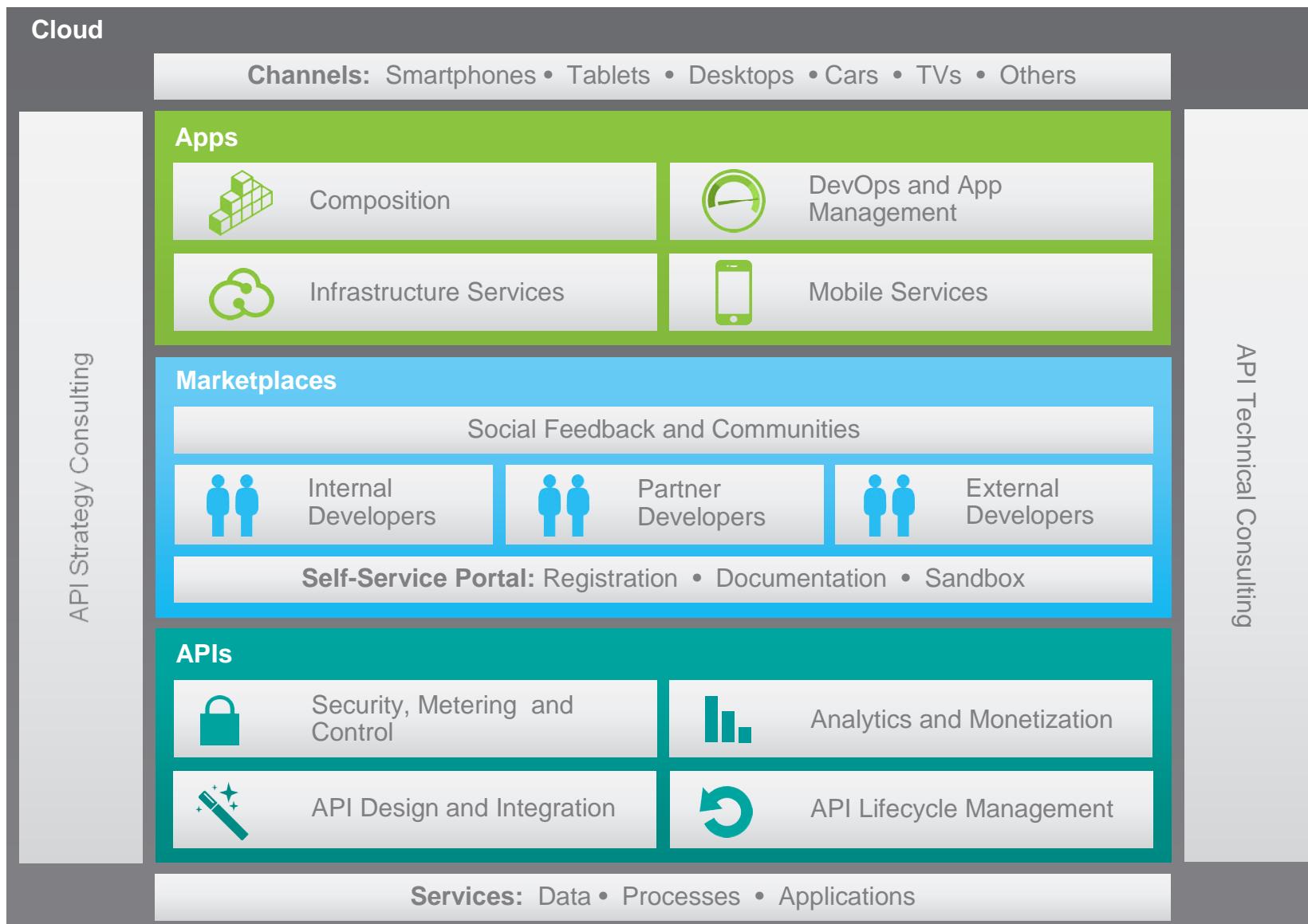
APIs Exposed

- Products API
- Store Locator API
- Deals / Discounts API
- Product Reviews API

Apps Composed

- Pricing searches / aggregators
- Daily deals / finders
- Geo-location / nearby location and gift finders

Only IBM delivers these comprehensive capabilities



Backup