SPICE Roadmap

The future of Open Remote Computing

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Overview

- Demo
- What is Spice
- Architecture
- Why Spice
- New stuff from last year
- Short term plan
- Long term plan



What is Spice?

What is Spice?

- An Open Remote Computing / Virtual Desktop Interface protocol
- Free LGPL implementation
- Remote display through paravirtual graphics to the host server to the client
- Additional channels for:
 - Sound & Inputs (keyboard and mice)
 - CAC Smartcard
 - USB Redirection



Advantages

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- Use para-virtual device => natural
 API, not screen scraping
- Minimize guest exits
- Client side rendering
- Multiple sockets
- Occlusions Display Tree
- Audio and Video



Advantages (cont)

- Copy-paste
- Sound
- USB
- Smartcard
- From boot (VGA emulation)
- Open Source



Changes from 2010

- WAN support (wip)
- Copy paste
- First class Linux support
 - GTK Widget
 - Virt-manager and virt-viewer
 - X driver improvements
 - agent
- Smartcard channel



Roadmap

http://www.spice-space.org/page/PlannedFeatures

Short term

- USB channel
 - Replace current proprietary solution
 - Isochronous + 2.0
- Multiple concurrent client support



Mid Term

- Rootless windows / Desktop Integration
- Testing infrastructure autotest
- Performance
 - No rate limiting
 - Better compression
 - Surfaces introduced, but not used correctly
- Mac client (GTK)



Long Term

- Agent consolidation
- More clients (android, iOS)
- 3D Support (BoF)
- Video acceleration
 - Guest OS level API's
 - Gallium helps?
 - Gstreamer



Long Term - Discuss-able

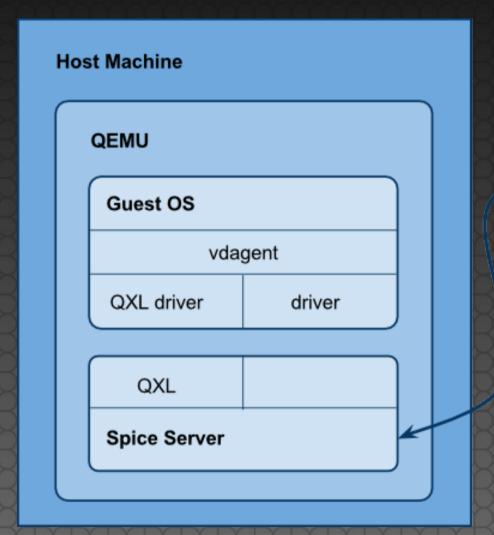
- Virtio rewrite?
- Flash passthrough
- Use glib?

Questions?

Thanks for Listening!



Architecture



Multiple Clients

spicec vinagre virt-manager etc...

Host Packages

spice-server qemu-kvm libcacard celt051 etc...

Guest Packages

xorg-x11-drv-qxl spice-vdagent

vioserial-win vdagent-win qxl-win



QXL graphics workflow

