10 Things to Know about G2S

Being a Smart Consumer

When moving to a server-based or network gaming floor:

- **Be informed**

- **Try to ensure that your solution is future-proof**

- **This is a primer, but lots more info is available**

- **Focus = 10 things to understand for success**

#1 – EGM or SMIB doesn't matter

EGM = Electronic Gaming Machine

SMIB = Slot Machine Interface Board

- **Where the G2S comes from doesn't matter**
  - As long as it's done correctly

- **What does matter:**
  - Which classes are supported?
  - Has the implementation been certified?
  - How many Hosts does the G2S client support (6 is optimal for now)

- **G2S is a standard (not a suggestion)**

#2 – G2S means access to EGM's data

- **Which themes / denominations are most popular (when)?**

- **Which paytables are the most successful?**

- **Which themes does each player prefer?**
  - What are their playing trends?
  - Interval ratings can be sent on theme change

- **Explore the EGM's capabilities**
  - EGM model #, software version(s), configuration settings
  - Peripherals (noteAcceptor, Printer) software, model info, configs
  - Which G2S "devices" does the EGM support?

#2 – G2S means access to EGM's data

- **Currently**
  - You try to mine your EGM's Data in your Slot System
  - Your try to get a real-time feed when things happen

- **With G2S you get direct access to the EGM**

- **All data that has been locked inside your EGMs is now available!**

#3 – Events are the Key to your Success

- **Every registered host gets a subscription**
- **If you subscribe, events are sent whenever they occur**
- **You can build lots of apps, just using events**

Player Apps

- **Player Locator (ID in/out)**
- **Interval Ratings**
    - **Time-based**
    - **Theme Change**
- **Hot Players (5 levels)**
- **Carded play in real-time**

Operational Apps

- **Real-time tilt reports**
- **Jackpots, vouchers, etc.**
- **Peripheral failures**
- **Real-time accounting**

#4 – Anyone can build an App for you

- **G2S Uses Internet technologies – known by many**
  - Open protocol and open network = broad talent pool
  - Web jammers, network jammers, flash content developers, etc.

- **Boutique Apps – soon you'll buy apps from everyone**
  - Best of Breed without vendor lock-in
  - Apps without the long regulatory cycle of a "gaming device"
  - Simpler – less moving parts – fewer dependencies

- **With the network in place, apps can be distributed**
  - Innovation will occur when you can just roll in a new app
  - EGM configuration can occur over the network

#5 – Get to Know your Players

Add Ownership of the Player device and you can do it all

- **G2S means you get a direct connection to the EGM/SMIB**

- **Track carded play by theme/denomination**
  - Interval rating event contain all of the session accumulators

- **Send a message to one / all players**
  - Multicast vs. Point to Point – more off-the-shelf technology

- **Auto-enroll hot players**
  - <u>You</u> can set up to 5 levels for hot players
  - Hot Player Event comes in
  - If the right level, ask the player if they'd like to join your club…
  - Remotely start tracking their play at the EGM

#5 – Get to Know your Players

Countdowns and Bonus Points

- **G2S allows you to define the bonus point calculation**
  Countdown starts at **20**, then **down** by 1 for each ***$1.00 wagered***
  When the countdown hits the ***Target***, the player gets **Award** points

G2S also accommodates overrides

- **Player Overrides**
  - Limited to a specific player, follows them around the floor
  - Birthday or other event for the player
  - bonus award (play $100 and get double points for an hour)
- **Generic Overrides**
  - Tied to any machine (double points in this area from 3AM-5AM)

#6 –Player User Interface (PUI)

- **Player interactions via the EGM's touch-screen**
  - Slide in a player window on the EGM display

- **GSA's OAC has been discussing this for last 12 months**
  - Game integrity must not be compromised
  - Distinct separation between the game and PUI content
  - Need a solution that any supplier can support

- **New mediaDisplay class in G2S**
  - Allows system to control the behavior of the PUI
  - Can define size, location, content, etc.
  - Class defines interactions between content and EGM and/or servers

#6 –The New Player User Interface (PUI)

- **Integrates different vertical businesses on your floor**
  - Secondary Gaming Products
  - Food, beverage, and hotel services
  - Loyalty programs
- **What goes on the display?**
  - Mystery games, bonus games, Progressives, Leader Board
  - F&B Services – Order drinks, reservations, request comp, etc.
  - Traditional Player System functions
  - Streaming Live Video
  - IM / Video-conferencing with a host

- **Interact with your players, while they are at the EGM**

#7 – More than just the Big Red Button (Download and Configuration)

- **Historic view of G2S – changing hold% when player wins**

You can Dynamically Change Games

- **Expand a New game that's popular**
  - Download code to EGMs that can handle it
  - Verify the code to make sure it's legitimate (Server and EGM)
  - Install and configure the new game
  - Make it available to the player
- **Remove A Game that's no longer popular**
  - Disable the game so it's no longer available on the EGM
  - Grab the final accounting meters for that game
  - Remove the game from the EGM
  - EGM total meters still include the game's contribution

#7 – More than just the Big Red Button (Download and Configuration)

Remote Configuration

- **Pre-configure a new EGM using G2S** (and RGS)
  - Set up first security certificates
  - Set initial configuration (using the known working configuration)
  - Test the functionality – vouchers, players, accounting, etc.
  - Configure the list of valid hosts

- **Tune the configurations without visiting each EGM**
  - G2S lets you change the configuration on the fly
  - Can first disable the EGM, if needed (regulatory requirements, etc.)
  - Adjust player settings, voucher titles, accepted notes, templates
  - You can also enable / disable games and functionality

#8 –Minimizing Your Risk

- **How can G2S be different than SAS?**
  - Lots of protocol design work, before development started
  - Schema Validation
  - Reference Implementations
- **Interoperability Centers (GTIC, GLI, others)**
- **Certification – the final exam – ensures the app is correct**
  - Be wary of those who say certification isn't necessary
- **Labs – now testing EGM   System communications**
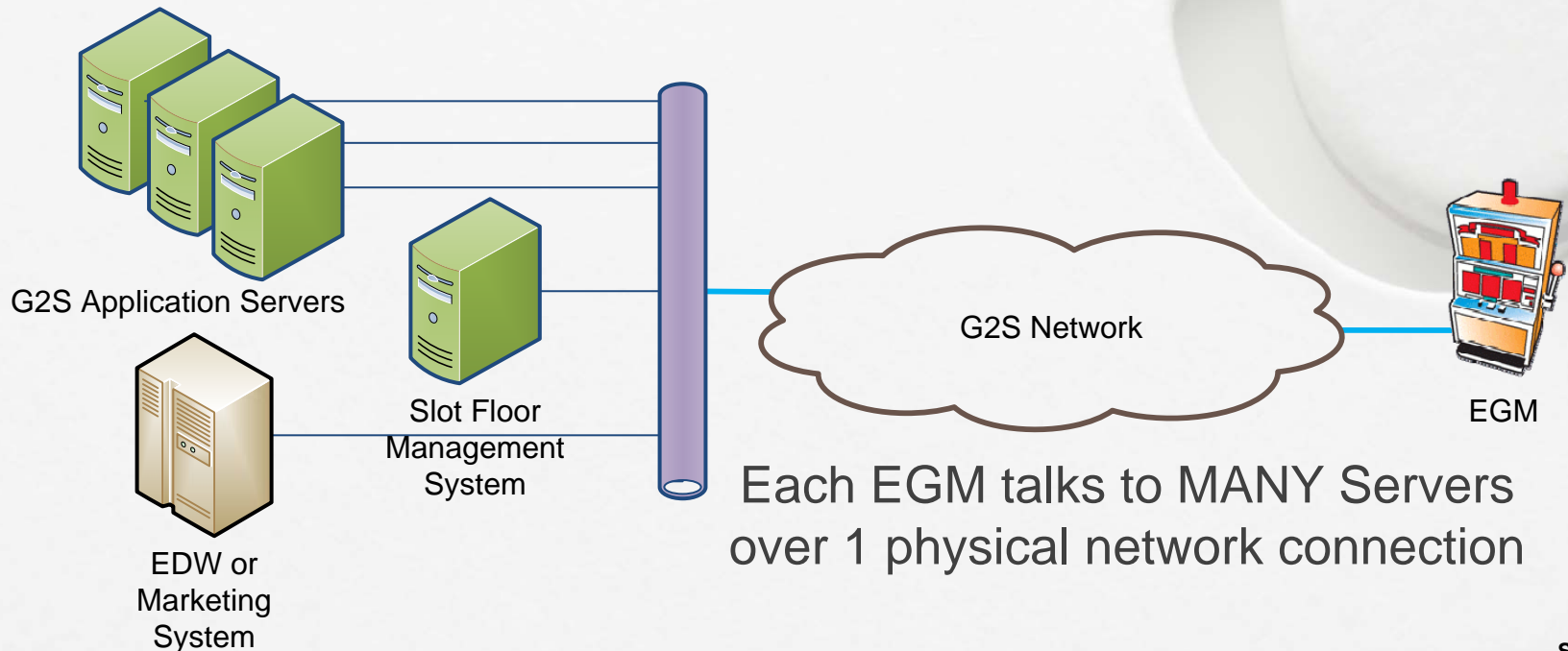- **Load Testing - Test a new system (version) under load**

#9 – An EGM MUST Support Multiple Hosts

- **Your Slot Floor Management System can control the floor**

- **But, imagine if all web-access went through Google**

Application Servers

EDW or Marketing System

G2S Network

Each EGM talks to ONE Server

EGM
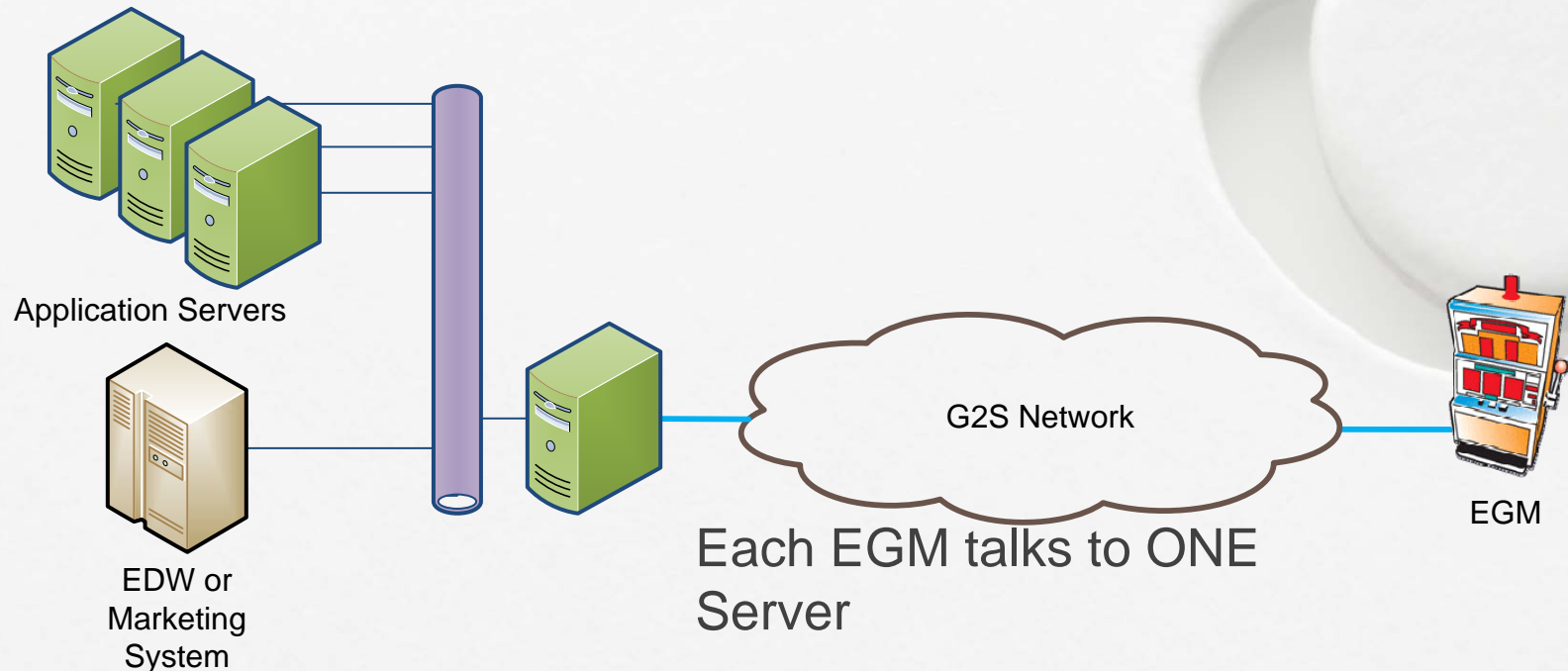
#9 – EGM MUST Support Multiple Hosts

- **Direct access to EGM means no reliance on middleware**
- **1 for Slot System, 1 for Regulators, 4 for your apps**
- **To add functionality, just add another app**

G2S Application Servers

EDW or Marketing System

Slot Floor Management System

G2S Network

EGM

Each EGM talks to MANY Servers over 1 physical network connection

#10 – Understanding the Network Changes

- **Moving to a new network technology can be daunting**

- **You can rely on someone else to do it, or do it yourself**

- **With your own network – you are in control**

- **There are lots of folks who can help you**
  - Cisco / Brocade
  - Network Engineers
  - Experts from the Internet transaction processing world

- **Safe Strategy – Let your system vendor build it**

#10 – Understanding the Network Changes
The Benefits of the Network

- **Every EGM has a web-server – easy access to data**

- **Fast – if 1Gbps, then over 50,000 times faster than today**

- **Open using Internet technologies, vs. Closed/polled**

- **Highly secure – same security as the Internet**

- **Off-the-shelf tools are available**

- **Network = 1 physical connection to the EGM**

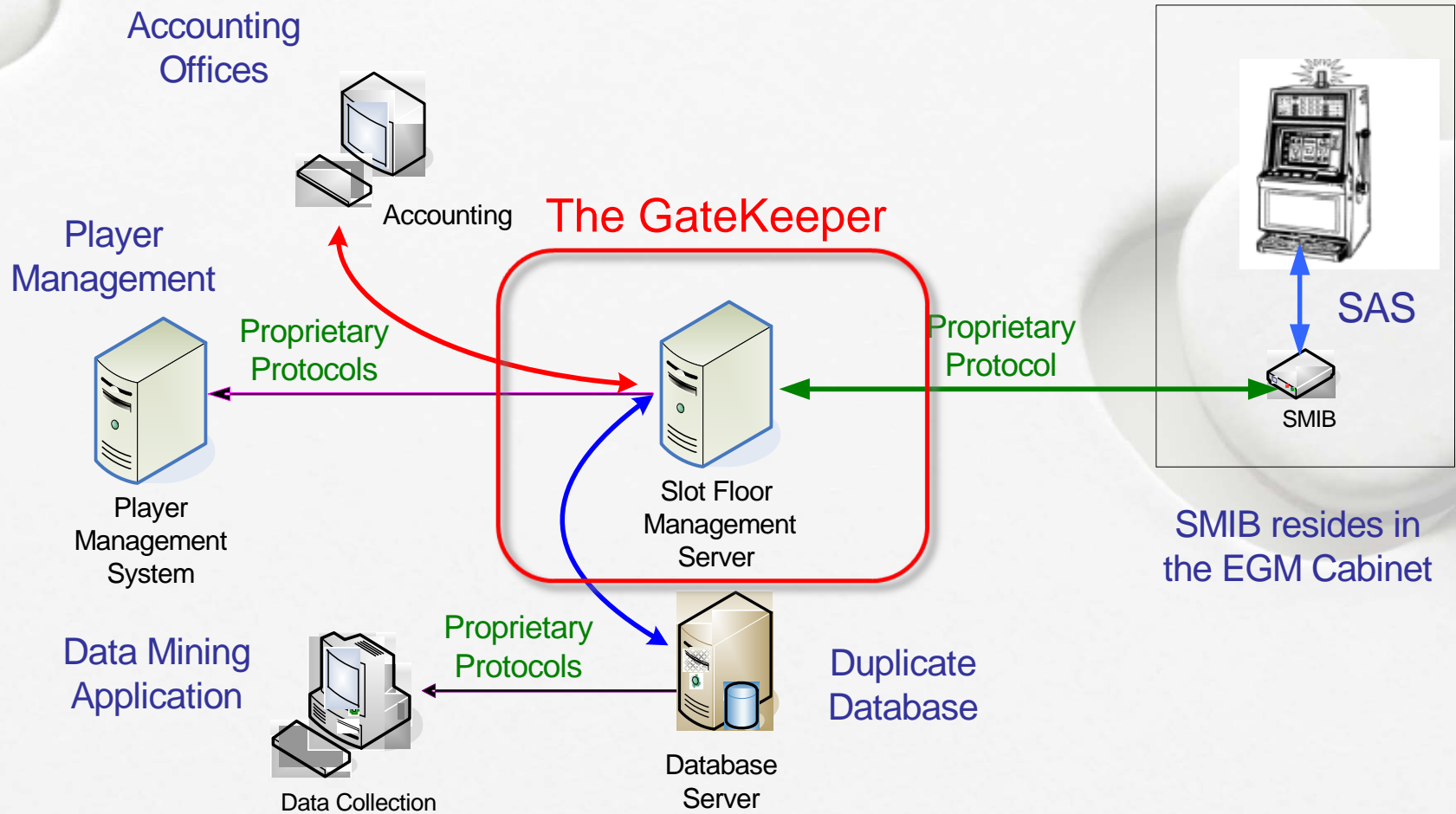- **Network = Each EGM can talk to lots of hosts**

#10 – Understanding the Network Changes (Will it be fast enough?)

- **2006 – eBay with 212 million registered users**
  - 1 billion page views per day
  - 3 billion API calls per day
  - 26 billion SQL executions every day
- **Horizontal Scaling using virtual components is the key**
- **Off the shelf solutions are available**
  - Fiber channel disk arrays
  - Load Balancers – spread load across application servers
  - Dynamic VLAN management
- **IT and Slots are tightly joined at the network**

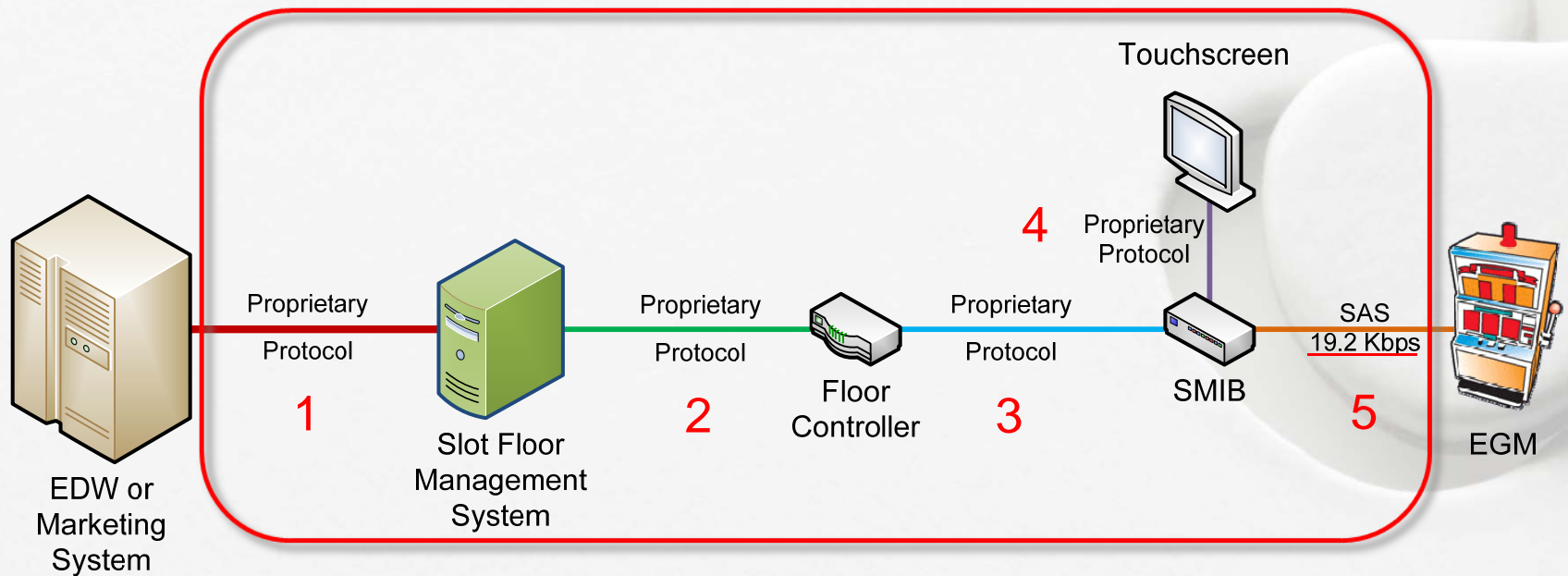http://www.addsimplicity.com/downloads/eBaySDForum2006-11-29.pdf

NOW VS. SOON

A view of the near future

Your Slot Floor Network today

Accounting Offices

Accounting

The GateKeeper

SAS

Player Management

Proprietary Protocols

SMIB

Player Management System

Slot Floor Management Server

Proprietary Protocol

SMIB resides in the EGM Cabinet

Data Mining Application

Proprietary Protocols

Duplicate Database

Data Collection

Database Server

Slide 21

48377 Fremont Blvd., Suite 117 | Fremont, CA 94538 USA | Tel: +1.510.492.4060 | Fax: +1.510.492.4001 | GAMINGSTANDARDS.COM

The actual cost of a new feature (now)

Here's why Innovation has been slow

EDW or Marketing System — Proprietary Protocol **1** — Slot Floor Management System — Proprietary Protocol **2** — Floor Controller — Proprietary Protocol **3** — SMIB — SAS 19.2 Kbps **5** — EGM

Touchscreen — Proprietary Protocol **4**

With G2S, there's a network on your floor!

Slot Floor System Player Analysis Marketing Bonusing

The actual cost of a new feature (soon)

Touchscreen

Proprietary
Protocol

Proprietary
Protocol
Cloud

Proprietary
Protocol

Proprietary
Protocol

SAS
19.2 Kbps

SMIB

EGM

EDW or
Marketing
System

Slot Floor
Management
System

G2S Application Servers
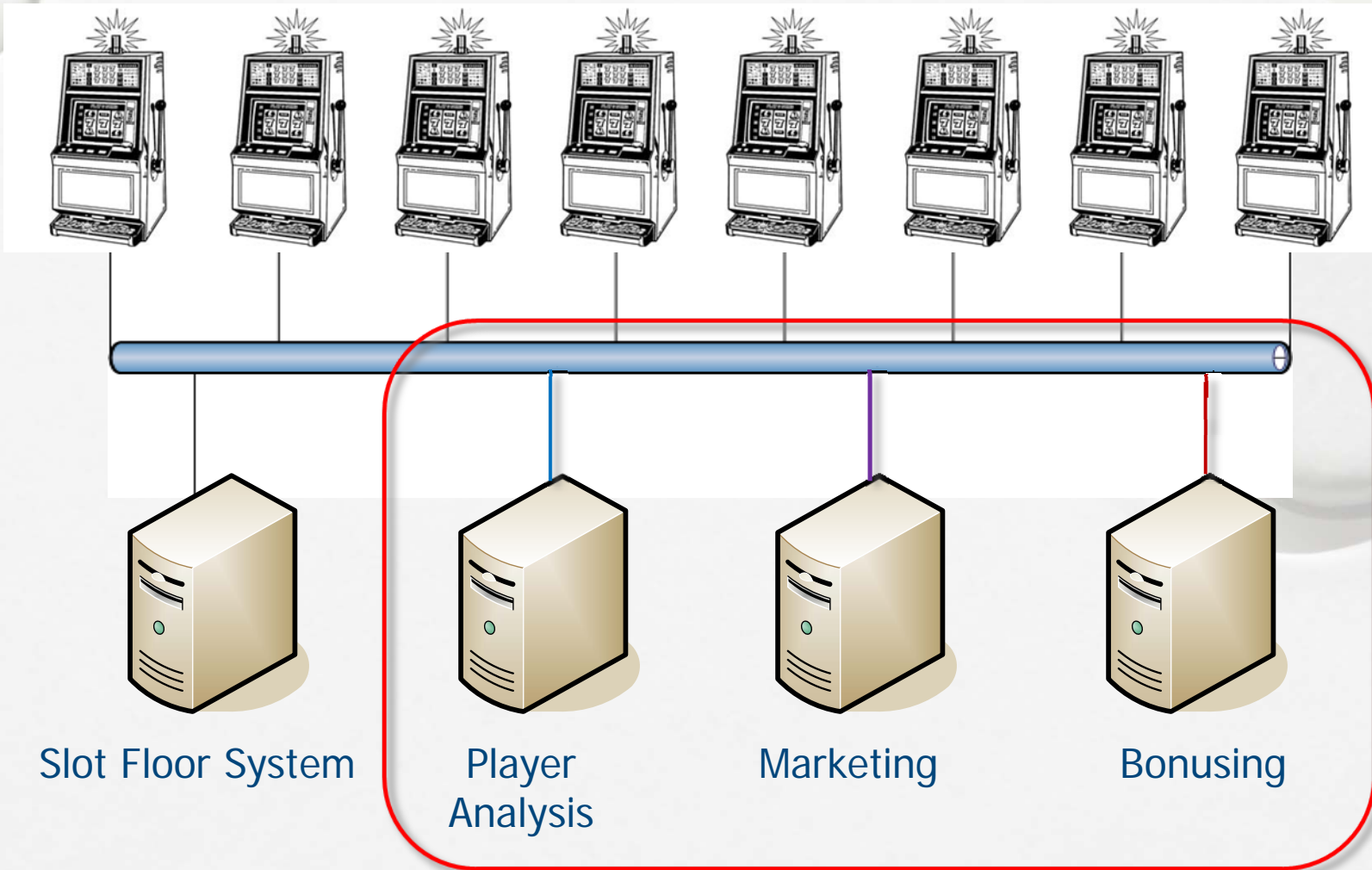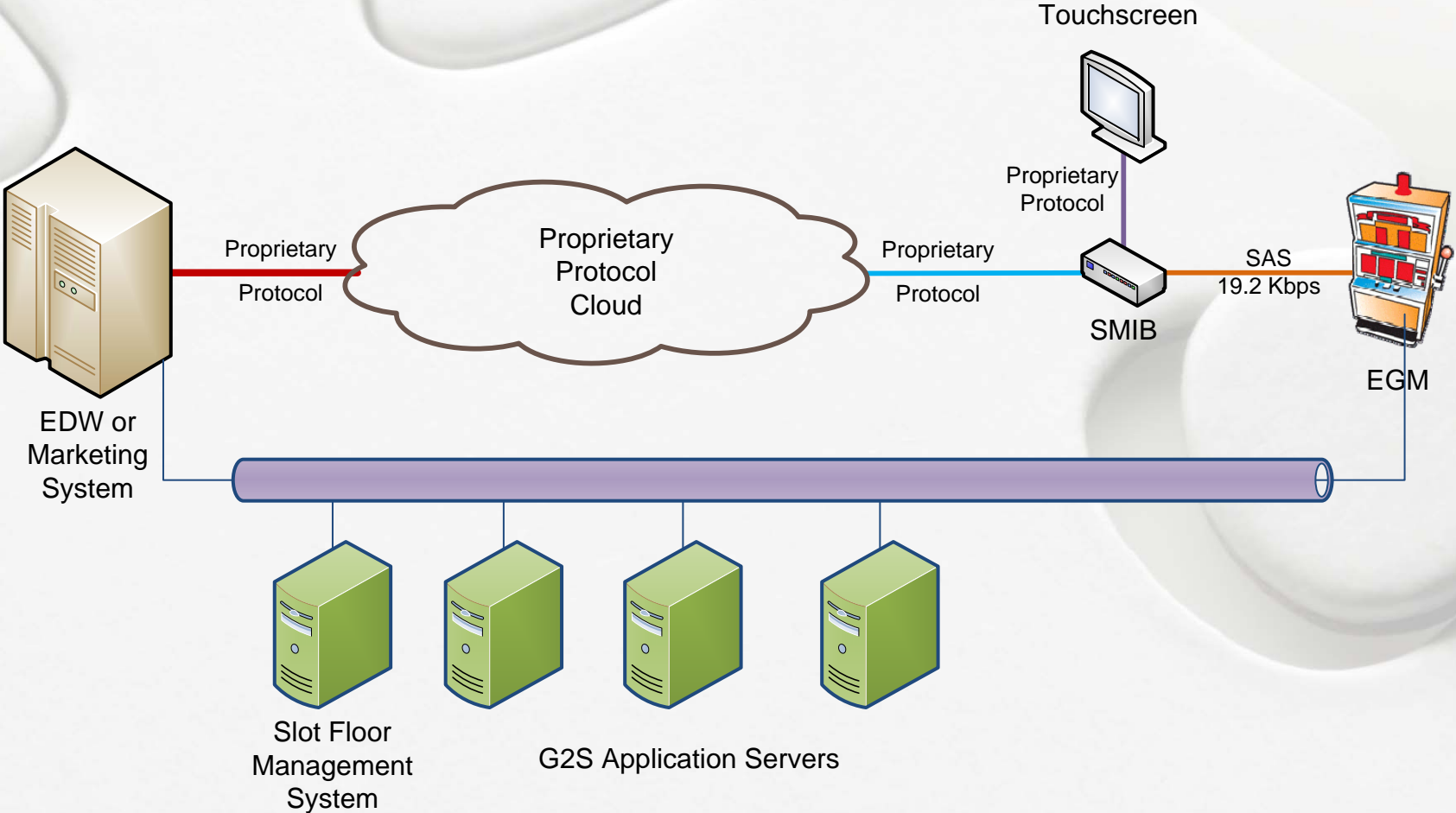
Just add an App Server to the G2S Network

Slide 24

48377 Fremont Blvd., Suite 117 | Fremont, CA 94538 USA | Tel: +1.510.492.4060 | Fax: +1.510.492.4001 | GAMINGSTANDARDS.COM

One day, even the cloud will disappear…

EGM

EDW or
Marketing
System

**1 to 10 Gbps
Backbone**

Slot Floor
Management
System

G2S Application Servers
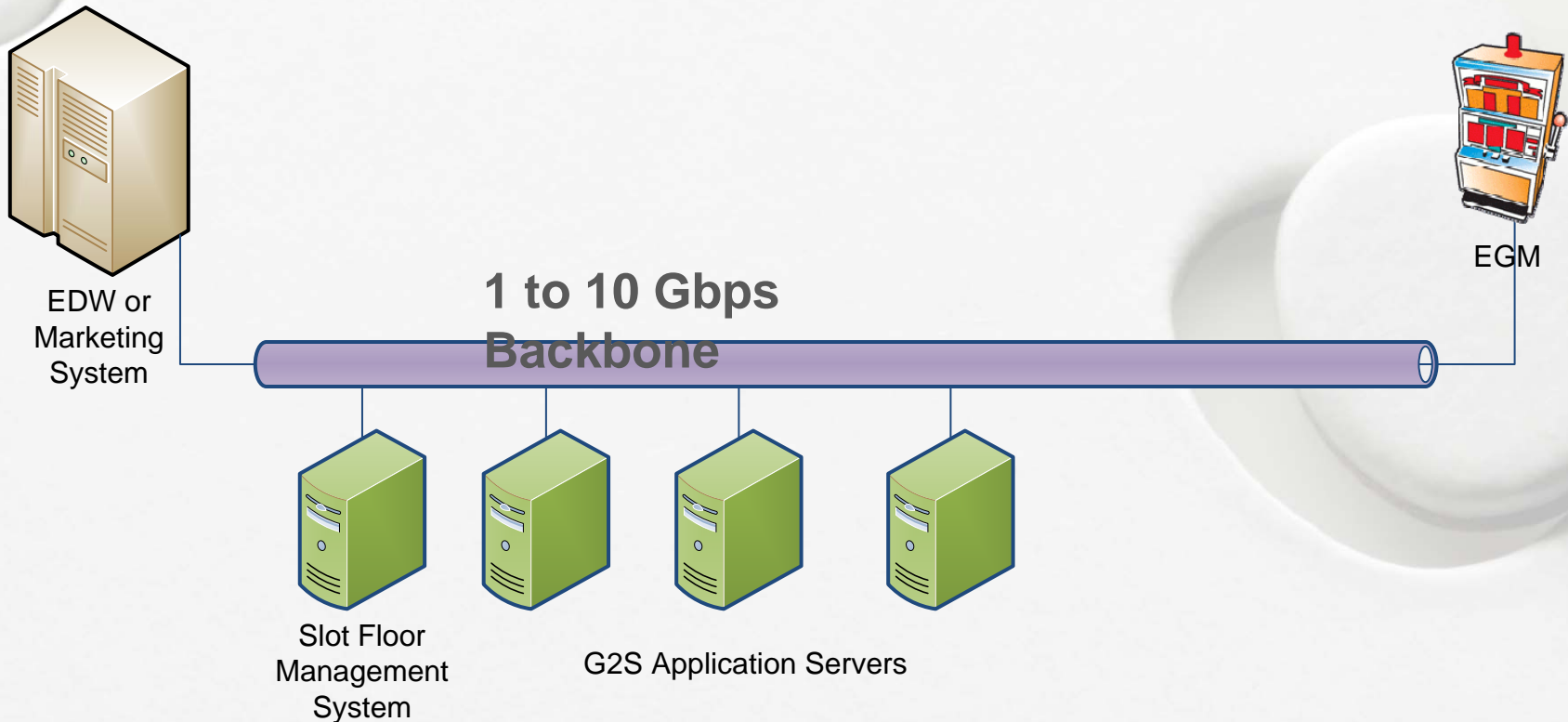
Take Aways

1. **Every EGM MUST Support at least 6 Hosts**

2. **EGM Certification is crucial**

3. **Your network cannot be too fast**

4. **Start with a Sand-Box**

5. **We have no idea what will be cool in 5 years**

6. **G2S will facilitate innovation**

More information

GSA Resources (gamingstandards.com)

- **Standards can be downloaded by anyone**
- **GSA University for training (gsauniv.com)**

RadBlue Resources

- **Student Versions of our Sims (EGM, Host, RPA)**
- **Networked Gaming Resource Page @ radblue.com**
- **Working prototypes that demonstrate all of these examples using G2S**

Russ Ristine (russ@radblue.com)