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Interview Prep Guide: Facilities Technician

What's a Facilities Technician?

Google has one of the world's largest and most secure cloud computing portfolios. As a Google Data Center Facilities Technician, you will work in the most innovative and secure data centers in the world. Our Facilities Technicians keep our data centers top of the line by working with the most brilliant minds to test, implement, repair, and enhance the newest technology and work practices to meet the demands of our evolving and fast-paced market.

Why Google? Impact.

Google is and always will be an engineering company. We hire people with a broad set of technical skills who are ready to tackle some of technology's greatest challenges and make an impact on millions, if not billions, of users. Working on Google's hyperscale data center and edge infrastructure gives you opportunities to influence the operations that underpin one of the largest technology infrastructures the world has ever seen.

The Technical Phone Interview

The initial 45 minute technical interview over Google Meet will focus on your role related knowledge in Data Center Operations. You can expect a short introduction and may be expected to speak to some of the experiences listed on your resume and provide examples.

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You will also be asked a handful of technical questions focused on your domain expertise.

Mechanical - Show us that you're well versed in mechanical systems related to site infrastructure (e.g. water treatment, process cooling, HVAC etc.). Additionally, we'll look for your knowledge of mechanical theory.

Electrical - You should have an understanding of electrical testing equipment and electrical distribution. We'll look for you to have proficiency in at least one area - LV, MV, HV, UPS, or generators.

Controls - This is where you will have the opportunity to display your knowledge of controls experience - or the equivalent - in a critical/high tech environment, and ability in Building Management Systems (BMS) and Power Monitoring Systems (EPMS/PMS).

Thought process questions will also be asked. Examples include, "How would you troubleshoot the following problem?" or "How would you design a solution for a hypothetical project?" These questions are designed to give you the chance to apply your analytical skills to new problems, including problems that you may not have faced before in your career.

The Second Round Interviews

For the second round interviews, expect four 45 minute interviews over Google Meet. Please note, these could happen in any order:

- General Cognitive Ability & Role Related Knowledge/ Safety
- Googleyness & Leadership
- Googleyness & Role Related Knowledge/ Safety
- General Cognitive Ability & Leadership

Preparing to Interview

Role Related Knowledge Interview:

Mechanical - Demonstrate you're well versed in mechanical systems related to site infrastructure (e.g. water treatment, process cooling, HVAC etc.). Additionally, we'll look for your knowledge of mechanical theory.

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Electrical - You should have an understanding of electrical testing equipment and electrical distribution. We'll look for you to have proficiency in at least one area - LV, MV, HV, UPS, or generators.

Controls - This is where you will have the opportunity to display your understanding of controls experience or the equivalent in a critical/high tech environment and ability in Building Management Systems (BMS) and Power Monitoring Systems (EPMS/PMS).

In addition to Role Related Knowledge (RRK), we evaluate three different attributes throughout the three virtual onsite interviews: Googleyness, Leadership, and General Cognitive Ability.

Googleyness: Share how you work individually and on a team, how you help others, how you navigate ambiguity, and how you push yourself to grow outside of your comfort zone.

Leadership: Be prepared to discuss how you have used your communication and decision-making skills to mobilize others. This might be by stepping up to a leadership role at work or with an organization, or by helping a team succeed even when you weren't officially the leader.

General Cognitive Ability (GCA): This attribute is designed to evaluate how you solve problems. There are no "right" or "wrong" GCA solutions; rather, we're interested in observing the data-driven approach you take to identify a logical recommendation with the ability to support your solution.

We suggest following this 4-step framework:

1. ***Understand:*** Show you understand the problem by asking clarifying questions to get additional context. If you don't get a direct answer to your question, leverage assumptions to begin creating tangible information to work with.
2. ***Prepare:*** Prepare by verbalizing the data needed to identify a solution — this may include existing, historic and/or new data. Be clear about where you might seek existing data points or how you might gather new information.
3. ***Identify a solution:*** Feel free to weigh out options, but ultimately articulate your recommendation.
4. ***Support your solution:*** What was the outcome/result? Explain how you would track effectiveness over time.

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The questions during this interview may be hypothetical, behavioral, or technical in nature.

- Hypothetical questions may be entirely unrelated to your experience. ● Technical questions may include a mock customer scenario where you'll be asked how you'd identify the appropriate solution.
- Behavioral questions may ask you for real-life examples of times where you had to think outside of the box to overcome challenges.

Sample Questions:

1. *[Behavioral] Give me an example of when you solved a technical problem without an obvious solution*
2. *[Hypothetical] Imagine there is an outage, how would you go about troubleshooting the issue and repairing it?*

Role Related Knowledge (RRK) Specialization Deeper Dive

Mechanical Specialization

The **mechanical** specific interview is designed to get a sense of your deeper knowledge and understanding of mechanical knowledge pertaining to data centers and hardware technologies and concepts. The mechanical specific interview is focused on assessing your knowledge of infrastructure (e.g. water treatment, process cooling, HVAC etc.). Some other topics to brush up on include Fire/Life/Safety, Generators, Power Distribution, Cooling, Waste Water/Effluent Treatment Plants, and Security. Additionally, we'll look for your knowledge of mechanical theory.

Electrical Specialization

The **electrical** specific interview is designed to get a sense of your deeper knowledge and understanding of electrical systems and concepts. The electrical specific interview is looking to evaluate your ability to navigate the electrical systems for data centers. The interviewer may ask questions around electrical testing equipment and electrical distribution. We'll look for you to have proficiency in at least one area - LV, MV, HV, UPS, or generators.

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Controls Specialization

The **controls** specific interview content is designed to get a sense of your deeper knowledge and understanding of controls experience or the equivalent in a critical/high tech environment. Some topics and technologies to study up on for this interview include control systems (Building Management Systems (BMS) and Power Monitoring Systems (PMS or EPMS)), automation systems (ex. Alerton), control values, maintaining and enhancing the performance of new control loops, and your experience in data collection/trending.

Additional Resources

A Look Inside Google Data Centers

The Innovation Behind Google's Data Centers (Cloud Next '18)
An Insider Look: Google's Data Centers (Cloud Next '19)

360 Tour of Google's Data Center
Google's Data Center Security: 6 Layers Deep
How the Internet Lives: Google Podcast
Animated Series: All About Google Data Centers