



Hybrid Cloud Considerations for Big Data and Analytics

<http://www.cloud-council.org/deliverables/hybrid-cloud-considerations-for-big-data-and-analytics>

Webinar August 11, 2017

The Cloud Standards Customer Council

THE Customer's Voice for Cloud Standards!



- Provide customer-led guidance to multiple cloud standards-defining bodies
- Establishing criteria for open standards based cloud computing

2017 Deliverables

- **BDA Ref. Architecture, V2**
- **Hybrid Cloud Considerations for BDA**
- Prac. Guide to Cloud Management Platforms
- Hybrid Integration Ref. Architecture
- API Management Ref. Architecture
- Security for Cloud Services Ref. Architecture
- Data Residency discussion paper
- Blockchain Ref. Architecture
- And more!

2016 Deliverables

- Prac Guide to Hybrid Cloud Computing
- Public Cloud Service Agreements, V2
- Cloud Security Standards, V2
- IoT Ref. Architecture
- e-Commerce Ref. Architecture
- Impact of Cloud Computing on Healthcare, V2
- Enterprise Social Collaboration Ref. Architecture

2015 Deliverables

- Web App Hosting Ref. Architecture
- Mobile Ref. Architecture
- Big Data & Analytics Ref. Architecture
- Security for Cloud Computing, V2
- Practical Guide to Cloud SLAs, V2
- Practical Guide to PaaS

2013/2014 Deliverables

- Convergence of Social, Mobile, Cloud
- Analysis of Public Cloud SLAs
- Cloud Security Standards
- Migrating Apps to Public Cloud Services
- Social Business in the Cloud
- Deploying Big Data in the Cloud
- Practical Guide to Cloud Computing, V2
- Migrating Apps: Performance Rqmnts
- Cloud Interoperability/Portability

675+ Organizations participating



<http://cloud-council.org>

Speakers



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**Marcio
Moura**




Executive Enterprise Architect
IBM Hybrid Cloud



**Christine
Ouyang**

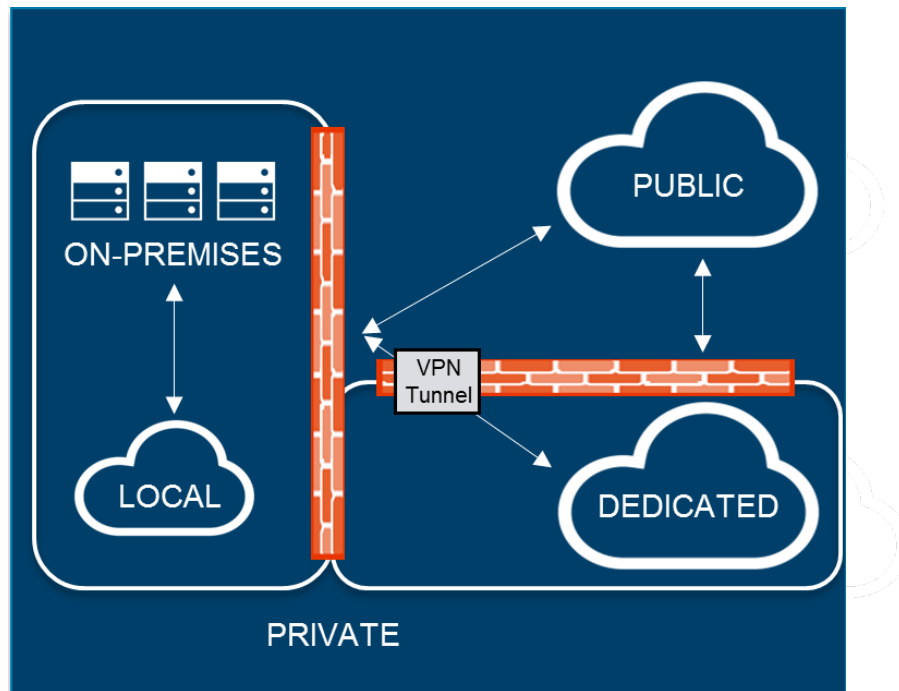
Distinguished Engineer
IBM Hybrid Cloud

Agenda

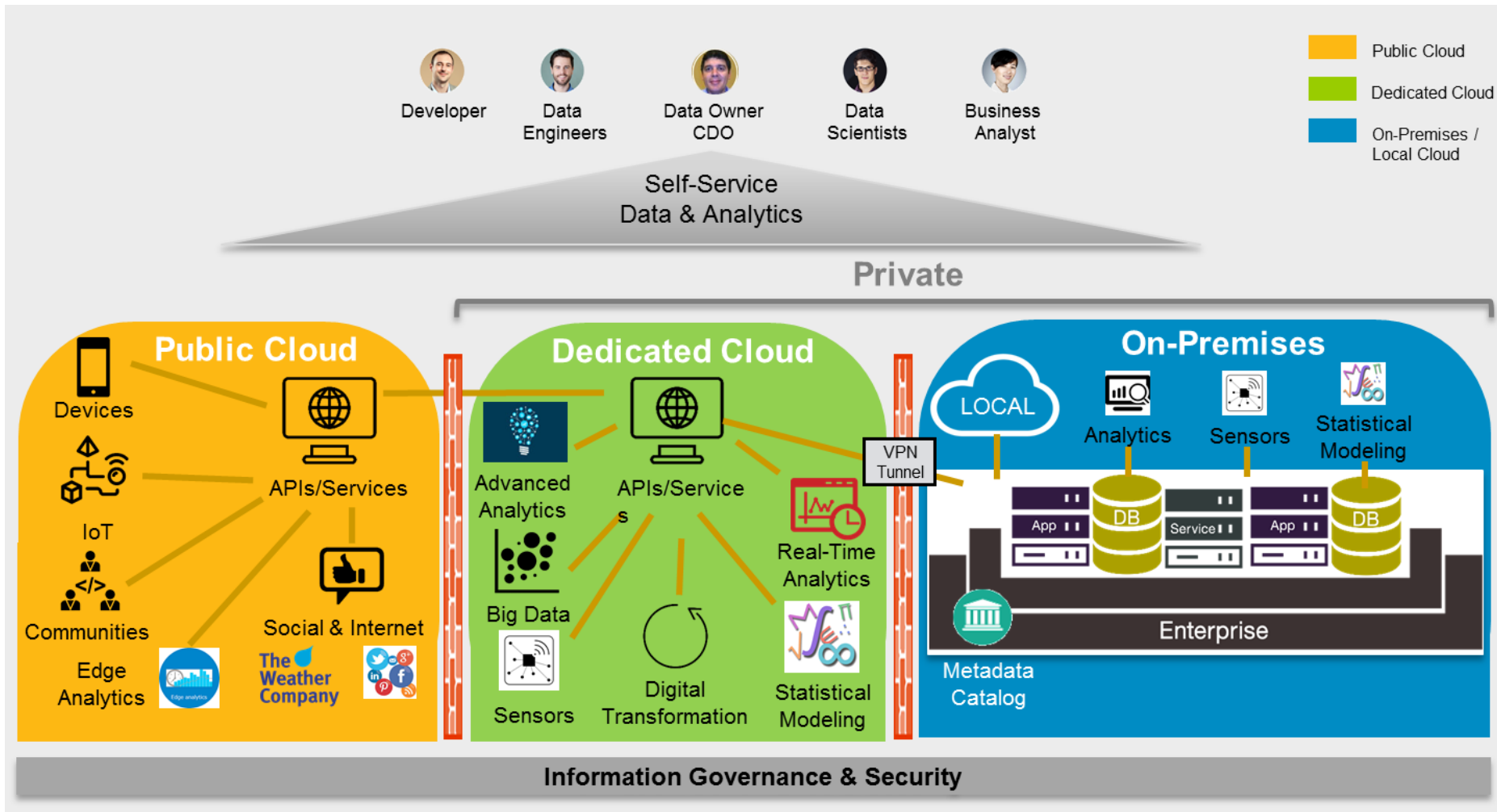
- **What is Hybrid Cloud?**
- Why Hybrid Cloud?
- Hybrid Cloud for Big Data & Analytics 
- Implementation Considerations for Hybrid Cloud 
- Hybrid Cloud Big Data & Analytics Use Cases 

What is Hybrid Cloud?




The connection of on-premises environments and/or dedicated cloud with public cloud.



The Integrated Digital Enterprise is Hybrid



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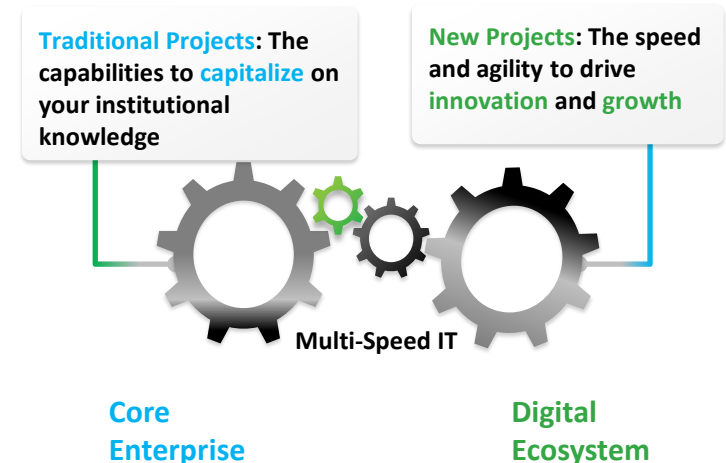
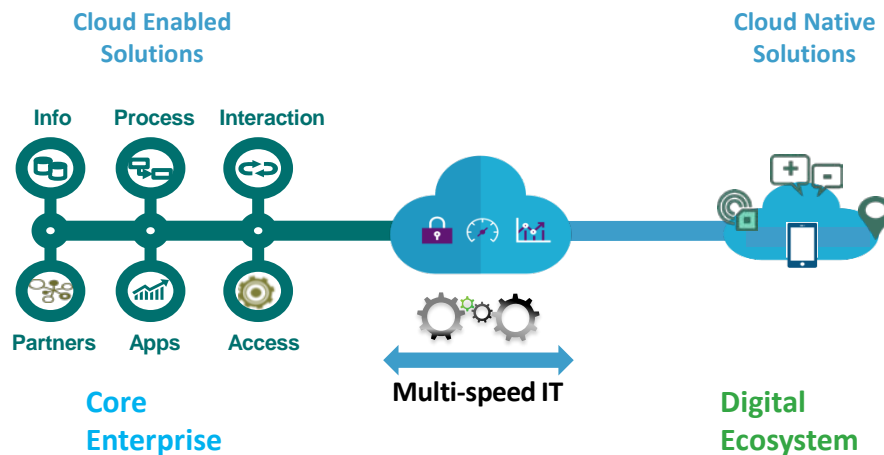
Why Hybrid Cloud for Big Data & Analytics?

- Provides the ability for different personas to tap into data and analytics where it makes the most sense (localization wise)
- Allows the analytics to run where the data is stored (data gravity)
- Provides better management of legal and regulatory requirements in terms of privacy regulation associated with data sovereignty and regulatory requirements such as HIPAA, PCI, and SOX
- Provides an agile platform for developing/deploying new applications
- Allows workload portability and cost optimization

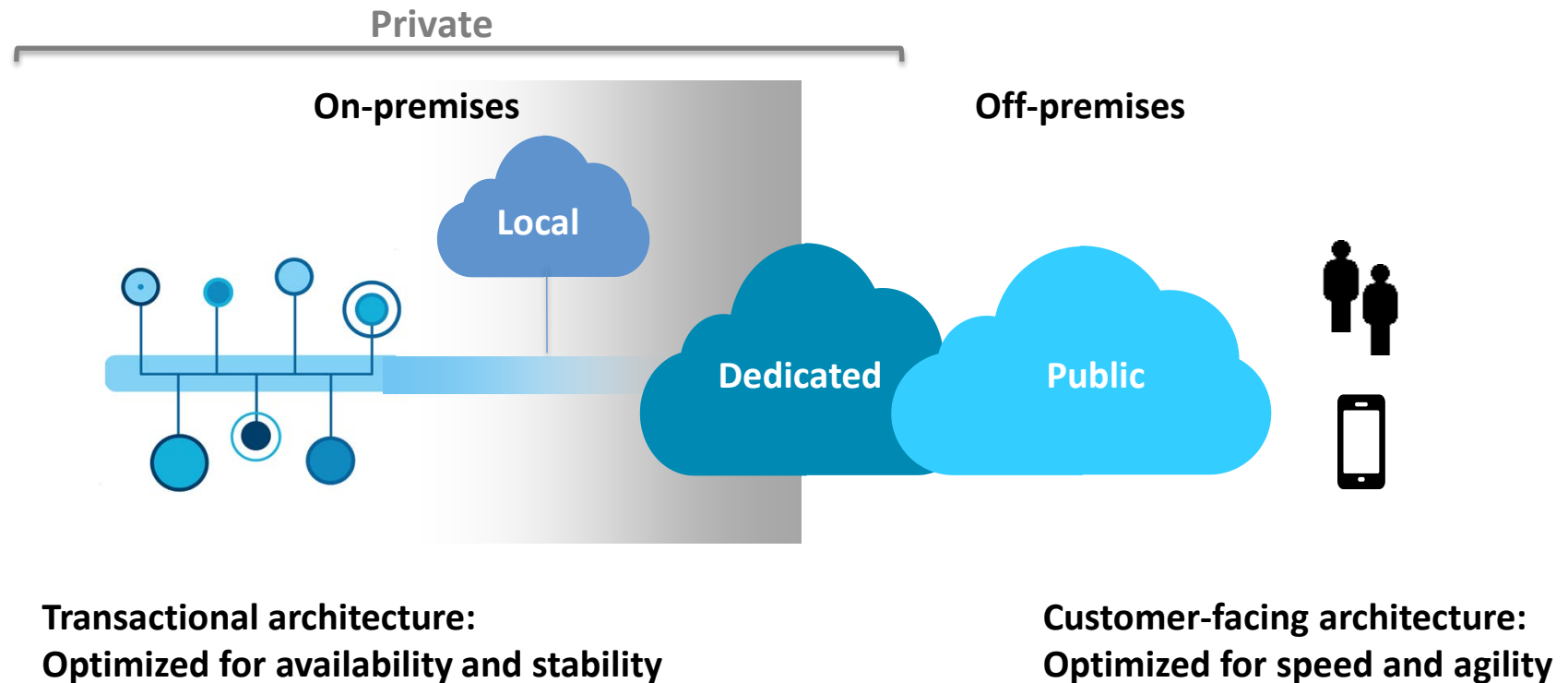


Hybrid Cloud Enables Multi-speed IT

- **Composable environments** to rapidly build and deploy new cloud-native and mobile solutions
- **Flexibility** to move apps to the cloud as-is or build cloud native solutions
- **Leverage existing investments** by connecting them to cloud services



Hybrid Cloud Enables Organizations to Redefine Customer Service



Four Primary Drivers of Hybrid Cloud

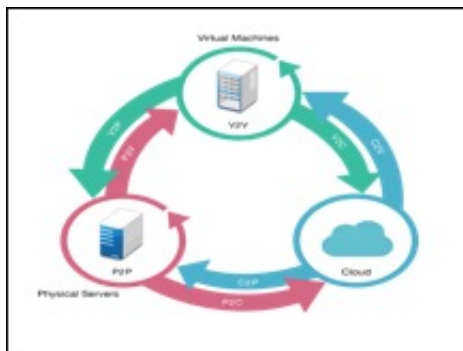
Integration



Workload / Resource Optimization






Portability



Compliance



Agenda




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The Future of Hybrid Cloud for Big Data and Analytics

- Extend the private environment to cloud
 - Exposing the private environment data to the cloud
 - Migrating/modernizing some of the private environment applications to the cloud
 - Integrating some of the workloads & data across the private environment and public cloud
- Provide a seamless & consistent experience for all workloads across all environments of hybrid cloud



Agenda

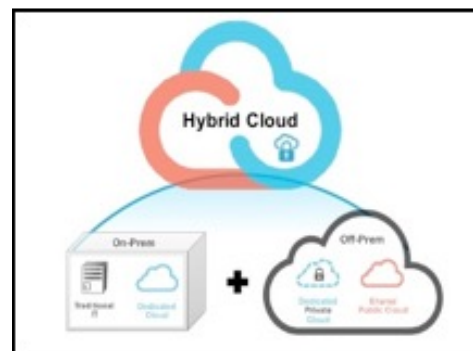
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How to Implement a Hybrid Cloud Strategy?

Cultural Shift

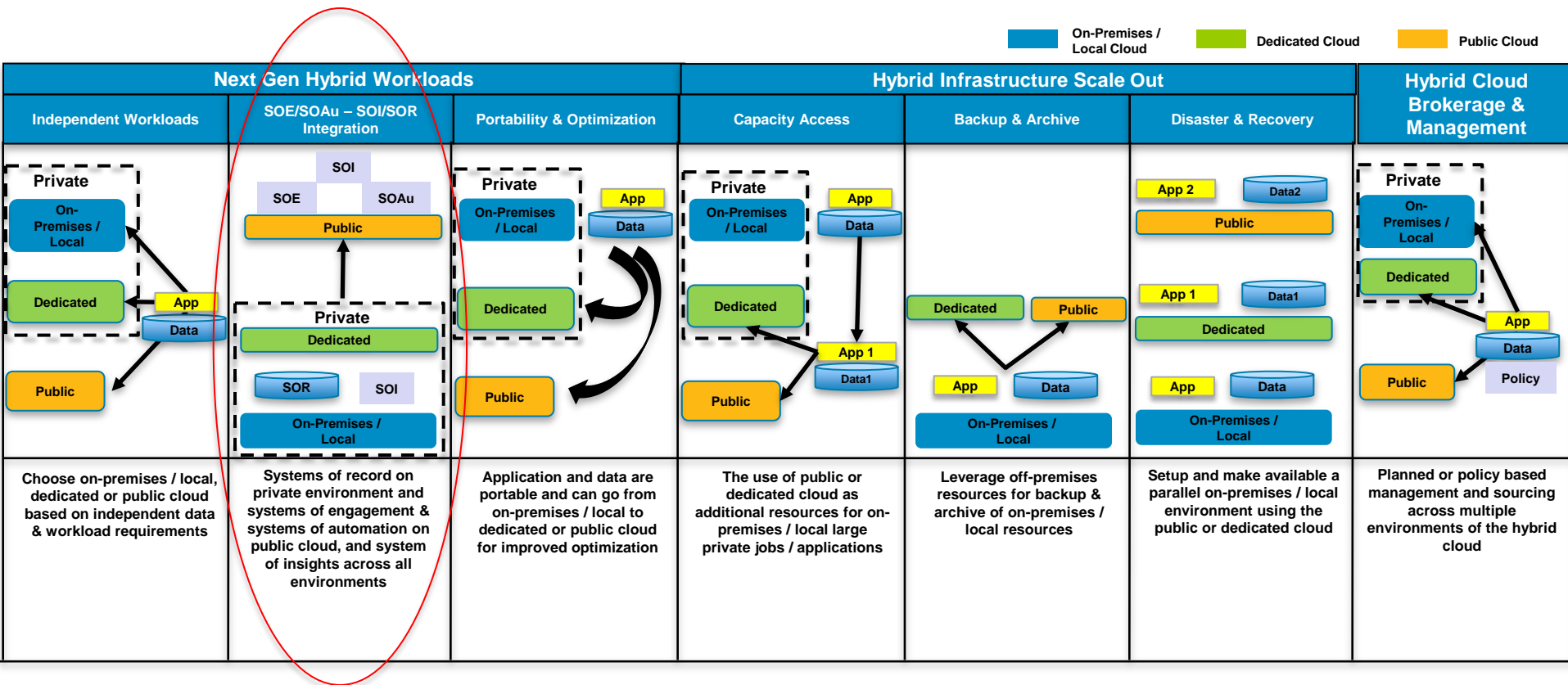


Varying Levels of Hybrid Sophistication



Skills, Operational Roadmap, etc...

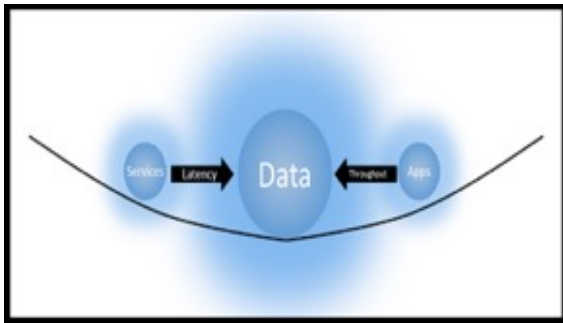
Hybrid Cloud Scenarios



Big Data & Analytics on Hybrid Cloud

Today the most important considerations for Data & Analytics on the Hybrid Cloud strategy are:

Data Gravity



Localization Wise



Data Topology

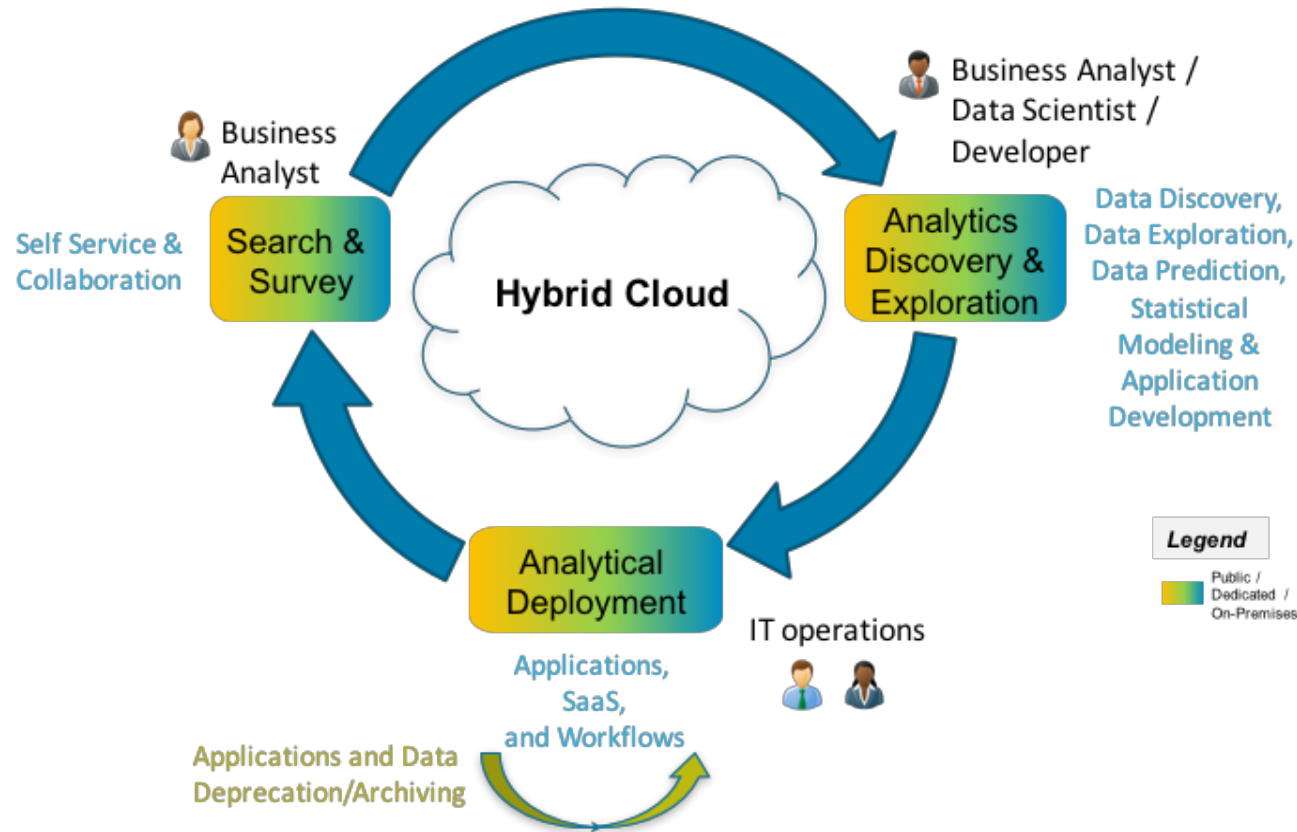


Big Data & Analytics on Hybrid Cloud

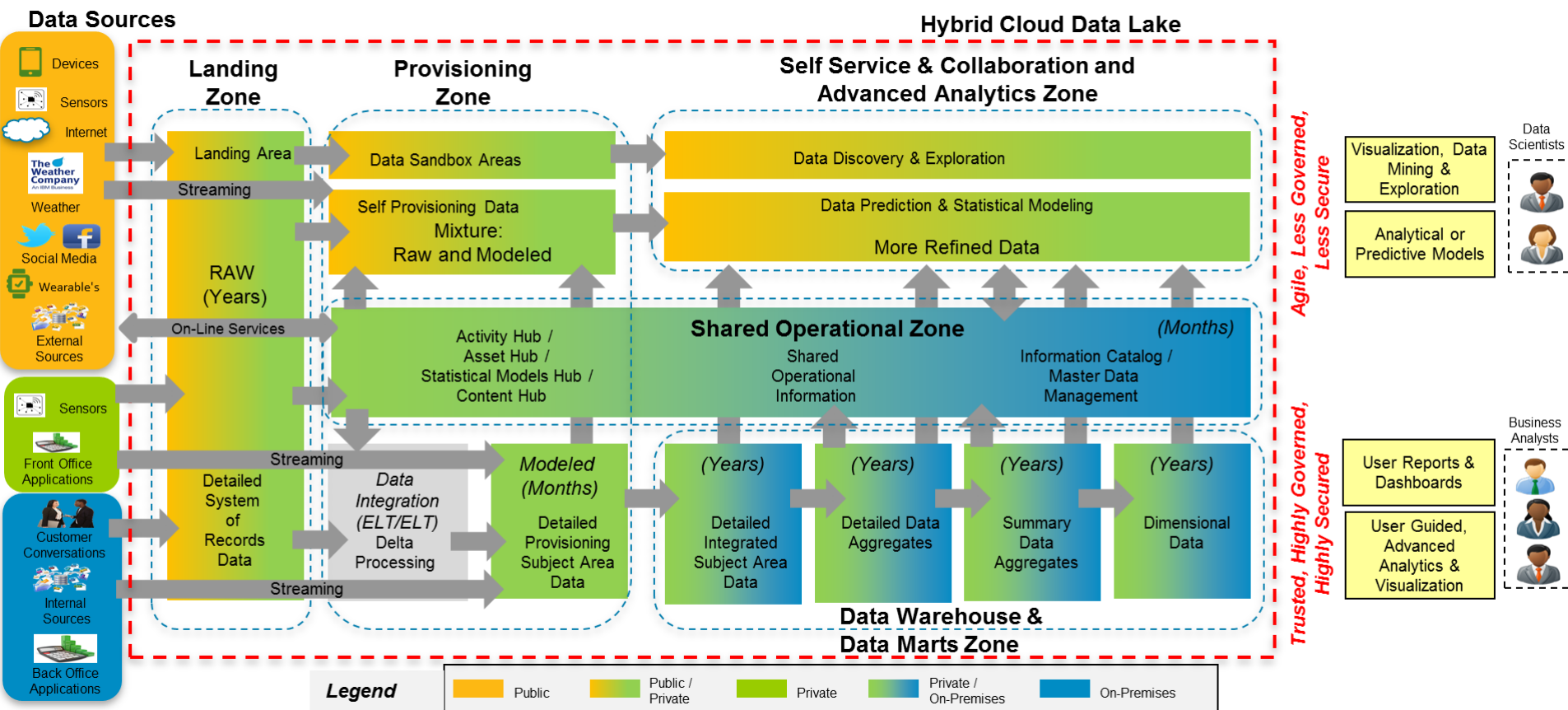
The future of the hybrid cloud strategy for the best-in-class traditional organizations will be based on exposing/extending private environment to the cloud. On the other hand, the internet born organizations are using an 80/20 rule by moving 80% of their data to the cloud with only 20% retained on-premises under the following three categories of data:

1. **Data that the organization wants to share publicly (public cloud)** – ex(s): Software as a Service (SaaS) online office applications churn or fraud detection
2. **Data that the organization wants to share across the enterprise (dedicated cloud)** – ex(s): metadata catalog, master customer data, activity data hub, asset hub, statistical models hub, and content hub
3. **Data that is highly sensitive data (on-premises)** – ex(s): high-confidential customer data, revenue data, and intellectual property

Analytics Lifecycle on Hybrid Cloud

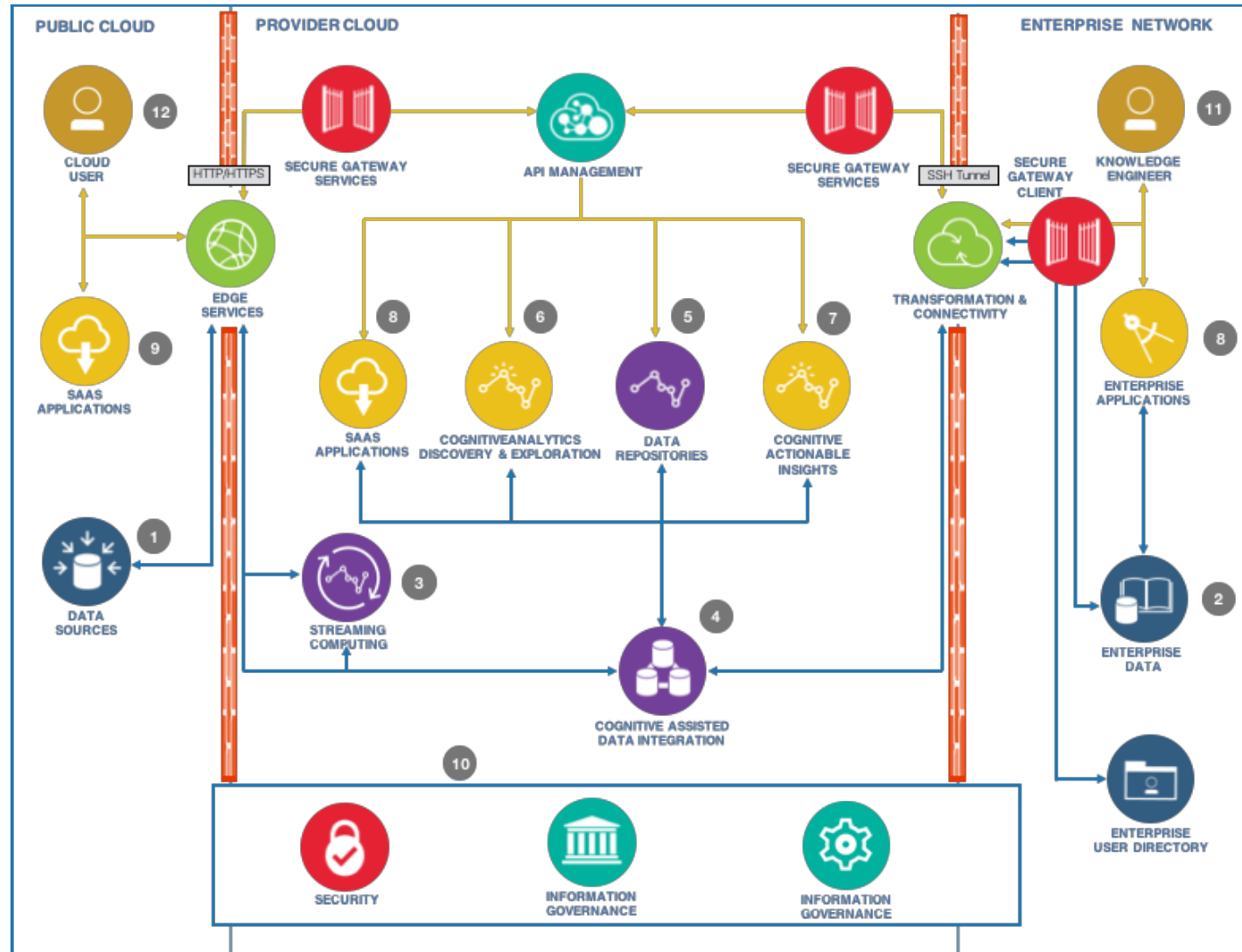


Data Topology on Hybrid Cloud



Cloud Customer Architecture for Big Data & Analytics

Hybrid cloud



Data Movement on Hybrid Cloud

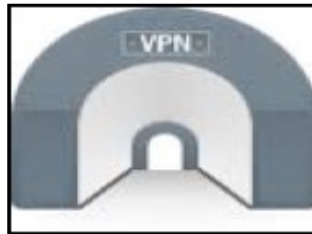
One of the biggest challenges for a hybrid cloud strategy

Top 5 considerations to reduce latency and maintain performance

Location



Dedicated Connections



Cloud Cache



Traffic Optimization



Workload Optimization

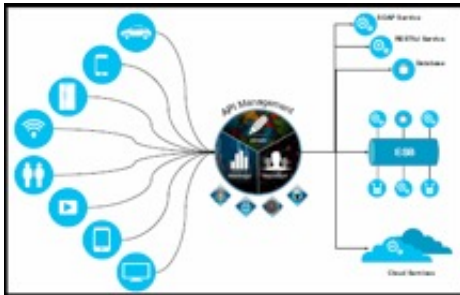


Data Preparation & Integration on Hybrid Cloud

Data prep isn't just for data pros.

The four phases of overcoming hybrid cloud data integration

Exposing on-premises data to SaaS apps



Real-time analytics with streaming data



Hybrid Cloud Data Hub



Cognitive and machine learning for personalized app experiences



Security on Hybrid Cloud

Security has been and continues to be the #1 concern with the adoption of public cloud, and the same challenges are also present in a hybrid cloud scenario.

Some key considerations for security on a hybrid cloud strategy include:

Mind the Gap



Deal with Data

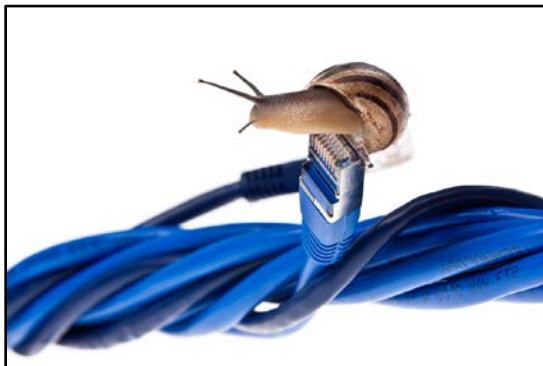


Get Compliant



Hybrid Cloud Performance

Network Latency On-premises – Cloud



Cloud Services to access on-premises






VPN



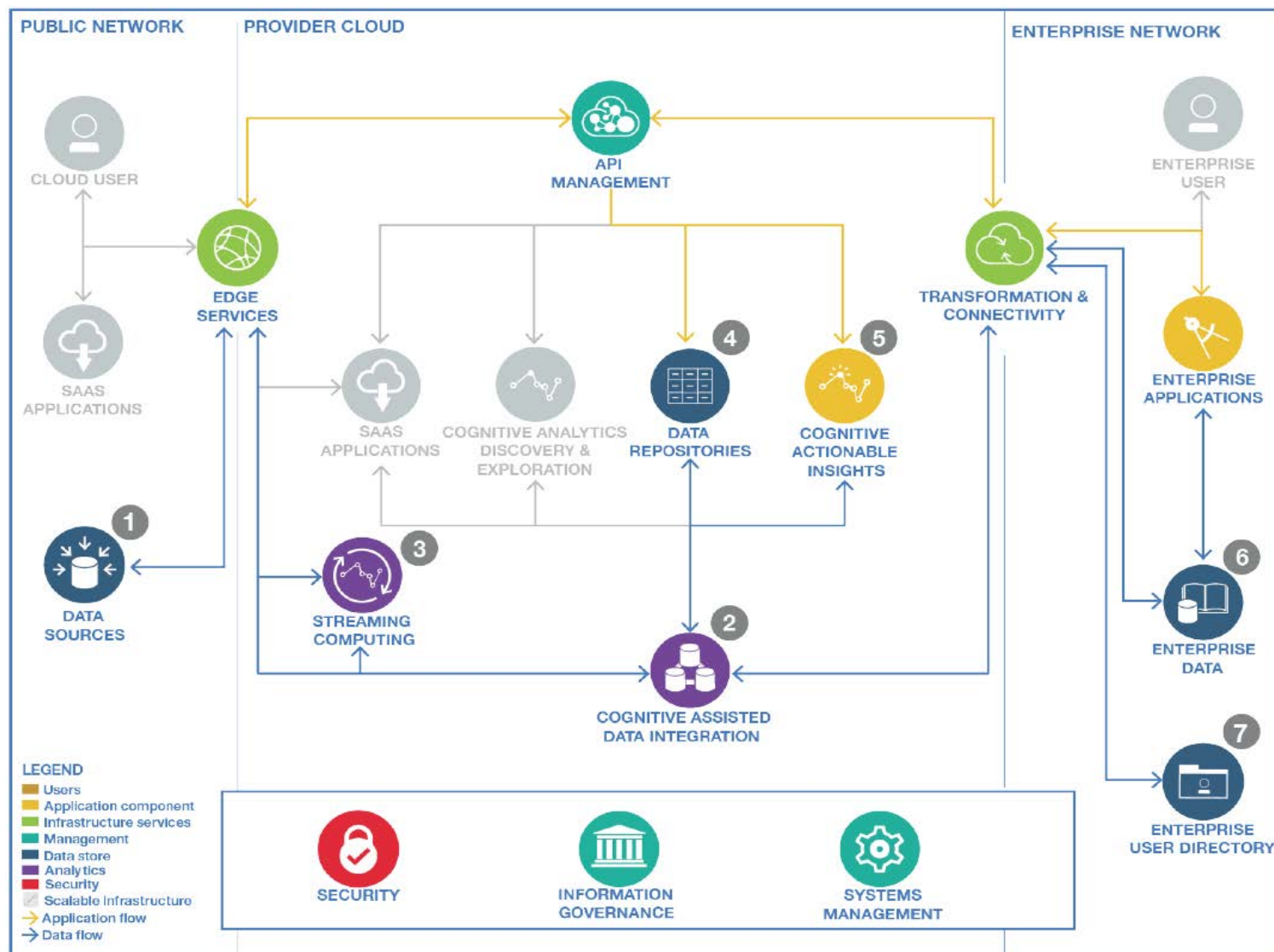
Secure Gateway



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Cyber Threat Intelligence



Another Great BDA Resource!

Cloud Customer Architecture for Big Data and Analytics Version 2.0



Read the paper: <http://www.cloud-council.org/deliverables/cloud-customer-architecture-for-big-data-and-analytics.htm>

View the August 8th webinar on-demand: www.cloud-council.org/events

Call to Action



■ *Join the CSCC Now!*

- To have an impact on customer use case based standards requirements
- To learn about all Cloud Standards within one organization
- To help define the CSCC's future roadmap
- Membership is free & easy: <http://www.cloud-council.org/become-a-member>

■ *Get Involved!*

- Join one or more of the CSCC Working Groups
<http://www.cloud-council.org/workinggroups>

■ *Leverage CSCC Collateral*

- Visit <http://www.cloud-council.org/resource-hub>

Additional Resources from the CSCC

- Cloud Customer Architecture for Big Data and Analytics v2.0
<http://www.cloud-council.org/deliverables/cloud-customer-architecture-for-big-data-and-analytics.htm>
- Practical Guide to Hybrid Cloud Computing
<http://www.cloud-council.org/deliverables/practical-guide-to-hybrid-cloud-computing.htm>
- Cloud Customer Architecture for Hybrid Integration
<http://www.cloud-council.org/deliverables/cloud-customer-architecture-for-hybrid-integration.htm>
- Security for Cloud Computing: 10 Steps to Ensure Success
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- Cloud Security Standards: What to Expect and What to Negotiate
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- Practical Guide to Cloud Service Agreements
<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-service-agreements.htm>
- Migrating Applications to Public Cloud Services: Roadmap for Success
<http://www.cloud-council.org/deliverables/migrating-applications-to-public-cloud-services-roadmap-for-success.htm>

Thank You!

Join the conversation



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