Extraordinary IT interventions for Coronavirus emergency

Central Department for Information Technology (DCIT)

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Summary

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Context and Objectives

☞ *In order to counteract and contain the spread of the Coronavirus, and in accordance with the provisions of the Prime Ministerial Decree of 8 March 2020 (and subsequent), Public Administrations ensure the ordinary performance of their employees in an agile manner.*

The phenomenon of Coronavirus or Covid-19 propagation on a global level has pushed companies all over the world, and particularly in Italy, to activate their Smart Working and Business Continuity plans to ensure the provision of essential services on a medium-long term scale.

A transformation that requires an **investment in people, management culture** and **technology** to be used for:

- **Enabling remote working**, both in terms of smart collaboration and operations on company systems

- **Ensuring the highest levels of productivity and quality of work** by managing in advance both phenomena of lack of familiarity with new technologies and negative impacts on engagement levels and individual alienation phenomena
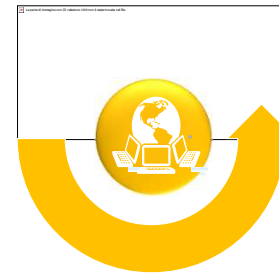
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QUICKLY ENABLE REMOTE WORKING FROM HOME IN A SAFE, EFFECTIVE AND INTEGRATED WAY

TECHNOLOGY
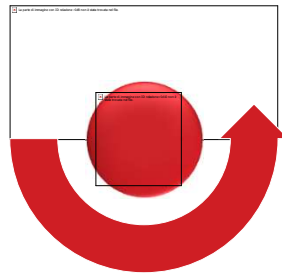
VIRTUAL WORKPLACE

Infrastructure management and **technological solutions** to fully and safely use **company resources** and **collaboration tools**

Redefine processes and **working methods** in a fully digital perspective, favoring remote work, planning activities and asking for continuous feedback

CULTURE

Supporting **managerial styles and behaviors** aimed at ensuring people's engagement and adaptation of their behavioral patterns to the remote working routine finding the **right balance between personal and work needs**
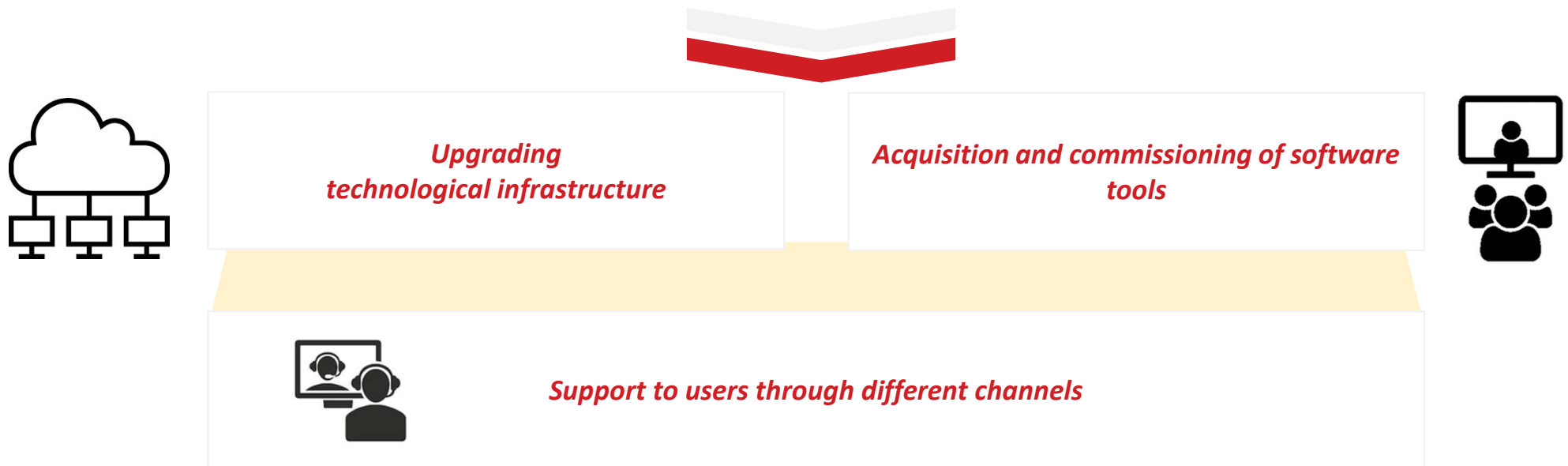
GOVERNANCE

Manage organizational and administrative aspects and **support the adoption of new ways of working** day by day also by monitoring the use of the available tools

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ISTAT Approach

In this emergency context, the Institute has made every effort to allow the highest use in the shortest possible time of the agile work method for activities that can be carried out remotely at home.

In order to support the adoption of agile work extended to all staff, ISTAT made an extraordinary effort in 10 days. This process required to advance **approximately €2.5 million** been planned for IT purchases in the three-year period 2020 – 2022 due to current emergency situation.

Upgrading technological infrastructure

Acquisition and commissioning of software tools

Support to users through different channels

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Infrastructure & Software Tools

INFRASTRUCTURE

Nutanix InstantOn VDI for Citrix
Full stack end-to-end desktop virtualization solution for virtual apps and desktops delivering, realized into the ISTAT on-premises datacenters

Fortigate VPN
Secure, reliable VPN access to corporate networks and applications from virtually any internet-connected remote location

MEETINGS & COLLABORATION

3CX VoIP Phone
Software-based private branch exchange (PBX) based on the SIP (Session Initiation Protocol) standard. Enables calls via the public switched telephone network (PSTN) or via Voice over Internet Protocol (VoIP) services

ADOBE CONNECT
Market leading web-conferencing solution for collaboration, webinars and eLearning
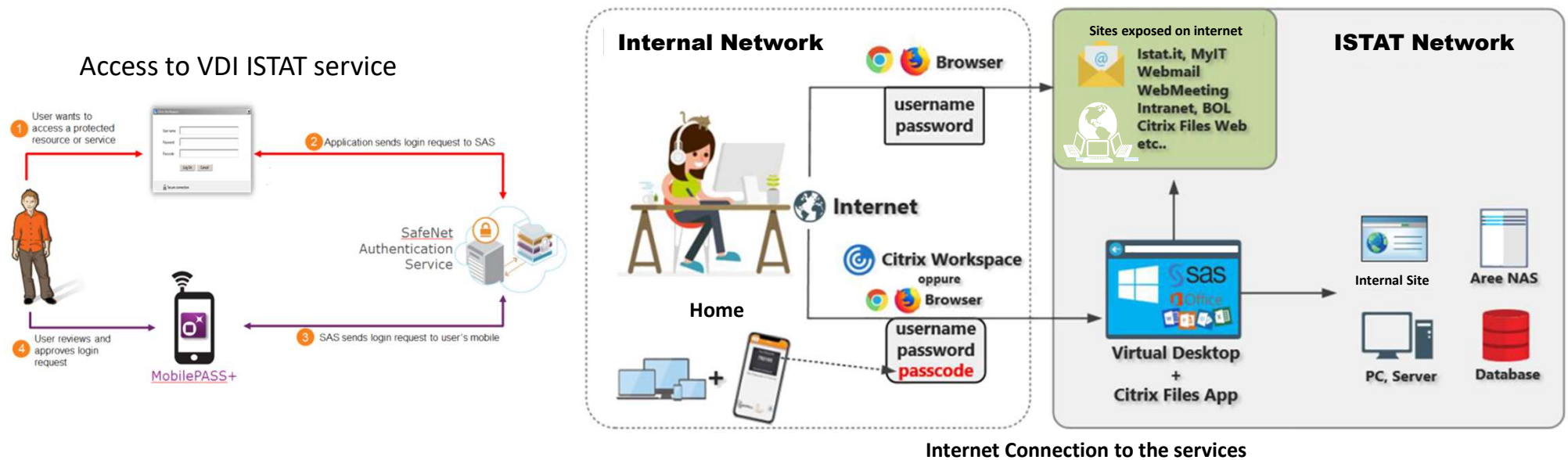
FILE SHARING

OWNCLOUD
Open-source, self-hosted file sync and share platform to securely view, share, and sync data across all devices, while keeping everything under the user's full control
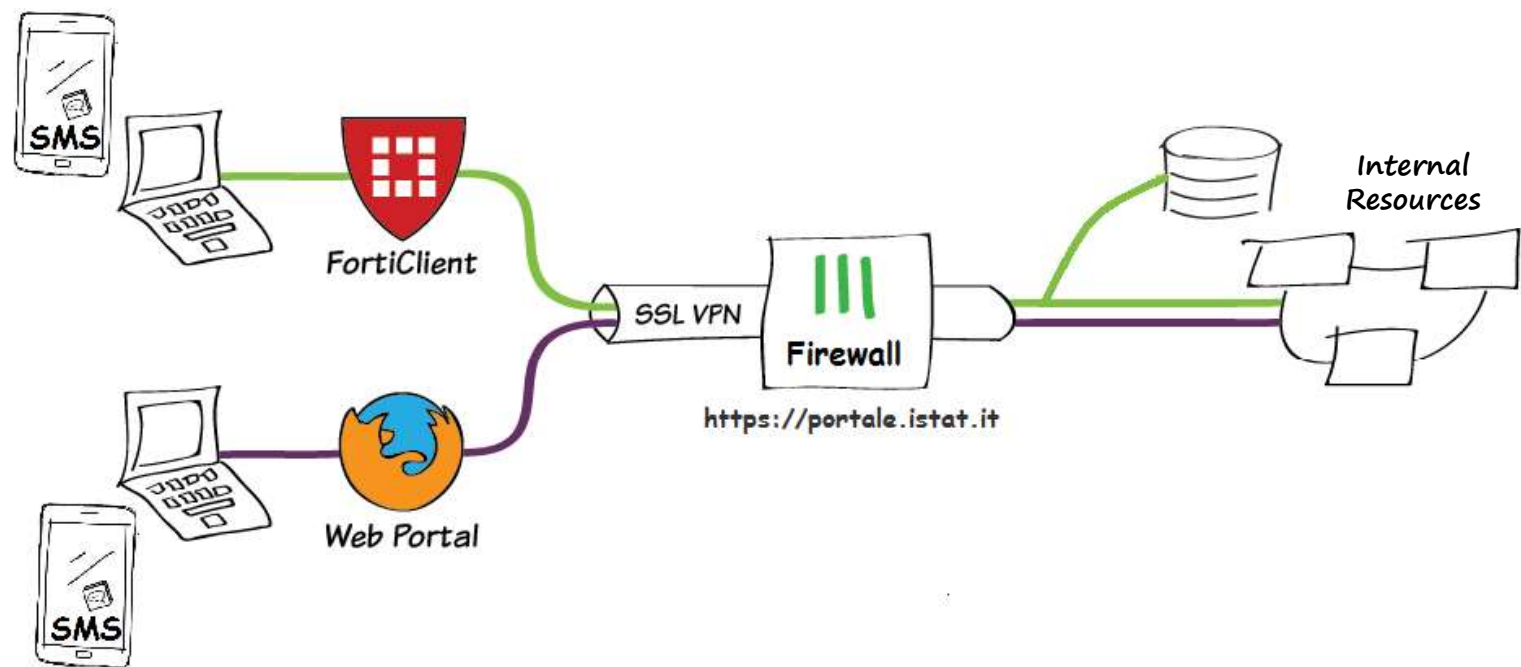
*Security is ensured by robust **encryption mechanisms** and through **two-factor authentication** with OTP. Using the VDI the user can **reach the internal network, from the outside,** and **the same resources** that are usually **accessible from the office workstation**.*

Access to VDI ISTAT service

Internet Connection to the services

Smartphone or home PC "virtually" connects to ISTAT's private network in two way:

*1. **WEB PORTAL**: easy to use via browser, allows access to the private network websites.*

*2. **CLIENT VPN**: requires software installation, allows access to all types of services.*

SMS

FortiClient

Web Portal

SSL VPN

Firewall

https://portale.istat.it

Internal Resources

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Upgrading technological infrastructure (HW/SW)

+ 1.760
Virtual Desktop Infrastructure

+ 308
VPN

+ 35
SERVER

+ 53 TB
WORKSPACE

+ 600
DISTRIBUTED NOTEBOOKS

+ 1900
3CXPHONE USERS

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Acquisition and commissioning of software tools

Use of Web meetings **March 9 – 24** *compared to 24 Feb – 8 Mar*	Meetings	Hours	Partecipants
	1.745 **+ 1.514***	**1.656** **+ 1.424***	**8.669** **+ 7.583***

Network traffic consumption *compared to 20-29 Jan*	Public Network average	Private Network average
	da 270* a 400 Mbits/s With peaks of 800 Mbits/s	**da 200* a 440** Mbits/s

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Next steps

Users support improvement
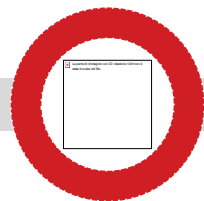
Technology infrastructure consolidation

Testing of additional tools for collaboration and agile work support

Service desk enhancement

New guide lines and frequently asked questions (FAQ)

Ad-hoc courses

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DCIT - Agile work supporting technologies
Rome, 31 March 2020