MscViewer

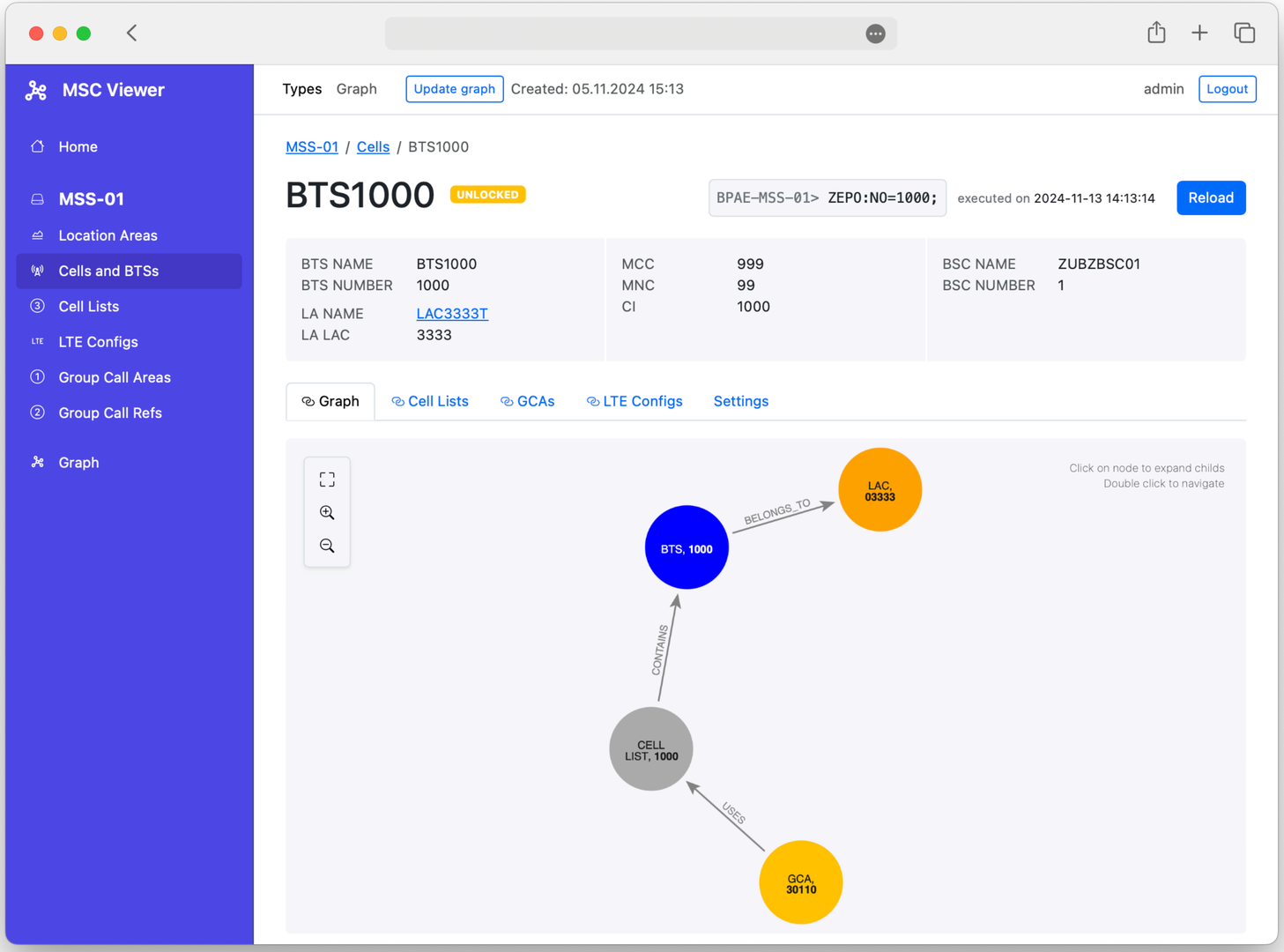
User-Friendly GUI for Nokia MSC/MSS

greenstones

The Old Way

```
MAIN LEVEL COMMAND <___>
< ZEPO:NO=1000;


LOADING PROGRAM VERSION 17.10-0

MSCi      BPAE-MSS-01              2024-11-13  14:31:46


BASE TRANSCEIVER STATION DATA

BTS   NAME :BTS1000                    NUMBER  :1000
BSC   NAME :ZUBZBSC01                  NUMBER  :1
LA    NAME :LAC3333T                   LAC     :3333
MOBILE COUNTRY CODE ..................(MCC)... :999
MOBILE NETWORK CODE ..................(MNC)... :99
CELL IDENTITY ........................(CI).... :1000
BTS ADMINISTRATIVE STATE ..................... :UNLOCKED

ROUTING ZONE .........................(RZ).... :999
TARIFF AREA ..........................(TA).... :0
DOWNLINK DTX DISABLED BY MSC .........(DTX)... :OFF
CELL DEPENDENT ROUTING ...............(CDR)... :NORMAL
CELL TEST STATE ......................(TE).... :NORMAL CELL
LOCAL AREA DIALLING CODE .............(LAD)... : -
CHARGING AREA CODE ...................(CA).... : -
SUPPLEMENTARY CHARGING AREA CODES ....(SCA)... : -
NO NCAS SUPPORT.......................(NONCAS) :FALSE
POSITION DETERMINATION TIMER..........(POST).. :0 (x 10 msec)
ESRK USAGE............................(EU).... :NO
ESRK RANGE INDEX......................(ESRK).. :0
PARAMETER SET.........................(PSET).. : -
GMLC INDEX FOR EMERGENCY SERVICES.....(ESGMLC) :0

LOCATION NUMBER OF CELL ..............(CLN)... :4151233331000
TYPE OF LOCATION NUMBER ..............(TON)... :INTERNATIONAL
NUMBERING PLAN IDENTIFICATION ........(NPI)... :ISDN
NUMBER PRESENTATION STATUS ...........(PRES).. :RESTRICTED
NUMBER SCREENING STATUS ..............(SCREEN) :NETWORK PROVIDED
```

The New Way



Problem Statement:
Managing MSC/MSS via Command-Line Interface

- **Problem**: Complexity in managing configurations via terminal access.
- **Challenges**: Lack of overview of configurations and their relations, time-consuming and error-prone MSC commands, constant referencing of documentation.
- **Need**: An intuitive, graphical solution to efficiently manage MSC and MSS configurations.

Our Solution: MscViewer

- **Description**: A user-friendly, web-based interface for MSC/MSS that helps users easily access, visualize and manage relevant configurations.
- **Features**: Easy search and navigation, data and relationship visualization, access control and simplified configuration management.
- **Benefits**: Saves time, minimizes errors and provides a safe, straightforward way to access MSC/MSS data.

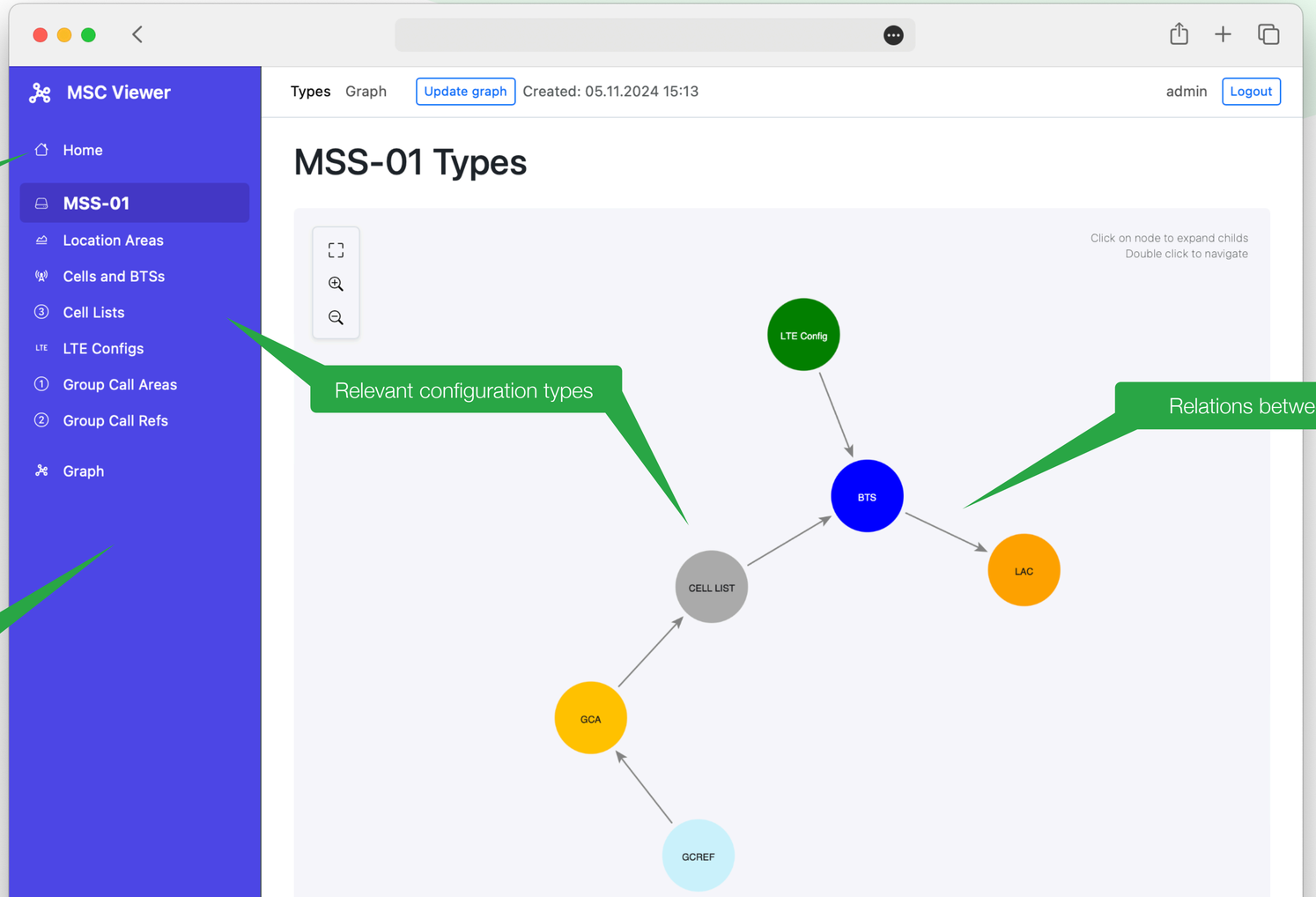
Feature Overview

- **Key Features**:
  - Visualization of configuration hierarchy and relationships.
  - Quick browsing and detail view of configurations.
  - Export to Excel.
  - Customizable for specific customer requirements, such as GSM-R.
  - Manage multiple MSC instances through a unified interface.

- **Advantages**: Simplified MSC/MSS data access, safer operations, reduced complexity.

Product Tour: GSM-R Setup

MscViewer is configured to visualize the GSM-R relevant configurations



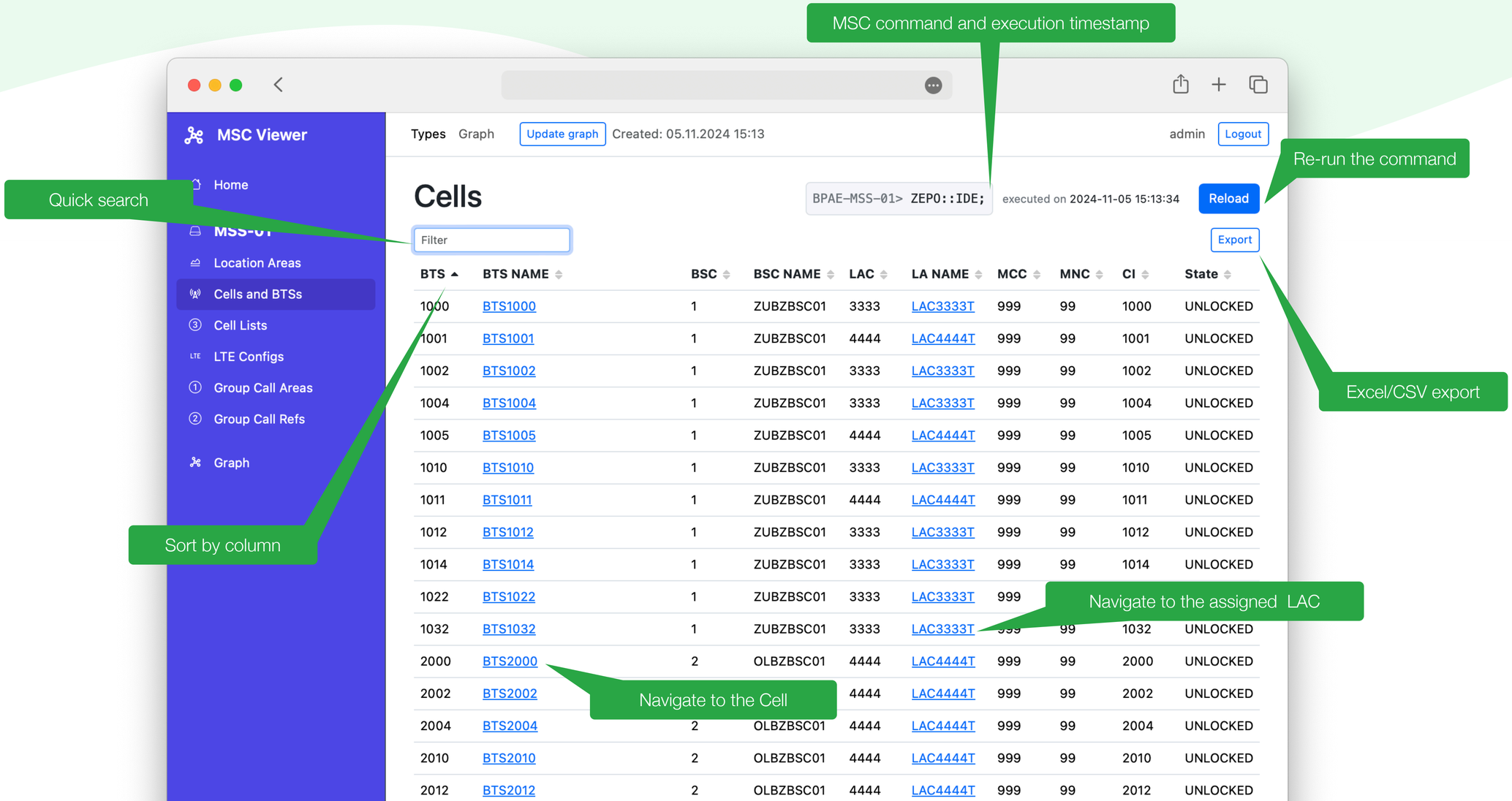
MSC Instances

Relevant configuration types

Relations between configuration types

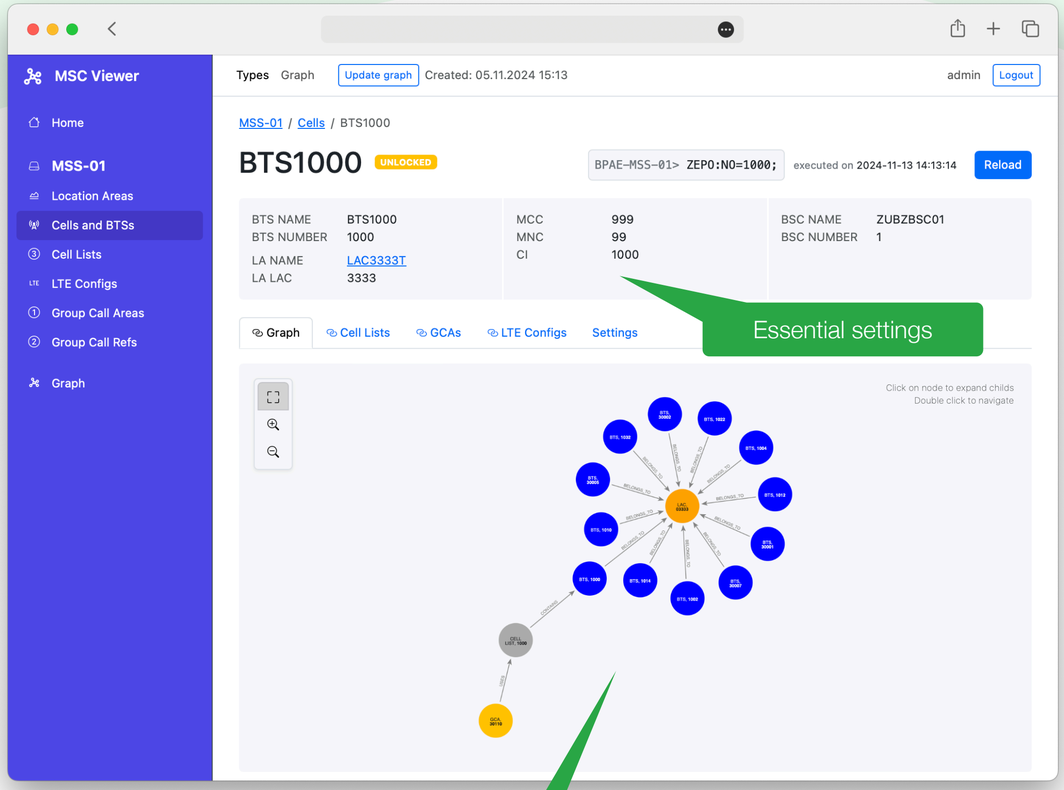
New configuration types and MSC commands can be added if needed.

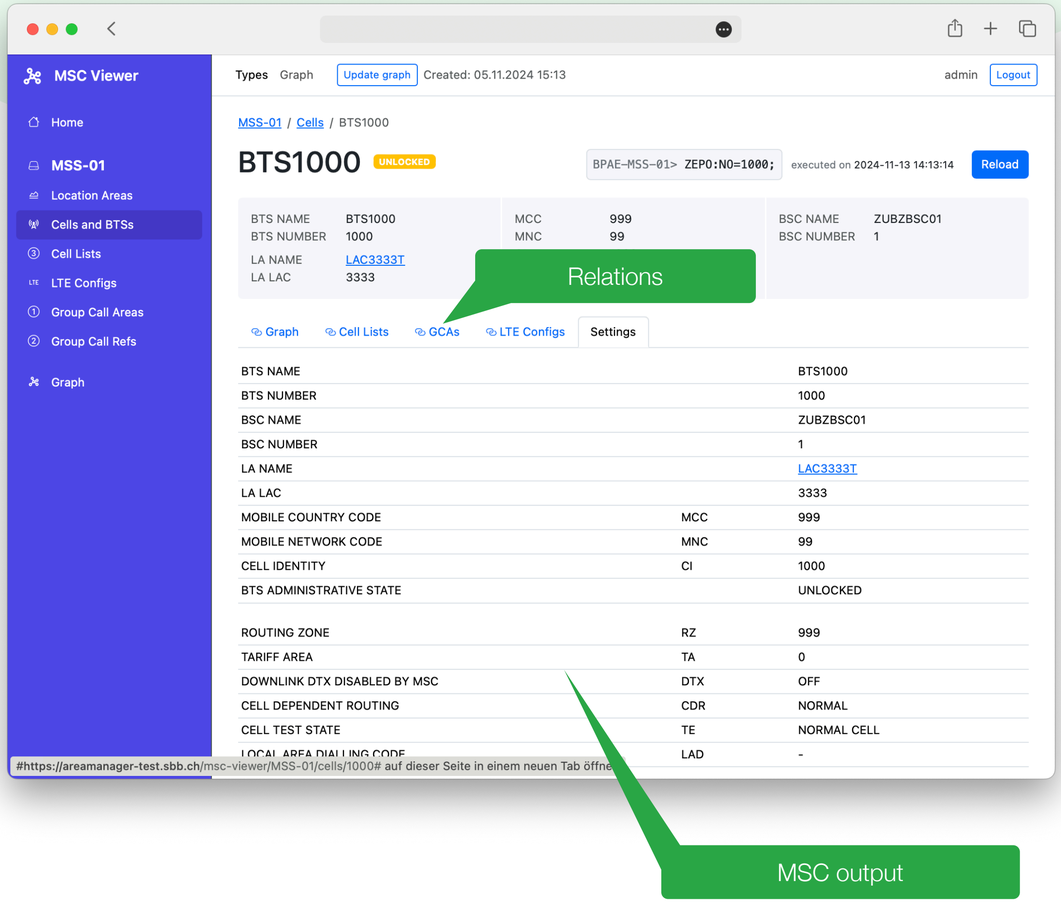
Browse Cells / BTSs



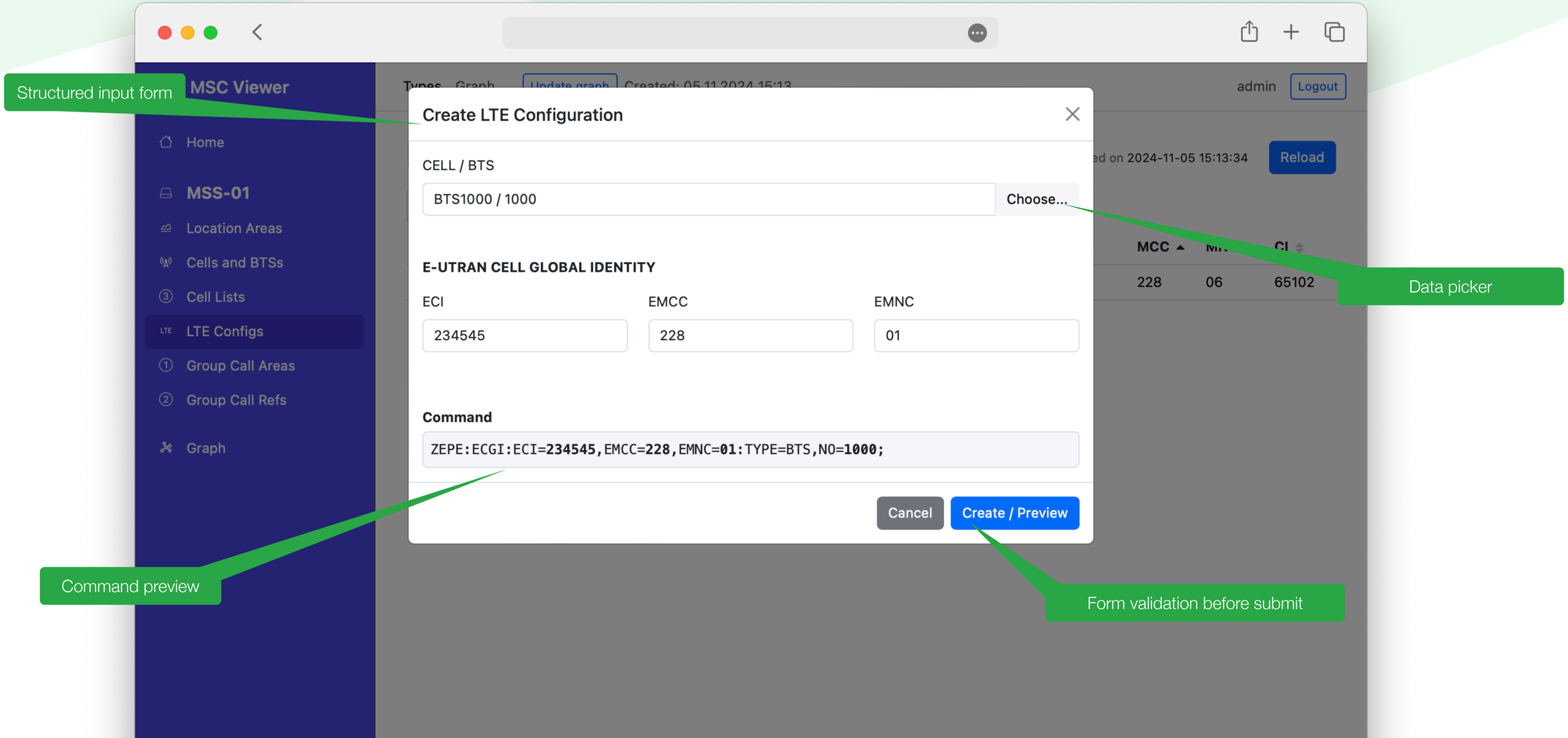
BTS	BTS NAME	BSC	BSC NAME	LAC	LA NAME	MCC	MNC	CI	State
1000	BTS1000	1	ZUBZBSC01	3333	LAC3333T	999	99	1000	UNLOCKED
1001	BTS1001	1	ZUBZBSC01	4444	LAC4444T	999	99	1001	UNLOCKED
1002	BTS1002	1	ZUBZBSC01	3333	LAC3333T	999	99	1002	UNLOCKED
1004	BTS1004	1	ZUBZBSC01	3333	LAC3333T	999	99	1004	UNLOCKED
1005	BTS1005	1	ZUBZBSC01	4444	LAC4444T	999	99	1005	UNLOCKED
1010	BTS1010	1	ZUBZBSC01	3333	LAC3333T	999	99	1010	UNLOCKED
1011	BTS1011	1	ZUBZBSC01	4444	LAC4444T	999	99	1011	UNLOCKED
1012	BTS1012	1	ZUBZBSC01	3333	LAC3333T	999	99	1012	UNLOCKED
1014	BTS1014	1	ZUBZBSC01	3333	LAC3333T	999	99	1014	UNLOCKED
1022	BTS1022	1	ZUBZBSC01	3333	LAC3333T	999	99	1022	UNLOCKED
1032	BTS1032	1	ZUBZBSC01	3333	LAC3333T	999	99	1032	UNLOCKED
2000	BTS2000	2	OLBZBSC01	4444	LAC4444T	999	99	2000	UNLOCKED
2002	BTS2002	2	OLBZBSC01	4444	LAC4444T	999	99	2002	UNLOCKED
2004	BTS2004	2	OLBZBSC01	4444	LAC4444T	999	99	2004	UNLOCKED
2010	BTS2010	2	OLBZBSC01	4444	LAC4444T	999	99	2010	UNLOCKED
2012	BTS2012	2	OLBZBSC01	4444	LAC4444T	999	99	2012	UNLOCKED

Show a Cell / BTS Data

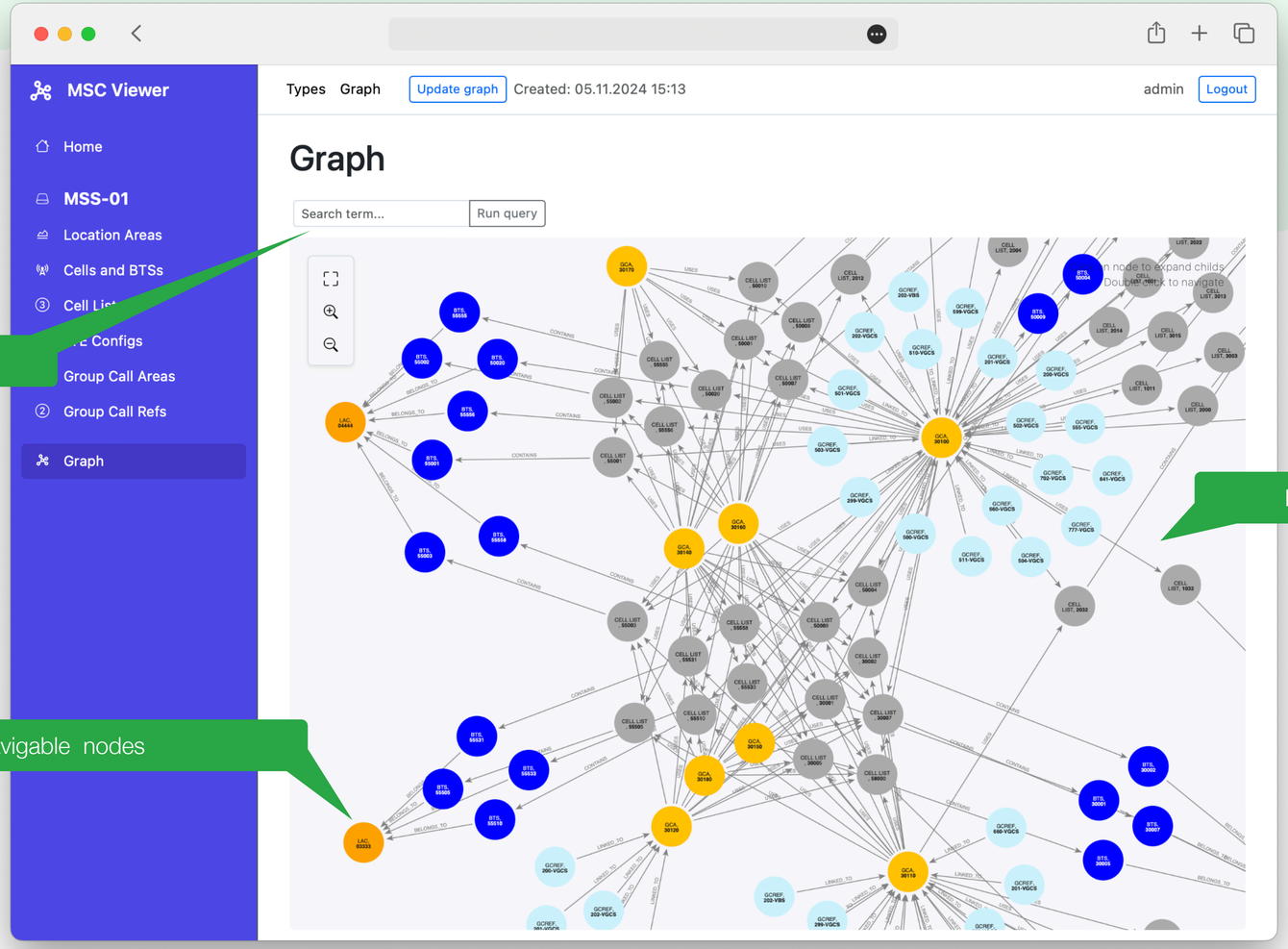




Create a LTE Configuration



Explore Configuration Relationships



Steps to Launch the Solution

- Installation on-site or in an enterprise cloud environment (using Docker, Podman or similar tools)
- Configure access for MSCs, similar to access via CLI
- Define internal users or allow access through corporate Identity and Access Management (IAM)
- Configure allowed MSC commands and define relationships between them

Our Offering: All-In-One Solution

- **Software**:
  - User-friendly, web-based tool for MSC/MSS management
  - Key features: Data visualization, configuration management and access control
- **Professional Services**:
  - Installation, customization and integration
  - Expert consulting and configuration support
- **Support**:
  - Ongoing maintenance and updates
  - Technical assistance

Company: Greenstones GmbH

- Greenstones GmbH focuses on custom enterprise applications, with strong expertise in GSM-R, location intelligence and geocoding.
- Our team has more than 15 years of experience in the GSM-R environment and in related systems like MSC/MSS.
- We have extensive experience in development and support for enterprise clients, including SBB AG, Helvetia Versicherungen, Allianz SE, Pitney Bowes and Kölner Verkehrs-Betriebe.

Thank you!

Would you like a live demo or are there any questions?

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Greenstones GmbH