Apprenticeship Programs for the Digital Infrastructure Industry

BEST PRACTICE GUIDE

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Introduction to Apprenticeships

Apprenticeships are on-the-job-training (OJT) schemes where an organization hires an employee and trains them on the job. This usually involves both on-the-job-training and following formal external courses or schooling. The employer sets learning objectives and training milestones for the employee, or may follow those the apprenticeship provider sets.

Whether apprenticeship or internship, or somewhere in between, all OJTs are excellent means of opening pathways into the virtual infrastructure industry and bringing new talent in.

Apprenticeships and internships can be utilized to increase diversity and attract workers who might otherwise be excluded due to education and/or experience requirements for entry-level roles. An apprenticeship can be used by learners of all ages to gain valuable skills, retrain or reskill.

With on-the-job-training, employers make a commitment toward developing their employees in return for an anticipated period of service from the employee, as well as various public incentives encouraging employers to develop these programs. Developing or expanding these pathways can significantly increase employee diversity, loyalty, and expand an organization’s innovation and effectiveness.
Background

This guidance is based on interviews with industry leaders from NTT/GDCA, Stack Infrastructure, Equinix, PureDC, Yondr, Durata, and CNet Training. These recently established apprenticeship programs are small-scale, typically enrolling 2-4 apprentices annually. CNet Training, an Approved Main Provider of Apprenticeships, supports employers by delivering off-the-job education for apprentices.

The programs were all set up differently, as apprenticeship programs can be tailored to suit the organization’s requirements. Program et sup depends on:

- **Requirements of the partner educational institution**
- **Type of company:** company culture, needs, and typical approach to staff recruitment and development all shape a program. The program needs to suit the organizational setup, and the person recruited needs to match the company’s culture.
- **Country Context:** Each country has different expectations about the requirements for a formal apprenticeship program, and the incentives provided to employers to encourage development of these programs.
  - In the UK, employers with an annual pay bill exceeding £3 million are subject to a 0.5% apprenticeship levy tax. This tax contributes to a fund accessible to all companies, regardless of levy payment status, to support apprenticeship training costs. Effective April 1, 2024, the UK Government will fully fund approved training for learners aged 16 to 21, while for learners aged 22 and over, the government covers 95% of the course cost, with the employer responsible for the remaining 5%.
  - In the United States, the Department of Labor oversees Registered Apprenticeship Programs, ensuring compliance. Employers offering these programs can benefit from wage subsidies for apprentices during their training.
Apprenticeship Program Considerations

Apprenticed Occupations

Set up apprenticeships for roles that are hardest to fill, or for roles where you can easily add learners. Use current and future job vacancies to guide which roles to set it up for.

Expand apprenticeships to encompass a wider range of roles beyond just technology. The industry requires talent across various positions (see Durata case example). Individuals might begin in one role and transition to another as they gain industry knowledge (see Durata and Yondr case examples). A recent informal survey by an apprentice revealed that out of 165 apprenticeships offered in the UK industry in 2024, only 4 were non-technical, highlighting a need for diversification.

Offer apprenticeships to current employees seeking role changes.

Partner with other companies in the industry to expand and diversify apprenticeship offerings across different roles and locations. This approach retains individuals within the industry who may prefer a different location or type of role than what your company currently provides.
Apprenticeship Program Considerations

Developing Learning Requirements

Define the role, necessary skills, and knowledge clearly, along with training milestones, and establish an effective onboarding program. Develop a well-structured on-the-job training plan.

Once established, this program can be easily replicated across various locations and departments, making it well-suited for formal apprenticeship models.

When developing a program:

- Make a list of a minimum set of knowledge, skills and abilities (KSAs) the apprentice needs to learn in order to be fully functional in their role, taking note of any dependencies.
- Utilize established apprenticeship programs as a foundation. In the US, seek formal registered apprenticeships that align with your skill needs. Similarly, in the UK, seek existing formal programs, even if not specific to the data center industry, for relevant and approved training routes. Notably, CNet Training is an Approved Main Provider for Apprenticeships in the UK, offering the Network Cable Installer (NCI) Apprenticeship eligible for government funding through the apprenticeship levy.
Apprenticeship Program Considerations

Developing Learning Requirements

When developing a program (continued):

- Involve current employees in those occupations as well as their direct managers to ensure the list of skills is appropriate and up to date.
- Set up the training schedule to allow for changes once the program has started, be flexible, and adapt to the learner’s needs by asking for regular feedback.
- Leverage technical assistance from apprenticeship experts to assist in building your program. Including:
  - US: Technical assistance partners for apprenticeships.
  - UK: Government guidance on setting up apprenticeships.

When partnering with an education provider for off-the-job training:

- Collaborate with the institution to align with their qualification requirements.
- Ensure classroom training complements skill development to avoid delays.
- In the US, compensate apprentices for classroom training time. In the UK, allocate 20% of paid working hours for off-the-job learning.
Apprenticeship Program Considerations

Providing Education

Partner with an educational institution to provide education and/or signpost courses on offer by external institutes (Schneider, CNet Training, Uptime, DCD Academy, International Data Center Authority, EPI, etc). Where possible use an existing apprenticeship program. Build a good relationship with the education provider to ensure high-quality training that meets the employers and apprentice’s needs.

Combine this with job shadowing and on-the-job learning. Test skills acquisition by asking the apprentice to perform a specific task (under supervision) at predefined intervals.

Qualification and Assessment

Many external education providers can assess the candidate using exams or assessment of tasks. Alternatively, the line manager can (and should) assess the apprentice on their understanding and/or ask them to demonstrate their skill.

Formal and practical assessments should take place at regular intervals and should be scheduled into the program so that the apprentice always knows what to expect and when.
Apprenticeship Program Considerations

Recruiting Candidates

Recruitment methods and process may vary from the companies usual recruitment methods, as apprentices may not have prior work experience.

- Communicate the opportunity to current employees in other roles in the company.
- Ask current employees to recommend the apprenticeship to friends and family.
- Establish a relationship with local providers of education and (educational) charities.
- Establish a relationship with local jobs centers to broaden your access to apprenticeship candidates.
- In the US, partner with your local Rapid Response coordinator to source employees affected by layoffs at other companies.
- Organize open days, visit education providers and job fairs.
Apprenticeship Program Considerations

Recruiting Candidates

Use apprenticeships to increase diversity (see Case Example STACK Infrastructure).

To increase diversity:

- Target specific groups, build a relationship with local community organizations or college/school networks aimed at those groups:
  - women
  - ethnic minorities
  - people with disabilities
  - workers returning to the workforce
  - veterans from the Armed Forces
  - unemployed and long-term unemployed
  - at-risk youth
  - justice-involved individuals
Apprenticeship Program Considerations

Recruiting Candidates

To increase diversity (continued):

- Consider recruiting in nearby areas or at nearby schools with the greatest diversity.
- Showcase diversity at events by bringing a variety of employees, and ensuring your slides show images of a wide range of people.
- Facilitate easy entry by:
  - Lowering qualification criteria (e.g., reducing degree, experience, or physical requirements)
  - Offering taster days, short courses, or internships to introduce newcomers to the industry
  - Collaborating with local workforce agencies to host hiring events and information sessions
  - Clearly outlining the support apprentices can expect
  - Streamlining the application process with detailed information and guidance
  - Providing interview mentorship from experienced employees
  - Highlighting career opportunities through role model examples

Consider recruiting in nearby areas or at nearby schools with the greatest diversity.
Apprenticeship Program Considerations

Benefits and Remuneration

Clearly communicate expectations and anticipated pay increases based on learning goals at the start of the program, as workers value future pay, career advancement, and certifications.

Highlight future career paths and clarify requirements for potential roles. Expand the apprenticeship program to include broader job shadowing in the first year, with the option to select a focus or pathway in the second year. Typically, a 2-year apprenticeship will follow this remuneration model tied to learning achievements and occupation-specific subsidies.

- Year 1: 75% of fully-functional pay for the occupation
- Exam/Evaluation followed by a pay rise
- Year 2: 85% of fully-functional pay for the occupation
- Exam/Evaluation followed by a pay rise
- Graduation: 100% pay for the occupation

Encouraging and Evaluating Progress

Assign a single point of contact for the apprentice who meets regularly to track progress. Use a rubric for reviewing performance and implement 360-degree mentoring and support.
Apprenticeship Program Considerations

Internal Resources Required

- Line Manager for day-to-day support and supervision of apprentices, with the right tools and skills to mentor effectively.
- Skilled and experienced staff who can support and train the apprentice.
- Program Coordinator to track metrics, enrollment, and coordinate compliance with government bodies, if applicable.
- HR and/or Learning and Development to embed the program into current systems, recruitment/workforce policy and balance training needs with future capacity required.
- Managing Director to determine overall program capacity, coordinate training needs, balance teams and ensure apprenticeship are embedded in the long-term strategy.
Apprenticeship Program Considerations

Involving Current Staff

Involving current staff in program development. Ask them what they wish they had known or been taught at different points in their own onboarding. Ask them whose perspectives are missing on their teams to broaden the search for apprentices and specifically include people who might be able to provide those missing perspectives. Determine and publish any impacts of the first apprentice cohort to attract more interest.

Utilize the apprenticeship program as a leadership development program for your current line staff. Engage line staff as mentors and allow apprentices to shadow as many roles as possible. Allow line staff to develop leadership skills as they impart their working knowledge to the apprenticeship cohort, and continue that model with each incoming round of apprentices.
# List of Case Studies

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<td>Yondr, Technical Manager, Facilities Manager and Project Manager, UK</td>
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<td>GDCA/NTT, Data Center Technician, US</td>
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<tr>
<td>CNet Training, ESFA Approved Main Provider of Apprenticeships, delivering the Network Cable Installer (NCI) Apprenticeship, UK</td>
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### Case Example: Equinix

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<tbody>
<tr>
<td><strong>Program Start Date</strong></td>
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<td><strong>Apprentices per Year</strong></td>
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<tr>
<td><strong>Total Graduates to Date</strong></td>
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<tr>
<td><strong>Apprenticed Occupations</strong></td>
<td>Data Center Technician Maintenance Engineer</td>
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<td><strong>Countries</strong></td>
<td>Germany, France</td>
</tr>
<tr>
<td><strong>Education Provider</strong></td>
<td>Local School, 1 day/week</td>
</tr>
</tbody>
</table>
| **Qualification**      | Germany: ‘Diploma - Apprenticeship’  
                        | France: ‘Technical University Degree Diploma’ |
| **Formal/informal**    | Formal, government approved program |
Case Example: Equinix

Equinix has had apprenticeship programs across EMEA since 2018/2019, including in Germany, France, Ireland, Sweden, Poland and Switzerland. A program in the UK has just started and a new program is starting in Spain. Current programs have been set up locally by Equinix staff, often as a result of personal interest in expanding the local talent pipeline. Equinix is now aligning its programs globally, with two central aims:

1. Increase the number of Engineers than the market can independently
2. Increase diversity among Equinix employees

In this new approach HR will be more involved to ensure apprentices have an experience that aligns with those of new employees. This will also ensure the number and type of apprentices hired align with future vacancies expected. Current programs will be transformed to align with the new global approach.
Case Example:

Apprenticed Occupations

**Germany**: Apprentices are hired in a data center technician or maintenance engineer role. Overall 60+ apprentices have finished the program. This year there are 7-8 data center technician apprentices in the Customer Operations team and 7-8 Electrical/Mechanical maintenance apprentices in the maintenance team.

**France**: Apprentices are hired in a combined technician/maintenance role. Overall, a total of 40+ apprentices have finished the program. This year, there are 8-10 apprentices.

Developing Learning Requirements & Providing Education

**Germany**: Equinix works closely with local schools offering Mechanical Engineering, Electrical Engineering, and Telecommunications Qualifications following final exams at age 16.

The apprenticeship program involves a standardized curriculum provided by schools across Germany, with Equinix adding data center-specific content as needed. Students are assigned practical tasks by the school, such as building racks or practicing maintenance on equipment. The program lasts 2.5 years but allows up to four years for completion to accommodate exam retakes or other circumstances. Some schools offer one day per week of theory, while others have a 50/50 split with two weeks per month in school. At Equinix, apprentices work closely with senior engineers or technicians as buddies, rotating locations and buddies every three months for exposure to different equipment and setups.
Case Example: **Equinix**

Developing Learning Requirements & Providing Education (continued)

**France:** Equinix collaborates with local schools offering Telecommunications, Electrical Engineering, or Cyber Security qualifications post-exams at age 18. The apprenticeship spans two years with a standardized curriculum across all schools. Employers receive a list of required topics from the school curriculum, supplemented with data center-specific content by Equinix.

Apprentices dedicate 1/3 of their time to school. School schedules vary, with options like two days in school and three days with the employer, or longer periods alternating between school and the employer. Each apprentice works at a local data center associated with the school without rotation to different locations.

**Qualification and Assessment**

**Germany:** The school assesses apprentices in exams by grading projects and an end of year Project presentation. When they pass, apprentices receive a Certificate or ‘Diploma,’ which gives them a title that allows them to work in their specific field.

**France:** The school assesses apprentices. When they pass, the apprentice receives a ‘Technical University Degree Diploma.’
Case Example:

Recruiting Candidates

**Germany:** Equinix organizes presentations in schools, Insight Days on site, post available jobs on their website, and work with employment centers.

Equinix attracts most apprenticeship applicants through the local Chamber of Commerce, which promotes various apprenticeships on behalf of the government. In the UK, Equinix receives 200 applications for each apprenticeship position, while in Germany, the number of available positions often exceeds suitable applicants.

Candidates typically apply after completing their final year of school at age 16, although some may apply later after exploring other educational paths. Selection criteria include good grades, a strong motivational letter, knowledge of Equinix, and success on assessments covering math, spatial awareness, German, and English proficiency. Candidates must have sufficient German language skills to participate in education conducted in German, and basic English proficiency is expected since clients are international.

Currently, the apprenticeship intake lacks diversity, with only two out of 60 apprentices being female. Some of the apprentices were refugees with adequate German language skills.

**France:** Equinix works closely with the local school, and does a presentation at the school. Interested students are invited to a tour and send in a CV. Candidates are then selected by the schools, after which they have an interview at Equinix.

Candidates are typically 18-25 years old, as the 2-year program is chosen as an alternative to a university degree. 20% of apprentices are female and there is a mix of ethnic backgrounds.
Case Example: 

Benefits and Remuneration

**Germany**: Apprentices are offered a base apprenticeship salary by Equinix, the government tops this up and funds education. There is an annual salary increase or bonus in line with all employees.

After the program apprentices who performed well in exams and are interested in a position as an employee are offered a job at Equinix if a role is available. Some apprentices have other plans or continue the next level of education. So far 75% of apprentices have been hired.

Encouraging and Evaluating Progress, Internal Resources Required

**Germany**: A team of three individuals manages apprenticeships nationwide in Germany: one former Electrical Engineering teacher and two assistants. This team recruits apprentices, oversees rotations across locations, supports progress, monitors performance, and reviews school project work when necessary.

**France**: The hiring manager at each location recruits candidates, and supports them where necessary.
### Case Example: puredc

<table>
<thead>
<tr>
<th>Program Start Date</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Program</td>
<td>3 years</td>
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<tr>
<td>Apprentices per Year</td>
<td>2</td>
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<tr>
<td>Total Graduates to Date</td>
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<tr>
<td>Apprenticed Occupations</td>
<td>Maintenance Engineer</td>
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<tr>
<td>Countries</td>
<td>UK</td>
</tr>
<tr>
<td>Education Provider</td>
<td>Local College, 1 day/week</td>
</tr>
<tr>
<td>Qualification</td>
<td>Certificate</td>
</tr>
<tr>
<td>Formal/informal</td>
<td>Informal program, developed with local college</td>
</tr>
</tbody>
</table>
Pure DC commenced its apprenticeship program in 2024 recruiting two Maintenance Engineer apprentices. Preparations started a year earlier, driven by a desire to hire more local people.

**Apprenticed Occupations**

Apprentices are hired in the role of Maintenance Engineers level 1. Historically these roles have been challenging to fill so this is an ideal opportunity to source and train candidates who are passionate about engineering but might not have the qualifications immediately required to go straight into an engineering type role.

**Developing Learning Requirements, Providing Education, Qualifications and Assessment**

Harrow & Uxbridge College provides tailored education for Pure DC apprentices, located conveniently near the site to minimize travel time and benefit local individuals. Apprentices attend college one day a week and work at Pure DC four days a week.
Developing Learning Requirements, Providing Education, Qualifications and Assessment (continued)

Apprentices follow a structured program that integrates with college coursework. Pure DC has developed a comprehensive competency framework that apprentices must demonstrate proficiency in. The curriculum starts with Health & Safety and progresses through beginner, operator, and fault-finding levels for each topic. Rather than exams, apprentices work on projects and receive feedback on their performance.

Apprentices receive workbooks outlining knowledge requirements and are expected to independently gather resources for learning, such as statutes, manuals, or operating procedures, which they demonstrate in their workbooks. They are supported by the Maintenance Tutor, peers, and the operational team on-site, who provide exposure opportunities to meet apprenticeship requirements.

Upon completing three years of college and on-the-job learning, apprentices receive a certificate of completion rather than a formal qualification.

Recruiting Candidates

Pure DC hosts DC Insight Days for local schools, featuring speed networking and STEM activities. The apprenticeship role is advertised through the college, LinkedIn, and internally at Pure DC. The Head of Talent Acquisition works closely with the college to identify suitable candidates for interviews.

Candidates are selected based on their motivation to learn about technology and engineering, along with basic proficiency in Maths and English. Pure DC offers additional support through functional skills courses if needed. Interviews are informal and aim to create a welcoming environment for candidates to assess their fit for the role.
Benefits and Remuneration
Apprentices receive a percentage of the full salary for their role and are paid for their college days. They also have access to various development opportunities. College fees are covered by the apprenticeship levy. Pure DC aims to provide permanent roles to apprentices upon completion of the program, although this is not guaranteed.

Encouraging and Evaluating Progress
Each week, the apprenticeship tutor meets with apprentices to identify areas for improvement in Pure DC’s support. Additionally, the Training Manager conducts monthly meetings with apprentices and the tutor to assess progress and address any concerns or issues.

Internal Resources Required
The recruitment process involves the Head of Talent Acquisition, Head of Operations, and the Apprenticeship Tutor. The Learning & Development (L&D) manager works with the Apprenticeship Tutor and Head of Operations to align the program with UK government apprenticeship standards and Maintenance Engineer role requirements. After starting, apprentices receive support equivalent to other employees from their manager, HR department, and the Mental Health First Aid team.

Involving Current Staff
The Pure DC Operations team plays a vital role in guiding and supporting apprentices, offering new learning opportunities whenever possible.
### Case Example: STACK Infrastructure

<table>
<thead>
<tr>
<th>Program Start Date</th>
<th>2022</th>
</tr>
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<tbody>
<tr>
<td>Length of Program</td>
<td>3 years</td>
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<tr>
<td>Apprentices per Year</td>
<td>6</td>
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<tr>
<td>Total Graduates to Date</td>
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<tr>
<td>Apprenticed Occupations</td>
<td>Data Center Technician</td>
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<tr>
<td>Countries</td>
<td>US</td>
</tr>
<tr>
<td>Education Provider</td>
<td>STACK Infrastructure e-Learning Some content from local community college, CNET and others to be completed in time after work</td>
</tr>
<tr>
<td>Qualification</td>
<td>-</td>
</tr>
<tr>
<td>Formal/informal</td>
<td>Informal program, developed internally</td>
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</tbody>
</table>
Case Example: STACK Infrastructure launched a US apprenticeship program 2.5 years ago to increase female representation to the industry by addressing barriers like lack of experience and skills. Currently, 8 participants have joined the program, with 4 successfully graduating and all now employed.

Apprenticed Occupations

STACK Infrastructure identified a gender disparity in operations roles, with a predominantly male candidate pool. Consequently, apprenticeships were tailored specifically for these roles to increase female representation.

Developing Learning Requirements & Providing Education

Candidates receive a list of requirements divided into 6 modules covering areas like safety and design, with specified learning sources from STACK Infrastructure’s E-learning and external providers like CNET or Northern Virginia Community College’s data center training program. STACK Infrastructure has an agreement with the college allowing staff access to shared content, regardless of enrollment status. Apprentices work alongside managers, assistant managers, and rotate with four Operations Technicians to gain diverse learning experiences. The program offers rigorous, data center-specific training that enhances employability, even for those without prior experience.
Case Example: STACK Infrastructure

Qualification and Assessment
After completing each module, candidates undergo structured oral boards and assessments reviewed by the regional VP or director. While they do not receive certification, they earn a new job title.

After graduating, candidates gain more experience and receive support to obtain external certifications. STACK Infrastructure funds further courses to support ongoing development.

Recruiting Candidates
Apprenticeships are widely advertised on LinkedIn, the STACK Infrastructure website, and job boards like Indeed and Seacow. Candidates come from referrals, internal transfers (e.g., from security to operations), and apprentice referrals, with thousands applying annually. The ads emphasize that no prior experience is needed for a fully paid position, highlighting support, training, industry growth, and career advancement opportunities.

Candidates submit a CV and undergo extensive interviews focusing on aptitude and work ethic. Aptitude is assessed through a video demonstrating role-related concepts and subsequent interview discussions.

Apprentices are predominantly female, with some men who have faced limited opportunities. Most are mid-career individuals leveraging prior skills for accelerated progression to management roles.
Case Example: STACK Infrastructure

Benefits and Remuneration
Apprentices participate in a 1-year, full-time paid apprenticeship as part of the 'Women in Data Centers Program'. They receive a full salary and on-the-job training, along with guidance and tools to develop necessary skills for success. Upon graduation, apprentices are offered a full-time role at the next level of their career progression.

Encouraging and Evaluating Progress
Candidates start together at a single location to avoid singling anyone out. The apprenticeship lasts about a year without a fixed end-date. Local stakeholders prioritize candidate success and provide necessary support throughout the program.

Internal Resources Required
The program was initiated by HR, with involvement from VPs in defining requirements and setting it up. HR is responsible for sourcing candidates and promoting the program externally. Locations volunteered to participate and host apprentices as part of the initiative.

Recruiting Candidates
The success of apprentices has led to interest from other locations to replicate the program. Rolling funding supports up to six apprenticeships simultaneously. Managers can also request hiring apprentices directly into open staff positions, using the budget allocated for those roles.
## Case Example:  
![DURATA Logo](https://fakeimage/durata_logo.png)

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<tr>
<td><strong>Program Start Date</strong></td>
<td>2014</td>
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<tr>
<td><strong>Length of Program</strong></td>
<td>1-2 years</td>
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<td><strong>Total Graduates to Date</strong></td>
<td>60-80</td>
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<td><strong>Apprenticed Occupations</strong></td>
<td>Electrical Engineer, Support Roles</td>
</tr>
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<td><strong>Countries</strong></td>
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</tbody>
</table>
| **Education Provider** | Engineer: Local training center: 2 weeks of school per quarter  
Support: 1 day/week at local college |
| **Qualification**      | Certificate from the college   |
| **Formal/informal**    | Formal, government approved program |
Case Example:  

Durata has been running apprenticeship programs for 10 years, with 3-4 apprentices annually in engineering and support roles. They have now introduced a program for project management apprenticeship. Durata is building a new facility that includes a visitor center to educate visitors, such as school children and college students, on data center operations and equipment functionality.

**Apprenticed Occupations**

**Engineering Role:** as it’s been challenging for years to find good electricians.

**Support Role (business admin, sales, marketing, accountancy):** provide young people with opportunities to explore different career paths. Apprentices gain valuable work experience and may transition into other areas like design, which Durata supports by offering subsequent apprenticeships.
Case Example: 🌍 Durata

Developing Learning Requirements & Providing Education

Engineering Role: A local training center provides education, with a focus on practical learning. The college schedule includes two weeks of classes and quarterly assessments. The majority of the apprentice’s time is spent onsite, shadowing an engineer. They are assigned a line manager who oversees their schedule, ensuring a diverse experience and appropriate shadowing. Safety protocols require the apprentice to always be accompanied by someone onsite.

Support Role: Apprentices receive one day of education per week at a local college, where the curriculum is set by the college. Durata seeks out local colleges that offer relevant qualifications for these apprenticeships.

Qualifications and Assessment

Tasks set by the college are uploaded to a system and assessed by college instructors, aligning with typical job duties. For instance, apprentices might create a company carbon reduction plan. Durata provides monthly feedback on apprentice progress, covering topics covered and suggesting additional learning opportunities.

Recruiting Candidates

Candidates are recruited from local colleges through regular industry talks and visits. Durata receives CVs of interested candidates from colleges or training centers and conducts telephone or Zoom interviews to assess their initiative and commitment to learning. The college helps develop any necessary skills that candidates may be missing.
Case Example: DURATA

Recruiting Candidates (continued)

Engineering role: Candidates must be over 18 with two years of electrical training from a local center. Durata recruits through regular talks at training centers, highlighting the dynamic opportunities in the data center industry, including rapid growth, international work, and fast career progression.

Support role: Candidates must be over 16.

Durata promotes diversity by having diverse presenters at student talks. Support roles mainly attract women, while engineering roles are more popular among men. Durata seeks to increase female representation in engineering based on student interest through regular industry talks and visits.

Benefits and Remuneration

Engineering role: Two years full-time apprenticeship, in ‘trainee technician’ role.

Support role: One-year full-time apprenticeship, which can be extended to 18 months or two years depending on additional skills an apprentice needs to learn.

Apprentices are on an apprenticeship wage (typically just under the legal minimum wage). Wages cover a full-time role, including the days apprentices are not on-site but in college. The UK government funds any college fees for those under 21. So far 100% of apprentices have finished their program and have received the qualification the college offers. Upon qualifying, all apprentices are offered a job on a regular wage. In case they do a second apprenticeship, they will be offered a regular wage.
## Case Example: yondr

<table>
<thead>
<tr>
<th>Program Start Date</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Program</td>
<td>6-7 years</td>
</tr>
<tr>
<td>Apprentices per Year</td>
<td>0</td>
</tr>
<tr>
<td>Total Graduates to Date</td>
<td>0</td>
</tr>
<tr>
<td>Apprenticed Occupations</td>
<td>Technical Manager, Facilities Manager, Project Manager</td>
</tr>
<tr>
<td>Countries</td>
<td>UK</td>
</tr>
<tr>
<td>Education Provider</td>
<td>Education provider University, 2 days/week</td>
</tr>
<tr>
<td>Qualification</td>
<td>Bachelor’s</td>
</tr>
<tr>
<td>Formal/informal</td>
<td>Informal program, built in partnership with a local university</td>
</tr>
</tbody>
</table>
Next year, a new apprenticeship scheme will begin for roles like tech manager, facilities manager, and project manager, candidates will rotate between these positions. Yondr and their facilities manager, CBRE, will take on one apprentice per new data center, totaling six apprentices next year.

Apprentices will be on operational sites, rotating between working with tech managers, facilities managers and project managers. Their specific role, a structured program and a way to review their progress still needs to be developed.

Learning Requirements, Providing Education, Qualifications and Assessment

The program content is being developed by an educational institution offering a suitable bachelor's course like "Building Services." Yondr aims to provide apprentices the chance to earn a degree, enhancing their skills. The part-time degree program lasts three years, requiring apprentices about six to seven years to complete. Yondr supports apprentices during the degree, with apprentices working about three days a week and attending college for two days a week. Graduates receive a bachelor's degree.
Case Example: yondr

Recruiting Candidates
Apprenticeships are widely promoted and require candidates to demonstrate academic performance, pass an aptitude test, and undergo a motivation assessment. Yondr partners with a University Technical College (UTC) to attract candidates, providing curriculum input and hosting workshops (see box to right). Yondr stays in touch with potential applicants from the UTC.

Benefits and Remuneration
Candidates will be paid an apprentice salary, rather than a full salary, and may be offered a job after two years. Apprentices are hired by Yondr and are given study leave including paying for the university course.

A university technical college (UTC) is a type of secondary school in England for 14-18 year olds that is sponsored by a university and has close ties to local business and industry. The UTC works with industry partners to offer industry input into their educational program.

Yondr is one of the 8 industry partners for a UTC. Partnership means Yondr employees initially helped develop the curriculum and now present at open evenings for future students, offer a 1-week work experience at one of their locations and provide half-day to 1-day practical workshops on a specific areas of expertise such as: team building, Autocad, cost of energy, presentation skills or selecting a site for a datacenter.
### Case Example: 🌐 NTT

<table>
<thead>
<tr>
<th>Program Start Date</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Program</td>
<td>6-12 months</td>
</tr>
<tr>
<td>Apprentices per Year</td>
<td>4</td>
</tr>
<tr>
<td>Total Graduates to Date</td>
<td>10</td>
</tr>
<tr>
<td>Apprenticed Occupations</td>
<td>Data center technician</td>
</tr>
<tr>
<td>Countries</td>
<td>US</td>
</tr>
<tr>
<td>Education Provider</td>
<td>Various content from TPC and Schneider, to be completed in own time</td>
</tr>
<tr>
<td>Qualification</td>
<td>New job title only</td>
</tr>
<tr>
<td>Formal/informal</td>
<td>Informal program, developed internally</td>
</tr>
</tbody>
</table>
Case Example: NTT

GDCA/NTT started two years ago with the program and so far 8 to 10 apprentices have finished it. Some have since moved upward into level 1 or 2 technician roles.

Apprenticed Occupations
Data center technician – to provide candidates for hard-to-fill roles.

Developing Learning Requirements & Providing Education
Before becoming apprentices, candidates are expected to independently learn recommended modules from online training providers like TPC and Schneider, following guidance from GDCA/NTT. They also engage in practical tasks, observe procedures, and study policies. Candidates’ knowledge is assessed through a conversation, after which they receive certification to work onsite as apprentices. The preparation program lasts 12-18 months alongside their current jobs, and all successful candidates secure apprenticeship positions. An apprentice stays in the role for 6-12 months, and then becomes a level 1 technician.
Case Example: NTT

Qualification and Assessment
Candidates must complete the full course to receive a certificate. To demonstrate completion of a module, candidates take screenshots of the virtual modules finished. After joining GDCA/NTT, candidates are encouraged to continue learning and complete their certification, which is funded by GDCA/NTT and can often be done during work hours.

Recruiting Candidates
GDCA/NTT seeks referrals from current staff and offers referral bonuses. They encourage transitions from other data center roles into technician positions and advertise openings on LinkedIn. Despite visiting schools and colleges, no new apprentices have been recruited from these visits.

Applying involves an interview with a supervisor, and there are no specific criteria for applicants. Anyone can complete the required modules and practical tasks.

Benefits and Remuneration
GDCA/NTT offers personal growth and opportunity for promotion. Pay is median.
### Case Example:

<table>
<thead>
<tr>
<th>Program Start Date</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Program</td>
<td>12-15 months</td>
</tr>
<tr>
<td>Apprentices per Year</td>
<td>48</td>
</tr>
<tr>
<td>Total Graduates to Date</td>
<td>0</td>
</tr>
<tr>
<td>Apprenticed Occupations</td>
<td>Network Cable Installer</td>
</tr>
<tr>
<td>Countries</td>
<td>UK</td>
</tr>
<tr>
<td>Education Provider</td>
<td>CNet Training, working with UK Cable Companies</td>
</tr>
<tr>
<td>Qualification</td>
<td>BTEC</td>
</tr>
<tr>
<td>Formal/informal</td>
<td>Formal</td>
</tr>
</tbody>
</table>
Case Example: CNet Training is a global leader in technical education for the digital infrastructure industry, comprising the data center and network cabling infrastructure sectors. CNet designs and delivers education programs that span the digital infrastructure industry, from entry level programs to a Masters Degree in Data Center Leadership and Management.

In 2022, CNet was approved by the Education and Skills Funding Agency (ESFA) in the UK as an Apprenticeship Main Provider, approved to fully deliver the Network Cable Installer (NCI®) Apprenticeship in England and Wales.

Employers take on any number of Apprentice Network Cable Installers to fulfill their work requirement; those who are eligible can be enrolled on the NCI® Apprenticeship with CNet Training. The NCI® is available to all network infrastructure companies based and operating in England, with a total of 46 different employers currently partnered with CNet Training. Cohort-size is typically 6-10 with a new cohort starting on a bi-monthly basis.

Apprenticed Occupations

Network Cable Installer
Case Example: Developing Learning Requirements & Providing Education

Companies recruit prospective apprentices based on specific criteria, with no prior sector knowledge required except for a minimum GCSE grade C/4 in Maths and English. Individuals begin by assessing their skills against detailed knowledge, skills, and behaviors (KSBs) using a skills scan, which are then aligned with the apprenticeship standard.

The apprenticeship involves 80% on-the-job learning with the employer and 20% off-the-job learning (Protected Apprenticeship Time) provided by CNet, totaling up to 350 hours over 12-15 months. CNet offers training at various locations but some training is specific to certain teaching facilities.

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Apprentices start with a three-day induction at CNet HQ, covering apprenticeship details, safeguarding, behaviors, mental health, and British values. They also receive IT skills training and are introduced to their dedicated CNet Mentor.

Off-the-job learning includes 210 classroom-based hours at CNet's training facilities, organized into sessions lasting 3-5 working days, along with 140 hours of online courses, self-study, and portfolio assignments. CNet Instructors, all full-time employees, ensure consistency and high-quality training, leveraging years of experience and expertise in delivering the NCI® Apprenticeship.
Case Example: Qualifications and Assessment

Every 8 weeks, apprentices undergo a progress review involving the employer, apprentice, and CNet Mentor to assess progress against the training plan, health, wellbeing, and skills scan, providing a platform for the apprentice to address any concerns.

Continuous assessments are integrated throughout the apprenticeship to aid learning and memory retention, employing various formats like quizzes, written reflections, discussions, and presentations. The apprenticeship culminates in a final assessment (End Point Assessment or EPA) consisting of a 70-minute professional discussion and a 6-hour practical assessment overseen by an external assessor, integrating all assignment work, health, wellbeing, and skills scan, providing a platform for the apprentice to address any concerns.

Upon successful completion, the apprentice will graduate from the program with:

- NCI® Apprenticeship certificate, awarded by the Institute of Apprenticeships for Technical Education (IfATE)
- Pearson BTEC Level 3 Award in Certified Network Cable Installer (Copper)
- Pearson BTEC Level 3 Award in Certified Network Cable Installer (Optical Fibre)
- Pearson BTEC Level 4 Professional Award in Certified Integrated Infrastructure Technician
Case Example: CNet Training

Recruiting Candidates

Employers recruit and select candidates. CNet supports and communicates the educational requirements for apprentices as defined by the standard.

Candidates are mostly between 19-24 years old, although apprenticeships have no upper age limit and are available to anyone over the age of 16. The average age is currently 21 years, with 16% older than 25 and 33% 16-18 years old. 78% are White British and 22% other ethnicities. 96.83% identify as male and 3.17% as female.

Some of the candidates come straight from senior school, others have attended a college, sixth-form or another apprenticeship first, or have been in employment in a different sector.

Benefits and Remuneration

Candidates are employed by the employer and receive remuneration at a starter level. Some employers offer rotations and financial incentives once they complete a stage of the program.

Working with Employers

The apprentice and line manager are encouraged to review the training plan in advance, so their workload can be matched to educational expectations in any period, and the company can put a training plan in place that dovetails with what apprentices are learning off the job.

The line manager is expected to keep track of the apprentice’s progress, support their development, be available for progress meetings, and provide the apprentice with enough dedicated time to meet their learning requirements within their contracted working hours.
Since its launch in 2016, the organization has brought together 6,000 individuals across 130 countries, a community representing USD 150+ billion in infrastructure projects. Masons provides an agnostic platform for members to connect, grow, and give back across four strategic pillars: Education, Indusion, Innovation, and Sustainability.

United for a Greater Digital Future

admin@imasons.org

Get In Touch
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