Parallels Virtuozzo Containers: Best Practices and Lessons Learned From a Hosting Pioneer

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About ServInt

- ServInt is a business-grade managed hosting services provider
- Based in McLean, VA, with data centers in Reston, VA, Los Angeles and (soon) Europe and elsewhere
- In business since 1995, offering PVC-based virtualization since 2003
- Customers range from very small to very large businesses
- Market differentiators:
  - Extraordinary service commitment
  - Field-proven, solid hosting platforms
  - SimpleScale(TM) virtualization enhancements
  - Business-centric, consultative approach to hosting
  - Not interested in over-hyped, underwhelming new technologies

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Our Customers Have Included...

Service Delivery Architecture

- Two basic platforms
  - VPS: 4-40 customers/box
  - Virtualized servers: one customer/box

Why Did We Choose PVC?

- Selected PVC nine years ago to solve three over-arching limitations of bare-metal servers:
  - Poor scalability
  - Difficult migration
  - Low customer density = low per-server profitability
- Businesses require nimble compute platforms
  - With PVC we can easily shrink, expand, and migrate virtual servers
  - Without high-quality virtualization systems, modern-day hosting would be basically impossible.
- PVC increases HW efficiency
  - Allows us to place customers on bigger, better, more redundant servers than they could have otherwise afforded

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Measurable Benefits

- Density benefits
  - e.g.: 36,000-server environment can be reduced to 2,400
- "Green" benefits
  - Up to 93% reduction in power consumption
- Marketing benefits
  - Avoiding "hypervisor hype" and offering proven scalability and "cloudy" feature growth over almost a decade
  - Enterprise customers want to avoid multi-million dollar investments in Betamax solutions – they want proven systems with longevity
- R&D benefits
  - Our experience launching Jelastic has shown us that PVC can be a superior PaaS platform

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Why Are We Still Using PVC?

- Dozens of IaaS vendors are scrambling for our business, but we're sticking with PVC. Here's why:
  - Fantastic customer densities – much better than in a hypervisor environment
  - Kernel manipulation is a highly specialized IT requirement, even among enterprises. The mass hosting market has no interest in it.
    - If the mass market has no need for platforms that allow kernel manipulation, why not choose a virtualization platform that maximizes density/profitability?
  - Our Parallels engineering team is working with us to develop truly revolutionary cloud services based on the PVC platform
    - PVC isn't just closest to hand for us; it's measurably better and more adaptable than other platforms we've tried
    - Working with Parallels has (recently) been a dream

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Lessons Learned/PVC Best Practices

- Don't limit your PVC deployment to just IaaS – PVC is extremely adaptable
  - Examples of other PAAS technologies operating on PVC include Jelastic for Java & EfficientCloud for PHP
- In our experience, the Parallels development team actually listens
  - VMWare offers a great product – but unless you're Ford Motors or Exxon/Mobil, you'll always be a number to them
  - PVC offers attentive engineers who can provide real help
- PVC is a hugely viable pathway to the cloud
  - PVC offers the most efficient platform for jumping over old, enterprise-only IaaS offerings to get to the PaaS/SaaS cloud of the near future
    - The cloud is not infrastructure; the cloud is empowerment!

Q&A

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