

# Job Title: IT Network Engineer IO0092

Requisition ID **1620** - Posted **10/12/2020** - (France, 13067 St Paul Lez Durance Cedex) - **Science and Technology Expertise - Extended Posting**

The ITER Organization brings together people from all over the world to be part of a thrilling human adventure in southern France—building the ITER Tokamak. We require the best people in every domain.

We offer challenging full time assignments in a wide range of areas and encourage applications from candidates with all levels of experience, from recent graduates to experienced professionals. Applications from under-represented ITER Members and from female candidates are strongly encouraged as the ITER Organization supports diversity and gender equality in the workplace.

Our working environment is truly multi-cultural, with 29 different nationalities represented among staff. The ITER Organization Code of Conduct gives guidance in matters of professional ethics to all staff and serves as reference for the public with regards to the standards of conduct that third parties are entitled to expect when dealing with the ITER Organization.

The south of France is blessed with a very privileged living environment and a mild and sunny climate. The ITER Project is based in Saint Paul-lez-Durance, located between the southern Alps and the Mediterranean Sea—an area offering every conceivable sporting, leisure and cultural opportunity.

**Application deadline:** 31/01/2021

**Domain:** Corporate

**Department:** Not Applicable

**Division:** Information Technology

**Section:** IT System and Operation

**Job Family:** Organizational Support

**Job Role:** Functional Officer - 1

**Job Grade:** P2

**Language requirements:** Fluent in English (written & spoken)

**Contract duration:** Up to 5 years

## Purpose

As IT Network Engineer, you will design, implement and maintain the ITER IT Network Infrastructure and Security Services for the operation of the ITER project;

You also will be in charge of the network infrastructure interfacing the data acquisition systems managing the data transmission and remote access to the engineering and scientific data.

## Background

The IT division provides the IT infrastructure for 2500+ users, hosting, network to implement solutions for project tools, including engineering and construction, business applications for finances, HR, web development, content management systems and data computing storage backup and archive services. The current network infrastructure includes more than 400 switches and 15000 plugs distributed in tens of buildings inside the ITER campus organized in a redundant infrastructure with a Terabit per second (Tbps) backbone and state of the art security setups, firewalls and load balancers.

## Major Duties/Roles & Responsibilities

- Performs IT Network Infrastructure installation and provides Network Security Services for the ITER Project data management, replication, transmission and remote access with focus on security, scalability and performance;
- Manages projects and executes the implementation and installation of network infrastructure components;
- Manages network architecture based on industrial standards (e.g. Switches, Routers, Wireless Infrastructure, WAN Accelerators);
- Implements network security services (e.g. Firewall, ADC, PKI, ESA, VPN) in application of the policies set by the IT Security Responsible Officer;
- Plans, designs, implements and maintains Network Infrastructure and Network Security Services at ITER Organization (IO) in accordance with IT and IT Security principles;
- Maintains, develops and expands related 'how-to' documentation and publishes those on the IO intranet;

- Coordinates activities and projects performed by external contractors in the area of responsibility;
- Cooperates with the Scientific Data and Computing Center team and other IT teams (e.g. Telecommunications, Central Systems, Service Desk) to provide integrated IT services;
- Manages second level user support for network, data transfer and remote access services;
- Timely carries out the internal IT user support, service, project and accounting processes;
- May be required to participate in procurement activities (e.g. drafting tenders, evaluation committees) in the networking domain;
- Takes part in the on-call duty service established by the ITER Organization outside normal working hours, including nights, weekends and public holidays;
- Works closely with external teams for network projects (e.g. Contractor networks, VPNs);
- Assists other teams at ITER in network projects (e.g. Control, Data Access, and Communication, security teams).

## Measure of Effectiveness

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- Maintains a fully dynamic network with automated network assignment for end user devices;
- Executes assigned projects on time (schedule), within budget (cost/effort) and at an agreed level of quality (scope);
- Maintains a high level user satisfaction of customers inside and outside IT;
- Contributes effectively and efficiently to IT security risk assessment;
- Establishes solid communication channels with stakeholders (e.g. Domestic Agencies, external collaborators or suppliers, and other IO teams);
- Maintains unplanned downtime within the service level agreements by avoiding single point of failures as much as practical;

## Experience & Profile

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- *Professional Experience:*
  - At least 5 years' experience in the engineering role of designing, installing, testing and maintaining network infrastructure for large scale network installation(s).
- *Education:*
  - Master degree or equivalent in computer science, engineering, or other relevant discipline;
  - The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- *Language requirements:*
  - Fluent in English (written and spoken).
- *Technical experience and demonstrated competencies in:*
  - Network security technologies: Firewalls, Palo Alto, CheckPoint, and F5 load balancers. Others are considered a plus;
  - Systems engineering and design: design input, planning, development, change control, verification and validation related to network infrastructure and security;
  - Dealing with inter-disciplinary stakeholders (civil engineering, power distribution, system engineering, assembly and installation) to find and implement solutions based on technical expertise within an international environment;
  - High bandwidth fiber optic Ethernet networking;
  - Technologies, in particular Cisco hardware/software.
  - Passive network components (cables, connectors, patching, splicing, etc.);
  - Selecting, purchasing, configuring and deploying network switches, and maintaining & operating in large-scale network installation.
  - Certifications in relevant technologies like Cisco Certified Network Associate and Certified Information Systems Security Professional (CISSP) are a strong advantage;
  - ITIL best practices or equivalent, especially Service Operation is mandatory. Any certifications in ITIL is considered advantageous.
- *Behavioral Competencies:*
  - Excellent organizational skills and the ability to set priorities and meet deadlines;
  - Collaborate: Ability to dialogue with a wide variety of contributors and stakeholders;

- Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;
- Drive results: Ability to persist in the face of challenges to meet deadlines with high standards with high level of reliability and autonomy;
- Manage Complexity: Ability to gather multiple and diverse sources of information to define problems accurately with the ability to set priorities and meet deadlines;
- Instill trust: Ability to apply high standards of team mindset: trust, excellence, loyalty and integrity.

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***The following important information shall apply to all jobs at ITER Organization:***

- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, ITER Values (Trust; Loyalty; Integrity; Excellence; Team mind set; Diversity and Inclusiveness) and Code of Conduct;
- ITER Core technical competencies of 1) Nuclear Safety, environment, radioprotection and pressured equipment 2) Occupational Health, safety & security 3) Quality assurance processes. Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members;
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to work on beryllium-containing components. In this case, you will be required to follow the established ITER Beryllium Management Program for working safely with beryllium. Training and support will be provided by the ITER Organization;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- Informs the IO Director-General, Domain Head, or Department/Office Head of any important and urgent issues that cannot be handled by line management and that may jeopardize the achievement of the Project's objectives.