TRIP REPORT

The Gartner Application Architecture, Development & Integration Summit 2013 was held on 22 – 23 July 2013 at the Hilton Hotel in Sydney. This report summarizes and provides highlights from the event.

Chairman’s Summary

From the start of the 2013 summit planning process, our delegates told us two things very clearly:

1. They need to be able to design their architectures to handle change — disruptive trends like cloud, mobile, social and “big data” are happening, but it is increasingly difficult to plan how to deal with, and exploit them.

2. They want to look broadly and beyond architecture to strategy — particularly application strategy and the relationships between the actual applications and everything else.

Our theme “Game-Changing: Integrate the Past, Embrace the Present, Shape the Future” was therefore developed to provide insights and actionable advice related to the disruptions Gartner calls the “Nexus of Forces”. The goal being to help delegates work towards forging an effective application strategy that can allow their organization to be efficient, flexible, resilient, and innovative enough to deal with the high uncertainty and changes that lie ahead!
To that effort, we organized around three tracks as follows:

- Applications Strategy — From Business Applications to Governance
- Integration and Platforms — Connecting the Past to the Future
- The Future of Application Development and Architecture

We created several different session formats that could facilitate all the discussions we wanted delegates to have around these issues, and in response to their feedback around their key challenges. From keynotes to track sessions, from shorter “To the Point” and Theatre sessions to “Ask the Analyst” and Analyst/User Roundtables, we invited many analysts, users, visionaries and solution providers that could help facilitate our delegates’ growth, reduce their risk, and increase their efficiency in today’s context.

The event was a great success, and continued to build on the success of our previous events! We are delighted by your feedback, as most of you have told us the conference has achieved your objectives!

This report will help you summarize some of the key findings from this year’s summit, and demonstrate the importance of this event.

We look forward to welcoming you to the event next year!

Jeff Schulman  
Managing VP, Research and Summit Chair, Gartner

“Each year we invest with Gartner, each year we reap the benefits; great prospects; great event.”

Sales Manager, First Point Global
Key Take-Aways

• Define big data now — we need to use the definition to get everyone on the same page

• Expect and plan for changes in technology and architecture — use the opportunity to modernize the information infrastructure

• Build competency in content analytics, metadata, and modeling — in the long run, these are more important than where and how you store and process the data

• Inventory the technologies supporting your application and data integration projects

• Establish and execute a plan for integrating, where appropriate, your application and data integration technologies

• Actively apply reference architectures that include opportunities to use application integration and data integration capabilities together

• It was clear from the delegates at this year’s event that we are seeing more and more understanding of what an application is! However, one standout issue was the composition of capabilities in an application — many delegates reported struggling to understand what was too much and what was not enough. It indicated that there needs to be more maturity around UX processes

• There was a wide range of mobile maturity represented in this year’s attendees. However, within this mix some people were still trying to get mobile strategy under control, while others were working on some fairly advanced projects

• The mobile tools market is more confusing than ever, with well over 100 multi-platform app development tools now available so, unsurprisingly, mobile tool and architecture selection was a hot topic

• As mobile apps become more sophisticated, server-side resources are starting to become an issue on large-scale deployments. In a few industries such as financial services, delegates reported that the new habits of mobile users are creating new demands, with an example onsite where mobile banking customers were consuming several times more back-end resources per person than those using traditional web banking

• .NET shops are interested in a hybrid cloud future — Capacity utilization rose to the top as the most important consideration among delegates, followed closely by reduced time-to-market. Further, all reported very strong interest in hybrid cloud deployment models that preserve the enterprise’s option to choose runtime location at a later date. Basically, .NET shops are looking to get elastic, cloud-native solutions out the door as fast as possible but without compromising portability by mitigating vendor lock-in as much as possible (or as much as is possible once you’ve already locked yourself to Microsoft by virtue of the choice of .NET)

• API Management is really popular! — the most often asked question by delegates at the event had to do with Web APIs, with delegates asking about API design issues

A very informative day - particularly sessions on pace layering time model and the Agile session. The analyst sessions give me an excellent starting point for further research material.

Manager
Architecture Practice,
NZ Transport Agency — National Office
Summit Opening and Welcome: Integrate the Past. Embrace the Present. Shape the Future

Jeff Schulman
Managing VP

Ross Altman
Research VP

Today is an exciting time to be in IT but there are many disruptions and pitfalls! Jeff Schulman and Ross Altman gave an attention-grabbing opening keynote, with the main take-aways summarized as:

- Organizations must pay attention to today’s realities and uncertainties, and manage cost pressures — in short; they MUST plan for working in challenging times!
- The future will be shaped by how an organization leverages the ‘Nexus of Forces’ (cloud, mobile, social and information) and the intersections of these forces — This is where tomorrow’s innovations will arise from!
- The past brings us much baggage, and to move forward an organization must not just integrate legacy, but must do so in such a way that minimizes dependencies on legacy thinking!

Gartner Closing Keynote: What to Do on Monday?

David Cearley
VP and Gartner Fellow

Nick Jones
VP Distinguished Analyst

Kirk Knoernschild
Research Director

Benoit Lheureux
Research VP

Massimo Pezzini
VP and Gartner Fellow

A panel of distinguished Gartner analysts, led by Jeff Schulman gave delegates the practical recommendations and guidance of ‘what they should do on Monday morning’. Advice included some of the following:

- When delegates return back to their offices, they should ask themselves what key project and priority decisions they need to be making, based on the topics addressed at this year’s summit
- How should you consider and prioritize what to do next?

Top of Mind Concerns — What Attendees Asked About

- Modernization of the integration infrastructure
- Developing information governance competencies
- Ensuring consistent and reliable provision of master data
- Mobile application development
- Applying PACE-layering to real life situations
- Portals — Refining existing portals or deploying new ones, while avoiding mistakes from past portal deployments
- Deploying mobile strategies (but there is still much confusion as to the best approaches and practices!)
- Professional effectiveness — challenges around staff development in particular
Key Recommendations and Session Summaries

Tutorial: Cloud 101: A Foundation for Successful Cloud Adoption

David Cearley
VP and Gartner Fellow

Recommendations
- Be proactive — the worst strategy is to ignore the cloud
- Develop selection criteria and governance models for each layer of the cloud computing service hierarchy:
  - Realistically assess risks and carefully embrace new trust models
  - Modify existing service procurement models, and build new cloud governance, trust and security models
- Use a business impact analysis to determine when, where and why to adopt cloud computing:
  - Determine where migrating or enhancing applications deliver value
  - Consider innovation applications that benefit from unique cloud capabilities
- Ensure that private cloud initiatives extend beyond virtualization to address access, service and resource management
- Use external cloud brokers to reduce complexity and enhance performance
- Position IT as a cloud service broker across internal and external cloud services
- Coordinate cloud and mobile strategies

Tutorial: Integration Brokerage — For When You’d Rather Entirely Outsource Your Integration Projects

Benoit Lheureux
Research VP

Recommendations
- Learn to recognize the difference between integration brokerage and traditional managed services
- Before deciding whether to use IB consider Gartner’s “integration brokerage sourcing factors”
- Consider IB for various integration project use cases
  - Traditional B2B commerce projects
  - Cloud services integration projects
  - E-invoicing and other industry- and process-specific projects
  - On-premises (A2A) internal integration projects
  - Integration project modernization and consolidation projects
- Use Gartner’s Magic Quadrant and “essential attributes” to narrow your IB vendor selection

Tutorial: Mobile Testing — Taming the Tiger

Nick Jones
VP Distinguished Analyst

Recommendations
- Invest more in testing; bugs and user experience flaws are major causes of user dissatisfaction with mobile apps
- Monitor the app store reviews, testing won’t find all the problems
- Some tests can’t be automated, plan for significant manual effort
- Remember that testing doesn’t stop when you ship the app
- Use a portfolio of mobile testing tools, no tool addresses all the challenges
- Review testing strategy and tools regularly, it’s a fast-moving market and will remain so for several years
- Test the end-to-end experience, not just the app
- Look for ways to reduce testing costs, e.g., use more-testable architectures, use metrics instead of testing
- Review your test device portfolio every six months based on user surveys and the local device market

To the Point: Turning Mobile Innovation Into Business Value

Nick Jones
VP Distinguished Analyst

Monday Morning
- Stop creating mobile apps and websites with no quantified goals

Next 90 Days
- Ensure that each component of your mobile strategy explicitly encourages innovation
- Survey your customers regularly to validate assumptions about their devices, behaviors, and needs
- Do things the Web can’t do. Make your mobile apps more interactive, entertaining, and contextual

Next 12 Months
- Partner (carefully) with megavendors in areas such as location-based services and certain forms of context
- Refresh your mobile strategy regularly

The Nexus of Forces — Cloud, Mobile, Social and Information: Driving Innovation

David Cearley
VP and Gartner Fellow

The Bottom Line
- Mobile-centric trends and technologies increasingly define the client environment and the core end user application experience
- Social networking and a contextual experience will permeate application design and interfaces across all target users
- Information strategies must evolve to deal with increased data volume, velocity, variety and complexity and exploit new models to access, analyze, visualize, and communicate patterns and insights gleaned from data
**Recommendations**

- **Cloud** is becoming a mainstream computing style and delivery option with hybrid cloud, cloud brokerage and new delivery, management and security options accelerating adoption
- Innovations in hardware capabilities, system design and data center models will emerge to both support and enable mobile, social, information and cloud trends

**Application Services Governance — Manage APIs, Services and Business Growth**

**Applications Governance**

- Application Services Governance = SOA Governance Technology + API Management
- Application Services Governance is your insurance policy to get value out of your services/APIs
  - Without it, you won’t even be able to measure what value you are getting out of them (if anything)
- Don’t get confused

**To the Point: Best Practices in Implementing a Pace-Layered Application Strategy**

- Use the Pace Layer mapping to drive evolution of the application architecture
- Use the metrics to help guide the journey and ensure the change “sticks”
- Create an “innovation center” with a budget and governance process to identify and nurture new ideas

**The Cloud Computing Scenario — Shaking the Foundation of Business, Technology and People**

**Recommendations**

- Are cloud providers oversubscribed?
- When will a big event force regulation to happen?
- Are margins for cloud too low to sustain long term big players?
- Is cloud already fragmenting into multiple models?
- Can cloud become too big to fail?
- Dualities in cloud computing lead to opportunities
- Establish plans for enterprise AND consumer cloud adoption
- Ensure the public cloud can’t work before defaulting to private cloud
- Establish and demand security AND rights as consumers of cloud services
- Seek cloud brokerages to enhance performance and cloud service capabilities
- Build internal cloud brokers

**How the App Metaphor Will Change the AD Leader’s Life**

**Recommendations**

- Don’t casually refer to apps and applications interchangeably. They’re different — think about them as such
- Leverage any engagement with digital design firms to learn how to integrate IT and UX processes

**Application Governance Meets Information Governance — Satisfying the Needs of Multiple IT and Business Constituencies**

**Recommendations**

- Find a persona manager in the organization — anywhere is fine … IT, marketing, … just kick off the process
- If politically possible, allocate app costs to business owners and supporting infrastructure costs to IT

**By year-end 2013**

- Define information stewardship roles inside and outside your application development organization
- Evaluate the need for a new C-level information focused role
- Conduct an ITScore maturity assessment for your application group and establish a 2014 action plan for advancement
- Start down the application strategy road map

**By year-end 2014**

- Schedule and conduct regular reassessments to track progress
Getting Your Application Portfolio Under Control — A Strategic Roadmap

Darryl Carlton
Research Director

Action Plan for Application Leader

Monday Morning
- Start to inventory your applications
- Determine what business strategy documentation is available

Next 90 Days
- Pick a group of applications to focus on
- Start the application health check assessment

Next 12 Months
- Draft and socialize an application strategy
- Make the application strategy process a formal part of IT governance

To the Point: Information Management Goes ‘Extreme’ — The Opportunities and Challenges of ‘Big Data’ and Cloud

Eric Thoo
Research Director

Recommendations
- Introduce an information management program that is specifically targeted at addressing the other dimensions of extreme information to prepare for the three- to five-year time frame
- Plan on extending existing repository management environments to use cloud storage, parallel distributed processes, and other services enablement
- Build at least one pilot analysis that combines text, social, and operational data based on resolving disparate language and terms

As Your Applications Flourish, Don’t Let Your Integration Wit!

Benoit Lheureux
Research VP

Recommendations
- Assume your application and integration strategies will have competing business priorities, increasing complexity
- Explicitly align your applications and integration strategies
- Become adept at implementing business processes that span A2A and B2B, and become increasingly “outside-in”
- Budget to do more — not less — integration over time:
  - Will be required for pace layering, cloud computing, B2B, and so on
- Invest in five categories of integration competencies:
  - Prioritize integration competencies to best suit your particular IT role
- Develop an education plan for business stakeholders on importance of integration strategy

In-Memory Computing — Is it for Real?

Massimo Pezzini
VP and Gartner Fellow

Your Action Plan
IT Leaders should:

Monday Morning
- Assign a small team of engineers and technology architects to explore IMC-enabling technologies opportunities
- Poll your key hardware, software, and service providers about their in-memory computing strategy

Your Next 90 Days
- Identify POC or “test the water” projects, typically focused on supporting “run the business” or “grow the business” initiatives

Your Next 12 Months
- Brainstorm with business leaders about potential “grow the business” or “transform the business” initiatives and explore how in-memory computing can provide breakthrough support to these
- Define your in-memory computing approach in terms of long-term strategic benefits and short-term tactical goals

The New Web — Mobile, Social, Programmable, UX-Focused

Kirk Knoernschild
Research Director

Recommendations
- Get serious about HTML5:
  - It’s everywhere and evolving quickly
- Leverage post-modern application architecture:
  - No more monolithic applications; emphasize the Web API
- Do not neglect the user experience
- Ditch legacy browsers:
  - They are holding you back

To the Point: Delivering the Mobile User Experience

Kirk Knoernschild
Research Director

Recommendations
- Don’t forgo the UX in favor of portability:
  - UX wins business, not portability
- Don’t neglect the Web
- Let requirements drive the decision:
  - Create your decision framework
- Accept that you must use multiple tools and technologies:
  - Use technologies that complement, not compete
Application and Data Integration — Converge Them for Maximum Value

Eric Thoo
Research Director

Paolo Malinverno
Research VP

Recommendations

Monday
- Identify your IT teams with responsibility for application and data integration
- Inventory the technologies supporting your application and data integration projects

One Month
- Establish COEs, then develop, plan, and execute their federation
- Establish and execute a plan for integrating common activities of your application and data integration technologies, where appropriate

One Year
- Actively apply reference architectures that include opportunities to use application integration and data integration capabilities together
- Establish and begin building best practices that use those reference architectures

Cloud Service Integration — Enabling SaaS and On-Premises Applications Working Together

Massimo Pezzini
VP and Gartner Fellow

iPaaS Action Plan for Application Integration Leaders

Monday Morning
- Assess what your CSI requirements are
- Evaluate whether your established integration strategy can meet your CSI needs

Your Next 90 Days
- Implement a proof of concept for iPaaS (possibly complementing your established integration platforms)
- Establish selection criteria as to when to adopt iPaaS versus the traditional application platforms you have in place (e.g., time to integration versus functional completeness) versus outsourcing (integration brokerage)

Your Next 12 Months
- Plan for a holistic integration strategy incorporating application, data, and process integration implemented by federating iPaaS and on-premises integration platforms and integration brokerage

Next 90 Days
- Build business case based on cost reduction and business process improvement
- Shifting appropriate workload to cloud environments can serve as a test case

Next 12 Months
- Define long-term IT strategy and role of cloud deployments on application development
- Modernizing requires commitment to skills evolution. Participate with local academic institutions

To the Point: How Cloud, Mobile, Social and Big Data Redefine Application Architecture Best Practices

Ross Altman
Research VP

The Bottom Line Changes starts with People

Cultural Change
- Fight the not-invented-here syndrome
- Think open, avoid stovepipes
- Socialize, listen, and be transparent
- Experiment, be systematically opportunistic
- Avoid rigid policies: Plan, act, learn, and change
Application Development in the Nexus Era

Brian Prentice
Research VP

Recommendations
- Identify and assess the impact of business, technology and social trends
- Adjust AD teams to the twin realities of software product development for the Nexus of Forces
- Apply scenario planning in devising a strategy to reimagine AD’s relationship to business
- Focus on business outcomes, not technology
- Incorporate into your IT strategic plan a new talent strategy that blends business and IT skills

Developing, Testing and Delivering Compelling Mobile Applications

Nick Jones
VP Distinguished Analyst

Your Action Plan
Monday Morning
- Identify your mobile application road map (as far as you can) to simplify tool selection
- Define comprehensive mobile strategies covering B2C, B2B, and B2E domains, they will help you to select the right application development strategy

Next 90 Days
- Select a small but sufficient portfolio of mobile development tools to address current platform and application needs
- Select testing tools and services that enable testing in real-world contexts and with real devices
- Define a broad sourcing strategy to exploit new services and partners who can complement internal skills to create the best mobile applications

Next 12 Months
- Monitor applications post-deployment for usage patterns and performance issues
- Find innovation opportunities exploiting both employee and customer facing mobility

Agile Soup To Nuts — What Does a Truly Agile Organization Look Like?

Nathan Wilson
Principal Research Analyst

Recommendations
Next Week
- Define what agility means for your organization in terms of business value
- Start to assess your current agile capabilities
- Don’t boil the ocean — use pace layering to target change

Next Six Months
- Extend or develop an application governance process that supports agile delivery
- Update portfolio and project management practices to enable enterprise agile delivery

Next 12 Months
- Use qualitative KPIs to support ongoing agile improvement

To the Point: Application Platform Futures — Is There Life Beyond Java EE and .NET?

Massimo Pezzini
VP and Gartner Fellow

Open Source Application Platforms: Recommendations
- Adopt open source application platforms:
  - When subscription pricing is preferable and public cloud deployment is not an option

Next 90 Days
- For their flexibility and innovation
- To enable a provider-independent deployment strategy across on-premises and cloud
- To facilitate hybrid architectures
- As augmentations to existing Microsoft of Java application platforms
- If you plan to cloud over the next five years
- Factor the investment required to improve your skills in the business case for OSS application platforms

The Mobile Scenario — Complexity and Opportunity Increase

Nick Jones
VP Distinguished Analyst

Recommendations
Do
- Explore new ways to manage and secure devices and apps for BYO
- Find innovative ways to use mobile devices, apps, and services

Don’t Do
- Avoid rigid “one-size-fits-all” management of people and devices
- Stop trying to manage things you can’t control

Redo
- Mobile strategy is a process, not a document; update it frequently
- Stay agile and tactical when selecting tools, partners, processes

Undo
- Don’t try to be expert in all aspects of mobile app design and development. Choose the right partners
Tales from the Bleeding Edge — What Big Web Properties Teach Us About the Future of Application Architecture?

Ross Altman
Research VP

Recommendations
• Build services that segregate functionality, provide separation of concerns and encapsulate implementation
• Organize development personnel by the services that they build and maintain
• Build applications and services that can gracefully degrade functionality delivered to the user
• Leverage eventual consistency when business interactions and expectations can be adjusted in that direction
• Exploit the high availability of an architecture that thoroughly leverages cloud-based horizontal scalability and availability
• Don’t make your API technology decision a religious issue; select the right technology for each project

Agile vs. Waterfall — The Debate is Over

Nathan Wilson
Principal Research Analyst

Recommendations
• Move to iterative approach
• Limit duration of iterations to 120 days
• Let duration guide methodology

Magic Quadrant: On-Premises Application Integration Suites

Ross Altman
Research VP

Summary Findings
• Based on revenue, the application integration software market is led by the “usual suspects” (IBM and Oracle as well as Microsoft, Software AG, and Tibco)
• Open-source vendors have entered these markets and their technology is beginning to match leaders’ product maturity and functional completeness. However, they are still rather small and, therefore, somewhat riskier
• Many of these vendors are rolling out cloud-based offerings, which reduce the time and costs associated with starting a project. These cloud offerings also better fit software costs to the budgets of smaller projects

Magic Quadrant: On-Premises Application Platforms

Ross Altman
Research VP

Recommendations
• Consider the peripherals — the availability of interface technology (adapters), runtime, and design-time management capabilities and local support resources
• Remain open to open source — OSS-based products are competing well on functionality and are very aggressively priced
• Design and program for the cloud — the latest versions of most of these products allow you to build hybrid applications and/or applications that are portable between on-premises and cloud deployments

The conference has been of immense value as it has given me the detailed information I required to continue confidently with initiatives I’ve commenced on in the APM, Governance and integration areas.

Manager Architecture Practice,
NZ Transport Agency — National Office
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