ILLUMINATI LABS

Ultimate 10-Step Guide

to Evaluating Competitive Bids for Cellular DAS

One of the most challenging parts of deploying Cellular DAS in a commercial building is **choosing the proper fit technology and integration team.**

These ten steps will provide you the necessary information to:

Make an enlightened decision on the cell coverage system that you are purchasing for your property.

Ensure that you know exactly what you're buying, not buying, the terms of purchase and service expectations.

Give youthe means to properly vet the integration team you are working with.

What You Need to Know

1. Who Will Own the Cellular DAS?
2. What are the Cellular DAS Monthly Costs?
3. Which DAS Technology is Used and Why?
4. What is the Signal Source?
5. Who is Going To Be On Site?
6. What is the Impact to Your Building?
7. Who Supports the System?
8. Is Pricing Fixed or Variable?
9. Experience with This Scope/Building Type?
10. What Additions or Deductions are Available?

Why Evaluating Cellular DAS Bids is Critical

Ten years ago, assessing cellular DAS options was relatively straightforward as there were only a handful of manufacturers in the space, so the choices were limited and sometimes the carriers themselves would even deploy and fund the system.

Today, DAS manufacturers are trying to make the technology side of the decision easier by creating new and innovative ways to solve cell coverage that are:

- Reliable and future-proofed for emerging technologies (5G/6G etc.)
- Cost-effective

These cost-effective and future-proof solutions have become the table stakes for deploying Cellular DAS throughout a building, and for good reason.

- **A Cellular DAS that doesn't have an attention towards the future becomes a wasted investment.** It creates an immediate red flag on the person who made the purchasing decision.
- **A Cellular DAS that isn't cost effective never even gets deployed.** Although good cell signal/Cell coverage is a basic necessity in 2024, you technically can still live without it–painfully. While poor cell coverage can destroy the ability to attract new leases or retain existing ones, if the price tag on the solution is egregious, the deal will never get done.

That's why it's critical for you to understand every element of your Cellular DAS Bids. Let's get started!

Item #1: Who Will Own the Cellular DAS?

Back in ancient times (2014), cellular was typically either purchased outright or funded by carriers. Now, there are a wealth of potential ownership options for the system. It is absolutely critical above all else to understand if and when your team will own the system. Get clear on who owns the Cell DAS and exactly when that sales transfers.

Common Cellular DAS Ownership Models

System Owned Outright These systems are owned immediately by the building. Ownership is transferred after the last payment.	**System Owned Outright with Service Package** These systems may be owned outright, but they have a required monthly package for maintenance/monitoring. The hardware is still owned immediately.	**Capital Lease** These systems are typically on a 5-10 year lease with a $1 buyout at the end. They are not owned until the last payment is made. Ask for a buyout cost!
Operator/Contractor Owned These systems are wholly owned by the integration team. There is no transfer of ownership with these systems. This typically gives the contractor the ability to change the system and charge other providers to come on.		**Carrier Owned** These systems are not seen often, but essentially mean that a carrier owns the full system and they give access to the building for the benefit of the tenants.

Item #2: What are the Cellular DAS Monthly Costs?

Monthly/operational costs of the system are largely going to be based on the scope of work that is required after install. The operational costs for a cellular DAS can range from $0 to thousands of dollars per month. It is important to understand what the monthly costs are, and what they include or exclude.

Cellular DAS Monthly Cost Considerations

- **Monitoring** - A solution to remotely view the system and make corrections or dispatch technicians based on what alerts are seen. Typically, monitoring might be a few hundred dollars a month depending on the scale of the system.
- **Service Policy** - Some Cell DAS will have a service policy separate from the warranty that is either concurrent to the warranty, or only goes into effect after the warranty is up. A service policy is a monthly cost incurred to cover the costs associated with a technician coming onto site.
- **Extended Warranty** - Extended warranties can typically be purchased to increase the lifecycle of the parts installed on the system. These costs usually begin getting incurred after the warranty period is over.
- **System Upgrades** - If upgrades to the system are built into the initial contract, you might be paying for them monthly. This will typically be a cost that is paid so when a system upgrade is mutually agreed upon, the cost is fully covered.
- **System Cost** - If the system is leased or financed, etc. The monthly cost could be paying for the cost of the actual system.

It's vital to get line items of the pieces that constitute your monthly/operational cost. Nothing should be paid for on an ongoing basis unless there is direct value being provided to the building that other provisions of the contract (service level agreements, warranty, etc.) do not cover.

Item #3: Which Cellular DAS Technology is Used and Why?

Over the past few years, the technology options for cell DAS have multiplied due to a marketplace that is constantly evolving to accommodate the unique budgetary and technology needs of building owners. Within this ecosystem, there are technologies that are built for certain applications. Bad-fit technologies will be shoehorned into projects either because integrators sell more than is truly needed, or because budgetary concerns push the project into choosing a technology that is not properly suited for that size, scale, or scope.

When evaluating Cell DAS bids, comparing apples to apples can be nearly impossible as there are so many approaches for building these systems. The following questions will help you see some of the logic behind the technology decisions.

Questions To Determine If The Type Of Cellular DAS Technology Quoted Is A Good Fit

- Who is the manufacturer - have they been used with other projects like yours?
- How does the system bring signal into the building - WHY is this the correct approach?
- Does the system use fiber, Cat-5/Cat-6 cabling, or coax? Why?
- Why is the chosen technology and architecture a good fit for this project?
- What other options are available at higher or lower price points? Why are they a poor fit?

Item #4: What is the Signal Source for Your Proposed Cellular DAS System?

Cellular DAS systems may either bring in signal from over-air carrier macro sites (cell towers), or they may bring in signal using hardware direct from the carrier.

On Cell DAS bids, get familiar with how each approach is intending to bring in signal, and if there are any costs that aren't covered by the initial number. In many cases, carriers may charge the building directly to bring in carrier signal which can present an additional cost on the proposal that was not in the DAS integrator's initial scope. These costs can be significant per carrier and quickly create a situation where a low bid isn't actually the lowest available bid.

Item #5: Who Will Be Your On-Site Installation Team?

Integrators can vary greatly in terms of who they will have on site when they are chosen to provide your Cellular DAS. Each installation team model has potential pros and cons. This list is by no means exhaustive, as there are many hybrid models that can borrow from a few of the configurations below, but these five are the most common.

Common Cellular DAS Installation Team Models

1. **W2 Employees Only** - Teams who intend to do a full turn-key system with their own W2 employees. The full system from design through final commissioning is done by in-house technicians/engineers for a seamless experience start to finish. In-house teams benefit from greater communication between the design, engineering, and installation departments, and also can apply standardized procedures and techniques across the board.
2. **W2 Employees with Contracted Design Services** - Teams that excel at integration but do not have sophisticated design resources may have a third party build the design and then have their team install the system. The downfall of this method is that onsite conditions often don't match the plans provided to the designer. Without a team member who can pivot and re-design based on real world circumstances, the installation may get stalled or derailed.
3. **Smarts and Parts** - Some groups will split the work into two buckets, essentially, cable pulling and then commissioning. One team will pull the cabling (typically a low voltage cable provider) and a separate team will turn up to commission the system. They may fill either role, but the key differentiator here is that two separate teams are required, which allows for a certain flexibility but can cause scheduling and/or communication snafus between the two teams.
4. **Contracted Team Uses Subcontractors** - A single team is contracted to deploy the entire system, but they may not have local resources in the area where your project is located. For these projects, they will contract with the local labor force. Local subs may save the contracted team some money on travel expenses but it's virtually impossible to standardize quality control, have effective communications, or collaborate on the fly to find solutions when issues arise on site.
5. **Project Brokering** - Some teams will act more as a "broker" where they find the buildings that need Cell DAS, the team best suited for the job, and then ensure the project gets built correctly as their value add. Think of these teams as matchmakers between building ownership and Cellular DAS integrators; they are able to pair you up with any of the above models, depending on your needs.

Item #6: What is the Impact to Your Building?

The on-site impact to the building will potentially be a key differentiator on the bids -- especially with retrofits.

Building-wide Impacts to Understand When Comparing Cellular DAS Bids

- Working hours – whether the team is willing to work during hours most convenient to your building's residents/workers.
- Anticipated timeline to deploy all stages of design and installation.
- Understanding of current building and anticipated coordination needed from on-site team (pathways, penetrations, access to IT closets, etc.)
- Any expected drywall damages.
- Coordination to get drywall repaired if needed.
- End of day cleaning process.
- Communication/scheduling with residents/tenants/guests/employees who will be effected.

Item #7: Who Supports the Cellular DAS System After Installation?

The bids will likely contain some type of service or monitoring plan after completion. It is critical to understand not only who will be watching the monitoring NOC/Software/etc., but what the SLA (Service Level Agreements) states response times will be. How long will it take to get a technician on site?

Along with the response time, it is often good practice to know if someone familiar with the original install might be responding to the service call, or if it is potentially a subcontracted technician without a working knowledge of the building or the system's layout.

Item #8: Is Pricing Fixed or Variable?

Cellular DAS represents a unique scope because as mentioned earlier, the conditions found onsite might differ from the initial ideal conditions presented at the design stage. In some cases, equipment, wiring or other hardware may have to be added to meet minimum service levels, or to achieve macro dominance against carrier signal.

In these instances, the bidding team should outline if their costs are fixed and whether they will take on the risk for potentially needing to add equipment down the line, or if they will pass these variable costs back to the building owner.

Item #9: Does the Bidding Team Have Experience with This Scope/Building Type?

While Cell DAS can be deployed in any building and the general architecture is going to be largely the same, it can be helpful to have direct experience with the building's particular sector, i.e. Hospital, Hotel, Multifamily MDU, Office Space, Industrial, etc. For instance, hospitals often expect the integrator to know how to use specific safety protocols and provide protective gear such as sterile "birdcages" or Hazmat-type suits.

Be sure to check if the Cell DAS integrator has experience with both the building type, and the building size. It can be difficult for a team to scale up to a building size they have not previously worked on. Large buildings often require multiple coordinating systems and if the integrator doesn't know how to space those systems, they can actually cancel each other out.

Additionally, checking that the Cell DAS team has robust experience ensures that they are likely in it for the long haul. Given the time horizon of the system support (typically a decade plus), having a team that is a well-regarded, experienced DAS integrator can give assurances that they'll be around if a system issue presents itself years down the line.

Item #10: What Additions or Deductions are Available for the Cellular DAS System?

Creating an exhaustive list of all the items you might need to assess on a Cell DAS bid can be nearly impossible given the customization that is possible for these system proposals. One of the most effective ways to level-set the bids is to ask for a line-by-line list of any standard item that is:

1. **Already included but can be deducted.**
   - A. The bid should also provide the cost savings of the deduction.
   - B. This could include items like conduit in the parking garage and "nice to have" features that can be value-engineered to save cost.
2. **Not included in pricing but can be added.**
   - A. The bid should provide the cost of the addition.
   - B. Non-standard items that may be added.
3. **Standard Items that are included in the proposal.**
   - A. Every company might have a different take on the items that should come standard with a proposal. Have the company list them out. These items might not have a cost directly attributable to them, but they can certainly have a value associated when comparing bids.

Now You Know

Armed with the answers to these ten questions, you now have the necessary information to make an informed decision on the cell coverage system that you are purchasing for your property. You will understand exactly what you're buying, and can feel confident that you've properly vetted the integration team you are working with.

We'd love to get your feedback on this Ultimate Guide because we're always eager to improve and perfect the information. Please reach out to tell us what you think, ask questions or chat about your Cellular DAS project.

Reach Out
to Illuminati Labs

303.647.6943

info@illuminatilabs.com

www.illuminatilabs.com