



Gracenote Keeps its 24/7/365 Online Media Database Safe and Operational at RagingWire's Disaster-Proof Data Center

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Matthew Leeds

Vice President of Global Operations at Gracenote

ABSTRACT

Gracenote is the leading global provider of media recognition technology and entertainment metadata. Gracenote owns the world's largest online database of media information, which it licenses to Original Equipment Manufacturers (OEMs), streaming services, and software and mobile application developers. Its music and video data powers leading streaming music and over-the-top video services. The company also develops music and video software technologies that are embedded in millions of consumer electronics devices. These technologies allow smartphones, tablets, laptops, networked speakers, set-top boxes, CD/DVD players, and cars to receive information about music, movies, and TV shows, and allow users of these devices to better manage their entertainment choices.

Gracenote owns the world's largest online database of music and video information, powering music from Xbox, Amazon, and Google; video from Hulu, Roku, and DirecTV; and mobile apps including Viggie.

To keep its online database continuously up and running, Gracenote houses part of its IT footprint in RagingWire's Sacramento data center, which provides 2N + 2 fully-redundant power, 100% guaranteed uptime, top-level security, redundant connectivity, and flexibility for growth. The move to the Sacramento data center allows Gracenote to keep its critical servers, storage, and network gear in a secure, disaster-proof facility located outside the Bay Area earthquake zone, but still within driving distance of its Emeryville, CA, headquarters.

THE COMPANY

Gracenote is the leading global provider of entertainment metadata and media recognition technologies. Headquartered in Emeryville, California, Gracenote licenses its portfolio of software technologies to Original Equipment Manufacturers (OEMs) in the music, entertainment, and automotive industries. These technologies power music and video experiences in mobile devices such as smartphones, tablets, and laptops, and in home and car entertainment systems. Also, Gracenote's media recognition technologies are embedded in streaming music services such as Xbox Music, Amazon Music, and Google Play, and its data powers over-the-top video services such as Hulu, Roku, and DirecTV, and second-screen mobile applications such as Viggie.

“We create software and services to give users of connected media devices more information about what they listen to and watch, and to help them better manage their entertainment choices,” explains Matthew Leeds, Vice-President of Global Operations at Gracenote. “Our technologies drive media recognition, enable cross-platform search and discovery, and fuel music and program recommendations.”

“Gracenote owns the world's largest online database of digital media information, which includes metadata about music, movies, and TV shows. Our database answers hundreds of millions of queries every day from computers, tablets, smartphones, and consumer electronic gadgets. All of these queries are asking some variant of ‘What is this piece of media that I'm experiencing right now? What information can you tell me about it?’”

CASE STUDY

GRACENOTE

With a database that responds to hundreds of millions of queries a day, Gracenote needed a low-risk, mission-critical data center with extensive network connectivity, reliable and scalable power, and an on-site technical support team.

“For example, Gracenote’s MusicID is an industry-leading recognition technology that lets you use your smartphone to identify a song that is playing on the radio. The application contacts the Gracenote database and downloads information about the song to your phone. Also, Gracenote’s video-based technologies are included in set-top boxes, smart TVs, and other home entertainment systems, allowing you to search TV listings, or access social media feeds about your favorite TV shows while you watch them.”

THE CHALLENGE

Gracenote is an international 24/7/365 business. To ensure continuous availability of its online database to end users throughout the world, Gracenote has replicated its database and services across IT footprints in several data centers. Each IT footprint handles a percentage of Gracenote’s online traffic.

“We were looking to move one of our San Francisco IT footprints to a data center outside the San Andreas Fault region, but still close to our Emeryville headquarters,” says Leeds. “We needed a modern, well-managed facility with near-zero risk of natural disasters, offering competitive pricing on space, power, and bandwidth. We needed a facility that offered the infrastructure, connectivity, and security to keep our footprints safe, accessible, and operational. Also, we needed a facility where we would have room to expand, and not be constrained in our growth.”

THE SOLUTION

Gracenote moved their IT footprint into RagingWire’s Sacramento data center. This move allowed Gracenote to keep its mission-critical infrastructure and databases in a disaster-proof location with 100% guaranteed uptime of power, cooling, and connectivity.

“RagingWire has a solid reputation among Bay Area colocation companies, and it stood out in terms of its capabilities and the way they structure deals,” says Leeds. “We were impressed with the knowledgeable management and staff at RagingWire. When we asked them questions, they had the answers right there. They didn’t have to go off and ask somebody else. At every level, RagingWire’s people demonstrated competence in their areas of expertise, and let us know that this was a good firm to do business with.”

BENEFITS

A DISASTER-PROOF DATA CENTER

RagingWire’s Sacramento facility is located in an inland area that is safe from natural disasters. The data center is on high ground, outside of flood zones, and the buildings are reinforced concrete structures with seismic retrofitting, designed to withstand earthquakes, hurricanes, typhoons, and other events.

“When the Napa Valley earthquake hit [in August, 2014], Sacramento was unaffected,” says Leeds. “Even though it’s only 60 miles away from Napa, it’s located on a different tectonic plate than the Bay Area. The earthquake was a non-event for us, and that’s as it **should** be.”

FULLY-REDUNDANT POWER AND COOLING

RagingWire offers a 100% Guaranteed Uptime SLA for colocation at its Sacramento data center. The facility offers a multi-level power architecture with 2N + 2 redundancy that includes local utility power feeds, a dedicated 69 kV power substation, on-site industrial generators, uninterruptible power supplies, and custom-designed power distribution units.

CASE STUDY

GRACENOTE

RagingWire's Sacramento data center is a safe alternative for Bay Area and Silicon Valley companies, protected from natural disasters with redundant and cost-effective power, cooling, network, and security.

"One thing we were impressed with was RagingWire's cooling system," says Leeds. "Many data center facilities store extra utility water in holding tanks or pools. But these have finite capability, and if they're in an earthquake zone, there's a risk of tank rupture. RagingWire's data center has on-site ground wells that provide additional water for cooling. They have a well for each building, which means there's redundancy in supply."

MASSIVE CONNECTIVITY

"We look to our colocation partners to provide connectivity, so the millions of devices that use Gracernote's technology will always be able to access our database and get the information they need" explains Leeds. "RagingWire has numerous providers on-net at the Sacramento facility. They provide us with redundant Internet connectivity by blending our online traffic across multiple carriers. If one carrier goes down, the other carriers will take up the extra percentage of traffic. RagingWire also provides a cross-connect to the private interconnection circuits between our IT footprints, through their Meet Me Room."

SECURITY

"When we visit the Sacramento data center, we can see the physical security measures they have in place there," says Leeds. "Only authorized people can enter the facility, and everyone has to pass security tests at multiple checkpoints to move through the data center. All visitors must present government-issue photo IDs, pass an iris scan, and go through the mantrap at the entrance. Gracernote's technicians have access badges and PIN codes issued by RagingWire that allow them to enter our dedicated locked cages. If we need outside technicians or delivery people to access our cages, we have to call ahead to let RagingWire know they're coming. They have to be escorted by security guards to the cages, and have the guards unlock it for them."

A FLEXIBLE PRICING STRUCTURE

"One of the most attractive things about RagingWire is their metered pricing model," says Leeds. "Some colocation providers charge you by the circuit, so you may end up paying for unused power capacity. But with RagingWire, you pay only for what you use. We pay a fixed rate per kilowatt hour per square foot, based on the monthly amount of power we reserve for our IT footprint. This makes it easy to calculate what we're going to pay per month, based on the power we're going to use."

"RagingWire's cost structure gives us flexibility to plan out our growth over time, and to understand the cost increases as we use more power. If we need to gradually scale up the density of our current IT footprint, we can reserve a maximum power amount per month, but we don't have to pay for it all at once. Our rates will increase incrementally, as we increase our power levels. If we need to expand our IT footprint into our reserved space, we can easily renegotiate our contract with RagingWire to provide additional power for the expansion at our current rates."

REMOTE HANDS

"Gracernote has made extensive use of RagingWire's Remote Hands and Eyes service," says Leeds. "It may be as simple as asking RagingWire's on-site technicians to reboot a specific server, or change a failed hard drive for us. Or it may be as complex as asking them to set up a new IT footprint with 12 servers, where we send them a diagram to show how we want the servers racked, cabled, and powered. We have confidence that RagingWire's technicians can handle any job we need done, and it saves us the time and expense of sending our own people up to Sacramento to do it."

SCALABILITY AND FLEXIBILITY TO GROW

"We previously located one of our IT footprints in a data center that had originally been built to house telecom switches," says Leeds. "But it turned out to be a very tightly-packed, cramped

CASE STUDY

GRACENOTE

Metered pricing and on-site Remote Hands and Eyes services enable you to get full value from your data center colocation solution now and as you grow.

environment that was terrible for colocation. RagingWire's Sacramento facility is laid out in a very logical way, with wide aisles between cages, high ceilings, and good lighting and ventilation, so it's very easy to get around."

"RagingWire has a clear vision for the long-term growth path that Gracernote will follow in their facility. At the Sacramento data center, they allow us to reserve contiguous space next to our IT footprint, so that as our business needs increase, we can expand into that space, and adjust our power density to handle the additional IT infrastructure. If we need to build out extra racks to support specific initiatives that our customers have, RagingWire can provision additional space and power to accommodate our needs in a short amount of time."



RagingWire Data Centers designs, builds, and operates mission critical data centers that deliver 100% availability and high-density power. The company has nearly 1 million square feet of data center infrastructure in Northern California and Ashburn, Virginia and is affiliated with the global network of 130 data centers under the Nexcenter™ brand operated by NTT Communications. RagingWire's patented power delivery systems and EPA ENERGY STAR rated facilities lead the data center market in reliability and efficiency. With flexible colocation solutions for retail and wholesale buyers, a carrier neutral philosophy, and the highest customer loyalty in the industry as measured by the Net Promoter Score®, RagingWire meets the needs of top internet, enterprise, and government organizations. More information is available at www.ragingwire.com.

TAKE THE NEXT STEP.

To learn more about RagingWire data center solutions, contact us.

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