• Started at CHCH-TV
• 23+ Years at Enterprise/Encoda/Harris
• Known as “father of BXF”
• Longtime proponent of standards for media
• Leader of many standards initiatives
• SMPTE Fellow, Recipient of 2008 SMPTE Citation
• Run MediAnswers, media tech consulting firm
• Global scope
• Worked on broadcasting, vendor, and now consulting sides
• Focus on media software systems and integration
• “Secret” life as champion racer and author
The Key to Agility: Microservices
“It’s no longer the big beating the small, but the fast beating the slow.”
— Eric Pearson, CIO, InterContinental Hotels Group
Microservices: Promise vs Reality
Microservices: Promise vs Reality
What is a microservice

- “Loosely coupled service oriented architecture with bounded contexts” - Adrian Cockcroft

https://www.youtube.com/watch?v=mmDHJO3tV30

The Washington Post

Courtesy Axway
A Microservice is simple – Microservice Architecture is complex
Microservices aren’t always the answer

• Don't even consider microservices unless you have a system that’s burdensome to manage as a monolith
# Microservice Challenges

## The Fallacy of Distributed Computing

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<tbody>
<tr>
<td>1</td>
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<tr>
<td>The network is reliable.</td>
<td>Latency is zero.</td>
<td>Bandwidth is infinite.</td>
<td>The network is secure.</td>
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<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>Topology doesn’t change.</td>
<td>There is one administrator.</td>
<td>Transport cost is zero.</td>
<td>The network is homogeneous.</td>
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Courtesy Axway
You’re not loosely coupled

If 1 service dies and your whole system breaks, you don’t have SOA. You have a monolith whose brain has been chopped up and stuck in jars.

9:15 AM - 26 Mar 2015
In a monolithic world, most APIs are found here

 Courtesy Axway
However with microservices, most APIs are found here
Microservice Problems – Visibility

Honest Status Page
@honest_update

We replaced our monolith with micro services so that every outage could be more like a murder mystery.

4:10 PM - 7 Oct 2015

3,035 Retweets 2,509 Likes

Courtesy Axway
The Big Challenge

• It’s always interoperability

Monolithic App + Single API  Vs  Microservices and many points of potential integration
Interoperability

• Between vendors and across platforms
Tools at our disposal

• Standards
• Recommended Practices
• Engineering Guidelines
• Technical Specifications
• Industry Education
• Etc.
How To Prioritize?

- So many potential projects
- Diversity of interests
- Avoid common standardization and document publication pitfalls
Open Services Alliance for Media
Mission Statement

The Open Services Alliance is comprised of media industry organizations worldwide and is focused on enabling improved open interoperability among service-based applications. We see this as critical with media systems now being hosted on cloud, multi-cloud, and on-prem platforms. Our work will support establishment of standards, best practices, registers, industry awareness and education, and any other tools at our disposal to foster cross-platform and cross-application interoperability.
Goals

• Provide a forum for users, vendors, and platform providers to work together toward improved interoperability among service-based applications for media

• Develop and publish documents as needed to further interoperability via appropriate organizations, such as SMPTE.

• Educate industry via appropriate means (white papers, talks/panels, presence at industry events, etc.) on the importance of open services-based interoperability among media systems
Approach

• Bottom-up

• Begin with real-world, impactful use cases

• Drive up from those to higher level strategic initiatives

• Example: Begin with IMF services, and for those, define taxonomy and decomposition needed to facilitate those. As other specific use cases are added, add to strategic initiatives like taxonomy and decomposition as required.
Anticipated Pilot Projects

• Standardized services for file-based workflows (e.g. IMF)

• Standardized status logging and reporting for microservices for media

• Real-time Control
Reasons To Participate

Strategic

• Support of an initiative targeted at facilitating increased and more rapid shift of applications to microservices and the cloud

• Support of open standards approach. Standards are critical to interoperability and openness is consistent with a positive image in the industry
Reasons To Participate

Technical

• Head start on implementing or understanding implementations of technologies developed within the group
• Influence over what direction the effort takes
• Advanced and deeper knowledge of outputs of the group (standards, recommended practices, engineering guidelines, etc.)
Reasons To Participate

Marketing/Visibility

• Do you want your organization to be known as a leader in the area of media microservices interoperability?

• Would you like a direct conduit into the influencers in media who are taking microservices seriously enough to participate in such an effort?

• Networking and ability to cultivate deep relationships and potential partnerships with microservices influencers.
Contact me for details on how to join

Chris Lennon
c Lennon@medianswers.tv